

THE EVALUATION OF POLICE EFFECTIVENESS

by

Judith Youell

Thesis Submitted for the Degree of Doctor of Philosophy.

Interdisciplinary Higher Degrees Scheme,

University of Aston in Birmingham,

August 1984.

The Evaluation of Police Effectiveness

by

Judith Youell

Thesis submitted for the Degree of Doctor of Philosophy

1984

SUMMARY

The development of a methodology for the evaluation of police effectiveness is described. It is argued that this is required to assist the police in producing guidelines for future action. The inadequacies of current evaluation techniques within this sphere are delineated. The proposed methodology relies heavily upon the notion that subjective knowledge and judgement have a crucial role to play in decision making at all levels. The concept of "subjectivity" is discussed at some length.

The methodology was designed on behalf of clients within the Home Office for use by a group of senior police officers (the Police Effectiveness Evaluation Panel) who were responsible for evaluating a specific experimental policing project. The intention was to provide a meaningful framework for evaluation rather than to provide ultimate answers. The main aim of the methodology was to elicit, explore and make explicit the subjective opinions of the evaluators (jointly and as a group) on:

- i) the objectives of policing;
- ii) the relationships between these objectives;
- iii) the indicators which could be used to determine success in achieving such objectives.

Various techniques were developed to assist this process. These are described, as is their application to the panel's work. The information so derived was used by the group in reaching conclusions on the success (or otherwise) of the policing scheme under consideration. An account of this process is given.

It appears that the methodology could be usefully adopted by others undertaking evaluations within the policing context. It is recommended that the actual methodology be used by these other evaluators and not the output of the work described here. The intention was to reflect the subjective opinion of one group of evaluators and not to produce "correct" answers for application elsewhere. This methodology also appears to have relevance to evaluation problems in other organisations, particularly those within the public sector.

Key Words: Evaluation; Effectiveness; Objectives; Policing; Subjectivity.

CONTENTS

	PAGE
<u>Title page</u>	(i)
<u>Summary</u>	(ii)
<u>Contents</u>	(iii)-(ix)
<u>List of Figures</u>	(x)-(xi)
<u>Acknowledgements</u>	(xii)
<u>Research Supervision</u>	(xiii)
CHAPTER 1: Introduction	1
1.1- Introduction to the Problem Situation	1
1.2- Background to the Work	4
1.3- Overview of the Work	7
1.4- Guide to the Thesis	11
CHAPTER 2: The Evaluation of Police Effectiveness- Definition of the General Problem	12
2.1- Summary of the Chapter	12
2.2- Evaluation in the Public and Private Sector	13
2.3- The Evaluation of Police Effectiveness: The Traditional Approach	17
2.4- The Crime Rate: Its Applicability as a Measure of Preventive Capacity	19
2.5- The Clear-up Rate: Its Applicability as a Measure of Detective Capacity	25
2.6- Final Comments on the Traditional Measures of Effectiveness	27

CONTENTS (Continued)

	PAGE
2.7- The Applicability of Crime and Detection Rates as Single Indicators of Police Effectiveness	29
2.8- The Need to Define Policing Objectives	30
2.9- The Need to Measure Performance in relation to Policing Objectives	34
2.10- The Possibilities of Developing an Overall Measure of Effectiveness	36
2.11- Conclusion	38
CHAPTER 3: Description of the Current Research Problem	40
3.1- Summary of the Chapter	40
3.2- The Research Client: Description and Definition	41
3.3- Description of the Clients' Problem	44
3.4- The Current Research Problem	49
3.5- Conclusion	52
CHAPTER 4: Utilising Subjective Judgement	54
4.1- Summary of the Chapter	54
4.2- Science as an Objective Procedure	55
4.3- Science as a Subjective Procedure	58
-4.3.1: Introductory Remarks	58
-4.3.2: The Scientist as an Individual	58
-4.3.3: The Scientist as a Member of a Group	65
-4.3.4: Concluding Comments	69

CONTENTS (Continued)

	PAGE
4.4- Subjective Judgement- Necessary Evil or Positive Force ?	71
4.5- Examples of the Utilisation of Subjectivity in Research	74
4.6- Some Comments on the Utilisation of Subjectivity in Research	81
4.7- Conclusion	81
 CHAPTER 5: Developing the Problem Solution	 83
5.1- Summary of the Chapter	83
5.2- Introductory Comments	84
5.3- Defining Problem Solving Activity	85
5.4- The Assumptions Underlying the Approach	89
-5.4.1: Introductory Remarks	89
-5.4.2: Some Assumptions about the Individual	90
-5.4.3: Some Assumptions about Groups	92
-5.4.4: Some Assumptions about the Current Problem and the Methodology	99
-5.4.5: Concluding Comments	101
5.5- Defining 'Proper' Objectives of Policing (Sub-Problem 1)	101
-5.5.1: Introductory Remarks	101
-5.5.2: Identifying 'Possible' Policing Objectives	102
-5.5.3: Identifying the Sub-set of 'Proper' Policing Objectives	106
-5.5.4: Concluding Comments	110

CONTENTS (Continued)

	PAGE
5.6- Structuring the Objectives	111
5.7- Defining 'Appropriate' Indicators for 'Proper' Objectives of Policing (Sub-Problem 2)	116
-5.7.1: Introductory Remarks	116
-5.7.2: Defining 'Possible' Indicators of Success	116
-5.7.3: Defining 'Appropriate' Indicators of Success	117
5.8- Developing a Method of Defining Data to be Collected in relation to 'Appropriate' Indicators (Sub-Problem 3)	119
5.9- Developing a Method of Assessing Effectiveness in relation to Individual Objectives (Sub-Problem 4)	120
5.10- Assessing Overall Effectiveness (Sub-Problem 5)	122
5.11- Conclusion	127
 CHAPTER 6: Background to the Case Study	129
6.1- Summary of the Chapter	129
6.2- The Composition of the Police Effectiveness Evaluation Panel	129
6.3- Division of Labour within the Panel	133
6.4- Format of the Panel's Work	135
6.5- Description of the Chelmsley Wood Policing	136
-6.5.1: Introductory Remarks	136

CONTENTS (Continued)

	PAGE
-6.5.2: Background to the Policing Project- The Skelmersdale Policing Scheme	136
-6.5.3: The Chelmsley Wood Policing Project	139
6.6- Conclusion	140
 CHAPTER 7: Applying the Methodology (Part I): Case Study in Defining Policing Objectives and Related Measures of Success	 141
7.1- Summary of the Chapter	141
7.2- Presenting the Evaluation Methodology to the Panel	142
7.3- Defining 'Possible' Policing Objectives	143
7.4- Defining 'Proper' Policing Objectives	146
-7.4.1: Delphi Questionnaire- Round 1	146
-7.4.2: Delphi Questionnaire- Round 2	150
-7.4.3: Delphi Exercise- Part 3	153
7.5- Structuring the Objectives	155
7.6- Identifying 'Possible' Indicators of Success	160
7.7- Identifying 'Appropriate' Indicators of Success and Related Data Sources	161
7.8- Conclusion	165
 CHAPTER 8: Applying the Methodology (Part II): A Case Study in Completing the Evaluation	 166
8.1- Summary of the Chapter	166
8.2- The Difficulties of Global Evaluation	166
8.3- Identifying 'Likely to be Affected' Objectives	167

CONTENTS (Continued)

	PAGE
8.4- Identifying a Core List of Directly Affected Objectives ("Basis" Objectives)	171
8.5- Utilising the "Basis" Objectives to Carry Out the Overall Evaluation (An Amendment to the Original Methodology)	173
8.6- Using the New Process to Carry Out the Evaluation of Individual Objectives	176
-8.6.1: Introductory Remarks	176
-8.6.2: Summary of Results for the First Evaluation Workshop	177
-8.6.3: Summary of Results for the Second Evaluation Workshop	180
8.7- Completing the Overall Evaluation	182
8.8- Some Comments on the Group Decision Making Process	184
8.9- Conclusion	185
 CHAPTER 9: Conclusions and Discussion	 187
9.1- Summary of the Chapter	187
9.2- The Evaluation Methodology: Theory versus Practice	188
-9.2.1: The Proposed Methodology	188
-9.2.2: The Methodology in Practice	191
-9.2.3: Some Comments on the Amendments	193
9.3- The Reception of the Methodology by the Clients	198
9.4- Further Improvements on the Methodology	203
-9.4.1: Introductory Remarks	203

CONTENTS (Continued)

	PAGE
-9.4.2: Arrangements for Carrying Out the Evaluation Work	204
-9.4.3: The Construction of the Objectives Tree	206
9.5- Future Applications of the Methodology	210
9.6- Concluding Remarks	216
 Appendix A: 'Possible' and 'Proper' Objectives Generated in the Case Study	 217
Appendix B: Delphi Questionnaire 1- Introductory Letter, Instruction Sheet and Samples of Questions	231
Appendix C: Delphi Questionnaire 2- Instruction Sheet and Samples of Questions	236
Appendix D: Delphi Exercise (Part 3): Sample of Material Circulated Prior to Interviews	241
Appendix E: Views of the Objectives Tree	244
Appendix F: "Likely to be Affected" Objectives Samples of Questions	277
Appendix G: Examples of Data Forms used in Assessment of Success Workshops	281
Appendix H: Samples from the "Reverse Tree" used to assist Consideration of Basis Objectives	288
Appendix I: Samples from the "Reverse Tree" used at Assessment of Success Workshops	291
Appendix J: Comic Interlude- An Unlikely Application of the Objectives Tree	297
 REFERENCES	 300
 BIBLIOGRAPHY	 308

LIST OF FIGURES

	PAGE
Figure 3 (i): The Scientific Research and Development Branch- Structure and Location within the Home Office	42
Figure 4 (i): A Model of Activities Undertaken as part of the Scientific Method	56
Figure 5 (i): Model of Activities to be Undertaken to Generate a 'Solution' to the Clients' Problem	86
Figure 5 (ii): The Structure of an Objectives Tree	111
Figure 5 (iii): An Example of a Simple Objectives Tree (Imaginary) with "How" and "Why" Linkages	112
Figure 5 (iv): An Example of a Section of an Objectives Tree based on Delphi Questionnaire Responses	114
Figure 5 (v): Model of Activities to be Undertaken and Some Suggested Methods of So Doing	128
Figure 6 (i): Time-table of the Panel's Work	137
Figure 7 (i): Examples of Objectives to be Considered in Delphi Questionnaire 1	148
Figure 7 (ii): Examples of Objectives to be Considered in Delphi Questionnaire 2	151

FIGURES (Continued)

	PAGE
Figure 7 (iii): A Basic Example of the Shape of the Original Objectives Tree	159
Figure 7 (iv): A Basic Example of the New Shape Proposed for the Objectives Tree	159
Figure 8 (i): An Example of an Objectives Tree Incorporating Basis Objectives	175
Figure 9 (i): The Author's View of Procedure for Future Evaluations	197

Acknowledgements

This project was carried out under the auspices of the Interdisciplinary Higher Degrees Scheme of Aston University in Birmingham between 1980 and 1983. It had the support of the Scientific Research and Development Branch of the Home Office. I gratefully acknowledge the encouragement and assistance provided by many of the members of both institutions. Deserving special gratitude is Dr Christine Huxham, the Main Supervisor for the work. Particular thanks must also go to Dr Guy Cumberbatch, Dr Alistair Cochran, Dr David Peace, and Dr Ian Williamson.

I am also deeply indebted to the members of the Police Effectiveness Evaluation Panel for their considerable contribution to the trials of this methodology. Additionally, I would like to express my thanks to those members of the Police Research Services Unit who acted as a pilot group for many of the exercises described herein. Of this latter group, a particular mention must go to Superintendent Stephen Males for his continued help and advice.

Finally, I would like to express my thanks to my husband and to my mother for their many and varied contributions.

Research Supervision

The research described herein was supervised as follows:

Academic Supervision:

MAIN SUPERVISOR

Dr C. Huxham, The Management Centre,
University of Aston in Birmingham.

ASSOCIATE SUPERVISOR

Dr G. Cumberbatch, Dept. of Applied Psychology,
University of Aston in Birmingham.

IHD TUTOR

Dr A. Cochran, Interdisciplinary Higher Degrees Unit,
University of Aston in Birmingham.

Industrial Supervision

Dr D.M.S. Peace, Scientific Research and Development Branch,
Home Office.

Dr I.P. Williamson, Scientific Research and Development Branch,
Home Office.

"The trouble with this project is that everything begins with 'E'
... effectiveness, efficiency, evaluation, explicit, explore,
elicit..."

C.S. Huxham

July 1984

Chapter 1

Introduction

1.1 Introduction to the Problem Situation

In recent years, fairly general agreement has been reached that the British policing system will have to undergo some change if it is to continue to respond efficiently and effectively to the demands placed upon it by a rapidly changing society.

Unfortunately, there is only very limited consensus about the type and extent of this required change. Some argue that the problems involved in policing society have reached a crisis point and that radical organisational change will be needed within the police service to alleviate the situation. (See, for example, Alderson [1979]; Scarman [1981]). Others at least imply that the necessary changes can be generated by fairly minor, localised amendments in areas such as training, manning levels, supervision or deployment. (Examples of this view can be found in Cann [1972]; Haste [1980]; Halliday [1980]).

On the basis of current research within the policing sphere, it is difficult to say which of these approaches might be the 'right' one. It may indeed be unrealistic to believe that any one answer exists which would satisfy all proponents in the debate. To a large extent, the differences of opinion are created by their different world views, which are in turn created by different experiences, environments, political sympathies and so on. No amount of research would entirely resolve such differences. Further, policing problems differ significantly over time and between geographic locations. Thus, what appears

to be a right answer in one situation might be patently wrong in another. These factors suggest that policing research cannot be expected to produce any clear cut rules for action. At best, it will perhaps produce a set of guidelines which will allow a more informed debate to take place between those concerned with the issue of policing society.

At present, policing research has failed to clarify the situation even to this extent. This does not necessarily imply that an inadequate amount of research has been carried out into the issue of police effectiveness. Reference to the literature shows that over the years a considerable amount of attention has been given to many different problems and potential solutions in a variety of contexts. (See, for example, the accounts given in Males [1982]). Similarly, the suggestion that policing experiments have failed to provide any useful guidance, because they are badly designed and unable to meet the requirements for internal validity, seems to be largely unjustified. The explanation of the inability of policing research to provide any acceptable guidelines appears in reality to revolve around the issue of evaluation. Quite often, policing experiments, which are well designed in every other respect, are let down by inadequacies in this sphere. This is not to imply that the activities required as part of the evaluation, such as the statistical analysis of experimental data, are undertaken with insufficient care. The real problem seems to be that those involved in policing research have failed to develop a meaningful framework in which to measure the success of schemes. Perhaps the most famous example of this comes from the Kansas City study of preventive patrol. (This is fully described in Kelling et al [1974]). The study was concluded with an evaluation which has frequently been described as one of the most rigorous ever

undertaken in the policing sphere. Certainly, a great deal of time and money was devoted to the development of the experimental design and to the collection of a wide range of evaluation data. Despite this, the evaluation seems to lack a consistent framework. Nowhere in the account of the evaluation is there any explicit statement of the policing objectives adopted or of the reasons for collecting specific categories of data. Overall, the evaluation seems to be largely without obvious direction. This may have contributed to the ultimate failure of the study to have any impact upon police work. The review of literature carried out by the author suggested that the Kansas City study was not atypical in this respect and that other evaluations of policing experiments also lacked any basic framework.

Common sense tells us that a system cannot be fully evaluated unless information is available on:

- a. the system's objectives;
- b. the measures which should be used to determine how successful the system has been in meeting these objectives.

Without such information, there can be no hope of full and rigorous evaluation. Unfortunately, in the case of policing, few attempts have been made to look at what objectives might be adopted. Further, only limited attention has been given to the measurement of success in relation to even the more generally accepted objectives. Pollard [1979] points out that "a form of measurement of police effectiveness is essential and crucial for the future development of policing in this country". Certainly, unless an improved means of measuring the success of policing schemes and experiments is developed, it will be impossible for research, however well designed and extensive it may be, to provide any useful guidance on the direction of changes to

operational policing. The work described within the current thesis will be concerned with precisely this issue, that is, with developing a meaningful framework within which policing experiments can be evaluated and so facilitate the generation of more useful guidelines for operational policing. The remainder of this introductory chapter will be taken up with giving a brief over-view of the work described within the main body of the report, as well as outlining the specific context of the work.

1.2 Background to the Work

The work was carried out under the auspices of the Interdisciplinary Higher Degrees (IHD) Scheme of Aston University in Birmingham. This scheme has been in operation since 1968 and enables higher degree research to be carried out in relation to a real problem experienced by a client. The student involved normally works as a temporary employee of the client organisation, but is also supervised by a team representing both the employer and the University. The academic supervisors are drawn from at least two of the University's departments. This system is designed to provide the student with practical experience within the work environment, as well as a more academic training grounded within more than one discipline. The approach has the advantage of producing a piece of work which will both add to the existing body of academic knowledge and be of constructive use to a client. The main disadvantage of the approach is that it occasionally generates conflict between the demands of academic rigour and more practical considerations. However, it is hoped that, in this instance, an appropriate balance was ultimately struck between the two conflicting goals.

The clients for this particular project were both members of the Scientific Research and Development Branch (SRDB) of the Home

Office*. This branch is responsible for carrying out scientific research on behalf of the police, fire and prison services, as well as undertaking some projects in the area of civil defence. Typically, the work of the branch relates to developing computer systems or assessing equipment for use by these groups. However, in 1980, certain members of the Operational Research group within the branch were asked to turn their attention to how the effectiveness of policing systems themselves might be improved. (These members were, ultimately, to be the clients for the current research). As a result, a preliminary survey was carried out of experiments designed to improve the effectiveness of policing and it was concluded that, whilst some interesting work was going on, the standard of evaluation was far from adequate. The SRDB scientists decided that their work was unlikely to proceed further unless a more coherent framework was developed for evaluation. They did not have a particularly clear idea of how this could be done, but were of the opinion that it would inevitably involve making a variety of subjective decisions if the work was to be completed within a reasonable time-scale. The SRDB scientists were anxious, however, that those making the subjective judgements should be as informed as possible and should approach the problem in a structured fashion.

* At the start of this project, the clients were members of an organisation known as the Police Scientific Research and Development Branch (PSDB) of the Home Office. This branch was concerned almost exclusively with policing research. The re-organisation of scientific research within the Home Office in September 1981 led to this original branch being amalgamated with part of the Scientific Advisory Branch (SAB) to form the Scientific Research and Development Branch (SRDB). The new branch undertook a much wider range of work, as described above. This did not, however, have any significant impact upon the policing research carried out within the client's own group (the Operational Research Group), or upon this specific project. For the sake of consistency, the clients' organisation will be referred to as SRDB throughout the thesis.

A proposal for SRDB to carry out work along these lines was subsequently placed before the steering group for the police effectiveness work. This latter group was known as the "Caucus" and was made up of 5 Chief Constables and chaired by an Assistant Under Secretary of State. The Caucus agreed that the work should be carried out by SRDB and that the Police Effectiveness Evaluation Panel (PEEP) would be set up to assist. This would be composed of 6 police officers of Chief Superintendent or Assistant Chief Constable rank, nominated by the Caucus, and 4 Home Office scientists. It was later decided that two representatives of the Police Research Services Unit* (PRSU) would be co-opted onto the panel. The Caucus also suggested how the panel might proceed with its work. This was to initially involve identifying the basic principles of a policing scheme in operation on the Skelmersdale sub-division of Lancashire Constabulary and transferring these to the Chelmsley Wood sub-division of West Midlands Police. (The Skelmersdale scheme is described in section 6.5.2, Chapter 6). The panel were then to over-see the operation of the new scheme and finally to undertake its evaluation.

The clients recognised that they had no particular expertise in the areas into which the evaluation work of the PEEP was likely to lead them. It was decided, therefore, to approach Aston University's IHD Unit for assistance.

* The Police Research Services Unit is made up of approximately 15 serving police officers who have volunteered to be seconded for a period of two years to assist Home Office scientists in their research. The unit also carries out a small amount of its own research and runs an information desk for use by the police service generally. Members of the unit acted as a pilot group for this work on several occasions.

1.3 Overview of the Work

The work currently described began in October 1980 when the author took up employment as a Research Officer with the Home Office on a three year contract organised through the IHD scheme previously described. The initial terms of reference for the work were relatively vague. Two suggestions as to what the work might consist of were made by the clients as follows:

- i. "An examination of individual policing tactics and a refinement of evaluation procedures connected with these";
- ii. Developing a "theoretical framework for the rather pragmatic current measures of police effectiveness, which might enable the findings of present research into the effectiveness of policing tactics to lead to proposals for more effective police strategies".

These suggestions provided only limited direction for the work and it proved necessary to devote a considerable amount of time in the initial period to fully defining the problem to be addressed. The precise nature of the problem is discussed more fully in Chapter 2, but it may be said, by way of introduction, that it was finally agreed that it would be most worthwhile to concentrate upon developing a methodology for evaluating police effectiveness. It was also agreed that the methodology would then be used by the PEEP in its evaluation of the Chelmsley Wood Policing Project mentioned earlier. Other problems associated with the panel's work, such as data collection or the organisation of the policing project itself, would be undertaken largely by SRDB personnel. (Section 3.4 of Chapter 3 and section 6.3 of Chapter 6 both give consideration to how the work generated by the experiment was divided between the parties

involved).

Considerable flexibility was allowed in terms of how to proceed with this work. Particularly, such freedom extended to deciding whether the methodology should be developed independently of the PEEP, or whether the panel should undertake a more active role in its development with the author acting as a facilitator.

Ultimately, it was decided that the latter option was to be preferred. This was partly because it was felt that the panel would have more faith in an evaluation tool with which it had been involved than in one which had been imposed upon it. However, another major reason for choosing this option was related to the fact that evaluation could not take place unless certain questions, highlighted earlier, about 'proper' policing objectives and related measures of success were answered.

The "true answers" to questions about policing objectives and measures of success are not written on tablets of stone merely waiting to be discovered. Any defined and agreed set of policing objectives will inevitably be the product of the subjective opinion of some individual or group. (When the term 'proper' policing objectives is used in this thesis, it will imply only that these objectives have been subjectively judged to be proper ones for the police to pursue at that point in time). It might be theoretically possible to produce more 'objective' answers in relation to valid and reliable indicators of success. However, this exercise would be so time-consuming as to make it impractical. It appeared, therefore, that questions about both policing objectives and related measures would have to be answered subjectively. The PEEP presented itself as one group which was able and willing to make such decisions. (The precise reasons for choosing the PEEP are discussed in section 5.4 of Chapter 5). It should be noted at this point that consideration

was also given to using a group which either included all ranks within the police service or was more representative of the general public. The decisions of this group might then have been utilised either to assist the PEEP with its own evaluation or to produce some independent evaluation for its use. (The work with this group could also have acted as a pilot exercise for that with the panel). These issues are discussed further in Chapters 5 and 9, but for now it should be noted that there appeared to be valid reasons for not using such groups in this context.

The approach taken to problem solution in this case was somewhat novel. Traditional scientific method tends to view subjective judgement as something which should be avoided and eliminated wherever possible. 'Scientific' research has, however, been forced to rely heavily upon such judgement, but has only rarely made this explicit. The current work takes a totally different view and treats subjectivity as a more positive force. It is based upon the belief that subjective judgement can be a definite asset, and that its use should be made explicit rather than hidden from the reader. A reasonable body of theoretical and practical support is available for this approach. This is discussed in Chapter 4, along with many other issues raised here.

In March 1981, the Police Effectiveness Evaluation Panel began work. The panel remained in existence for the following two and a half years with only minor changes in membership. For most of the period it met, on average, every two months (14 meetings and 2 workshops were held). During this time, a significant amount of effort was devoted to considering the evaluation problems outlined earlier in the chapter. Using a variety of 'softer' techniques, such as "Brainstorming", "Delphi" questionnaires and "Objectives Trees", it was possible to work with the panel to elicit their subjective opinions on:

- a. the 'proper' objectives of policing;
- b. how the objectives relate to each other in terms of an "objectives tree";
- c. what "measures" might be used to determine how successfully objectives have been met;
- d. which of the low level ("basis") objectives were "likely to be affected" **at Chelmsley Wood** by the implementation of the policing project.

This information was then incorporated into a formal apparatus for evaluation, which was used to assess the Chelmsley Wood Policing Project. This evaluation was undertaken by the PEEP at formal meetings and workshops held during June/July 1983. Overall, it was concluded that the Chelmsley Wood Policing Project had not been particularly successful, having made only a limited impact upon the policing situation on the sub-division. However, it was generally felt that the evaluation methodology had been a success and had assisted the panel in reaching an informed conclusion upon the success of the scheme. It is hoped that the evaluation methodology will be used in relation to other policing schemes. In some cases, it may be appropriate for the evaluator to actually utilise some of the results of the panel's work, for example the objectives tree, rather than carry out each of the stages described earlier. However, it is felt by the current author that the actual methodology outlined for evaluation will be of far greater value to future researchers than this specific output. It appears that the methodology could also be applicable to the evaluation of other types of experiment, such as those in the field of nursing. It could also provide assistance in many other situations where the specification of 'proper' objectives is found to be a complicated activity. (Many of these latter issues are taken up again in

Chapter 9).

1.4 Guide to the Thesis

It is assumed that the content of the introduction will have given the reader at least some feel for the nature of the work undertaken. However, descriptions given so far have been necessarily brief, and all issues will be taken up again in the body of the report. The following guide will assist the reader in locating items which are considered to be of further interest.

Chapter 2 considers the general problem of police effectiveness and suggests why past evaluations have been both unreliable and difficult to undertake. Chapter 3 of the thesis defines the precise nature of the problem with which the thesis deals. It considers the specific problems of both the clients and of the author herself. Chapter 4 examines the concept of subjectivity by considering a number of views upon it. It also gives attention to a variety of attempts at utilising subjectivity in the solution of 'soft' or 'fuzzy' problems. Chapter 5 states the assumptions on which the research is based and then draws on a variety of techniques, including those described in Chapter 4, to provide a proposed 'solution' to the current problem.

Chapters 7 and 8 describe the development and trials of the methodology proposed in Chapter 5. (Chapter 6 serves merely to supply some background detail in relation to the case-study). Chapter 9 provides an overall discussion of the work and sets forth a series of recommendations and conclusions.

Chapter 2

The Evaluation of Police Effectiveness- Definition of the General Problem.

2.1 Summary of the Chapter

The following chapter provides a full description of the general background to the current research. It begins by contrasting the difficulties involved in assessing the overall effectiveness and efficiency of private-sector and public-sector organisations. This preliminary analysis suggests that, although such assessments are always problematic, they are inherently more difficult to undertake within the public-sector. The private-sector appears to be able to use 'profit levels' as a very loose indicator of efficiency and effectiveness; the public-sector operates under a different set of constraints and can only rarely justify using this measure. Particular assessment problems are identified in relation to public-sector, service organisations.

Attention is then focussed more directly upon the current research topic and consideration is given to the specific difficulties of evaluating police effectiveness. It is found that attempts have been made to emulate the private-sector by using a single indicator to measure all dimensions of police effectiveness. The most commonly used single indicator is identified as being 'known crime rates'. It is suggested that such indicators do not measure any single dimension of police effectiveness in an accurate fashion and that they completely fail to reflect all aspects of effectiveness. Consequently, it is proposed that a more sophisticated approach is required, which

more accurately assesses the effectiveness of the police by taking into account all the dimensions of their work. The difficulties connected with a more rigorous approach are then discussed. The problems of defining policing objectives, measuring success in meeting such objectives and producing a single index of effectiveness are all considered.

2.2 Evaluation in the Public and Private Sector

The terms "effectiveness" and "efficiency" are frequently used interchangeably. In this context, the terms are used in quite different senses. Effectiveness will be concerned with the degree to which results or effects are achieved; efficiency will be more concerned with resource consumption. Thus, effectiveness is output oriented, whilst efficiency is input oriented. An entity can, in these terms, be effective without being efficient, and vice versa. Formally, "effective" is defined as 'producing goods and services in line with market demand'; "efficient" is taken to mean that any given output is produced at 'the lowest reasonable cost'. (For a discussion of these concepts and the distinction, see Morris and Heal [1981]; Gerrard [1980]). It should, however, be noted that in section 2.3. an alternative definition of effectiveness is supplied in relation to policing.

In a competitive environment, a private-sector organisation is unlikely to survive for any length of time unless it is both effective and efficient. For example, the ineffective firm may not survive because the market does not consume the required quantities of its goods and services; the inefficient firm may fail because its prices are undercut by competitors. Over-production and under-pricing are also indicative of ineffectiveness and inefficiency, and are equally likely to lead

to organisational failure. Thus, the very fact that a private-sector organisation survives in a competitive environment is a reasonable indicator that it is both efficient and effective. Given this, the level of profit made by an organisation may be an adequate, though certainly not perfect, indicator of the overall degree of effectiveness and efficiency achieved. There are, of course, a variety of problems associated with employing 'profit levels' as the only indicator of efficiency and effectiveness of private-sector organisations. For example, this measure is meaningless in a monopoly situation or where a particularly successful marketing strategy is employed. Further, 'profit levels' act as a composite indicator and supply no information on either effectiveness and efficiency as separate concepts or on performance in relation to goals of individuals within the organisation. However, despite the many criticisms which could be levelled, this indicator should at least provide a useful 'rule of thumb' with which to assess performance in this context.

In the public-sector, the situation is somewhat different, as profit levels are, generally speaking, a much less adequate indicator of efficiency and effectiveness. This is partly because public-sector organisations are more likely to occupy a virtual monopoly position within the market-place. However, there are reasons why this measure would be unacceptable even if no such monopoly existed.

The industrial segment of the public-sector, which includes a variety of extractive and manufacturing industries as well as gas, water and electricity services, has always been encouraged to emulate private-sector organisations by using profit levels as one measure of performance. However, government policy has required the nationalized industries to simultaneously take into account other social goals which tend to conflict with profit

making. These goals have included the need to bear in mind the effect of pricing policies upon the well-being of consumers and of other private-sector organisations, and the need to conserve resources for use by future generations. Thus, a public-sector industrial organisation might be operating as efficiently and effectively as its private sector counterpart, but might fail to make a profit because of governmental constraints upon it. Therefore, it would be unfair and inaccurate to use profit as the only indicator of efficiency and effectiveness in this context.

In the services segment of the public-sector, which includes a variety of organisations including the health, education, police and housing services, it would be even less appropriate to use profit levels as indicators of effectiveness and efficiency. Since their introduction, these services have been supplied free, or at low cost, to the consumer, because they were considered to be essential to social well-being. Hence, they are basically non-profit making. This is not to say, of course, that no profits accrue from such services. It has long been recognised that a variety of non-monetary, social benefits are generated by them, and that many of the services have an indirect, positive impact upon the economy. It would, however, be almost impossible to distinguish what proportion of the GNP was generated by the indirect effects of such services, and it is most unlikely that this will ever be used as a measure of performance.

The efficiency and effectiveness of public-sector organisations, and particularly those within the service segment, cannot be measured readily in terms of profit made. This category of organisation is, of course, less dependent upon being effective and efficient for survival, simply because it is so vital to

national well-being. However, such organisations have a duty to their sponsors to be as efficient and effective as possible. This responsibility has become even more apparent in the current, adverse economic climate. Public sector organisations are now under considerable pressure from the government and other bodies to become more efficient or effective, and to prove that they have so done. These demands can only be met if such organisations are able to assess their effectiveness and efficiency. Without some assessment tool, the organisations are incapable of 'proving' how efficient and effective they really are, and, perhaps more importantly, of assessing the relative merits of different strategies to improve performance in line with requirements. At present, no such measure is available for many of the public-sector organisations. Ideally, these organisations require a single, uncomplicated indicator of performance, which could be used in the same fashion as 'profit levels' in the private-sector, but which would provide a more accurate reflection of the situation. It will be suggested, however, that single indicators which are, or could be, produced are not always particularly helpful.

The current thesis is concerned primarily with evaluation in relation to the police service, and, therefore, the subsequent consideration of performance indicators and of other issues will be largely within this context. However, it is hoped that this preliminary, general discussion will assist the reader in understanding that the ideas expressed within the thesis may have some bearing upon the evaluation problems of other organisations within both the public-sector and the private-sector. This will be pursued further in the discussion section (Chapter 9).

2.3 The Evaluation of Police Effectiveness: The Traditional Approach

It has already been pointed out that, in recent years, the government and public have demanded that public sector organisations should become more efficient and effective. The police service has not been immune from this pressure. Basically, it has been asked to increase its effectiveness without any commensurate increase in manpower. The term 'effectiveness', as defined in section 2.2, does not perfectly summarise what is being asked of the police, that is, to increase outputs with stable inputs. It would perhaps be more correct to use the term "productivity", which Mali [1978] defines as "reaching the highest level of performance with the least expenditure of resources". However, this term could imply that police resource cuts are anticipated, which is not the case. Hence, the author will adopt the normal convention in policing literature and use the term "effectiveness", but its special meaning within this context must be borne in mind.

It is arguable that the task which has been given to the police service is less daunting than that faced by many other parts of the public-sector, which have been asked to provide an equivalent service with fewer resources. However, in all cases, the organisations are being asked to achieve more per unit, and to provide evidence of this. Thus, the police task is in reality no less difficult. The different requests issued to the police are indicative of the fact that the current government has promised to promote law and order and not of any particular favouritism being shown.

Despite the considerable pressure for it to become more effective, very few attempts have been made to give the police

service any guidance on what strategies it should adopt to achieve this. Further, as was explained in the introductory chapter, the guidance which is available is frequently conflicting and fails to provide a useful basis for any development within the police service. Given this additional problem, it should become readily apparent why it is so essential that the police service should receive some advice on how to assess, not only overall performance, but also individual strategies.

The need to evaluate performance has long been recognised within the police service. For many years, it was assumed that this could be done by emulating the private-sector and relying almost exclusively upon a single measure of performance. 'The number of recorded crimes per 1,000 population' has been regularly used as the police services equivalent of private-sector profit levels. It has been assumed that, if these crime rates go up then, there has been a decrease in police effectiveness; if the rates go down, then the police have become more effective. A stable crime rate is seen as indicative of stable effectiveness*. The 'percentage of crimes cleared up'* has also been used quite regularly in conjunction with the crime rate to measure effectiveness. An increase in the clear-up rate is seen as indicative of an up-turn in police effectiveness, while a decrease in the rate indicates a decline. Again, a stable clear-up rate is taken to show that effectiveness has remained unchanged.

* In England and Wales, the official crime statistics have been published on an annual basis by Her Majesty's Government since the end of World War I. These statistics are compiled from the monthly returns by each police area on crimes and certain non-indictable offences. The publication is thus able to give information on the number of crimes known to the police, their classification and the number cleared (see section 2.5 for full definition). Court and prison records are also used to show the age and sex of offenders and the sentences given by offence.

When one considers the original terms of reference of the police service, it at first seems quite acceptable that this type of measure should be used to assess its organisational performance. Sir Richard Mayne [1829], one of the first Metropolitan Police Commissioners, defined "the primary objective of an efficient police" as the "protection of life and property, and the prevention and detection of crime". Assuming that crime rates act as a good indirect measure of the amount of crime prevented, and that clear up rates accurately reflect the amount of crime detected, then the use of these measures would not be in dispute. However, there are reasons to believe that these assumptions, which have remained unchallenged for so long, are incorrect. It is now accepted quite generally that crime and clear-up rates tell us very little about crime prevented and detected respectively. Additionally, the current thesis will argue that these indicators are not only invalid and unreliable, but also out-moded and inappropriate, as the police now pursue a variety of objectives, other than the prevention and detection of crime, which cannot be measured in these terms. This latter point will be taken up again in section 2.7, but first consideration will be given to how adequately crime and detection rates measure police ability to prevent and detect crime.

2.4 The Crime Rate: Its Applicability as a Measure of Preventive Capacity

Police effectiveness in relation to the prevention of crime cannot be measured directly. Observation of subjects, for example, fails to provide information on whether the police have prevented crime, as it cannot be known whether a non-offending subject would otherwise have offended. Interviewing subjects themselves to identify occasions where police action had prevented

an offence might be more successful, but the use of such methods would undoubtedly be extremely time-consuming, labour intensive, and, thus, expensive. This being the case, the amount of crime prevented has usually been measured indirectly using levels of known crime. It is assumed that if the police have prevented less crime then the known crime rate will rise; if they have prevented more crime then this crime rate will decline. Generally, the police have been considered to be effective in their preventive duties if the known crime rate remains stable or decreases and no extra resources have been employed.

The idea of using known crime rates to measure police effectiveness has, however, come under attack for both theoretical and practical reasons in recent years. On the theoretical side, the approach has received heavy criticism from certain newer philosophies. For example, labelling theorists have argued that such official statistics have little to do with offender behaviour, but are instead determined by the interpretations of behaviour imposed by other parties interacting with the offender, such as the police or the courts. (For a further discussion of this approach see: Matza [1969]; Lemert [1967]; Becker [1963]). Thus, they are seen as requiring study in their own right, rather than as being a means of measurement. Such arguments are far from universally accepted. However, it appears that there are a number of more generally accepted, practical reasons for questioning the usefulness of known crime levels for assessing police ability to prevent crime.

Crime rates would constitute a reasonable, indirect measure of police ability to prevent crime if at least the following conditions were met:

- i. the propensity to commit crime (and particular types of

- crime) remained constant from year to year;
- ii. recorded crime levels (total and by class) reflected directly and constantly the amount of crime in society;
 - iii. the police were the only agents capable of preventing crime in society;
 - iv. all crime included in the rates was preventable;
 - v. the legal system remained unchanged;
 - vi. the quality of crime remained unchanged.

There are reasons to believe that none of the above conditions are met adequately and that 'crime rates per 1,000 population' fail to be reliable measures of crime prevented by the police. These will be briefly examined in turn, although a full discussion of these problems can be found in Ditton [1979] and Walker [1971].

Propensity to commit crime: there exists a real possibility of changes occurring in the criminality of a population being policed. It is often assumed, for example, that certain age (younger) and sex (male) groups are more likely to commit crime. If this is actually the case, a change in the population distribution, such as that which occurred as a result of the "post-war baby boom", could totally alter the real level of crime, independently of any police action.

Recorded crime rates: Known crime rates can only provide a reliable indirect measure of crime prevented if they accurately reflect the actual level of crime in society. It is believed, however, that only a small proportion of all the crimes committed are reported to the police. The study carried out by Sparks, Genn and Dodd [1977] suggested that this proportion may be as low as ten percent. Such under-reporting occurs, for example, because the victim or witness

is embarrassed, or feels the incident is trivial, or believes the police will be unable to take any action. Further, not all crime that is reported will be recorded by the police. Coleman and Bottomley's study of policing in a North of England town showed, for example, that, in this instance, about nine percent of known crimes were not recorded (Coleman and Bottomley [1976]). (The study carried out by Sparks et al [1977] suggested that this figure will sometimes be higher). Such under-recording may occur for a variety of reasons. For example, when the police expect a charge will ultimately be withdrawn or where an incident is particularly trivial.

The problems of under-recording and under-reporting would not be particularly serious if it could be assumed that those incidents actually reported and recorded represented a constant proportion of the amount and type of actual crime. Unfortunately, the overall probability of an incident being reported is likely to vary over time and between areas. This may be the result of changes among a whole host of factors. For example, Center and Smith [1973] point out that witnesses reporting behaviour can be significantly affected by police publicity campaigns; Hall et al [1978] use the idea of a "moral panic" about certain forms of behaviour to explain increased reporting in some situations. Other factors, such as respect for the police and tolerance of crime, are also likely to be important. Similarly, police recording rates may vary significantly in accordance with changes in other parameters such as manpower available, police-public relations, and legal requirements. (See Sparks et al [1977] for a discussion of the latter issue). The problem is aggravated by the fact that reporting and

recording rates are likely to vary for particular types of crime in accordance with current social norms.

Agents of Social Control: Banton [1980] points out that "it could well be assumed that a constabulary is most effective when crime is lowest, but crime may be low for reasons that have nothing to do with the constabulary". It is very easy to forget that the police are not the only agents of social control. The family, the school, the church, the courts, community leaders, peer groups, and work groups are just some of the other agencies that also contribute to the control and prevention of crime. Banton's own study "The Policeman in the Community" demonstrates very clearly that informal community pressure can be just as important (Banton [1964]). Hence, even if levels of recorded crime were good indicators of the amount of crime prevented, they might still say nothing about the proportion prevented by police action. Fluctuations in known crime levels could very well be attributable to changes in the degree of informal control exercised. This factor is well known to the police and is currently directing police strategy to a significant extent.

The preventive nature of crime: When assessing fluctuations in crime rates to determine police effectiveness in preventing crime, the nature of offences is frequently ignored. Little can be said about the ability of the police to prevent crime if the offences being considered are not susceptible to prevention. Most types of murder and many of the 'private' offences, such as drug taking, are examples of crimes which it is difficult to prevent. The current use of data on such offences to assess effectiveness in preventing

crime is, therefore, highly misleading.

Changes in the legal system: Great care should be taken to allow for changes in the law when dealing with criminal statistics. Such changes can bring about significant movements in the crime rate which are independent of police activity. For example, the Street Offences Act of 1959 led to a significant increase in the number of convictions for prostitution, which was considered to be independent of police ability to control this offence. Similarly, decriminalisation of a particular offence can lead to a drop in the crime rate, which cannot properly be attributed to increased police effectiveness. This difficulty is perhaps one of the easiest to control for, but it should be remembered that if a change in the law occurred simultaneously with a change in preventive capacity, the effects of the two factors would be largely inseparable. (Ditton [1979] provides a further discussion of such factors).

The quality of crime: A final criticism which could be made of criminal statistics is that they do not adequately reflect the 'quality' of crime prevented by the police. Crime varies tremendously in terms of the social harm which arises from it. Reliance on purely quantitative levels of crime obscures this and tends to produce a misleading picture of the ability of the police to prevent crime. A drop in total numbers of crimes would, for example, be interpreted as a result of increased police effectiveness in prevention under this approach. It would not check whether the level of social harm had simultaneously dropped. Bebbington [1970] argues that such an indicator would not be

accepted even by a manufacturer of dustbins as he would at least want to know if the dustbins manufactured were "galvanised iron, plastic or gold-plated".

The discussions so far imply that none of the conditions stated earlier are adequately met. Hence, it does not appear that the recorded crime rate will, in all circumstances, act as a good measure of the ability of the police to prevent crime. The potential of the clear-up rate as a measure of the detective capacity of the police will now be considered.

2.5 The Clear-up Rate: Its Applicability as a Measure of Detective Capacity

Every year, Her Majesty's Stationery Office produces a publication entitled "Criminal Statistics of England and Wales" (See, for example, Home Office [1983]). This provides statistics on the number of offences known to the police, and also on the percentage of these crimes which are "cleared up". This clear up rate has been used as another long standing measure of police effectiveness and features regularly in commentaries relating to this, such as Chief Constable's Annual Reports. The assumption is that this rate directly reflects police ability to detect and convict offenders. This assumption corresponds quite closely with popular understanding of this somewhat nebulous term. In reality, the clear up rate is far less sophisticated than this and merely shows the percentage of crimes which will be given no further police attention. A crime can be classed as "cleared up" and removed from the realm of interest for a whole host of reasons which have little to do with police action. The following are just some examples:

- The suspect is prosecuted, but acquitted. (Only in cases where

public concern is high will a case necessarily be followed up).

- When an admission is obtained, but no prosecution is brought.
- When an offence is 'taken into consideration' during the prosecution of the offender for another offence. (Coleman and Bottomley [1980] suggest that 25% of all crime is 'cleared' in this fashion).
- When only one of several offenders involved in a crime is prosecuted.
- When the suspect is a child under the age of criminal responsibility, or has been institutionalised or died.

In reality, it appears that the clear up rate need have little to do with police ability to successfully apprehend, prosecute and obtain the conviction of criminals. This comment could be seen as a little unfair. There is no doubt that the clear-up rate includes offences which have been 'solved' in the true sense of the word, and can, in the absence of any more useful information, give at least some impression about police effectiveness.

The main problem with the clear up rate is that it includes a variety of offences solved on the basis of unsubstantiated suspicions or false confessions. Further, in the case of offences that are solved in a more acceptable fashion, the clear up rate fails to reflect the amount of police effort involved. In many cases, offences are solved with only negligible effort by the police. Self clearing offences, such as shop-lifting, are good examples of this. (The Rand study of criminal investigations suggested that only 3% of arrests for serious crimes were the result of special efforts by the investigator (Greenwood [1980])). In a few cases, however, enormous amounts of detective skill are required to solve just one offence. No

attempt has been made to reflect the quality as well as the quantity of detections, nor to control for the amount of public support accorded the police in their detective efforts. Smith and Gray [1983] found that the PCs and Sergeants in their study were equally dubious about the use of the clear-up rate and mainly for these reasons. Overall, it appears that the clear-up rate does not constitute a reliable measure of police ability to detect crime. Further, it is not even likely to prove to be a useful measure for contrasting preventive ability over time, as the percentage of crimes detected in the traditional sense is likely to vary from year to year. The difficulties outlined so far have led Coleman and Bottomley [1980] to conclude that "...clear up rates do not reflect adequately what the police do and must therefore be a highly partial measure of police performance".

2.6 Final Comments on the Traditional Measures of Effectiveness

The comments made in relation to the traditional measures of police effectiveness have suggested that they do not serve as reliable indicators of either preventive and detective capacity. Their only redeeming feature appears to be that, like profit levels in the private-sector, they are readily computed and understood by a wide audience. This view is perhaps over-pessimistic, as there are a number of ways in which these measures could be improved to make them reflect more accurately the concepts to which they relate. For example, crime rates might be weighted up in terms of the seriousness of the component parts, or have a correction introduced for the criminality of the population. The preceding discussion does, however, serve to counteract the general tendency to accept such indicators uncritically.

It is perhaps worth noting at this point that there is considerable debate on whether the flaws in the traditional measures of police effectiveness are sufficiently serious to render them useless. Some would claim that the difficulties are just minor irritations which can be coped with. Avison [1972], for example, suggests that, despite their faults, official crime statistics still have an important role to play in evaluation. He argues that all that is necessary is "a clear understanding of the difficulties that can arise in the compilation of statistics". Others argue that crime and clear-up rates should be replaced completely by more reliable indicators. For example, it has been suggested that the actual amount of crime, and thus the ability of the police to prevent crime, could be measured more accurately, using victim surveys, offender self report studies, or observations of criminal activity. It has also been intimated that the ability of the police to detect crime could be gauged more rigorously by a team of independent assessors examining case records. These more novel solutions remain fraught with technical problems, however. Additionally, all the approaches are labour-intensive and time-consuming and thus expensive and difficult to use on a wide scale.

The debate on the usefulness of crime and clear-up rates in relation to the measurement of the amount of crime prevented or detected is far from concluded. There are obviously a variety of reasons for questioning the validity of such indicators, but it may be that, in some circumstances, their use is acceptable. However, there are solid reasons for rejecting these indicators as measures of overall effectiveness, even if they are helpful within the prevention/detection sphere. So far, only the key, traditional objectives of the police service have been

delineated. The next section of this chapter will examine other objectives which the police service pursues. It should then become obvious that crime rates and clear-up rates could not act as sole indicators of police performance.

2.7 The Applicability of Crime and Detection Rates as Single Indicators of Police Effectiveness

It was pointed out earlier that the first Commissioners of the Metropolitan Police saw the main objectives of the police service as "the protection of life and property and ... the prevention and detection of crime" (Mayne [1829]). At this time, expectations of the newly formed police force were low and expansions of their basic role strongly resisted. Even in this period of severe social disorder following the Industrial Revolution, the fear of crime was only slightly greater than fears of curtailment of personal liberty among the ruling classes*. Gradually, however, the police were accepted as guardians of personal freedom and more and more responsibility was transferred to them from general society for law maintenance and for the performance of a variety of non-crime service functions. Research on a Glasgow division by Clarke and Hough showed, for example, that only one-third of calls were crime-related (Clarke and Hough [1980]). Technological change also forced the police to accept a greater range of responsibility. At one level, this has enabled the police to increase their investigative, detective and preventive capacities far beyond anything envisaged in 1829. It has also created a whole new set of problems for them to deal with- traffic policing is just one of many examples which could be cited.

* Historical accounts of the development of the police service can be found in Ascoli [1979] and Critchley [1978].

It appears that the role of the police in society has changed quite radically since 1829 and that the directives of Sir Richard Mayne cannot realistically be expected to provide the only guidance on the practice of policing. This in itself does not destroy the unique importance of these original policing objectives. Lord Scarman, for example, points out that in many respects these objectives are as relevant today as they were in 1829 (Scarman [1981]). It does, however, suggest that there might be additional ones stemming from modern-day problems, which should be taken into account in an evaluation of police effectiveness. For example, such objectives as "to maintain a good relationship with the public" and "to assist those requiring help" seem to have been accepted as 'proper' objectives to pursue by the practitioners of policing, and it would seem reasonable to evaluate accordingly. Unfortunately, the traditional measures of police effectiveness tell us very little about these aspects of work. In some communities, an increase in the detection rate would lead to a deterioration of the police-public relationship; a decrease in the level of crime might be indicative of a neglect of the more service orientated part of police work. This suggests that it would be more accurate to measure success in relation to each of the policing objectives separately, rather than to rely upon any single indicators of effectiveness. Unfortunately, there are variety of barriers to adopting this more rigorous approach. These will now be considered in turn.

2.8 The Need to Define Policing Objectives

It was pointed out in the previous section that the police now pursue a variety of objectives which were neither envisaged nor defined by Sir Richard Mayne. It was also suggested that police effectiveness could be measured in a more rigorous fashion by

giving separate consideration to each of these modern-day objectives in turn. Unfortunately, such objectives have been absorbed into the practice of policing without any formal attempt to decide whether they are 'proper' policing objectives and whether they are objectives in themselves or merely means of meeting these. When pressure is placed upon the police service to become more effective, only rarely are attempts made to define what output is required. This has produced a confusing situation which may have left many police officers wondering whether much of their work is real police work. Further, as Eilon [1977] points out, a major reason for specifying objectives is "to define a yardstick against which future performance can be evaluated". The current lack of objectives has made it difficult for the evaluators of policing experiments to decide precisely which objectives to take into account. There can be no reason to measure success in meeting an objective if it is not a 'proper' one; if it is merely a sub-objective then one of the overall indicators discussed may be adequate. Despite this confused situation, some evaluators of policing experiments have taken into account non-traditional objectives. However, it is likely that such attempts have only considered a small sample of the total set of objectives which might reasonably be used and that they would have benefited from some further clarification of policing objectives.

The need to re-define policing objectives in line with the modern-day situation has been partly recognised in an official manner. The 1962 Royal Commission on the Police considered this issue and concluded that the objectives of the police should be as follows (Royal Commission on the Police [1962]):

- i. to maintain law and order and to protect persons and property;

- ii. to prevent crime;
- iii. to carry out detection and interrogation;
- iv. to decide whether to prosecute;
- v. to prosecute less serious offences;
- vi. to control traffic and advise local authorities on traffic matters;
- vii. to assist government duties;
- viii. to befriend those needing help and to cope with emergencies.

The 1962 Commission's findings suggest a whole range of police 'outputs' which are not usually evaluated when assessing police effectiveness. It is arguable, however, that even this most recent formal specification did not go far enough. It has been criticised for giving no advice on what policing priorities should be in relation to these newly defined objectives, and for failing to recognise many significant non-crime duties as part of police work. Further, it is argued that no attempt was made to decide whether these were objectives in themselves or merely sub-objectives. Finally, it has been suggested that the Commission should have provided guidance to the police in relation to future objectives. As a result, the 1962 Recommendations have tended to be dismissed as outmoded and unhelpful, although their critics were perhaps somewhat idealistic in their expectations.

Satisfactory official definitions of the whole range of objectives of the police service are conspicuously absent; personal opinions about these are, however, readily available. Most members of the police service have quite strong opinions on what their role should be. Unfortunately, little consensus can be identified among these individual perceptions. (The concept of "consensus" is discussed further in section 5.4 of Chapter 5).

There is even considerable disagreement about how the more traditional objectives should be achieved. For example, John Alderson, the former Chief Constable of Devon and Cornwall, has set out his views on the "proper" role of the police (Alderson [1979]). Alderson recognised the need for the police to perform traditional tasks such as investigating offences and controlling disorder, but suggested that their primary role is one of leadership in a "battle" to prevent crime. To achieve this primary goal, Alderson proposed that the police should become deeply involved in their community and with agencies therein. Alderson's view of the police is certainly not universally accepted. Some argue that his ideas are laudable, but that police resources are inadequate to the task. Others suggest that Alderson is trying to turn the police into a group of 'uniformed social workers' who are incapable of fulfilling their real duty of bringing the criminal 'to book'.

The debate among police officers about 'proper' policing objectives and how they should be achieved extends far beyond the pro/against Alderson issue. Equally diverse opinions are expressed on police responsibility for such issues as traffic policing and non-crime work. The public too remain unsure about what services the police should provide for them. Further, their expressed opinion often differs markedly from their expectations in practice.

The situation with regard to 'proper' policing objectives is, therefore, highly confused. No entirely satisfactory official definitions are available, and there is no real agreement at a less formal level on how they might be defined. Before further progress can be made, attempts will have to be made to clarify the position on 'proper' policing objectives in order that police officer and evaluator alike can have some guide-lines on how to

proceed in evaluating police effectiveness. However, as Morris and Heal [1981] point out "... judgements about police effectiveness will vary according to the standpoint of the evaluator". Thus, one major difficulty immediately becomes apparent, that is, who, in the face of the very limited consensus on policing objectives, should be charged with this decision ?

2.9 The Need to Measure Performance in relation to Policing Objectives

It was pointed out earlier in this chapter that no completely reliable measures of success are available for the traditional policing objectives. The situation is even worse for many of the less well-recognised aspects of police work, where indicators of success are not merely unreliable, but often hard to identify. This is not, of course, to say that it would be impossible to measure success in these areas. It is simply that under the traditional approaches to evaluation this has not been necessary.

Some attempts to take into account a wider range of policing objectives have already been made. Efforts have also been made to devise appropriate measures for them. For example, the use of surveys among the public is now a well accepted method of measuring satisfaction with the police. It is quite conceivable that further measures could be developed in relation to the other supplementary objectives of policing. The police, for example, collect data on the number of complaints made against police officers. This data, if used with care, might give some indication of public attitudes to the police. Data on the number of traffic accidents in an area might produce a useful indicator of police ability to control traffic, while data on the number of non-crime incidents attended might say at least something about

how well service functions are provided. Court records on less serious offences, could also be used to indicate how successful the police had been in prosecuting these. Agencies concerned with civil liberties might provide data on citizen complaints against the police, which could increase the understanding of public satisfaction with the police. Further, survey and observation techniques might be used to assess the quality of service provided by officers in many aspects of their work. There also appears to be considerable scope for the use of more 'subjective', judgemental indicators in this area.

It would appear that the task of devising reliable and valid indicators of success for the less well recognised aspects of police work is not an impossible one. However, it is likely that it would require a unrealistically large research programme to first identify and then test the reliability and validity of measures if there were more than a handful of policing objectives to be considered. The previous section pointed out that no agreement had been reached on 'proper' policing objectives, but it is likely that, if and when any sort of 'agreement' is reached, a large number of objectives will be in need of consideration. Thus, it appears that, not only are evaluators who wish to adopt a more rounded approach faced with considerable difficulties in relation to what to measure, but they are also faced with equally difficult problems of how to measure accurately. (The term measure is used here in the qualitative, judgement sense, as well as in the traditional quantitative sense).

2.10 The Possibilities of Developing an Overall Measure of Effectiveness

It has been argued that it would be impossible to reliably evaluate police effectiveness using any single indicator, such as crime rates, because policing objectives are so diverse.

However, evaluators have often behaved as if this were possible because, if effectiveness could be measured on a uni-dimensional scale, it would be relatively easy to compare and contrast the usefulness of schemes or monitor their progress over time. The best scheme would simply be the one which scored most highly on this single effectiveness scale.

It has been suggested in this chapter that measures of effectiveness should be taken in relation to all aspects of police work. As soon as an evaluation takes into account more than one objective or measure, a variety of scales are necessarily involved and comparison either between schemes or over time becomes complex. When comparing schemes, for example, it becomes almost impossible to determine which is the most successful unless one scores higher on all scales of interest. Existing evaluations of policing experiments suggest that such a clear-cut picture rarely emerges. More likely is the situation where each scheme appears to have its own merits, and evaluators have to decide between them in accordance with their own views of the relative importance of policing objectives.

