

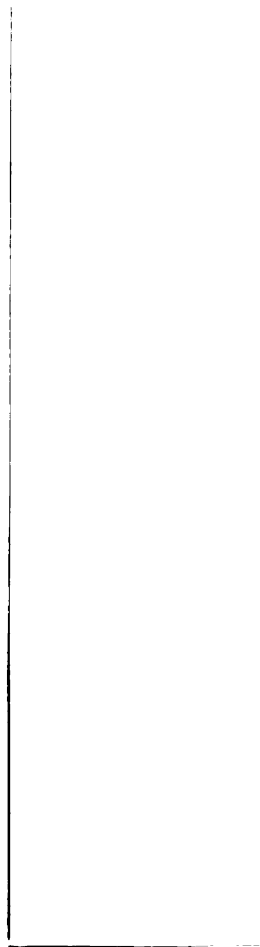
MACI:
A MODEL APPROACH
TO CRIMINAL INVESTIGATION

Thesis for the Degree of M. S.
MICHIGAN STATE UNIVERSITY
DAVID H. LEFLET
1971



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MACI:
A MODEL APPROACH
TO CRIMINAL INVESTIGATION

By

David H. Leflet

AN ABSTRACT OF A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

School of Criminal Justice

1971

APPROVED:


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ABSTRACT

MACI: A MODEL APPROACH TO CRIMINAL INVESTIGATION

By

David H. Leflet

MACI is a unique model designed specifically to promote investigative efficiency. Unlike other approaches, MACI expresses a procedure for investigation as opposed to a mere description of the events which occur during the course of an investigation. While description may inform the reader of "how crimes are solved," methodology apprises the investigator of "how to solve crimes."

MACI has been created by integrating the scientific method with general systems theory. Using the systems approach, investigations can be viewed as a structure and process of interrelated parts. The investigator viewing criminal investigation as a conglomerate mass of independent parts will often fail to perceive significant relationships between the various events. The scientific method utilizes the element of rational logic to coordinate and define the relationships between the elements of empirical observation and experience with the elements of law and legal value. The scientific method can be used to superimpose order on what would otherwise tend to remain in a disorganized state of flux. MACI incorporates both the advantages, and certain disadvantages, of general systems

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The conditions which encourage effective problem-solving are similar to those which promote the effectiveness of criminal investigation. Basically criminal investigations are simply a specialized type of problem-solving. As in the case of problem-solving, the investigator starts with an unfavored state of conditions (the unsolved mystery), and attempts to reach a more favorable state of conditions (solution of the crime).

The capacity of the investigator to solve crimes will depend primarily on the same factors which determine the effectiveness of any problem-solver: the correct "set" or approach; and the ability to compile and manipulate the appropriate information. MACI will provide the investigator with a "set for problem-solving" which offers the highest degree of reliability and objectivity possible with any approach because of MACI reliance on the scientific method. Further, not only is MACI designed for collecting information which is available in the system and relevant to the case in issue, because of its relationship to systems theory, MACI also provides for the collation of new information as it becomes available throughout the course of the investigation. Once the information has been assembled, the model will indicate where and how the data can be used most effectively. Even with MACI however, detrimental characteristics of the investigator may limit the effectiveness of the investigation.

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Since MACI is a new approach to the problem of criminal investigations, the potential of this method is not known at this time. While the techniques of criminal investigation will remain substantially the same, the actual process of investigation will be significantly altered by the models approach. This change in procedure however, should be sufficient to improve the quality of investigations.

While some investigators may themselves use a method of investigation which is both logical and systematic, these men have failed to articulate the method in a form which can be related to other participants in the investigative field. MACI itself is singular and without precedent in the field of criminal investigation.

The greatest obstacle facing the use of MACI is the resistance on the part of investigators to innovations. Yet rather than resist a new idea, every effort should be made to perfect and improve the foundation laid by MACI. While MACI is assuredly at a primitive state in its development, as a prototype, it may have the potential for future contribution. Certainly any possibility which might increase investigative efficiency should be seriously considered.

The major phases of MACI have been presented as separate chapters. The reader should note the correspondence between the steps in the model and the titles of various chapters in the thesis.

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ACKNOWLEDGEMENTS

While many people have contributed either directly or indirectly to the writing of this thesis, I would like to cite the following people for service far beyond the call of duty. Sincere appreciation goes to: my family who have financed large portions of this thesis; to my chairman, Winston Gibson, who has had much patience when I have harassed him with problems related to the thesis; to the other members of my thesis board, Robert Trojanowicz and Clarence Romig, who have also given their time and consideration to this thesis; to Leon Weaver, Victor Strecher, and Ralph Turner for allowing me to subject them to my ideas and questions; to Detective Staff Sergeant Charles Weirman, Detective Sergeant Ray Valley, and Corporal LeRoy Fladseth from Michigan State Police for encouragements and constructive criticism; to Lieutenant James Nelson from Meridian Township Police for the opportunity to discuss MACI; and to Miss Sherry Wells for undertaking the onerous task of proofreading the first draft of this thesis. To all these people I offer my deepest thanks. I would also like to thank Phyllis Groenewoud for typing the final draft of this thesis, the quality of which speaks for itself.

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CHAPTER I

INTRODUCTION

Criminal investigation is the preliminary phase of the judicial process. While investigators are not supposed to adjudicate or punish, they are supposed to apprehend and take into custody. Investigation for the prosecution is directed towards identifying the perpetrator, apprehending him, and proving his guilt beyond a reasonable doubt. Investigations provide the framework within which the judicial process is exercised; prosecutors must rely on the evidence collected, analyzed, summarized, and presented in the investigator's report.

Criminal investigation is the keynote of police service. The detection and apprehension of the criminal offender and production of evidence against him all depend upon it. It is the point at which society brings the forces of law and order into sharp focus in its approach to the problem of crime and the criminal. The detective function--criminal investigation--is the basic feature of modern police service.¹

Not only does apprehension and conviction have a deterrent effect on crime, the process can also lead to treatment and rehabilitation of an individual who would otherwise remain deviant. Other functions of apprehension

¹V. A. Leonard, The Police Detective Function (Illinois: Charles C. Thomas, Publisher, 1970), p. 1.

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and conviction include incapacitation (removal of those people for a time who are a threat to society) and retribution (punishment for criminal offenders).

Much research is now being conducted on the possibility of improving the investigative function.

The police patrol and detective forces are primarily responsible for apprehension. Despite the considerable resources committed to apprehension operations, very little is known about what aspects of these operations lead to high apprehension probability. Preliminary studies conducted for the National Crime Commission indicated that response time was closely related to apprehension, but even that conclusion needs further verification. More careful studies in selected police departments should explore the aspects of patrol and detective operations that now are most productive of arrests. The study should identify those activities that are inherently fruitless so that resources need not be wasted on them, or alternatively, so that their weak aspects can be bolstered.²

In response to the need for improving the effectiveness and efficiency of criminal investigation, the following study proposes the use of an investigative model which has been constructed specifically for the needs of the criminal investigator. Models in ordinary language are frequently used in systems theory where a system of ideas cannot be formulated mathematically or as a mathematical construct. The value of a verbal model should not be underestimated.

It should be emphasized that in many important problems it is not possible to build really quantitative models. The primary function of a model is "explanatory," to organize our thinking. As I have already stated,

²Alfred Blumstein, A National Program of Research, Development, Test, and Evaluation of Law Enforcement and Criminal Justice (Arlington, Virginia: Institute for Defense Analysis, 1968), pp. 36-37.

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the essence of systems analysis is not mathematical techniques or procedures, and its recommendations need not follow from computation. What counts is the effort to compare alternatives systematically, in quantitative terms when possible, using a logical sequence of steps that can be retraced and verified by others.³

The most obvious property of a satisfactory model is that it exhibits an analogy with the phenomenon to be explained, criminal investigation. Models are not useful unless there is some correlation between the structure of the model and the phenomenon. While models will not necessarily change the substance of the phenomenon, they will provide a methodology for identifying problems, objectives, and alternatives.

Though models may suggest a preferred course of action from among possible alternatives, the hard-core decisions must still be made by those people in authority. "Rational behavior" can be defined as carefully selecting the most satisfactory available means to whatever reasonable ends one has in mind. While models cannot make hard-core decisions, they can provide a rational methodology for making such decisions.

The model constructed for criminal investigation has been devised by combining steps and procedures found in both the scientific method and systems analysis techniques. The similarities between the scientific method, systems analysis

³E. S. Quade, "Systems Analysis Techniques for Planning- Programming- Budgeting," in Planning Programming and Budgeting: A Systems Approach to Management, F. Lyden and E. Miller, editors (Chicago: Markham Publishing Company, 1970), p. 303.

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techniques, and the investigative model can be seen by comparing these two other approaches with "MACI." (Note: "MACI" is an acronym formed from the first letters of the phrase "Models Approach to Criminal Investigation." Henceforth, the investigative model will be referred to as "MACI.")

I. SCIENTIFIC METHOD⁴

1. Problem
2. Preliminary hypotheses
3. Collect additional facts
4. Formulate hypotheses
5. Deduce further consequences
6. Test consequences
7. Application

II. SYSTEMS ANALYSIS TECHNIQUE⁵

1. Formulate the problem
2. Select objectives
3. Design alternatives
4. Collect data
5. Build models
6. Weigh cost against effectiveness
7. Test for sensitivity
8. Question assumptions
9. Reexamine objectives
10. Open new alternatives
(return to step one)

MACI is presented diagrammatically on the following page. While MACI is an integration of the above approaches, there is nothing to preclude the possibility of using MACI in conjunction with systems analysis. Step five under "Systems Analysis Techniques" calls for the construction of

⁴Irving Copi, Introduction to Logic (London: Macmillan Company, Collier-Macmillan Limited, 1969), pp. 387-94.

⁵Quade, op. cit., p. 298.