What appears, at first glance, to be required is a system of weighting and combination which would allow the various measures of police effectiveness to be converted back into a single index. At its simplest, this might consist of a formula equating police effectiveness to the sum of the scores on the various effectiveness scales. It would, of course, be necessary to

weight such scores before summation in accordance with the relative importance of the objective to which it relates and, possibly, in accordance with its reliability. Thus, police effectiveness might be described mathematically as follows:

$$\text{Police Effectiveness} = \sum_{i=1}^j w_i m_i$$

- where m_i = the score on the i th scale of effectiveness
 w_i = the weight indicating the importance and reliability of the i th measure
 j = the number of measures used

To date, no attempt has been made to devise such a formula for use in the evaluation of policing experiments. This is partly because the difficulties involved are almost insurmountable. As has already been pointed out, insufficient consideration has been given to the nature and relative importance of the various objectives and to the definition and reliability of measures. Further, the scales of effectiveness are almost impossible to combine. This latter point might be made clearer by an example. Suppose information was available on the objectives, and their measures and weightings, and police effectiveness was defined as follows:

$$\begin{aligned} \text{Police Effectiveness} &= 0.75 \text{ (amount of crime prevented)} \\ &+ 0.25 \text{ (level of public satisfaction)} \end{aligned}$$

Research might provide values as follows:

$$\begin{aligned} \text{Police Effectiveness} &= 0.75 \text{ (10\% less than previous year)} \\ &+ 0.25 \text{ (high)} \end{aligned}$$

Unfortunately, "10% less than previous year" and "high" do not add together in any direct way and the problem of converting them to some common scale arises. It might, of course, be possible to devise such a scale, but at present no such work has been carried out in the policing sphere. This fact, in conjunction with the difficulties outlined earlier, means that it would currently be impossible to convert multiple measures of the various aspects of police effectiveness into a single measure. It should also be noted that such an approach may not be theoretically sound. For example, there does not appear to be any real reason for the assumption of additivity to be made. The problems of producing a single index are considered again in Chapter 5, along with a discussion of the whether undertaking such an exercise is entirely desirable. The issue is also taken up in Chapter 9 where consideration is given to the use of qualitative weightings.

2.11 Conclusion

The current chapter has presented a somewhat dismal picture of our ability to evaluate police effectiveness in a rigorous fashion. It has been suggested that the traditional approaches to evaluation, which rely heavily upon crime and detection rates, are unreliable, because these measures say very little about police ability to prevent and detect crime and even less about other aspects of their work. However, it appears that the alternative approach to evaluation outlined within this chapter also has many difficulties associated with it. Such rigorous evaluations of all the separate dimensions of police work can only be carried out if decisions are made on what these dimensions are and how success in relation to them might be reliably measured. At present, no real decisions have been made

in this area and, even if they had, it would perhaps be unrealistic to expect them to have widespread acceptability. Finally, this alternative approach assesses effectiveness on a variety of scales, which cannot be readily interpreted.

It was suggested that many of the difficulties associated with using a multi-dimensional approach in the evaluation of police effectiveness would be extremely difficult to solve. However, if progress is to be made in the practice of policing, these difficulties must be overcome to some extent, and it is hoped that the current study has gone some way to doing this. Chapters 6, 7, and 8 provide an account of the actual work which was carried out with the PEEP in relation to the issue of defining police objectives and related measures of success. However, the particular approach taken to this work can only be properly understood within its context. Thus, it is hoped that the reader will first give consideration to the intervening chapters. Chapter 3 provides an account of a specific problem experienced by the clients for this research in relation to the evaluation of police effectiveness. The general approach which the clients wished to adopt in developing a solution to this problem is also outlined. In Chapter 4, an examination is undertaken of the theoretical background to the approach used; this approach is fully described in Chapter 5.

Chapter 3

Description of the Current Research Problem

3.1 Summary of the Chapter

The current chapter concentrates upon providing a full description of the problem experienced by the clients for this research, who were members of the Scientific Research and Development Branch of the Home Office. The client problem is related to the evaluation of police effectiveness, and is, in many respects, similar to the general problem discussed in the previous chapter. For this reason, the description will be relatively brief. However, there are certain features of the clients' problem which make it quite distinct, and thus require a separate account.

The account begins by defining and describing the organisation to which the clients belonged. An explanation is also provided of who precisely the clients were and how they fitted into this organisation. A detailed description is then provided of the situation which led the clients to experience some concern about issues relating to the evaluation of police effectiveness. This is followed by a discussion of the precise nature of their problem. The ideas which the clients had in relation to problem solution are also outlined, as are the constraints under which they operated.

The chapter concludes by describing the problem addressed by the present author. This latter problem is, of course, similar to that of the clients, but remains distinct simply because it was

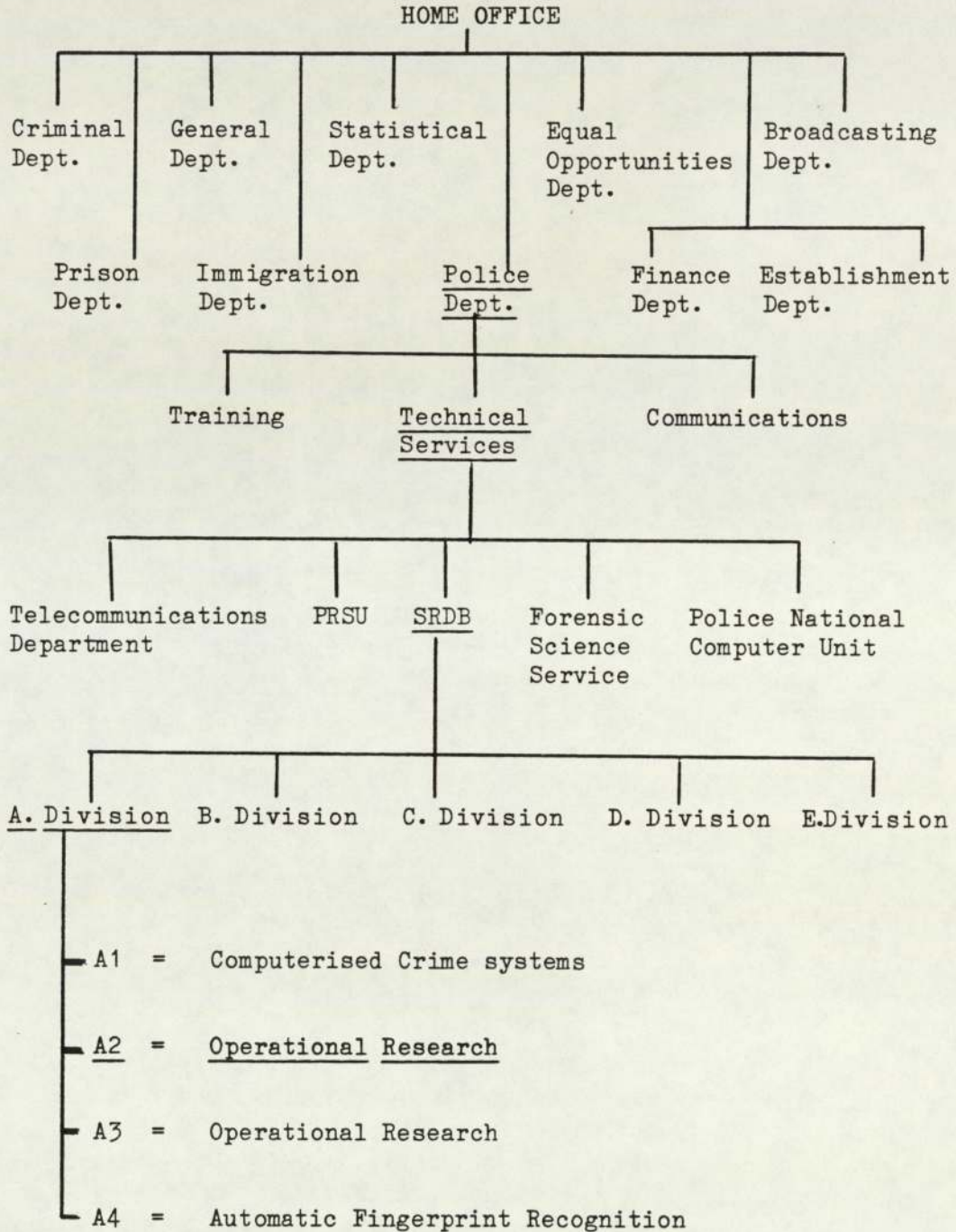
generated by a request to assist the clients' in this sphere. A different set of constraints was also experienced and this had some impact upon the nature of the problem addressed. Basically, these constraints were limited time and the need to achieve an appropriate level of academic rigour. In view of these constraints, it seemed reasonable to address only a sub-problem of the client problem. Essentially, the problem addressed was one of developing a methodology, which utilised expert judgement, for the evaluation of police effectiveness on behalf of the clients.

3.2 The Research Client: Description and Definition

The Home Office is made up of a variety of departments, each of which takes responsibility for a discrete function of that organisation, such as broadcasting, policing or equal opportunities. These departments are, in turn, made up of smaller units, which again assume responsibility for specific tasks. The Scientific Research and Development Branch (SRDB) is one such smaller unit and forms part of the Police Department of the Home Office. The precise location of SRDB within the Police Department is shown in Figure 3 (i) overleaf.

SRDB was formed in September 1981 when two existing branches of the Home Office (the Police Scientific Development Branch and part of the Scientific Advisory Branch) were combined into one unit. The majority of the work carried out by the original units was taken over by the new branch. SRDB is now responsible for developing new methods, equipment and techniques for use by the Police, Fire, Prison and Home Defence Services. The Branch employs approximately 100 scientists who are located at various sites within and outside London. The Branch itself is split into a number of divisions and then into groups. Further details of

Figure 3 (i) : The Scientific Research and Development Branch-
Structure and Location within the Home Office



these divisions and groups is supplied in Figure 3 (i) (page 42).

It would not, however, be strictly correct to refer to either SRDB or the Home Office as the client's for this research. Both these groups are likely to experience some indirect benefits from the current research, as is the police service in general and, indeed the Police Effectiveness Evaluation Panel. However, the most direct beneficiaries of the research currently described are seen to be certain members (past and present) of SRDB's A2 group. (The location of A2 group in the wider organisation is also shown in Figure 3 (i)). Thus, when the client is referred to in this report, the relevant members of A2 group will be implied. (This definition is in line with the view of the research client suggested by Checkland [1979]). In view of the A2 group's central role in the research, it seems appropriate to provide a brief description of its structure and function, before considering the clients themselves.

Basically, three groups within SRDB formally undertake operational research (OR) work, and each has a particular responsibility for an individual client organisation. A2 group is one of these OR groups and is primarily concerned with police related work. Some work is also carried out on behalf of the Fire Service and Home Defence colleges. Specific projects within this group have included the development of the police sub-model of the Home Office Criminal Justice System model, the assessment of computerised graphics techniques for presenting information to police managers, and the development of computer-based training exercises for senior police officers. A2 group is made up of approximately eight scientists of Scientific Officer/Higher Scientific Officer/Senior Scientific Officer rank. The group leader, who also acted as 'Industrial Supervisor' for the IHD

research, is a Principal Scientific Officer. It is this latter member who is seen as one of the two primary clients for the current research, being directly responsible for all the police effectiveness work undertaken within the A2 group. (Prior to his appointment as group leader, this client was actively involved as part of the project team for the police effectiveness work). The other primary client is now actually the head of the whole 'A' division. However, his association with the research stemmed from his previous role as group leader of A2 group*. In this capacity, he arranged for the current work to be undertaken and acted as the 'Industrial Supervisor' until his promotion during its early stages. After this time he maintained a considerable interest in the project. Both the individuals defined as primary client's also acted as Home Office representatives on the Police Effectiveness Evaluation Panel.

3.3 Description of the Clients' Problem

The 1977 Ditchley Conference of the Association of Chief Police Officers (ACPO) heard how crime was expected to increase considerably in the following decade, but that no commensurate increase in police establishment would be forthcoming. (For a further discussion of ACPO see section 6.2, Chapter 6). The Conference concluded that more emphasis should be placed by the Home Office on research into new and traditional policing methods in order that recommendations could be made on how to enhance the effectiveness of existing resources. It was suggested that particular attention should be paid to methods

* Prior to this client's promotion, A2 group was actually known as 'A group'. The group was then located within PSDB. It was renamed at the point when PSDB became part of SRDB during the early stages of the IHD research. However, this occurrence did not affect the structure of the group to any great extent, nor the nature of its work. Thus, for the sake of simplicity, the term A2 group will be used on all occasions.

which emphasised crime prevention. SRDB were asked to contribute to this work, and responsibility for its execution was ultimately given to the A2 group.

At this point in time, SRDB was involved in a variety of activities, but was most usually concerned with developing computerised systems or with assessing equipment for use by their clients. On this occasion, however, it appeared that the branch was being asked to provide some insights into how the effectiveness of policing systems themselves might be improved. The existing expertise of SRDB, and indeed that of the A2 group, was not particularly well suited to such work. The problem was further complicated by the fact that what was required by ACPO was not altogether well defined. It was decided, however, that some initial inroads into the problem might be made by carrying out a broad survey of policing methods actually in operation. This survey was carried out by members of A2 group (including both clients) in 1978, in conjunction with representatives of the Police Research Services Unit (PRSU). It showed that, whilst the various police forces had developed some interesting schemes, few attempts had been made to systematically evaluate them.

The survey of existing policing methods initially suggested that it might be necessary to carry out large-scale, statistically-based experiments in order to produce systematic evaluations of policing strategy. Only then, it appeared, could any recommendations on police effectiveness be made. However, the clients foresaw considerable problems in relation to this type of evaluation. The problems which were anticipated included those which were described in Chapter 2. The clients at least partially understood that, in order to carry out any evaluation at all, work was required in relation to such issues as the 'agreement' of precisely defined, 'proper' policing objectives

and associated measures. Their problem was perhaps more complicated, however, because only very limited resources were available to carry out such work. A2 group was expected to undertake this task using only 1 or 2 of its 8 scientists, who were themselves heavily committed to a variety of other projects. Further, the group were required to complete the work within a relatively short time-scale. Thus, although the problem faced by the clients was very similar to the general evaluation problem, it was complicated by severe constraints upon time and resources.

The clients' aversion to traditional evaluations, based on large-scale, statistically-based experiments, was also created by a number of factors not yet discussed. Firstly, it was felt that such evaluations would be likely to require a large number of policing areas to be designated experimental zones for a significant period of time. This could conceivably have a damaging effect upon normal policing operations and, thus, it was considered unlikely that police managers would agree to disturbance on this level. The clients also believed that evaluations of this type could only produce meaningful results if experimental conditions were maintained for a reasonable period of time. It was not felt that that this was achievable in the policing context. Finally, the clients felt that it would be unrealistic to mount such experiments in view of the limited numbers of personnel available for this work.

The clients might have overcome the problems outlined above by mounting a campaign for increased staffing levels and for permission to mount wide-spread and lengthy experiments. It is unlikely, however, that such a campaign would have been successful. Further, the clients did not believe that such an approach would ultimately be the correct one. Even if resources

were forthcoming, it would be a considerable period of time before a method of evaluation could be perfected, and the large-scale experimentation completed. Thus, in the short-term, no guidance could be made available to police practitioners. Further, it was considered possible that the problems experienced by the police might have changed before such guidance was generated from this long term approach. The client group was also concerned that such long-term investigations would have to be conducted largely, independently of the police, who could not devote themselves to research for more than a short period without neglecting operational duties. Research results might then be rejected as the product of a scientific branch, which lacked experience of operational policing and, thus, competence to make any recommendations on its practice.

It is now possible to understand the basic problem of the clients. This appears to have been to carry out valid evaluation in relation to police effectiveness, subject to the following constraints:

- i) such work should be completed in a relatively short time period, so as to generate guidelines while they still have relevance, and to avoid disturbance of policing operations;
- ii) such work should not require the input of additional resources;
- iii) such work should involve police practitioners themselves;
- iv) such work should not require large scale experimentation.

The clients realised that the problems which had been discovered in relation to evaluation would not be easily solved, particularly in view of the constraints which had been

identified. However, the need to overcome them was further emphasised by the 1979 research recommendations of the Office of Her Majesty's Inspectors of Constabulary. These again highlighted the issue of police effectiveness and related evaluation. It was, therefore, decided to employ a team of management consultants to look further into these problems. The final report of this team was not particularly helpful and failed to recommend any approaches which had not already been considered.

The failure of the consultants to recommend any novel solution led the clients to terminate the consultancy contract, and to concentrate upon its own internal investigation of the problem. It was ultimately concluded that the required solution might be based to some degree upon the knowledge and experience of police officers themselves. It was hypothesised that such an approach might produce an acceptable evaluation of policing strategies in a reasonably short time period without the need for major experimentation or recruitment of additional personnel. For example, it was hoped that these officers might have certain knowledge which would enable them to suggest what components of police effectiveness should be considered and how success in relation to these might be measured without long-term experimentation. In this respect, it could be said that two of the constraints upon problem solution were complementary, as the need to involve police officers also appeared to supply the client group with a much needed additional resource. Overall, it was felt that an essentially pragmatic approach was required which combined available objective measurements with the subjective views and opinions of experienced police officers.

The clients were not entirely sure how to proceed further with this strategy. However, it seemed appropriate to first set

up some type of steering committee to oversee the work. It was pointed out in Chapter 1 that this was to be known as the "Caucus", and composed of 5 Chief Constables and an Under Secretary of State (the chairman). It was anticipated that the Caucus would be able to provide general guidance on the work, and would also suggest which individual police strategies required further evaluation. It was also hoped that this group would nominate a panel of senior police officers, who would contribute more directly to the SRDB work. This group was to be known as the Police Effectiveness Evaluation Panel, or PEEP, and was to be made up of officers of the rank of Superintendent or above, as well as Home Office scientists.

The proposal of the clients was accepted within SRDB. A Caucus was set up accordingly and met for the first time on January 13, 1981. (No further meetings were, however, held by this group). This in turn gave support to carrying out such an exercise. However, the clients were unsure exactly how to proceed from this point on. Prior knowledge of the IHD scheme had suggested that the services of an IHD student might be useful in developing a solution to the problem. Hence, the current work had begun under the auspices of the IHD scheme in October 1980.

3.4 The Current Research Problem

In the early stages of this work, the SRDB clients' problem and that of the present author were assumed to be virtually identical. Both parties were certainly concerned to find some means of evaluating police effectiveness, subject to the constraints outlined in section 3.3. In reality, although the latter problem was similar and closely linked to that of the clients, the two problems were quickly found to be distinct. In

brief, the researcher's problem was to find some way to solve the client's problem. Thus, by definition the two problems cannot be identical. Further, the current work operated under certain constraints which did not affect the client group to the same extent. Primarily, these constraints were that it was necessary for any work to be complete within a period of approximately three years and that it should meet the academic standards for a Ph.D. Such requirements would obviously introduce slight alterations into any formal, preliminary definition of the current problem, so that it no longer corresponded strictly to that which might be used for the clients. In practice, these constraints proved to have a considerable impact as they limited the amount of work which could be carried out. In effect, the restrictions of time and academic rigour meant that only part of the work which would be generated by the clients' proposed solution could be undertaken. Specifically, it was decided that the current research would not be directly concerned with the day-to-day operation of the particular experiment to which the evaluation was directed. For example, activities such as the implementation of the experiment and the collection of specific data would be defined as outside the sphere of interest. The work would instead concern itself with developing an evaluation framework which could be applied to experiments generally, and not merely to the one recommended by the Caucus. This latter experiment would, however, serve as a case study for the evaluation methodology.

It is perhaps worth noting that the approach adopted to problem solution in the current research was chosen rather than imposed by the clients. The clients were willing to allow a considerable degree of flexibility throughout the period of the research, and did not exert any particular pressure for one specific problem

solving approach to be adopted. For the benefit of potential recruits, the clients had issued a one-page document outlining briefly the nature of the problem, and what work the recruit might be expected to undertake. In the early stages, this document acted as a major directive for the work. This basically stated that the researcher could "consider how police effectiveness might be assessed, and, subsequently, how it might be improved". (Further parts of the document are reproduced at the beginning of section 1.3, Chapter 1). At no point did the document suggest that the work need be carried out in the fashion proposed by the clients. It appeared, both from this and from later discussions, that alternative suggestions would have been quite acceptable. However, the idea of using the subjective knowledge of some group to assist the problem seemed novel and interesting and was considered to be worth developing further*.

Only at this point was it possible to define clearly and concisely the nature of the current problem. This was finally seen to be one of fully developing the clients proposals for an evaluation methodology which utilised subjective judgement in order that this system could be put into operation and used to generate speedy and reliable assessments of policing schemes, such as the one proposed by the Caucus. This work would be carried out mainly by the student in a three year time-period, but that members of A2 group would provide guidance or aid when necessary. The Police Effectiveness Evaluation Panel would also provide assistance when this was appropriate. No additional resources could be made available.

* Section 5.4 shows that it was ultimately decided to follow the clients' original proposal and use the knowledge and judgement of the PEEP in many aspects of work. However, this was a choice made by the author. Other groups could equally well have been utilised to meet the clients requirements i.e. to produce an evaluation methodology which could be employed by the PEEP.

The actual mechanics of carrying out such work are discussed in Chapter 5, and it is not, therefore, considered necessary to enter into a detailed discussion of what was proposed at this point. However, it may be worth noting that it was envisaged that the work would revolve around efforts to solve the key evaluation problems discussed in Chapter 2, that is, to define 'proper' policing objectives and associated measures of success and to develop an overall measure of performance. These efforts would utilise subjective judgement whenever this was considered appropriate.

3.5 Conclusion

The current chapter has provided a description of the problems faced by both the client for this research, and by the current author. Attempts have also been made to show how these relate to the general problem of evaluating police effectiveness. The accounts given of the various levels of the problem here and in Chapter 2 may have implied that the work was begun with a relatively well-defined problem to tackle. In reality, this was not the case, as none of the parties involved in the research were entirely familiar with the problem at the outset of the work. Indeed, when the current work began the clients were still very unclear about the dimensions and implications of its problem and the proposed solution. One of the initial activities which the clients expected the student to undertake was a full review of literature which would clarify these issues, as they had not had resources available to do this.

Thus, a considerable amount of time had to be devoted to problem structuring in conjunction with the clients before any of the above became clear. (For a further discussion of the importance

of problem structuring, see Pidd and Woolley [1980]). Almost the whole of the first research year was spent on activities such as reviewing literature, carrying out discussions with the clients and other interested parties, engaging in relevant course work and observing policing in action. Only after these activities were complete was it possible to begin to understand the general police effectiveness problem, or that of the clients and the researcher, and to suggest how problem solution might be advanced. This phase of the research was particularly frustrating as so little tangible progress appeared to be made, but in retrospect it appears quite critical to the development of the work as a whole. Once this initial phase was complete, the activities which it would be necessary to undertake and the method of carrying them out seemed relatively clear. It was then possible for the work to proceed with relatively few set-backs and 're-thinks'. It seems reasonable to assume that this would not have been the case if time had not been taken to gain a fuller understanding of the dimensions of the problem and to allow for some of the pitfalls which might occur.

Chapter 4

Utilising Subjective Judgement

4.1 Summary of the Chapter

It has been suggested that the 'solution' to the problem currently of interest (see Chapter 3) might rely upon the subjective knowledge and opinions of some group. On the face of it, this somewhat novel approach appears to run counter to established scientific thinking, which normally seeks to eradicate subjectivity rather than to utilise it. Thus, it would seem necessary to examine the concept of subjectivity in some detail before considering the actual approach to problem solution.

The chapter begins by outlining the traditional scientific view of subjectivity as a negative force. Consideration is then given to the practice of science and it is suggested that in reality this relies heavily upon subjective judgement. It is subsequently argued that the main reason why subjectivity is viewed as a negative force is that it is equated almost exclusively with bias. "Subjective judgement" is, however, seen by the author as an essential component of any scientific exercise and it is suggested here that this should be made more explicit in accounts of scientific work. (A distinction is made between the terms 'subjectivity' and 'subjective judgement').

The chapter goes on to consider how subjective judgement is exercised in relation to a number of problems in every day life. It is then suggested that, just as the 'man on the street' is

forced to rely upon subjective judgement to solve problems, so, in certain instances, is the researcher. An examination of the literature demonstrates that such a suggestion has already been accepted, at least implicitly, by a number of existing researchers. Examples of their work are then considered. The usefulness of this latter approach is then discussed.

The chapter concludes by suggesting that, in certain situations, the traditional scientific approach will be inappropriate, and methods which openly rely upon subjective judgement are required.

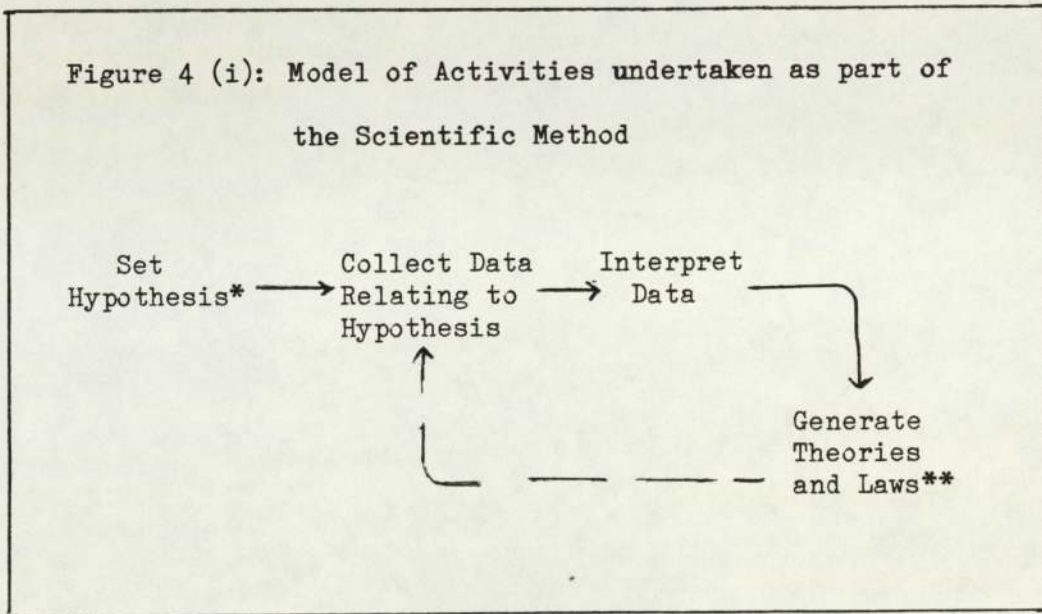
4.2 Science as an Objective Procedure

"Science" is a term which tends to mean all things to all men. For example, Rose and Rose [1969] identify 5 distinct uses as follows:

- "(i) as the pursuit of natural laws;
- (ii) as the application of certain rules of procedure and enquiry;
- (iii) as the social institutions within which the activities are carried out;
- (iv) as including the whole field of research and development, that is, both science and technology;
- (v) as excluding the technological development of science, embracing instead only pure science."

The current discussion is directed towards the second use of the term given above, that is, to the method of enquiry. However, equally diverse interpretations can be found of what precisely the scientific method of enquiry is. Thus, it would be naive to present one single view of this. However, a considerable amount of the modern literature within the philosophy of science appears to be based on the ideas of Popper. (The main text drawn upon is Popper [1975]). Thus, it is possible to identify within the literature some consensus regarding the key activities undertaken

by those using the scientific method. These key activities are depicted in Figure 4 (i) below. It is assumed under this approach that the scientist will begin by generating a hypothesis; he will then collect empirical data to test this hypothesis. (Data collection may also precede hypothesis setting). The interpretation of the results of the data collection exercise will lead to the acceptance or rejection of the hypothesis and ultimately to the generation of scientific theories and laws.



A significant body of literature exists relating to the precise nature of science and scientific method, but it is not considered appropriate to enter further into the debate at this point.

(The interested reader may wish to refer to texts such as Popper [1975]; Bassey [1968]; Nagel [1971]; Davies [1968]; Kuhn [1970]).

* A hypothesis may be defined as a preliminary explanation of a recognised phenomenon, which is accepted with reserve until tested experimentally.

** The creation of abstractions from observed "facts" produces theories; laws are not normally produced until further data has been collected to validate theory.

However, it is felt that this simplistic model does not conflict too strongly with what is suggested within the more 'Popperian' literature, although it could quite reasonably be argued that the model fails to reflect the complexity of the process described therein. It is also accepted that many writers in this field, such as Kuhn, would completely reject this description of scientific practice, as would some practitioners themselves (Kuhn [1970]). This issue is taken up again at various points in this Chapter.

One point not reflected in the above model is the fact that such activity is often characterised within the more positivistic scientific literature as being carried out in an 'objective' fashion. This literature appears to have had some influence upon more general perceptions as one survey, carried out for 'New Society' in 1975, showed that the characteristic "objectivity" was strongly associated by respondents with both science and scientists (Hills and Shallis [1975]). In this, seventy percent of respondents described the work of scientists as "objective". The sample used to generate the New Society results was, unfortunately, self-selecting and, thus, the validity of the findings could be called into question. Certainly, this view of science might not be readily accepted by many philosophers of science or by experienced scientists themselves, although the 'New Society' sample was itself composed of mainly scientists. (Mitroff [1972] also found that scientists tended to perceive themselves as acting in an objective fashion).

The views identified in the New Society survey do, however, appear to accord quite strongly with the image of science portrayed in the popular scientific literature, and within the more positivistic descriptions of the practice of science. It

tends to be suggested here that a 'good' scientist operates in an objective fashion, and only inferior scientists allow subjectivity to interfere with their work. The next section of this chapter will suggest that the work of scientists is not purely objective and that even the most experienced researcher is forced to rely on subjectivity to some degree.

4.3 Science as a Subjective Procedure

4.3.1 Introductory Remarks

Hudson [1981] points out that the term "objectivity" suffers from having several meanings, but that it is popularly used as equivalent to the term "unbiased". Zukav [1979] defines the term similarly as "to be without a (preformed) opinion". Wagner [1972] also agrees that this is how the term is popularly employed, although he suggests that it might well be defined differently. It is felt that it was in this sense that the term was used in the New Society survey and other literature noted in the previous section. The assumption seems to be that, if the scientist allows his subjective attitudes, perceptions and opinions to interfere with his work, he will inevitably produce biased, 'unscientific' results. Instead, it is expected that the scientist will suspend what Habermas [1976] calls the "sewage of emotionality", and ensure that his work and its output is not clouded by the subjective. Habermas argues that this is not possible and that such a view of science is incorrect and unrealistic. The following section will give further consideration to this alternative view of scientific practice.

4.3.2 The Scientist as an Individual

Discussions of scientific objectivity often seem to forget that scientists are also individuals. The term "individual" refers not only to the unique set of physical characteristics which we

each possess, but also to the largely unparalleled set of knowledge about the world drawn from the specific experiences undergone as part of life. Schutz [1967] argues that this unique "stock of knowledge" will create different perceptions of the world. In turn, these different world views will inevitably exert an influence upon individual behaviour and experiences in new contexts. Thus, no two individuals can be expected to react in quite the same fashion unless their stock of knowledge is virtually identical. However, Schutz suggests that in most cases the stock of knowledge of interacting individuals will be sufficiently similar to assume "reciprocity of perspectives", and, thus, there is no general awareness of the fact that many distinct views of the world exist.

The idea that the stored body of knowledge, and the world view based upon it, inevitably exert an effect upon current behaviour and experience is in direct contradiction with the popular beliefs, outlined earlier, about scientific practice. The latter suggests that the scientist can, almost at will, switch off his individual view of the world. Some investigations have suggested that scientists may have slightly different personality characteristics to non-scientists. For example, Hudson [1972] suggests that scientists tend to be "convergent" thinkers, whilst those in more artistic disciplines tend to be "divergent" thinkers. Similarly, Zukav [1979] argues that scientists have different initial "intellectual preferences" to individuals involved in the "liberal arts". However, there is nothing in the literature to suggest that scientists possess any innate ability, or indeed training, which enables them to suspend the subjective. It is argued here that, whilst it is possible to make some conscious efforts to avoid allowing past experiences to colour current perceptions, they will still exert some effect upon the

scientist's work at the unconscious level, just as they do on other aspects of his life. Thus, although the scientist may rarely act in a deliberately biased fashion, it seems highly likely that he will be unconsciously influenced by his world view in all aspects of his work. A variety of examples are available to support this view within the literature of science and experimental psychology. These will now be briefly examined in relation to the various aspects of the scientist's work.

Most traditional accounts of scientific activity tend to suggest that the hypothesis on which it is based is somehow culled from "thin air". In reality, it seems likely that both the general area of study and the specific hypothesis investigated will be heavily influenced by the world view of the individual scientist. Only very rarely will the scientist be limited to just one possible area of study or one possible explanatory hypothesis by external factors. More generally, he will make a choice based on his subjective perception of the situation. One example of how the world view of the scientist can effect the choice of study area is provided in Koestler's account of Kammerer's work (Koestler [1975]). It appears here that Kammerer's childhood interest in all types of animal-life lead him, ultimately, to carry out work with "the midwife toad" in an attempt to disprove Darwinian theory. A different set of childhood experiences might quite reasonably have lead to a different set of research preoccupations. Similarly, Wagner [1972] suggests that the choice of study area may be influenced by the individual scientist's view of resources and time available. It is also likely that the type of hypothesis developed for subsequent testing is linked to the subjective beliefs of the researcher. This in itself should not produce any "bias", in the accepted sense providing, that the scientist then quite candidly tests his

hypothesis. However, as Sherlock Holmes pointed out in a 'Study in Scarlet', "it's a capital mistake to theorise before you have all the evidence" (Conan Doyle [1886]). The following section will suggest that scientists may, on occasions, be guilty of this mistake.

It appears that the very nature of science may be shaped to a large extent by the subjective beliefs of scientists about useful and interesting areas of study. A different set of subjective beliefs might reasonably have produced a quite different body of scientific knowledge. It is also arguable that the subjective preferences of the scientist for one mode of data collection can exert a similar effect. If all such methods were known to produce quite identical pictures, then these preferences would be of little importance to this discussion. However, it is often the case that all available methods of data collection have different advantages and disadvantages, and that none completely reflect the situation as it is. In the social sciences, for example, almost all of the measuring instruments which can be employed, such as questionnaires, personal interviews, and observations, are known to be to some extent unreliable*. (For a further discussion see Madge [1971]). They do not allow the objective measurement of social facts as some of their proponents believe. The choice of instrument might thus dramatically effect the picture produced. However, the choice of measuring instrument in this sphere does not always appear to be directly linked to some objective assessment of relative merits. Rather, the choice seems on occasions to be linked to the general world view of the investigator. For example, sociologists of

* The term "science" tends to be associated with the study of matter and natural phenomena. However, this discussion will use the term to include also the newer social sciences which have tended to adopt the 'scientific method' as their modus operandi.

deviance strongly favour participant observation as a method of data collection in all circumstances and only very rarely resort to the use of official statistics. (See Douglas [1970] for a further discussion of this approach). This choice appears to be determined by a world view which suggests that the behaviour of the deviant can only be understood if the researcher attempts to experience the world as he does.

It may also be that the previously acquired skills of the investigator, or what Madge [1971] calls his "peculiar capacities", have an impact upon his choice. For example, the researcher who lacks interpersonal skills may opt to use postal questionnaires rather than personal interviews. However, perhaps the most worrying aspect of this choice is when the prior preferences of the researcher lead him to employ a measuring instrument which he perceives, consciously or unconsciously, as biased in order to prove (or disprove) the hypothesis under investigation. There is no real evidence to indicate how frequently such "bias" is introduced. However, the author feels that its impact might not be totally insignificant.

Even in the natural sciences, it cannot be assumed that all measuring instruments are totally reliable. Although a wide range of sophisticated equipment is available for measurement, data is still often collected using direct observation. It is well known, however, that the human eye is an unreliable measuring instrument, being prone to perceive only a selection of what is presented to it. (Bateson [1980] cites a number of experiments showing how the eye does not necessarily perceive correctly what is presented). It may be, however, that the actual choice of measurement instrument in the natural sciences is linked more closely to necessity than to subjective preferences. Thus, this

latter point may not be entirely relevant to the discussion. What is relevant, however, is the manner in which the subjective beliefs of scientists, both natural and social, can lead first to the misreading and then to the misinterpretation of the results produced by these measuring instruments. This issue will now be considered.

Psychological experiments have shown that when interviewees are presented with identical 'ink-blot' pictures, the interpretation of these pictures varies from individual to individual. (See Bassey [1968] for examples of this phenomenon). Why then should we assume that scientists, when considering the output of their measuring instruments, will not similarly vary in their 'reading' of these? It is, of course, arguable that with modern scientific equipment such misreadings are less likely to occur. (Digital displays of results are, for example, likely to have had some impact). However, within science generally, and particularly within social science, there is still a considerable scope for such misreading. There are two quite distinct reasons why this may occur. Firstly, and perhaps most obviously, misreading can occur because the scientist is insufficiently diligent. The second explanation, which is of greater importance to this discussion, revolves around the prior disposition of the scientist to expect certain results. Hunter [1968] points out that we are far more ready to recognise what we expect to see and that "the more narrowly prepared a person is to recognise one kind of event, the more rapidly and correctly he will recognise it when it occurs; and the more slowly and incorrectly he will recognise an event of another kind".

There are numerous examples of the research scientist misreading results because of the effects of this preparedness. Koestler [1975] describes a famous example of this in his account of

Kammerer's work in relation to "the midwife toad". He also points out that Priestley continued to accept phlogiston theory, despite what was suggested by his observations, by virtually ignoring results which were not consistent with this theory. Hetherington [1983] similarly provides a number of more obscure examples of scientists discovering just what they expected when carrying out observations. It is often assumed that cases of this type occur because the scientist involved has quite deliberately falsified findings to provide support for some strongly held belief. It may be in reality that these 'frauds' were perpetrated quite unknowingly by scientists unconsciously 'switching off' from undesirable results, or even simply adjusting their angle of vision until the expected was 'seen'. (This issue is again considered in section 4.3.3. in the discussion of the work of T.S. Kuhn).

Suppe [1977] suggests that many nineteenth century philosophers of science tended to assume that knowledge obtained from scientific observation would be independent of existing knowledge. Even today this assumption is still made to some extent. Various examinations, such as the one mentioned earlier as carried out by Hetherington [1983], into the effect of prior expectations upon research findings suggest that this is not, and never has been, the case. The reality of the situation is that the scientific observer cannot fully overcome the state of preparedness described by Hunter (Hunter [1968]). Even when the results have been read in a perfectly accurate fashion, such preparedness can still exert a biasing effect upon our interpretation of results. Wilson [1974] points out that the anthropologist, when explaining human behaviour, always assumes that such behaviour will be rational in terms with which he is familiar. Thus, the anthropologist's account of actual behaviour

may be quite correct, but his interpretation of it may be grossly incorrect. Similarly, Bevan [1983] cites an example of two observers viewing the dawn. Whilst both might see the same occurrence, two quite distinct interpretations might be produced if one observer believes the sun revolves around the earth, and the other believes the reverse. (The example is taken from Keat and Urry [1975]). Wagner [1972] also suggests that the type of analysis carried out to aid interpretation may be affected by the researcher's presuppositions. Many other examples of this issue could be supplied. As Madge [1971] points out, we cannot use our sense experiences without adopting certain presuppositions. The conclusions drawn from observations will inevitably differ, at least in some subtle fashion, along with these presuppositions.

4.3.3: The Scientist as a Member of a Group

It has been suggested that the world view of the individual scientist has a significant impact upon the practice of science and, indeed, upon the actual body of scientific knowledge generated. However, before leaving this issue, it appears necessary to separately discuss the impact which can sometimes be exerted by groups of which the scientist is a member.

As well as being an individual, the scientist is also likely to be, or have been, a member of many types of social group. This group may be, for example, the family, a sports club, a religious unit, or one of a variety of more informal groups. He will also be a member of wider society, and is more likely than not to be a member of some form of scientific community. Inevitably, the scientist will internalise some of the values of the groups of which he is a member. When such values are fully internalised, they become indistinguishable from those of the individual himself, and, thus, generally require no separate discussion.

However, it is considered necessary to make a few observations on certain impacts of such groups. Brief consideration is first given to what is likely to be the most important group, or the "reference group"* , for the scientist- the scientific community. Kuhn's view on scientific paradigm is then discussed (Kuhn [1970]). Finally, this section looks at the impact of ideology within a social group upon the scientist's work.

In the early days of science, scientists tended to operate in relative isolation. In modern society, science is organised on a larger scale which means that the scientist is more likely to be part of a group, or at least to have regular contact with other scientists. (A description of this reorganisation is given in Whyte [1959]). The general world view of this community is likely to effect the views of the scientist on such matters as the relative utility of different research programmes, and perhaps even the interpretation of data and the mode of investigation. This idea is taken up further by Thomas Kuhn (Kuhn [1970]). He argues that we should not merely look within the immediate scientific group of "teachers, contemporaries and immediate successors" to understand scientific practice. He suggests that science develops within a much wider frame of ideas and principles generated by some great originator. He uses the Wittgenstein's term "paradigm" to describe the ruling body of ideas within a given area, which he believes directs thought and the way of looking at things. Kuhn argues that, as long as a paradigm has credence, only scientific activity which appears rational in terms of it will be carried out. Only problems to which it can supply answers will generally be addressed and all

* This term is defined by Berger [1966] as "the collectivity whose opinions, convictions and course of action are decisive for the formation of our opinions, convictions and courses of action".

scientific teaching will be couched in terms of it. Assuming that the scientific paradigm is really as powerful as Kuhn suggests then it may serve as more useful explanation of the so-called 'scientific fraud'.

The paradigm is not, however, seen as immutable. At some point, anomalies will appear and some form of counter movement will develop in relation to "normal science". Ultimately, a crisis will occur and promote what Kuhn refers to as a "Scientific Revolution" and the adoption of a new and different paradigm. Examples of these scientific revolutions can be seen prior to the adoption of the Aristotelian, Cartesian, Newtonian, Maxwellian, and Einsteinian paradigms. Similar processes can be identified outside the sphere of the physical sciences. For example, Ditton [1979] suggests that Kuhn's analysis is also appropriate to developments within criminology.

One dimension of most modern day scientific paradigms which is rarely alluded to, even by Kuhn himself, revolves around the concept of 'scientific method' itself. It is implicitly assumed by many members of the scientific community that 'scientific method' provides a correct way to proceed. Only rarely are any attempts made to examine this approach and, more importantly, the value system on which it relies. Habermas [1976] points out that scientists tend to assume that their approach is totally value free. Berger [1966] suggests, however, that scientific method is based upon a range of human values such as the assumption of universal causality, where every object is assumed to have an anterior cause, the need for humility in the presence of the richness of the world and honesty and precision in carrying out work. A different value system might once again produce a quite different body of science. Zukav [1979] argues that even the wish to be "objective" is in itself a value.



Before leaving this area, it should also be noted that even values which are not internalised may have an impact on the practice of science. For example, the scientist's need for approval by the group may lead him to refrain from an area of research which would be disapproved of, even when he himself believes it to be acceptable. Similarly, Watson's account of his work with DNA suggests that obtaining prestige within the scientific community can be of paramount importance to the scientist (Watson [1968]). It should also be noted that, despite what may have been implied so far, scientists are rarely in total control of all the decisions made within their work. They have always operated under the patronage of some group or individual. In the early days of science, this tended to be the church or local nobles; in modern times patrons are likely to be the state, directly or indirectly through institutions of higher education, or industry and commerce. It is likely that the subjective opinions and attitudes of the patron will again effect the nature of scientific research, particularly if these form some type of ideology. (An ideology is described by Berger [1966] as the distortion of social reality in order to legitimise some activity). An extreme example of this influence can be seen in Nazi Germany, which, because of its policy of anti-semitism, rejected the notions of Einsteinian physics, and scientists dependent upon government support were forced to pursue research which did not rely upon this base. Social scientists within this environment were also expected to apply racist ideologies in their work. Similarly, the early scientists kept few records of research which might conflict with the teachings of the church, and be labelled heresey. Galileo was perhaps the most classic example in this sphere. (A full discussion of these latter issues can be found in Rose and Rose [1969]).

4.3.4: Concluding Comments

It has been proposed that the suspension of the subjective so desired by scientists is not actually how science is carried out and, indeed, is not in reality possible. This has led the current author to conclude that the shape of scientific knowledge is almost completely determined by the subjective opinions, attitudes and beliefs held by the scientist and those around him. Further, it is suggested that a different set of subjective beliefs might have produced a quite different set of knowledge. It is, of course, hard to see how else science could proceed. Decisions and choices have to be made and, as matters stand at present, there appears to be no alternative but to allow these to rely upon what will be called subjective judgement. In future years, one might envisage a vast computer, programmed to make such decisions, but the software employed would inevitably be the product of someone's subjective opinions. Thus, this would not in any real sense change the existing situation.

Perhaps the only real criticism that should be levelled at scientists is their failure to admit the essential role of subjectivity within their work, and their continued portrayal of their work as objective. If it were possible for them to state quite openly that scientific activity necessarily requires subjective judgements to be made, it might be possible to improve the quality of such judgements. 'Sweeping it under the carpet' helps no-one. Subjective judgements also need to be made explicit in order that they may be held up to the scrutiny of the community. This idea is taken up by Bateson [1980] who suggests that it is "...convenient and necessary for scientific judgement to know the presuppositions of colleagues working in the same field. Above all, it is necessary for the reader of scientific matter to know the presuppositions of the writer". Bateson feels

that scientists are "peculiarly resistant" to this idea. This may be because the scientist wishes to preserve the general view of science as objective, but it is more likely to be because, as things stand at present, the credibility of scientists who chose to do this would tend to suffer.

Until scientists actually recognise the subjective nature of their work and the need to make this explicit, science will inevitably suffer. It is suggested that this might be achieved more readily if the term "subjectivity" was dropped from the vocabulary of science, or at least defined differently. As this term is equated so strongly with conscious bias, scientists seem afraid to have the term (or any of its derivatives) associated with their work and to accept that unconscious bias is inevitable. It would be much more helpful if the term "subjective knowledge" or "subjective judgements" could be used without negative connotations. The term "subjective judgements" would be used simply to describe decisions and actions made which rely on the individual's own personal stock of knowledge, and prior experience, that is on "subjective knowledge". It might then be possible to distinguish good subjective judgements from bad, or biased, ones, or even useful subjective knowledge from less useful.

The previous section may appear to be critical of science because of its lack of objectivity. This is not so. It is merely intended to illustrate that it does not necessarily operate in an objective fashion. The fact that the practice of science almost inevitably relies on subjective judgement is seen as demonstrating the important role that this plays, and not as destroying the validity of science. Indeed, it may be, as Mitroff [1972] suggests, that it is conflicts of subjective

viewpoints which ultimately produce some kind of objectivity.

The critical role of subjective judgement in everyday life, and the, potentially, important role it plays in certain types of research is now examined.

4.4 Subjective Judgement- Necessary Evil or Positive Force ?

Nagel [1971] points out that long before the 'scientific method' was developed, man was forced to come to terms with a variety of problems which assailed him within his environment. He had to decide, for example, what to eat, how to protect himself, how to grow food, and how to cure common ailments. Altogether, primitive man seems to have been quite successful in reaching such decisions, without the benefit of scientific method. Equally, modern man, in every day life, makes a variety of complex decisions without any obvious resort to scientific method. Bassey [1968] suggests that this is possible, because, in addition to the scientific method, there are 5 other quite distinct approaches to problem solving. These approaches are:

- (i) appeals to the supernatural;
- (ii) appeals to worldly authority;
- (iii) logic;
- (iv) intuition;
- (v) common sense.

Primitive man probably made use of a combination of these approaches, as does his modern counterpart, though more emphasis was possibly placed upon the first approach in earlier times. In combination, these approaches form something very similar to what has been so far defined as exercising

"subjective judgement". This was previously defined as applying the individual stock of knowledge and experience acquired in the past to some act or decision in the present. Bassey's description of the common sense problem solving accords most strongly with this definition. He suggests that the common sense approach revolves around the ability "to transfer the results of logical and intuitive reasoning from the known to the unknown" (Bassey [1968]). However, the other approaches which Bassey describes appear to be complementary and are in no sense in conflict with the assertion that in order to solve problems man relies on something which can be loosely described as subjective judgement.

What then is the difference between exercising subjective judgement and the approach proposed by scientific method? Nagel's account suggests that the boundary between the two is very hazy and that the cognitive processes involved are very similar (Nagel [1971]). However, he argues that only the scientific method will attempt to explain the relationship between events or promote the empirical testing to 'prove' that relationship. Under other approaches, decisions are instead taken on the basis of available information, and connections are accepted until proved wrong.

In some respects, the use of scientific method may be superior to the exercise of subjective judgement. However, in the arena of everyday life, subjective judgement seems to be a far more practical approach. Time is simply not available to carry out scientific experimentation every time a decision is required. Subjective opinions and attitudes have to serve instead of "objective facts" to test our hypotheses and build general, operational laws. In this sense, the individual operating on the

basis of common sense may be using an informal type of scientific method. Further, formal scientific methods do not seem particularly appropriate to many of the decisions we make in everyday life, such as when to eat, who to marry, or what to wear. Whilst these problems could undoubtedly be 'fitted' to the scientific method, it is not immediately obvious that the scientific method necessarily 'fits' them.

Life as we know it revolves around individuals and groups making subjective judgements. The man in the street continually uses this mode of operation. However, Maroney [1976] suggests that the only reason that this approach 'works' is that the outcome is usually unimportant. He goes on to describe making "snap judgements on prima facie evidence" as "an insidious habit". However, Maroney seems to overlook the fact that many of our major institutions also operate in just this fashion, and one assumes that he would not characterise the outcomes of all their decisions as unimportant. Our political system is, for example, founded upon the belief that elected representatives can make sensible, but subjective judgements upon major issues, and, indeed, upon the assumption that the subjective judgements of 'voters' can reasonably be utilised to choose such representatives. Similarly, our legal system relies upon the abilities of judges and jurors to make subjective judgements about the guilt or innocence of individuals. In the commercial and industrial environment, policies are regularly developed based on the subjective judgement of the board. The examples of subjective opinions being utilised to make important decisions are endless. Some of these decisions will, because of time constraints, be very like those made by the 'man on the street' and be taken without reference to any 'objective facts'. In other cases, such 'facts' will be supplied to inform the decision

maker, but in most cases these will merely contribute to his decision and not determine it. Take, for example, a parliamentary decision on the legality of abortion. Members may be supplied with a wide range of information relating to this issue, but at the end of the day their decision is likely to be influenced by their prior subjective opinions.

It appears that the influence of our subjective attitudes and opinions is not only inevitable but also essential to our operation. Moreover, given that our society has so heavily utilised this form of decision making yet nonetheless persisted, one can only assume that it is at least a reasonably successful mode of operation. In light of this, it is perhaps surprising that our ability to make subjective decisions is not viewed as a major gift, rather than a necessary evil.

A consideration of the general research arena shows that positive nature of subjective judgement has been accepted to at least some extent. Some researchers have attempted to actually utilise our ability to make subjective judgements in areas where no other approach appears helpful, although this is not always made explicit. A few others have recognised more fully the value of this ability and have suggested that it may be a better approach to problem solving, even when other ways are available. These various approaches will now be briefly examined.

4.5 Examples of the Utilisation of Subjectivity in Research

It appears at first sight that the sphere of research which most heavily utilises the ability of individuals to make subjective judgements is market research. Both the manufacturing and service industries are keen to identify what precisely it is that the consumer requires in order that this can be supplied and

profit margins boosted accordingly. Each year vast sums of money are spent by such organisations asking samples of the general public to assess or give guidance on new products. In this sense, it could be said that market research utilises the subjective judgements of the individuals. However, this is rarely made explicit. Further, the subjective judgements are not always utilised in any direct sense. Much of the underlying theory of market research suggests that the consumer is incapable of understanding his own behaviour. Hughes [1971] suggests, for example, that consumers will not purchase the product itself, but, quite unknowingly, the attributes which they perceive it as possessing. Thus, for example, a particular brand of drink might be bought for the aura of sophistication which it is perceived as having rather than for its flavour. It is also assumed that the responses of subjects require complex statistical analysis before they can be of use to a client. Thus, subjective opinions are basically treated as raw material for more 'objective' analyses which can be used to inform the decisions of others. Hence, whilst market research may view subjective knowledge and judgements as of considerable interest, it cannot be said to utilise these directly to any large extent. Further, in no sense is the aim to help those expressing the attitudes to explore their views. A broadly similar approach towards subjective judgement can be identified within psychology. Madge [1971] argues that there is a slight tendency within the social sciences to accept the pointlessness of any search for "value-freedom" and to treat subjectivity as being less dangerous when it is made explicit. This trend can be seen most obviously within certain branches of sociology. Like market research, this discipline as a whole appears to make considerable use of the subjective opinions and judgements of individuals. Supposedly

impartial observation techniques whereby the researcher both reviews and interprets the situation without any reference to the social group under consideration are now only rarely employed. The use of official statistics is also lower than it once was. Instead, sociological research has become quite heavily dependent upon interviews and postal questionnaires to elicit the views of subjects, or upon participant observation techniques which again give consideration to the views of the subjects themselves. However, as with market research, there is a tendency for such opinions to be reinterpreted and 'objectively' analysed by the researcher rather than utilised directly. This somewhat patronising attitude is, of course, by no means endemic, and some sociologists now accept the value of trying to explain social phenomena in terms of the views of individual subjects.

This latter approach has found considerable favour within the sociology of deviance and has led to the questioning of whose account should be used to explain deviant behaviour. Should it be the sociologist's, the offender's, the probation officer's or that of one of the many other parties involved? An informal group within the sociology of deviance, known as the "new criminologists", have chosen to accept the offenders own explanation of his activity. (See Taylor et al [1973] for a discussion of the main directions within this approach). A number of studies have now been carried out based on the assumption that the offenders subjective explanation is best utilised. For example, Liebow's study of low income negroes in Washington's slum area attempted to explain what was observed "on their grounds and their terms" (Leibow [1967]). Young's study of drug-takers also utilised deviant explanations (Young [1971]). This approach is in direct contrast to the more traditional criminological explanations of deviant behaviour in terms of

illness or external social influences. However, it must again be noted that the intention is for others to utilise the opinion's of the individual rather than for them to be used to assist him in some fashion.

Further examples of the utilisation of subjective judgement in sociological research can be found within studies generated by the ideas of "phenomenology". This latter philosophy suggests that the meaning of the world is created by the actor's interpretation of it and that the most useful object of study is these meanings, and how they are attributed, rather than activities or events in themselves. Indeed, phenomenologists would argue that it is not possible to look at "nomena", that is, events lying beneath the "phenomena" which are independent of any social meaning. Most of these ideas derive from the writings of Husserl (Husserl [1965]), but their impact on sociology has come via Schutz who advocates more strongly the development of a phenomenological sociology, that is, a sociology of everyday life (Schutz [1967]). A small number of sociological studies, such as those carried out by Sudnow on medical staff involved with patients classified "dead on arrival" and by Douglas on suicides, have attempted to utilise this approach (Sudnow [1977]; Douglas [1977]). (The work of Eden et al which will be discussed later in this section also has phenomenological underpinnings).

The final area discussed, and perhaps the one most relevant to this thesis, where subjective judgement seems to be utilised to some extent can loosely be termed "Soft Operational Research". Many, both inside and outside Operational Research, would regard this discipline as the ('objective') application of techniques to well-defined problems. However, there exists a body of opinion within operational research which suggests quite explicitly that subjective judgement can and should be utilised. This has tended

to develop because recent research interests have focussed more on complex problems which cannot be solved using these traditional techniques. Consequently, a need has been recognised for new approaches to problem solution including those which help people use their own knowledge. Checkland's work on problem structuring and Hickling's proposals in the field of strategic choice can both be seen as responses to the latter requirement (Checkland [1979]; Checkland [1981]; Hickling [1979]). Even 'hard' techniques like cost-benefit analysis and decision analysis, which were developed to deal with relatively well-defined problems have developed a 'soft-side'. (See Kauffman [1968] and Layard [1977] for a description of the original understanding of decision analysis and cost-benefit analysis respectively). For example, cost-benefit analysis was intended as a highly 'objective' tool, but it is now largely accepted that its application relies heavily upon subjective judgements being made, particularly in relation to factors which have no direct monetary value. (This is described to some extent in Watson and Hayward [1981]). Within decision analysis, the trend has gone even further. Highly structured, mathematical techniques are still employed, but in many cases these are used to provide a framework for people to think about their problems and not simply to produce "subjective" probabilities for use by others in situations where no more objective information is available. (See Phillips [1982] for a description of a case-study where decision analysis was employed more in this fashion).

A further example of the utilisation of subjective knowledge and judgement in 'soft' operational research is supplied by the approach developed by Eden et al. (See Eden et al [1979]). This work is referred to at various points within the remainder of the thesis and, therefore, it is considered appropriate to use this

as a more detailed example of an approach utilising subjective knowledge and beliefs.

The approach advocated by Eden and his colleagues suggests that decision makers, at all levels, can go some way to solving their own problems if they are able to reach a clearer understanding of their own thinking. The basic concern is to utilise subjective knowledge to assist the individual himself, particularly in relation to 'messy', ill-structured problems. It appears that any technique which assists the individual in this process of exploration could have a place within the general framework of this approach. One tool which is actually employed, and which is popularly associated with the approach, revolves around the construction of "cognitive maps" (or "concept maps")*. These aim to capture, both at both a general and specific level, the complexity which the individual feels exists within his environment and his values and beliefs. The basic idea is that the map should reflect the individual's view of the world rather than the researcher's perception of this view. Thus, the actual construction of the map is undertaken by the client in conjunction with the researcher rather than independently of him. This activity is based on discussions between the client and researcher and occasionally involves the use of formal techniques, such as Kelly's Repertory Grid techniques (Kelly [1955]). This process should lead to the identification of concepts (or constructs) which can be displayed as bi-polar opposites to show the client's view of the world. Whether or not the map (or model) so produced is a valid one is dependent upon the latter's reception of it rather than any more 'objective'

* Particular emphasis is placed on this technique because of certain similarities, perceived by the author, between these cognitive maps and the "objectives trees" employed within this research.

assessment. However, if the map is accepted by the client, Eden et al suggest this may provide a useful way of allowing him to explore his own subjective world, and ultimately produce solutions to his problem. (Computer software has been developed to assist such exploration). A further discussion of this approach can be found in Eden, Jones and Sims [1983]; a useful description of its practical application can be found in Jones and Eden [1981].

The examples given of the utilisation of subjective knowledge and judgement are by no means the only examples which could have been supplied. A whole range of other examples could have been cited both within the disciplines discussed and in other areas. For example, the hypergame analysis of the perceptions of players within a conflict situation could provide another excellent example. (See, for example, Bennett and Huxham [1982]). A discussion of Bayesian Statistics, which accepts subjective judgement as a fundamental part of statistical practice, could also be quite logically provided within this section. (A full description of this branch of statistics is supplied in Phillips [1973]). The Saaty method of assessing priorities (Saaty [1977]) and the Delphi techniques developed by the Rand corporation (see, for example, Linstone [1975]) which are discussed in the next chapter, also make considerable use subjective knowledge. However, it is hoped that the preceding discussion, though by no means complete, has at the very least persuaded the reader that utilising subjective knowledge and judgement in research is not such a novel idea after all. The author herself concludes that this approach is extremely useful in a wide range of contexts.

4.6 Some Comments on the Utilisation of Subjectivity in Research

It seems somewhat improper to conclude the discussion of research utilising subjective knowledge or judgement without a brief consideration of its validity. Subjective assessments by both clients and practitioners tend to suggest that such approaches are useful. More 'objective' proof is more difficult to obtain. Some research has been carried out in the sphere of decision analysis which suggests that individuals have only a limited ability to assess the probability of events occurring (Tversky and Kahneman [1977]) and further that they are not particularly skilled in estimating this ability (Phillips and Wright [1977]). However, Phillips [1970] has suggested that such studies suffer from methodological problems, and anyway assume that the researcher's view of real probability is correct. Other studies of the results of subjective judgement are more optimistic. For example, Murphy and Winkler [1977] found that weather forecasters were able to make reliable probability assessments in relation to forthcoming "temperatures and precipitations". These examples are, however, somewhat false as subjective probabilities would probably not be considered if objective ones were available.

Overall, it would appear that the least that can be said is that subjectively-based techniques are better than nothing in situations where no other approach is available. However, the current author would suggest that the real test of the usefulness of these techniques and methodologies is whether the individual involved finds them to be helpful or not.

4.7 Conclusion

The current chapter has suggested that our possession of subjective knowledge and our ability to make subjective

judgements is essential to our every-day existence and to the functioning of many of our major institutions. All types of research have been shown to rely heavily upon such subjective knowledge. In some cases, researchers have preferred to hide this from their audience; in other cases it has not been denied, but still not made explicit. The final category of research which might be identified within this discussion makes the use of subjective knowledge and judgement quite explicit and suggests that this is a more useful way to proceed in many problem situations. This latter view is to a large extent the one adopted in the current research.

Chapter 5

Developing the Problem Solution

5.1 Summary of the Chapter

Chapter 5 considers a variety of techniques and methodologies to generate a proposed solution to the client problem described in Chapter 3 of producing speedy, valid, and reliable assessments of police effectiveness by utilising subjective judgement. The chapter provides only a theoretical account of problem solution; its use in a practical situation is fully described in Chapters 7 and 8.

The chapter begins by presenting a model of the activities required to affect a problem 'solution'. On the basis of this model, a series of sub-problems are stated and it is argued that these need to be solved individually in order to produce an overall 'solution'. (The presuppositions on which the 'solution' is based are explicitly stated). Each of the sub-problems are then considered in turn, and descriptions are given of techniques and methodologies which might provide assistance. In developing the problem 'solution', consideration was given to techniques and methodologies from various disciplines, including psychology, marketing, traditional operational research, and systems theory. Emphasis was, however, placed on the techniques and methodologies of what could loosely be described as "soft" operational research. (Some of these ideas were discussed in Chapter 4). The latter were considered to be particularly appropriate for dealing with ill-structured problems such as the current one. Unfortunately, it would not be practical, within the confines of

this report, to present an account of all techniques and methodologies which received more than passing consideration. Only those techniques which appeared directly relevant to problem solution are actually described.

5.2 Introductory Comments

This chapter is mainly concerned with describing the evaluation methodology which was developed prior to and independently of the case study. This is presented separately for reasons of clarity and because it is considered important to highlight the difference between what was proposed and what proved to be practical. As far as possible, the methodology was piloted with police officers from the Police Research Services Unit (PRSU) prior to its use with the PEEP. (PRSU is described in the footnote of page 6 of this report, but is basically a unit of the Home Office which consists of seconded police officers and aims to give assistance to SRDB scientists involved in police research). These pilot exercises and the changes which occurred as a result are described later in this chapter. However, in some instances it was not possible to carry out such pilot work. It was recognised, of course, that these exercises could only be expected to give an indication of how the methodology would perform in a real-world application. Thus, when carrying out the case study, it was still necessary, on some occasions, to further amend these proposals in terms of what seemed best in reality. These later amendments will be mentioned in passing, but a full discussion will be deferred until the case study Chapters (7 and 8). The discussion section (Chapter 9) again considers the methodology and suggests whether these should be permanent amendments.

It should also be noted that the methodology which will be

described is specific in nature, that is, it is assumed that it will be used by the Police Effectiveness Evaluation Panel, rather than any other group. (This assumption is discussed in more detail in section 5.4. of this Chapter). However, it is anticipated that it will have a far wider application. For example, it could potentially be used by other groups within the policing field, or by members of quite different organisations where setting of objectives or evaluation of success proves to be a complicated activity. (This issue is taken up in Chapter 9).

5.3 Defining Problem Solving Activity

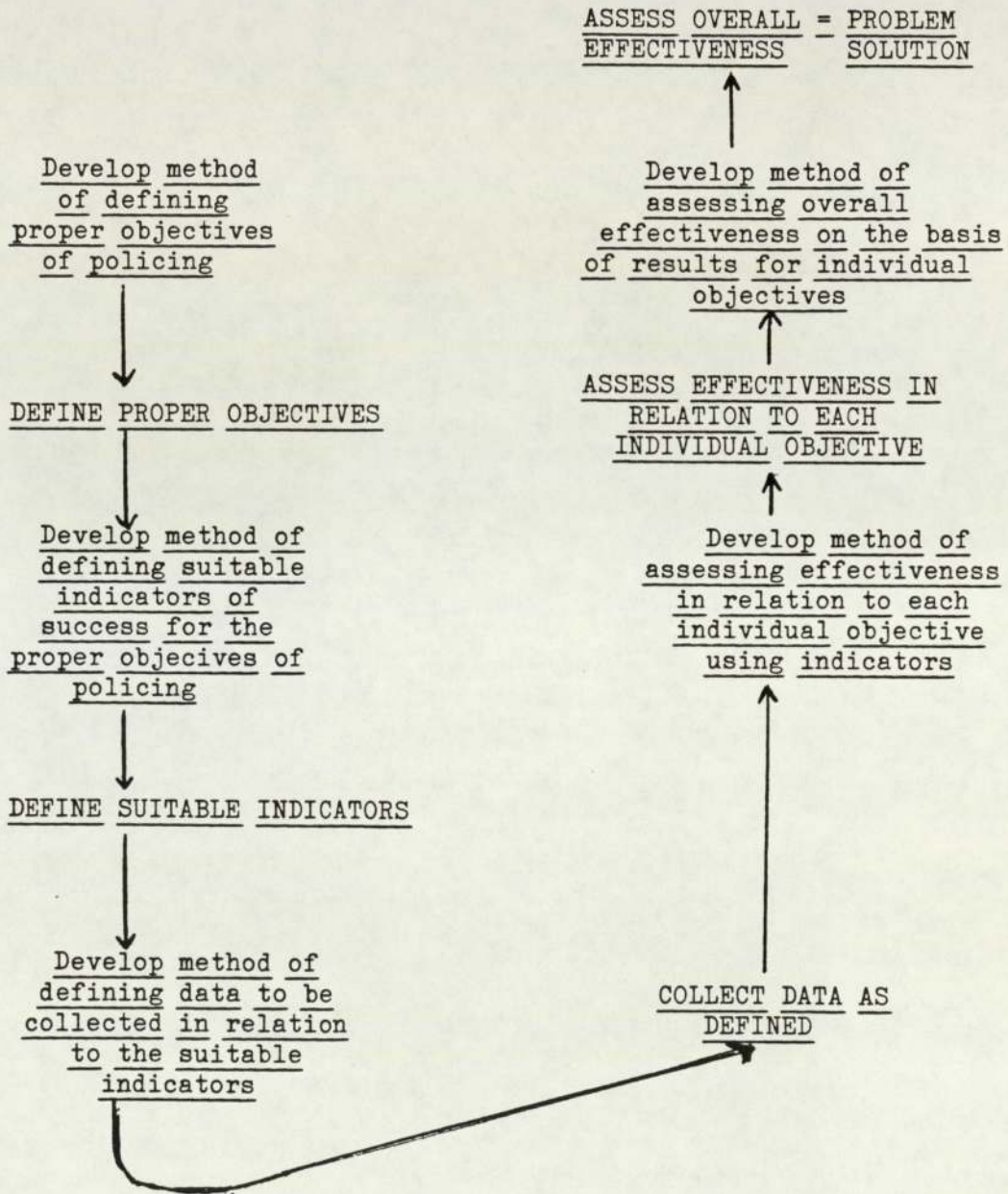
Chapter 3 of the current report supplied a detailed account of the clients' problem, and of that experienced by the current author. The background to these problems was fully described in Chapter 2. It is not, therefore, proposed to reiterate this information here. However, it may clarify the reader's understanding of the dimensions of the problem already outlined if consideration is given to Figure 5 (i). This is suggested by an examination of information supplied in these chapters, and was found to be particularly helpful by the researcher herself in carrying out problem solving activity. This figure presents a simple model of the various activities which the earlier examination appeared to define as being necessary for the 'solution' of the clients' problem.

It appeared that 5 separate sub-problems needed to be addressed in order to have any impact upon the clients' overall problem.

These were as follows:

Sub-problem 1: To develop a method of defining 'proper' objectives of policing.

Figure 5 (i): Model of Activities to be Undertaken to Generate a 'Solution' to the Clients' Problem



Sub-problem 2: To develop a method of defining 'appropriate' indicators of success for the 'proper' objectives.

Sub-problem 3: To develop a method of defining data to be collected in relation to 'appropriate' indicators.

Sub-problem 4: To develop a method of assessing effectiveness in relation to each individual objective using these indicators.

Sub-problem 5: To develop a method of assessing overall effectiveness on the basis of results for individual objectives.

Previous descriptions of the problem situation suggest that, if such sub-problems could be fully solved, then the activities shown in upper-case within Figure 5 (i) could be undertaken. An overall problem 'solution' should, consequently, be generated. Reference to the literature relating to both evaluation and policing provided only very limited advice on how this might be achieved. This is perhaps surprising given that a large body of literature which exists in both these fields and that some is directly related to evaluation in the policing context. (It is recommended that the reader refers to the relevant sections in the bibliography of this current report to obtain an impression of the range of literature available). However, it was found that the general evaluation literature was primarily concerned with experimental design, data collection methods and with specific techniques, such as cost-benefit analysis. The policing literature usually appeared to pre-suppose the existence of an agreed set of objectives, that is, the more traditional ones discussed earlier. The main problem addressed there was how success in achieving the accepted objectives could be measured

more accurately.

The above summary of the literature relating to evaluation, both generally and in the policing context, is perhaps oversimplified, but is considered to be substantially correct. A few points of interest were found here, and some specific pieces of work were found to be marginally helpful. One example of the latter category was the work of Snapper and Seaver [1980]. They suggested that the evaluation of policing experiments involves the following activities:

- a) determining the objectives of policing;
- b) identifying quantitative measures of success relating to these objectives;
- c) deciding upon numerical importance weightings to assist interpretation of results;
- d) assessing current "status" using the above information.

On the face of it, this approach appears somewhat similar to the one which is ultimately suggested by the author. However, Snapper and Seaver provide only very limited guidance on how any of these activities should be undertaken. Further, they assume that measures must be quantitative and that importance weightings must be numerical. This assumption is in direct conflict with what is proposed by the current author, as is their belief that only approximately 8 policing objectives need be considered. Thus, the similarities between the two pieces of work are only very superficial and the Snapper and Seaver work cannot be said to have provided any real assistance.

In total the literature gave very little guidance in relation to the problems outlined earlier in this chapter. It appeared that generally these were simply not recognised as problems. The majority of this chapter will, therefore, concern itself with

suggesting how these sub-problems might be overcome using techniques and methodologies developed outside the actual evaluation area. First, however, it is considered appropriate to outline the presuppositions of the author in carrying out this research, which may have strongly influenced the methodology which was ultimately developed.

5.4 The Assumptions Underlying the Approach

5.4.1: Introductory Remarks

Given the criticisms which were levelled, in the previous Chapter, at other researchers who had failed to state explicitly the assumptions which underpinned their work, it seems only fair that the current author should at least attempt to avoid transgressing in this fashion. The qualifier 'attempt' is added because it is recognised that it may not be possible for the researcher herself to identify all such assumptions. Inevitably, the reader will identify other unstated ones within the work that are so much part of the taken for granted outlook that they are not even viewed as such. However, it is hoped that at least the key assumptions have been identified. Some of these are general ones relating to the nature of individuals and groups; others are more specific and relate primarily to the current problem. These will be fully described and in all cases examples will be provided of how the assumptions influenced the actual research. Particular attention is paid to how the assumptions influenced the choice of problem solving group. It is hoped that in other instances the reader will be able to identify for himself the influence which was exerted on the work described in later sections of this Chapter. However, it should be noted that the intention is not to justify these assumptions by supporting them with evidence; it is merely to

make them explicit in order that others can accept or reject them as they wish.

5.4.2: Some Assumptions about the Individual

One of the most important assumptions made in carrying out this research was that all individuals possess a stock of knowledge and that this can usefully be brought to bear to assist with problem solving. It will be found that the evaluation methodology described within this report relies heavily upon this assumption. It is assumed, for example, that it is quite possible and acceptable to allow subjective knowledge and judgement to guide the choice of policing objectives and to use these as a basis for an evaluation of a policing scheme. Thus, this assumption must be at least partially accepted by the reader for any of the current work to appear meaningful and valid. It is, of course, impossible to supply any 'objective' proof that this assumption is correct. However, it is hoped that the discussion of this issue supplied in Chapter 4 will have convinced the reader that it is a reasonable one to make.

A further assumption which had significant implications for the research was that each individual will have a relatively discrete stock of knowledge and worldview. This point was again fully discussed in Chapter 4 and the author does not feel that reiterating the same arguments will influence the degree to which the reader accepts this. However, those with doubts should perhaps note that this assumption is also made in the apparently 'objective' world of sampling theory. (For a full discussion of sampling theory, see Kish [1967]). Here, assumptions about individual differences have led to the development of a whole battery of techniques designed to identify groups with characteristics, such as attitudes and opinions, which are

representative in some sense.

The assumption outlined above had a quite critical impact upon the methodology as a whole. However, the most important effect possibly relates to the choice of individual whose subjective knowledge (or beliefs) and judgement were to be utilised. If it is accepted that individuals do have different stocks of knowledge and world views, it becomes quite apparent that this choice is highly significant. In this research, no single individual appeared to present him or herself as the only appropriate candidate. It was pointed out earlier that, although the clients believed that the research would inevitably rely upon subjective judgement to some degree, they did not dictate whose subjective judgement should be utilised. Further, the choice was not limited to any great extent by a consideration of who the 'owner' of the 'evaluating police effectiveness' problem was. (It is assumed that if one single problem owner could have been identified, this individual would have been the most appropriate choice). The clients were to some extent problem owners, but it could be argued that their relation to the problem was indirect rather than direct. However, it appeared to the author that most members of the police service, and indeed of the public, should all have at least some interest in the problem, and could to some extent be defined as problem owners. This situation might have suggested that a group of individuals 'representing' these various interest groups, and the world views within them, should have been utilised. The author felt, however, that, even if it were technically feasible to carry out such an exercise, this 'representative' sample would be much too large to work with. (It was assumed that the subjective knowledge and beliefs of the individual will not always be immediately 'accessible' and that a considerable amount of in-depth work would be required- see

section 5.4.3 of this Chapter). However, it was also accepted that the situation suggested that the subjective knowledge and judgement of more than one individual could sensibly be utilised in problem solution. The group would, however, be small and no attempt would be made to render it in any sense representative.

It should also be noted that certain other assumptions of the author created a preference for this group approach. These were:

- (i) each individual is likely to produce different ideas in accordance with his worldview and so relevant ideas are less likely to be over-looked by a group.
- (ii) the interaction of the ideas of individuals is likely to generate a further set which could not have been produced separately.

The latter assumption is discussed further in section 5.4.3 of this Chapter.

5.4.3: Some Assumptions about Groups

Having decided that the subjective knowledge and judgement of a small group should be utilised, the prior assumptions of the author can again be seen to have come into play. These exerted a quite critical impact upon the choice of members for this small group. Very few assumptions were made on the "should not" side, but the author did assume that it was unnecessary for those involved in the exercise to be 'experts' in any sense of the term. No reason was seen to believe that the world view of such a group would be any more valid. Further, a variety of research has been carried out suggesting that 'experts' are not significantly more successful in producing 'correct' answers than are non-experts. (See, for example: Levy and Ulman [1967]; Taft [1955]; Armstrong and Overton [1977]). It should perhaps be noted that the clients for the research were themselves quite

keen that the problem solving group should at least be "well informed" about the area of interest. In many respects, the author accepts this point of view. For example, it is acknowledged that it might be helpful, when decisions are made on 'appropriate' indicators of success, for the group to know something about the type of data which could be obtained. However, the author tends to view this as an advantage rather than a necessity and would not wish to prevent 'non-expert' groups participating in the type of exercise described within this thesis. Further, the author felt that, on occasions, this existing knowledge could actually be a disadvantage as it might produce a form of "bounded vision" which prevented the individual producing novel and possibly more pertinent ideas. (See, for example, Huxham and Dando [1981] for a discussion of the concept of "bounded vision"). The views of the clients were, however, ultimately taken into account.

Conversely, the author considered that it was essential that those individuals chosen should have some connection with, rather than just general interest in, the problem under consideration. Without this, it was felt that the individual would be unlikely to recognise fully the importance of the problem or to have the necessary commitment to generate a 'solution'. (It was anticipated that the work required would be quite extensive). It should be noted that this need for commitment again suggested that a representative, random sample of the population would not form an appropriate problem solving group.

The apparent need to involve individuals with some reasonably strong connection to the problem narrowed the choice of group, but only marginally. Any number of groups could have been produced to meet this criteria. A further factor was, however,

borne in mind in making the choice. This was the need for the group to be capable of reaching some form of 'agreement' at various points in the work. For example, it was felt that such 'agreement' would have to be reached in relation to the 'proper' objectives of policing and associated measures if these were to serve as a basis for evaluation. It was, of course, accepted that, given that the individuals involved would all have different world views, the group could not be expected to arrive at a consensus position. However, the author assumed that, if the world views of group members were sufficiently similar, then something close to agreement could be reached to provide a basis for future actions by the group. The agreement would not be total in the sense that the group view corresponded exactly to the view of each individual member; the group view would, however, represent aspects of each individual's thinking and not be in total conflict with that of any one member. (The objectives tree developed as part of the methodology will be found to constitute an example of this type of agreement). This view of agreement appears to be similar to that of Eden et al [1981] who use the term "intersubjective team view" to describe much the same type of position. Similarly, Bennett and Huxham [1982] employ the term "resolution" to describe a group position which is "reasonably acceptable to all those involved". (Bennett and Huxham are, however, referring to a somewhat different situation).

It was implied above that the author assumed 'agreement' required a body of individuals with "sufficiently similar" worldviews. This suggested in turn that the members of the group employed would probably have similar backgrounds. Given that it has already been suggested that the group would need to be small and that its members should have some connection with the problem

under consideration, the Police Effectiveness Evaluation panel appeared to be a suitable choice. Its members included the two clients, four further Home Office representatives involved with the police effectiveness research and six serving police officers. (See section 6.2 of Chapter 6 for a further discussion of the panel). Thus, the group was small and made up of individuals who had some connection with the problem under consideration. It was also assumed that its members would have "sufficiently similar" worldviews and this would permit a reasonable level of agreement to be reached. It should, of course, be noted that any number of groups could have been assembled to fulfill these requirements. The PEEP was chosen out of all of these because it had already been assembled and because it was easy for the author to gain access to it. The PEEP were also currently facing an "evaluation of police effectiveness" problem and appeared quite ready to accept help.

One further factor which was taken into account in selecting the PEEP was the fact that this choice was considered to be most appropriate by the clients themselves. This was because they tended to feel that the panel members would be "informed" decision makers. (It was pointed out earlier that this characteristic was viewed as important by the clients). They also hoped that the evaluation methodology would be able to assist the panel with their specific evaluation problem and were doubtful whether it would accept decisions made by any external group. The latter point was accepted to a large extent by the current author, although she felt that this difficulty might be surmountable providing that the findings or opinions of an external group were not forced upon the panel. However, the clients also believed that the results of the evaluation would be more acceptable to other senior police officers if all decisions

were made by similar individuals rather than by, for example, members of the public or scientists. None of the points raised by the clients were crucial to the decision to use the PEEP's subjective knowledge and judgement. The clients were keen that the 'best' method of carrying out the evaluation should be developed and would not have expected the author to choose the PEEP if this was not in some sense appropriate. However, given that this choice did not conflict with the general assumptions of the author about the nature of the required group, it seemed sensible to satisfy the clients in this fashion.

The assumptions of the author strongly influenced the choice of group whose subjective knowledge was to be utilised; they also exerted a considerable impact upon the techniques used to elicit this knowledge. One of the most important assumptions in this context was that "cohesive" groups may suppress their own beliefs in order to avoid introducing conflict into a situation. (It was considered that, because the PEEP members had similar backgrounds, they were likely to form a group of this type). A variety of research supports this assumption about the nature of cohesive groups. Janis [1971], for example, suggests that members of such groups do not tend to question assumptions and go along with decisions even when it is suspected that they are wrong. Whyte [1959] has also noted that committee members are "constrained by goodwill" and so often fail to put up a fight for ideas in which they believe. (See also Maier [1967] and Hoffman [1965] for further discussion of this issue). To some extent this pressure to conform has its source in what Etzioni [1961] refers to as "the internal motivation of the individual". However, members of the Rand Corporation, who were involved with the development of the Delphi technique, also noted certain pressures to conform which came from outside the individual.

(See Dalkey and Helmer [1963]). For example, it appeared that particularly dominant personalities or vocal minorities are capable of influencing others to conform with their view. (Cohen [1975] suggests, however, that the group pressure to conform can only have an impact if the individual is anyway motivated to allow this). Consideration of these and other issues has led Mitroff and Emshoff [1979] to suggest that conflict is an important component of group decision-making. This is partly because it is seen as promoting a situation where individuals feel able to express their most deeply held convictions. The value of such conflict was recognised by the current author, although the need to reach 'agreement' was still regarded as an all important consideration. However, the evaluation methodology made provision for the thoughts of an external group to be input to the panel's proceedings in the hope that this would generate an appropriate level of conflict. Further, an opportunity was provided for individuals to spend some time examining their own thinking and recording this before being exposed to the group situation. It was hoped that this process of "thinking about thoughts" would ultimately make members more willing to resist any group pressure to conform. Eden et al [1981] similarly assume that working with the individual first to explore thoughts and beliefs will assist him in resisting group pressure. The precise nature of the method used to undertake this procedure was, however, dependent upon another of the author's assumptions. This is now discussed.

One other important assumption made by the author in this context was that, whilst all individuals have a stock of knowledge, it is not always easy for them or others to 'access' this knowledge. It was felt that merely asking direct questions would probably produce only a very superficial 'snap-shot' of the individuals

knowledge or worldview. Making this assumption in this particular context was to some extent supported by the work of Smith and Gray [1983]. They carried out interviews with senior Metropolitan police officers, which involved asking direct questions about the objectives of the police service. They found that it was "difficult to get a clear statement of objectives and priorities except in very general terms", although it was assumed that the officers were nonetheless operating in terms of some implicit set of objectives. The assumption is also an underlying tenet of the brainstorming approach (Osborn [1957]; De Bono [1980]), which assumes that the problem can be overcome by allowing individuals to interact in a relatively formal situation where no evaluation is allowed. The ideas expressed by participants will then stimulate the generation of ideas in others. This belief is accepted by the author to some degree and the brainstorming approach is used at some points within the methodology. However, it was not considered to be an appropriate tool to use with the panel. Merely telling participants not to evaluate the ideas of others and that novel ideas were required was not considered to be sufficient to overcome the tendency to avoid expressing beliefs which were seen as conflict-generating.

It appeared that what was needed in this situation was some method which would allow information to be passed between individuals to stimulate thinking, but which did not necessarily require face-to-face contact, at least in the early stages. The Delphi technique developed by the Rand Corporation appeared to meet this requirement. (The Delphi technique is discussed fully in section 5.5.3 of this chapter). The technique relies upon a series of formal questionnaires to pass information between "expert" decision makers rather than using any more direct form of communication. One of the major aims of the technique is to

produce a "consensus" position, but the author saw no reason why it could not be used also to assist a group in exploring and expanding their own thinking. Similarly, it was felt that the questionnaires did not only produce a written record to inform others, but also the respondent himself. Consequently, it was decided that an amended version of the Delphi technique could prove most useful to the current exercise. One of the most critical stages of the methodology, the definition of 'proper' policing objectives, relies heavily upon this technique. However, at other stages the reader will note that exploration of thought was undertaken by the group as a whole. This was partly because of time-constraints, but also because the current author felt that this was the only appropriate way to arrive at a group view. Accepting the majority opinion, or the average, was not considered to be sufficient.

5.4.4: Some Assumptions about the Current Problem and the Methodology

There are several fundamental assumptions about the current problem which the reader will either have to accept or reject. They are in a very real sense assumptions and no attempt can realistically be made to defend them. These are:

- (i) police effectiveness is a useful thing to measure;
- (ii) the evaluation of police effectiveness requires an 'agreed' set of policing objectives and related measures of success;
- (iii) an individual is generally capable of deciding for himself what these objectives and measures should be and of reaching a level of agreement with certain other individuals which will permit evaluation to be undertaken.

A number of other assumptions were made based upon the current

authors perceptions of external constraints and these require further explanation. Firstly, it was assumed that any evaluation methodology should be capable of generating speedy results. The current research was not expected to generate any objectives and measures which would be accepted by other evaluators for all time. The perceptions of individuals will vary even within the same time period, as will the requirements of the police over time and between areas. Thus, it seemed preferable to have a methodology which could quickly generate the information required in order to allow a complete evaluation to be undertaken. (The point that the results of policing evaluations tend to be available too late for them to provide any practical assistance was made earlier in the thesis- see section 3.3 of Chapter 3). It was also felt that, for this reason, the methodology would have to be re-useable by non-experts. Highly complex techniques which others cannot understand or use were not, therefore, considered appropriate. It was also decided that any techniques devised to assist the methodology should not be too time-consuming. This partly relates back to the idea of producing ideas in a short-time scale. It is also related to a belief that the individual decision maker will only rarely have an infinite amount of time to devote to such activity. In the current exercise very senior police officers were involved, and only a very limited amount of time could be spared for the work. It was necessary to bear this in mind throughout the development of the methodology and ensure that the level of work was in line with their requirements rather than the reverse in order to ensure that they remained involved. (It was assumed that if the individuals could not remain involved, at least to some degree, in all aspects of the work, either because of lack of time or understanding, they might lose commitment to the approach and the

results of the evaluation).

5.4.5: Concluding Comments

It is hoped that the preceding discussion has clarified to some extent the current author's assumptions and their relationship to some aspects of the work undertaken. However, no attempt has been made to explain the relationship of every assumption to every technique employed or action taken. The following sections do not undertake to do this either, but it is hoped that the previous discussion has provided a framework in which the techniques now described can be seen as sensible.

5.5 Defining "Proper" Objectives of Policing (Sub-problem 1)

5.5.1: Introductory Remarks

In Chapter 2, it was explained that the police service operates without an 'agreed' set of objectives for its work. The definition of such objectives was, however, regarded as imperative to the advancement of both operational policing and related evaluation exercises. It would, of course, be unreasonable to expect that any set of objectives could be generated which would be accepted by all groups for all time. However, it was felt that such objectives could be defined by a group, for their own use at least, to assist with a specific experiment. The previous section has suggested that such decisions would be made by the Police Effectiveness Evaluation Panel in this instance. The question of how decisions should be made on the 'proper' objectives of policing has, however, only been given passing consideration. It was pointed out earlier that merely asking the panel for their opinions on 'proper' policing objectives was unlikely to be sufficient. Further, it would obtain a number of individual views on policing objectives, rather than an 'agreed' set. This indicated that a more

sophisticated strategy should be adopted, which would elicit argument and get at deeply held convictions. No techniques or methodologies were identified which had been developed with this particular aim in mind. Thus, it appeared that some new strategy would have to be devised.

After some time had been spent considering the issue, a basic strategy for defining policing objectives was decided upon. This involved initially identifying a large set of possible policing objectives independently of PEEP. Panel members would then be asked to give full consideration to them and to 'agree' upon the sub-set of 'proper' objectives. This strategy appeared to have two distinct advantages. Firstly, carrying out some independent consideration initially reduced the likelihood that relevant objectives would be over-looked and provided an input to stimulate the panel members own thinking. Secondly, it appeared to reduce the panel's work-load to some degree.

Having decided upon the basic strategy for identifying proper policing objectives, it was necessary to develop techniques which would assist with:

- (a) identifying a large proportion of the total set of possible policing objectives;
- (b) the identification of an sub-set of 'proper' policing objectives acceptable to the PEEP as a whole.

Fortunately, in this instance, it was found that a number of helpful techniques did exist. These are now considered.

5.5.2 Identifying 'Possible' Policing Objectives

The concept of all possible policing objectives is slightly problematic. It refers here to all those objectives which could

be suggested for the police to pursue regardless of whether this would be considered proper by another individual or group. No rigorous attempt has ever been made to identify such objectives, and, anyway, it is likely that the results of such an exercise would quickly have become out-moded. Further, such results would probably not be accepted by anyone other than their producers. Thus, it was necessary to develop some method of identifying a large proportion of possible objectives, which could be easily re-used with others groups and at different points in time. Again, it was not considered satisfactory to ask some individual or group simply to state their opinions on possible objectives. What was apparently required was some method which would generate a large amount of 'variety'. Fortunately, in this instance, two separate techniques were found to be available to assist the "creativity" of the exercise. These were:

- i. non-directive depth interviewing;
- ii. brainstorming techniques.

Both of these techniques had previously proved successful in assisting the generation of ideas in a wide range of circumstances. They will now be briefly described.

Non-directive Depth Interviewing: Non-directive depth interviews are usually carried out with informal groups of between 5 and 25 people. With such groups, the interviewer attempts to provide some neutral stimulus to provoke discussion of the topic of interest. Considerable skill is required of the interviewer who must ensure that he/she does not over-direct the situation, but that the topic is adhered to. Occasionally, it may be preferable to carry out non-directive interviews on a one to one basis. This latter approach is particularly helpful where it is essential to avoid the group pressure to conformity mentioned

earlier. Usually, however, it is considered more advantageous to have interaction between group members as this provides additional stimulus and can lead to the generation of further ideas. (For a further discussion of this technique, see, for example: Berent [1966]; Goldman [1962]; Rogers [1945]; Belson [1963]).

Brainstorming: The technique of brainstorming was first developed by Osborn in the 1930's for use in advertising research (Osborn [1957]). It has since been used in a variety of other contexts and in conjunction with a number of different techniques. De Bono, for example, uses it to assist with his lateral thinking techniques (De Bono [1980]). It is a small group activity (De Bono recommends 6-15 members), which requires no leader other than a chairman whose aim is to guide and not direct. Its main features are:

- cross stimulation
- suspended judgement
- formality of the setting

i. Cross Stimulation: unlike non-directive depth interviewing, brainstorming relies exclusively on the inputs of group members to provide the stimulus for discussion. However, like non-directive depth interviewing, it assumes that useful ideas are more likely to be generated by individuals who are interacting, and reacting to the ideas of other group members.

ii. Suspended Judgement: the approach stresses that no attempt should be made to evaluate ideas in brainstorming sessions*. Participants should feel free to make

* It should be noted that, for this reason, the brainstorming approach would not have been suitable for the direct generation of 'proper' objectives.

suggestions without fear of ridicule. The chairman is expected to ensure that members understand that no evaluation can take place. Normally any evaluation of ideas will take place at a separate meeting.

iii. Formality of Setting: It is argued that people are more likely to think laterally and to view situations differently in a relatively formal context.

In practice, there may be very little difference between the two techniques described, except for the role of the group leader. It is this basic difference, however, which made the brainstorming alternative appear more attractive. Non-directive depth interviewing apparently requires a leader with considerable skill in this area; brainstorming requires only a chairman who follows a number of basic rules. As it was hoped that the evaluation methodology would ultimately be employed by non-specialists, the brainstorming approach was obviously the more suited to the current purposes.

At this point, the secondary problem arises of who should be involved in these brainstorming sessions. Obviously, even if time were available, the PEEP itself would not have been entirely suitable, because the sessions were intended to provide an external stimulus to assist this group in its consideration of policing objectives. (See previous section). It appeared that it would be more satisfactory for the participants in the brainstorming sessions to be drawn from relatively diverse backgrounds. This was expected to increase the probability of the total set of policing objectives being identified. At this point, it was envisaged that the group might include members of the general public, police officers, interested academics, and

SRDB researchers.

Using brainstorming sessions was expected to reduce the probability of relevant objectives being omitted; they could not, however, guarantee full coverage. It was, therefore, decided that policing literature should be subsequently examined to search for additional material. The panel itself would also be asked to suggest any further objectives which came to mind during the evaluation exercise.

5.5.3 Identifying the Sub-Set of 'Proper' Policing Objectives

The brainstorming sessions were expected only to generate possible policing objectives, and not to have any regard for their suitability or priority. Thus, the next requirement was for some individual or group (in this case the PEEP) to evaluate the output of these sessions and to identify the sub-set of 'proper' policing objectives. Such an evaluation exercise could have been carried out at a meeting of the panel where each of the possible objectives were considered in turn. However, this approach was not regarded as entirely satisfactory as it could potentially have placed a considerable extra burden on the panel in terms of meeting attendance. (Non-attendance at meeting would have meant that the final expressed view was unrepresentative of the panel as a whole, and might also have led to loss of commitment in relation to the overall methodology). More importantly, it was hoped to avoid the negative features of group decision making, such as the symptoms of "groupthink" discussed earlier in this chapter, by first getting each individual to express his own view. It was also felt that in the meeting context it would be difficult to record the ideas expressed for retaining or discarding objectives. It was consequently decided to employ a derivative of the 'Delphi' technique to try to overcome these problems. This technique will now be described.

The Delphi Technique: Until the early 1960's, the American Rand Corporation relied heavily upon traditional committee or group discussion sessions to produce forecasts. The difficulties which the organisation recognised with group decision making (outlined in section 5.4) led to attempts to develop a method of producing forecasts without the need for interaction of committee members. It was hoped that such a method would still allow the views of each member to be identified and to be used to stimulate ideas in others. In the early 1960's, Dalkey and Helmer published the first paper outlining the Delphi method, which was intended to fulfil this function (Dalkey and Helmer [1963]). This technique was named after the Greek Oracle at Delphi. It is basically an iterative process involving the use of questionnaires, which aims to produce an agreed and quantified prediction of future events without any group pressure to conform. It works as follows:

A set of questions, each of which are as specific and unambiguous as possible, are circulated to the members of an "expert" group. For example, if it was necessary to forecast the number of police cars required on a particular sub-division, the circulated question could be:

"The number of police cars required by sub-division x in the year 1986 will be....."

Each member of the "expert" group is asked to write the number he considers appropriate in the space provided and to return the questionnaire to the person operating the Delphi study. All the responses are then analysed, and the mean (or median) answer calculated. This is then fed-back to each of the individuals in the group, along with the standard deviation (or inter-quartile range). The group members then reconsider the question in light of the answers of their

peers and again supply an individual answer. No obvious pressure is put on panel members to conform. However, if answers supplied in the second round are more than one standard deviation from the mean (or outside the inter-quartile range), members must give written justifications. If agreement is still not reached, the answers are again collated and circulated to the panel along with any written justifications. This is seen as providing a means of passing information between panel members, which might not otherwise have been considered. Respondents are then again asked to provide an answer based on their own feelings, but which takes into account other answers and the written justifications. The Delphi procedure usually terminates at this point with the mean or median position being taken as the group's "consensus" position. However, it is quite possible for the several more rounds of the Delphi procedure to be entered into.

The above is a description of the basic Delphi technique, but it should be noted that various advances have been made on this, both by the Rand Corporation and other bodies. For example, attempts have been made to weight answers in accordance with the individual expertise of panel members (self or externally judged). The approach has also been expanded to include qualitative, value judgement areas, as well as the strictly quantitative. (For further discussion of the Delphi technique see, for example: Dalkey and Helmer [1963]; Dalkey [1967]; Delbecq [1975]; Helmer [1969]; Ang, Chua and Selles [1979]; Rohrbaugh [1979]; Linstone [1975]).

Overall, it appeared that the Delphi technique could potentially be useful in helping the PEEP members individually evaluate possible policing objectives. It also seemed to provide a

mechanism which would allow them to explore their own thinking and, by taking into account the beliefs of others, possibly expand their view. Ultimately this might lead to a situation where a subjective, but informed, 'joint' decision could be reached on what should be accepted as 'proper' policing objectives. Obviously, the Delphi technique, as described so far, was not suitable without some amendment for investigations with a qualitative output. A derivative of this approach was, therefore, developed to assist with this exercise. It was originally envisaged that this would take the following form:

First, the list of possible policing objectives would be circulated to each member of the panel. They would be asked to consider these and to indicate whether in their opinion each one was or was not a 'proper' policing objective. The answers from this first round would then be analysed and objectives where 100% agreement was achieved (for or against inclusion) would be removed from the list. The second iteration would then require panel members to consider the remaining objectives in light of the answers of their peers, which would be expressed in terms of the percentage rejecting/accepting. No pressure would be put on respondents to conform.

Assuming that some disagreement persisted at the end of the second round, a third iteration would take place asking those expressing a minority opinion to justify their position in writing. The answers would then be circulated for reconsideration. If no agreement was reached at this stage, it was intended that panel members should engage in joint discussion until a 'group view' was produced. Assuming the earlier processes had been successful, members should, by this stage, be sufficiently clear of their own ideas to resist

group pressure to some degree. Conversely, it was decided that majority opinion would only be accepted as a last resort. (This final sanction was not ultimately used in the case study- see Chapter 7).

5.5.4 Concluding Comments

The pilot exercise carried out with members of the Police Research Services Unit suggested that the process so far described was practical and would enable possible and 'proper' policing objectives to be defined. Thus, it appeared that the first sub-problem could be effectively 'solved'. The pilot exercise indicated, however, that some effort would have to be made to structure the 'agreed' set of 'proper' policing objectives.

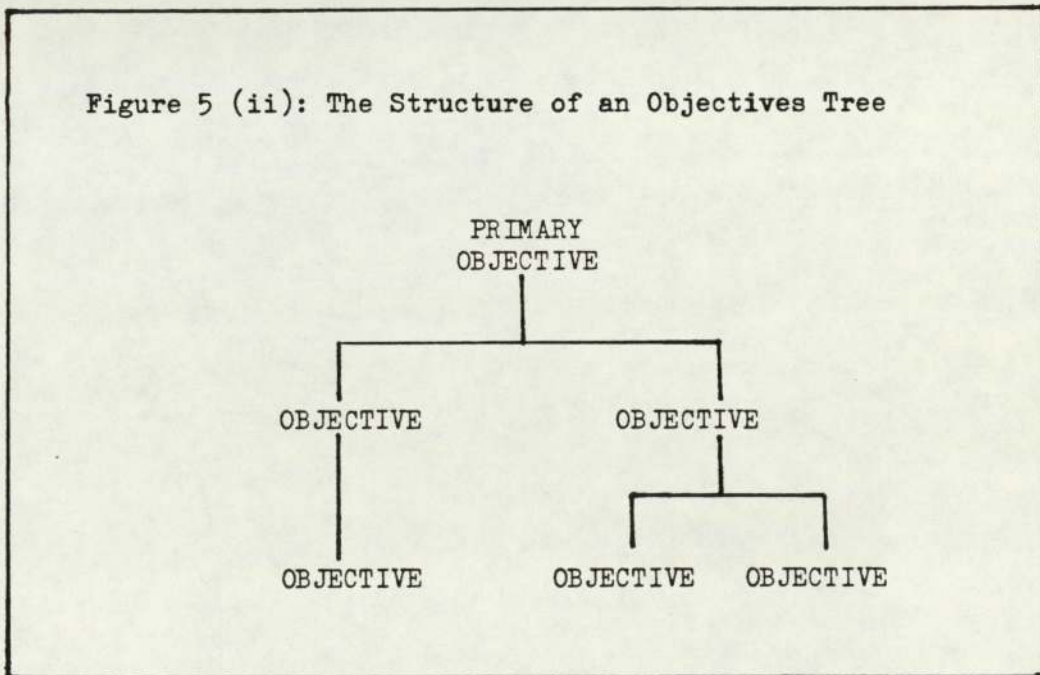
This initial pilot exercise had produced a long and detailed list of 'agreed' policing objectives (in excess of 200). However, this list tended to be somewhat disjointed and comprised of objectives from very different levels, with no indication of primacy. Indeed, many of the objectives within the list appeared to be the "means" by which other objectives could be achieved. It was not felt that simply listing the objectives would fully reflect the views of the panel members (either jointly or individually) in relation to the objectives. Nor indeed would it fully display all the information that might be obtained in the Delphi questionnaires.

It was decided that the situation could be mitigated to a large extent if the objectives were displayed in some structure which showed their relative primacy, their relationships with one another, and highlighted any 'logical' omissions. The structure that was employed to achieve this- an "objectives tree"- actually proved to be a highly significant aspect of the

overall evaluation methodology, for reasons which will be clarified in the case-study. It is, therefore, proposed to discuss the issue of structuring before consideration is given to the second sub-problem.

5.6 Structuring the Objectives

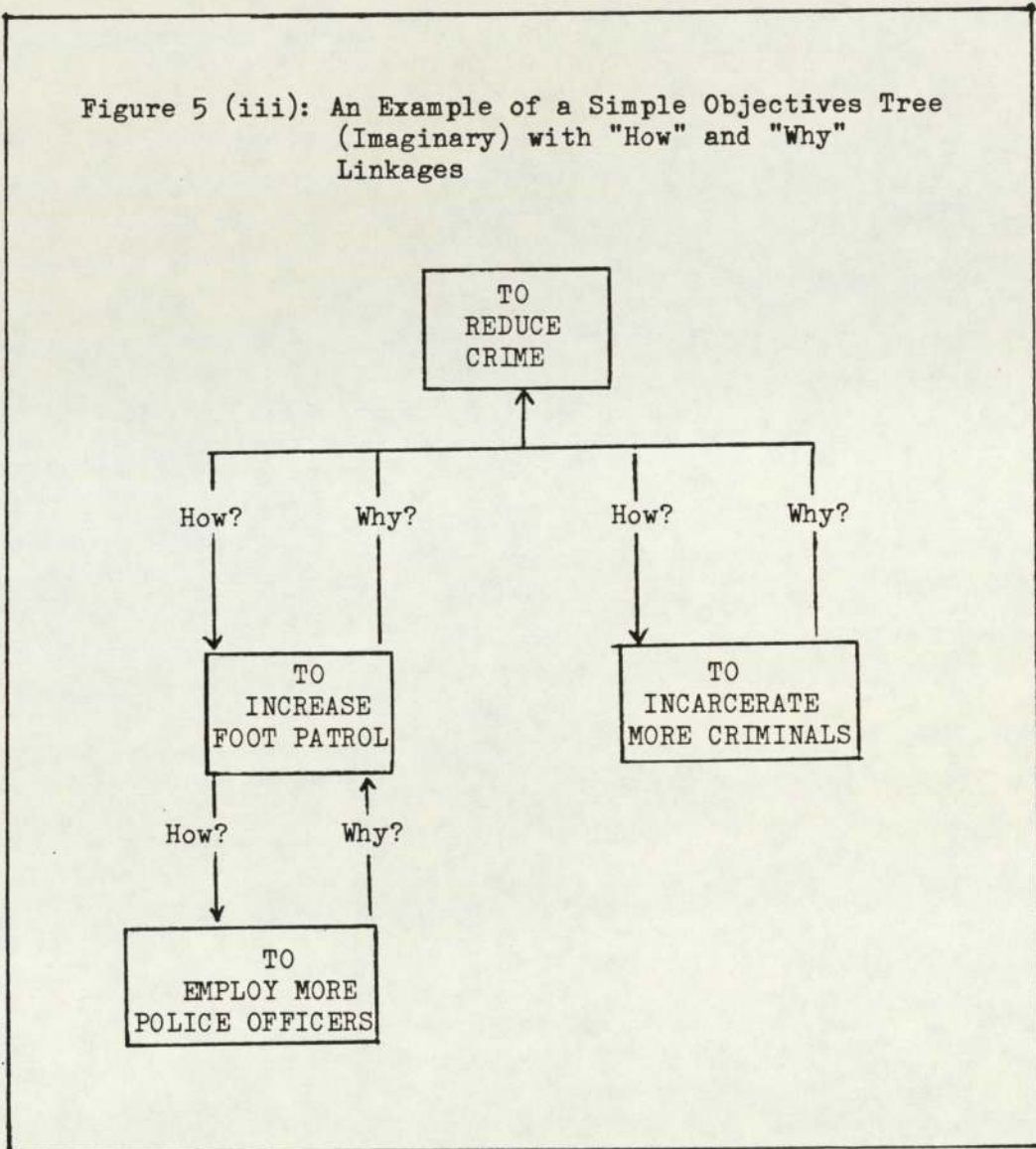
Objective trees are simple diagrammatic tools in which the primary objective is stated at the top of the tree and lower objectives stated below in a hierarchical structure. Figure 5 (ii) below illustrates the basic structure of an objectives tree. (For a further discussion of objective trees, see Harrell-Allan [1977]).



The objectives tree is traditionally generated from a pool of objectives by the following procedure:

Objectives are first copied onto individual cards, which are then pinned to a board and re-arranged until some logical

order is achieved. The "logicality" of the structure is then considered by applying the questions "how" and "why" to each objective. (See Figure 5 (iii) below). If the tree is logical in these terms, the question "why" should lead to the objective immediately above, and the question "how" to the objective immediately below.



The objectives tree methodology appeared to be ideal for summarising the views of the panel (individually or as a whole) in relation to policing objectives. It demonstrated the relationships between the objectives, as well as their relative

priority; it also appeared to highlight any omissions from the list by showing up illogicalities in terms of the tree structure. It was, therefore, decided to adopt this methodology. A somewhat novel approach was, however, developed for generating an objectives tree, based on the view's of panel members, from the individual responses to the Delphi questionnaires.

In normal circumstances, an objectives tree would contain only a small number of objectives, and would be relatively easy to construct. However, it was anticipated that it would be necessary to incorporate well in excess of a hundred objectives for this exercise. Plans were, therefore, made to use the results of the Delphi questionnaire to produce a preliminary version of the objectives tree. This could then be considered by panel members and accepted, rejected or amended. The proposed procedure is now described.

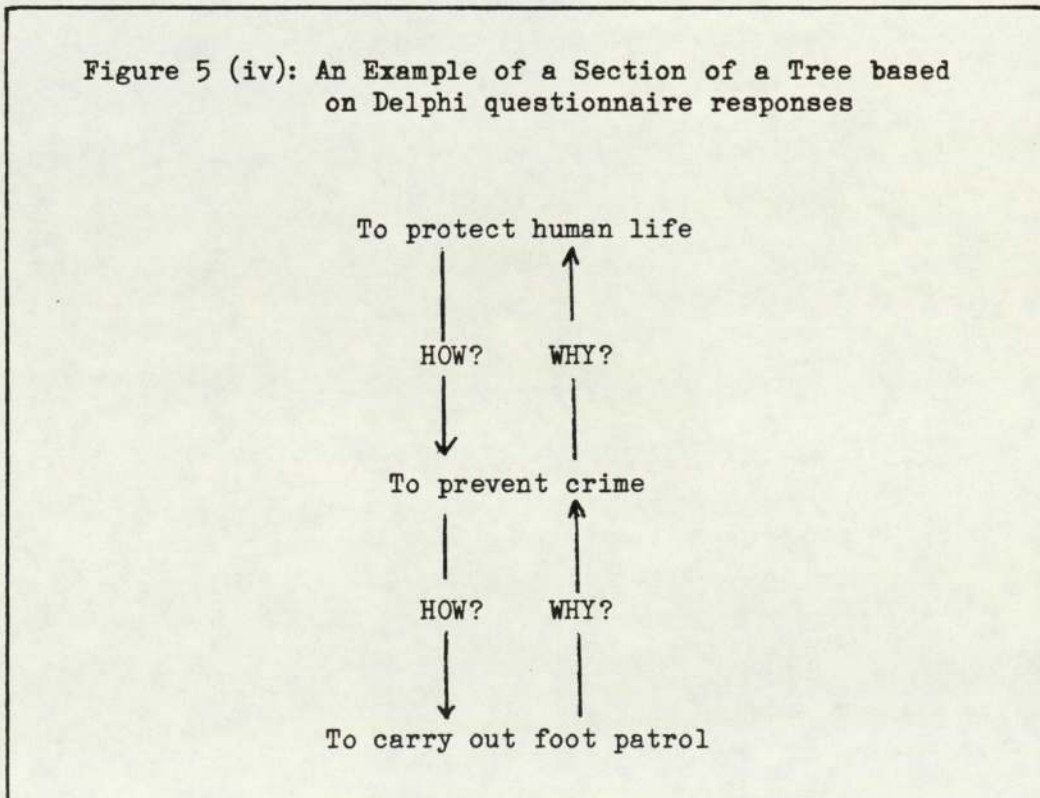
In answering Delphi questionnaires of the type described earlier, respondents would be required to indicate, for each 'agreed' objective, the reasons "why" they believed it to be important. They would, therefore, effectively indicate the position of the objective in the hierarchy of policing objectives, as personally perceived by them. That is to say, if the fulfilment of objective A is important because it contributes to the fulfilment of objective B, this may also be expressed as the means by which B can be fulfilled. Objective B is then said to be a higher level objective in the hierarchy than objective A. The overall hierarchy can then be displayed as an objectives tree with the highest level objective at the top. The following example may make this clear. Suppose the following three responses were given in the Delphi questionnaire:

1. "TO PROTECT HUMAN LIFE"
 VALID? *Yes*
 WHY? *A primary duty of the police*

2. "TO PREVENT CRIME"
 VALID? *Yes*
 WHY? *In order to protect life*

3. "TO CARRY OUT FOOT PATROL".
 VALID? *Yes*
 WHY? *This helps to prevent crime*

These responses could then be structured as a section of a tree as shown in Figure 5 (iv) below.



An exploratory exercise was carried out with one of the pilot questionnaires to see if it was possible to construct one individual's tree in this fashion. This proved to be feasible. Lengthy discussions with the individual concerned suggested that the objectives tree so produced was a reasonable representation of his view of how policing objectives should be structured. It also seemed to help the individual clarify his own thinking and generate further ideas. However, the actual construction of the preliminary objectives tree proved to be an extremely time-consuming process. (See Chapter 9 for more detailed comments on this matter). Hence, it was decided that, although it might be desirable to produce individual trees for discussion with each member before any attempt was made to establish a joint, panel view, this would not be feasible. The statement of the individual "worldview" supplied in the actual Delphi questionnaire would instead suffice. However, it was still considered that it would be most useful if the responses of the whole pilot group could be structured into a larger, joint tree absorbing all individual views. The tree could then be presented to and discussed with the whole panel and necessary amendments carried out. It was hoped that in this fashion ownership of the tree would be established.

Such a joint tree was built up from the pilot responses. The intention was that this tree should be presented to the pilot group who could then amend it as necessary. Unfortunately, many of the officers involved had, by this time, completed their period of secondment and were unavailable for the exercise. It, therefore, had to be simply assumed that such a presentation and agreement procedure would be feasible when the methodology was used with the PEEP.

5.7 Defining 'Appropriate' Indicators of Success for 'Proper' Objectives of Policing (Sub-problem 2).

5.7.1: Introductory Remarks

There is a marked tendency for schemes or evaluation exercises to adopt as objectives only those things which have readily available indicators of success. The approach to evaluation now described aimed to avoid such problems by defining objectives independently of their measures of success. However, this introduced the new problem of how to measure success in relation to those objectives without any obvious, connected indicators. The proposed solution to this problem actually involved much the same process as was adopted in relation to the 'agreement' of policing objectives, involving first the definition of possible indicators by an independent group and then panel judgements on which of these should be accepted as 'proper' (or appropriate) ones. This is now examined.

5.7.2: Defining 'Possible' Indicators of Success

It was believed that success in meeting most policing objectives could be assessed, even if this was done in a somewhat 'subjective' fashion. The real difficulty was to identify the possible methods of so doing. Again, it appeared that a brainstorming group could be assembled independently of PEEP and could usefully be employed to identify the range of indicators for evaluating success in relation to each of the 'agreed' policing objectives. The group (or groups) would then be asked to consider each of the agreed policing objectives in turn and to suggest any relevant indicators. Again, no evaluation of responses would be permitted and suggested indicators could include even the apparently ridiculous. It was hoped that this process would produce a 'pool' of possible indicators for each

objective. Such results could then be supplemented by any additional indicators proposed within the policing and evaluation literature, or by panel members themselves. The complete output of this process could then be used to stimulate the thinking of the panel.

The brainstorming process described above was piloted with a group of Police Research Services Unit officers and SRDB scientists in relation to a small number of objectives. The process proved to be time-consuming, but capable of producing the required output. However, the indicators generated by such a process are only possible indicators; they are not necessarily valid, reliable, or appropriate in any other sense. (See Oppenheim [1976] for a full discussion of the terms "reliability" and "validity"). The next phase in the development of the methodology was, therefore, directed towards methods of identifying the more 'appropriate' indicators amongst those suggested.

5.7.3 Defining 'Appropriate' Indicators of Success

Ideally, the evaluation methodology might have looked for a means of identifying and reserving only 'perfect' indicators. Such an approach would not have been practical as resources were not available to carry out the rigorous tests required to determine with any certainty even which were the better indicators. Further, whether judged by so-called objective or subjective standards, it is unlikely that many of the indicators relating to policing objectives would have been found to be 'perfect'. In reality, the best that could be hoped for in relation to these indicators was that the least appropriate could be discarded. To achieve this, it was proposed that the PEEP would be asked to consider the indicators and to once again exercise their knowledge to determine which were appropriate. The definition of

the term 'appropriate' would be largely left to the panel. However, members would be encouraged to at least consider the validity and reliability of the indicators, and the practicality of collecting data in relation to them.

At one point, consideration was given to carrying out a Delphi type exercise to evaluate the 'appropriateness' of the indicators of success. Under this, explicit descriptions of the indicators would have been presented to the panel for rating on certain equal interval scales (reliability, validity etc) in relation to the relevant objective. It would then have been possible to calculate a mean score and standard deviation for each indicator on all scales employed and to proceed with the Delphi exercise. It was quickly realised that this exercise would be prohibitively time-consuming, particularly if more than one rating scale was involved. It was also felt that the panel might find this approach over-theoretical, and, in any case, that the members knowledge of the indicators might not justify such sophisticated measurement. As a result, it was concluded that decisions about the 'appropriateness' of the indicators should be simply made by the panel as a whole within the context of a meeting. The rigour of this approach could be criticised, but in the circumstances there appeared to be no practical alternative. It was not felt, for example, that less time should be devoted to the specification of objectives to allow further work to be carried out on indicators. The former exercise appeared to be the more crucial aspects of the work as it was the first stage on which all other phases relied. (In the actual case study, individual members were given an opportunity to consider 'appropriate' indicators before group discussions took place).

5.8 Developing a Method of defining Data to be Collected in relation to 'Appropriate' Indicators (Sub-problem 3)

The distinction between indicators and data has not yet been made clear. In this context, the terms have quite separate meanings. An indicator of success need only be a general concept which appears to relate to a particular objective. Data, however, refers to the set of precisely defined information which is actually used to measure such success. For example, if the standard of life of a community was to be measured, one indicator might be the "state of health" within that community. Data would then have to be obtained on such matters as the number of admissions to hospital over a given period or the level of infant mortality in order to develop a full picture of the state of health. (See Abrahams [1973] for a full discussion of the measurement of "levels of living" and a further example of the use of subjective judgement in research). Similarly, in the current situation, the brainstorming group might decide that the objective "to ensure that police officers are happy in their work" could be measured by the indicator "job commitment". Assuming that the panel agreed with this indicator, it would then be necessary to operationalise it and decide on what data might precisely measure the level of job commitment. Turnover and absence rates for a specific period might, for example, be chosen.