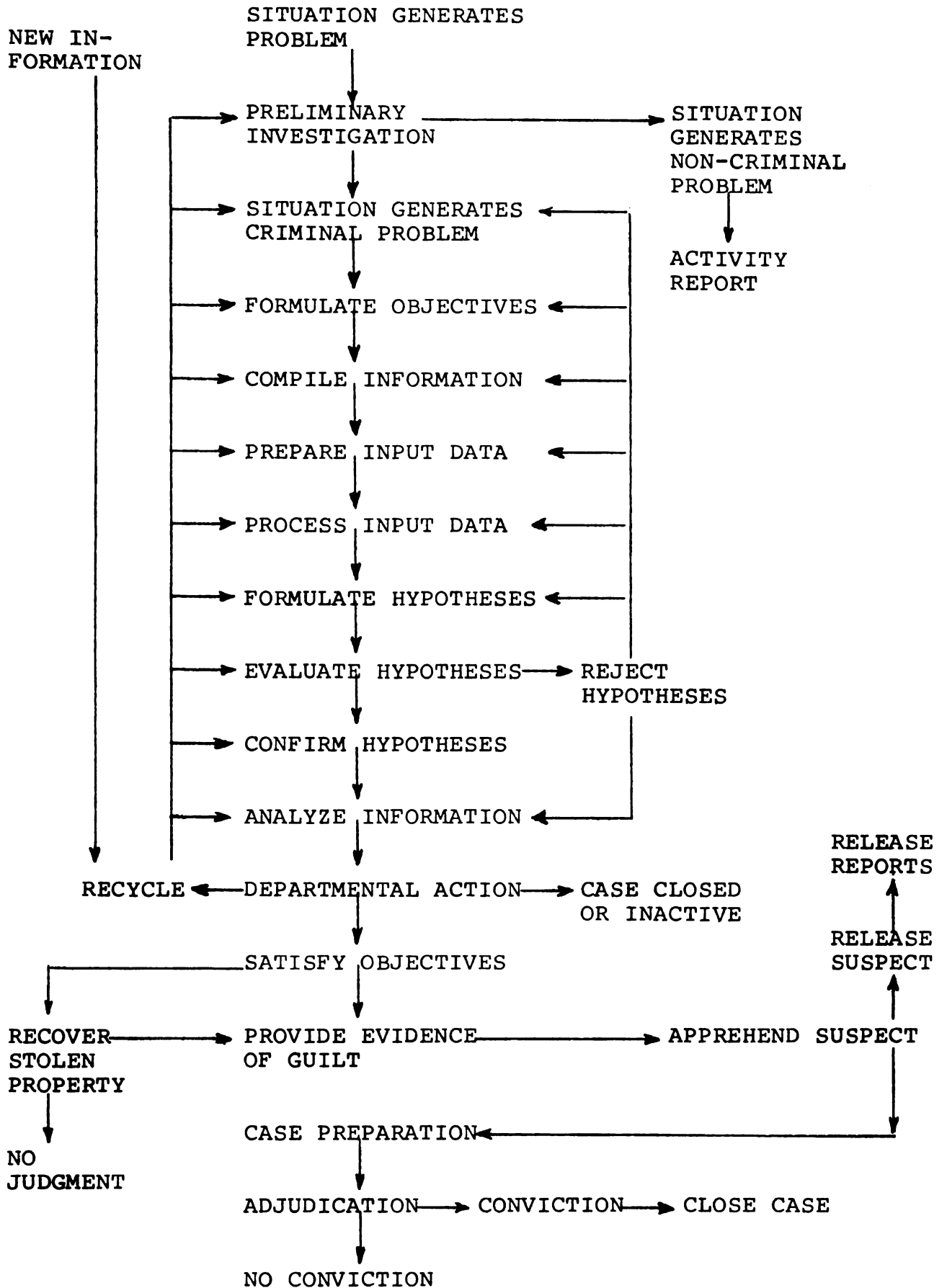
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models. MACI can be used to satisfy this directive. In fact, "[T]he essence of the method [systems analysis] is to construct and operate within a 'model,' a simplified abstraction of the real situation appropriate to the question."⁶ By the same token, MACI can be used independently of systems analysis technique.

MACI has been designed to promote investigative efficiency. Consideration of both scientific method and systems theory will provide some insight into the nature of the model. Each major phase of MACI will be discussed in a separate chapter.

Scientific Method

"Scientific" refers to any reasoning which seeks to proceed logically from observable facts of experience to reasonable explanations for those facts. Anyone can be said to use the scientific method who follows a general pattern of reasoning from evidence to conclusion which can be tested by experience. Experience can be defined as anything perceived or lived through. Would any type of investigator hazard to exclude either the empirical element of observation or the rational element of logical reasoning from his investigative function or process? The fact that empirical observation and logical reasoning are both intrinsic and principal parts of the scientific method would indicate

⁶Ibid., p. 295.

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that such a method should not be confined to the natural sciences.

The scientific method, built on logic, tested knowledge, and scientific principles provides for use of both inductive and deductive reasoning. Inductive reasoning is used to establish true or factual propositions concerning facts of experience, and is based upon the observation of such facts. Deduction, on the other hand, is used to deduce or exfoliate implications from accepted truths. While deduction cannot be used to acquire genuinely new truths, it can be used to test propositions, to predict the future, and to infer what the past must have been. Inductive and deductive reasoning are not mutually exclusive; both methods of logical reasoning are indispensable to the criminal investigator. While induction is primarily concerned with the adequacy of evidence to establish its conclusions, deduction can be used to draw implications from the propositions established by induction.

At least one author would suggest that deduction is more difficult for the criminal investigator than induction.

To lend direction to the investigative process, the investigator for the prosecution uses his reasoning powers and the known facts to construct hypotheses and to draw conclusions relating to the problems of who committed the crime and how it was accomplished. He may use inductive reasoning, passing from particular to general in order to logically interpret the events under scrutiny; or he may reverse the order and reason deductively, testing the validity of the particulars in relation to the general theory. This is the most difficult phase of investigation, for it calls upon the

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investigator to evaluate both the tangibles and the intangibles.⁷

While the scientific method has proven successful in the discovery of truth, no method of investigation can guarantee complete objectivity; truth cannot exist as an object or fact independent of the mind. Any perception involves interpretation and inference. Nor are these interpretations and inferences free from bias; both rely on ideas and paradigms to make experience intelligible.

Despite human frailty and the impossibility of achieving absolute certainty, the scientific method can be used to achieve high degrees of certainty by accepting the probabilistic theory of verification. Because absolute certainty is not possible, the alternative or theory is true which provides the highest degree of probable truth in light of the evidence which actually exists. Several theories may fit the facts more or less, but the most probable theory is the one that fits the facts better.

Even fingerprints cannot provide absolute certainty of identification.

Most law enforcement officials, judges, and juries consider that a fingerprint can constitute conclusive evidence by serving as a means of positive identification of a person. The point often overlooked is that the positive identification rests merely on a very large probability.⁸

⁷William Turner, (cons. ed.), Case Investigation (San Francisco: Aqueduct Books, A Division of the Lawyer Cooperative Publishing Company, 1965), p. 6.

⁸Paul Kirk, Crime Investigation (New York: Interscience Publisher, Inc., 1953), p. 20.

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Fortunately for the criminal investigator, the courts do not require the production of absolute certainty. A theory is accepted as true when it can be proven to the satisfaction of a legal tribunal (judge or jury). Confirmation is subject to the vicissitudes of time; an accepted verdict may be refuted by new information or simply overruled by a higher court. Once refuted, the old verdict or theory can either be modified or completely abandoned if the facts so demand.

To require absolute certainty from the criminal investigator would preclude the possibility of conviction. Yet to require less than certainty may result in the unjust conviction of an innocent suspect. To provide for protection of the innocent as well as for conviction of the guilty, the court has decided to allow conviction only where evidence is sufficient to support a high degree of probable guilt (guilt beyond a reasonable doubt in a criminal trial). Since the scientific method is the most assured technique yet devised for establishing high degrees of probable truth, this method should promote justice for both innocent and guilty parties.

Systems Theory

"System" can be defined as an assemblage of objects united by some form of regular interaction or dependence and performing a common function or group of functions. While systems have been studied for centuries, something new has emerged in the last few decades: the tendency to study a

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system as a living organism rather than as a conglomerate of parts. The belief that criminal investigation can be viewed as a living organism is largely responsible for the construction of MACI.

Nothing prescribes that we have to end with the systems traditionally treated in physics. Rather, we can ask for principles applying to systems in general, irrespective of whether they are of physical, biological or sociological nature. If we pose this question and conveniently define the concept of system, we find that models, principles, and laws exist which apply to generalized systems irrespective of their particular kind, elements, and the "forces" involved.⁹

Using the living systems framework a model can be built which is applicable to any organization. Criminal investigations when viewed as a living system will have a reasonably well defined organizational structure. Many of the processes performed by the investigative organization will have counterparts in the living system: input/output process relationships; adjustment processes; evolution; growth, cohesiveness and integration; pathology; and finally, decay and termination. Living systems theory and notions such as wholeness, growth, and differentiation have provided the foundation upon which MACI was built.

While classical systems theory applies to classical mathematics, general systems theory has much wider application. The subject matter of general systems theory is the formulation and derivation of those principles which are

⁹Ludwig von Bertalanffy, General Systems Theory (New York: George Braziller, Inc., 1968), p. 33.

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General systems theory . . . [is an attempt] to derive, from a general definition of "system" as a complex of interacting components, concepts characteristic of organized wholes such as interaction, sum, mechanization, centralization, competition, finality, etc., and to apply them to concrete phenomena.¹⁰

Not only does the systems approach take into consideration the objectives of an organization, thought must also be given to related problems and methods of solution.

The system model explicitly recognizes that the organization solves certain problems other than those directly involved in the achievement of the goal, and that excessive concern with the latter may result in insufficient attention to other necessary organizational activities, and to a lack of coordination between the inflated goal activities and the de-emphasized non-goal activities.¹¹

Even so, the importance of formulating objectives should not be underestimated in systems theory. Goals must be defined before collateral problems can be determined. Quade identifies five elements of analysis which must be found in every systems theory model with formulation of the objectives being the first and most essential task.

1. The objective (or objectives). Systems analysis is undertaken primarily to help choose a policy or course of action. The first and most important task of the analyst is to discover what the decision-maker's objectives are (or should be) and then how to measure the extent to which these objectives are, in fact, attained by various choices. This done, strategies, policies, or possible actions can be examined, compared,

¹⁰Ibid., p. 91.

¹¹Amitai Etzioni, Modern Organizations, Foundations In Modern Sociology Series (New Jersey: Prentice-Hall, 1964), p. 17.

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and recommended on the basis of how well and how cheaply they can accomplish these objectives.

2. The alternatives. The alternatives are the means by which it is hoped the objectives can be attained. They may be policies or strategies or specific actions or instrumentalities and they need not be obvious substitutes for each other or perform the same specific function. . .

3. The costs. The choice of a particular alternative for accomplishing the objectives implies that certain specific resources can no longer be used for other purposes. These are the costs. . .

4. A model (or models). A model is a simplified, stylized representation of the real world that abstracts the cause-and-effect relationships essential to the question studied. . .

5. A criterion. A criterion is a rule or standard by which to rank the alternatives in order of desirability. It provides a means for weighing cost against effectiveness.¹²

Before one can define the right problems and discover the best solution it will be necessary to identify the appropriate objectives. While objectives are certainly not the only consideration, solution to derivative problems will be contingent on formulation of the objectives. Once the objectives have been identified, systems analysis will provide a methodology for identifying the essential features of complex problems associated with the objectives and indicate areas for investigation of the problems.

In addition to input, conversion processes, and output, other parameters of systems theory include components as feedback, restriction, and control.

Feedback, which is one of the special characteristics of the system. It is that process which measures the quality of the output. It represents a control subsystem which permits a comparison of the output with

¹²Quade, op. cit., pp. 296-97.

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systems performance criteria. If the criteria of performance in the system are effectiveness and efficiency in raising financial and social status of the poor, feedback will show the results achieved in relation to the inputs. Feedback can be structured as a sub-system to which cost-benefit analysis can be applied.¹³

In MACI, not only will feedback be used to measure the quality of the output, feedback will also have an effect on the quality of the output. As the potential for prosecution and conviction develops, feedback can be used to initiate modifications which further promote realization of the terminal objective, conviction of the guilty party.

Restriction refers to exogenous limitations on the system such as those imposed by legal, social, moral and political considerations. Control, on the other hand, is indigenous to the system. The purpose of control is to maintain or improve standards of performance which have been developed and accepted. The necessity of control however, does not preclude the possibility of cooperation.

Definition of Terms Used

Investigator. The term "investigator" in this study will be used in preference to such titles as "detective" or "agent" because of its more general nature. The investigator will commonly be a member of a department or agency who is assigned to investigative tasks. The function of the

¹³Helen O. Nicol, "Guaranteed Income Maintenance: A Public Welfare Systems Model," in Planning Programming and Budgeting: A Systems Approach to Management, F. Lyden and E. Miller, editors (Chicago: Markham Publishing Company, 1970), p. 317.