It was decided that the panel should again be asked to exercise their subjective knowledge to determine what data should be collected for each of the indicators. As with decisions on 'appropriate' indicators, it was felt that these decisions could be made during discussion at a panel meeting without resort to Delphi or other such techniques. Further, it appeared

unreasonable to ask an independent brainstorming group to give consideration to possible data as they would be unlikely to have any knowledge of what was routinely available on the police sub-division which the PEEP were to evaluate. It was known that SRDB hoped to rely heavily upon readily available data in order to minimise the time taken to complete the evaluation exercise. Obviously, some data would be required which was not routinely available, but it was assumed that the PEEP could be relied upon to assess the practicality of any data collection exercise it commissioned. The actual exercises were to be carried out mainly by SRDB scientists. Even the panel itself would not, of course, be aware of all the specific data available within the experimental sub-division. However, it was felt that, if decisions on what data to employ were taken within meetings attended also by sub-divisional representatives, then the level of expertise would be adequate. Lists of available data would also be input to such meetings to stimulate discussion.

It should perhaps be noted here that it was anticipated that the panel's subjective knowledge and judgement would be employed to assist with the assessment of success for all 'agreed' objectives, and not merely for those with no known 'objective' measure. In this fashion, it was hoped to encourage the commitment of the panel to the overall approach.

5.9 Developing a Method of Assessing Effectiveness in relation to Individual Objectives (Sub-problem 4)

Having determined what objectives a policing scheme should meet and what indicators and data should be used to measure these, the panel could, on conclusion of the experiment, carry out its assessment in relation to such objectives. It was anticipated that, at this point, data would be compiled in a sensible fashion

and linked to its related objectives to assist the exercise. In appropriate cases, the data would be analysed and statistical tests of significance carried out to determine whether any change had been due to experimentation or chance. In cases where data was not amenable to such analysis, the results would be left completely open to the PEEP's interpretation.

Once the data had been analysed as far as possible, it would be presented to the panel, along with its relevant objective. The members would then be asked to exercise their judgement to determine what had been achieved in relation to each individual objective. At all times, the panel's view would be paramount - the results of statistical analysis would serve merely to assist their decision making.

It was envisaged that measuring success in relation to all the individual objectives would be a very lengthy process. The pilot exercise suggested that the panel would be dealing with well in excess of 100 objectives. Thus, even if each objective was considered for only 15 minutes, the overall process could still be expected to take approximately 4 meetings to complete. This was not considered to be particularly practical, but, at this point, there appeared to be no viable alternative. When the exercise, was actually used with the PEEP, it proved possible to reduce the workload by considering only those objectives where it was reasonable (in the panel's view) to anticipate some effect. This approach relied heavily on the objectives tree, and is fully described in Chapter 8. It is recommended in the discussion section (Chapter 9) that this amendment be adopted in any further applications of the methodology.

5.10 Assessing Overall Effectiveness (Sub-Problem 5)

There are in existence a number of variables which can be quite adequately be measured using a single indicator. Population size and the level of mortality are just two examples. However, it was pointed out in Chapter 2 that "Police Effectiveness" is not such a variable, and can only be measured using a multiplicity of complex indicators. This creates particular problems when attempts are made to compare the relative overall effectiveness of different schemes, or of one scheme over time. Unless one scheme scores unanimously higher in relation to all objectives, it is almost impossible to determine which is the more successful. Evaluators usually have to decide between them in a subjective fashion on the basis of their views on the relative importance of the policing objectives concerned. This immediately creates the possibility of 'bias' being introduced, consciously or sub-consciously. If, for some reason quite independent of his views of its effectiveness, an evaluator prefers scheme A to scheme B, he could portray the former as more successful, by emphasising the the importance of the objectives it met more successfully. Similarly, it is said among police researchers that new policing schemes never fail. Schemes can always be made to appear successful by minimising the importance of objectives which were not met adequately, whilst stressing the importance of those that were. If this is a true reflection of some view of the relative importance of policing objectives, there can be no real objection to this practice; if it is not evaluations of this type can only be described as "biased".

The real possibility of such 'bias' being introduced must never be over-looked. However, it was felt that it was less likely to occur within the panel's evaluation. This group had little

vested interest in making the experimental policing scheme under consideration a success, as its members were neither responsible for its design or operation. (It was hoped that the commitment of the panel would instead lie with the evaluation methodology). Thus, it was felt that the panel could be relied upon to assess the variable results for different objectives, and come up with a decision upon overall effectiveness, which was based on their views of relative importance and not 'biased' in the sense described above. However, it was anticipated that this decision would be taken by the panel as a whole within the context of a meeting, and all members would be expected to state reasons to justify their final interpretation.

It should be noted, however, that consideration was given to other approaches to assessing overall effectiveness. One such approach was to ask panel members to directly attribute numeric weights of importance to the objectives prior to the final evaluation, and use these to guide the overall interpretation. The other was to use Saaty's method of pairwise comparison to attribute such quantitative weights, again prior to the evaluation (Saaty [1977]). The latter approach can be used in almost any situation where it is necessary to quantitatively weight a number of items. The procedure is as follows:

Suppose that it is necessary to attribute weights to n separate items, then the first requirement is to form from these the $\frac{n(n-1)}{2}$ possible pairs of items. Judges are then asked to compare the items within each pair, and to assess their importance relative to each other by awarding one of the integers 1 to 9. If the items 'a' and 'b' were being compared, these integers would be awarded as follows:

1 is awarded if a and b are equally important

3 is awarded if a is slightly preferred over b
 5 is awarded if a is strongly preferred over b
 7 is awarded if a is very strongly preferred over b
 9 is awarded if a is completely dominant over b
 (2, 4, 6, and 8 are awarded as intermediate values).

Similarly, if b is strongly preferred over a value of 0.2
 (1/5) is awarded.

The exercise is then continued with these remaining pairs
 until it is possible to build up a matrix such as
 the following one:

$$\begin{array}{rcc}
 & a & b & c \\
 a & [1 & 3 & 5] \\
 b & [& 1 & .2] \\
 c & [& & 1]
 \end{array} = A$$

Given that $a_{ij} = \frac{1}{a_{ji}}$ the matrix can then be completed.

The matrix data is then utilised to produce weights for the n
 items. This is done by solving the following eigenvalue
 equation:

$$\begin{array}{l}
 A \cdot w = \lambda \cdot w \\
 \text{max}
 \end{array}
 , A = \text{the judgement matrix}$$

$$w = (w_1 \dots w_n)^T$$

(w = weight given to item i)

$$\lambda = \text{the eigenvalue}$$

Any initial appeal which the Saaty approach might have had
 quickly vanished when it was realised how many pair-wise
 judgements would be required to weight all the components of the
 tree. Even if comparisons were made only within sections of the
 tree, this exercise would still have absorbed a considerable
 amount of time. It appears that the Saaty approach is only

really applicable when a small number of items are being compared. (See Locket et al [1981]; Silvennoinen and Vera [1981]; Atkins and Gear [1982] for examples of the practical application of this approach). Further, a number of fundamental criticisms have been levelled at the theory of the Saaty approach, which might further call into question its usefulness. (See, for example, Belton and Gear [1983]).

Having rejected the Saaty approach, further consideration was given to the direct attribution of quantitative weights of importance. This might have been technically simpler, but in reality there seemed to be a variety of reasons why it was not desirable to carry out any such an exercise:

(i) all would be highly time-consuming, particularly if 'agreement' was to be reached within the panel about the weight to be attributed to each objective;

(ii) it was not expected that the panel members would be particularly numerate and thus difficulties were anticipated in explaining the need for such an exercise and its implications;

(iii) it was feared that such weightings might acquire a "god-like" status and so complicate, rather than assist the panel's final interpretation.

It was also questioned whether the views of the subjects could be properly represented by numeric weights.

One further problem which was identified in relation to the development of importance weights requires slightly more explanation. It was apparent to the author that such weightings

could be used to generate a single indicator of effectiveness, if combined with numeric scores of success, and used in some formula such as the following one:

$$\text{Overall success of scheme} = \sum_{i=1}^j a_i k_i$$

Where k_i = score of success in achieving objective i

a_i = weight indicating the importance of an i objective

j = the number of objectives.

Such formulae were mentioned in Chapter 2, but the underlying problems relating to them were not discussed. It is now suggested that formulae of this type could be extremely dangerous if attributed with greater sensitivity than they actually possess by unskilled users. One can imagine a ridiculous situation where a scheme was adopted because it scored "9.2", as opposed to its rival which scored only "9.1". Overall, it appears that such formulae might reduce the understanding of police effectiveness rather than enhance it. Further, it is not proven that all the assumptions, such as that of 'additivity', required to employ such a formula are fully justified.

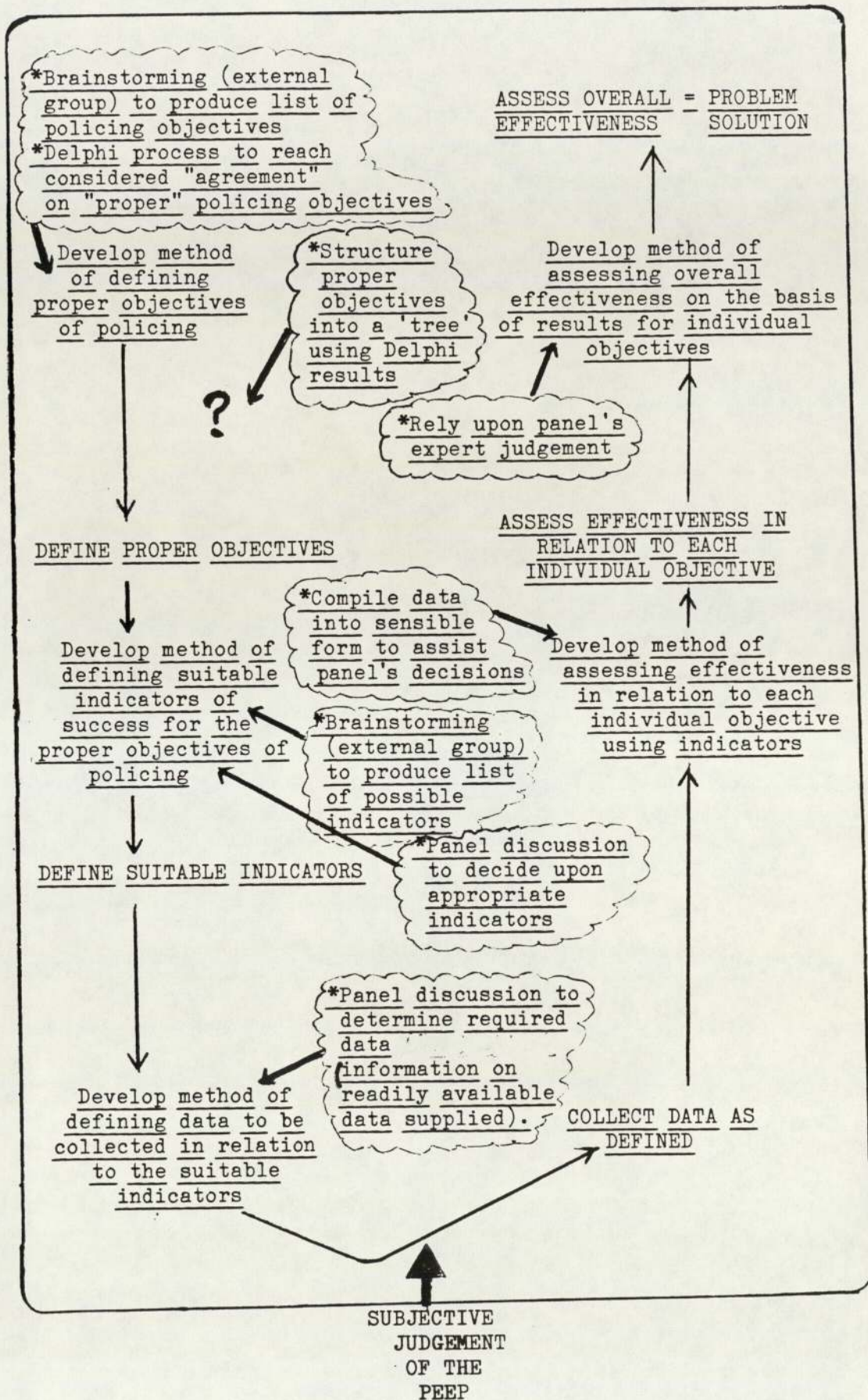
It was decided that no attempts would be made to introduce any weights of importance into the PEEP evaluation exercise. However, the idea of attributing loose, qualitative weights has since been considered. This idea is considered further in the Discussion section (Chapter 9).

5.11 Conclusion

The present chapter has identified methods of carrying out the various activities which were defined as essential to the full evaluation of a policing experiment. A number of helpful techniques and approaches have been described. It may, however, be useful for the reader to consider Figure 5 (v) overleaf. This summarises how these techniques and approaches relate to the sub-problems described in section 5.3. It is hoped that it also stresses the critical role played by the subjective knowledge of a decision-making group in the current methodology.

The report will now examine how the approach worked in practice with this group. Chapter 9 of the report considers the methodology again and how it might be used in the future.

Figure 5 (v): Model of Activities to be Undertaken and Some Suggested Methods of So Doing



Chapter 6

Background to the Case Study

6.1 Summary of the Chapter

This chapter merely serves to provide the reader with some background information in relation to the case study. Considerable attention has already been paid to the clients' intentions in forming the Police Effectiveness Evaluation Panel and in carrying out the case study. These issues will not be taken up again. However, only a limited account has been given of the PEEP itself, and, indeed, of its overall method of working. Further, no details have been supplied in relation to the actual experiment with which the PEEP was involved, and to which the evaluation methodology was applied. The following chapter will cover these issues so far omitted in order to place the case study in context.

6.2 The Composition of the Police Effectiveness Evaluation Panel

The Police Effectiveness Evaluation Panel was comprised of six serving police officers of Chief Superintendent/ACPO rank*, 2 seconded police officers from the Police Research Services Unit of the Home Office, and 4 SRDB scientists. The six serving police officers were, with one exception, nominated by members of

*"ACPO" actually stands for the 'Association of Chief Police Officers'. This is the representative body of the highest ranking police officers i.e. Assistant Chief Constables, Deputy Chief Constables, and Chief Constables within provincial forces, and officers of Commander rank and above in the London Metropolitan Police Force. (The latter uses a different rank structure at this level). "ACPO rank" is the term usually employed to describe such high ranking officers.

the steering group for the research, the Caucus, from within their own forces. The exception occurred because the Caucus itself did not include a representative of the Metropolitan Police. However, the Caucus felt that the PEEP should be broadly representative of the various types of police force within England and Wales, and that this could only be achieved if some direct input was made by the Metropolitan Police, which is a largely a-typical force. The Metropolitan Police were subsequently approached and agreed to nominate an officer to the panel. The panel was then seen as being reasonably representative of all important force characteristics, such as geographical location and urban-rural distribution.

All the officers involved had had many years of experience within the police service. Together, they possessed expertise in relation to almost all aspects of police work. The majority were also academically well qualified, having obtained at least first degrees, as well as a range of management qualifications. The promotion records of these officers during the course of the panel's work suggests that they were also highly thought of within their own forces. At the outset of the work, the PEEP was actually composed of 3 Chief Superintendents, and 3 Assistant Chief Constables. Promotions during the course of the work meant that the ultimate constitution of the panel was: 1, Chief Superintendent, 2 Assistant Chief Constables, 1, Deputy Chief Constable, 1, Chief Constable and 1 Metropolitan Police Commander. It, thus, appeared that the Caucus members had nominated their more gifted officers, who they felt would be best able to contribute to such work. The apparent a-typicality of the nominees might lead some to argue that the evaluation methodology developed with their assistance has limited applicability to forces in general. This argument is not,

however, accepted. Having officers of this calibre contributed slightly to the ease with which the work was carried out, but progress was in no sense dependent upon it. The output of the group may, however, be a-typical. (See Chapter 9).

In addition to the six force nominees, the panel also contained six Home Office representatives. This latter group was made up of the following:

1, Senior Principal Scientific Officer (SPSO)}	
1, Principal Scientific Officer (PSO) }	SRDB
1, Senior Scientific Officer (SSO) }	MEMBERS
1, Scientific Officer (SO) }	
1, Chief Superintendent }	PRSU
1, Superintendent }	MEMBERS

All the SRDB members had strong connections with the Police Effectiveness project described in Chapter 3. (The SRDB members included the clients for the current research). The PSO was actually the group leader of SRDB A2 group, which was responsible for carrying out this work; the SSO and the SO were both members of his staff working in this area. The SPSO involved was responsible for the whole of A Division (See Figure 3 (i) for organisational chart) and, thus, ultimately for the police effectiveness work. The SRDB members all had backgrounds in the 'hard' sciences, but were also experienced in relation to operational research and policing matters.

The two remaining Home Office members were nominated by the Police Research Services Unit at the request of SRDB. It is quite customary for PRSU officers to be attached to SRDB projects in order to help bridge any gap which occurs between scientist

and police officer. However, in this instance it was not usually necessary for them to fulfill such a role. Instead, the PRSU officers assisted generally the project, acting as police officer or scientist as appropriate.

The current author also acted as a member of the panel throughout the period of its existence. It was not felt that her presence at the various meetings and workshops had any adverse influence. Smithin and Sims [1982] suggest there can be some problems in presenting oneself to clients who are not actually paying a fee. However, the current author did not experience any particular difficulties. The police members of the panel viewed her as another member of Home Office staff, although they were aware that her work was to contribute to some higher degree research. Further, like other members of Home Office staff, the author was only rarely involved in any direct decision making, but rather took on a facilitating role. (See section 6.3 of this chapter for a further discussion of roles).

The description of the panel given so far is broadly accurate. However, it should be noted that some variations in membership did occur. These consisted of the replacement of one police nominee following his promotion during the very early stages of work. The Senior Principal Scientific Officer also left SRDB, and, thus, the panel after it had been in existence for eighteen months. However, a series of promotions following on from this meant that the only new member of the panel was actually a Senior Scientific Officer. Overall, a high degree of continuity in terms of membership was achieved.

6.3 Division of Labour within the Panel

The terms of reference given to the panel by the Caucus were:

(i) To examine the Skelmersdale Policing Scheme developed by Lancashire Constabulary and to identify its essential features. (A description of this is supplied in section 6.5 of this chapter);

(ii) To implement a policing project based upon the Skelmersdale scheme within the Chelmsley Wood sub-division of the West Midlands Police as a formal experiment;

(iii) To make provision for the evaluation of the new project and to carry out such an evaluation in order to determine how successful it had been in a different environment.

In relation to the first two aspects, it was SRDB's intention that the police nominees should act primarily as decision makers rather than as a working resource. SRDB itself (and the author) would be responsible for actually carrying out the practical work involved, although this would be done under the guidance of the police members. It was felt that the police nominees would have only a limited amount of time to devote to panel activities, and that this should be reserved for matters which really required their involvement. Thus, for example, it was anticipated that the police members of the panel would identify the essential elements of the Skelmersdale Policing scheme, but that the actual implementation of these on the experimental site would be carried out by SRDB personnel, under the guidance of the former group. (In the case study chapters, when descriptions are given of panel decision making, only the police members will be implied unless

otherwise stated).

It was also agreed that SRDB would be responsible for the administrative tasks relating to the panel's work. This would include the chairing of meetings, and the production of agendas, minutes and reports.

The third aspect of the work recommended by the Caucus was to be primarily the responsibility of the current author, who was expected to devote her attentions to the development of the evaluation methodology, rather than to work connected with the specific experiment. The police members of the panel were to be involved in this work, but only when it was necessary for them to bring to bear their subjective knowledge. Thus, for example, the police nominees were expected to contribute by identifying policing objectives; they were not expected to involve themselves in the development of methods for so doing. The panel were, of course, kept informed throughout on the development of the evaluation methodology and to be fully consulted before any attempt was made to put the methodology into operation.

In reality, the roles of the various participants in the exercise were not as clear cut as originally envisaged. The author remained primarily responsible for the evaluation methodology, but was assisted to some degree by SRDB scientists who collected and analysed certain data for use in the final evaluation of the policing project. (The administration of the methodology as described in the case study chapters was, however, undertaken exclusively by the author unless otherwise stated). Similarly, she assisted SRDB in relation to some of the experimental and administrative work. The police members also extended their role to some degree, and became practically involved in the implementation and maintenance of the policing project.

Likewise, although the other parties involved did not impinge upon the role of the police members as ultimate decision makers, in instances where the knowledge of the scientists was considered to be particularly relevant, input was provided accordingly.

6.4 Format of the Panel's Work

The Police Effectiveness Evaluation Panel met for the first time in April 1981 and concluded its work in September 1983. The majority of the panel's work was carried out in formal meeting situations. In all the panel held 14 such meetings. These were normally held at the Home Office Headquarters (Queen Anne's Gate, London), although two of the early meetings were held at other venues. (Skelmersdale, Lancashire and Chelmsley Wood, West Midlands). Most lasted for a whole day with only a working lunch. The Skelmersdale meeting, however, lasted for two days. The meetings were chaired by the senior SRDB representative and normally followed a formal agenda. All these meetings were well attended, with most members being absent only very occasionally.

The panel also held some informal workshop sessions, and made a number of individual visits to other forces. The first two workshop sessions related to the structuring of agreed objectives. Two further sessions were held in the latter stages of the panel's work to undertake the final evaluation of the Chelmsley Wood Policing Project. The individual visits to forces were carried out to examine schemes and experiments developed along similar lines to the Skelmersdale one in order to see if any relevant experience could be incorporated into the new policing project. The police members of the panel also completed a number of questionnaires back at their own forces in order to assist the evaluation exercise.

Figure 6 (i) (overleaf) shows the actual time-table for the panel's work. Readers may find this to be of interest at this point, as well as during the account of the case study (Chapters 7 and 8).

6.5 Description of the Chelmsley Wood Policing Project

6.5.1: Introductory Remarks

The current report is concerned with both the development and trials of the evaluation methodology. It would, therefore, seem appropriate to conclude the background chapter by briefly describing the actual experimental policing project to which the methodology was applied in order to place the evaluation work in context.

6.5.2: Background to the Policing Project- the Skelmersdale Policing Scheme

The Chelmsley Wood Policing Project was, in line with the Caucus's recommendations, based very heavily upon the 'Skelmersdale' system of policing. This had been developed in the late 1970's to try to counteract an increasing trend towards reactive policing*. It was felt that this trend had led to a reduction in police-community contact, which had in turn retarded the development of a criminal information network essential for the prevention and solution of crime. The scheme developed to off-set this tendency was named after the area where it was first introduced i.e. Skelmersdale New Town.

The design of the Skelmersdale experiment was based upon the results of an attitude survey carried out among officers throughout the Lancashire Constabulary, and upon a computer

* Reactive policing is concerned to deter crime indirectly by responding quickly and efficiently to any crime that does occur; proactive policing tries to prevent crime in a more direct fashion e.g. educating youngsters about negative sides of crime.

Figure 6 (i): Time-table of the Panel's Work

MONTH	1981	* 1982	* 1983
JAN	1st Meeting of the Caucus		Consideration by panel members of possible indicators
FEB		8th Meeting of the panel	12th Meeting of the PEEP + agreement on data and indicators
MAR		1st Delphi questionnaire sent to panel	"Likely Effects" questionnaire sent to panel
APR		2nd Delphi questionnaire sent to panel + Implementaion of Policing Project	Visits to panel to propose "basis objectives approach + conclusion of project
MAY	2nd Meeting of the PEEP at Skelmersdale	Personal interviews with panel members	Basis objectives accepted by panel members
JUN	3rd Meeting of the PEEP at Chelmsley Wood	Construction of Preliminary Objectives Tree + 9th Meeting of the PEEP	Workshops held to undertake evaluation of individual objectives
JUL	4th Meeting of the PEEP	Workshops held to consider Objectives Tree	13th Meeting of the PEEP = final evaluation
AUG	5th Meeting of the PEEP	10th Meeting of the PEEP = agreement of Objectives Tree	
SEPT	Visits by the PEEP to other policing schemes		14th Meeting of the PEEP
OCT	6th Meeting of the PEEP	Brainstorming sessions (possible indicators)	
NOV	7th Meeting of the PEEP = discussion and acceptance of methodology		
DEC	Brainstorming sessions (possible objectives)	11th Meeting of the PEEP = early discussion on indicators	

based incident logging exercise based on the sub-division itself. Information so gathered suggested that reducing policing specialisms and re-organising shifts to correspond with incident patterns would release a number of officers to carry out proactive policing duties. It was also felt that retaining the computerised incident logging system would reduce the paper-work burden on officers, and, thus, increase further the time spent on this type of activity. By implementing these proposals, Skelmersdale sub-division was able to release sufficient officers to form four teams of "structured patrol officers". These teams dealt with all non-emergency incidents in their area, as well as taking responsibility for a variety of community based activities, such as schools liaison work and running youth clubs. Response patrols, providing 24-hour emergency cover, were operated by a separate group of officers, and were kept to a minimum size at all times.

The Skelmersdale scheme was widely regarded as a success. It was reported that crime and accident rates fell, whilst arrest rates increased. The micro-computer had also reduced paper-work burdens, and officers' relationships with the community had apparently been enhanced. Furthermore, the scheme was said to be preferred by the officers involved in it. The panel's analysis of the scheme also suggested that it had enriched the work of the uniformed PC, and improved the 'on the job' training he received. Members also felt that it had led to an increase in the amount of foot patrol carried out, and had allowed greater continuity of personnel on beats. No formal evaluation of the scheme had, however, been carried out. This was one reason why the Caucus was keen for the panel to consider it further. (For a further discussion of the Skelmersdale scheme, see Heaton [1980]).

6.5.3: The Chelmsley Wood Policing Project

Before the implementation of the new policing project, Chelmsley Wood sub-division employed the majority of its staff in four Response Units, each of which worked an eight hour shift and together provided twenty-four hour cover for the area. In addition, there were ten Resident Beat Officers (RBOs) allocated to specific areas within the sub-division. These latter officers were heavily involved in the community, and took responsibility for a number of duties associated with schools and liaison with local residents.

The main feature carried over from the Skelmersdale scheme in the introduction of the Chelmsley Wood Policing Project in April 1982, was the formation of structured patrol teams. This was accomplished by reducing the existing Response Units so that they remained capable of providing twenty-four hour emergency coverage for the sub-division, but had only very limited time to carry out any other duties, such as general mobile patrol. In all other respects, the Response Units worked in the same fashion as before. The personnel freed from the Response Units were then combined with the Resident Beat Officers and a small number of specialist officers (stolen vehicles and warrants), and formed into 3 Structured Patrol Teams. Each of these teams consisted of a Sergeant and 8 Police Constables, and were attached to a specific area, which corresponded closely to the natural communities within the Chelmsley Wood sub-division. Within these areas, the teams were expected to undertake all general policing duties, and, when necessary, respond to emergency calls. The micro-computer based incident logging system was not introduced as part of the project. The West Midlands Police already had an incident logging system based on a main frame computer, and it was not considered practical to dispense with this, or to run the

two systems in parallel. The project as described remained in operation until May 1983.

Chapter 8 of this report (section 8.7) suggests that the project produced almost exclusively negative effects upon policing within the experimental sub-division. A variety of reasons for this were adduced by the panel. These are fully discussed in Chapter 8 (Section 8.8).

6.6 Conclusion

The preceding passages of the chapter have presented a range of background information related to the work of the Police Effectiveness Evaluation Panel. The report will now consider how the evaluation methodology was applied to assist this group.

Chapter 7

Applying the Methodology (Part I): A Case Study in Defining Policing Objectives and Related Measures of Success

7.1 Summary of the Chapter

This chapter provides an account of how the Police Effectiveness Evaluation Panel went about defining 'proper' policing objectives and related measures of success. A description of the panel's work in creating an "objectives tree" is also given. The intention here is to show how these aspects of the evaluation methodology developed in Chapter 5 worked in practice. Limited attention is given to describing the techniques actually employed within the methodology, as this aspect was covered in detail in Chapter 5.

The chapter begins by considering how the methodology was presented to the panel. The work of the brainstorming group in developing a set of possible policing objectives is then discussed. This is followed by an examination of the panel's work in determining 'proper' policing objectives, and structuring these into an objectives tree. Finally, consideration is given to the development of measures of success. The work of the brainstorming group in producing a pool of possible indicators is first considered. The PEEP's activities in determining which were 'appropriate' indicators, and what related data were required are then discussed.

7.2 Presenting the Evaluation Methodology to the Panel

The evaluation methodology described in Chapter 5 was available for use when the panel had been in existence for approximately six months*. The work suggested by the methodology did not begin until it had been fully described and explained to the panel. (Jones and Eden [1981] point out quite reasonably that it is not always possible to explain to a client the precise nature of work that will be carried out, but the current author feels that this should always be done as far as possible). The actual explanation of the methodology was given at a formal meeting attended by all members. The presentation began by describing many of the evaluation difficulties discussed in Chapter 2. However, the relevance of these problems to police managers was made explicit in order to encourage panel members to identify with them. The evaluation methodology was then proposed as a possible method of overcoming these. Techniques, such as brainstorming and Delphi questionnaires, were described, and simple examples of their use were given. Every effort was, however, made to avoid making the presentation over-technical or theoretical, as it was felt that the PEEP might be alienated by such an approach.

At the end of the presentation, it was felt that the panel had a good understanding of the evaluation methodology, and what would be required of them. A number of logical questions were raised in relation to the approach, which supported this view. Overall, however, the panel agreed that the approach was a sensible one, and that it should be tested and developed in relation to the policing project under consideration.

*The actual procedures of setting and structuring objectives and defining sources of data described in Chapter 5 were not completed until after the Chelmsley Wood Policing Project was begun. The related disadvantages are discussed in Chapter 9.

It was felt that obtaining the panel's support for the evaluation methodology in this fashion was essential. Members would be required to undertake a considerable amount of work, both within and outside meetings, if the methodology was adopted. If they did not fully understand the approach, and accept it as being a useful one, such work was unlikely to be completed satisfactorily. Indeed, had the PEEP not accepted the evaluation methodology, it is likely that it would have been necessary to develop another, more acceptable approach. Fortunately, the panel's indication of their support meant it was possible to proceed and put into action the methodology discussed in Chapter 5. This is now described.

7.3 Defining Possible Policing Objectives

This phase of the work began with the formation of a brainstorming group. The panel agreed that this should be made up of 3 SRDB scientists and 3 members of the Police Research Services Unit. No members of the public or interested academics were included in the group, as suggested in Chapter 5. This might have been desirable, but it did not prove practical to arrange. (See Discussion Chapter for further comments on this matter).

Two brainstorming sessions were actually held. At the first session, the members were asked to suggest any objectives which they believed the police did, or might, pursue. The current author acted as both chairman and note-taker, and explained that no censorship would be placed on answers, so members should feel free to make suggestions which, in another context, might appear ridiculous. Unfortunately, one member of the group still failed to understand the underlying philosophy of the session and persisted in both evaluating the responses of others and in

trying to impose his own opinions. At the end of this session, which lasted for approximately one and a half hours, a range of policing objectives had been defined, but all of these tended to be traditional in nature. It was felt that this might have been the result of the activities of the 'offending' member. Further, it was noted that De Bono [1980] recommends having one person to act as recorder and one to act as chairperson. The experience of the first meeting supports this recommendation. By trying to carry out both functions, the chairman may have failed to retain full control of the meeting.

A second brainstorming session was subsequently arranged to try once again to identify a full range of possible policing objectives. This involved a different set of members (apart from the chairman). Again, however, this group was composed of an equal mixture of PRSU officers and SRDB scientists. A recorder who was not involved in the session was also present on this occasion. At this session, care was again taken to stress the purpose of the meeting and its non-evaluative nature. Further, any evaluative behaviour that was displayed on this occasion was quickly corrected by the chairman who was not now absorbed with note-taking. Fortunately, the participants in this session seemed more willing to accept the tenets of brainstorming. At the end of the second session, several more possible policing objectives had been generated. This session lasted for almost three hours, which is considerably longer than the time recommended by De Bono (De Bono [1980]). However, members appeared to be quite happy and interested, and there seemed to be no reason to draw the session to a close prematurely.

After both brainstorming sessions, a note was circulated to

members showing what objectives had been generated. Members were asked to make any amendments or additions they felt were required. Only a few amendments were made, but a number of additional objectives were suggested by members of both brainstorming groups.

In all, the two brainstorming sessions generated some 500 possible policing objectives. (There were, however, a considerable number of duplications). These still appeared to the author to be somewhat traditional, although the members of the brainstorming groups considered many of the suggestions to be quite radical. It was, therefore, decided to supplement the output of the brainstorming sessions with the responses from a non-random sample* of the public, which had been asked to suggest what objectives the police did, or might, pursue. This group was asked to give particular attention to generating more radical proposals, and ultimately came up with some quite novel proposals. (This matter is discussed further in Chapter 9). These results were then supplemented by those obtained from a review of police literature.

The procedure outlined so far produced a list of more than 700 objectives for the police. However, the removal of obvious repetitions reduced the list to approximately 200.

Unfortunately, the results of the pilot exercise suggested that this list would still be perceived as too extensive by respondents involved in any Delphi exercise based upon it. Thus, a further examination of the list was made to identify any less obvious repetitions; a small number were subsequently isolated and removed. The author was assisted in this latter exercise

*This sample consisted largely of friends and acquaintances of the author. It could in no sense be regarded as representative of the general population. This was not, however, the intention of the exercise.

by one of the PRSU representatives on the panel. Finally, in an effort to make the list of objectives at least appear less lengthy, some items were combined to form separate parts of one objective. For example, "to maintain a good relationship with other emergency services" and "to maintain a good relationship with other social service agencies" might be combined into the following objective:

Objective: To maintain a good relationship with:

- (a) other emergency services
- (b) social service agencies.

This process of combination meant that the Delphi questionnaire based on the list of objectives would appear less daunting, but that that all those proposed would, hopefully, be considered.

At this point, the list contained 125 possible objectives for the police. (This is reproduced in Appendix A). However, it could not be assumed that this list was complete, or that the panel members would consider all the objectives to be 'proper' ones for the police to pursue. The next phase of the methodology was, therefore, entered into to enable the PEEP to make subjective decisions on the validity and completeness of the list.

7.4 Defining Proper Policing Objectives

7.4.1: Delphi Questionnaire- Round 1

A Delphi questionnaire was produced based upon the list of possible policing objectives. The structure of the questionnaire, the introductory letter and the instructions for completion had all previously been piloted with the PRSU group as mentioned in Chapter 5. (The actual objectives contained in the questionnaire were, of course, different). Following discussion

with this group, some amendments had been made to both the original letter and instructions. Such discussions were also instrumental in suggesting the need to keep the number of objectives contained in the questionnaire at around 100 (see section 7.3).

The questionnaire actually used began with a letter explaining its function; detailed instructions for completion were then supplied. (Copies of the introductory letter, the instruction sheet and samples from the main questionnaire are included in Appendix B). The introductory letter basically explained the importance of having an 'agreed' set of objectives when carrying out an evaluation of police effectiveness. (The PEEP itself was by now fully aware of the need to carry out such an exercise, but it will be explained shortly that the initial questionnaire was to be completed additionally by non-PEEP members). It was suggested that no such 'agreed' set existed, and that the current questionnaire would contribute to their generation at least for the purposes of the panel's work. The instruction sheet explained that the questionnaire was made up of an extensive list of possible policing objectives. Respondents were asked to consider each of these in turn and to signify, with a tick or a cross, whether or not, in their opinion, the objective was a 'proper' one for the police. The criteria to be used in assessing whether the objective was a 'proper' one was to be left largely to the respondents. However, they were also asked to explain briefly why they felt the objective was or was not a 'proper' one. This was something of a departure from the original Delphi approach, which does not ask for any justifications at this stage. However, it was necessary to elicit information from the panel about their beliefs on all possible linkages between all agreed objectives in order to

construct the hierarchical tree. Additionally, the respondents were told that a space had been left after each objective for their comments. It was suggested that they might wish to point out objectives that were badly worded or contained conflicting ideas. (Objectives generated by the brainstorming sessions had been left relatively unamended). Examples of completed questions were then supplied.

The body of the first Delphi questionnaire contained a randomly ordered list of the 125 objectives. (Four separate arrangements were actually used to minimise any order effects). Each of the objectives was presented in the fashion shown in Figure 7 (i) below. The final page of the questionnaire provided space for respondents to add in any other significant policing objectives which they felt had been excluded from the questionnaire. This was also explained in the introductory letter.

Figure 7 (i): Examples of Objectives to be Considered in Delphi Questionnaire 1.

Example 1

To support or supervise offenders after conviction ()
or cautioning

Why?

Comment:.....

Example 2

To handle domestic or neighbourhood conflicts ()

Why?.....

Comment:.....

The questionnaire was presented to the PEEP (police members only) at a meeting of the panel. Instructions given in the questionnaire itself were fully clarified at this point. However, the police nominees were also asked to invite a colleague of their own choice within their force to complete a questionnaire in order to widen the range of opinions expressed. For this reason, the sub-divisional commander of Chelmsley Wood, and his divisional Chief Superintendent were also asked to act as respondents. Thus, written completion instructions were obviously also required.

In all, sixteen Delphi questionnaires were completed, and this constituted a 100% response rate. However, in some cases considerable delays were experienced with returns. This was not, perhaps, surprising given that the questionnaires should have taken some two and a half hours to complete. Overall, the standard of response was very high, with minimal non-response in relation to individual questions. Analysis of these responses showed that, in a few cases, respondents were unanimously 'agreed' on whether objectives were, or were not, 'proper' ones for the police to pursue. These objectives are marked accordingly in Appendix A. However, in the vast majority of cases, no such agreement was reached, and it was decided to develop a second Delphi questionnaire.

It should also be noted that only a very small number of additional objectives were suggested, and equally few amendments to wording were recommended. In the latter case, amendments were readily agreed at a panel meeting; the additional objectives were incorporated into the second questionnaire using the format shown in Figure 7 (i).

7.4.2: Delphi Questionnaire- Round 2

The second Delphi questionnaire was designed to present panel members with points made for and against particular objective being adopted by their fellow panel members and by their colleagues. It also showed the level of support in percentage terms. This questionnaire began with a set of instructions, which had previously been piloted with members of PRSU. No introductory letter was supplied, as, on this occasion, the questionnaire was to be completed only by PEEP police members, who had already been briefed on its function. (A copy of the instructions is reproduced in Appendix C, along with examples sheets from the second questionnaire). The instruction sheet explained that the questionnaire presented those objectives whose status had not been 'agreed' in the first round, along with an unattributed list of reasons given for and against adoption. It was also pointed out that the percentage of respondents agreeing and disagreeing that the objectives were 'proper' ones was displayed in each case. Members were asked to consider the opinions of the other respondents in each case and then reach their own decision on the proper status of the objective. Again, each respondent was asked to signify agreement or disagreement with a tick or cross respectively. The existence of a "Why?" box was pointed out, but respondents were told that it was not, on this occasion, essential to complete this. It was suggested that this might be wise if a minority opinion was expressed, however. Examples of completed questions were then given.

The actual questionnaire supplied a list of randomly ordered objectives, along with the percentage agreeing and disagreeing and any justifications. (Again, several different random orders were used to minimise any order effects). The format used was as shown in Figure 7 (ii) overleaf.

Figure 7 (ii): Examples of Objectives to be Considered in Delphi Questionnaire 2

Example 1

75% agreed that "to reward officers for good work" was a proper policing objective. 25% disagreed.

The reasons given 'for' were:

- a) to improve morale
- b) to carry out man-management properly
- c) to encourage them and others to do good work
- d) to meet the needs of normal individuals for praise

The reasons given against were:

- a) rewards come principally from self satisfaction
- b) rewards can lead to fabrication of good work
- c) rewards are the duty of the courts

Enter tick/cross ()

Why?.....
.....

Example 2

12% agreed that "to ensure that criminals are punished was a proper policing objective. 88% disagreed.

The reasons given 'for' were:

- a) to deter others

The reasons given against were:

- a) this is the role of the courts and parliament
- b) this is not a police duty
- c) the police duty is simply to ensure that criminals are caught

Enter tick/cross ()

Why?.....
.....

These questionnaires were then circulated to the 6 police nominees and the PRSU representatives on the panel at a meeting. The sub-divisional commander and his divisional Chief Superintendent were also present at the meeting and were asked to complete questionnaires. The latter respondents were involved, partly out of courtesy, but mainly to maintain their understanding of the evaluation exercise. Colleagues of the police nominees and the SRDB scientists were not, however, involved with this questionnaire.

Only one respondent failed to complete the questionnaire, but, as this person was perhaps the least critical to the exercise (the Chelmsley Wood Chief Superintendent who was not actually based on the sub-division), this was not felt to constitute a particular problem. However, as before, responses to the questionnaire were hardly immediate. Again this was probably due to the time consuming nature of the work. Analysis of the questionnaires suggested that respondents had fully appreciated what was required of them, and had put considerable efforts into completion. Individual questions were, almost without exception, answered fully and in the manner required. Analysis also showed that the number of unagreed objectives had now been reduced to 45, and that, in many cases, the remaining disagreement stemmed from just one response. (See Appendix A for list of 'agreed'/'unagreed' objectives at this stage). This apparently increased 'consensus' was partly due to the absence of the colleagues of the police nominees from the respondent group. However, further analysis showed that some of the current respondents had actually changed their views after considering the justifications of their colleagues. Despite this, the level of 'agreement' was still quite low. It appeared, however, that some of the disagreement might be created by semantic

difficulties and it was decided to mount a slightly different type of Delphi exercise to see if this was the case, or whether all the results reflected real disagreement.

7.4.3: Delphi Exercise- Part 3

Analysis of the second round of Delphi questionnaires had suggested that, in many questions where there was disagreement, this was created by a single respondent (not necessarily the same one). It also appeared from justifications given and comments made that this apparent difference of opinion was, on some occasions, created by a different understanding of what the objective meant. There were, of course, several occasions where the responses seemed to reflect very different views. In either case, it did not appear that it would be particularly fruitful to mount a further Delphi exercise of the type described so far. Instead, it was decided to arrange a series of personal interviews with the respondents to discuss their views on each of the unagreed objectives. This exercise was something of a departure from the proposed methodology, and was not, therefore, piloted in advance.

A preliminary document was circulated to the police members of the panel, and to the commander of Chelmsley Wood sub-division. This listed the remaining 45 unagreed objectives, the percentage disagreeing and agreeing with their being adopted as 'proper' ones for the police at the end of the second round, and justifications given in both of the two earlier rounds. (See Appendix D for sample sheets reproduced from this document). It was suggested that the group should read through the document and familiarise themselves with its contents, but need not take any further action. Appointments were then made to visit each of the respondents to carry out the personal interviews.

The personal interviews were not intended to force respondents to alter strongly held opinions about any of the objectives. It was accepted that, despite the similarity of their circumstances, the respondents would almost inevitably have different worldviews and that there would consequently be a level of disagreement which could simply not be removed. The sessions were only intended to give the respondents an opportunity to discuss in greater depth their understanding of each of the objectives, and their feelings about them. In reality, however, the interviews did generate a somewhat greater level of apparent 'agreement' about the status of the objectives. In a few cases, this agreement was generated by the Delphi process itself rather than by the interview. Having considered the justifications given in the second round which were listed in the preliminary document, some members had already changed their opinion*. As a result, 100% 'agreement' on the status of the objective was generated in some cases. In these cases, the interview served merely to record the new opinion; similar results would have been obtained from a third Delphi questionnaire.

The interview process was also found to be quite successful in resolving differences of opinion generated only by semantic difficulties. Having listened to each member's opinions on the still disagreed objectives, it was possible to suggest slightly re-phrased objectives, which it was felt all members could agree with. For example, it appeared that, if "to make shift patterns as sociable as possible" had a rider added and became "to make shifts patterns as sociable as possible in line with operational requirements", it would be acceptable to all members as a 'proper' objective. After a number of minor wording

*The agreement was not necessarily the result of one individual 'backing down'. In two cases, particularly cogent arguments produced by the second round led to complete swings of opinion.

changes had been made and some qualifications had been added, the list was presented at a panel meeting. In a number of cases, apparent 'agreement' on the status of the objective was then achieved. In sixteen cases, however, differences of opinion rested on real clashes about the nature of police work, and no level of 'agreement' could be achieved. Here the majority opinion had to be accepted for the time being, although it was agreed that particular attention would be paid to these objectives in the structuring stage. This was perhaps unfortunate, but certainly not unexpected. Further, it did at least suggest that the existing agreement had not been reached for agreement's sake. (These objectives, whose status was temporarily decided on the basis of majority opinion, are identified in Appendix A). Thus, the process so far outlined had produced a relatively well agreed set of objectives for the police based on the individual views of the panel to assist with project evaluation.

7.5 Structuring the Objectives

The pilot exercise carried out with PRSU suggested that the Delphi process would tend to produce a rather disjointed list of objectives with different levels of generality, and that it would be necessary to formally structure these into a hierarchical tree representing all the opinions expressed at various points by individual panel members. The objectives generated by the Delphi exercise involving the PEEP proved to be similar in character, and it was again decided to form an objectives tree.

The preliminary objectives tree was created using all the justifications proposed in the PEEP's two Delphi

questionnaires, and during subsequent interviews and discussions. (The method of doing this is described in Chapter 5). This process was extremely time-consuming, but, ultimately, an apparently 'logical' tree was produced. The objectives tree so generated was, however, only a reflection of the author's understanding of how the panel as a whole might feel the objectives should be structured. It was, therefore, necessary to present the objectives tree to the group and give them the opportunity to restructure it. Accordingly, the tree was reproduced in a form amenable to change. This was achieved by "blu-tacking" 4" x 3" index-type cards, on which the objectives were written, onto large display boards in the same form as the initial tree. (A photograph of this is supplied in Appendix E). This display was then presented to panel members at two workshops, each attended by half the panel members, where comments and amendments were invited. It proved necessary to hold two workshops because the prior commitments of panel members made it impossible to find a single suitable date. It was also felt that work might proceed more quickly with smaller numbers.

In retrospect, the first of these workshop sessions appears not to have been highly successful. Those attending were relatively accepting of the objectives tree, and suggested only a few minor amendments. This was very much in contrast to the situation experienced at the second workshop where members suggested a whole range of amendments, including a re-structuring of the highest level objectives within the tree, before accepting it as an adequate reflection of their opinions. A variety of additional objectives were also incorporated to make the tree more logical in terms on the "how" and "why" structure. (These are noted in Appendix A). Further, attention was given to the 'unagreed' objectives. It was still necessary to accept majority

opinion in a few cases, but it was found that increased 'agreement' was produced when members saw the context in which their colleagues had seen the objective as 'proper'.

No one reason can be suggested for the marked difference between the two workshops. Later discussions did not, for example, suggest that the first group's reticence was indicative of their total agreement with the tree. However, it is felt that the following reasons were important and should be taken into account with any further workshops of this nature:

(i) The workshops were not held at the usual Home Office venue, but were instead hosted by the forces of two of the PEEP members. On the first occasion, the room provided proved to be far from ideal with limited space for displaying the tree and a very formal arrangement of furniture. For the second workshop, facilities were far better. A spacious room was provided along with more comfortable and casual seating. It is felt that, in the latter environment, participants felt more at ease and able to comment.

(ii) The first workshop included the two officers representing Chelmsley Wood, who had had only limited involvement in the development of the methodology. This lower level of understanding may have reduced the ability of the group to comment.

(iii) Due to prior commitments of the members attending, the first workshop had to be completed much earlier than expected. The second workshop lasted for a whole day, as arranged, and, thus, provided more time for participants to settle down and make a contribution.

(iv) It had not proved possible to pilot the workshop exercises. At the first workshop, the student saw her role as a fairly passive one and did not make any attempt to draw the panel's attention to any specific issues. It was felt that to do otherwise would be to risk over-directing the situation. However, the limited results of the first workshop suggested that this role was unsatisfactory, and, therefore, a more intrusive role was adopted at the second workshop.

Whatever the reasons, the second workshop generated a considerable number of amendments in terms of the content and the relationships in the objectives tree. Additionally, a change was suggested in its actual shape. Originally, the objectives tree had been displayed with the most primary objective in the centre, and linked objectives radiating out from this. This is demonstrated in Figure 7 (iii) overleaf. The panel recommended that the tree be displayed instead with the most primary objective on the left, with linked objectives on the right. (The distance to the right then indicates the level or primacy of the objective). This format is shown in Figure 7(iv) overleaf.

These, and the other recommendations of the workshop sessions, were acted upon, and the new objectives tree was then presented to the panel as a whole at its next meeting. Again, the group was encouraged to voice its opinions and recommend any further changes which were felt to be required. Several additional amendments were suggested and agreed. (A variety of comments were this time made by those who had attended the first workshop session, and it is, consequently, hoped that the objectives tree ultimately reflected this sector's opinion). Despite the wide range of amendments which took place, panel members indicated that they preferred to amend an existing tree based on the Delphi

Figure 7 (iii): A Basic Example of the Shape of the Original Objectives Tree

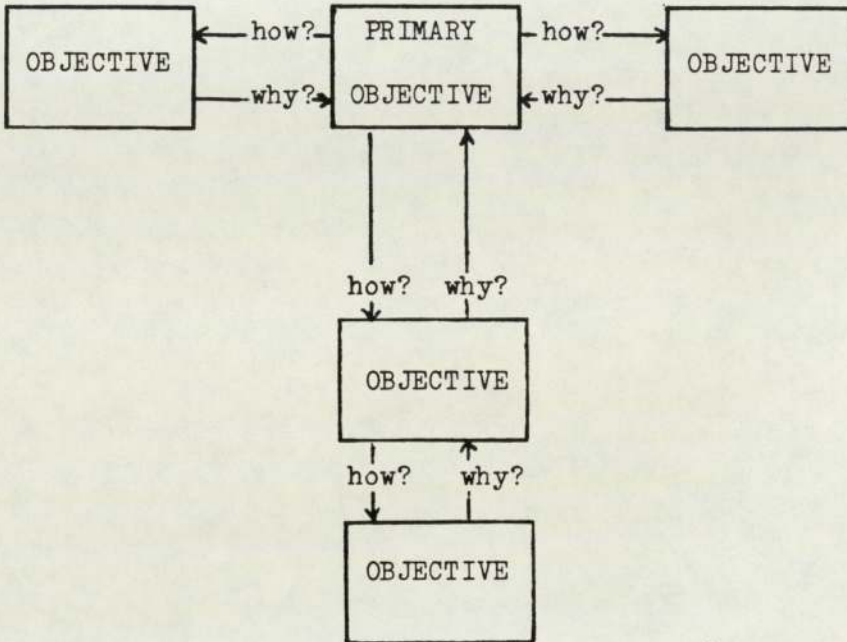
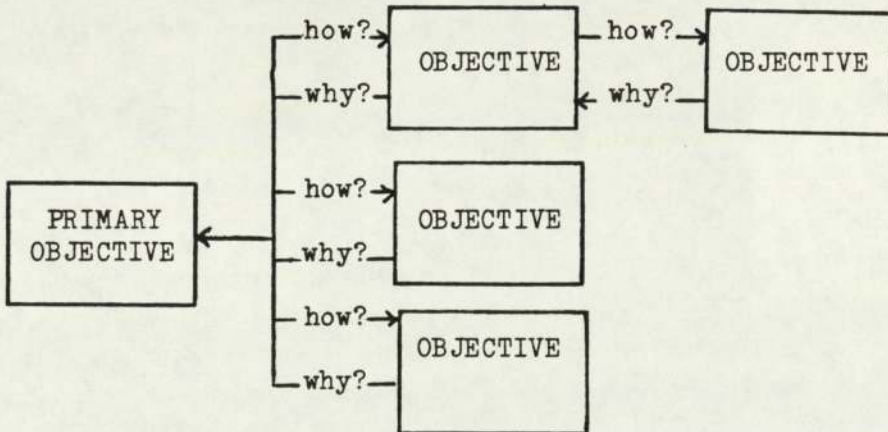


Figure 7 (iv): A Basic Example of the New Shape Proposed for the Objectives Tree



questionnaire responses rather than to try to build one up from scratch without the benefit of this exercise.

At the end of the meeting, the group indicated that the amended tree was a fair reflection of its joint view of the nature and structure of policing objectives in general. This tree is reproduced in Appendix E*. The topmost objectives of the tree agreed by the panel were "to maintain peace and order in society" and "to police with the consent of the general public". The protection of life and property also featured as very high level objectives within the tree. Thus, the panel's view of the primary objectives of policing was not in conflict with those originally suggested by Sir Richard Mayne. (See Chapter 2). The main difference was that the panel then went on to consider all the lower level objectives which supported these.

Overall, the process developed to generate an 'agreed' structure of policing objectives was considered to be a success. Future applications of the approach should, however, bear in mind the lessons learnt at the first workshop.

7.6 Identifying Possible Indicators of Success

Having completed the structuring phase of the methodology, it was necessary to determine what indicators of success should be employed. This was achieved using the process described in Chapter 5, and involved initially generating a pool of possible indicators using the brainstorming technique. The brainstorming group was, as before, made up of 3 members of SRDB and 3 members

* For the purposes of this report, the tree is displayed on several separate sheets with references between them to show how the tree as a whole is composed. However, for working purposes it is important that the tree can be viewed as a whole. A photograph of part of a 'full' tree which was used is also shown in Appendix E.

of PRSU, although different individuals were involved. The sessions were chaired by the author. The general philosophy of brainstorming was again explained and it was emphasised that no evaluation of responses could take place. This time the group were asked to give consideration to each of the agreed policing objectives in turn and to suggest which measures of success might apply. It was stressed that suggested indicators need not be practical, or even valid or reliable. It was also pointed out that the definitions of possible indicators could be as specific or general as respondents wished. However, details of data which was readily available under the policing project (produced by SRDB scientists) were supplied in order that the group might additionally consider how these could be utilised.

The brainstorming process proved to be particularly time-consuming, and actually required two, three hour sessions to complete. However, the aim of producing a list of possible indicators for each objective was met. It was then necessary to present these results to the panel in order that it could decide which were 'appropriate' indicators of success and what related data was required.

7.7 Identifying 'Appropriate' Indicators of Success and Related Data Sources

The output of the brainstorming sessions was presented to the PEEP as a whole at a formal meeting. It had originally been intended that the panel would decide there and then which of the indicators should be adopted. However, members decided that they would prefer to take away copies of the results of the brainstorming sessions and consider these before discussion at the subsequent meeting. In order to reduce individual work-

loads, each member agreed to consider in detail half of the 'agreed' objectives and related indicators. This approach is slightly at variance with that proposed in Chapter 5, but it is felt that it actually produced more useful results. Members were then able to engage in a more informed discussion at the following meeting. It should be noted that on this occasion the SRDB representatives on the panel also gave consideration to the suggested indicators.

After considering the suggested indicators, the panel again met and held a lengthy discussion about their suitability. The majority of the suggestions were, however, adopted. The main reason given for rejection was impracticality, rather than any other factors, such as unreliability or invalidity. This becomes more understandable if one considers the underlying philosophy adopted by the PEEP in relation to measurement.

The PEEP's general approach to evaluation was essentially a pragmatic one which aimed to produce results in a reasonable time-scale without incurring any really major expenditure. In line with this overall policy, it was decided that the evaluation exercise should rely upon indicators where data were readily available, other than in exceptional circumstances. The policy adopted by the PEEP could quite reasonably be subjected to a variety of criticisms. For example, it cannot be denied that readily available data will sometimes be less reliable and valid than that which is collected with the needs of the evaluation in mind. However, it was felt that the alternative, more rigorous approaches also have significant problems in terms of cost and time taken and may not produce any substantially better results. Further, it should be stressed at this point that a very wide range of indicators were still ultimately adopted. In instances where the collection of rather more obscure data

data was considered to be particularly crucial to the evaluation exercise, considerable efforts were exerted to obtain it. Additionally, where it would have been misleading to collect pre-experimental data retrospectively (as with the surveys which were undertaken), traditional procedures were used.

Thus, certain indicators which might reasonably have been used were excluded from consideration on the grounds of practicality in order to save time and keep down costs. Overall, it was assumed that it was preferable for the exercise to rely upon "general pointers" in some instances and to make use of "before" data which had actually been collected during the experiment rather than to hold out for more rigorous measures and extend the project time-scale unrealistically. It was assumed that the panel's knowledge of policing and SRDB's knowledge of experimentation would allow any major errors to be avoided. It should, however, be noted that, in future applications of the methodology, the time-scale might not be so critical and collecting pre-experimental data might be more feasible. Further, although the panel state explicitly that part of their philosophy is not to collect pre-experimental data, it is felt that this would probably have been done had the results of the data definition exercise been available at the appropriate point. Again, in future applications where time does not have to be devoted to methodology development, this should be feasible.

To a large extent, the panel's consideration of the indicators of success made any separate consideration of data unnecessary. In some instances, the brainstorming group had made suggestions on the actual data to be employed in relation to particular indicators. On the whole, these were accepted by the panel. Further, the panel's own consideration of the suitability of the

indicators had usually forced them to think in terms of the specific data required. Thus, the 'agreement' of indicators and of related data proved to be an almost inextricably linked process.

No account of the indicators and related data 'agreed' by the panel is supplied within the report, as it is felt that this is too specific to the Chelmsley Wood Experiment to be of general interest. However, it may be helpful to broadly outline the categories of data which appeared to be required.

According to the panel's analysis, potential test data would come from three separate sources, the main being statistical data which would be collected during the period of the project. The majority of this statistical data was that routinely gathered by West Midlands Police. This category would include, for example, posting sheets and crime reports. Some readily available statistical data would also be required from external sources. For example, British Telecom would be asked to supply information on the number of telephone boxes vandalised. Additionally, a small amount of particularly important statistical data would have to be collected directly from source by Home Office staff. It was hoped that the analysis of the statistical data would provide information on a whole range of aspects of the policing project including manpower allocation, crime rates, and work loads.

The second set of data for the evaluation exercise was to be provided by large scale surveys of public and of police officer opinion carried out by West Midlands Police Management Services Department both before and during the policing project. These would provide information on a whole range of issues for which statistical data was unavailable, such as how officers viewed

their work and how they spent their time. The public survey was expected to provide range of information, particularly on attitudes towards the police and crime, and on the level of victimisation.

Finally, a considerable amount of "softer" data was required. It was envisaged that this would be produced by discussions with sub-divisional management and officers at Chelmsley Wood. This would relate to a whole range of objectives. The term "soft" data is used to describe the type of information which is largely based on opinions and not usually amenable to statistical analysis. It was considered that, if such data was used with care, it could significantly improve the quality of the evaluation.

The majority of the data requested by the panel was ultimately obtained. This data collection exercise was, however, the responsibility of the SRDB scientists and not of the author. Thus, no further description of this aspect will be entered into.

7.8 Conclusion

The present chapter has outlined how the evaluation methodology proposed in Chapter 5 was employed to generate 'agreement' among the panel on the 'proper' objectives of policing and how these should be structured. The definition of indicators of success and related data was also described. The use of the methodology showed that, although some amendments were necessary, it was largely practical and capable of producing the required output. The next chapter will consider how this output can be employed when carrying out an evaluation.

Chapter 8

Applying the Methodology (Part II): A Case Study in Completing the Evaluation.

8.1 Summary of the Chapter

The current chapter describes how the information derived in relation to proper objectives and indicators of success was employed by the PEEP to carry out the overall evaluation of the Chelmsley Wood Policing Project. Detailed accounts are supplied of how each of the 'agreed' objectives was evaluated. The panel's overall conclusions on the effectiveness of the project are also discussed. The methodology proposed in Chapter 5 for this phase was not actually employed. The volume of work generated by the original proposal proved, in practice, to be too great. Instead, a somewhat more sophisticated approach, which relied upon the information contained in the objectives tree, was adopted to minimise the workload of the panel. It is recommended that this approach be adopted on future occasions.

8.2 The Difficulties of Global Evaluation

All too often, when policing strategies are evaluated, attention is given only to those objectives which were actively pursued within the experiment. For example, experiments concerned with Community Policing will place considerable emphasis on what has been achieved in terms of public attitudes, but will often give only very limited attention to any effects on response times or the crime rate. This rather blinkered approach to evaluation, where only current priorities are considered, is uninformative

and, potentially, highly misleading. It is equally important to know about any side-effects, positive or negative, which a policing strategy might have. This is equally true in relation to the evaluation of an existing policing strategy. Failure to take into account the whole range of policing objectives will again produce a very limited and possibly misleading evaluation.

The current approach recognised this problem and attempted to overcome it by ensuring that all 'proper' policing objectives were defined and taken into account within the evaluation exercise. Unfortunately, this was found to generate considerable problems in terms of workload. The objectives tree produced by the panel contained approximately 150 objectives. Most of these objectives were linked to a large set of evaluation data collected by SRDB scientists. Even if this evaluation data was presented to the panel in a simple and concise form, it was still anticipated that it would take at least six meetings of the panel for all the objectives to be examined. This was not considered to be feasible, particularly as many of the panel members had, at this late stage, been promoted, and were finding it increasingly difficult to find time to devote to the exercise. This also caused major difficulties in arranging meetings which all members could attend. It was, therefore, decided that some alternative approach had to be developed, which would reduce the panel's need to attend meetings and not impinge too severely upon their other time. The approaches which were considered are now described.

8.3 Identifying "Likely to be Affected" Objectives

It was assumed that not all the agreed policing objectives were likely to be affected by the introduction of the Chelmsley wood

Policing Project. It was, therefore, theorised that the panel's workload could be reduced significantly if only those objectives where some effect could reasonably be anticipated were considered. Such objectives might have been identified by the author or by the SRDB scientists on the basis of the available evaluation data. However, this approach would have conflicted quite fundamentally with the underlying philosophy of the whole PEEP approach, that is, to base the evaluation upon the subjective judgement of the police members of the panel. Thus, it was not considered satisfactory for these groups to make such decisions on the panel's behalf. It was, therefore, decided to ask the police members of the panel to carry out a sifting exercise in relation to the objectives, using their expert knowledge of policing and the Chelmsley Wood Policing Project, rather than the indicator data. It was hoped that such an exercise would produce a shorter list of "likely to be affected" objectives in quite a short period of time. The panel could then consider these objectives in greater depth.

To assist the panel in identifying "likely to be affected" objectives, a questionnaire of the type which might be used in the first round of a Delphi exercise was developed. This listed all the agreed objectives, and respondents were asked to consider each in turn and to use their general knowledge and that of the Chelmsley Wood to suggest whether it was "likely to be affected" under the policing project. Respondents were also asked to explain why they anticipated an effect in a space provided next to the objective. (Sample sheets from the questionnaire are contained in Appendix F). The questionnaire was presented to the police members of the panel, and to the representatives of the Chelmsley Wood sub-division, at a formal meeting. Completion instructions were given at this point, but it was not considered

necessary to provide written guidance.

No particular problems were experienced with the execution of this questionnaire. All respondents completed it satisfactorily and returned it relatively quickly. However, the analysis of the responses showed that the exercise had not significantly reduced the number of objectives in need of consideration. It was found that all but 12 objectives were viewed as "likely to be affected" by at least 1 panel member, although the number of objectives that it was unanimously agreed would be affected was considerably less. The questionnaire itself had provided information for each individual member which could have been used to conduct a Delphi-type exercise to produce an 'agreed', and possibly smaller, list of "likely to be affected" objectives. However, such an exercise would have been prohibitively time-consuming. The only two practical methods of reducing the total list to a manageable 'core' appeared to be:

- i) changing the inclusion criteria for relevant objectives;
- ii) distinguishing 'indirect' and 'direct' effects.

These are now considered.

The simplest of the two methods noted in the preceding paragraph for reducing the total list of agreed objectives to a useable, relevant core was the one involving a change in the inclusion criteria. For example, the core list might have been produced by including only those objectives which all panel members agreed were "likely to be affected". Other, less demanding inclusion criteria would have produced different core lists. Despite its simplicity, this method was not considered entirely adequate. Preliminary investigations had shown that, unless an extremely stringent criterion was adopted, the list would not reduce significantly in size. Further, there was no reason to assume

that majority opinion would always be right. By excluding minority opinion in this fashion, valuable information about possible effects could have been lost and this procedure might, in turn, have also reduced the commitment of panel members to the approach.

It was, therefore, decided to reject this rather simplistic approach and investigate the second possibility, that is, distinguishing 'direct' and 'indirect' effects. This latter approach requires some explanation before its actual use is described. In considering the panel's responses to the questionnaires, it became apparent that most of the likely effects were generated by a few changes in relation to very low level objectives (some so low level as to have been omitted from the tree). The majority of the effects identified were the result of the indirect impact of these throughout the tree. This phenomena should, of course, have been anticipated given the structure of the tree. It was believed that, if the low level, directly affected objectives could be identified, these would serve at least as a starting point for the evaluation. It also appeared that the direction of further evaluation effort might be determined by these results. (See section 8.5 of this chapter for the full discussion of this point).

It should perhaps be noted that the panel had the opportunity to consider both of these approaches, given that they represented something of a departure from what was originally suggested. The panel also concluded that the second option was to be preferred, although the author made every effort not to influence their choice.

8.4 Identifying a Core List of Directly Affected Objectives ("Basis" Objectives).

When contrasted with the first method of producing the core list considered above, the recommended one may appear somewhat unnecessarily complex. It is, however, considered to be more rigorous, and its operation did not prove to be significant problem. In practice, the exercise relating to the identification of direct effects relied upon the responses to the question "Why?" given by the panel in the 'sifting' ("likely to be affected") questionnaires. For example, the respondent might have stated that "To apprehend those suspected of offences" was an objective which would be met more successfully because "the Chelmsley Wood police officers have established more close personal contacts within the community". This suggested that "to establish close personal contacts within the community" should be included in the core list, while the former objective should be removed. However, if the same respondent subsequently said that "to establish close personal contacts within the community" was an objective which would be met more successfully because "the Chelmsley Wood police officers are carrying out more foot patrol", the former objective could be removed from the core list and replaced by "to carry out foot patrol".

By analysing each of the panel questionnaires individually in this fashion, it was ultimately possible to combine individual outputs to produce a list of very low level objectives which were apparently immediately affected by the project. These objectives, which have been labelled "basis objectives", were as follows:

1. To increase the amount of foot patrol.
2. To release more officers from response units for

patrol work.

3. To ensure that there is an adequate response coverage.
4. To grade calls more effectively so as to ensure that an appropriate response can be made.
5. To have greater flexibility of working hours and duties.
6. To make more officers responsible for a single area for a length of time.
7. To promote team work among officers.
8. To enhance the level of consultation among police supervisors and staff.
9. To seek a reduction in specialist roles.
10. To reduce paperwork.

It should be noted that the first 9 objectives have been rephrased in the comparative form to reflect the panels views on the direction of direct effects of the project. The last objective ("to reduce paperwork") is only phrased in this fashion for the sake of consistency; panel members actually suggested that the policing project would directly create an increase in the paperwork load on Chelmsley Wood sub-division and that this would lead to certain indirect effects.

The 10 "basis" objectives defined above were presented to the PEEP at a formal meeting of the panel. The method by which the objectives were identified was again outlined and a number of 'reverse trees' (one for each basis objective), showing how the responses of the panel members had suggested these related to the other objectives, were supplied. (An example of the reverse tree is supplied in Appendix H). Members were then asked to comment upon the reasonableness of the list. After some discussion the

panel members accepted the list as being an accurate reflection of their 'collective opinion' about the direct effects of the Chelmsley Wood Policing Project. Minor amendments were asked for in the phrasing of the list. The members confidence in the list appeared to be enhanced by the fact that it did not differ significantly from a preliminary list of project objectives which had been produced informally at the panels' 2nd meeting.

After discussion with the panel, the "basis" objectives were incorporated into the existing tree using the linkages suggested in the "likely effects" questionnaire. The analysis of the panels' questionnaires had also produced a series of additional 'how and why' linkages between the higher level objectives. These were shown in the reverse trees and presented to the panel. The new linkages were considered reasonable by the panel and were again incorporated into the main tree.

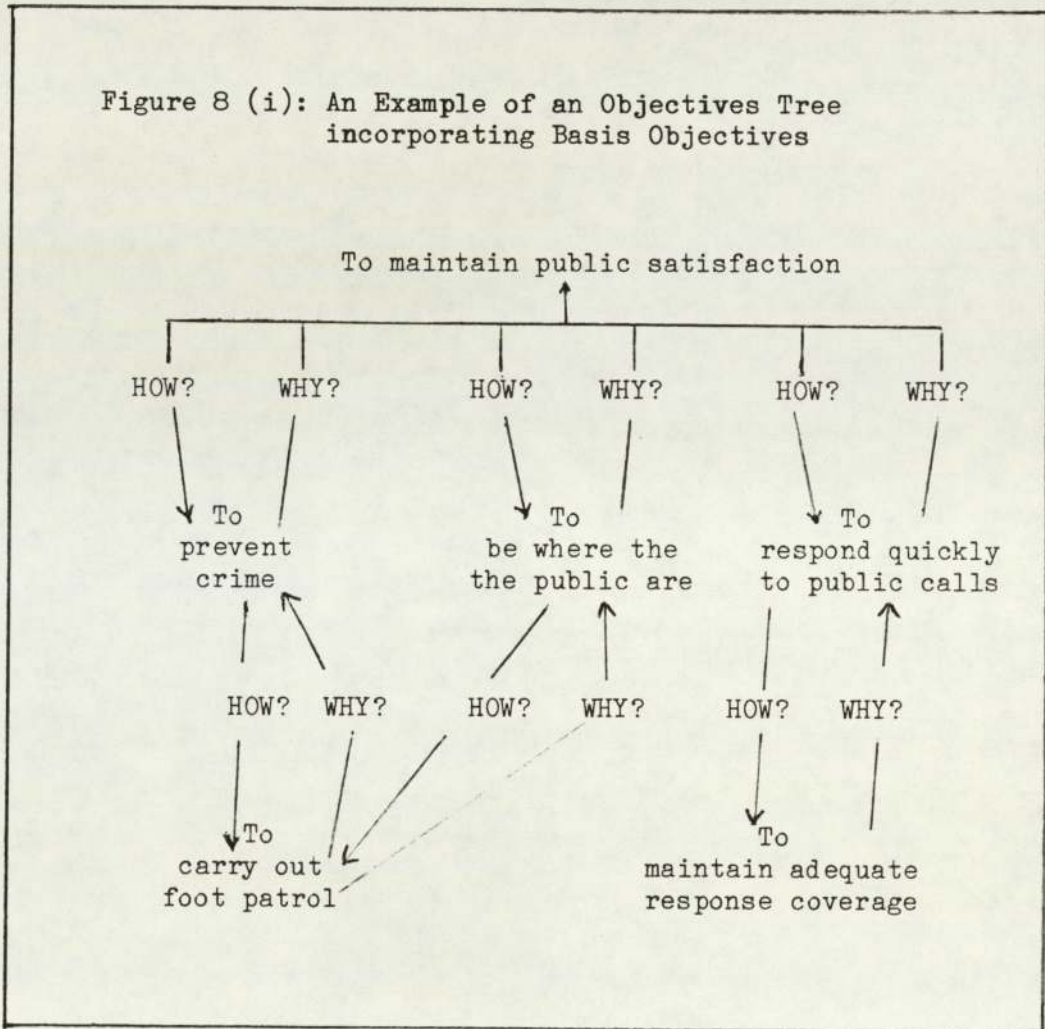
8.5 Utilising the "Basis" Objectives to Carry Out the Overall Evaluation (An Amendment to the Original Methodology)

The reasons for wishing to identify the basis objectives (or the direct effects) were hinted at in the latter part of section 8.3. However, no full explanation was supplied. This largely reflects the true position when the "basis" objectives were established from the Delphi questionnaire. At this point, it appeared, intuitively, a useful thing to do, but how precisely this would assist the final evaluation was unclear. Once the actual basis objectives were identified, it quickly became apparent that these could be used to generate a process for carrying out the final evaluation which, it was hoped, would be both rigorous and relatively speedy. This process is now described.

The process devised to assist the final evaluation rests upon the assumption that all effects which might be identified in relation to an objective are generated by one or more of the objectives in the next lower level, and ultimately stem from a basis objective. If it can be assumed that the objectives tree fully reflects the panel's opinion and that all basis objectives felt to be of importance have been specified, it would appear logical to accept this assumption. It can then be used to establish a decision rule on whether any particular objective is likely to be affected. This decision rule is simply that, unless an effect can be identified in relation to at least one of the objectives immediately below in the tree, there is no justification for considering it, as the panel had not shown any process by which this could occur. However, if an effect is identified in relation to any of the objectives in the lower level, then the objective should be considered. The evaluation process based on this decision rule was summarised as follows:

"Examine the performance of the policing scheme under consideration for each of the basis objectives in turn. For basis objectives which are assessed as being met more or less adequately as a result of the scheme, examine the next higher level of objectives connected to it to see if any further impact has been created. If at any level, a nil effect of the scheme is noted, the evaluation of that branch of the objectives tree should be terminated. Assuming that the objectives tree is accurately reflecting the views of the evaluator, there is no legitimacy in claiming that any effect discovered at a higher level is a real effect of the scheme unless the tree shows some mechanism whereby this could have occurred.

Another example may help to clarify this. The panel identified "to carry out foot patrol" and "to maintain adequate response coverage" as basis objectives, that is, those immediately affected by the implementation. Suppose that these basis objectives linked into the main tree as shown in Figure 8 (i) below.



The evaluation process would then start by considering data to determine in turn whether levels of foot patrol and response coverage had actually been affected in either direction. None of the other objectives in the tree could legitimately be considered until this had been established. If the effect was found to be nil in both cases, the evaluation exercise would be complete,

that is, it would be necessary to conclude that no impact had been made by the experiment. Supposing, however, that both the basis objectives were affected, the process would continue by giving consideration to the next level of connected objectives for each in turn. For foot patrol this would mean first establishing whether:

- i) the level of crime had been affected.
- ii) whether officers had spent a different amount of time "where the public are".

If either of these objectives had been affected, consideration could then be given to the top of the tree. The same procedure would then be undertaken for the branch stemming upward from the second basis objective. The topmost objective is only evaluated if one of the objectives lower in the tree has been judged to have been affected.

8.6 Using the New Process to Carry Out the Evaluation of Individual Objectives

8.6.1: Introductory Remarks

The process described in section 8.5 was used by the PEEP to produce its assessment of the impact of the Chelmsley Wood Policing Project upon individual policing objectives. The evaluation was actually undertaken at two separate Workshops, each of which was attended by half the police members of the panel and by all the Home Office members. This split was necessary as not all the police members were available on the same day. However, in retrospect, it appears that the approach actually taken may have been more productive, as each group was able to undertake a different aspect of work. The workshops were also attended by representatives of the management at Chelmsley

Wood sub-division. In both cases, any decisions taken at the workshops involved the whole group and were taken in the course of general discussion rather than individually.

Prior to the workshops, panel members were all supplied with data relating to each of the objectives in case this should need to be considered. This material was presented on "data forms", which listed relevant data for each objective. Data was placed under the headings "statistics", "survey" and "other", and analysed where appropriate. These data forms were found to be the most suitable method of presenting the wide range of data collected by SRDB scientists for consideration by the panel. (An example of a data form is supplied in Appendix G).

8.6.2: Summary of Results for the First Evaluation Workshop

The members attending the first workshop were asked to consider data forms for each of the 10 basis objectives in turn and to decide whether any changes (positive or negative) had occurred as a result of the Chelmsley Wood Policing Project. A copy of the overall objectives tree was displayed on the wall at the meeting in case members wished to refer to it. This was colour coded to show which higher level objectives were affected by particular basis objectives. (A photograph of part of this tree is provided in Appendix E). After lengthy deliberations, it was suggested that the basis objectives had been affected as follows:

i) To increase the amount of foot patrol

The workshop concluded that the total amount of foot patrol had not changed as a result of the scheme. However, it was felt that there had been some qualitative change with more foot patrol being carried out between 2pm and midnight (there was a corresponding reduction between 2am and 6am).

ii) To release more officers from response duties for structured patrol work.

The workshop concluded that this basis objective had been met as a number of officers normally involved in response duties had been redeployed for structured patrol work. Thus, further investigation was recommended.

iii) To ensure that there was adequate response coverage.

The workshop concluded that satisfactory response coverage had been maintained and that this had been achieved without increasing levels of over-time, or the amount of assistance given by external units. As this objective did not appear to have been met more or less adequately, no analysis of connected higher level objectives was recommended.

iv) To grade calls more effectively so as to ensure that an appropriate response could be made.

The workshop concluded that there was no reason to believe that the grading of calls had been altered in any way by the introduction of the policing project. Therefore, no analysis of higher level objectives was recommended.

v) To have greater flexibility of working hours and duties.

The workshop concluded that greater flexibility had been achieved under the new policing project. Further investigation of connected higher level objectives was recommended.

vi) To make more officers responsible for a single area for a length of time.

The workshop concluded that, whilst more officers had been made responsible for single areas, a decrease had taken place in the actual amount of time spent on an area. Overall, the workshop felt that a negative effect had been exerted on this objective and that further consideration should be given to linked, higher

level objectives.

vii) To promote teamwork among officers.

The workshop concluded that this objective had not been achieved as teamwork had diminished. Further consideration of connected, higher level objectives was recommended.

viii) To enhance the level of consultation between police supervisors and their staff.

The workshop was only able to consider the supervision aspect of this objective. It was concluded that the level of supervision afforded probationary constables had deteriorated after the introduction of the scheme. It was felt, however, that this was due to the presence of an abnormally high number of such constables on the sub-division at this time rather than to the policing project itself. The supervision provided to officers of other ranks was not considered to have changed. The workshop did not, therefore, recommend undertaking any further analysis.

ix) To seek a reduction in specialist roles.

The workshop identified a very small decrease in the level of specialism, but this was not felt to be significant enough to suggest that the objective had been met. Consequently, no further consideration was recommended in relation to any connected, higher level objectives.

x) To reduce paperwork.

The workshop concluded that a significant increase in the level of paperwork had occurred during the period of the policing project. It could not, however, be attributed directly to the effect of the experiment. Hence, no further consideration was given to objectives connected to this basis objective.

8.6.3: Summary of Results for the Second Evaluation Workshop

The results of this in-depth analysis were then conveyed to the second workshop. After an examination of the relevant data forms, the members decided to accept the conclusions reached by their colleagues on the effect of the project in relation to the "basis" objectives. The members of the second workshop were then asked to refer to data forms relating to both basis and non-basis objectives. A copy of the overall objectives tree was again displayed on the wall and a "reverse tree", showing how the higher level objectives were linked to each of the basis objectives, was given to each member. (The reverse tree showed only objective reference numbers, and not the full wording of the objectives- an example of this is supplied in Appendix I).

Members were then asked to give further, individual consideration to those basis objectives where a change had been detected and to trace the objective back through the tree to see if there had been any effect upon connected higher level objectives. This process was continued until a point was reached where a nil effect could be identified, or the 'top' of the tree was reached.

The details of the discussion entered into by the panel are not provided here, being rather lengthy and not entirely relevant. However, the following summary of the analysis carried out by the panel at the second workshop on higher level objectives related to basis objectives defined as affected may be of interest:

Basis Objective 1: To carry out foot patrol

A positive, qualitative change appeared to have occurred in relation to this basis objective. The second workshop concluded that this had not exerted any major impact on connected higher level objectives. Only one directly connected objective appeared to have been affected. This was "to ensure that officers had

direct and regular contact with local criminals and informants", which appeared to have been adversely affected. This did not, however, appear to have any effect upon the next higher level of objectives.

Basis Objective 2: To release more officers from response duties for structured patrol work.

The first workshop concluded that this objective had been achieved. The second workshop found that, in order to do this, experienced Resident Beat Officers had been withdrawn from their normal beats. Thus, meeting the basis objective had actually created an adverse impact on some objectives in the next connected level. "To educate the community about crime" and "to support local youth and community groups" both appeared to be adversely affected. Higher level objectives related to these did not, however, appear to have been affected.

Basis Objective 5: To have greater flexibility of working hours and duties.

The first workshop concluded that the new policing project had led to greater flexibility. The second workshop found that this had enabled the sub-division to meet more adequately objectives relating to having more officers on duty when the public were about and to co-operating readily with other force areas. No other direct or indirect effects could be identified.

Basis Objective 6: To make more officers responsible for a single area for a length of time

The first workshop concluded that the policing project had had an adverse effect upon the amount of time spent on an area (although more officers had responsibility for single areas). The second workshop concluded that this had led to a decrease in the level of job satisfaction and, subsequently, to an increase in 'turn-

over' rates among officers. It was felt that this would inevitably lead to there being a negative impact upon the highest level objectives within the tree, although no other direct effects could be identified.

Basis Objective 7: To promote teamwork among officers

The first workshop concluded that teamwork had actually diminished. Further consideration of the connected higher level objectives led the second workshop to conclude that this had made officers less happy in their work and that this had, in turn, led to a decrease in morale. It was felt that this would ultimately create to an adverse effect upon the highest level objectives within the tree. It also appeared that working relations between groups of officers were less satisfactory. This did not, however, appear to have exerted any impact upon its connected, higher level objectives.

8.7 Completing the Overall Evaluation

In light of the limited, and exclusively negative, impacts of the policing project, it was relatively easy for the panel to reach its overall decision on the impact of the policing project on police effectiveness. At the final meeting of the whole panel, it was concluded that, overall, the scheme had been unsuccessful. This appeared to come as a surprise to some members, who had clearly expected some positive effects to be identified. The outcome of the evaluation process was not, however, disputed. The fact that the methodology, although based on the subjective opinion of this group, was capable of generating a surprising result was taken to be a point in its favour.

Having decided that the policing project had not been a success, the panel then went on to try to identify why this had occurred.

It was felt that some of the difficulties had arisen because the policing system previously operating on Chelmsley Wood sub-division had been relatively sophisticated. This had meant that the actual opportunities for improvement were quite limited. It was also felt that this could have caused some officers to resent the scheme, because of the implication that it was somehow better than the local one. The panel considered that some of the difficulties could also be attributed to the fact that the rather inflexible attitude of West Midlands Police senior management had prevented a full implementation of the scheme. (For example, no micro-computer was introduced to assist with incident logging, and traffic resources were not released for sub-divisional use). The position was further aggravated by a number of changes of command within the sub-division during the period of the experiment, which appeared to have produced a lack of continuity of leadership. (The Superintendent in charge of the sub-division, his deputy and the head of CID on the sub-division were all seconded or transferred at some stage during the experiment). The panel also felt that there had been a failure to communicate the objectives of the project to the constables and sergeants actually responsible for the day to day operation of the scheme. (See Chapter 9 for a further discussion of this aspect). In some instances the new project had created quite different roles for these officers but little guidance had been given here. (This aspect of the work had been seen by the panel as the responsibility of the management on the Chelmsley Wood sub-division).

In summary, the panel suggested that the major factors responsible for the apparent failure of the Chelmsley Wood Policing Project were as follows:

- (i) lack of commitment by management at all levels;
- (ii) lack of continuity of leadership;

- (iii) lack of communication of objectives to junior officers;
- (iv) lack of definition of the roles of the officers.

The methodology did not perhaps lead the panel directly to these conclusions. However, it is hoped that the assistance it provided, in making their thinking about various aspects of the work explicit, did contribute to some degree.

8.8 Some Comments on the Group Decision Making Process

The results of the evaluation outlined in this chapter have been described as if they represented the 'combined view' of all panel members. This is a convenient characterisation of the situation, but not strictly accurate. The assessments of success for the individual objectives and for the overall scheme could not be said to perfectly correspond to the views of any one member. The same is true for the explanation of the results. When considering these matters, members generally found it necessary to spend a quite lengthy period in discussion and even then the 'agreement' could not be said to be total. Only rarely was it possible to reach an immediate conclusion which was satisfactory to all. More commonly, there were considerable differences of opinion about how particular issues should be interpreted. For example, when assessing the individual objectives, it was only on very rare occasions that all members interpreted the data in exactly the same fashion. This appeared to be related to the different beliefs which the individual members held about the reliability and the meanings of particular items of data. (The data obtained for each objective was often conflicting and, even in situations where only one set of data was available, there was considerable scope for individual interpretation). It was, however, possible at all stages to reach a conclusion which, at

least, did not appear to conflict too strongly with any one members view.

Overall, the level of disagreement generated during discussion was viewed as a positive feature. The author had feared that the panel might be too ready to agree. However, it did not appear that any symptoms of "groupthink" type exerted a major impact. This may have been because all the panel members, being of senior rank, were well used to having their opinions heard and were not particularly keen to defer to others. There was, however, a slight tendency to give special consideration to the opinions of the most senior officer in the group. It was not felt that this constituted a major problem and it should perhaps be noted that the individual concerned would probably have exerted a similar influence even if he had been of more junior rank.

8.9 Conclusion

This concludes the description of the case study carried out with the Police Effectiveness Evaluation Panel in order to assess the usefulness of an evaluation methodology. The evaluation methodology was found to be largely successful, although in practice a number of amendments were required. The overall evaluation of the policing project was made much simpler because of the lack of significant results obtained. The panel's workload would have been far greater had it not been for the fact that only limited results were observed in relation to the lower levels of the tree. More significant changes would have required the panel to spend far longer in their consideration of results. However, it is to be expected that this difficulty would be encountered with any rigorous method of evaluation. The discussion section which follows takes up this issue along with

many others raised during the course of the report.

Chapter 9

Conclusions and Discussion

9.1 Summary of the Chapter

The chapter begins by providing a brief re-statement of the evaluation methodology proposed in Chapter 5. A discussion then takes place of the variations which occurred when the methodology was put into practice to assist the Police Effectiveness Evaluation Panel in carrying out its evaluation of a specific policing experiment. It is recommended that several of these amendments should be incorporated as permanent features of the methodology, which is re-stated accordingly. The reader's attention is, however, drawn to the relatively flexible nature of the methodology. It is suggested that, in subsequent applications, it should prove feasible to incorporate other techniques into the overall framework of the methodology if this is considered appropriate.

Some time is spent considering how the evaluation methodology actually used by the PEEP was viewed by the clients. It is suggested that their response was, on the whole, favourable, although their understanding of the methodology seemed to be slightly different to that of the author. The main conflicts revolved around the appropriateness of using the output of the case-study in subsequent evaluations and around the introduction of importance "weightings" for the objectives. The author's own views of the techniques within the evaluation methodology are then described. This leads to the identification of those aspects of the methodology where it appears that

further research is required. The main research priorities are considered to relate to the actual construction of the objectives tree and to experimentation with some system of loose, qualitative importance weightings designed to assist the evaluator(s) in reaching final conclusions. It is also suggested that, on some occasions, the work generated by the methodology could be appropriately undertaken within "conferences" lasting between three and four days rather than at a series of one-day meetings.

Consideration is then given to other situations where the evaluation methodology could potentially provide assistance. The author stresses that it would be more appropriate for any future applications to rely upon the methodology rather than upon the output of the case-study described earlier. A number of applications on this basis are ultimately suggested both within and outside the police service. Members of the police service are, however, regarded as being the most likely users, at least in the immediate future. Special attention is, therefore, given to this area. It is suggested that the approach should not only be used by these various organisations in relation to periodic evaluations of experiments, but also to assist with the more regular requirement of setting objectives.

9.2 The Evaluation Methodology: Theory versus Practice

9.2.1: The Proposed Methodology

Chapter 5 of this report described in considerable detail the evaluation methodology which was proposed by the author to assist the Police Effectiveness Evaluation Panel in carrying out its work. It is not intended to repeat this exercise in the current context. However, it may assist the reader if the main

features of the proposed evaluation methodology are briefly outlined before any consideration is given to the amendments. (It may also be helpful to refer to Figure 5 (v) of the current report which provides a simple model of what was proposed).

The proposed methodology was seen as relying heavily upon the subjective knowledge and beliefs of the members of a group (in this case the PEEP). The first stage of its application was to involve them in reaching 'agreement' about what they felt to be the 'proper' objectives of policing. This process was, in turn, seen as revolving around the application of brainstorming and Delphi techniques. The brainstorming technique was to be used with a group, independent of the PEEP and representing a diversity of opinions, in order to generate a set of 'possible' policing objectives. These were then to be introduced to enhance the creativity of the PEEP's thinking in this sphere. (The results of a literature search were also to be used in a similar fashion). The Delphi techniques appeared to provide a vehicle for the members of the panel to explore and clarify their thinking individually in relation to the 'possible' policing objectives. This technique was also seen as enabling each of the individuals to take into account the views of other members without any exposure to group pressure to conform. It was assumed that this process would, in turn, create a situation where group discussion could produce a picture of 'proper' policing objectives which reflected to some extent the opinions of each group member. (It was not anticipated that any consensus position would actually be reached).

This "picture" was to take the form of a hierarchical objectives tree developed using all the responses to the questionnaires circulated as part of the Delphi exercise. This 'tree' was then to be presented to the panel members for discussion and

ultimately amended to reflect opinions more fully.

A similar process was suggested for producing a 'panel view' on appropriate indicators of success for objectives 'agreed' in the first stage. A brainstorming group, which was again to represent quite diverse opinions, was first to be assembled. Members were to be asked to give consideration to possible indicators of success for each objective. Any additional indicators found by the author within the policing literature were to be added to the output of these sessions. Again the members of the panel itself were to be presented with these ideas and asked to decide which were appropriate. On this occasion, it was envisaged that decisions about 'appropriateness' would be taken by the panel as a whole within the context of a meeting. It was hoped, however, that the input of the thoughts of the external group would again off-set to some extent the tendency to conform and increase the creativity of the panel's thinking. The panel were also to be asked to decide what data should be collected in relation to each of the indicators. It was suggested that representatives of the experimental sub-division could usefully be involved in this process. Descriptions of the data readily available within this sub-division were also to be supplied to assist the panel's discussion.

It was assumed at this stage that the data defined as required by the panel would be collected by SRDB. This was to be compiled and presented to the panel members along with the relevant objective. (Any statistical analysis deemed appropriate by those responsible for the data collection was first to be undertaken). The panel as a whole were then to be asked to consider each objective and connected in turn and to reach a 'joint' decision on whether success in achieving any of the objectives had been

affected either positively or negatively. Finally, the panel were to be asked to engage in discussion and to reach a decision on the overall success of the policing experiment which reflected their views on the relative importance of the objectives. (It was not intended that these views should be made explicit). It was accepted that the final assessment of the scheme produced by the panel could not be viewed as a 'consensus' decision and that the method of reaching this decision could mean that some views within the group were more fully reflected than others. However, in the time available, it did not appear that any more rigorous approach would be feasible.

9.2.2: The Methodology in Practice

When the evaluation methodology was used with the panel to assist the evaluation of the Chelmsley Wood Policing Project a number of deviations took place from what was originally proposed. These were as follows:

(i) The brainstorming groups were made up of members of the Home Office (drawn from PRSU and SRDB) rather than being a more varied body of individuals as originally proposed;

(ii) Two brainstorming sessions were held to assist with the generation of possible policing objectives; a further two were organised to discuss possible indicators of success;

(iii) The opinions of a further external group were also utilised to assist the generation of ideas about possible policing objectives;

(iv) The investigation focussed upon the opinions and beliefs of the police representatives on the panel and the views of individuals external to the panel were, on occasions, taken into account in decision making;

(v) The final stage of the Delphi process involved a personal interview with each participant rather than relying exclusively upon questionnaires;

(vi) The construction of the 'objectives tree' was used to assist 'agreement' in relation to certain objectives;

(vii) Panel members were given the opportunity to consider the proposed indicators individually prior to the group discussion aimed at reaching 'agreement' on the appropriate ones;

(viii) The consideration of "indicators" and "data" was carried out as one exercise;

(ix) The views of the panel expressed in the objectives tree were used to assist them in carrying out the assessment of success in relation to individual objectives;

(x) The panel members completed a questionnaire designed to highlight objectives which were "likely to be affected" in order to determine whether this could reduce the workload relating to the assessment of individual objectives;

(xi) Discussions of various aspects of the work were, on some occasions, held at workshops involving half the panel members rather than at formal panel meetings;

(xii) Considerable attention was paid to the presentation of the methodology to the panel to ensure understanding and, hopefully, commitment;

(xiii) The author took a more active role in some of the group sessions than had been originally envisaged;

(xiv) The shape of the objectives tree was amended.

9.2.3: Some Comments on the Amendments

Harrell-Allan [1977] points out that the terms "methodology" and "technique" are frequently used interchangeably. He, like the current author, sees a definite distinction between these terms and suggests that the "methodology functions like theory in guiding the conduct of enquiry". Techniques are then viewed as the means of undertaking the enquiry in the manner prescribed by the methodology. The author's own view of the term "methodology" is somewhat similar to this. It is used here to describe the overall approach to evaluation, that is, the actual philosophy behind the approach (as guided by the assumptions outlined earlier) rather than the specific body of techniques employed. These assumptions which in turn guide the methodology were discussed in Chapter 5, section 5.4. Thus, the techniques employed within the evaluation methodology are seen as almost infinitely amendable. For example, it is not essential for an objectives tree of the type described here to be constructed; some other method of representing the 'panel view' could equally well be used if this was considered more appropriate.

In light of the foregoing comments, it does not seem entirely appropriate for the author to suggest whether the amendments outlined in section 9.2.3 should be permanent or not. Future applications could suggest quite different amendments which might be introduced. Nonetheless, it would appear to be useful to present some discussion of the advantages and disadvantages of these amendments, if only for the benefit of those who wish to employ much the same techniques.

The first three amendments revolve around a change in the composition of the brainstorming groups. This change is perhaps the only one which is viewed as a "retrograde step". In other

situations, it is still recommended that these groups should be made up of a relatively diverse set of individuals. Such groups are considered to be more likely to produce the variety of ideas required for input to the panel discussions. However, the approach actually employed of supplementing the output of the brainstorming sessions with, for example, the results of a literature review or the opinions of individuals within the general public should still ultimately meet this requirement. In more ideal circumstances, it is suggested that a diverse group is employed and that the results of other data collection exercises are introduced. It is also recommended that more than one brainstorming session is held in each instance, particularly if the organiser is at all inexperienced with this technique.

The author feels that the other amendments all constituted enhancements. The most obvious example of this is perhaps the use of the objectives tree to assist the evaluation of individual objectives. By following the decision rule "unless an effect can be identified in relation to an objective at the next connected lower level there can be no reason for considering it", the panel's workload in this area was considerably reduced. The information supplied earlier by the panel was also fully utilised. It is, therefore, recommended that this approach be adopted in any future applications. It should perhaps be noted that these might not require the panel to complete the "likely to be affected" questionnaire used in the current exercise. Members could instead be asked to look only at the lowest levels of the existing tree and to consider why, if at all, these might be affected either positively or negatively. The reasons given would then be incorporated into the tree using 'how' linkages and used as the starting point for the subsequent evaluation of the individual objectives. (In some cases these 'basis' objectives

would be found to have already been included in the tree). However, the approach used by the panel is recommended when time is available. Here, the questionnaire includes all those objectives within the tree and not merely those at the lowest level. Thus, it is possible to establish a number of additional linkages within the tree and amend it to allow individual opinions to be more fully reflected before the evaluation takes place.

It is felt that the amendments to the Delphi procedure also constituted a positive enhancement. After two rounds of the Delphi questionnaires, the author chose to carry out personal interviews with each of the participants. This exercise was considered to be more suitable than an additional questionnaire for assisting the exploration of individual opinions and the understanding of the opinions of colleagues. (The exercise was, of course, somewhat time-consuming for the author). However, this is not in any sense meant to suggest that the Delphi questionnaires were not useful or that more than two rounds could not be arranged in some instances.

Any future groups employing the methodology in the same fashion may also find it helpful to adopt the approach of allowing objectives unagreed after the discussion sessions to remain in abeyance until the actual objectives tree is considered by the panel. It may be found that members are more willing to accept the inclusion of certain objectives once they understand the context envisaged by their colleagues. This is considered to be preferable to simply accepting the majority opinion.

It is also felt that the amendment to the procedure for 'agreeing' appropriate indicators should be adopted. Giving members the opportunity to consider individually at least a set

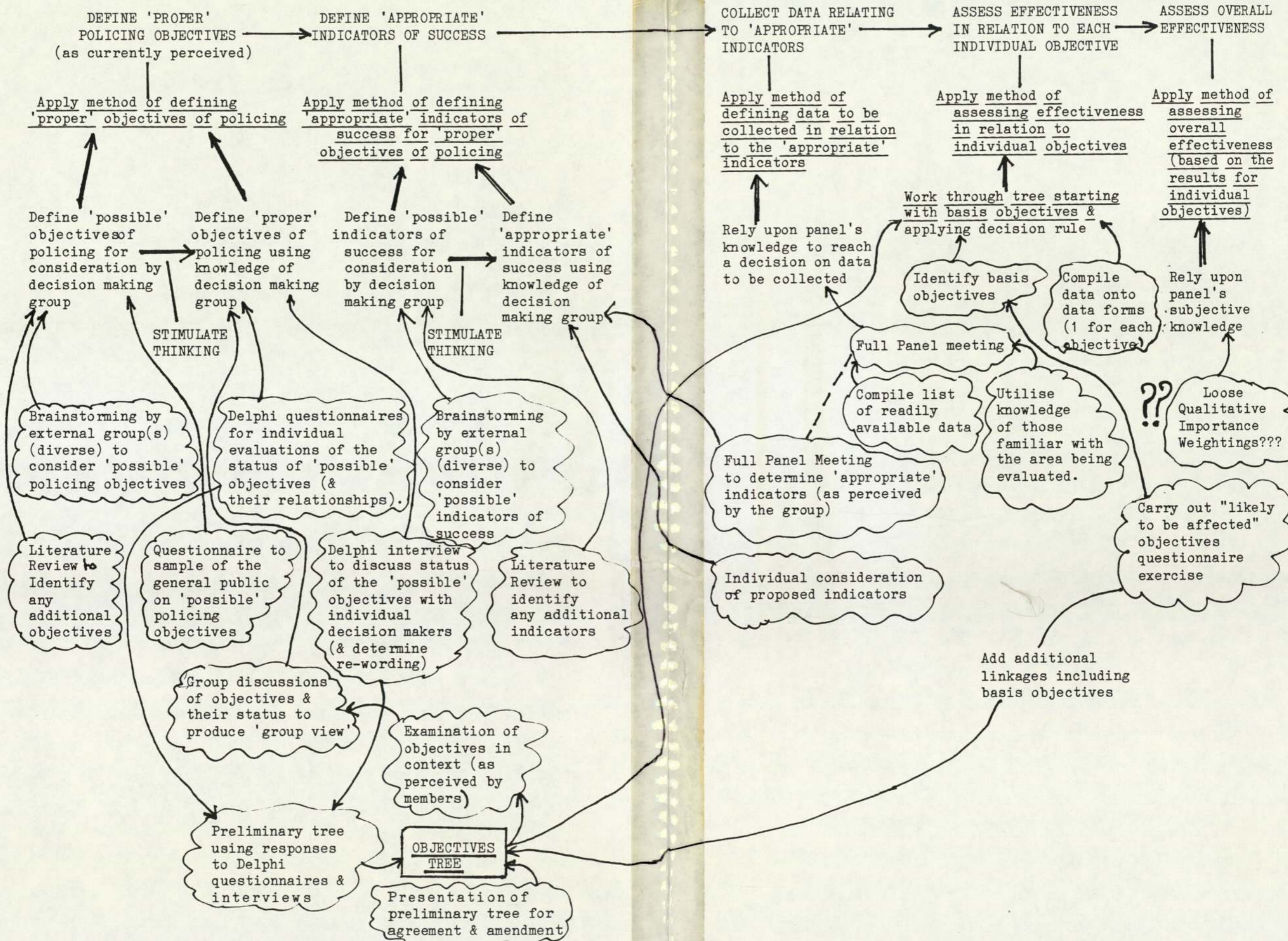
of these indicators is likely to produce a more informed decision which fully reflects the opinions of the individuals involved.

No particularly strong recommendations are made on the other amendments to the methodology. The author herself tends to think that they constituted positive improvements as far as the current exercise was concerned. It is felt, however, that future applications will have to be amended to meet current requirements as was the case in the PEEP exercise. It would, therefore, be misleading to give the impression that there was only one correct way of working. For example, in the current exercise, it was apparently necessary from time to time for the author to take a more active role in the discussion sessions. Similarly, holding workshops involving only half the panel members appeared to be advisable in order to allow more work to be undertaken without increasing the burden on the panel members. However, in future applications it may be found that this is unadvisable or unnecessary. Similarly, the shape of the objectives tree might again require amendment before it is acceptable to the group. It may even prove more sensible on occasions to avoid any explicit description of the methodology if it appears that this would only lead to confusion within the group.

The author can only suggest that the methodology is open to amendments and that these should be made if it appears that they will allow individual requirements to be met more adequately. However, a more explicit description of the author's own current view of how future evaluations might take place is provided in Figure 9 (i) overleaf.

Figure 9 (i): The Author's View of Procedure for

Future Evaluations



9.3 The Reception of the Methodology by the Clients

The evaluation methodology developed for use with the PEEP was generally well received by the clients. In the main, they considered the whole exercise to have been a success. Primarily, this was because the approach was seen as having utilised subjective judgement in a manner which had enabled previously intractable problems associated with evaluation, such as defining 'proper' policing objectives, to be solved. These 'solutions' were seen as having been arrived at in a reasonably short time-scale. Thus, a systematic overall evaluation of a policing project could be produced while it still had relevance.

The clients were also pleased that the methodology had not required any really major expenditure to be incurred. The fact that the PEEP had been primarily responsible for making the subjective judgements was also seen as a positive feature. The clients felt that this would ultimately make any report on the findings of the Chelmsley Wood Policing Project evaluation more acceptable to other senior police officers who were likely to be its primary readers. (It was pointed out earlier in the report that such individuals tend to be somewhat dismissive of the research efforts of civilians who are often seen as not understanding what policing is 'really about'). This led the clients to conclude that "overall, the PEEP methodology was considered to have been a success. It is felt that the general approach could be of assistance to others concerned with policing experiments" (SRDB [1983]). The clients have commissioned a second report on the PEEP work, currently being produced by the author, which suggests how the approach might be utilised by other groups within the police service. The report is addressed mainly to Chief Officers and is designed to give detailed

guidance on the methodology and techniques therein to assist them in both carrying out evaluations and setting objectives. (This report is discussed further at various points within the current chapter).

Despite the generally favourable reception, it should be noted that the clients identified certain problems in relation to the evaluation methodology. These were as follows:

(i) It was felt that the approach already made significant demands on the time of the officers involved and that, if more significant impacts were created by a scheme, this burden could become unacceptable;

(ii) The clients were slightly worried that no attempt was made to develop numerical weights, reflecting the panel's view of the relative importance of the objectives, to assist with the final evaluation.

In relation to the first comment, the author tends to agree to some extent with the clients. However, it is felt that any systematic evaluation would require significant inputs of time from the participants. The clients fully accept this point of view, but they still tend to view the problem as solvable. Conversely, the author feels that it is a feature of the evaluation methodology which must be accepted by those who wish to use it. The clients tend to feel that future applications could rely heavily on the work of the first panel and should thus make faster progress. For example, it is argued that the objectives tree developed by the first panel could be utilised, after minor amendments, by others using the same general approach. The current author does not feel this is entirely satisfactory. It is not in any sense certain that the objectives

tree developed by the first exercise would be readily adopted by many other groups. The results of the first exercise have been found to be acceptable to certain other officers, such as members of PRSU, but these have not yet had any wide-scale exposure within the police service. It may be, therefore, that the latter situation will prove to be simply a reflection of the similarity of the worldviews of the PEEP and PRSU. Further, one of the major benefits of the approach is seen to be the way in which it encourages individuals to explore their views of objectives and make these available to others. It is unlikely that simply amending an existing tree would encourage this process of exploration to any great extent. Consequently, the author prefers to view the methodology itself as being the re-useable 'product' rather than the output of the actual case study. However, the author is willing to concede that in situations where time is not available to undertake the processes required to construct an objectives tree, an evaluation involving the adoption of the existing tree might produce more satisfactory results than would a traditional evaluation.

The second issue raised by the clients is also only partially accepted by the author. The clients suggest that a difficulty would arise if a considerable number of objectives were found to be affected in conflicting directions. The panel members would then experience considerable difficulties in interpreting the overall success of the scheme. (In the case study the effects were almost exclusively negative and this did not constitute a problem). This led the clients to believe that it would be helpful if quantitative weightings of importance could be assigned to the objectives in advance of the evaluation.

The author accepts that weightings of importance might prove helpful to a panel in situations where conflicting results were

achieved for different objectives. However, she sees no reason why these should be either quantitative or determined in advance of evaluation. Some process could equally well be developed to help the panel make explicit their world view on the relative importance of the objectives which relied on qualitative weights. (The author feels that these weights would actually be superior). Members might, for example, be asked to consider the objectives individually and to determine whether they were "very important", "important", "not very important" or "unimportant". If time were available they might also be asked to justify their response and some type of Delphi exercise mounted. Group discussions could then be held to reach some level of 'agreement' on the classifications.

It is felt that this process would allow members to explore the dimensions of their views on importance and would ultimately prove to be more satisfactory than a simplistic approach involving the attribution of numeric weights and followed by averaging. Further, the current author does not see any real reason for these weights to be attributed to the objectives in advance of the evaluation. The clients believe that this is important in order to avoid the "biasing" impact of evaluators changing their minds when confronted with the results of a scheme to ensure that it is portrayed as a success. The author recognises that this is a possibility, but does not feel that the advance attribution of weights would necessarily counteract it. The evaluator is just as likely to introduce "bias", consciously or unconsciously, by ensuring that objectives, previously defined as important, are assessed as having been met successfully. "Trapping" the evaluator into some quantitative framework in advance will not avoid this. Thus, this justification is considered to be largely unacceptable. Conversely, it does

appear that there are significant advantages to considering only those objectives previously shown to be affected. More time can then be spent exploring the evaluators views in relation to objectives of interest rather than collecting possibly extraneous information on objectives ultimately seen to be unaffected. Further, if the exercise is held simultaneously with the evaluation, it may promote further thought about the scheme itself.

Currently, the author and her clients have had to "agree to differ" in this area. The clients do, however, accept the practical difficulties of undertaking an exercise of the type they recommend. (These were discussed in relation to the Saaty approach described in Chapter 5). They also recognise certain theoretical difficulties. Fortunately, in this instance, it did not prove necessary for the situation to be resolved as the PEEP seemed quite able to reach a decision without any resort to weighting. The author's view remains, however, that although further research is required in this area, it should be directed towards loose qualitative weights assigned only to affected objectives. Further, the emphasis should be on helping the panel explore their views.

It should perhaps be noted at this point that the evaluation methodology has been generally well received by other parties to whom it has been presented. The PEEP members themselves found the approach to be helpful and appeared to have no qualms about recommending its further useage. PRSU officers within the Home Office have also had the opportunity to consider the evaluation methodology to a more limited extent and have generally suggested that the approach is a sensible one. However, the evaluation methodology has had only limited exposure in wider circles. The

panel has produced a full report on their activities in relation to the Chemsley Wood Policing Project and its evaluation. Unfortunately, this was only quite recently released, and is still only available outside the Home Office on a request basis. The report has now been circulated within various departments of the Home Office and no major objections to the general approach have been raised. A formal meeting representing a number of departments within the Home Office was held to consider the approach and those involved decided that the further report to Chief Officers mentioned earlier should be prepared. This will suggest how the methodology might be re-used in other areas of the police service. The reaction to this further report will be awaited with interest. It is also anticipated that a description of the methodology and its application will be published as part of a review report produced by the Police Foundation.

9.4 Further Improvements on the Methodology

9.4.1: Introductory Remarks

It has already been suggested that the evaluation methodology could be improved if certain amendments suggested by the case study were incorporated as permanent features. Further, the possibilities of "weighting" the objectives in terms of their importance were given consideration. However, the author feels that there are two further areas within the methodology which require additional research. These relate to the following:

(i) The arrangements for carrying out the work generated by the methodology;

(ii) The construction of the objectives tree.

These will now be considered and the areas for further research

outlined.

9.4.2: Arrangements for Carrying Out the Evaluation Work

The work generated by the evaluation methodology was undertaken by the PEEP at 14 formal meetings and 4 workshops (each attended by half the panel). Other work revolved mainly around the Delphi questionnaires and was carried out by the officers back at their own forces. The commitment on the time of these senior officers was found to be quite substantial. However, although there were inevitable difficulties in organising meetings which all could attend, it was found that the officers were generally willing to spare this time. Thus, the author does not currently feel that any significant efforts need be made to reduce the workload. However, it is felt that the time spent could have been utilised more fully if members had attended a one, 3-4 day conference session rather than a comparable number of individual meetings. This conference could best be held after the individual work in the Delphi questionnaire stage had been completed. It would provide an opportunity for the group discussion work to be completed in a relatively short time-period. The members could use this time to reach 'agreement' on the objectives themselves and on the structure of the objectives tree; consideration could also be given to appropriate indicators and connected data for the measurement of success. This would, of course, require a good deal of planning on behalf of the organiser to anticipate the outcome of each stage. For example, some preliminary work would be required to ensure that the objectives tree could be quickly produced once 'agreement' had been reached in relation to the objectives. This, however, appears to be feasible as do the other exercises.

There are a number of practical advantages to taking this approach. Firstly, the PEEP would have to spend less time on

such activities as travelling and settling down at the beginning of meetings. Thus, more energy could be devoted to the issues actually being discussed. Secondly, and perhaps more importantly, it should also ensure that decisions on objectives and required data can be made in advance of the implementation of any scheme without protracting the experimental period. In the case study, the panel did not reach such decisions until the experiment was underway. It is felt that this prevented adequate guidance being given to the officers involved in running the scheme about the panel's view of objectives and that the experiment suffered accordingly. (It is, of course, also arguable that this group should not have been made aware of these objectives). Further, there was no opportunity to ensure that particularly critical pre-experimental data was collected. (In the current exercise, it was felt that some questions which should have been included in the surveys of officer and public opinion were discluded for this reason). Overall, it appeared that both the evaluation and the experiment, which are of course strongly interconnected, suffered to some degree because of the delays in decision making.

This type of conference situation could not easily have been employed in the current work. To a large extent, the methodology was designed as the case study progressed. (This has already been discussed at an earlier point in the chapter). Further, the author was simply not familiar enough with the techniques she intended to use or sufficiently sure that these would actually 'work' in practice. To risk assembling a group for this period of time in these circumstances would have been somewhat foolhardy. In light of experience, it would seem that such an exercise would be quite feasible providing that the necessary planning was first undertaken. The work of Umpleby [1982] in the

area of organisational change also suggests that this would be possible. He employs a group process method known as "LENS" (Leadership, Effectiveness, and New Strategies) for developing and implementing plans in an organisation. Under this approach, a group representing various parts of the organisation meet for one whole week in which they decide upon goals, determine what obstacles exist in relation to them and 'agree' what actions and strategies are required to achieve them. It would not seem that the workload imposed upon the individuals involved in the "LENS" process is any greater than that proposed for the PEEP conference. This leads the author to suggest that the conference approach certainly warrants further experimentation.

9.4.3: The Construction of the Objectives Tree

It has been suggested that the objectives tree forms a relatively critical part of the evaluation methodology, at least as it is currently envisaged. No particular difficulties were experienced with the concept of "tree-building". However, considerable practical problems were encountered in actually displaying the tree. Even the type of tree displayed in Appendix E, which is split up onto a number of separate sheets, was found to be quite difficult to construct. This was because the position of the items displayed on each sheet is not purely random, that is, the position of the item supplies certain information about it. The lay out difficulties experienced were even more severe when attempts were made to display the whole tree on one large sheet in order to allow those attending meetings to readily gain an overall impression of it. As standard type-writers and computers printers can only handle relatively small sheets of paper, it was necessary either to produce the whole tree in sections for subsequent compilation or to use a large piece of paper and affix the objectives in some fashion. Both methods were tried during

the development of the methodology, but neither were found to be easy to use or to produce a particularly attractive product. Further, the tree produced was not particularly amenable to change. This latter point is felt to be particularly important because it is should be possible for the tree to easily reflect the changing views of the panel.

The flexibility problem might have been overcome by using trees constructed using 'Blu-tacked' cards or portrayed on 'Dry Wipe' boards. However, these approaches did not seem to produce a sufficiently permanent record of the panel's thinking. Blu-tacked cards, for example, were found to be inclined to detach themselves from the backing boards. (This approach was, however, found to be most useful at the workshops held to produce the initial tree structure). Further, Dry Wipe boards were not found to be sufficiently portable. (It was essential that the tree was transportable in order that it could be taken to the various workshops and meeting which were held at different sites). The idea of recording the tree on overhead projector slides was also considered. However, there are numerous technical difficulties with so doing and the final product is very difficult to amend.

These technical difficulties are considered to have had a negative impact upon the methodology as a whole. It was not, for example, possible to produce individual trees to reflect the views of each member to assist them in their thinking about police objectives. No real solution to the problem has currently been developed. Consultation took place with members of the Home Office Graphics Department who are well used to handling difficult display problems. Unfortunately, this group was unable to suggest any alternative solutions. Reference to the literature did not assist to any great extent either. The

only piece of research work in the field of police evaluation which the author views as in any sense comparable with the current one was carried out by Snapper and Seaver [1980]. (This was discussed in Chapter 5). They, however, deal only with between 4 and 8 objectives and thus completely side-step the problem of structuring. The current author would argue that, if the number of objectives is limited in this fashion, the picture produced cannot possibly reflect the opinion of a single individual, let alone a group.

Consideration was also given to other areas where attempts have been made to reflect the opinions of individuals in some type of diagrammatic form. Some practical guidance was provided in this work. For example, the work described by Eden et al [1979] can involve the use of cognitive maps designed to reflect the opinion of an individual about an issue, or issues. These are designed to assist the individual in exploring his thinking and are thus broadly comparable to the objectives trees. This group takes the approach of using adhesive labels, on which the concept is printed, and affixing these to paper in some sensible arrangement. This use of labels is something of a step forward and was used on occasions by the author. However, it did not provide a complete solution to the problem. It is felt that the difficulties encountered by this group in this area would not anyway be so significant and that the 'labelling' solution might be more satisfactory there. For example, the spatial position of the 'concept' does not convey information to the same extent. Further, it would seem more appropriate to produce a number of small cognitive maps, each of which reflected a different dimension of thought. This is not considered to be so satisfactory in the case of the objectives tree as it is important that all interconnections are displayed.