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investigator will be to identify the perpetrator; trace, locate, and apprehend him, and provide evidence sufficient to prove guilt beyond a reasonable doubt in a criminal trial.

Investigation. "Investigation" can be defined as the process of gathering evidentiary material relating to criminal offenses for use in future judicial proceedings. Black's Law Dictionary defines investigation in the following manner:

To follow up step by step by patient inquiry or observation; to trace or track mentally; to search into; to examine and inquire into with care and accuracy; to find out by careful inquisition, examination, and the taking of evidence.¹⁴

While prosecuting offenders is not a direct or primary investigative function, investigation should be viewed as a preliminary phase of the judicial process, separate from it but at the same time providing a framework within which the judicial process is to be exercised.

Webster's New Twentieth Century Dictionary offers this definition for investigation:

an investigating; careful search; detailed examination; systematic inquiry; as, the investigations of a scientist; the investigations of a district attorney.

Syn.--examination, inquiry, inquisition, research, search, scrutiny.¹⁵

¹⁴Henry C. Black, Law Dictionary (St. Paul: West Publishing Company, 1951), p. 960.

¹⁵Webster's New Twentieth Century Dictionary, 2nd ed., revised under the supervision of Jean L. McKechnie (New York: The World Publishing Company, 1968), p. 966.

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Combining both of these definitions, investigations can be defined within the scope of this study as: the careful and systematic examination of facts and taking of evidence.

The word "case" in this study will be used interchangeably with and as a synonym for "investigation."

Further Considerations

First, MACI can, and should, be used by both uniformed patrol forces as well as by detectives. This method of criminal investigation can be used by any investigator who has the responsibility for investigating specified criminal offenses. It should not be used solely by the detective unit which simply provides follow-up investigative service after unsuccessful investigation by the uniformed patrol force.

Both uniformed patrol forces and detectives do engage in the practice of criminal investigation. The detective division was created primarily for the purpose of assisting the patrol force to accomplish its mission; the goals of the patrol force and the detective division are essentially the same. Regardless of which group performs the actual operation, investigation will still remain the process of gathering evidentiary material relating to criminal offenses for use in judicial proceedings.

Second, while investigation for the prosecution is directed towards providing evidence of guilt sufficient to prove criminality, the actual success of the criminal

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investigation must ultimately be determined by a legal tribunal. It will be the contention of this study that if conviction of the suspect does not occur, the investigation has failed its primary function.

Most criminal investigators would agree that criminal investigation is designed to connect the criminal with the crime. Yet what does this mean in a society where police activities are theoretically governed by the law?

The fact that a crime has been committed is proved by establishing the corpus delicti (body of the crime). There are two elements of corpus delicti which must be demonstrated: the criminal act itself; and the fact that a human agency is responsible for having committed the act. Having proven the crime, at what point is the human agency responsible for the crime proven a criminal?

Webster's New Twentieth Century Dictionary defines "criminal" in the following way: "1. one who has committed a crime. 2. one who has been legally convicted of a crime."¹⁶ From the investigator's perspective, a person is often classified as a criminal from the moment enough evidence has been accumulated to satisfy the investigator that a given person is guilty of a given crime. From the legal viewpoint however, this does not constitute a valid definition of criminality.

¹⁶ Ibid., p. 431.

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Legally, a man is not a criminal until he has been "legally convicted of a crime." Prior to conviction, the defendant (suspect) is legally innocent of the crime in the eyes of the law.

A defendant in a criminal action is presumed to be innocent until the contrary is proved; and in case of a reasonable doubt whether his guilt is satisfactorily shown, he is entitled to an acquittal. The effect of this presumption is to place upon the state the burden of proving him guilty beyond a reasonable doubt.¹⁷

The conclusion, therefore, is inescapable: the investigator has not legally connected the criminal with the crime until the suspect has been prosecuted and convicted of the crime in a court of law. Merely identifying a suspect or arresting him for a crime proves nothing, criminality cannot be determined until after prosecution and conviction. MACI has been designed to promote the possibility of prosecution and conviction.

The concept of "solving a crime" does not satisfy the requirements of a completed investigation. To the general public, this term describes merely the process of discovering the identity of the suspect and apprehending him. These achievements, however, are but two of the objectives of an investigation and leave the investigator far from his ultimate goal of presenting sufficient evidence in a court of law to warrant conviction. Finding the perpetrator is frequently the simplest phase of the investigation; obtaining the evidence to support the charge in court is often an exceedingly complex task, the difficulties of which are greatly increased by the requirements placed by the

¹⁷Paul B. Weston and Kenneth Wells, Criminal Investigation, Basic Perspectives (New Jersey: Prentice-Hall, 1970), p. 38.

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While it may be fallacious to assume that all crimes are intrinsically soluble, it will be assumed in this study that most crimes can be solved and that the method of investigation described here, MACI, offers the most potential for solving the crimes. Though the verdict of the court in reference to the guilt or innocence of the accused does not necessarily prove that the investigation was conducted in an intelligent manner, conviction of the accused does tend to indicate investigative effectiveness. The fact that the crime remains unsolved does not prove a deficiency in the investigation, although a preponderance of unsolved crimes would tend to signify investigative failure.

Using the percentage of convictions of the total number of crimes investigated is perhaps the most valid criterion for measuring the effectiveness of the investigation. Some people would maintain that no normative criteria can be used for judging the success or failure of an investigation.¹⁹ If true, this situation would obviate the need or even the possibility of perfecting investigative technique. To say one technique is better than another would have no sensible meaning. It will be assumed in this study that

¹⁸Charles E. O'Hara, Fundamentals of Criminal Investigation (Springfield, Illinois: Charles C. Thomas, Publisher, 1970), p. 6.

¹⁹Ibid., p. 5.

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certain approaches to criminal investigation are more effective than others and that MACI offers the greatest promise for improving effectiveness.

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CHAPTER II

SITUATION GENERATES A PROBLEM

Every problem has a background. If circumstances develop which are sufficiently perplexing or difficult, the situation generating these circumstances may be observed and identified as a criminal problem.

If the situation is observed by an officer, he may respond directly or call for additional resources. If observed by a civilian, the same civilian may report the situation, or another civilian may report it after being apprised of the situation. In any event, the investigator should endeavor to identify those people responsible for discovering the crime and those responsible for reporting it.

Few responses are based on the personal observation of the officer. In most cases, the officer is directed to the situation by the dispatcher. Since the officer personally views comparatively few crimes, much of his work will depend on reports from civilians. In areas where community relations are poor, failure of the citizens to report crimes will seriously undermine police effectiveness. Failure of citizens to cooperate with investigators will seriously constrict investigative effectiveness.

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problematic situation before he can respond to it. Official response is characterized by the officer's physical presence at the scene of the incident. Until corpus delicti has been established, the incident is technically not a criminal problem.

Much of the investigator's search for the truth will depend on his ability to recover and interpret evidence from past events. Fortunately for the investigator, the past is seldom dead or completely irrecoverable; from clues and evidence left behind, the truth can frequently be discovered.

Investigators should try to collect as much relevant information as possible; this will aid them in assessing the genuineness and proper significance of the evidence. There is no perfect substitute for total acquaintance with the relevant material just as there is no perfect way of overcoming severe losses of evidence. Ideally the investigator should attempt to know all the evidence; this, unfortunately, seldom if ever happens. The investigator's ability to explain past events will depend heavily on his collection of background information. For this reason, good investigators will start by considering all problems from the time they were generated in the past.

Not only should the investigator consider "when" and "how" evidence came into existence, he should also consider "why." Not uncommonly evidence is "planted" specifically to delude or divert the investigator.

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CHAPTER III

PRELIMINARY INVESTIGATION

Not all problems the officer responds to will be criminal in nature. The police officer must examine the problem to determine whether or not the situation generates a criminal or non-criminal problem. In some cases the officer may decide not to define the problem as criminal even though the situation could legally be defined as criminal in nature. Domestic quarrels and certain juvenile offenses are frequently "defined" as non-criminal because the officer chooses to take no further legal action. Since official response has been made to the problem, most departments require the officer to enter the incident on his daily activity report. Unless the case is reopened on new information, this action will be terminal and the problem officially closed.

If the officer makes the decision to define the problem as criminal, further legal action must be taken. The criminal problem must then be formulated in a precise and specific manner. Such a formulation must also allow for the possibility of solution.

Information needed to formulate the problem in more precise terms is commonly gathered during the preliminary

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A preliminary investigation is the first examination of something that has happened. It is conducted at the scene to discover facts and to reconstruct all the events of the occurrence.

An effective preliminary investigation leads to a clear, accurate, unbiased, and complete picture of what happened. It will sometimes give the whole picture. More often it will give the detectives a foundation for their follow-up investigation.²⁰

The preliminary investigation is made up of two equally important phases: the physical investigation of the crime scene; and written reports of the investigation. The primary objective of the physical investigation is to establish whether or not a crime has been committed, and if so, the specific crime.

Commonly, the first officer at the scene will be responsible for establishing the corpus delicti or "body of the crime." Corpus delicti refers to the fact that a crime was committed. It must be shown that the situation forms the basis of a criminal act and, that a human agent has caused the state of the fact to exist. The phrase "corpus delicti" essentially means "the actual commission by someone of the particular crime charged."

CORPUS DELICTI: An important rule of evidence in criminal cases requires proof of the corpus delicti (body of the offense). The term is defined in Black's Law Dictionary, 4th Edition, literally as the "substance or foundation of a crime; the substantive fact a crime has been committed."

²⁰John Nelson, Preliminary Investigation and Police Reporting (California: Glencoe Press, 1970), p. 3.

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Generally speaking, "The corpus delicti is a compound fact made up of two things: the existence of a certain act or result forming the basis of the criminal charge, as the occurrence of an injury or loss; and the existence of a criminal agency as the cause of this act or result. . . . As a general rule the connection of the accused with the crime, or the identity of the perpetrator, is not an element of the corpus delicti."²¹

Confessions alone are not sufficient to prove corpus delicti. In most jurisdictions, confessions must be corroborated by additional evidence.

A person cannot be found guilty of a homicide unless all the elements of "corpus delicti" are proved. This is true even though the defendant might confess that he had actually killed somebody. The defendant might be mistaken. The death might have been due to natural causes or, perhaps, there was no death at all.²²

Corpus delicti evidence is that evidence which serves to prove the criminal act itself. Evidence proving a homicide was committed is the victim's body; in narcotics violation, it is the drug itself; and in a burglary or robbery, it is the loot.

The preliminary investigation is the first turning point in the model. If the situation is found to generate a criminal problem, then reports must be written up (circumstances permitting) indicating precisely what the criminal problem is (i.e., corpus delicti).

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²¹A. C. Germann, F. Day, and R. R. J. Gallati, Introduction to Law Enforcement and Criminal Justice (Illinois: Charles C. Thomas, Publisher, 1970), pp. 201-202.

²²Douglas Hazen, Ohio Police Officers' Manual (Indiana: The Allen Smith Company, 1968), p. 79.

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as criminal is later found to be non-criminal, then all that remains is to enter the investigation on the daily activity report and complete other forms if required. When this alternative is selected, official action in reference to this case will be terminal unless new information is later introduced which causes the case to be reopened.

As a general rule, when in doubt, define a situation as criminal and conduct the preliminary investigation. If the situation is later found to be criminal, then evidence, in all probability, will not be lost to the extent it would be if a preliminary investigation was not made. It should be remembered at all times that once evidence is lost, whether by commission or omission, it will, in many cases, be completely irretrievable and the investigator may not be able to compensate for the loss. When criminality is uncertain, maintain the scene and protect the possible evidence.

Preliminary investigation as defined within the scope of this paper will not be concerned directly with arrest of the guilty person or persons at the scene or in flight from the place of the crime. Once the investigation begins to focus on a particular individual as the probable perpetrator of the act, the investigation shifts from "preliminary investigation" to "continuing investigation." Both the recovery of clues to identify the perpetrator and reconstruction of the crime scene will be considered as part of the continuing investigation.

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During the preliminary investigation the investigator should be concerned with protecting the scene and with establishing corpus delicti. Initial crime-scene processing and recording of factual data should only be attempted when postponement of the work may jeopardize the successful completion of the investigation. The preliminary investigation should be continued until it has been established whether a crime has been committed. The type of crime should be determined by category, and if possible, by specific classification.

As soon as the officer arrives at the scene, he should take steps to protect the scene. If an injured person is found on the scene he should be given adequate medical treatment. This may mean administering first aid immediately, summoning a doctor, or calling an ambulance.

In order not to vitiate the possibility of solving the crime (prosecution and conviction of the perpetrator), it may be necessary to heed the following rules while conducting the preliminary investigation.

1. Write down names of witnesses and other persons who are known to have entered the crime scene. . .
2. [Determine] [w]ho was at the crime scene when the officer arrived. . .
3. Establish basic facts. . .
4. Keep suspect and witnesses separate wherever possible.
5. Instruct witnesses not to discuss the events. . .
6. Do not discuss the crime with witnesses or bystanders. . .
7. Listen attentively but unobtrusively. . .
8. Protect evidence which is in danger of being destroyed.²³

²³Arne Svensson and Otto Wendell, Techniques of Crime Scene Investigation (New York: American Elsevier Publishing Company, Inc., 1965), pp. 10-11.

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As a final rule, protection of the crime scene should be continued even after completion of the preliminary investigation.

During the preliminary investigation the investigator must locate and identify witnesses at or about the crime scene for the purpose of interviews. The crime scene should be searched to the extent necessary, and arrangements should be made for collection and preservation of evidence. All conditions, events, and remarks should be noted. The complainant should be interviewed, his story recorded, and signed statements taken.

All of the information gathered should be recorded in the appropriate manner and if possible, written up accurately and precisely in a report. The time of the crime (if known) and the time of other incidents should be recorded as reliably as possible.

The continuing investigation will begin after the preliminary investigation has been completed and reviewed. There is no clear line of demarcation between the preliminary investigation and the continuing investigation. Within the scope of this paper, the preliminary investigation ends approximately at the time the investigation focuses on identifying and apprehending a particular individual for a specified criminal offense. No attempt will be made to fix maximum or minimum time limits on either the preliminary investigation or the continuing investigation. In MACI, the continuing investigation will begin after completion of the

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Some attempts to differentiate between the preliminary investigation and the continuing investigation have been based on the shifting of responsibility from patrol forces to the detective unit. While this practice may have certain advantages, especially in large departments, responsibility used as a criteria is not very reliable. In the first place, the amount of responsibility given to officers and detectives varies from department to department. In the second place, responsibility does not reflect the procedures and practices which characteristically take place during the two different phases of investigation. Finally, MACI does not provide for making a distinction between patrol forces and detectives. Whether the patrol officer or a detective investigates the crime, the procedures and sequence of events will remain roughly the same.

A continuing investigation begins after the preliminary investigation is completed and reviewed. While the continuing investigation encompasses all work which has taken place during the preliminary investigation, the continuing investigation is primarily concerned with identification and apprehension of the offender and full development of the case.

The findings of the preliminary investigation will determine whether the case warrants further consideration. If the investigator defines the problem as non-criminal

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CHAPTER IV

FORMULATE OBJECTIVES

Every criminal investigation entails certain specific goals or objectives which must be satisfied prior to the ultimate goal of prosecution and conviction. The goals of criminal investigation can be stated as follows:

1. Provide evidence of guilt.
2. Identify guilty party.
3. Trace and locate guilty party.
4. Apprehend guilty party.

It should be mentioned that these broad objectives will not appeal to all investigators. In departments where "the number of cases cleared by arrest" is the statistical measure of effectiveness, many investigators will be more concerned with making apprehensions than with providing evidence of guilt. In MACI, apprehension will be postponed until evidence of guilt has been developed to a degree sufficient to support the arrest.

Investigators concerned primarily with apprehensions may overlook evidence which tends to prove innocence of the subject. As the saying goes among some investigators, "Better to arrest and lose than not to arrest at all." This attitude tends to depreciate the concept of innocent until

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Ideally, the suspect should not be apprehended until the investigator feels that proof beyond a reasonable doubt has been established. Legally however, a subject can be apprehended on reasonable grounds (arrest without a warrant) or probable cause (arrest made with a warrant). Both "reasonable grounds" and "probable cause" constitute a level of proof commonly much lower than is needed to prove guilt beyond a reasonable doubt. In light of this, a distinction must be made between the two levels of guilt subsumed by the first objective, "Provide evidence of guilt."

"Provide evidence of guilt" can be broken down into the following subgoals:

1. Provide evidence of guilt.
 - A. Provide evidence of guilt sufficient to support reasonable grounds or probable cause.
 - B. Provide evidence of guilt sufficient to support proof of guilt beyond a reasonable doubt.

With these two additional subgoals, the objectives can be redefined in the following manner:

1. Provide evidence of guilt sufficient to support reasonable grounds or probable cause.
2. Identify guilty party.
3. Trace and locate guilty party.
4. Apprehend guilty party.
5. Provide evidence of guilt sufficient to support proof of guilt beyond a reasonable doubt.

And finally the ultimate goal thus completing the revised objectives:

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6. Promote adjudication and conviction.

While these steps do not represent a temporal sequence, maximum and minimum time limits have not been set for completion of the objectives, the steps do characterize a chronological sequence. These steps are arranged in a certain order or sequence which should be adhered to in both "hot" and "cold" cases.

Consider if you will the "hot" case. After the corpus delicti has been formulated during the preliminary investigation, circumstances develop which tend to indicate a certain man is responsible for the specific crime. These circumstances may or may not be sufficient to support reasonable grounds. If reasonable grounds can be established, then a specific person can be identified as a prime suspect. On prima facie evidence the suspect is presumed to be the guilty party. (Note: By definition, without "some" evidence of guilt, the suspect could not be identified as the probable "guilty party.")

Once the suspect has been identified, he must be traced and located. In a "hot" case this could mean tracing the suspect down a dead end alley and locating him somewhere between the top and bottom of a chain link fence. Having traced and located the suspect, he can now be apprehended. While this entire sequence may occur almost simultaneously, it must, according to the law, occur in the above order if a legal arrest is to be made.

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certain circumstances, apprehend a person before they have reasonable grounds or probable cause. If apprehension forces a person into custody or deprives him of his freedom in any significant way without the required evidence of guilt, it should be considered an illegal arrest. While illegality may, at times, be classified as necessary or practical, compensation for illegality has not been provided for in MACI. Hopefully this method will promote adherence to legal requirements.

There is no set time for "providing evidence of guilt sufficient to support proof of guilt beyond a reasonable doubt," objective five. This objective can be developed at any time prior to adjudication and conviction, objective six. In the ideal situation, objective five should be satisfied prior to apprehension of the guilty party, objective four, as stated previously. MACI however, designed to reflect current legal practices, will not impose restrictions on the investigator beyond those required by the legal system.

On the schematic diagram representing MACI, page 5, it should be noted that objectives two and three ("Identify guilty party," and "Trace and locate guilty party" respectively) have not been explicitly stated. Because these objectives must necessarily be satisfied prior to apprehension, it will be assumed that they are implied by the expressly stated objectives. Needless to say, the first five objectives must be accomplished prior to prosecution and conviction.

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In cases where stolen property is involved (i.e., robbery, burglary, larceny, etc.), it will be necessary to formulate a second set of broad objectives. Even so, in terms of "making" a case, these objectives are secondary to the goals first stated.

Criminal investigation is a world of suspects and recovered stolen property. It is a world of leads, legwork, information (much of which proves of no value), line ups, conjecture, paper work, and people. And it is, on precious occasions, a world of "making" a case. But before making a case and finding stolen goods, an investigations staff must identify a suspect and apprehend him. Then, if further investigation substantiates the charges, the case must be prepared for prosecution.²⁴

The second set of objectives can be stated by the following sequence:

1. Confirm the fact that property was stolen.
2. Identify the stolen property.
3. Trace and locate the stolen property.
4. Recover stolen property.
5. Dispose of stolen property in appropriate manner.

While stolen property, when recovered, can also be used to develop evidence of guilt, stolen property will not be a consideration in every case. Where recovery of stolen property is not involved, MACI provides for simply by-passing these objectives. (You will note that on the diagram of MACI, page 5, only the fifth objective in the above sequence is

²⁴George Eastman and Esther Eastman, (eds.), Municipal Police Administration (Washington, D.C.: The International City Management Association, 1969), p. 137.

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The reader will observe that some of the objectives listed in this chapter appear beneath the step titled "SATISFY OBJECTIVES" in the model. Those objectives not listed in this chapter which appear under "SATISFY OBJECTIVES" in the model are implied by the original objectives and are stated under "SATISFY OBJECTIVES" for clarity.

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CHAPTER V

COMPILE INFORMATION

Before any serious collection of data can begin, it will be necessary to formulate a working hypothesis.

As a matter of fact, it is strictly impossible to make any serious attempt to collect evidence unless one has theorized beforehand. As Charles Darwin, the great biologist and author of the modern theory of evolution observed: ". . . all observation must be for or against some view, if it is to be of any service." The point is that there are too many particular facts, too many data in the world, for anyone to try to become acquainted with them all. Everyone, even the most patient and thorough investigator, must pick and choose, deciding which facts to study and which to pass over. He must have some working hypothesis for or against which to collect relevant data. It need not be the completed theory, but at least the rough outline must be there. Otherwise how could one decide what facts to select for consideration out of the totality of all facts, which is too vast even to begin to sift?²⁵

Since it is far too early at this point to theorize on such objectives as identify, trace, locate, and apprehend the guilty party, the working hypothesis must be specific enough to guide collection of data, but broad enough to exclude premature theorizing on these objectives. As Sherlock Holmes has suggested: "The temptation to form premature theories upon insufficient data is the bane of our profession" ("The Valley of Fear")

²⁵Copi, op. cit., p. 389.

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Another famous sleuth, Hans Gross, was equally concerned with the fact that premature theorizing can bias judgment.

The method of proceedings just described, that, namely, in which parallel investigations are instituted, which to a certain extent mutually control each other, is the best, and one is tempted to say the only, way of avoiding the great danger of a "preconceived theory"--the most deadly enemy of all inquiries. . . . When one delves into the case with enthusiasm one can easily find a point to rely on; but one may interpret it badly or attach an exaggerated importance to it. An opinion is formed which cannot be got rid of. In carefully examining our own minds we shall have many opportunities of studying how preconceived theories take root: we shall often be astonished to see how accidental statements of almost no significance and often purely hypothetical have been able to give birth to a theory of which we can no longer rid ourselves without difficulty, although we have for a long time recognized the rottenness of its foundation.²⁶

How then can the problem of preconceived theorizing be avoided without sacrificing the need for preliminary theorizing?

Hypotheses state the existence of facts or relationships which are not yet known, but which are believed or suspected to exist. While a working hypothesis is necessary before a serious attempt can be made to collect data, this hypothesis need not be the complete hypothesis or the only hypothesis. In fact, it may be necessary to formulate several hypotheses before presentation of the completed theory.