The work of Eden et al did, however, suggest to the author that the development of some related software might be helpful in this area. The group themselves have developed computer software which allows the cognitive map to be stored and investigated or amended by the individual while sitting at a computer terminal. Very small maps can then be printed off direct from the screen. (Labels are printed for subsequent assembly with larger maps). Currently, it is felt that the programming effort required to undertake something similar for the objectives tree would be too substantial to be entirely justified. Further, unless non-standard printers (or labels) are employed the tree would still have to be produced on small sheets for subsequent compilation. However, a limited amount of consideration has been given to the use of a computerised system to assist with exploration. A colleague within the A2 group of SRDB is considering the use of 'expert systems' and has used the tree as a basis for one such system. It is currently possible to interrogate this system to determine what other areas in the tree are affected by a specific objective and which in turn effect it. This representation of the tree can also be readily amended. However, at present it is only possible to display the reference numbers of the objectives on the screen rather than the text. This significantly limits its usefulness for assisting individual users in their explorations of the tree. This system would, however, have been quite helpful to the author herself. For example, the construction of the "reverse tree" used in the evaluation workshops could have been guided by this system to some degree.

The author can only conclude that the solution to the problems of tree construction will most probably revolve around a computerised approach, but that no solution has as yet been developed. Thus, future users of the approach will,

unfortunately, be faced with problems similar to those described by the author. These are not, of course, insurmountable.

9.5 Future Applications of the Methodology

It has always been envisaged that the evaluation methodology described within this thesis would have a more general application, at least within the police service. It has, however, been pointed out that some debate has taken place between the author and the clients as to whether future applications should utilise the output of the original exercise or the actual evaluation methodology. The author remains largely convinced that it is more sensible for the methodology itself to be re-used, although she accepts to some extent the clients' view that this may not always be a practical proposition because of its time-consuming nature. Ultimately, this decision will not be made by either the author or her clients, but by members of the police service concerned with setting objectives and carrying out evaluations. Thus, the debate between these parties is of interest only in so far as it may reflect the way the methodology is presented to these groups.

The aspect of the methodology which will be utilised by forces cannot as yet be determined. However, the author feels that a strong possibility exists that it will be used by the police service in some fashion. In recent years, Chief Police Officers have come under an unusual amount of pressure to establish clear objectives and priorities and to carry out continuous monitoring and evaluation. At one level, this pressure can be seen as self imposed. British police forces have been heavily influenced by the 'Policing by Objectives' (PBO) approach of Lubans and Edgar [1979]. (This is based loosely on the 'Management by Objectives'

approach which for some time found favour in a number of industrial and commercial organisations). PBO as such is based on the idea that the Chief Constable and his senior management team should issue a 'mission statement' which states in very general terms what is expected of the force in the coming year or some other specified time period. The next level of management (usually Chief Superintendents or Superintendents) will then consider this statement and work out what objectives they will need to meet if the mission is to be achieved*. These objectives will then be communicated to the next level of management (Inspectors and Chief Inspectors) who will be expected to set goals for themselves in order to achieve these. Finally, the goals are presented to the lowest ranks (PC's and Sergeants) who are expected to decide upon the specific tasks which must be carried out in order to meet these goals. Thus the process might look something like this:

Mission Statement = to reduce the level of crime.

Objective = to reduce preventable crime by 2% in the division during the next year.

Goal = to carry out increased foot patrol in the residential areas to prevent a further 2% of crime during the next year.

Task = to reduce the amount of time spent in schools in order to concentrate upon carrying out foot patrol in the local housing estate.

*The term objective is used in the PBO literature in this very specific manner. This is not the sense in which it is used by the author. The mission statement is simply viewed as a very high level objective, as any distinction is considered by the author to be misleading.

Thus, the process produces something similar to an objectives tree, although the focus is only on those objectives considered to be current priorities. The PBO approach does not, however, give any explicit guidance on how to set such objectives, goals and tasks, or indeed to formulate the mission statement. O'Dowd [1982] suggests that this has proved to be a particular problem in America where the approach is widely used. It is felt that the current methodology could prove to be helpful in assisting officers in reaching decisions about these various levels of objectives. Teams of officers representing various ranks might, for example, find it useful to act together to generate a tree of objectives which could be used to guide future action.

Alternatively, each group of officers could undertake to produce a separate, but connected, area of the tree. It is felt that this approach would be more satisfactory than the one currently used in PBO because it would encourage full consideration of the objectives and would highlight the possible adverse consequences of actions.

Currently, only Northamptonshire Police operate a full scale PBO system. However, other forces already use a more limited version and it is likely that it will be adapted on a wider scale in the near future. It would seem likely that the current evaluation methodology could be used in a manner which is complementary to this approach.

The more important pressure to set objectives and carry out evaluations comes from outside the police organisation. In recent years senior police officers have become increasingly aware that Her Majesty's Inspectors of Constabulary had, during their annual visits, expected to see some statement of objectives

and to be convinced that some attempts were being made at rigorous evaluation. However, this was not made entirely explicit until November 1983 when the Home Office issued a circular (Circular 114/83) to inform Chief Constables and Police Authorities of the considerations which the Home Secretary would take into account when approving police establishments. The circular states that whether "resources are directed in accordance with properly determined objectives and priorities" will be one of the major factors taken into account. The issue of objectives is again stressed later in the circular when it is suggested that "if scarce resources are to be deployed to the best effect.. it is important that Chief Officers should have a clear idea of objectives and priorities, which themselves will change from time to time". Chief Officers are also told that Her Majesty's Inspectors of Constabulary will consider "the way in which Chief officers, in consultation with the Police Authority and the Local Community identify problems, set realistic objectives and clear priorities, keep these priorities and objectives under review, deploy manpower and resources in accordance with them and provide themselves with practical means of assessing the extent to which (they) are achieving these objectives. Her Majesty's Inspectors judgement about force's effectiveness and efficiency will be based on this approach, as will their advice to the Home Secretary about any applications for increases in establishment".

This circular stressed that each force would require a different approach to the setting of objectives and the carrying out of evaluations. No specific guidance was supplied on what these approaches might be. Many Chief officers were alarmed by this circular and suggested that more explicit guidance was required as no obvious method of setting objectives or carrying out

evaluations was available. The second report on the evaluation methodology mentioned earlier is being produced largely in response to this request. It would appear that, in the absence, of any other guidance, Chief Officers may be almost forced to rely on this approach. The author hopes, however, that they will feel, as she does, that it is a reasonable approach to take and that it will not be used merely to satisfy the demands of HMI's.

Regardless of how the strategy is employed, any evaluation drawing upon it requires the formation of a panel. It is felt that it may be appropriate to make some limited comments on the composition of such panels at this point. In the original PEEP exercise, the police members were drawn from various forces throughout England and Wales. However, there is no reason why future panels could not be made up of different sets of individuals. A force might, for example, chose to have a panel representing Chief Superintendent/Superintendent rank from different areas and specialisms within it. However, Home Office circular 114/83 points out that "the views and experiences of junior officers can make an important contribution to the formulation of policy". In line with this, there is no reason why such a panel should not be drawn from a wider range of ranks. Equally, the same circular stresses the importance of taking into account the views of the Police Authority and the Community in formulating objectives and priorities. Forces might chose to involve such individuals more directly than did the original PEEP exercise which chose instead to rely upon the results of public surveys. It is also suggested that any panel will find it helpful to have one of their number act as a facilitator and to take responsibility for such matters as the design and analysis of questionnaires. The appointment of a chairman and secretary is also recommended.

It should perhaps be noted that employing a more varied group of individuals in this context might introduce problems as far as reaching some reasonable level of 'agreement' is concerned. Males [1983] points out that most police managers fall into a fairly narrow band of personality type. This may account for some degree why the members of the PEEP tended to see situations in a reasonably similar fashion. However, if greater diversity of opinion is introduced into the group, the conflict could well be irresolvable. Smith and Gray [1983] found, for example, that lower ranking officers in the Metropolitan Police tended to operate in terms of informal objectives which were quite radically different to those proposed by the PEEP. Similarly, the current work showed that asking a sample of the general public about their feelings on policing objectives could produce quite a different view of the situation. Conversely, using a diverse group could even lead to an escalation of pressure to conform. It is unlikely, for example, that junior officers would openly contradict the views of very senior officers because of the rank bound nature of the police service; members of the public might feel equally daunted by these individuals. Such problems did not tend to arise with the PEEP itself because the members had relatively equal status. Thus, no real guidance can currently be given on this aspect. It is felt, however, that the reader should at least be made aware of it.

Despite the foregoing discussion, future use of the methodology is in no sense seen as restricted to groups connected with the police service. Emphasis has been placed on this area simply because the author believes that such groups are more likely to be frequent users in the immediate future. The methodology could, however, be used to equal advantage by groups within any organisation where the setting of objectives or evaluation is a

complex problem. It could potentially be used by groups within the public sector, such as the National Health Service, within voluntary organisations and even within more commercial organisations to assist this process. The emphasis need not, of course, be on evaluation. The approach might, for example, be used in a commercial organisation to determine the requirements (objectives) of their clients when producing a new product. To date, no real attempt has been made to fully explore the possibilities for using the methodology, but the author herself can conceive of many other problems which could potentially benefit. (The use of the methodology as depicted in Appendix J is not, however, recommended.).

9.6 Concluding Remarks

The current thesis has described the development of a methodology which aimed specifically to provide assistance to those concerned with the complex problem of evaluating police effectiveness, or indeed of setting policing objectives. The methodology described has relied heavily upon the belief that the subjective knowledge of individuals can be usefully brought to bear to assist with problem solving in this and other areas. This was a somewhat novel assumption in the policing sphere and produced a very different type of evaluation methodology. The "trial" of the methodology with the Police Effectiveness Evaluation Panel suggested to the author that this belief was justified and that the approach could usefully be employed by other groups both within and outside the police service. Ultimately, however, there is no way of proving the legitimacy of this belief. It can only be hoped that others who share the author's view find the work to be of interest and to have increased their own "stock of knowledge".

APPENDIX A: 'Possible' and 'Proper' Policing Objectives Generated
in the Case Study.

Introductory Note

The following list contains objectives from four separate sources:

- (i) objectives generated by the brainstorming sessions and considered by the panel;
 - (ii) objectives suggested by panel members during the first Delphi exercise and also considered;
 - (iii) additional objectives agreed during the workshop sessions;
 - (iv) the basis objectives from the Chelmsley Wood Policing Project.
- } PART I
} PART II
} PART III

The objectives contained in the latter two categories are simply stated. However, for those listed in "Part I", some information is given on the way in which each objective was viewed by the panel at the various stages of consideration (1st Delphi questionnaire; 2nd Delphi questionnaire; 3rd Delphi exercise; Meeting of whole panel before workshop). This information is supplied in the bracket following the objectives. In each case, a "X" stands for rejection of the objective by all members; a "✓" stands for acceptance of the objective by all members. Similarly, "?" stands for disagreement, whilst "-" means that the objective was not considered at this stage. The order of the symbols corresponds to the order of the 'decision points' listed above.

For example, "(? ? ? X)" suggests that no agreement was reached about the objective during either of the Delphi questionnaires or during the personal interview, but that it was rejected during

the meeting of the whole panel. Similarly, "(- √ - -)" implies that the objective was not considered during the first Delphi questionnaire, but that it was accepted during the second questionnaire and not considered further.

PART I:: 'Possible' Objectives Considered by the Panel and the
Results of their Considerations.

- 1*. To provide a service to the public (✓ - - -)
2. To maintain a satisfactory relationship with known (? ? ? X)
offenders
3. To ensure that resources match demand (✓ - - -)
4. To be where the public are & to be seen by them (? ✓ - -)
5. To maintain peace and order in society (✓ - - -)
6. To prioritise police work & devote resources (✓ - - -)
accordingly
- 7i To protect human life (✓ - - -)
- 7ii To protect property (? ? ? ✓)
8. To define appropriate education & training for (? ✓ - -)
officers at all levels
9. To encourage mental & physical fitness in officers**(? ? ? ?)
- 10i. To exercise discretion in action and prosecution*** (? ? ? ?)
with reference to the demeanour of the individual
concerned
- 10ii. To exercise discretion in action and *** (? ? ? ?)
prosecution with reference to the social norms of
the area
- 10iii. To exercise discretion in action and prosecution (? X - -)
with reference to particular circumstances connected
with an event
11. To alleviate public fear of crime (? ✓ - -)

*The objectives were attributed with a unique identity number after the brainstorming sessions. These were used throughout the exercise.

** This objective was ultimately incorporated into the tree at the workshop held to structure the objectives.

*** These objectives were ultimately rejected at the workshop held to structure the objectives.

12. To provide flexible training in line with officers (✓ - - -)
needs
13. To make use of the media (X - - -)
14. To prevent traffic accidents & promote traffic (? ? ? ✓)
safety generally
15. To develop contingency plans for major incidents & (✓ - - -)
emergencies
- 16i. To ensure that officers have specialist support & (✓ - - -)
assistance available at all times
- 16ii. To ensure that officers have non-specialist back-(? ? ✓ -)
up available at all times
17. To encourage the involvement of government & other**(? ? ? ?)
agencies in the community
18. To ensure that officers are capable of working in (? ✓ - -)
hostile environments
19. To develop management skills within the police (X - - -)
organisation
20. To give consideration to the families of officers*(? ? ✓ -)
(providing this does not interfere with operational
requirements).
21. To ensure that adequate manpower is available to (✓ - - -)
meet agreed policing objectives
22. To encourage the public to police itself(? ✓ - -)
23. To promote favourable attitudes towards the police (? ✓ - -)
among all groups within the general public
- 24i. To support local youth & community groups(? ✓ - -)
- 24ii. To assist with local youth & community groups(? ? ✓ -)

* This objective was accepted after its wording had been amended
by the addition of the bracketed phrase.

** This objective was ultimately incorporated into the tree at
the workshop held to structure the objectives.

25. To make the community aware of its responsibilities (? ? ? ✓)
in law & order maintenance
26. To advise local authorities on traffic matters (✓ - - -)
27. To keep job specialisation to a minimum (? ✓ - -)
28. To experiment to enhance police effectiveness (✓ - - -)
29. To encourage the public to assist the police with* (? ? / -)
their duties
30. To uphold public morality (? X - -)
31. To prevent corruption & dishonesty within the (✓ - - -)
police service
32. To select and train officers to ensure they do not** (? ? ? ?)
display attitudes which could be detrimental to the
achievement of policing goals
33. To handle domestic & neighbourhood disputes (? ? ? ✓)
34. To prevent crime (✓ - - -)
- 35i. To make an appropriate response to public calls* (? ? / -)
for assistance
- 35ii. To grade calls for assistance in order that an (? ? / -)
appropriate response can be made
36. To improve the quality of life*** (? ? ? ?)
37. To provide a cost-effective service* (? ? / -)
38. To ensure that officers develop a thorough (✓ - - -)
knowledge of local people, problems & crime
39. To encourage administrative efficiency in the (✓ - - -)
police service

* These objectives were agreed after some changes in wording. Objective 29 was amended to say "their duties" rather than "all their duties"; objective 37 had the term "cost-effective" inserted instead of "cost concious". Objective 35i was amended completely as shown. (It was originally "to respond quickly to public calls for assistance").

** These objectives were ultimately included in the tree at the workshop held to structure the objectives.

*** This objective was ultimately rejected at the workshop held to structure the objectives.

- 40i. To support offenders after cautioning*** (? ? ? ?)
- 40ii. To support offenders after conviction (? X - -)
41. To measure the success of the police organisation (? ? / -)
in meeting its objectives
42. To provide equal quality of service to all (? / - -)
43. To ensure that officers at all levels have (? ? / -)
acceptable conditions of pay and service
44. To co-ordinate policing functions (/ - - -)
45. To encourage the public to come to the police with (? ? X -)
their problems
46. To keep paper-work to a minimum (/ - - -)
- 47i. To ensure that officers at all levels receive (/ - - -)
adequate on the job training
- 47ii. To ensure that officers at all levels receive (/ - - -)
adequate formal training
48. To ensure that there is adequate consultation (/ - - -)
between police supervisors & their staff
49. To provide leadership & professional support to (? / - -)
community efforts against lawless & disorderly behaviour
50. To ensure that special responsibilities to the*(? ? ? ?)
Royal Family & other VIPs are met
51. To apprehend those suspected of offences (? / - -)
52. To respond quickly & effectively after the (? / - -)
occurrence of a criminal event
53. To reward officers for good work (? / - -)
54. To ensure that officers are perceived as part of (/ - - -)
the community

* This objective was accepted after being amended to include
"other VIPs" and not just the "Royal Family".

*** This objective was ultimately rejected at the workshop held
to structure the objectives.

55. To place officers in jobs & locations where they* (? ? / -)
will be happy (providing this does not conflict with
operational requirements)
56. To tell the public as much as possible about the (? ? / -)
work the police are involved in
- 57i. To ensure that data required for management (/ - - -)
purposes is available
- 57iia. To ensure that data required for management (- / - -)
purposes is supplied
- 57iib. To encourage the use of data required for (- / - -)
management purposes
58. To preserve the job status & prestige of officers(? / - -)
59. To make police stations approachable & accessible*(? ? / -)
- 60i. To build up a set of contacts for information (/ - - -)
regarding crime
- 60ii. To build up an effective method of collating and (/ - - -)
using criminal information
61. To ensure that there is continuity of contact (? / - -)
between the police & the public
62. To carry out effective investigation & (/ - - -)
interrogation
63. To maintain the morale of police officers(/ - - -)
- 64i. To carry out foot patrol (? / - -)
- 64ii. To carry out mobile patrol (? / - -)
65. To enforce & uphold the law (/ - - -)
66. To advise other agencies on the treatment of (? X - -)
offenders
67. To exercise power & authority (where necessary)* (? ? ? ?)

* These objectives were 'agreed' after amendments had been made to the wording. Objectives 55 and 67 had the bracketed phrase added, while objective 59 had the term "friendly" replaced by "approachable".

- 68i. To co-operate with & assist other emergency (✓ - - -)
services
- 68ii. To co-operate with & assist other agencies (? ✓ - -)
concerned with social well-being
69. To ensure that all officers receive advice on (X - - -)
career planning
70. To avoid wrongful arrests (✓ - - -)
71. To identify & satisfy public requirements of the (? ✓ - -)
police
72. To provide support to victims of crime (? X - -)
73. To make use of special constables & other voluntary (? ✓ - -)
support
74. To investigate traffic accidents (? / - -)
75. To ensure that all reported crime is recorded (✓ - - -)
accurately
76. To encourage the public to follow crime prevention (? ✓ - -)
advice
- 77i To aid & assist the public in emergencies & major (/ - - -)
incidents
- 77ii. To aid & assist the public in minor personal (? ? ? ✓)
crises
78. To divert offenders from the Criminal Justice (? ? ? X)
system wherever possible
79. To be capable of assisting with public order (✓ - - -)
situations in other force areas
80. To specify procedures for achieving agreed (✓ - - -)
policing objectives
- 81i. To promote awareness of policing objectives among (? ✓ - -)
the general public
- 81ii To promote awareness of policing objectives among (? ✓ - -)
police officers

82. To make use of experienced PCs & Sgts in the (✓ - - -)
training of PCs
83. To develop a philosophy of policing (? ? X -)
84. To keep the public at 'arms length' (X - - -)
85. To ensure that officers maintain their formal role (? ? / -)
& dignity
86. To control crime (? ? ? X)
87. To aid and assist those needing help* (? ? ✓ -)
88. To maintain freedom of speech & the right*** (? ? ? ?)
to demonstrate
89. To educate the community about crime (its causes, (? ? / -)
consequences & incidence)
- 90i. To train officers to appear sympathetic & (✓ - - -)
understanding
- 90ii. To train/make officers approachable & accessible(✓ - - -)
- 90iii. To train/make officers fair and grateful (X - - -)
91. To ensure that legal rights are extended to all*** (? ? ? ?)
- 92i. To provide the public with information on (/ - - -)
emergencies & major incidents
- 92ii. To provide the public with general information(? / - -)
93. To police with consent (? / - -)
94. To maintain public confidence in the police(✓ - - -)
95. To clear up offences quickly (? / - -)
96. To deter people from committing criminal acts(✓ - - -)
97. To become involved in activities in local schools(✓ - - -)
98. To facilitate ease of movement on public roads (? ? ? ?)
& streets

* This objective was 'agreed' after "aid and assist" was introduced to replace the term "befriend".

*** These objectives were ultimately rejected at the workshop held to structure the objectives.

99. To control the demand placed upon the Criminal Justice system (? ? ? X)
- 100i. To obtain high arrest rates (? X - -)
- 100ii. To obtain high conviction rates (? X - -)
101. To work without other agencies (X - - -)
102. To ensure that officers dress in accordance*** with regulations (? ? ? ?)
103. To prevent people falling into or persisting in criminal ways (? ? X -)
104. To make shift patterns as sociable as possible* (consistent with the provision of appropriate police cover) (? ? / -)
105. To obtain or activate successful prosecutions*** (? ? ? ?)
106. To protect human rights (? ? ? X)
107. To refer those with problems to appropriate agencies where possible (/ - - -)
108. To provide an image of authority in the community (? ? ? X)
109. To promote a sense of community in the local area (? ? / -)
110. To identify & teach beat skills (/ - - -)
111. To have an efficient organisational structure (/ - - -)
- 112i. To minimize the turnover rate among officers (/ - - -)
- 112ii To minimize the absence rate among officers (/ - - -)
113. To keep to a minimum the resources expended on providing non-emergency, general services (? X - -)
114. To provide officers with interesting and fulfilling work (/ - - -)
115. To make use of technology as appropriate (/ - - -)

* This objective was 'agreed' after the term in brackets was added.

*** These objectives were ultimately rejected at the workshop held to structure the objectives.

116. To control or advise certain companies within the (? ? ? X)
private sector (e.g. security firms or insurance
companies)
117. To encourage good working relations between groups (/ - - -)
of officers
- 118i. To promote an image of the police as effective (✓ - - -)
among the general public
- 118ii. To promote an image of the police as effective (✓ - - -)
among criminal groups
119. To take into account an officers character & (? / - -)
attitudes when allocating tasks
120. To ensure that criminals are punished (? X - -)
121. To clearly define the roles & duties of officers (? / - -)
122. To provide other interests for potential offenders (? X - -)
123. To develop contingency plans for major incidents (✓ - - -)
and emergencies
124. To use resources in a flexible manner (/ - - -)
125. To make selective visits to the homes of known (? ? X -)
offenders
126. To seek public support & co-operation (- / - -)

PART II: Additional Objectives 'Agreed' during Workshops held to
Structure the Objectives.

- 128*. To provide advice to planning authorities etc
on crime prevention
- 129. To promote job satisfaction
- 130. To ensure that criminals are brought to justice
- 131. To ensure that officers are properly equipped for
their task
- 132. To make use of non-police personnel where
appropriate
- 133. To have crime prevention officers
- 134. To encourage good citizen behaviour
- 135. To ensure that officers respond courteously &
sympathetically
- 137. To carry out crime prevention surveys
- 138. To co-operate with other force areas
- 139. To make optimum use of police resources (non-
manpower)
- 140. To communicate with the public
- 142. To make optimum use of available police manpower
- 143. To make best use of available talents
- 145. To acknowledge & reward public support & co-
operation
- 146. To ensure that officers carry out their duties
effectively
- 147. To gather criminal intelligence
- 148. To ensure that officers are properly briefed
- 149. To provide an overt police presence

* Objectives 127, 136, 141 and 144 may appear to be missing from
this list. In reality, these never existed. The gaps are simply
due to a clerical error in allocating reference numbers at the
workshops.

150. To establish close personal contacts within the community
151. To have officers on duty when the public are about
152. To enable covert operations to be organised
153. To ensure that officers have direct & regular contact with local criminals & informants
154. To reduce the use made of police vehicles
155. To develop the inter-personal skills of officers

Part III:: The Basis Objectives Identified by the Panel for the
Chelmsley Wood Policing Project.

Basis 1: To increase the amount of foot patrol

Basis 2: To release more officers from response units for structured patrol work

Basis 3: To ensure that there is adequate response coverage

Basis 4: To grade calls more effectively to ensure that an appropriate response can be made

Basis 5: To have greater flexibility of working hours and duties

Basis 6: To have more officers responsible for a single area for a length of time

Basis 7: To promote teamwork among officers

Basis 8: To enhance the level of consultation among police supervisors and staff

Basis 9: To seek a reduction in specialist roles

Basis 10: To reduce paperwork

APPENDIX B: Delphi Questionnaire 1- Introductory Letter,
Instruction Sheet and Samples of Questions.

Introductory Remarks

The following appendix contains the introductory letter, the instruction sheet and samples of questions from the 1st Delphi questionnaire. This was circulated to the police members of the PEEP, the representatives of Chelmsley Wood and chosen colleagues of the police members. The introductory letter was specifically directed to the "colleagues" who were not present at the meeting where the questionnaire was introduced.

THE INTRODUCTORY LETTER

Dear Sir,

many goals and objectives have been suggested for the police, but there exists no universally agreed statement of what these should be. It may, indeed, be unrealistic to expect such a statement to be produced, as police forces operate in vastly different environments and must adjust the service they provide as necessary. Similarly, the demands on the police service change over time and in turn require a different set of objectives to be addressed. However, many police officers would welcome a set of 'pointers' which indicated more clearly what their objectives might be. At present, even this minimal provision is not made.

This lack of direction also constitutes a problem for those involved in the evaluation of policing experiments. It is almost impossible to determine whether a policing experiment has been successful unless its objectives are known. Obviously, it is relatively easy to specify the handful of objectives to which an experiment or scheme is specifically directed; it is less easy to specify the many day-to-day objectives which still have to be taken into account in evaluation. For example, it might be decided that an objective of the scheme is "to reduce vandalism", but, unless this is to be achieved at any price, those monitoring the scheme must determine additionally what effect pursuing this objective had on general (unspecified) policing objectives.

The Police Effectiveness Evaluation panel is soon to begin such an evaluation exercise at the Chelmsley Wood subdivision in the West Midlands. It will be necessary for its members to decide what these "general, unspecified" objectives should be for the purposes of this evaluation. SRDB has attempted to assist the panel by producing a list of 'possible' objectives. These are listed in the following questionnaire and your opinion on whether or not these are proper policing objectives would be welcomed. It is hoped that, with your assistance, the questionnaire will ultimately generate a list of 'proper' objectives for use with the Chelmsley Wood Policing Project. These may even have some wider application.

Instructions for completing the questionnaire follow on the next page. However, it should be stressed here that the questions included therein are not difficult and that there are no right answers. Only your opinions are of interest. (Any information you supply will, of course, be treated as strictly confidential).

It would be helpful if you could complete the questionnaire and return it as soon as possible to the above address.

Many thanks in advance for your help,

Yours sincerely,

Judith Youell (Mrs).

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Instructions for completing the questionnaire:

You will find that the enclosed questionnaire is basically made up of an extensive list of possible policing objectives. In each case, we would like you to specify whether, in your opinion, the particular objective is a proper one for the police service to pursue. If you believe it is, please enter a tick in the adjacent box; if you believe it is not, please enter a cross in this box.

The criteria you use in deciding whether or not the objective is a "proper" one are entirely up to you. However, you will notice that the question "Why?" follows each objective. We would like you to use this space to explain why you believe the objective is or is not a proper policing objective. Long, involved explanations are obviously not required- just first thoughts.

Room has also been left after each objective for you to enter any further comments you may have. We would be particularly interested to know if you feel any of the objectives are badly worded or contain conflicting ideas. Do, of course, feel free to enter any other comments you may have in this space.

Completed questions might then look something like the following examples:

Example 1: To deter young offenders (✓)
Why? *To reduce crime* (Indicating Agreement)
Comment:.....

Example 2: To catch stray dogs (X)
Why? *This is not a police duty* (Indicating Disagreement)
Comment:.....

Finally, on the last page of the questionnaire, there is room for you to add in any further policing objectives which you feel have been excluded from the questionnaire. Despite the large number of objectives already listed, it is inevitable that some important ones will have been missed out.

*Should you need any further help, please phone 01-211-3964

SAMPLE QUESTIONS FROM THE FIRST DELPHI QUESTIONNAIRE

1. To encourage mental and physical fitness in officers ()

Why ?.....
.....
.....

Comment (if any):
.....

2. To encourage the public to police itself ()

Why ?.....
.....
.....

Comment (if any):
.....

3. To prevent crime ()

Why ?.....
.....
.....

Comment (if any):
.....

4. To ensure that legal rights are extended to all ()

Why ?.....
.....
.....

Comment (if any):
.....

5. To protect property ()

Why ?.....
.....
.....

Comment (if any):
.....

APPENDIX C: Delphi Questionnaire 2- Instruction Sheet and Samples
of Questions.

Introductory Remarks

The following appendix includes a copy of the instruction sheet and samples of the questions for Delphi questionnaire 2. The questionnaire was introduced at a meeting and was completed only by police panel members and representatives of the Chelmsley Wood sub-division. Hence, no introductory letter was supplied on this occasion.

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Instructions for completing the questionnaire:

This questionnaire consists of a list of objectives which remained unagreed after the first round i.e. members failed to reach agreement about whether these were (or were not) 'proper' policing objectives. The questionnaire also contains the responses to the question "Why?" which were given in the original questionnaire. These are listed along with the appropriate objective and form the "fors" and "againsts" for the objective being a proper policing objective.

In this questionnaire, we would like you to consider each objective in turn and to note the reasons suggested by other members for the objective being adopted. There is no reason to change your mind about the status of an objective unless you wish to. However, it may be that you will see some objectives in a slightly different light after considering the justifications given by others.

As in the original questionnaire, you are asked to read through each item and then place a tick (to signify that you feel that the objective is a proper one) or cross (to signify that you feel that the objective is not a proper one) in the box provided. It is not essential on this occasion to make an entry in the "why?" box and hence the questionnaire should not be so arduous. However, if you can think of any further reasons to back up your opinion, please do enter them in this space. This is particularly important if you are expressing a minority opinion.

The following example should make clear what is required:

EXAMPLE

60% agreed that "to assist with clubs for the elderly" was a proper policing objective. 40% disagreed.

The reasons given 'for' were:

- a) to get to know local people
- b) to identify those in the community with special needs

The reasons given 'against' were:

- a) the police should not show favouritism to a particular group
- b) the police do not have sufficient manpower to do this

Enter tick/cross (X)

Why? ... This... activity... would... gain... very
... little... for... the... police... ..

CONTD OVERLEAF

Instructions (Contd.)

HAVING READ THROUGH THE 'FORS' AND 'AGAINSTS' THE RESPONDENT REJECTS THE OBJECTIVE AND CHOOSES TO SUPPLY A FURTHER JUSTIFICATION FOR HIS OPINION. Equally, he might have supported the objective and entered a tick in the box (with or without comment).

The respondent might also have felt that both sides of the argument were valid. In this case, he might have decided to adopt a compromise position and indicated as such in the "Why?" box. This is shown in the following example:

EXAMPLE

60% agreed that "to assist with clubs for the elderly" was a proper policing objective. 40% disagreed.

The reasons given 'for' were:

- a) to get to know local people
- b) to identify those in the community with special needs

The reasons given 'against' were:

- a) the police should not show favouritism to a particular group
- b) the police do not have sufficient manpower to do this

Enter tick/cross ()

Why? *!...prefer...to...compromise...to...say
!"to...assist...with...clubs...for...the..."
elderly - manpower permitting!*

It is quite acceptable to answer in this fashion in the questionnaire.

Respondents should note that a few extra objectives have been included in the questionnaire which were suggested during the first round. You are asked to treat these in the same manner as other 'first round' questions. (These objectives are clearly marked within the questionnaire).

*Should you need any further help, please phone 01-211-3964

SAMPLE QUESTIONS FROM THE SECOND DELPHI QUESTIONNAIRE

1. 33% agreed that "to ensure that officers maintain their formal role and dignity" was a proper policing objective. 67% disagreed.

The reasons given 'for' were:

- a) to maintain a good public image
- b) to maintain our credibility

The reasons given 'against' were:

- a) it is not necessary to be formal
- b) the police are more popular in an informal capacity
- c) this causes a barrier between police and the public

Enter tick/cross ()

Why?
.....

2. 75% agreed that "to provide officers with interesting and fulfilling work" was a proper policing objective. 25% disagreed.

The reasons given 'for' were:

- a) to increase job satisfaction and thus promote effective policing
- b) to maintain morale
- c) to retain good officers
- d) to give officers a sense of achievement
- e) to fulfill a management responsibility

The reasons given 'against' were:

- a) the public provide this
- b) recruits are aware of the nature of the job and must take what comes

Enter tick/cross ()

Why?
.....

APPENDIX D: Delphi Exercise (Part 3): Sample of Material
Circulated Prior to Interviews.

Introductory Remarks

No introductory letter or instruction sheet was circulated to the panel on this occasion as the exercise was fully explained at a panel meeting. Further, it was not intended that the material actually supplied should be considered in depth prior to the personal interview. Interviewees were merely asked to read through and familiarise themselves with it as far as possible prior to the actual interview. The material consisted of a list of still unagreed objectives along with the reasons given 'for' and 'against' in each case during the two rounds of the Delphi exercise. The format used was precisely the same as that for the second Delphi questionnaires, except that brackets and "Why?" boxes were omitted. However, for the sake of completeness, two samples of objectives contained in this questionnaire are supplied overleaf.

SAMPLES OF MATERIAL CONTAINED IN THE PRELIMINARY DOCUMENT

CIRCULATED PRIOR TO "DELPHI" INTERVIEW

1. 67% agreed that "to ensure that legal rights are extended to all" was a proper policing objective. 33% disagreed.

The reasons given 'for' were:

- a) to maintain public satisfaction
- b) to maintain fairness and impartiality
- c) to meet the requirements of the law

The reasons given 'against' were:

- a) this is a politico-legal function
- b) this should happen without it being necessary to specify it as an objective

2. 50% agreed that "to provide an image of authority in the community" was a proper policing objective. 50% disagreed.

The reasons given 'for' were:

- a) to provide reassurance to the public
- b) to provide the public with an example to follow
- c) to fulfill community expectations of the police force
- d) to provide a social point of reference

The reasons given 'against' were:

- a) authority causes resentment
- b) the police should be a service not a force
- c) the officer should be part of the community

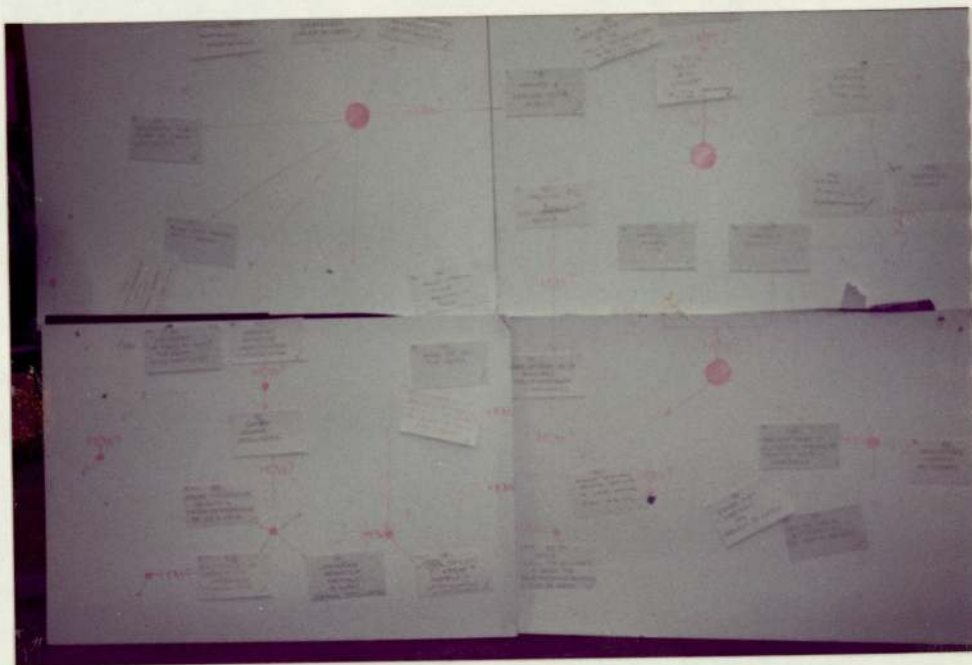
APPENDIX E: Views of the Objectives Tree.

Introductory Note

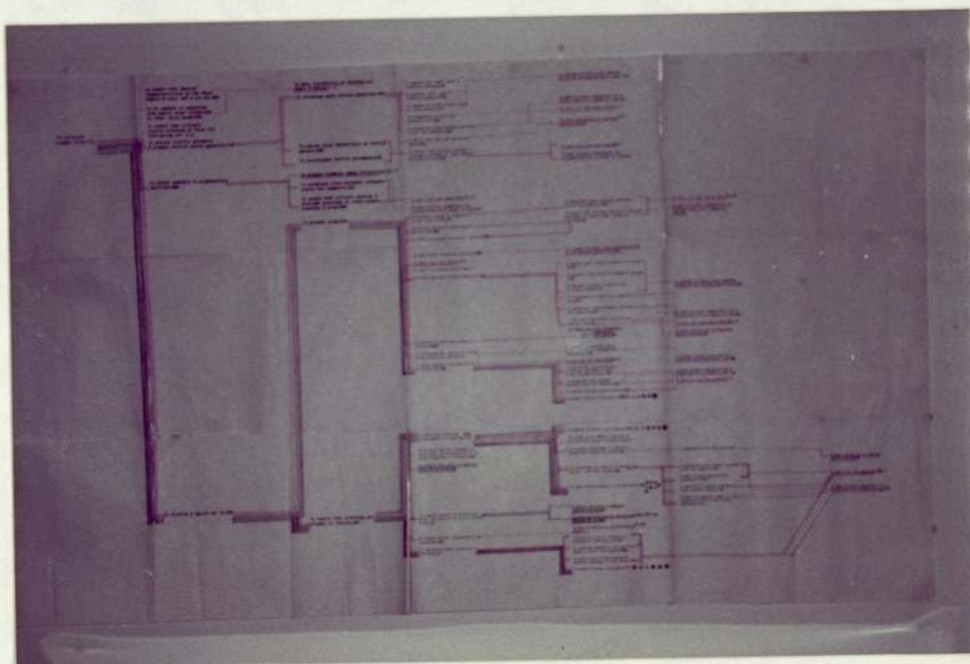
Three separate 'views' of the "Objectives Tree" developed by the PEEP are shown in this appendix. The first 'view' is supplied by a photograph of part of the preliminary tree constructed using 'blu-tacked' index cards. (This was displayed at the first series of workshops when the panel had an opportunity to amend it in order to reflect their various views more fully). The second 'view' again comes from a photograph, but this time it is of a branch of the final version of the tree displayed at the assessment of success workshops. (On this occasion, the tree was used to guide the assessment of individual objectives, and was colour coded to show the impact of "basis" objectives).

The final view of the tree is perhaps the least satisfactory. This shows the whole tree, but unfortunately its rather vast size means that it can only be included here by splitting it between numerous sheets of paper. However, reference numbers are supplied guiding the reader through the tree and it is hoped that it will be possible to gain a general impression of how the whole tree might look. (Two further views of the tree are displayed in Appendix H and Appendix I).

View 1: A Photograph of Part of the Preliminary Objectives Tree
Displayed at the First PEEP Workshops held to Structure
the Objectives.

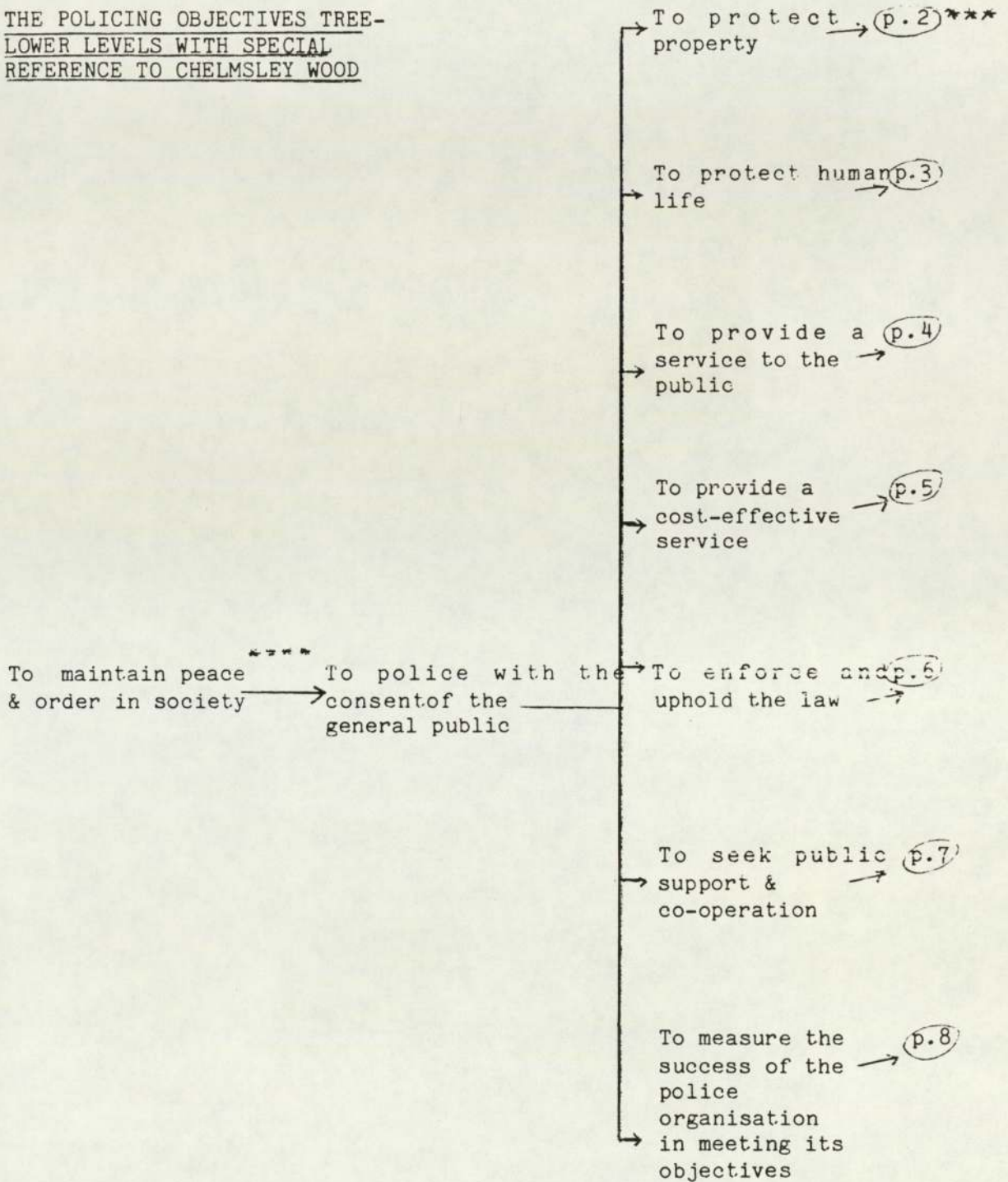


View 2: A Photograph of One Branch of the Final Objectives Tree
Displayed at the Assessment of Success Workshops.



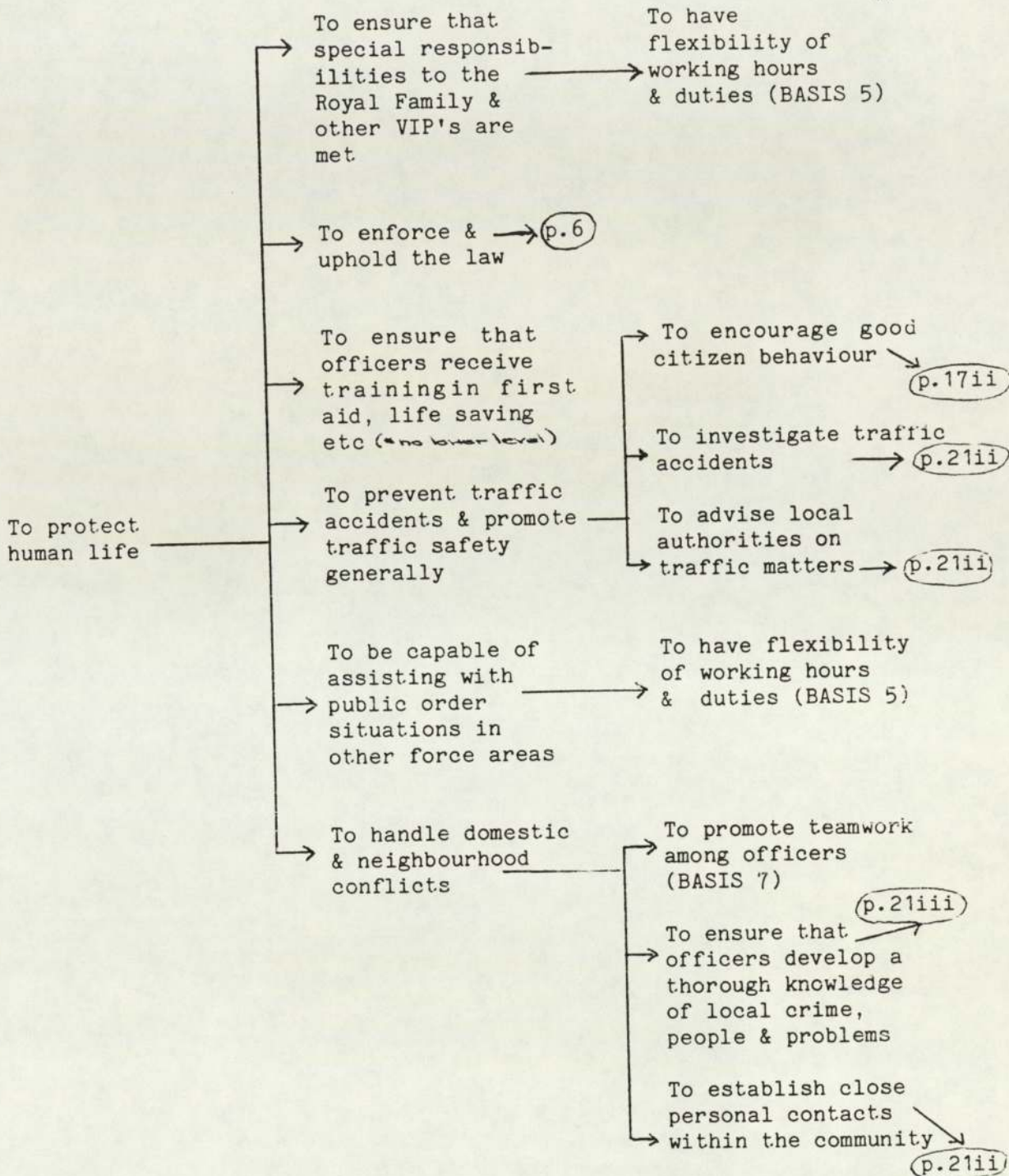
View 3: The Whole Objectives Tree (Displayed in Segments).

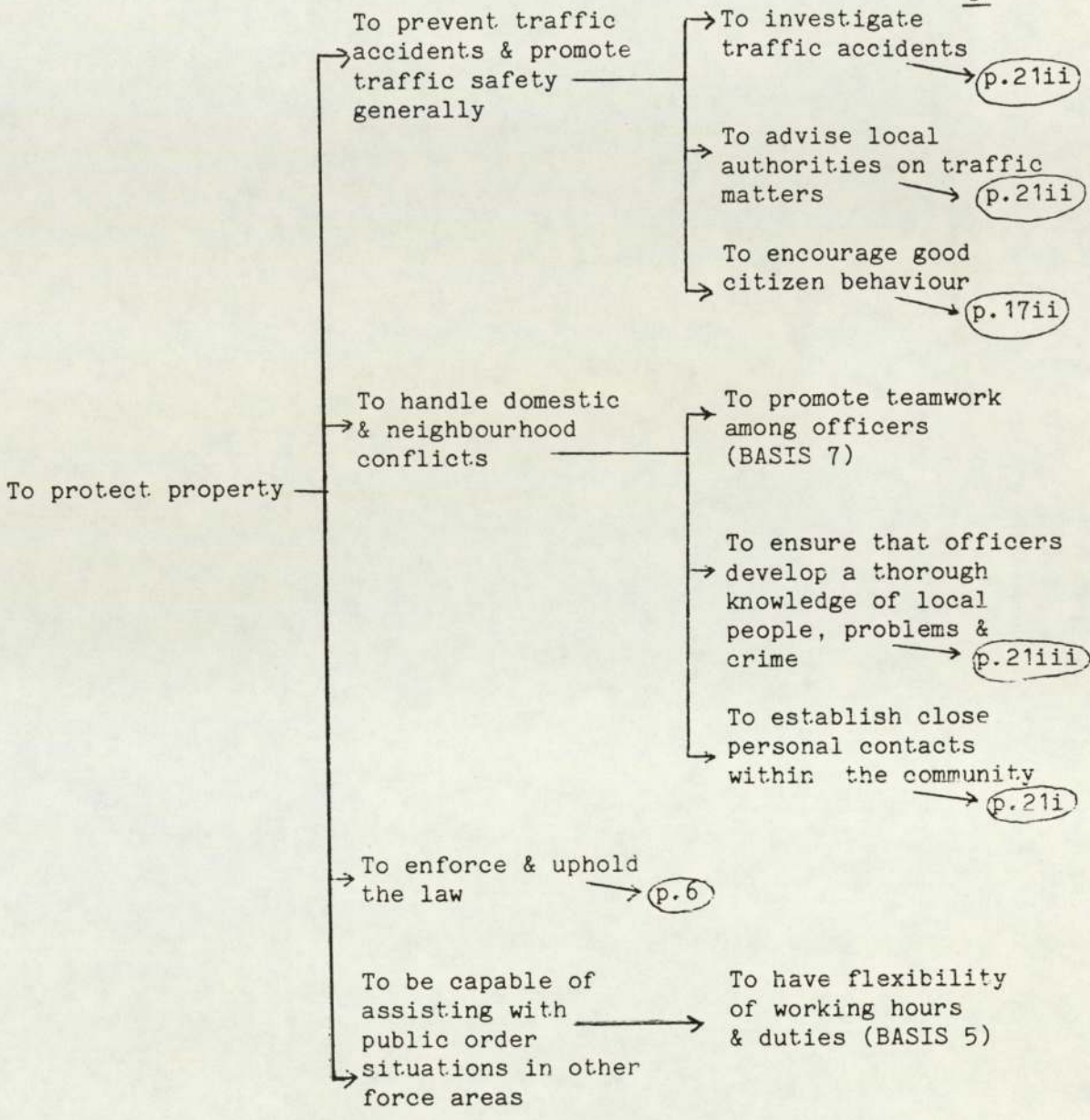
THE POLICING OBJECTIVES TREE-
LOWER LEVELS WITH SPECIAL
REFERENCE TO CHELMSLEY WOOD

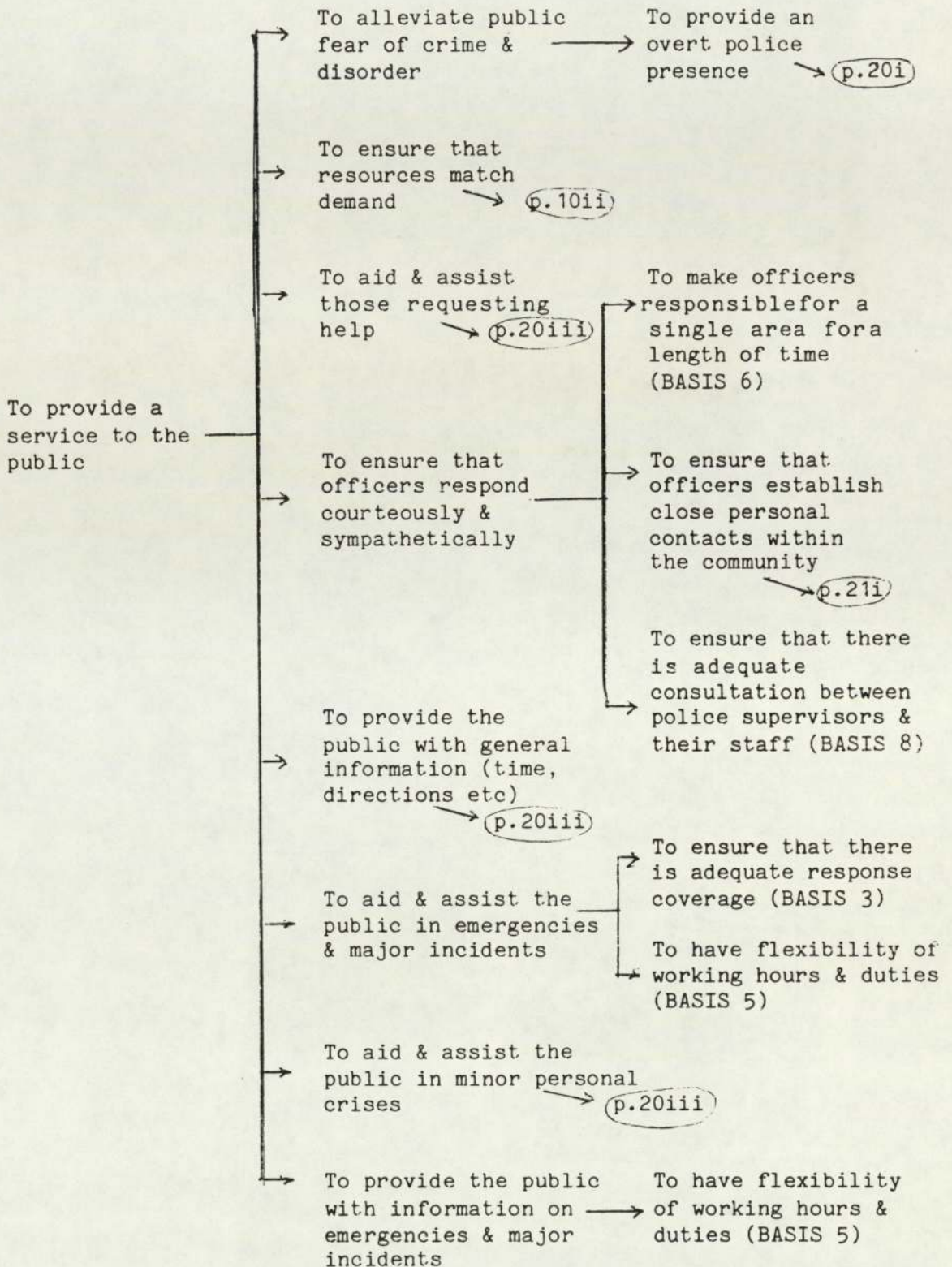


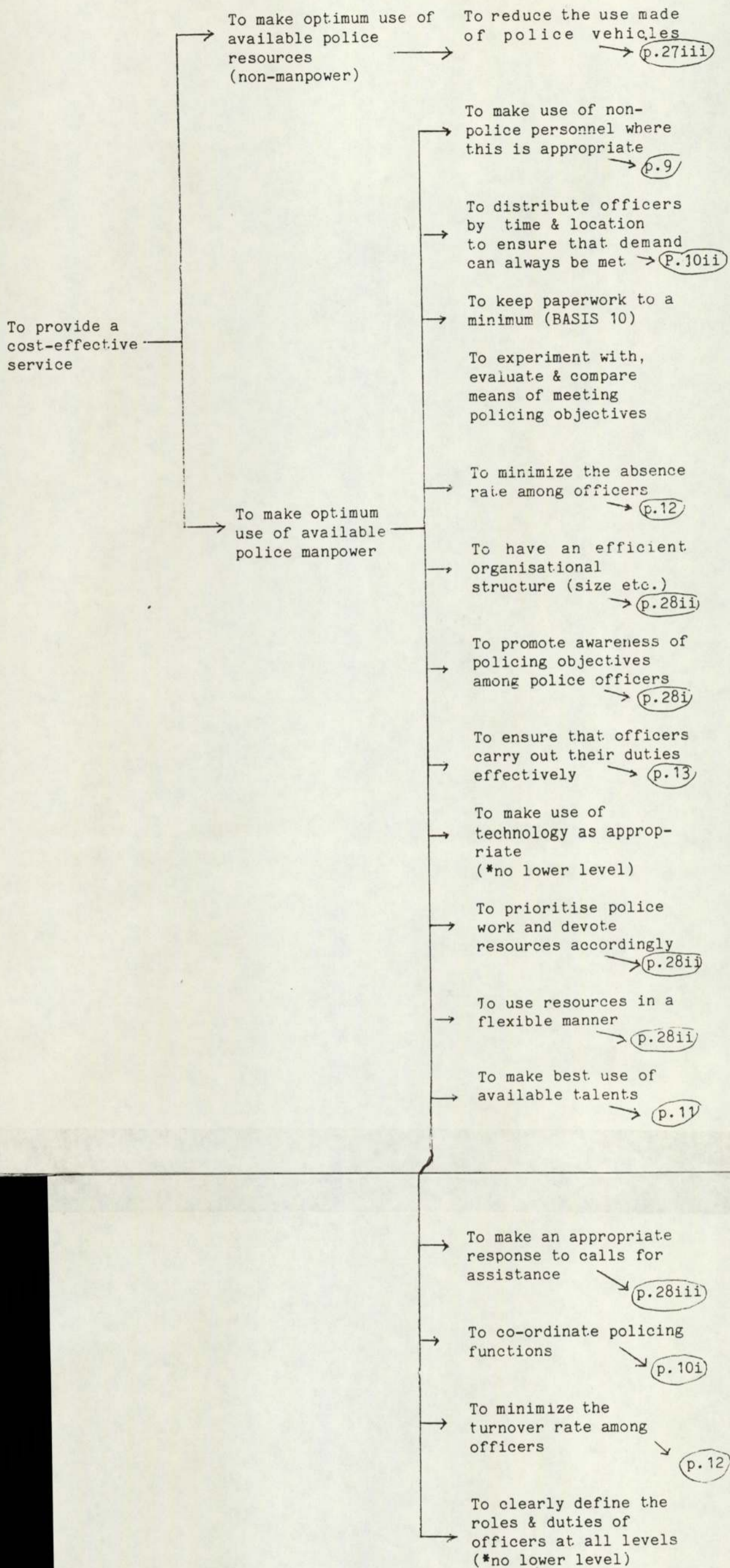
****The arrows linking the objectives indicate how the higher level objective is to be achieved; travelling in reverse along the arrow shows why the lower level objective is to be undertaken

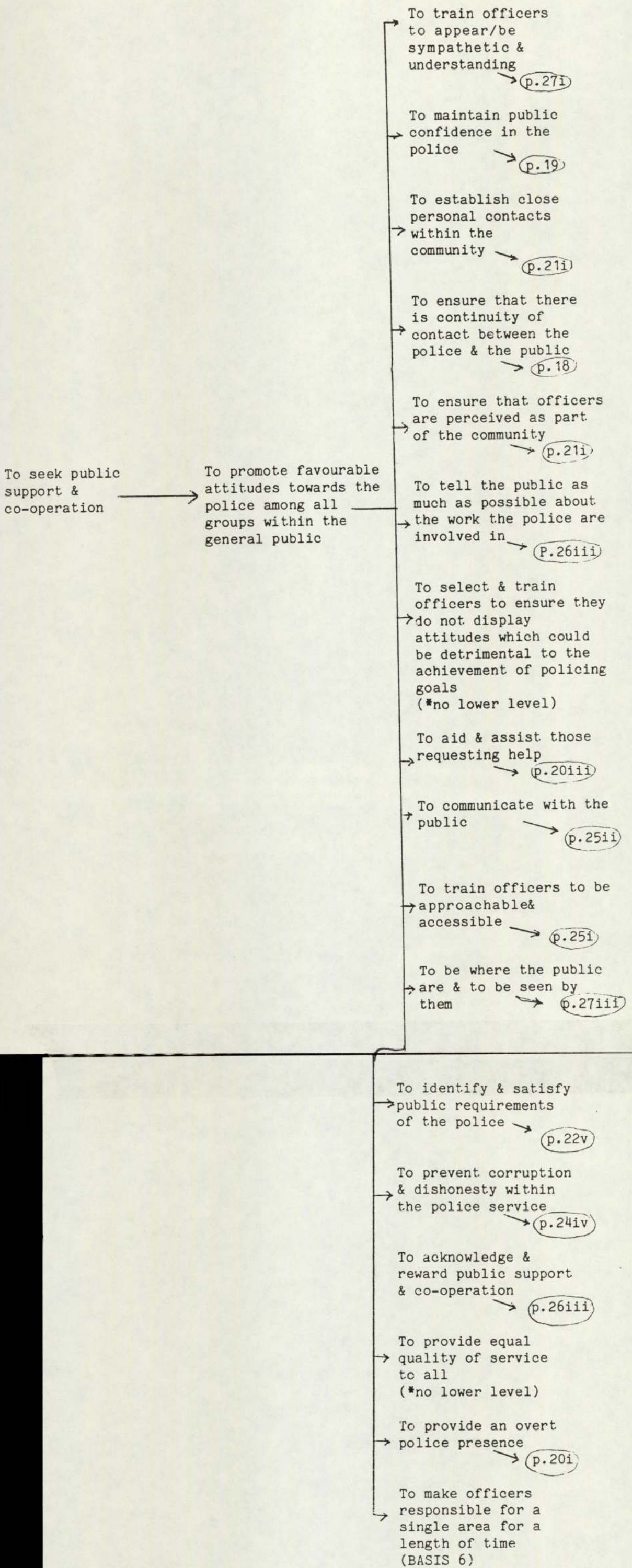
***The page number indicates where this branch of the tree is continued in the appendix. The branch of the tree is complete when a basis objective is reached.