By specifying which hypotheses are to be answered at

²⁶Hans Gross, Criminal Investigation, Adapted by John Adam and J. Collyer Adam, Edited by Roland M. Howe (4th edition; London: Sweet & Maxwell, Limited, 1949), pp. 7-8.

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which stages of the investigation, it should be possible to discourage the investigator from making premature judgments. In essence, MACI leaves the case to develop itself. While the method of solution suggested by Hans Gross is probably the most effective (i.e., parallel investigations), the use of MACI offers a much more practical alternative.

From the first objective (i.e., "Provide evidence of guilt") and from the corpus delicti (i.e., the act itself and the fact a criminal agent is responsible for the act), a hypothesis can be formulated which states: Evidence of guilt can be provided which will prove a given party is guilty of committing a specified criminal act. While this hypothesis will not be true in every case, the assumption must be made that every case is potentially soluble if the investigation is to be meaningful.

While this hypothesis does introduce one preconceived assumption, the fact that all crimes are potentially soluble, it does not allow preconceived theorizing of the type which would bias judgment.

Three basic postulates are assumed by the hypothesis: elements of the crime exist; a human agent is responsible for those elements; and, evidence of guilt can be provided which will link the criminal with the criminal act. Nothing has been stated in this hypothesis which would require the investigator at this stage of the investigation to specifically theorize in regard to the objectives: "Identify guilty party"; "Trace and locate guilty party"; and "Apprehend

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guilty party." In MACI, none of these objectives are to be considered until data has been collected which provides evidence good and sufficient to support reasonable grounds or probable cause.

The problem of determining what data is relevant and should be collected is difficult even with the working hypothesis. Basically it can be said that data is relevant when it has the potential to prove the truth of the fact at issue.

The following explanation of relevant evidence will give some indication of the type of data which is relevant and should be collected. Bear in mind that not all relevant evidence will be admissible in court. Relevant evidence which may unduly prejudice the jury, cause great confusion, or cause wasteful digression may be excluded from court.

The investigator, at this point however, should not be concerned with the distinction between logical relevancy and legal relevancy. Any data or evidence which may have probative value and which may logically tend to prove the proposition for which it is offered, should be collected by the investigator. While this does not mean the investigator should resort to illegal collection of data, it does mean he should collect any data which appears relevant regardless of the fact it may not be admitted in court. With these qualifications in mind, consider the following explanation of relevant evidence.

If the evidence has a connection, it is said to be relevant. Relevant evidence is that which tends to prove or disprove any fact in dispute. It is evidence

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which tends to explain or shed light on the issues involved in the case. It is difficult to establish an exact test of relevancy. It has been stated that the best test is one of good common sense and logic. If through good common sense and logic it is determined that the evidence offered will assist in establishing whether a crime was committed and whether the accused is guilty of that crime, the evidence is said to be relevant. The testimony of a witness who saw a man break into a building during the night would be relevant evidence to prove a burglary. The burglary tools found in possession of this man would be relevant evidence to prove intent to commit theft in the building.²⁷

In some cases it will be necessary to collect clues and evidentiary traces without specific regard for their relevancy or relation to the crime. Clue or trace material may be collected simply because it is viewed by the investigator as an abnormality, a thing which is foreign to the scene or simply out of its accustomed place. This type of data may be collected even though its logical relationship to the investigation is not clear.

As a general rule: If data seems even remotely relevant, it should be collected and preserved.

Collection of "Facts" Relevant to Problem

While most investigators have used or heard the old cliché, "I want the facts and nothing but the facts," it is questionable just how many investigators actually know what a "fact" is. Yet few investigators would deny that facts are essential to criminal investigation.

²⁷Gilbert Stuckey, Evidence for Law Enforcement Officers (New York: McGraw-Hill Book Company, 1968), pp. 23-24.

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"Fact" is defined in Webster's New World Dictionary as:

1. a thing that actually happened or is true.
2. reality; truth.
3. something stated as being true.²⁸

While the investigator uses "fact" primarily in senses one and three, not uncommonly he assumes that everything which appears to him as factual represents absolute reality or truth.

In the first sense ("a thing that actually happened or is true"), the word "fact" is used for those existences in space and time which are what they are, independent of our theories, knowledge, and beliefs about them. These facts simply wait to be discovered. We assume that these facts exist exactly as we see them. Wigmore is referring to the first category of facts when he states:

Evidence represents any knowable fact or group of facts, not a legal or logical principle, considered with the view of its being offered before a legal tribunal (judge or jury) for the purpose of producing a persuasion, positive or negative, on the part of the tribunal, as to the truth of a proposition, not of law or logic on which the determination of the tribunal is to be asked (Wigmore on Evidence, Third Edition, Vol. I, p. 3).²⁹

"Fact" in the third sense ("something stated as being true") refers to an established or accepted truth. As Justice Blackstone has stated:

²⁸David B. Guralnik (gen. ed.), Webster's New World Dictionary (New York: Popular Library Inc., 1968), pp. 197-98.

²⁹Hazen, op. cit., p. 68.

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Evidence signifies that which makes clear or ascertains the truth of the very fact or point in issue, either on the one side or the other (Commentaries III, p. 367).³⁰

"Fact" here is the point or issue of the trial which is to be determined by a legal tribunal.

What is the relationship between "fact" as evidence and "fact" as the issue of a trial? For simplification, the two types of facts discussed above will be redefined. "Fact" in the first sense will be referred to as an "empirical fact," and fact in the second sense as an "established fact." In the purest form, empirical facts can be publicly verified by observation and universally agreed upon. Legal tribunals, for example, are responsible for establishing the fact of a case, the ultimate fact. The truth or reality of this fact may be challenged by higher courts.

Ideally, evidence should be based upon empirical facts and, the facts at issue or the fact of the case based upon evidence. Evidence which does not correspond to empirical facts cannot be true. Legally established facts which do not correspond with the evidence cannot be valid. Since the triers of fact are not likely to have direct knowledge of the case, two periods of highly subjective judgment must intervene between sense data and the fact of the case.

Failure to observe empirical facts accurately can result from predispositions which bias judgment, from the

³⁰Ibid., pp. 67-68.

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emotional state of the observer, or from unfamiliarity with the situation. The same person who has failed to observe the situation correctly may also fall victim to memory failure. Failure to remember the facts observed can be caused by the addition, substitution, or transposition of details. The second period of subjectivity begins when the triers of fact are forced to observe and remember the evidence which is presented before them during the trial.

Surprisingly enough, there is a tendency among certain authors to elevate established facts to a level of truth beyond that of the fallible evidence upon which the facts are based.

Evidence is not the same as, or synonymous with, fact. Evidence may be ambiguous, that is, subject to different interpretations. It may be false--exaggerated, planted, or perjured. It may be modified by forgetfulness, inattention, or silence. On the other hand, a fact is the truth. A fact (truth) is the effect of evidence, and is dependent on evidence. A fact is established from the very personal evaluation of the evidence presented in a particular case by the trier of fact (emphasis added).³¹

While certain people may hold that the ultimate fact (the fact of the case) represents the "truth," the "facts in issue" are seldom agreed upon by even the parties concerned. The "facts in issue" refer to those matters of fact which the plaintiff posits and the defendant attempts to controvert. If legally established facts are to be taken as commensurate to "truth," it must be remembered

³¹Weston and Wells, op. cit., pp. 33-34.

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that such a distinction is simply a matter of legal convention.

"Proof" is the intervening variable which exists between evidence and the "fact in issue" or the "fact of the case."

Proof is [also] the effect of evidence. It is the establishment of a fact by the production of evidence. Proof requires quality in evidence, but it may also require quantity. It is the amount of evidence that will test a fact to the satisfaction of the triers of fact. The final measurement of proof is the impact of the evidence upon the triers of fact.³²

Just as the subjective element may enter into the observation of empirical facts, so too is the evidence subjectively evaluated by the judge or jury. The investigator should realize that subjectivity may be a factor in the court's verdict.

Evidence is the medium of proof, and proof is the perfection of evidence. Theoretically there must be a certain degree of evidence presented before such evidence is finally regarded as proof. Without evidence, there can be no proof, although, there may be evidence presented which does not amount to proof.

In civil cases it is required to prove guilt only by a preponderance of evidence, or greater weight of evidence. In equity cases proof must be clear, certain, and convincing. The highest degree of proof is found in criminal cases where the defendant must be found guilty beyond any

³²Ibid., p. 40.

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In criminal cases the guilt of the defendant must be established "beyond reasonable doubt." In a number of states (California Penal Code Section 1096; Ohio Revised Code Section 2945.05) the trial judge reads to the jury the statutory definition of reasonable doubt: "It is not a mere possible doubt; because everything relating to human affairs, and depending on moral evidence, is open to some possible or imaginary doubt. It is that state of the case, which, after the entire comparison and consideration of all the evidence, leaves the minds of the jurors in that condition that they cannot say they feel an abiding conviction,³³ to a moral certainty, of the truth of the charge."

The degree of proof required to support guilt beyond a reasonable doubt will depend on the mind of the reasonable and just man who is considering the particular subject matter.

The fact of criminality (case results in conviction) is true legally when the triers of the fact decide that evidence is sufficient to be regarded as proof of guilt. While most investigators accept conviction as a fact of criminality, many investigators are less prone to accept acquittal as proof of non-criminality. First, from the investigator's perspective, it may appear that evidence is sufficient to support proof of guilt (established fact). In fact, many investigators will not promote prosecution unless they feel evidence is sufficient to support proof of guilt beyond a reasonable doubt. MACI is designed to encourage this practice. There is no place in MACI for the investigator who

³³John Klotter and Carl Meier, Criminal Evidence for Police, Police Text Series (Ohio: W. H. Anderson Company, 1971), p. 56.

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simply promotes prosecution in an effort to close an unwieldy case. Secondly, in some cases, a man will be acquitted on a technicality when both the investigator and the court are reasonably certain the suspect actually did commit the offense he was charged with. The technicality may or may not have resulted from illegal police practices. For the investigator who does use illegal police practices, if losing a case is not enough, he should remember that such practices simply encourage further legal restriction. Finally, some investigators may refuse to accept the fact of non-criminality because it is easier to admit you lost the case in court than to admit you arrested and prosecuted the wrong man. In any event, the decision of the court established the fact of the issue and consequently the legal truth. This truth still remains final unless the decision is overruled by a higher court.

Not only should the investigator understand the relationship between fact, evidence, and proof, he should also understand the relationship between fact, evidence, and opinion.

It is not, as a general rule, permissible for a witness to tell his opinion about facts in issue because it is not in the province of the witness to draw a conclusion; rather it is the duty of the court or jury to draw the final conclusion from the evidence presented. It is the judge's duty to interpret and determine the law and the jury's duty to weigh the evidence and determine the facts.³⁴

³⁴Hazen, op. cit., p. 84.

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As a general rule, investigators will not be allowed to present mere opinion before a judge, jury, magistrate, or judicial official. If the investigator is required to present opinion, the facts available should be offered and the underlying circumstances explained. The requirements for a valid arrest warrant state that no warrant shall be issued solely on belief.

The magistrate may not accept without question the officer's conclusion that the person whose arrest is sought has committed a crime, but on the contrary must determine for himself the existence of probable cause after having been apprised of the relevant facts. To enable the magistrate to perform this function, the complaint must indicate in detail some of the reasons for the officer's belief.³⁵

Similar requirements apply to a search warrant.

This is not to say that probable cause can be made out by affidavits which are purely conclusory, stating only the affiant's or informer's belief that probable cause exists without detailing any of the underlying circumstances upon which that belief is based. Recital of some of the underlying circumstances in the affidavit is essential if the magistrate is to perform his detached function and not serve merely as a rubber stamp for the police.³⁶

The difference between fact and opinion may be simply a matter of degree in some cases. Just as a hypothesis which holds good under all circumstances may be elevated to the category of fact, an opinion supported by conclusive evidence can also be classified as a fact. In other words,

³⁵John Klotter and Jacqueline R. Kanovitz, Constitutional Law for Police, Police Text Series (Ohio: The W. H. Anderson Company, 1968), p. 60.

³⁶Ibid., p. 107.

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"When we prove our opinion, it becomes a fact."³⁷ What the investigator must realize however, is that it is seldom sufficient for him to establish a fact to his own satisfaction. Legal requirement must be considered.

This does not mean that data should be excluded simply because it may be opinion. On the contrary, data, if it appears relevant, should be collected regardless of its factual quality or potential as admissible evidence.

Investigations, regardless of type or ultimate purpose, involve the task of gathering and evaluating information. The investigation process must be thought of in terms of gathering information, rather than of gathering evidence. Information which is presented in court represents only a small fraction of the total information developed during an investigation. Before a case ever reaches a courtroom, information related to it has been subjected to examination, evaluation, and screening. Much of the information which the police gather is not acceptable to a court according to rules of evidence. However, rumors, tips, polygraph examinations and the like can be of great value in pointing the way towards what will be acceptable evidence.³⁸

Observation and Experience

In seeking to solve a problem, the investigator will normally have a fund of previous experience which can be used to guide and develop the investigation. Observation is the source of experience, and experience is the source of

³⁷Lionel Ruby, Logic (United States: J. B. Lippincott Company, 1960), p. 364.

³⁸Charles G. Vanderbosh, Criminal Investigation (Washington, D. C.: International Association of Chiefs of Police, 1968), p. 2.

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All knowledge proceeds originally from experience. Using the name in a wide sense, we may say that experience comprehends all that we feel, externally or internally--the aggregate of the impressions which we receive through the various apertures of perception. . . .³⁹

Yet observation is more than mere sensation, the factor of interpretation is also involved. The way things are perceived will depend on sensation and on past experience which allows for the interpretation of sensory data.

It is important to realize that observation is much more than merely seeing something; it also involves a mental process. In all observation there are two elements: (a) the sense-perceptual element (usually visual) and (b) the mental, which, as we have seen, may be partly conscious and partially unconscious.⁴⁰

Failure to observe a situation correctly often results from faulty interpretation of sensory data. Perception of the skilled investigator is often more acute than perception of the amateur because even when they both receive the same sensory stimulation, the skilled investigator commonly has more experience and thus tends to make better interpretations of the same data. Facts do not simply speak for themselves.

A basic postulate of scientific method is that all data are derived from sensory impressions. This does not deny, however, that impressions may be purely mental, for one way of defining thought is all the mental manipulation of sensory impressions. The data of science, therefore, from this perspective, are mental

³⁹Stanley Jevons and Ernest Nagel, The Principles of Science (New York: Dover Publications, Inc., 1969), p. 399.

⁴⁰W. I. Beveridge, The Art of Scientific Investigation (New York: Vintage Books, 1950), p. 135.

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impressions of sensory experiences--i.e. ideas derived from seeing, hearing, smelling, tasting, touching, etc. . . . Facts do not speak for themselves; only the "meaning" of those facts makes an impression on the mind's awareness.⁴¹

Perception does not always correspond with sensory data. As Goethe has suggested, "We see only what we know." People frequently see what lies behind their eyes rather than what appears before them. This point is well illustrated by the following anecdote:

A Manchester physician, while teaching a ward class of students, took a sample of diabetic urine and dipped a finger in it to taste it. He then asked all the students to repeat his action. This they did reluctantly, making grimaces, but agreeing that it tasted sweet. "I did this," said the physician with a smile, "to teach you the importance of observing detail. If you had watched me carefully you would have noticed that I put my first finger in the urine but licked the second finger!"⁴²

People tend to see what they want to see. The students expected to see the physician taste the diabetic urine and consequently, this is what they saw.

Even apparently random observation often involves some prior theorizing. When modern man sees a fixed point of light among the other heavenly bodies he may claim to see a star. Perhaps he would be less ready to maintain that he simply and literally sees a star if he were to remember how comparatively recent in human history the explanation is for what it is he claims to see.

⁴¹Carlo Lastrucci, The Scientific Approach (Massachusetts: Schenkman Publishing Company, 1963), p. 156.

⁴²Beveridge, op. cit., p. 133.

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Unless observation is identified with the immediate, ineffable experience of raw, unstructured sense data, the observation will involve some theorizing or interpretation.

In significant observation we interpret what is immediately given in sense. We classify objects of perception (calling this a "tree" and that a "star") in virtue of noted similarities between things, similarities which are believed to be significant because of the theories we hold.⁴³

This theorizing or interpretation of sense data will depend largely on past experience. The factor which distinguishes past experience from immediate experience is memory. While experience can be defined as what we have observed or lived through, past experience can be defined as what is remembered about these experiences.

While significant observation may require interpretation of what is given by the senses, this theorizing based on past experience may not always be appropriate for the given sense data.

Significant observation requires that we look for something specific, that we have a "point of view." But this method of "purposeful observation" also involves a pitfall. There is the danger that preconceived notions may lead to a biased point of view. The observer may then see only what he wishes to see, in line with his wishful thinking. He may not note the negative instances or exceptions to the rule he seeks to verify. Observation, in other words, should be selective, but it should not be "subjective."⁴⁴

Reliance on past experience or preconceived notions in

⁴³Morris Cohen and Ernest Nagel, An Introduction to Logic and Scientific Method (New York: Harcourt, Brace and Company, 1943), p. 216.

⁴⁴Ruby, op. cit., p. 362.

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reference to observation may cause the investigator to completely sacrifice objectivity in certain instances. Though Charles Darwin has suggested that no one can be a good observer unless he is a good theorizer, too much theorizing or the wrong type of theorizing may critically bias observation.

The predispositions of the observer will markedly affect the accuracy of observation. These predispositions are made up of stereotypes, prejudices, and legends which persist in the mind of the observer. He will see what he is "set" to see. For example, false interpretations of what is seen may be brought about by projecting imagined characteristics into the situation. This is especially true where the observation is of persons in actions into whom certain characteristics are projected. Where this is done, the observer will err in interpreting the acts of these people.⁴⁵

For example, white witnesses may accuse a black subject of participating in a violent act merely because the witness "thinks" the subject is the "type" who would engage in the act. In some cases the jury may hand down a verdict of innocent simply because the defendant does not "appear" to be the "type" that would commit such an offense. Defense attorneys will often work to create such an image.

Not only can past experience cause observation to be prejudicial, it may also influence perception in another way. Past experience may in large measure determine what factors in the subject matter are noted.

Bertillon has wisely said, "One can only see what one observes, and one observes only things which are

⁴⁵William Dienstein, Techniques for the Criminal Investigator (Illinois: Charles C. Thomas, Publisher, 1952), p. 5.

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already in the mind." Unfortunately, there are often many details which are important for the investigation but which were of no interest to the witness at the moment he perceived them. He simply did not pay attention to them and as a rule does not know them or at best has only a meager knowledge of them.⁴⁶

Educational background and training combined with experience will aid the investigator in noting the proper data. Limited knowledge often results in failure to observe the relevant and necessary information.

The validity of knowledge depends on the validity of experience. Maintaining the wrong theories may promote inaccurate observation as in the case of prejudice; or maintaining inadequate theories may result in non-observation as in the case of the witness failing to note an important detail. To counteract prejudice, theorizing should be done only when necessary and even then it should not preclude the influence of data. Education, training, and intelligence will broaden the range of theories and allow for observation of relevant and necessary sense data.

Finally, the investigator must be prepared to reconsider past experience in the light of changing circumstances. What was considered a valid interpretation of sense data one day may suddenly be considered invalid the next. Habitual behavior based on past experience which was quite rational yesterday may be viewed as highly irrational tomorrow as

⁴⁶ Harry Soderman and John O'Connell, Modern Criminal Investigation (5th edition; New York: Funk & Wagnalls, 1962), p. 42.

situations change. Past experience is valid and useful only if it remains current with the times; those who resist change will often find themselves subject to frustration and alienation.

Consider Supreme Court rulings handed down in the area of search and seizure. What would have been viewed as a legal search and seizure by state officials prior to Weeks v. United States, 232 U.S. 383, 1914, would now be viewed as quite illegal with the decision handed down in Mapp v. Ohio, 367 U.S. 643, 1961. While the physical process of search and seizure may remain relatively the same, the way in which the operation is perceived by the court has changed radically subsequent to Mapp. In essence, the court no longer observes the same situation in the same way.

While much has been stated concerning the pitfalls to accurate observation which affect the investigator, perhaps too little has been said presenting the positive side of observation. The following quote offers some suggestion as to what observation theoretically should be.

Observation implies a clear mental picture of what is seen. It requires a seeing of detail, a study of detail, and a recognition that the whole picture is composed of many details. Observation includes seeing both detail and generality. . .

Too much emphasis cannot be placed upon the importance of observing as nearly as is humanly possible everything that can be observed, not merely in a general way, but to the minutest detail. No one can tell in advance what bit of observation will prove to be of importance.⁴⁷

⁴⁷Dienstein, op. cit., p. 1.

Sources of Information

Information can be gathered from many different sources. Which source is used will depend on availability of the source, and on the relevance of the source to the crime being investigated. The value of the information will depend on the type of information which can be supplied, on the accuracy of the information, and on the ability of the investigator to interpret and apply the information.

While there are many sources of information available to the criminal investigator who is willing and able to take advantage of them, this of course presupposes that he knows what sources of information are available. In essence, the investigator can be no better than his source of information.

Sources of information can be grouped into four general categories: instrumentation and physical evidence; interviews and interrogation; records and documents; and surveillance.

The most common use of instrumentation is in connection with the collection, preservation, processing, identification, and presentation of physical evidence. Instrumentation refers to the application of the instruments and methods of science to the investigation of crime. Criminalistics or forensic science can be defined as the scientific application of techniques to the measurement and analysis of evidence. Any of the following techniques can be used by forensic science in the examination of evidence: spectrography; microscopy; petrography; metallurgy, radiation

analysis; neutron activation, etc. Instrumentation also includes technical methods such as fingerprinting (dactyloscopy), photography, plaster casting, etc. Technical methods might also include various aspects of the crime scene search and the sketching of the crime scene. Instrumentation can be used in answering the following questions:

- (1) Has a crime or tort been committed? . . .
- (2) In some cases, if the answer to question (1) is affirmative, another question follows: How and when was the crime committed? . . .
- (3) What information can in a general way be obtained as to the identity of the perpetrator? . . .
- (4) The ultimate and most vital question is of course: Are the accused man and the person characterized as having committed the crime in fact one and the same person? This question is most commonly answered in two ways:

(a) It may be possible to establish a connexion between some physical evidence associated with the crime and some personal characteristic of the accused--blood group, hair colour, fingerprints, etc.

(b) It may be possible to show a connexion between the scene of the crime and something which is definitely linked with the accused--scratch marks made by his "jimmy," fibers from his jacket caught on a projecting nail, etc.⁴⁸

Instrumentation and physical evidence can be used to link a person (suspect or defendant) with a place (scene of the crime) or with related objects (fruits or instrumentalities of the crime). The ultimate purpose of instrumentation is to connect the criminal with the crime. The possibilities for using forensic science to process evidence (primarily physical evidence) are almost unlimited.