To enforce & uphold the law

To prevent crime

To ensure that criminals are brought to justice

To provide advice to planning authorities
→ (p.22ii)

To have crime prevention officers
→ p.22iii

To encourage good citizen behaviour
→ (p.17ii)

To encourage the public to follow crime prevention advice
→ (p.17i)

To deter people from committing criminal acts
→ (p.23)

To carry out crime prevention surveys
→ (p.22ii)

To carry out foot patrol (BASIS 1)

To carry out mobile patrol (*no lower level)

To promote a sense of community in the local area
→ (p.22i)

To ensure that officers are properly briefed
→ (p.22iv)

To provide factual evidence to facilitate the prosecution of those suspected of offences

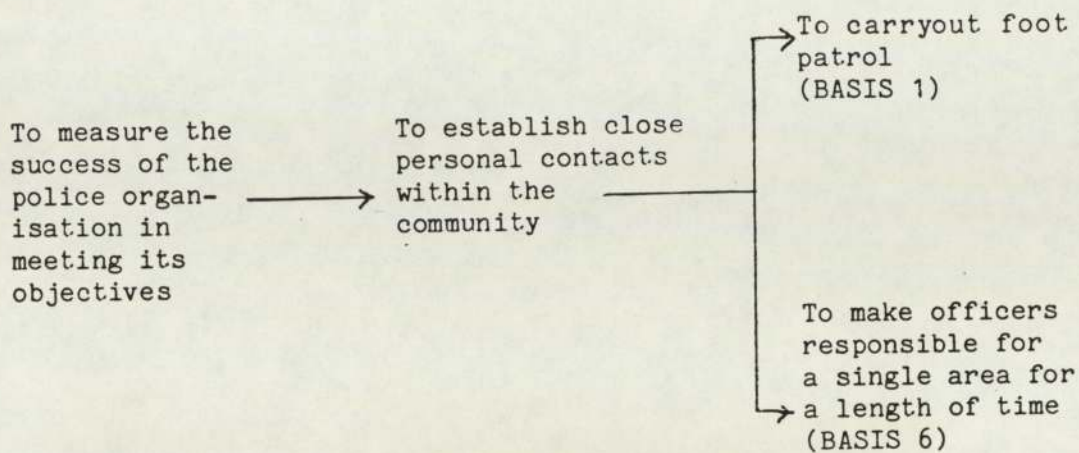
To apprehend those suspected of offences
→ (p.26ii)

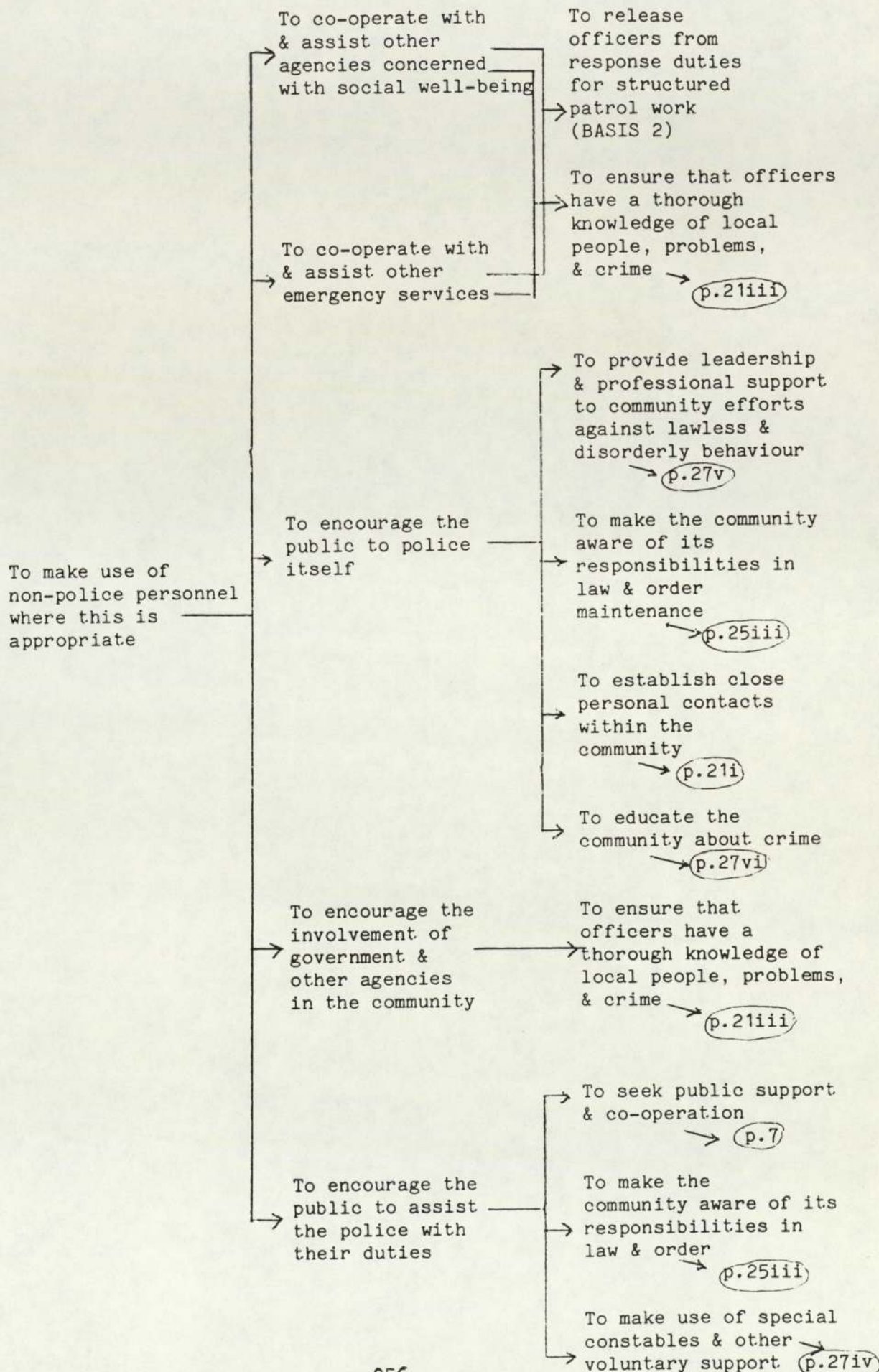
To respond quickly & effectively after the occurrence of a criminal event
→ (p.25iv)

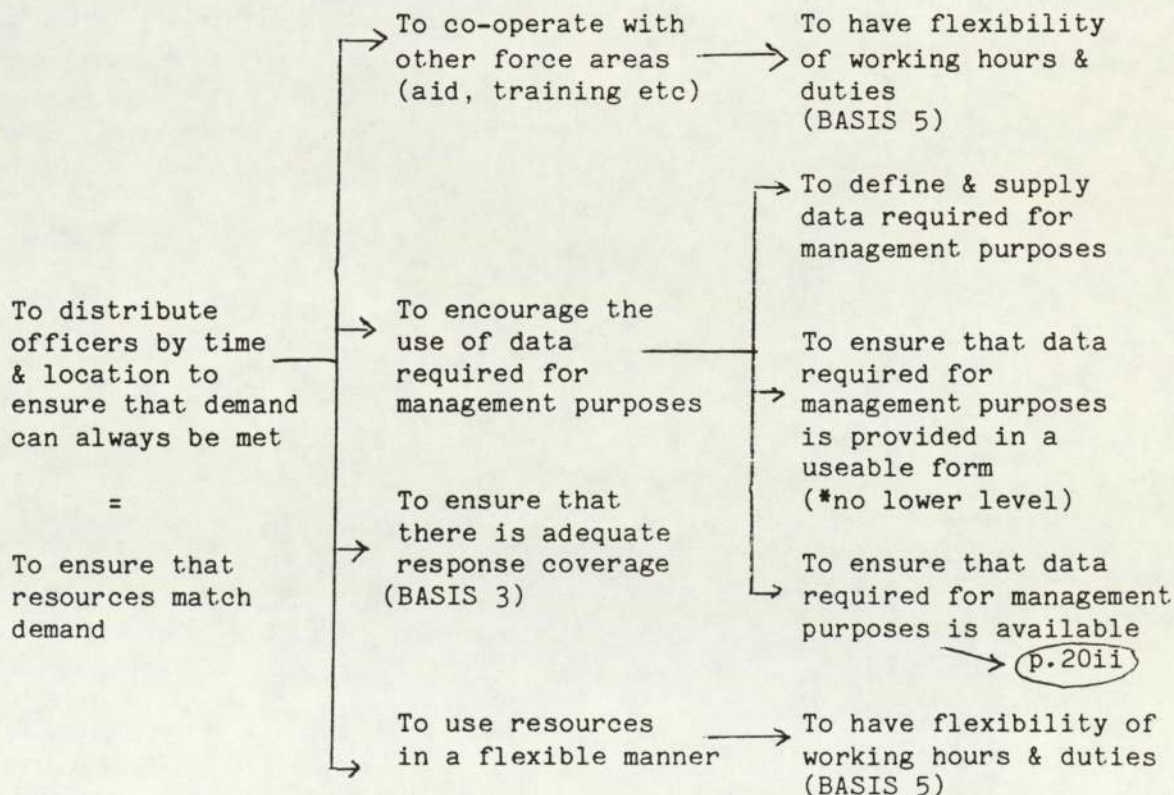
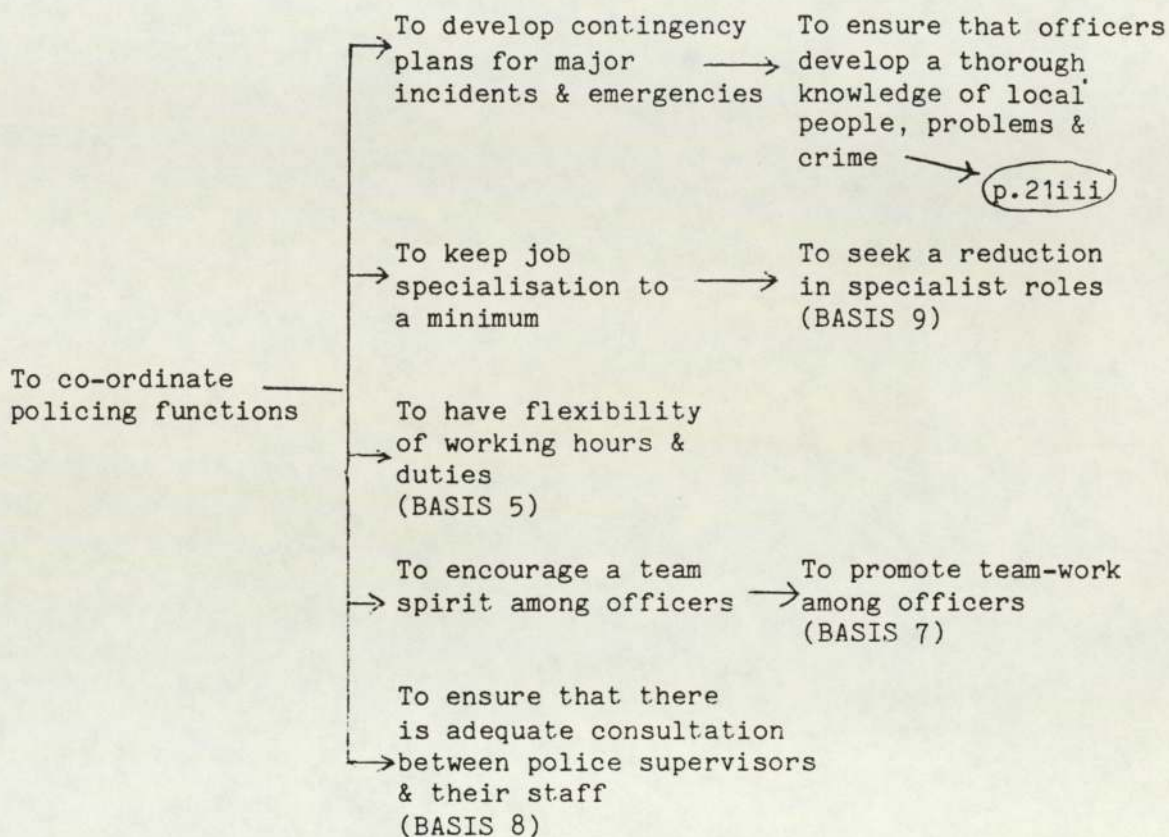
To allow covert operations to be organised
→ (p.26i)

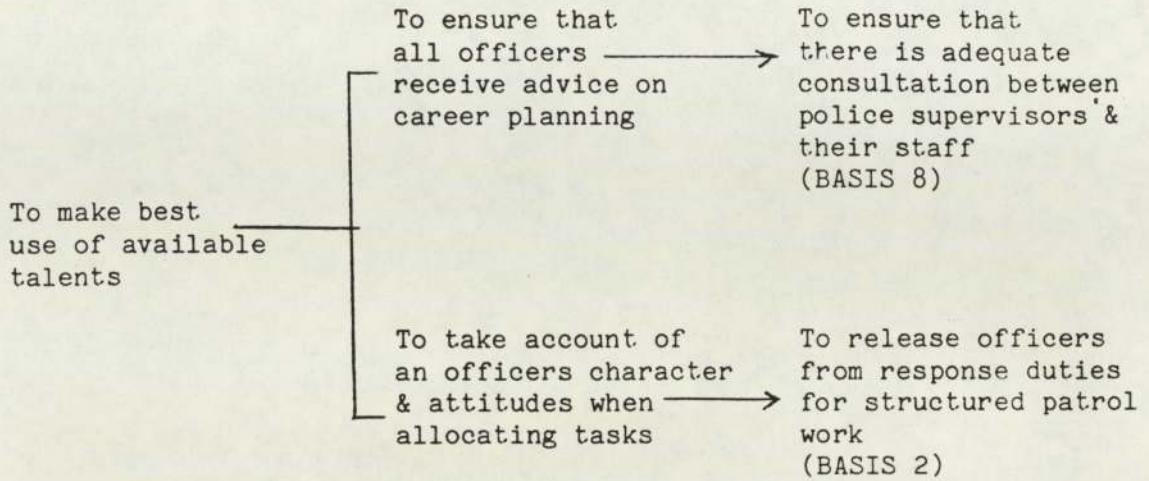
To carry out effective investigation and interrogation
→ (p.16)

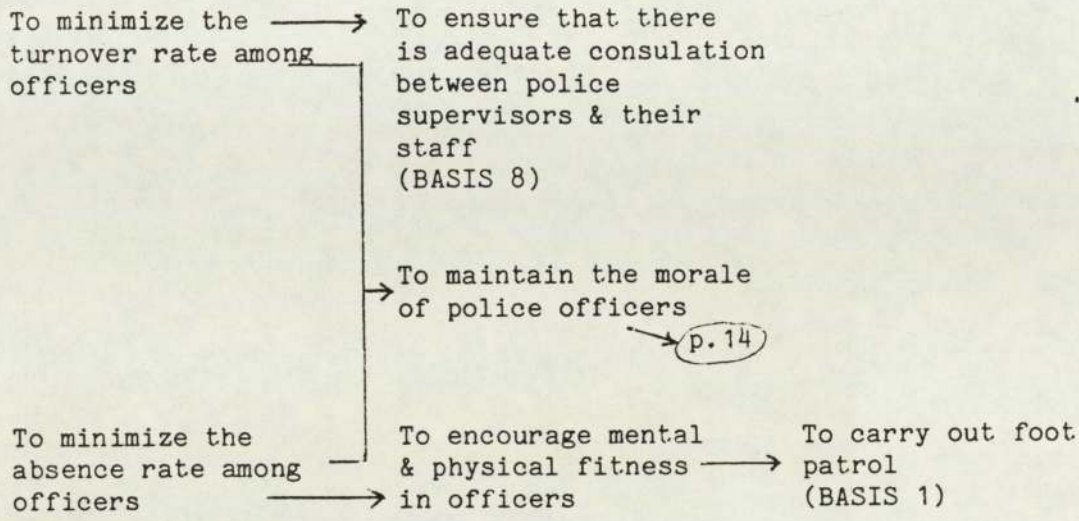
To ensure that there is adequate response coverage (BASIS 3)

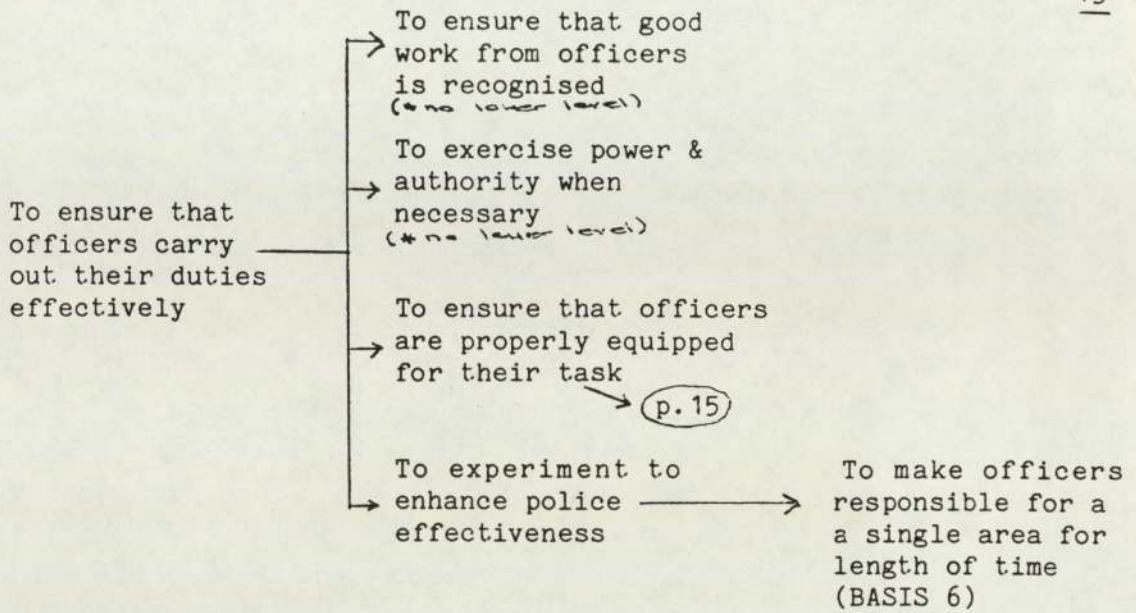


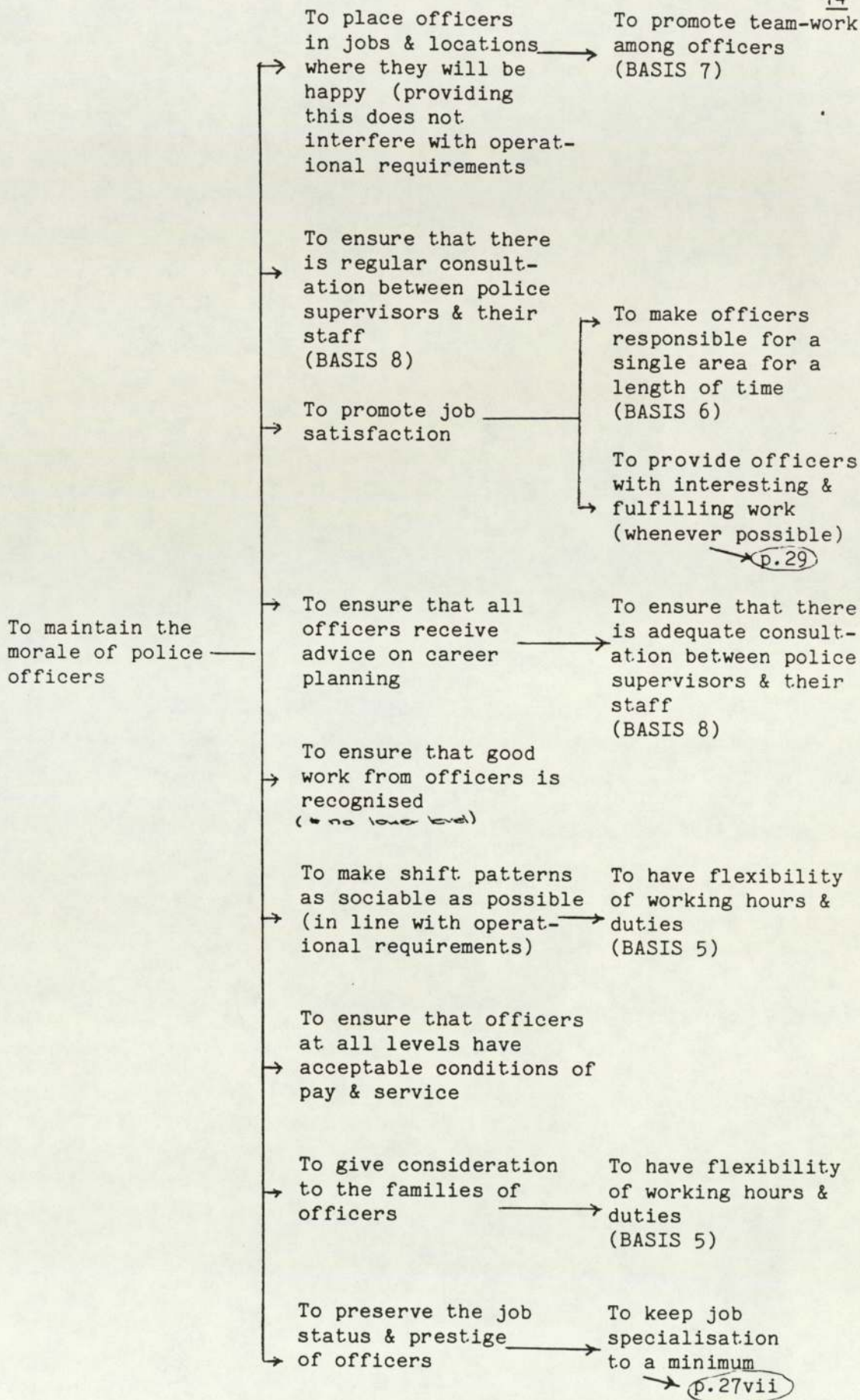


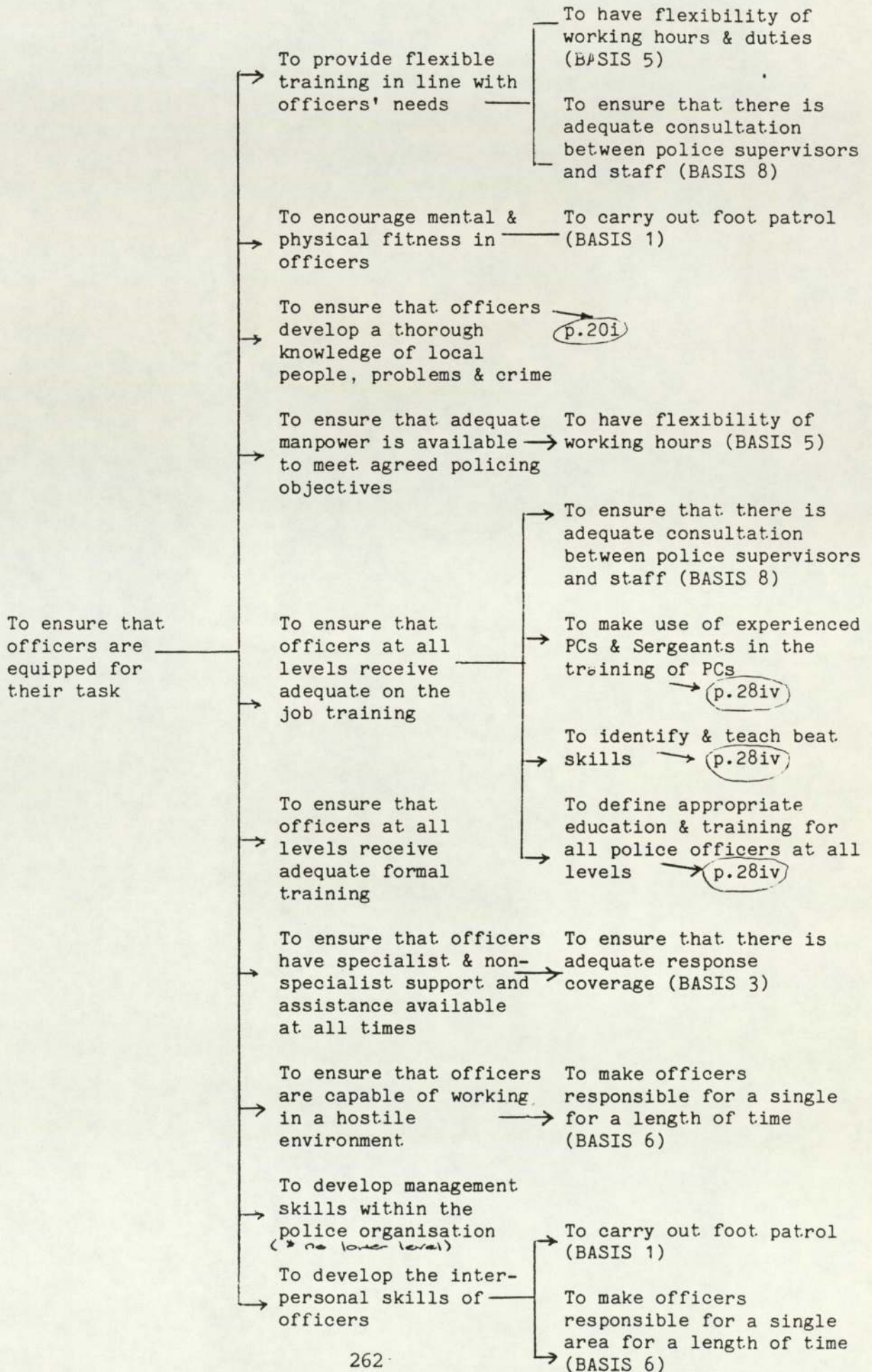


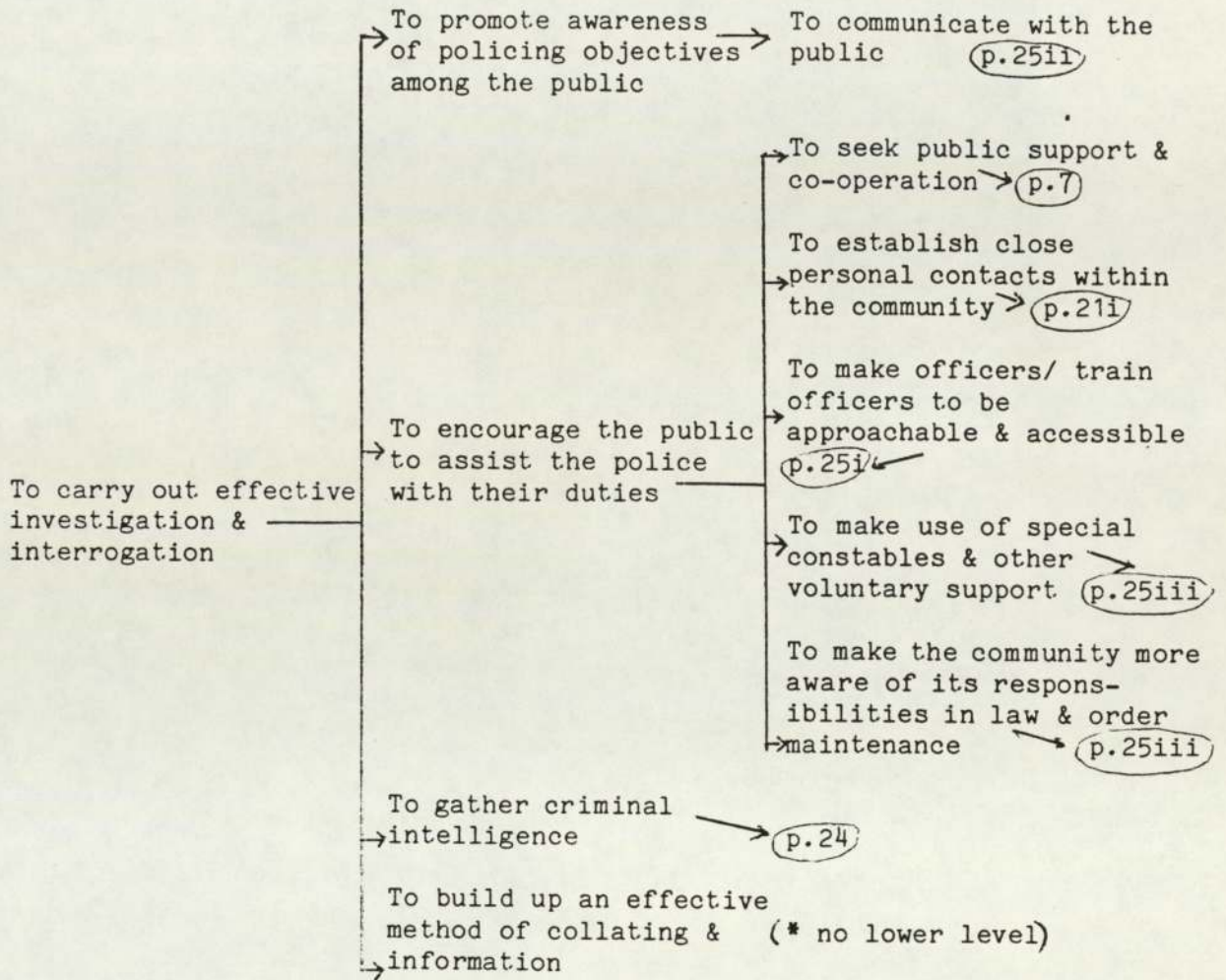












To encourage the public to follow crime prevention advice →

To educate the community about crime, (its consequences, causes & incidence) →

To release officers from response duties for structured patrol work (BASIS 2)

To encourage good citizen behaviour

→ To become involved in activities in local schools →

To release officers from response duties for structured patrol work (BASIS 2)

→ To integrate officers into community life →

To carry out foot patrols (BASIS 1)

→ To support local youth & community groups →

To release officers from response duties for structured patrol work (BASIS 2)

→ To establish close personal contacts within the community →

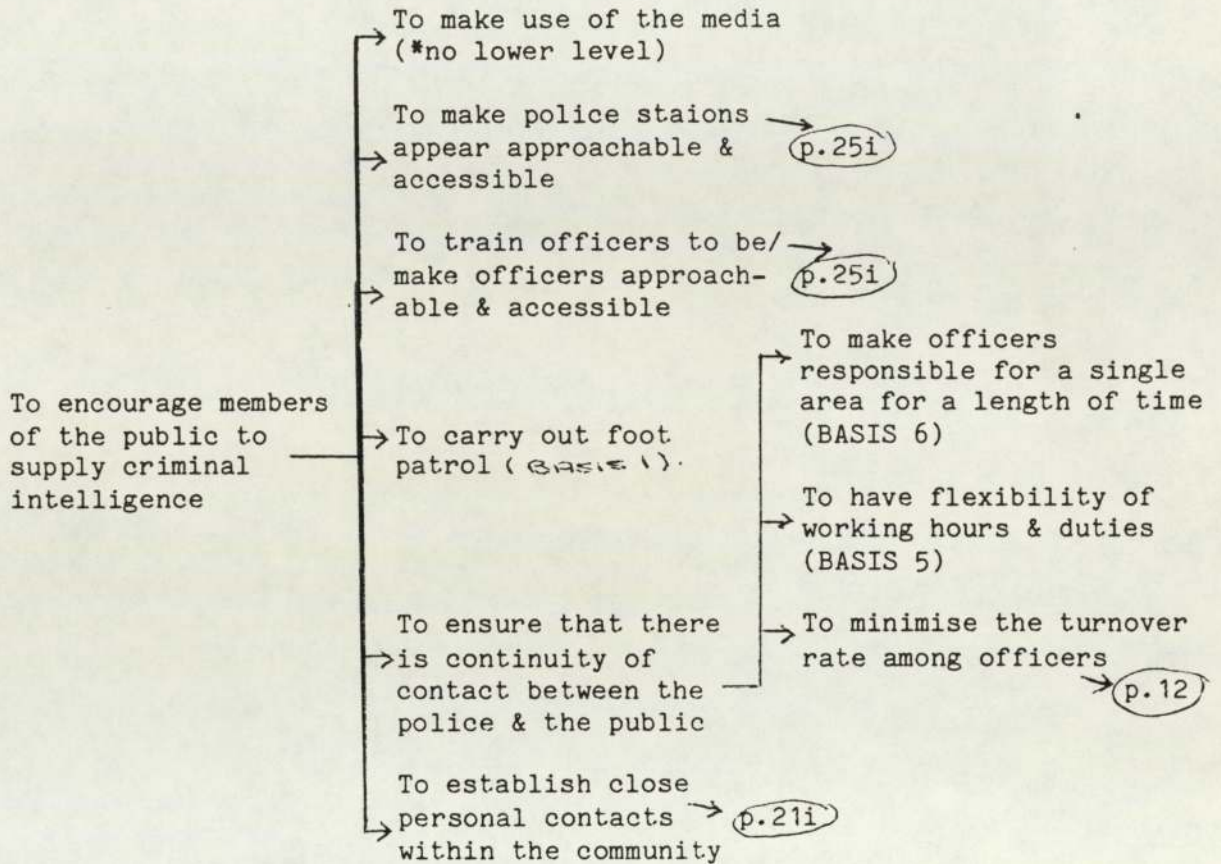
To make officers responsible for a single area for a length of time (BASIS 6)

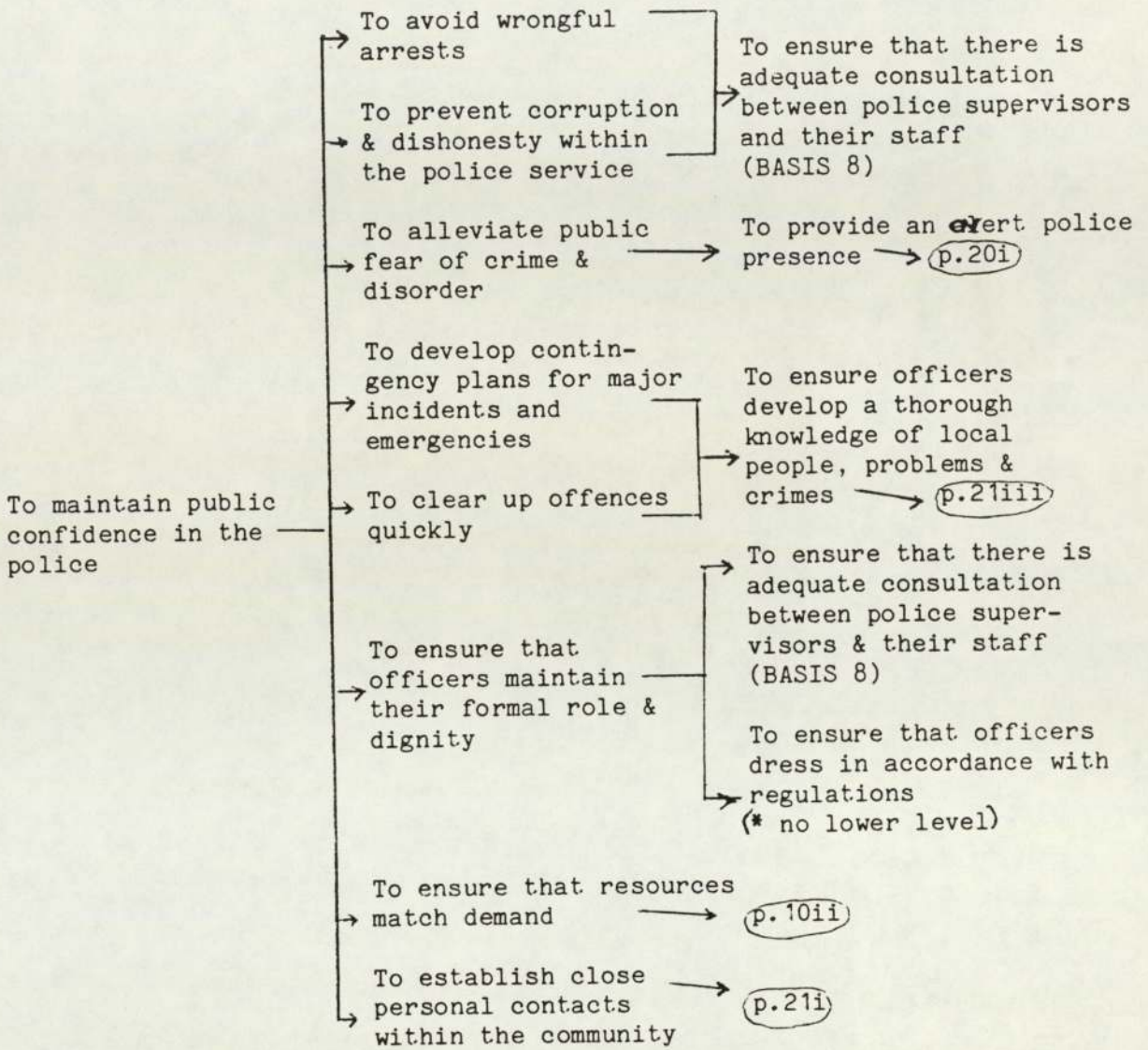
→ To assist local youth & community groups →

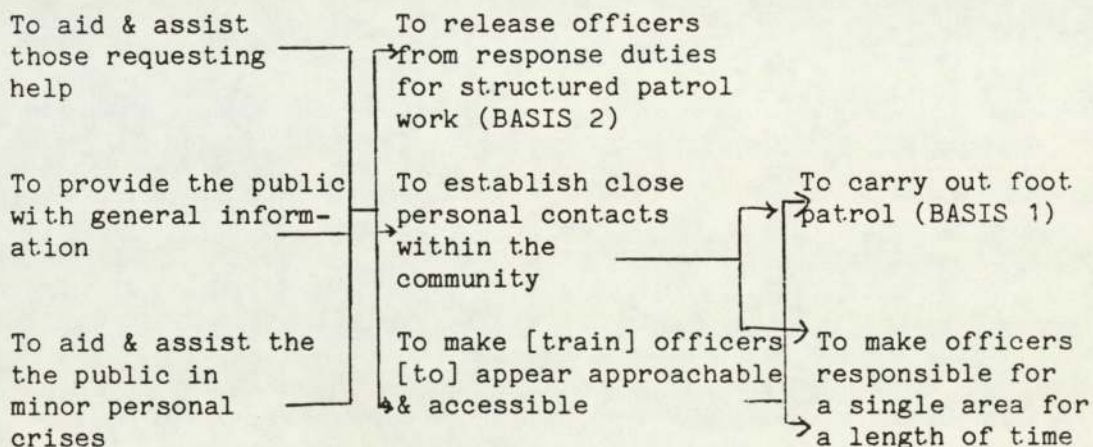
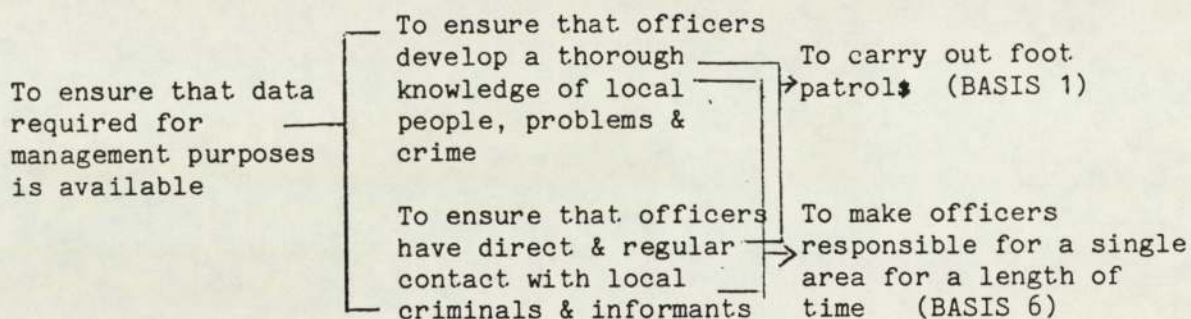
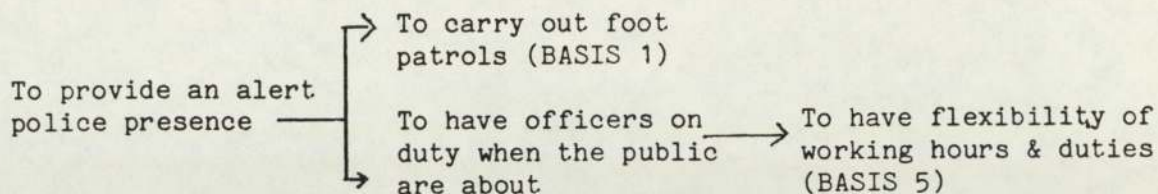
To release officers from response duties for structured patrol work (BASIS 2)

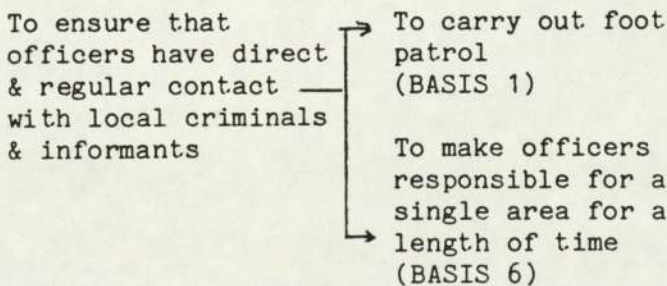
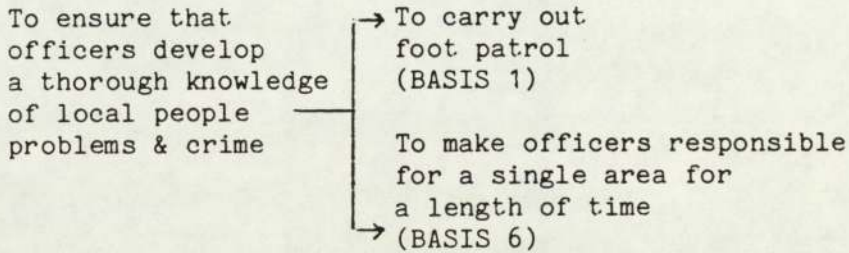
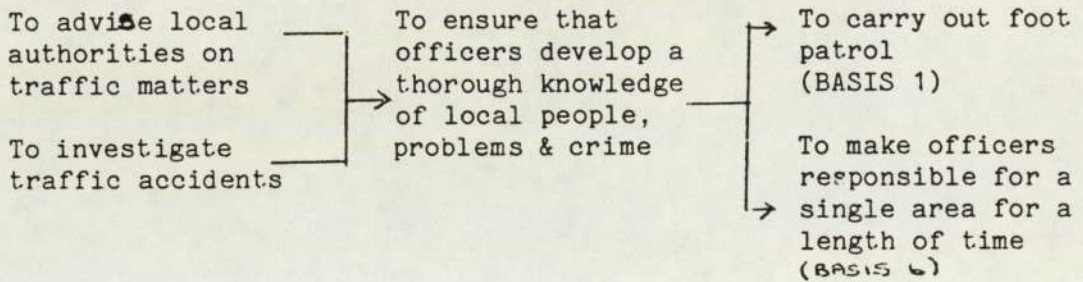
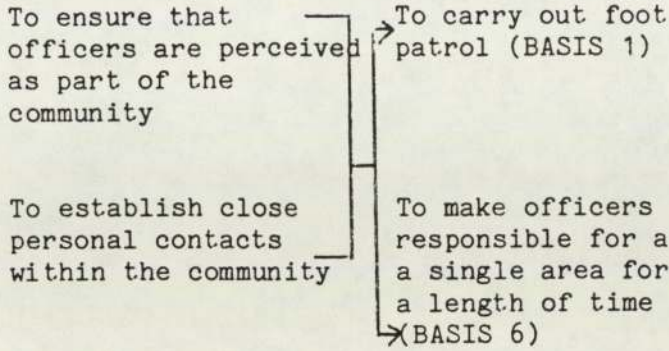
→ To be on duty when the public are about →

To have flexibility of working hours & duties (BASIS 5)









To promote a sense of community in the local area → To establish close personal contacts within the community (p.21i)

To provide advice to planning authorities → To ensure that officers develop a thorough knowledge of local people, problems, & crime (p.21iii)

To carry out crime prevention surveys

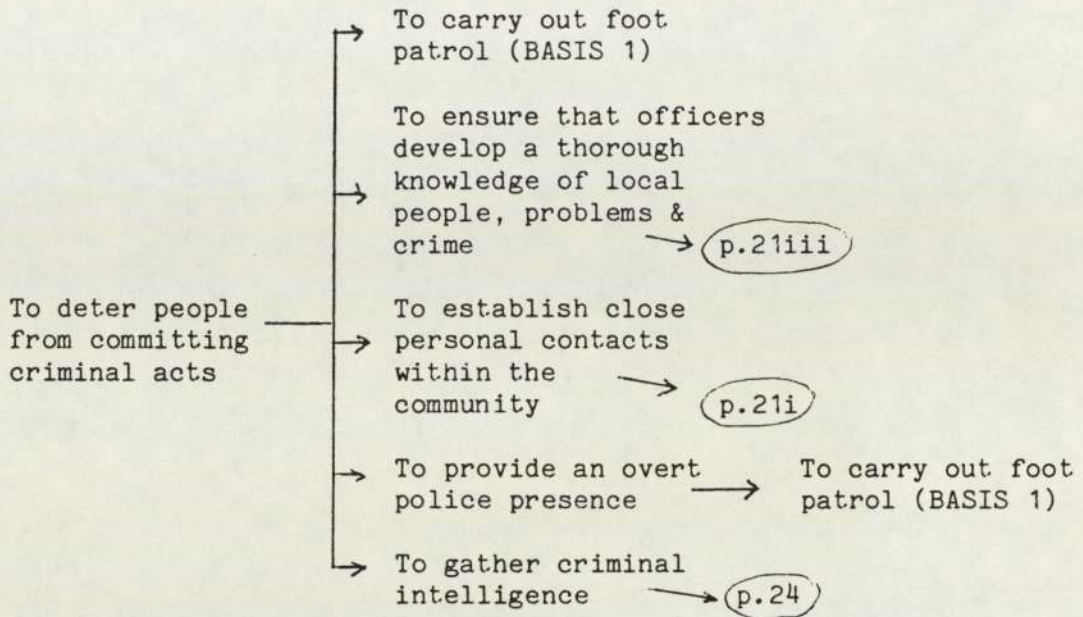
To have crime prevention officers → To release officers from response duties for structured patrol work (BASIS 2)

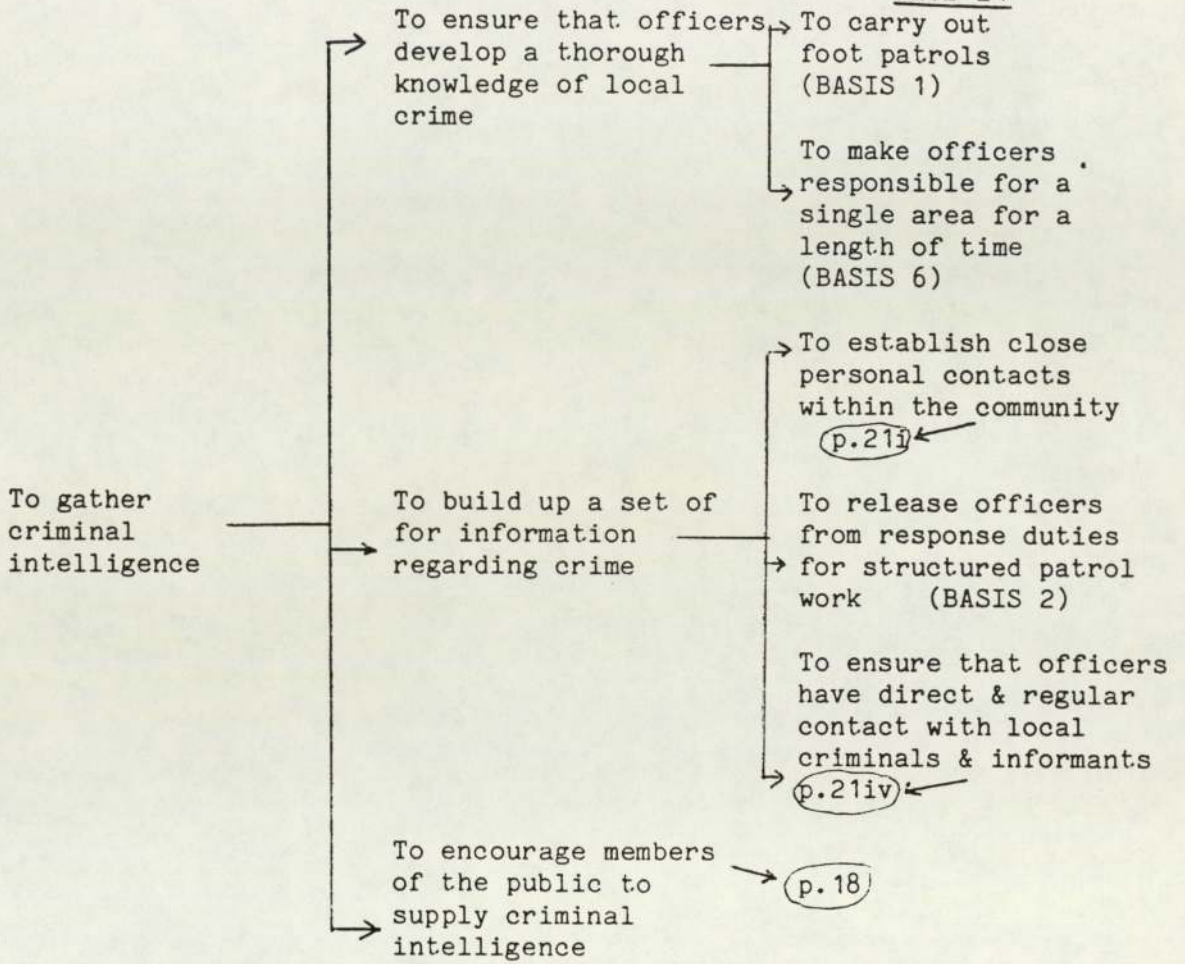
To ensure that officers are properly briefed → To ensure that there is adequate consultation between police supervisors & their staff (BASIS 8)

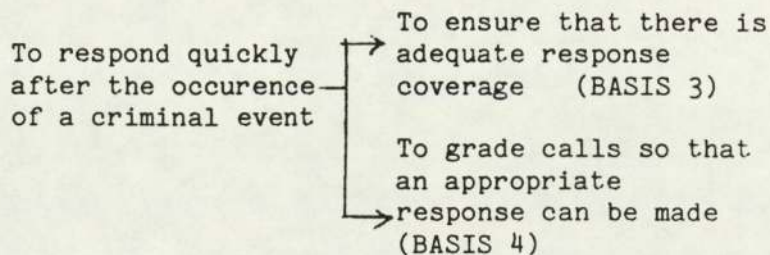
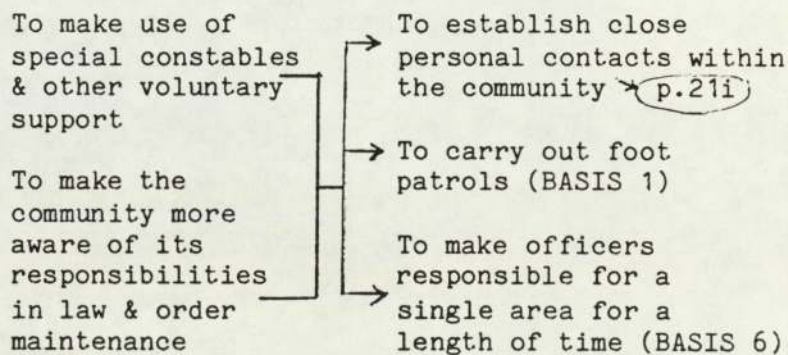
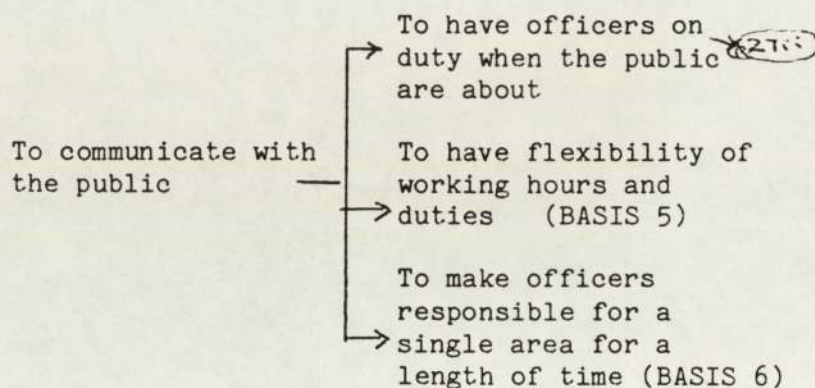
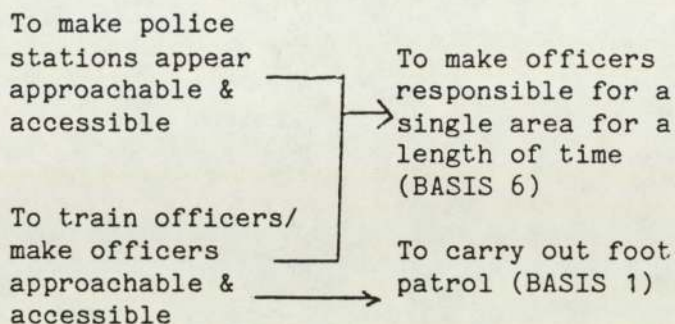
To prevent corruption & dishonesty within the police service

To identify & satisfy public requirements of the police → To communicate with the public p.25ii

→ To ensure that there is adequate response coverage (BASIS 3)







To enable covert operations to be organised → To have flexibility of working hours & duties (BASIS 5)

To apprehend those suspected of offences

- To build up a set of contacts for information regarding crime → (p.24)
- To encourage members of the public to supply criminal intelligence → (p.18)
- To ensure that officers develop a thorough knowledge of local crime → (p.21iii)
- To gather criminal intelligence → (p.24)

To acknowledge & reward public support & co-operation

To tell the public as much as possible about the work the police are involved in

- To make officers responsible for a single area for a length of time (BASIS 6)
- To carry out foot patrols (BASIS 1)

To train officers to be sympathetic & understanding → To carry out foot patrol (BASIS 1)

To be where the public are & to be seen by them → To have officers on duty when the public are about → To have flexibility of working hours & duties (BASIS 5)

To reduce the use made of police vehicles → To carry out foot patrol (BASIS 1)

To make use of special constables & other voluntary support → To carry out foot patrol (BASIS 1)

To provide leadership & professional support to community efforts against lawless & disorderly behaviour → To ensure that officers have a thorough knowledge of local people, problems & crime (p.27iii)

To educate the community about crime → To release officers from response duties for structured patrol work (BASIS 2)

To keep job specialisation to a minimum → To seek a reduction in specialist roles (BASIS 9)

To promote awareness of policing objectives among police officers → To ensure that there is adequate consultation between police supervisors and their staff (BASIS 8)

To use resources in a flexible manner → To have flexibility of working hours & duties (BASIS 5)

To prioritise police work & devote resources accordingly

To have an efficient organisational structure

To make an appropriate response to calls for assistance → To ensure that there is adequate response coverage (BASIS 3)

→ To release officers from response duties for structured patrol work (BASIS 2)

→ To grade calls so for assistance so that an appropriate response can be made (BASIS 4)

To make use of experienced PCs & Sergeants in the training of PCs → To ensure that there is adequate consultation between police supervisors & their staff (BASIS 8)

To identify and teach beat skills

To define appropriate education & training for police officers at all levels

To provide officers
with interesting &
fulfilling work

→ To establish close
personal contacts
within the community → p.21i

→ To ensure that
officers develop a
thorough knowledge
of local people, problems
& crime → p.21iii

APPENDIX F: "Likely to be Affected" Objectives- Samples of
Questions.