⁴⁸H. J. Walls, Forensic Science (New York: Frederick A. Praeger, 1968), pp. 8-9.

Some authors seriously question the comparative value and usefulness of instrumentation.

There has been a tendency in recent years to place too great a relative value on the contribution of instrumentation to the detection of crime. The inexperienced are especially prone to place their faith in technical methods to the neglect of the more basic and generally the more effective procedures of information and interrogation. . . For example, although the precinct detective may perform 95 per cent of the work in a homicide investigation, it is the remaining 5 per cent contributed by the medical examiner and other technical experts which often receives the publicity and which impresses the unitiated [sic].⁴⁹

Even if instrumentation is overemphasized, its relative impact on the court (judge or jury) should not be underestimated. It might also be suggested that instrumentation could be used to a greater extent during an investigation by the investigators themselves if they were more willing and qualified to use the potential resource.

Interviews and interrogations provide a second source of information for criminal investigators. The numerous techniques of interview and interrogation are used to glean information from victims, witnesses, suspects, informers, or informants. While the techniques of interrogation and interview are primarily the same, the term "interrogation" commonly refers to the questioning of suspects.

Persons suspected of a crime are interrogated. The purpose of interrogation is to secure a confession of guilt. It is an offensive-defensive situation in which the investigator probes, pries, and pushes to climax his investigation with a confession. The suspect, guilty

⁴⁹O'Hara, op. cit., pp. 11-12.

or innocent, explains, lies, or stands mute.⁵⁰

The techniques of interrogation are calculated to obtain information which will further the investigation. Interrogation is designed to induce the suspect to reveal his movements at the time of the crime, his confederates, if any, and his activities in general. Interrogation can also be used as a means of discovering other evidence. Some of the functions and purposes of interrogation can be found in the following list.

- a. To obtain information concerning the innocence or guilt of a suspect.
- b. To obtain a confession to the crime from a guilty subject.
- c. To induce the subject to made admissions.
- d. To learn facts and circumstances surrounding the crime.
- e. To learn of the existence and locations of physical evidence such as documents or weapons.
- f. To learn the identity of accomplices.
- g. To develop information which will lead to the fruits of the crime.
- h. To develop additional leads for the investigation.
- i. To discover the details of any other crimes in which the suspect participated.⁵¹

In most cases a greater part of the investigation is devoted to interviews. Persons interviewed are commonly those persons who have been identified as individuals with a knowledge of the crime or related circumstances.

Lie detectors and truth serum can be used as aids to interrogation and interview when the veracity of the subject

⁵⁰Weston and Wells, op. cit., p. 175.

⁵¹O'Hara, op. cit., p. 107.

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is in question. Some authorities would also include hypnosis as a useful technique which should, on occasion, be used by criminal investigators:

It is in the investigative and preparatory phases of criminal cases that hypnosis can be most useful. Subjects may be witnesses to a crime, the victims in some instances, arresting officers and possibly previous investigators who failed to include minor details in written reports.⁵²

While these techniques can be used to corroborate statements made by subjects, admissions and confessions based on polygraph, truth serum, or hypnosis will probably not be admissible in court.

The use of records and documents constitutes the third source of information. In addition to standard police records and records from other institutions or agencies, consideration should also be given to such things as telephone directories, city directories, geographic telephone lists or street address directories, cross reference directories, social registers, etc.

Public agencies which should be considered when searching for records and documents include: federal agencies; state agencies and local agencies. Semi-public agencies which may be of use include telephone companies; banks, building and loan associations; brokerage houses; public utilities; transportation companies, etc. Private agencies include bonding companies; churches; stores;

⁵²Harry Arons, Hypnosis in Criminal Investigation (Illinois: Charles C. Thomas, Publisher, 1967), p. 27.

professional and social organizations; finance and loan companies; hospitals; hotels and motels; private business establishments; private investigative agencies; etc.

Records and documents can be used as a means of discovering or identifying various people, as a source of evidence, or as a source of clues and leads.

Modus operandi files are especially useful where they can be applied. M. O. files are most useful where the suspect is believed to be a habitual criminal. Such files can be used to develop possible suspects in such crimes as robbery, forgery, confidence games, sex offenses, etc. Modus operandi files may contain such things as methods of operation of known criminals; methods of operation from past and possibly unsolved crimes; physical descriptions of the subject; personal characteristics of the subject; etc. . Modus operandi files can be used to develop suspects; to link unknown perpetrators with past unsolved crimes; or simply to store data for future reference.

Surveillance is the fourth and final source of information. Surveillance can be defined as the close observation of a place, building, or person. Surveillance and plants are especially important when the crime is one against property where leads have not materialized or where the crime is one without a victim as in the case of many vice crimes.

Surveillance can be divided into two basic categories: fixed surveillance ("plant"), and roving

surveillance.

A plant may be established upon the home or apartment of a person, to cover a certain place of business, or may even extend to a neighborhood--an area of several blocks in some instances. . .

Naturally the first requirement of any plant is observation. On inside plants telescopes, binoculars and telephoto lenses on cameras are all aids to observation. Such aids permit establishment of an inside plant at some distance from the premises to be observed.⁵³

Roving surveillance ("tailing" or "shadowing") can further be divided into two types: close roving surveillance and loose roving surveillance.

Before endeavoring to tail any person the investigator must know in his own mind and must thoroughly instruct his assistants as to whether a "close" or a "loose" tail is desired. In a close tail it is important that contact be maintained; discovery by the suspect that he is being followed is a secondary consideration. A loose tail is the exact opposite--under no circumstances must the tail be revealed to the suspect.⁵⁴

In addition to the forms of physical surveillance mentioned above, surveillance might also include undercover investigations ("roping") and technical surveillance. Undercover agents are used to infiltrate the criminal environment in an effort to obtain information. Normally the undercover agent assumes a different and unofficial identity which will allow him to observe and gain confidence of the subject or subjects. Technical surveillance includes the use of such things as electronic eavesdropping devices,

⁵³Col. Maurice J. Fitzgerald, Handbook of Criminal Investigation, edited by Paul B. Weston (New York: Greenberg, Publisher, 1953), pp. 65-66.

⁵⁴Ibid., p. 68.

recording and amplifying devices, closed circuit television, wiretapping devices, etc. While electronic surveillance can be very useful and highly effective in monitoring subjects, the legality or illegality of the methods tends to restrict its application.

The information secured by surveillance can be used for several purposes: obtaining evidence, supplying a basis for search warrants or arrest warrants, determining the activities and contacts of suspects, promoting the apprehension or arrest of suspects, and developing witnesses.

The above sources of information (i.e., instrumentation and physical evidence, interviews and interrogation, records and documents, and surveillance) are not mutually exclusive and they may overlap. Which particular sources are used will vary from case to case.

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CHAPTER VI

PREPARE INPUT DATA

The investigator's next step is to organize his information into categories of evidence. "Evidence" is the means of ascertaining the truth or falsity of the fact in issue. Regardless of admissibility, this definition of evidence includes any material from which inferences can be drawn to establish or disprove the alleged matter of fact, the truth of which is submitted to investigation. The following are basic definitions of evidence.

In general, evidence is anything that may be presented in determining the truth about a fact in question. Evidence is that which supplies the means of arriving at the truth. Evidence may be any matter of fact from which another matter of fact may be inferred. So far as the investigator is concerned, everything at the scene of a crime that can be used in ascertaining what in fact occurred constitutes evidence.⁵⁵

From Black's Law Dictionary:

EVIDENCE. Any species of proof, or probative matter, legally presented at the trial of an issue, by the act of the parties and through the medium of witnesses, records, documents, concrete objects, etc., for the purpose of inducing belief in the minds of the court or jury as to their contention.⁵⁶

There are many species of evidence, and evidence can

⁵⁵Dienstein, op. cit., p. 16.

⁵⁶Henry C. Black, Black's Law Dictionary (St. Paul: West Publishing Company, 1910), p. 446.

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be classified on various different principles. The following classification will distinguish between forms of evidence and types of evidence. Forms of evidence will include: Real evidence, Documentary evidence, Testimonial evidence, and Judicial notice (classified by some as a substitute for evidence). Types of evidence will include: Direct evidence, Circumstantial evidence, Cumulative evidence, and Corroborative evidence.

Forms of Evidence

Real evidence.

Evidence furnished by things themselves, on view or inspection, as distinguished from a description of them by the mouth of a witness; e.g., the physical appearance of a person when exhibited to the jury, marks, scars, wounds, finger-prints, etc., also the weapons or implements used in commission of a crime, and other inanimate objects, and evidence of the physical appearance of a place (the scene of an accident or of the commission of a crime or of property to be taken under condemnation proceedings) as obtained by a jury when they are taken to view it.⁵⁷

The term "real evidence" is used synonymously with the term "physical evidence." Tangible objects which can be seen or felt when presented for inspection to the trier of fact can be classified as real evidence. While real evidence is said to "speak for itself," the real value of physical evidence may be in its identification, and such identification must naturally be based on testimonial evidence.⁵⁸ Examples of real evidence, evidence which can

⁵⁷Ibid., p. 449.

⁵⁸William A. Rutter, Evidence (California: Gilbert Law Summaries, 1970), p. 2.

be exhibited to the senses of the judge and jury, also include such things as blood test samples and urine test samples. The trier of fact may be unable to appreciate or evaluate these types of real evidence without expert testimony.

Physical evidence may be found at any place where some elements of the crime occur. This may be where the crime was committed, along the getaway route, on the suspect, in his car, or in his home. Physical evidence may be (1) fruits of the crime, (2) instrumentalities used in committing the crime, or (3) objects which aid in identifying the accused with the crime. . .

For a witness to connect an object with the issues of a case, he must be able to identify the object as one which was found in connection with the crime. This may be done by (1) maintaining complete custody and control of the object; (2) recording the chain of possession; or (3) marking for future recognition.⁵⁹

Real evidence is often considered to be the most persuasive type of evidence and courts have encouraged its use.

For the purposes of criminal investigation, real evidence can further be classified into three basic subgroups:

1. Corpus delicti evidence. This evidence serves to prove the crime itself. In a homicide it is the victim's body; in a narcotics violation it is the drug itself; in a burglary or robbery it is the loot.

2. Associative evidence. This evidence connects the accused with the crime or crime scene. Fingerprints, bloodstains of the burglar who cut himself on a broken window, and heelmarks are examples.

3. Tracing evidence. This evidence aids in locating the suspect. Examples include laundry marks in

⁵⁹Stuckey, op. cit., pp. 202-203.

clothing and tire impressions left by a vehicle.⁶⁰

It should be noted that these subgoals partially reflect certain steps in MACI. After completion of the preliminary investigation (corpus delicti evidence), three of the primary objectives which must be satisfied prior to prosecution include: "Provide evidence of guilt" (corpus delicti evidence and associative evidence); "Identify guilty party" (associative evidence); and "Trace and locate guilty party" (tracing evidence).

Documentary evidence.

Evidence supplied by writings and documents of every kind in the widest sense of the term; evidence derived from conventional symbols (such as letters) by which ideas are represented on material substances.⁶¹

Documentary evidence is related to physical evidence, but it consists of a writing, public or private, which "speaks for itself" as to its contents. Documentary evidence, sometimes classified under real evidence, is said to account for approximately seventy per cent of the physical evidence which will be encountered.⁶²

Although the writing "speaks for itself" as to its contents, testimonial evidence again is usually required to identify the document, or to establish its authenticity. Furthermore, testimonial evidence may be necessary to define terminology used in the document, or in certain cases to establish the circumstances surrounding its execution. . .⁶³

⁶⁰Turner, op. cit., p. 9.