Introductory Remarks

The "likely to be affected" objectives questionnaire was again introduced and explained at a meeting of the panel. Brief written instructions were also supplied (as shown overleaf), but these were only intended as an 'aide memoire'. The questionnaire itself consisted of a list of 'agreed' objectives with space to explain "why" any objectives were likely to be affected. Information was also supplied about the original reference number of the objective and the page on which it appeared in an objectives tree similar to that shown in Appendix E. An example of the format is shown on page 280.

INSTRUCTIONS FOR COMPLETION OF QUESTIONNAIRE

Instructions for Completion of the Questionnaire:

The attached questionnaire consists of a list of objectives which the PEEP have agreed are proper objectives. You are asked to consider these objectives in turn and, using your experience as police officers and knowledge of Chelmsley Wood, to indicate which are likely to be affected under the Project by making an entry in the box provided. In instances where you feel Chelmsley Wood's ability to meet a particular objective is likely to be enhanced, please enter "+"; in cases where you believe this ability could be reduced, please enter "-". As with previous questionnaires, it would be helpful if you could explain "why" the objective is likely to be affected in the "Why?" space provided. If you feel the objective will not be affected, there is no need to make any entry unless you wish to do so.

The following examples should make clear what is required:

Example 1

"to combat vandalism" (+)

Why? *More foot patrol*

Example 2

"to assist with clubs for the elderly" ()

Why? *Same amount of resources available*

Example 3

"to encourage team spirit among officers" (-)

Why? *Less team work.*

THE RESPONDENT IMPLIES THAT:

- i) the ability to deal with vandalism is likely to increase;
- ii) the ability to assist with clubs for the elderly is likely to remain constant;
- iii) the ability to promote team spirit among officers is likely to decrease.

This questionnaire is likely to take around two hours to complete, but there is no need to finish in a single session. Please remember when completing the questionnaire that there are no right answers- only your opinions are required.

SAMPLE QUESTIONS FOR THE "LIKELY TO BE AFFECTED" QUESTIONAIRRE

To define appropriate education and training for ()
police officers at all levels (8) p.20 *

Why?

To develop contingency plans for major incidents ()
and emergencies (15) p.10/24

Why?

To ensure that officers maintain their formal ()
role and dignity (85) p.24

Why?

To place officers in jobs and locations where ()
they will be happy (provided that this does not
interfere with operational requirements) (55) p.16

Why?

To provide leadership and professional support to ()
community efforts against lawless and disorderly
behaviour (49) p.21

Why?

To ensure that responsibilities to the Royal ()
Family and other VIPs are met (50) p.2

Why?

* The numbers in brackets indicate the original reference number for the objective. The second number shows the page(s) of the objectives tree where the objective can be found.

APPENDIX G: Examples of Data Forms Used in Assessment of Success
Workshops.

Introductory Note

This appendix shows examples of the data forms supplied to the panel members at the 'Assessment of Success' Workshops. Only forms for objectives 3, 4, 6, and 7(i) are presented, but forms were actually produced for all objectives to assist the panel members in reaching their decision. Each form was headed by the name of the objective and was followed by details of any data previously defined as being relevant. The headings "STATS" (quantitative data), "SURVEY" (data obtained from survey of police and public in Chelmsley Wood) and "OTHER" (everything else) were used to organise the data. In most cases, the data requested by the panel was collected and presented on these sheets. However, in a few cases this was not possible. This is indicated and explained on the data forms. Where data was collected, the final column of the form supplies a brief description of the results. In most cases, more sophisticated analyses had already been made available to the panel. The forms also provide a space for members to record the results for lower level connected objectives ("Reason Why Effect Anticipated"), and, in the actual exercise, a blank sheet was attached to the form for more detailed notes.

The data forms are, in many respects, unsophisticated. For example, no real distinction is made between "data" and "indicators". It is felt that, had more time been available at this stage, a more impressive product could have been produced. However, the panel members found the data forms to be extremely helpful, which is perhaps the best measure of their utility.

OBJECTIVE: To distribute officers by time & location to ensure that demand can always be met (3)

REASON WHY

EFFECT ANTICIPATED:

<u>Potential Test Data</u>	<u>Collected</u>	<u>Result/Why Not Collected</u>
STATS:		
No. of responses by external units	YES	PEEP(83)12: no change (in terms of total, incident or time)
Availability or response cars	YES	3 out of 4 response cars posted 52% of time; all 4 posted 48% of time
Response given to calls requiring immediate attention	YES	59% despatched response car in 4 min. or less; 19% despatched response car in 5 min. or more; 10% received no police response; 12% other response.
Analysis of over-time worked	YES	(NB NO PRE-SCHEME DATA) 8% increase in over-time worked- mainly for response purposes. Sgts > other ranks. RU > SPU.
SURVEY:		
officer q - "Do you think that the present shift system is well suited to the demands made by the public in your area"?	YES	Majority of officers now feel that the shift system is not well suited (majority believed pre-scheme system was well suited)
OTHER:		
discussion with sub-divisional management	To be carried out at workshop	
discussion with specialist units on assistance provided;	NO	Impractical

OBJECTIVE: To be where the public are & to be seen by them (4)

REASON WHY

EFFECT ANTICIPATED:

<u>Potential Test Data</u>	<u>Collected</u>	<u>Result/Why Not Collected</u>
STATS:		
Analysis of duty times	YES	PEEP(82)14: No change in relation to response;no change in man hours of foot BUT shift of times with increase between 2pm & midnight.
Analysis of reporting	YES	PEEP(83)9- no change in method of reporting
SURVEY:		
public q - "in the last six months how many times have you seen a Police Officer in your district, either walking or in a car"?	YES	No real change in frequency of sightings
public q - "There is a foot patrol officer who has a special responsibility for this area. Do you know him by sight"?	YES	No change
public q - "There is a foot patrol officer who has a special responsibility for this area. Do you know him by name"?	YES	No change- slight decrease in number knowing name.
public q - q on no. contacts with police	YES	Decline in number of contacts at social events (35 to 21).
officer q- q on how officers spend their time	YES	No change in getting to know juveniles/making contacts on beat or area.
OTHER:		
Comments made at visit to Chelmsley Wood	YES	PEEP(82)9: public happy to see more officers on the beat
Comment by Mr. Pickard	YES	Min. of 9th Mtg:more officers on duty when the public are about.
CONTD. OVERLEAF		

OBJ 4 CONTD.

Discussion with sub-divisional management/sergeants to determine whether they have made any effort to direct officers to places where the public are (shopping centres, main roads etc) (responses could be checked against a further question in the officer survey)

To be discussed at workshop

OBJECTIVE: To prioritise police work & devote resources accordingly (6)

REASON WHY

EFFECT ANTICIPATED:

<u>Potential Test Data</u>	<u>Collected</u>	<u>Result/Why Not Collected</u>
STATS:		
None		
SURVEY:		
None		
OTHER:		
Discussion with controllers - how do they assign priority? - what directives have been given?	NO	No time available
Discussion with sub-divisional management - have they assigned priorities? - have they issued directives?	To be carried out at workshop	
Analysis of local newspapers - comments on attention given/ not given to particular issues	NO	Impractical
Discussion with local community groups - are police resources being allocated properly?	NO	Impractical
Min of 10th Mtg	YES	Insp. Stockham stated that increased paper work duties were hampering the ability of SPU Sgt.s to plan the activities of their team.

OBJECTIVE: To protect human life (7i)

REASON WHY

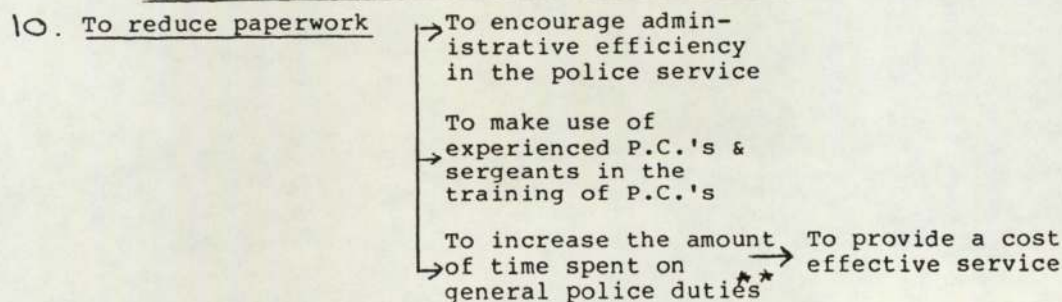
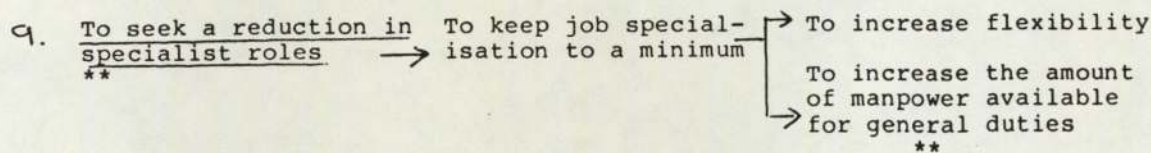
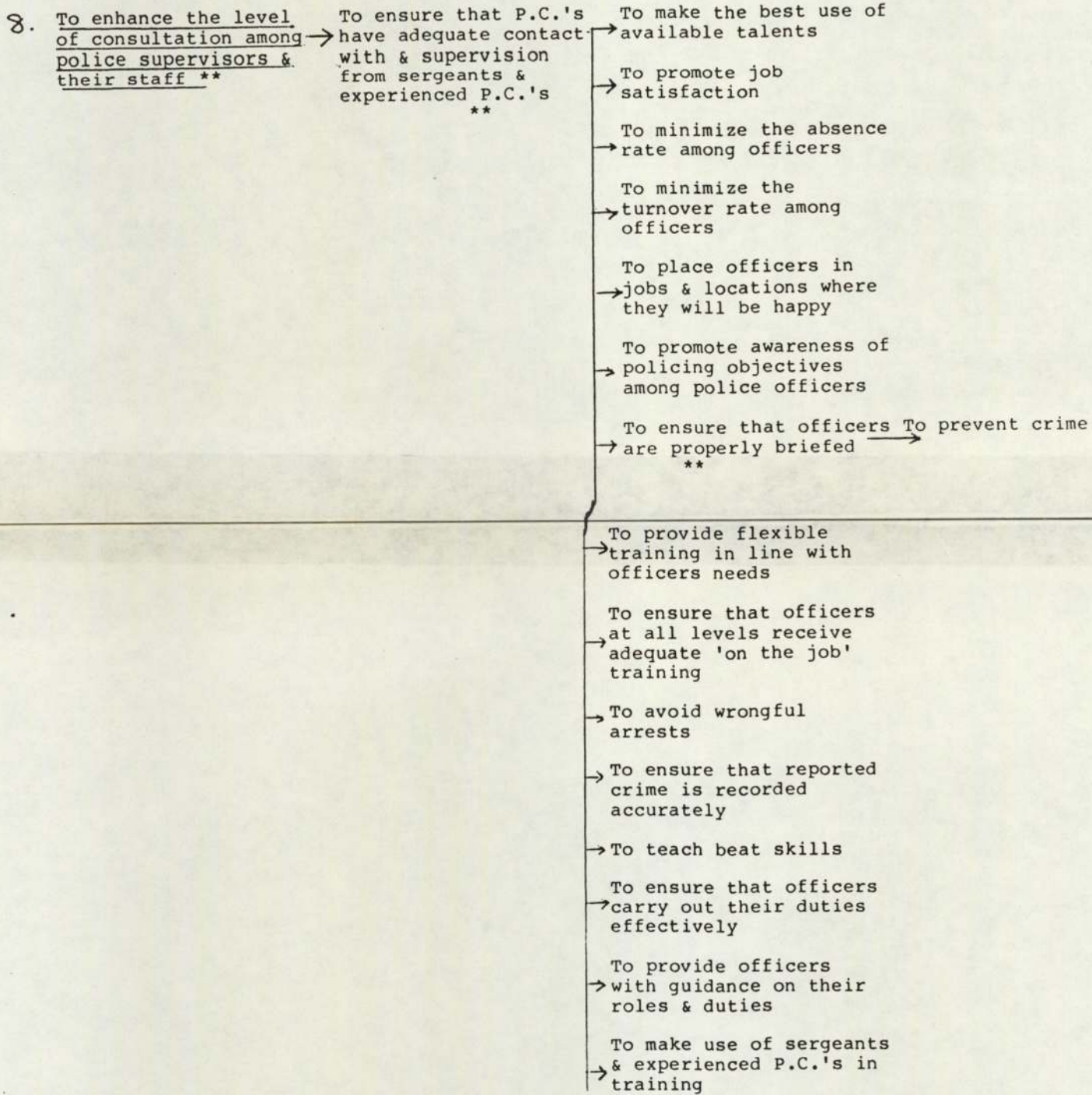
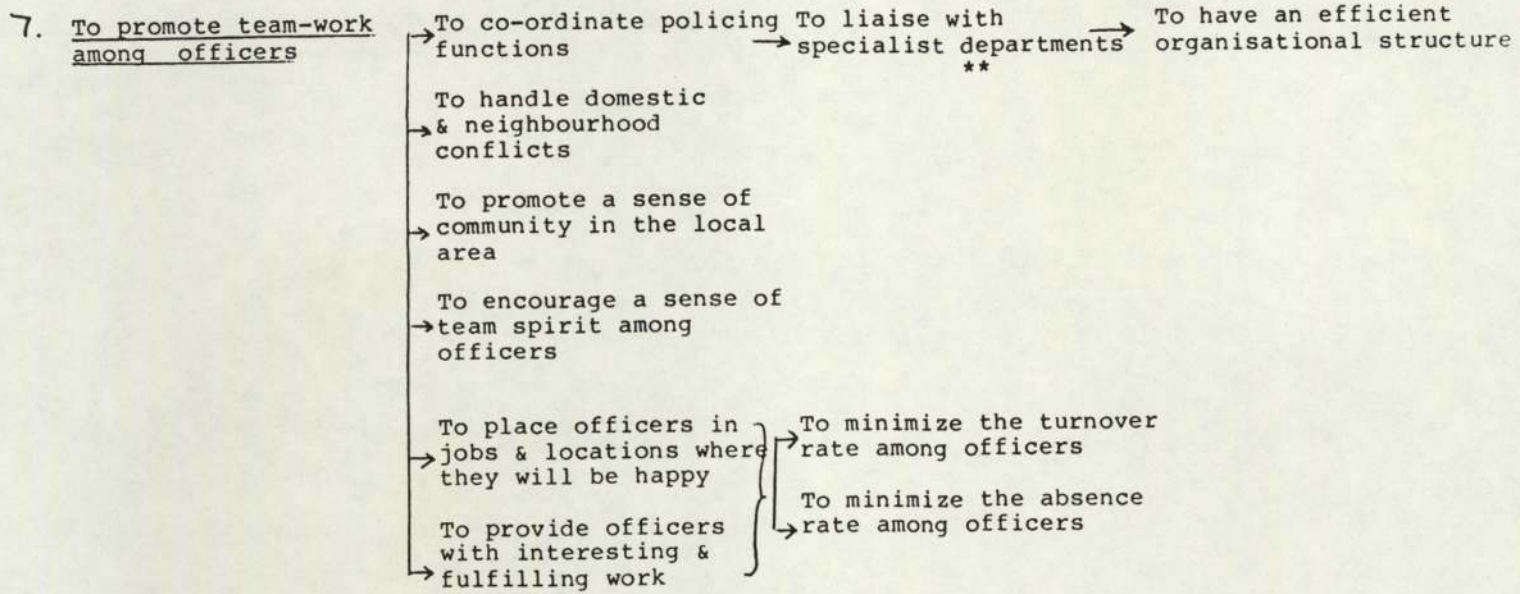
EFFECT ANTICIPATED:

<u>Potential Test Data</u>	<u>Collected</u>	<u>Result/Why Not Collected</u>
STATS:		
Number of crimes against the person (reported);	YES	PEEP(83)10: no real change in the number of incidents at Chelmsley Wood. Slight upward trend accounted for by increase in burglaries.
accident statistics;		No real change in average number of accidents per month PEEP(83)23
SURVEY:		
public q - "Do you think the police do a good job of protecting you & your family in this area?"	YES	53% felt the police are are doing a very good/ fairly good job.
public q - "Have you noticed any change in the last few months?"	NO	Not included in survey
public q - "How serious do you think the problem of assaults & woundings/ street robberies are in this area?"	YES	Slight decrease in public perception of the seriousness of this problem.
officer q - "Has the new scheme affected the amount of attention you are able to give to the protection of public safety?"	NO	Results not available
OTHER:		
Discussion with local community groups	NO	Impractical
Discussion with sub-divisional management		To be carried out at workshop

APPENDIX H: Samples from the "Reverse Tree" used to assist
Consideration of the Basis Objectives.

Introductory Remarks

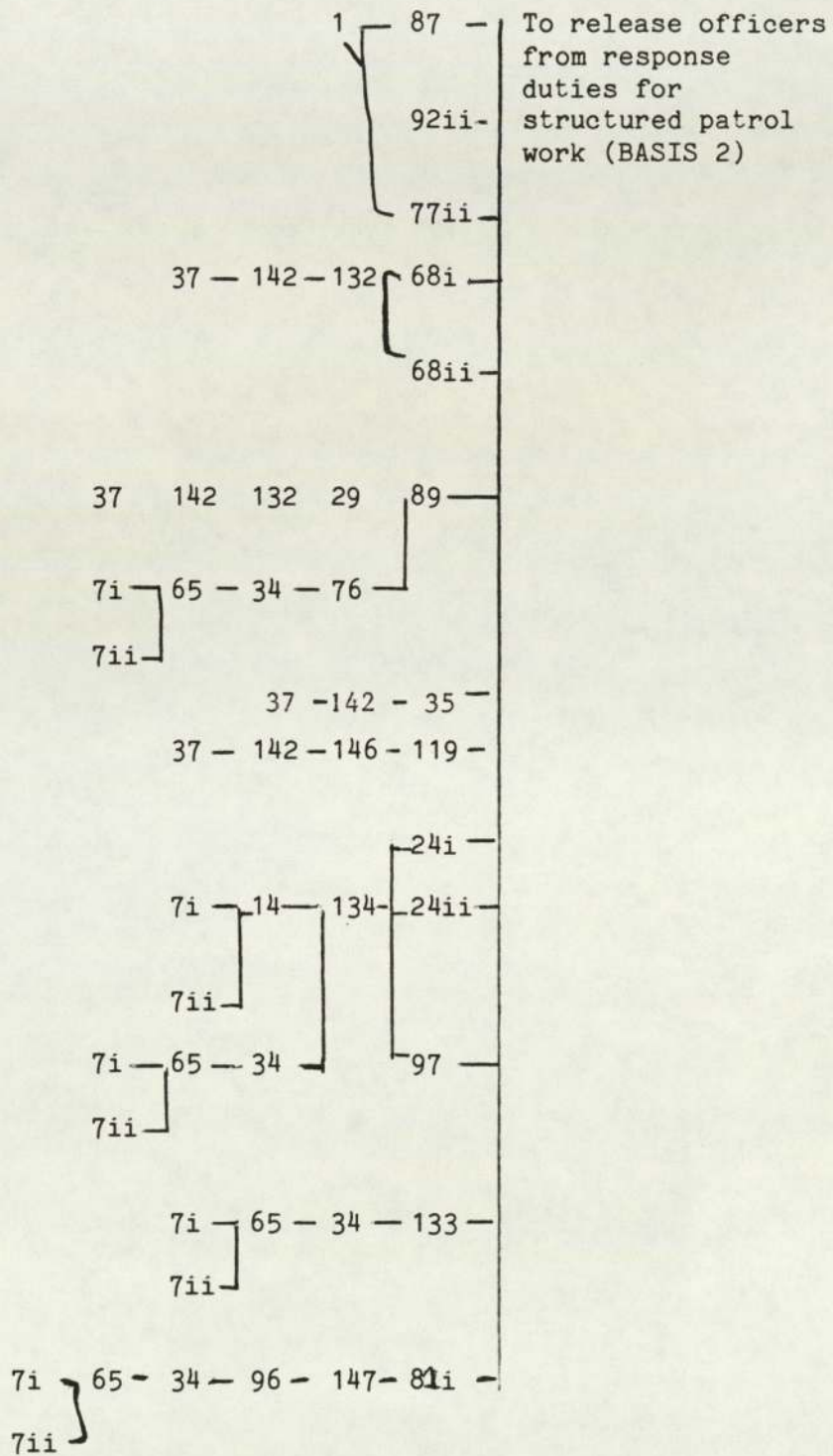
The following "reverse trees" were used by assist the panel's consideration of the basis objectives produced from an analysis of the "likely to be affected" questionnaire responses. The reverse trees again show how the objectives are linked in terms of "how" and "why", but this time the starting point a low level basis objective rather than the top of the tree. Panel members found these useful to help them see how the basis objectives linked into the previously agreed tree. Reverse trees were produced for all the basis objectives, but only those for 7, 8, 9, and 10 are displayed here. These are, incidentally, by far the smallest of the reverse trees, and were selected for this reason. However, it should be noted that the trees are not entirely complete. Only information not already supplied in "reverse trees" 1-6 was included in these.

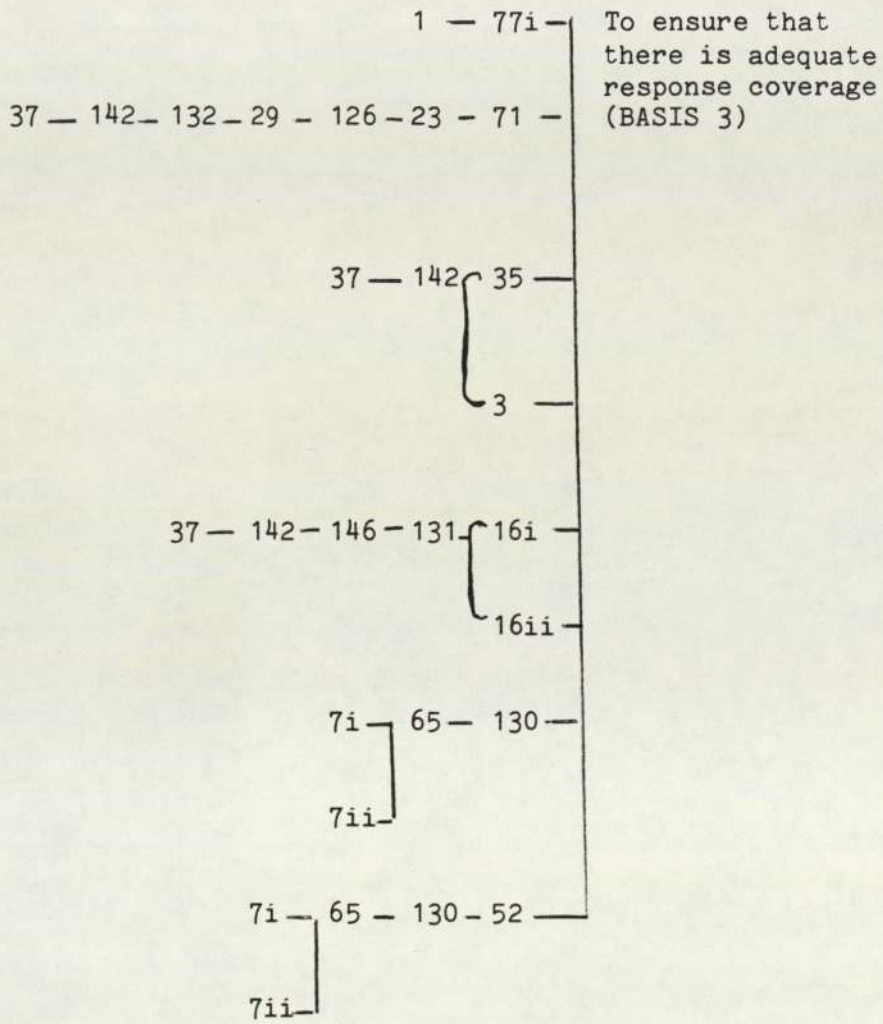


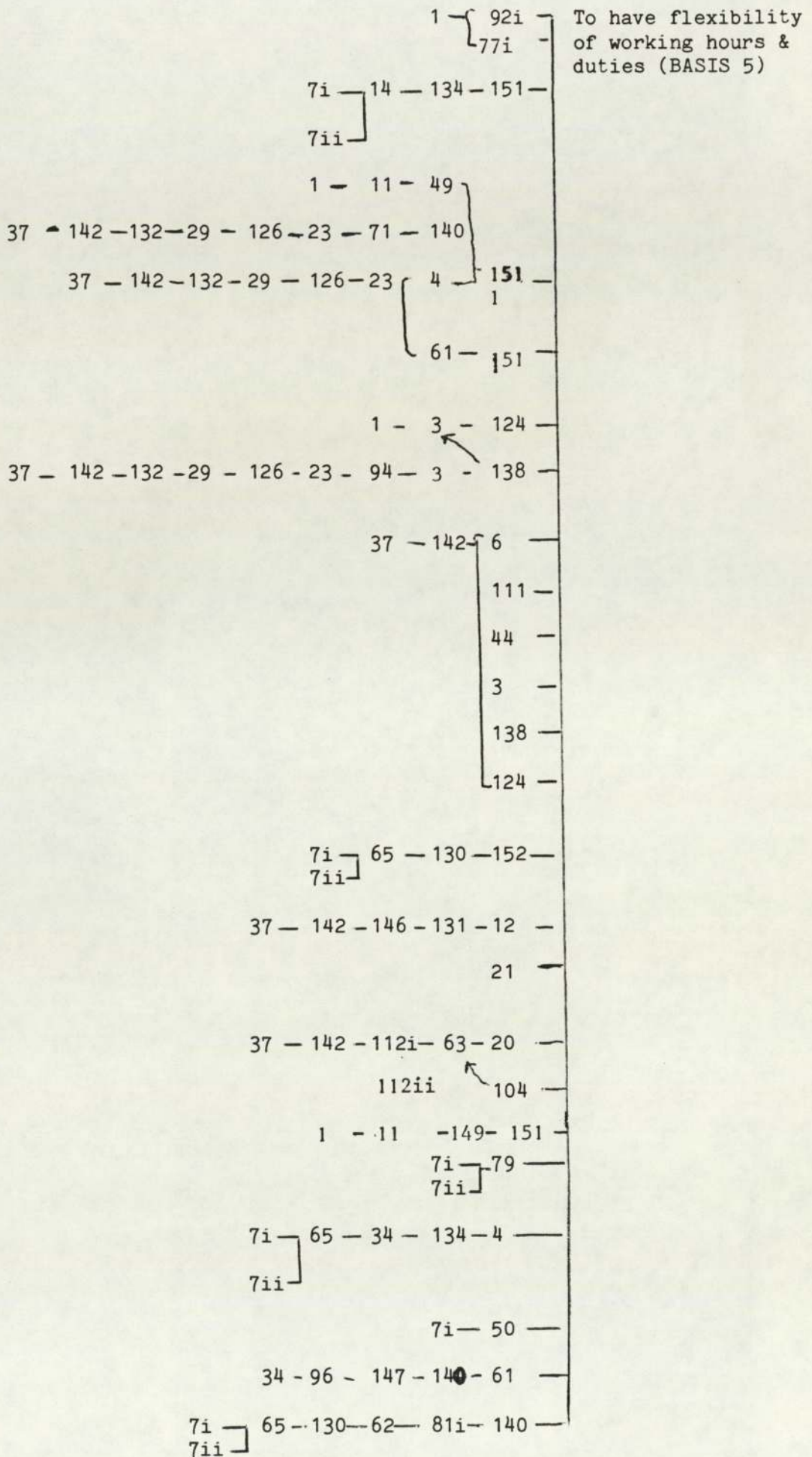
APPENDIX I: Samples from the "Reverse Tree" used at Assessment of
Success Workshops.

Introductory Remarks

The "reverse trees" shown in this appendix were produced for the assessment of success workshops. These show simply the reference numbers of the objective to which the basis objective is linked, and the manner of the linkage. At one level, these are not particularly informative. (Considerably more detail is supplied in the reverse trees shown in Appendix H). However, the panel members found them to act as a useful 'map' to guide them through the tree during the assessment exercise. Only the "reverse trees" for basis objectives 2, 3, 5, and 7 are displayed here, but the same exercise was carried out with the other basis objectives.







37 - 142-112i- 63 - 55 } To promote teamwork —
 { 112ii } among officers
 (BASIS 7)

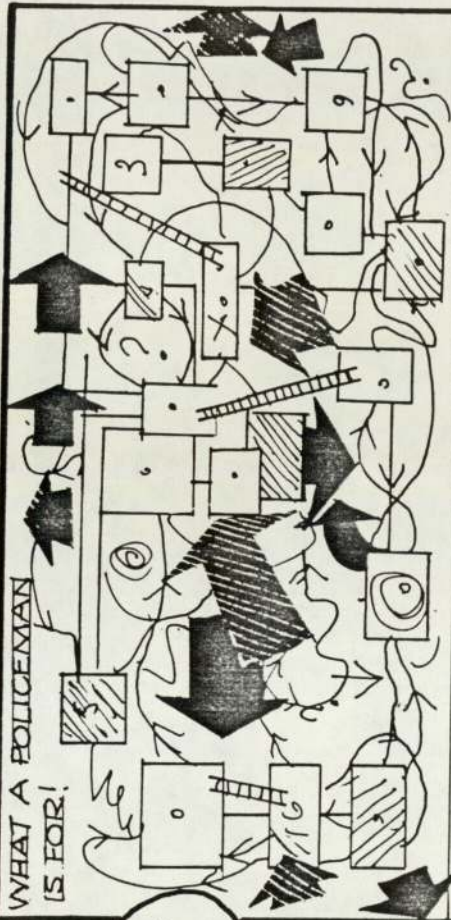
37 - 142- 44 - 117 -

7i } 33 —
7ii }

APPENDIX J: Comic Interlude- An Unlikely Application of the
Objectives Tree.

Introductory Note

A somewhat less sophisticated version of the cartoon shown overleaf was pinned, by person or persons unknown, on a notice-board also displaying one of the preliminary versions of the "objectives tree". The humour of the suggestion is fully appreciated, but it is not recommended that police training staff should attempt to use the PEEP objectives tree in this fashion. However, there will no doubt be areas where the methodology could provide assistance.....



WHAT A POLICEMAN
IS FOR!

YOU'LL'S SIMPLIFIED ANALYSIS



AND THIS, LADS,
IS ALL THERE
IS TO IT!!

REFERENCES

- M. Abrahams (1973), "Subjective Social Indicators", Social Trends, (London: HMSO).
- J. Alderson (1979), "Policing Freedom", (Plymouth: Mc Donald and Evans).
- J.S. Ang, J.H. Chua, and R. Selles (1979), "Generating Cash Estimates- An Actual Study Using the Delphi Technique", Financial Management, 8, (Spring), pp64-7
- J.S. Armstrong and T.S. Overton (1977), "Estimating Non-Response Bias in Mail Surveys", Jnl. of Marketing Research, 14, pp396-402
- D. Ascoli (1979), "The Queen's Peace- The Origins and Development of the Metropolitan Police, 1829-1979", (London: Hamilton).
- Atkins and Gear (1982), "Case Study Application of Analytic Hierarchies to the Ranking of Knitwear Design Options", Design Studies, 3, (April), pp59-63
- N.H. Avison (1972), "Criminal Statistics as Social Indicators", in A. Shonfield and S. Shaw (eds), "Social Indicators and Social Policy", (London: Heinemann).
- M. Banton (1964), "The Policeman in the Community", (London: Tavistock).
- M. Banton (1980), "Introduction", in R.V.G. Clarke and J.M. Hough (eds) "The Effectiveness of Policing", (Farnborough: Gower).
- M. Bassey (1968), "Science and Society- The Meaning and Importance of Scientific Method", (London: University of London Press).
- G. Bateson (1980), "Mind and Nature", (Ipswich: Fontana Books).
- B.N. Bebbington (1970), "Police Objectives", Paper Presented to the Conference of Her Majesty's Inspectors of Constabulary held on 30/11/70.
- H.S. Becker (1963), "Outsiders", (New York: Free Press).
- W.A. Belson (1963), "Group Testing in Market Research", Jnl. of Advertising Res., 3, 2
- V. Belton and T. Gear (1983), "On a Shortcoming of Saaty's Method of Analytic Hierarchies", Omega, 11, pp228-30
- P.G. Bennett and C.S. Huxham (1982), "Hypergames and What They Do", Jnl. Opl. Res. Soc., 33, pp41-50
- P.L. Berger (1966), "An Invitation to Sociology- A Humanistic Perspective", (Harmondsworth: Penguin).

REFERENCES (Continued)

- P.H. Berent (1966), "The Depth Interview", Jnl. of Advertising Research, 6, (June), pp32-39
- R.G. Bevan (1983), "Coping with Subjectivity in the Interpretation and Production of Data", Paper presented to the Conference of Young OR Workers in Government, Sunningdale, (May).
- W. Cann (1972), "Our 4/40 Basic Team Concept", The Police Chief, (December), pp56-64
- L.J. Center and T.G. Smith (1973), "Criminal Statistics- Can They be Trusted", Am. Crim. Law Rev., 11, 4, (Summer), pp1045-86
- P.B. Checkland (1979), "Techniques in Soft Systems Practice part 2- Building Conceptual Models", Journal of Applied Systems Analysis, 6, 42-9
- P.B. Checkland (1981), "Systems Thinking, Systems Practice", (New York: John Wiley).
- R.V.G. Clarke and J.M. Hough (1980) (eds), "The Effectiveness of Policing", (Farnborough: Gower).
- P.S. Cohen (1975), "Modern Social Theory", (London: Heinemann).
- C.A. Coleman and A.K. Bottomley (1976), "Police Conceptions of Crime and 'No Crime'", Criml. Law Rev., (June), pp344-60
- C.A. Coleman and A.K. Bottomley (1980), "Police Effectiveness and the Public- The Limitations of Official Statistics" in R.V.G. Clarke and J.M. Hough (eds) "The Effectiveness of Policing", (Farnborough: Gower).
- A. Conan Doyle (1886), "A Study in Scarlet".
- T.A. Critchley (1978), "A History Of Policing in England and Wales", (London: Constable).
- N. Dalkey and O. Helmer (1963), "An Experimental Application of the Delphi Method to the Use of Experts", Management Science, (April), pp458-67
- N. Dalkey (1967), "Delphi", (Rand Corporation), P-3704.
- J.J. Davies (1968), "On the Scientific Method", (London: Longmans, Green and Co.).
- E. De Bono (1980), "Lateral Thinking- A Textbook in Creativity", (Harmondsworth: Penguin).
- A. Delbecq (1975), "Group Techniques for Program Planning", (Glenview, Illinois: Scott and Foresman).
- J. Ditton (1979), "Controlology- Beyond the New Criminology", (London: Macmillan).

REFERENCES (Continued)

- J.D. Douglas (1970) (ed), "Observations on Deviance", (New York: Random House).
- J.D. Douglas (1977), "The Meaning We Give to Suicide", Society Today, 4, pp12-13
- C. Eden, S. Jones and D. Sims (1979), "Thinking in Organisations", (London: Macmillan).
- C. Eden, S. Jones, D. Sims and T. Smithin (1981) "Intersubjective Issues and Issues of Intersubjectivity", Journal of Management Studies, 18, 1, pp37-47
- C. Eden, S. Jones, and D. Sims (1983), "Messing about in Problems", (Oxford: Pergamon International Library).
- S. Eilon (1977), "Aspects of Management", (Oxford: Pergamon Press).
- A. Etzioni (1961), "A Comparative Analysis of Complex Organisations", (New York: Free Press).
- G.E. Gerrard (1980), "An Analysis of the Methods Available for Measuring Police Productivity", Paper produced for the 18th Special Course, Bramshill Police College (November) (Unpublished)
- A.E. Goldman (1962), "The Group Depth Interview", Jnl. of Marketing, 26, (July), pp61-8
- P.W. Greenwood (1980), "The Rand Study of Criminal Investigation-The Findings and Impact to Date", in R.V.G. Clarke and J.M. Hough (eds), "The Effectiveness of Policing", (Farnborough: Gower).
- J. Habermas (1976), "Theory and Practice in a Scientific Civilisation", in P. Connerton (ed), "Critical Sociology", (Harmondsworth: Penguin).
- S. Hall, C.J. Critcher, T. Jefferson, J. Clarke, and B. Roberts (1978), "Policing the Crisis- Mugging, the State and Law and Order", (London: Macmillan).
- P.E. Halliday (1980), "Crime Prevention in Hong Kong", Paper presented to the International Conference 'Strategies Against Crime in Europe', Cranfield, (April).
- T. Harrell Allan (1977), "New Methods in Social Science Research", (New York: Praeger Press).
- D. Haste (1980), "Shift Systems and the Deployment of Manpower", Police Research Bulletin, 34, (Spring)
- M. Heaton (1980), "The Skelmersdale Co-ordinated Policing Experiment", Police Research Bulletin, 34, (Spring)
- O. Helmer (1969), "Analysis of the Future: The Delphi Method", (Rand Corporation) P-3553
- N.S. Hetherington (1983), "Just How Objective is Science ?", Nature, 306, (December), pp727-30

REFERENCES (Continued)

A. Hickling (1979), "Planning as Strategic Choice", Paper presented to the OR Society National Event on 'OR, Social Science and Strategic Choice', (October).

P. Hills and M. Shallis (1975), "Images of Science", New Society, 33, 673, pp477-8

L.R. Hoffman (1965), "Group Problem Solving", in L. Berkowitz (ed), "Advances in Experimental Social Psychology Vol III", (New York: Academic Press).

Home Office (1983) "Criminal Statistics of England and Wales 1983", (London: HMSO)

L. Hudson (1972), "Contrary Imaginations- A Psychological Study of the English Schoolboy", (Harmondsworth: Penguin).

M. Hudson (1981), "Facts, Fictions and Factions- Can the OR Analyst be Objective?", OR in Government Newsletter, 21st edition, (October), pp8-12

G.D. Hughes (1971), "Attitude Measurement for Marketing Strategies", (Glenview Illinois: Scott and Foresman).

I.M.L. Hunter (1968), "Memory", (Harmondsworth: Penguin).

C.S. Huxham and M.R. Dando (1981), "Is Bounded Vision an Adequate Explanation of Strategic Decision Making Failures?", Omega, 9, PP371-9

E. Husserl (1965), "Phenomenology and the Crisis of Philosophy", (New York: Harper Torchbooks).

I.L. Janis (1971), "Victims of Group Think", (Boston: Houghton-Mifflin).

S. Jones and C. Eden (1981), "OR in the Community", Jnl. Opl. Res. Soc., 32, pp335-45

A. Kauffman (1968), "The Science of Decision Making", (London: Weidenfield and Nicolson).

R. Keat and J. Urry (1975), "Social Theory as Science", (London: Routledge and Kegan Paul).

G.L. Kelling, T. Pate, D. Diechman and C.E. Brown (1974), "The Kansas City Preventive Patrol Experiment- A Technical Report", (The Police Foundation).

G.A. Kelly (1955), "The Psychology of Personal Constructs- Vol I", (New York: W.W. Horton).

L. Kish (1967), "Survey Sampling", (New York: John Wiley)

A. Koestler (1975), "The Case of the Midwife Toad", (London: Pan Books).

REFERENCES (Continued)

- T.S. Kuhn (1970), "The Structure of Scientific Revolutions", (Chicago: University of Chicago Press).
- R. Layard (1977) (ed), "Cost Benefit Analysis", (Harmondsworth: Penguin).
- E. Leibow (1967), "Tally's Corner- A Study of Negro Streetcorner Men", (Boston{Mass}: Little, Brown and Co.).
- E.M. Lemert (1967), "Human Deviance, Social Problems and Social Control", (New Jersey: Prentice Hall).
- B.I. Levy and E. Ulman (1967), "Judging Psychopathy from Painting", Jnl. of Abnormal Psychology, 72, pp182-87.
- H. Linstone (1975), "The Delphi Method: Techniques and Applications", (Reading, Mass.: Addison Wesley).
- A. Locket, A. Muhlemann and A. Gear (1981), "Group Decision Making and Multiple Criteria- A Documented application", in J.N. Morse (ed), "Organisations- Multiple Agents with Multiple Criteria", pp 205-21, (New York: Springer Verlag).
- V. Lubans and J.M. Edgar (1979), "Policing by Objectives; A Handbook for Improving Police Management", (Connecticut: Social Development Corporation).
- J. Madge (1971), "The Tools of Social Science", (London: Longman).
- R. Maier (1967), "Assets and Liabilities in Group Problem Solving- The Need for an Integrative Function", Psychological Review, 74, pp239-49
- S. Males (1982) (ed), "Initiatives in Police Management- Experimentation with the More Effective Use of Police Resources", (London: Police Research Services Unit, Home Office).
- S. Males (1983), "Police Management on Division and Sub-Division- Digest of Work Performed by Supt. Males and by Mr Plummeridge, Police Staff College", Bramshill Police College (Unpublished).
- P. Mali (1978), "Improving Total Productivity", (New York: John Wiley).
- M.J. Maroney (1976), "Facts from Figures", (Harmondsworth: Penguin).
- D. Matza (1969), "Becoming Deviant", (New Jersey: Prentice Hall).
- R. Mayne (1829), extracts from written instructions to the 'New Police of the Metropolis'.
- I.L. Mitroff (1972), "The Myth of Objectivity or Why Science Needs a New Psychology of Science", Management Science, 18, 10, (June), pp613-8

REFERENCES (Continued)

- I.L. Mitroff and J.R. Emshoff (1979), "On Strategic Assumption Making- A Dialectical Approach to Policy and Planning", Academy of Management Review, 4, pp1-12
- P. Morris and K. Heal (1981), "Crime Control and the Police- A Review of Research", Home Office Research Study 67, (London: HMSO).
- A.H. Murphy and R.L. Winkler (1977), "Can Weather Forecasters Formulate Reliable Probability Forecasts of Precipitation and Temperature", National Weather Digest, 2, pp2-9
- E. Nagel (1971), "The Structure of Science- Problems in the Logic of Scientific Explanation", (London: Routledge and Kegan Paul).
- D. O'Dowd (1982), "Management (Policing) By Objectives", Paper produced for the 19th Senior Command Course, Bramshill Police College.
- A.N. Oppenheim (1976), "Questionnaire Design and Attitude Measurement", (London: Heinemann).
- A. Osborn (1957), "Applied Imagination", (New York: Scribner and Sons).
- L.D. Phillips (1970), "The 'True Probability' Problem", Acta Psychologica, 34, pp254-64
- L.D. Phillips and G.N. Wright (1977), "Cultural Differences in Viewing Uncertainty and Assessing Probabilities", in H. Jungerman and G. de Zeeuw (eds), "Decision Making and Change in Human Affairs", (Amsterdam: Reidel).
- L.D. Phillips (1973), "Bayesian Statistics for Social Scientists", (London: Thomas Nelson).
- L.D. Phillips (1982), "Requisite Decision Modelling- A Case Study", Jnl. Opl. Res. Soc., 33, pp303-11
- M. Pidd and R.N. Woolley (1980), "A Pilot Study of Problem Structuring", Jnl. Opl. Res. Soc., 31, pp1063-68
- B. Pollard (1979), "How Effective is Preventive Policing ?", Police Review, (March).
- K.R. Popper (1975), "The Logic of Scientific Discovery", (London: Hutchinson).
- C.R. Rogers (1945), "The Non-Directive Method as a Technique for Social Research", Am. Journ. Soc., 50, pp279-283
- J. Rohrbaugh (1979), "Improving the Quality of Group Judgement- Social Judgement Analysis and the Delphi Technique", Organisational Behaviour and Human Performance, 24, (August), pp73-92
- H. Rose and S. Rose (1969), "Science and Society", (London: Allen Lane).

REFERENCES (Continued)

Royal Commission on the Police (1962), "Royal Commission Report", (London: HMSO), CMMD:1728.

T.L. Saaty (1977), "A Scaling Method for Priorities in Hierarchical Structures", Journal of Mathematical Psychology, 15, pp234-81

Lord Scarman (1981), "The Brixton Disorders 10-12 April 1981- Report of an Enquiry by the Rt. Hon. The Lord Scarman OBE", (London: HMSO) CMND:8427.

A. Schutz (1967), "The Phenomenology of the Social World", (London: Heinemann).

P. Silvennoinen and S. Vira (1981), "An approach to Quantitative Assessment of Relative Proliferation Risks from Nuclear Fuel Cycles", J. Opl. Res. Soc., 32, pp457-66

D.J. Smith and J. Gray (1983), "Police and People in London (IV)- The Police in Action", (London: Policy Studies Institute).

T. Smithin and D. Sims (1982), "Voluntary Operational Research", Jnl. Opl. Res. Soc., 33, 1, pp21-8

K.J. Snapper and D.A. Seaver (1980), "The Use of Evaluation Models for Decision Making- Applications to the Community Crime Program", (Virginia: Decision Science Consortium).

R.F. Sparks, H.G. Dodd, and D.J. Dodd (1977), "Surveying Victims- A Study of the Measurement of Criminal Victimization, Perceptions of Crime and Attitudes to Criminal Justice" (London: John Wiley).

SRDB (1983), "Report on a Method for Evaluating Policing Experiments and its Application to the Experiment at Chelmsley Wood, a Sub-division of West Midlands Police", (London: Home Office).

D. Sudnow (1977), "Dead on Arrival", Society Today, 4, pp7, 10-11

F. Suppe (1977), "The Structure of Scientific Theories", (London: University of Illinois Press).

R. Taft (1955), "The Ability of People to Judge", Psychological Bulletin, 52, pp1-28

I. Taylor, P. Walton and J. Young (1973), "The New Criminology", (London: Routledge and Kegan Paul).

A. Tversky and G. Kahnemann (1977), "Causal Schemata in Judgements about Uncertainty", in M. Fishbein (ed), "Progress in Social Psychology", (Hillsdale, N.J.: Erlbaum Associates).

S. Umpleby (1982), "The Construction and Operation of a Regulator Composed of Autonomous Elements", Paper presented to the International Conference on Model Realism, Bad Honnef, Near Bonn, West Germany, (April).

H.M. Wagner (1972), "Commentary on ORSA Guidelines", Management Science, 18, 10, (June), pp609-13

REFERENCES (Continued)

N.D. Walker (1971), "Crime, Courts and Figures", (Harmondsworth: Penguin).

J.D. Watson (1968), "The Double Helix", (London: Weidenfield and Nicolson).

S.R. Watson and G.M. Hayward (1981), "A Review of Some Formal Methods of Decision Making", (Cambridge: Cambridge University Engineering Department).

W.H. Whyte (1959), "The Organisation Man", (London: Jonathon Cape).

B.R. Wilson (1974) (ed), "Rationality", (Oxford: Blackwell).

J. Young (1971), "The Drugtakers: The Social Meaning of Drug Use", (London: Mc Gibbon and Kee).

G. Zukav (1980), "The Dancing Wu Li Masters- An Overview of the New Physics", (Ipswich: Fontana Books).

BIBLIOGRAPHY

Introductory Note

The following bibliography is not intended to give a full account of all literature having relevance to the current research. Such a bibliography would be impossibly long given the variety of disciplines which could potentially be seen as relevant.

Instead, it is hoped that this rather short bibliography will serve to provide the reader with a "taste" of some of the literature available in certain connected fields. The bibliography is almost exclusively concerned with "EVALUATION", "POLICING", and "THE EVALUATION OF POLICING". Literature within these fields tended only to be mentioned in passing within the actual thesis.

Obviously, the author took into account literature from a variety of other disciplines. However, it would be impractical to list all such texts in the present context. It is hoped that the key literature at least has already been included within the actual reference section.

BIBLIOGRAPHY- Section 1: Policing

- D.H. Bayley (1976), "Forces of Order- Police Behaviour in Japan and the United States", (Los Angeles: University of California Press).
- W.A. Belson (1978), "The Police and the Public", (London: Harper and Row).
- R.S. Bunyard (1978), "Police Organisation and Command", (Plymouth: McDonald and Evans).
- M. Cain (1973), "Society and the Policeman's Role", (London: Routledge and Kegan Paul).
- H. Goldstein (1977), "Policing a Free Society", (Cambridge (Mass.): Ballinger).
- H. Hahn (1970) (ed), "Police in Urban Society", (Beverly Hills: Sage Publications).
- S. Holdaway (1977), "Changes in Urban Policing", BJS, 28, (June) pp119-37
- S. Holdaway (1979), "The British Police", (London: Edward Arnold).
- J. Hulbert (1982), "A Policeman's Lot is not an Automated One", Computer Weekly, November 4, pp18.*
- H. Jacob (1974) (ed), "The Potential for Reform of Social Justice" (London: Sage Publications)
- J.R. Lambert (1970), "Crime Police and Race Relations", (London: Oxford University Press).
- S. McCabe and F. Sutcliffe (1978), "Defining Crime- A Study in Police Decisions", (Oxford: Blackwell).
- R. Mawby (1979), "Policing the City", (Farnborough: Saxon House).
- P.K. Manning (1977), "Police Work: The Social Organisation of Policing", (Cambridge (Mass.): MIT Press).
- A. Neiderhoffer and A. Blumberg (1970) (eds), "The Ambivalent Force- Perspectives on the Police", (Worltham (Mass.): Ginn and Co.).
- W. Purcell (1974), "British Police in a Changing Society", (Oxford: Mowbrays).
- A.J. Reiss (1971), "The Police and the Public", (New Haven: Yale University Press).
- S. Small (1983), "Police and People in London (Vol II)- A Group of Young Black People", (London: Policy Studies Institute).

* This article contains an account of the use of the Delphi technique in relation to a quite distinct aspect of policing.

Section 1: Policing (Contd.)

D.J. Smith (1983), "Police and People in London (Vol I)- A Survey of Londoners", (London: Policy Studies Institute).

D.J. Smith and J. Gray (1983), "Police and People in London (Vol III)- A Survey of Police Officers", (London: Policy Studies Institute).

W. Westley (1970), "The Police- A Study of Law, Custom and Morality", (Cambridge (Mass): MIT Press).

J.Q. Wilson (1968), "Varieties of Police Behaviour", (New York: Atheneum).

BIBLIOGRAPHY- Section 2: Evaluation

- M.D. Alkin, R. Daillak, and P. White (1979), "Using Evaluations- Does Evaluation Make a Difference ?", (London: Sage Publications).
- R.A. Berk and P.H. Rossi (1976), "Doing Good or Worse- Evaluation Research Politically Re-examined", Social Problems, 23, pp337-49.
- H.M. Blalock (1974) (ed), "Measurement in the Social Sciences", (London: Macmillan).
- D.T. Campbell and J.C. Stanley (1966), "Experimental and Quasi-Experimental Designs for Research", (Chicago: Rand Mc Nally).
- F.S. Chapin (1955), "Experimental Designs in Sociological Research", (New York: Harper).
- R.F. Connor (1981) (ed), "Methodological Advances in Evaluation Research", (London: Sage Publications).
- T.D. Cook and C.S. Reichardt (1979) (eds), "Qualitative and Quantitative Methods in Evaluation Research", (London: Sage Publications).
- S. Eilon (1982), "Use and Misuse of Productivity Ratios", Omega, 10, 6, pp575-80.
- A.E. Maxwell (1961), "Analyzing Qualitative Data", (London: Methuen).
- J.M. Morgan and R.S. Foster (1974), "Police Productivity", Police Chief, (July).
- M.Q. Patton (1980), "Qualitative Evaluation Methods", (London: Sage Publications).
- H.W. Reicken and R.F. Boruch (1974) (eds), "Social Experimentation- A Method for Planning and Evaluating Social Intervention", (New York: Academic Press).
- J.P. Ross (1974), "Productivity in the Local Government Sector", (Lexington (Mass.): Heath and Co.).
- P.H. Rossi, H.E. Freeman, and S.R. Wright (1979), "Evaluation- A Systematic Approach", (London: Sage Publications).
- E. Struening and M. Guttentag (1975), "Handbook of Evaluation Research (Vol I & II)", (London: Sage Publications).
- E.A. Suchman (1967), "Evaluative Research- Principles and Practices in Public Service and Social action Programs", (New York: Russell Sage).
- C.H. Weiss (1971), "Evaluation Research- Methods of Assessing Program Effectiveness", (Englewood N.J.: Prentice-Hall).

BIBLIOGRAPHY- Section 3: The Evaluation of Policing

- R. Baker and F.A. Meyer, "Evaluating Alternative Law Enforcement Policies", (Lexington (Mass): Heath and Co.).
- W.J. Bopp (1981), "Performance Evaluation", Police Chief, (July), pp65-7
- C.E. Brown (1975), "Evaluative Research in Policing", Police Chief, (June), pp40-5
- J.M. Chaicken, M.W. Lawless and K.A. Stephenson (1974), "The Impact of Police Activity on Subway Crime", (Santa Monica: Rand Corporation).
- E.M. Davis and L. Knowles (1975), "An Evaluation of the Kansas City Preventive Patrol Experiment", Police Chief, (June), pp22-7
- P. Finnimore (1982), "How Should the Effectiveness of the Police be Assessed?", Police Journal, 55, 1, pp56-66
- A. Grant (1979), "Obstacles in Maximising Police Productivity", Police Studies, (Spring), pp18-25
- G.R. Griffin (1974), "Goal Setting for Police Organisations", Police Chief, (May), pp32, 34 & 74
- J. Hart and I. Beckett (1981), "The Evaluation of Experimental Policing", Internal Paper for the Metropolitan Police, (Unpublished)
- G. Hirsch and L. Riccio (1974), "Measuring and Improving the Productivity of Police Patrols", Journal of Police Science and Administration, 2, pp169-84
- E.T. Jones (1973), "Evaluating Everyday Policies- Police Activity and Crime Incidence", Urban Affairs Quarterly, 8, 1, (March).
- E. Nilsson (1979), "The Art of Policing Experiments", Paper presented at the Meeting held by the Research Committee for the Sociology of Deviance and Social Control, International Sociological Association, August 30-31, The Hague, Holland.
- E. Ostrom (1973), "On the Meaning and Measurement of Output and Efficiency in the Provision of Urban Police Services", Jnl. of Criminal Justice, 1, (June), pp93-112
- B. Pollard (1979), "Evaluating a Preventive Policing Project", in J. Brown and G. Howes (eds), "The Cranfield Papers- The Proceedings of the 1978 Cranfield Conference on the Prevention of Crime in Europe", (London: Peel Press).
- S.J. Press (1971), "Some Effects of an Increase in Police Manpower in the 20th Precinct of New York City", (New York: Rand Institute).
- R.L. Schaffer (1980), "Productivity Measurement: The Opportunity Element", Police Chief, (April)

Section 3: The Evaluation of Policing (Contd.)

J. Tien, J. Simon and R. Larson (1978), "An Alternative Approach in Police Patrols- the Wilmington Split Force Experiment", (Cambridge (Mass.): Public Systems Evaluation).

E. Viano (1974) (ed), "Criminal Justice Research", (Lexington: Lexington Books).

J.Q. Wilson and B. Boland (1978), "The Effect of Police on Crime", Law and Society Review, 12, pp367-90

J.L. Wolfe and J.F. Heaphy (1975) (eds), "Readings on Productivity in Policing", (Police Foundation).