⁶¹Black, 1910, op. cit., p. 448.

⁶²O'Hara, op. cit., p. 733.

⁶³Rutter, op. cit., p. 2.

Special problems which arise in relation to the admissibility of documentary evidence will be discussed under chapter six, "Process Input Data."

Testimonial evidence.

Evidence of a witness; evidence given by a witness, under oath or affirmation; as distinguished from evidence derived from writings, and other sources.⁶⁴

Oral testimony, given in court or by deposition, can either be factual testimony or opinion testimony. Testimonial evidence is normally presented by a witness as a result of having had some personal knowledge about the facts of the case under investigation. Witnesses may be classified as expert or lay.

Lay witnesses may relate facts only and not opinions with few exceptions. There are some experiences within the common knowledge of mankind from which a lay witness may draw conclusions. The expert witness is used as an aid to the jury in its search for truth. An expert witness is one having skill and knowledge beyond the average man in a certain art, trade, science, or profession. As an expert he may state his conclusions from an examination made by him or from a set of hypothetical facts presented to him.⁶⁵

Expert witnesses must qualify as such before they are permitted to testify. During a preliminary examination conducted by the attorneys known as voir dire, the prosecutor will attempt to show the expert is qualified while the defense attorney will endeavor to show he is not. The final determination whether a person qualifies as an expert witness is

⁶⁴Black, 1910, op. cit., p. 1150.

⁶⁵Stuckey, op. cit., p. 79.

commonly made by the trial judge.

Judicial notice.

judicial notice. . . The recognition of facts which are deemed in their nature to be already known to the court and jury and which therefore need not be proved, since they are "judicially noticed." Judicial notice of such facts takes the place of proof and is of equal force. It displaces evidence since it stands for the same thing.⁶⁶

Judicial notice refers to the right of the trial judge to determine certain facts as a matter of his own knowledge without the introduction of any independent evidence. Judicial notice is permitted because certain types of facts are so commonly known or accepted that requiring proof during trial would be an absurd waste of time and resources.

The following are some of the facts which can be introduced under judicial notice: public statutes; geographical facts; historical facts; court records; notice of time, days, and dates; scientific or medical facts, etc. Note: for a scientific or medical fact to fall within the realm of judicial notice, it must be an established fact, not merely hypothesis or speculation.

Types of Evidence

Direct evidence.

Evidence given by witnesses who testify directly of their own knowledge of the main facts to be proven.⁶⁷

⁶⁶James Ballentine, The College Law Dictionary (second students edition; New York: The Lawyers Co-operative Publishing Company, 1948), p. 459.

⁶⁷Ibid., p. 249.

Direct evidence points immediately to a question at issue without intervention of proof of any other fact. Direct evidence proves a fact directly without intervention of inference or presumption.

An inference is a deduction of fact made by the jury from the evidence presented. It is the reasoning process by which the trier of fact comes to conclusions as to the significance of the evidence. . . A presumption is a deduction which the law requires to be made from particular facts in evidence. The trier of fact must make this deduction in the absence of a sufficient contrary showing.⁶⁸

Direct evidence has been described as the recital of facts by eyewitnesses to a transaction or testimony by witnesses who have actual knowledge of the facts. Direct evidence would refer to the facts presented by a witness who actually observed the accused commit the crime. Direct evidence is obtained directly through one or more of the five senses: sight, smell, hearing, taste, and feeling.

Circumstantial evidence.

This is proof of various facts or circumstances which usually attend the main fact in dispute, and therefore tend to prove its existence, or to sustain, by their consistency, the hypothesis claimed. Or as otherwise defined, it consists in reasoning from facts which are known or proved to establish such as are conjectured to exist.⁶⁹

Circumstantial evidence is directed to the attending circumstances and proves a fact in issue only indirectly by inference or presumption. From facts which are known,

⁶⁸Rutter, op. cit., p. 7.

⁶⁹Black, 1910, op. cit., p. 447.

inferences can be drawn to establish other facts of the case.

Circumstantial evidence is the proof of facts which have a legitimate tendency from the laws of nature, the usual connection of things, and ordinary transactions of business, etc., to show reasonable minds that a disputed fact was or was not in existence. . . Circumstantial evidence is the result of inferences to be drawn from a combination of real and direct evidence from which collateral facts may be inferred.⁷⁰

While the existence of any fact may be established by circumstantial evidence as well as by direct evidence, circumstantial evidence requires that the triers of fact weigh probabilities as to matters other than merely truthfulness of the witness. "It is necessary that the circumstances shown by the evidence fairly and reasonably warrant the conclusion reached and the conclusion must be a natural inference from the facts proved."⁷¹ The trier of fact must also decide whether the inference which connects the proven facts with the facts to be established is fair, reasonable, and natural.

Circumstantial evidence can be broken down into the following subgroups:

1) Motive. It may be inferred from circumstances and from statements of witnesses that the suspect could have been motivated by a desire for revenge or personal gain. . . Closely related to motive is a desire for criminal action formed by a pathologically [sic] disordered mind. . .

2) Opportunity. It must have been physically possible

⁷⁰Hazen, op. cit., pp. 71-72.

⁷¹Ibid., p. 72.

for the suspect to commit the crime. He must have had access to area, have been in the vicinity, and have had the means available. It must be shown that the suspect could have been in the vicinity of the crime scene in the sense that it was not improbable for him to have been there. . .

3) Associative Evidence. The physical evidence may serve to identify the criminal by means of the clue materials, personal property, or the characteristic pattern of procedure deduced from the arrangement of objects at the crime scene. . .⁷²

Cumulative evidence.

Additional or corroborative evidence to the same point. That which goes to prove what has already been established by other evidence. . . All evidence material to the issue after any such evidence has been given, is in a certain sense cumulative; that is, is added to what has been given before. It tends to sustain the issue . . . Cumulative evidence is additional evidence of the same kind to the same point.⁷³

Cumulative evidence is evidence which simply repeats or verifies direct or circumstantial evidence.

Corroborative evidence.

Strengthening or confirming evidence; additional evidence of a different character adduced in support of the same fact or proposition.⁷⁴

Corroborative evidence can be defined as additional evidence of a different character posited to uphold or support the same point. "While having no direct bearing on the facts in issue, it [corroborative evidence] tends to

⁷²O'Hara, op. cit., pp. 14-15.

⁷³Black, 1910, op. cit., pp. 447-48.

⁷⁴Ibid., p. 447.

buttress other evidence by showing the reliability of the sources from which it was obtained."⁷⁵

⁷⁵Rutter, op. cit., p. 4.

CHAPTER VII

PROCESS INPUT DATA

The possibility of conviction will depend heavily on the evidence presented to the court. For proper presentation of evidence, courts have developed a system of rules and principles which are referred to as the "rules of evidence."

A failure through ignorance on the part of the investigator may lead to rejection of a vital piece of evidence by the court with the result that a conviction cannot be sustained. Since the investigator is occupied constantly with the business of evidence, it is an indispensable part of his training to understand the purpose of evidence and the rules that control its admissibility. It is only in this way that he can serve the cause of justice efficiently. The rules of evidence lie at the heart of modern judicial systems and their understanding is necessary for an intelligent participation in prosecutive procedures.⁷⁶

The rules of evidence are designed to exclude evidence that is lacking in validity and reliability. Theoretically, these rules are designed to protect unskilled jurors from being persuaded by inconclusive evidence. "Rules of evidence" are guidelines which assist in determining how the trial is to be conducted; what persons may be witnesses; the matters about which they can testify; the method by which articles found at the crime scene and elsewhere are collected,

⁷⁶O'Hara, op. cit., p. 561.

preserved, processed and presented; and finally, what is admissible and what is not.⁷⁷ "Rules of evidence" regulate the mode and manner of proving the competent facts and circumstances upon which the party relies to establish the fact in dispute by ruling on the admissibility, relevancy, and significance of evidence.

All evidence, to be admissible, must be obtained in a lawful manner. There is a marked sensitivity to the admissibility of evidence in areas of inquiry in which the techniques of investigation previously practiced have resulted in adverse court decisions critical of such investigative practices. These areas are search and seizure, interrogation, eavesdropping or wiretapping, and lineups for investigation. Modern investigators are alert to the standards required in these areas and exercise particular care to avoid any grounds for a claim that proffered evidence is tainted with any procedural illegality and, therefore, inadmissible.⁷⁸

Not only must evidence be legally obtained to be admissible, it must also be relevant, material, and competent. The substance of evidence can be objected to, and possibly excluded, if the evidence is irrelevant, immaterial, or presented by an incompetent witness.

Relevancy

Relevant evidence. Such evidence as relates to, or bears directly upon, the point or fact in issue, and proves or has a tendency to prove the proposition alleged; evidence which conduces to prove a pertinent theory in a case.⁷⁹

⁷⁷Stuckey, op. cit., p. 21.

⁷⁸Weston and Wells, op. cit., p. 36.

⁷⁹Black, 1910, op. cit., p. 449.

Relevant evidence is evidence which touches upon the fact in issue and which aids in getting at the truth. Relevant evidence must, to some degree, advance inquiry by demonstrating the existence of a relationship between the fact which is offered in evidence and the fact in issue. This relationship is commonly based on logic or common sense, and should render probable or improbable the fact in issue. Relevant evidence has probative value and tends to prove or disprove the matter in dispute by allowing for legitimate presumptions or inferences.

While relevant evidence is prima facie admissible, in some cases even relevant evidence may be excluded:

The general rule that all relevant evidence is admissible is subject to several exceptions. The judge, in his discretion, may exclude evidence if he finds that its probative value is substantially outweighed by the risk that its admission will necessitate undue consumption of time, create substantial danger of undue prejudice, confuse the issues, mislead the jury, or unfairly and harmfully surprise a party who has not had reasonable opportunity to anticipate that such evidence would be offered. . . (Uniform Rules of Evidence, p. 45).⁸⁰

There is little question that most courts hold irrelevant evidence to be inadmissible and subject to the exclusionary rules.

There is no absolute test for relevancy.

The only test [for relevancy] is logic. The trial court must determine simply on the basis of common sense and experience, whether the offered evidence has the requisite degree of probative value.⁸¹

⁸⁰Klotter and Meier, op. cit., p. 28.

⁸¹Rutter, op. cit., p. 19.

Materiality

Material evidence. Such as is relevant and goes to the substantial matters in dispute, or has a legitimate and effective influence or bearing on the decision of the case.⁸²

Material evidence is that evidence which has great importance or significance to the facts of the case. Great weight is placed upon material evidence because it offers a substantial material fact which tends to prove or disprove the fact in dispute.

In recent years the trend in law has been to define "relevancy" and "competency" as a single principle. Technically, however, evidence can be relevant, having some bearing on the case, but immaterial, having no major significance to the matter in dispute.

Competency

Competent evidence. Broadly speaking, all evidence is admissible if it is relevant, material, and competent. Therefore, if evidence is relevant and material and is excluded, it is excluded because it is incompetent.⁸³

Essentially, competent evidence is any evidence that is qualified to be admitted in evidence (i.e., relevant and material).

"Competency" is also used as a means of determining whether a witness is qualified to testify in a trial proceeding.

⁸²Black, 1910, op. cit., p. 448.

⁸³Klotter and Meier, op. cit., p. 39.

As a general rule, all evidence is prima facie admissible except for the following evidence which is only admissible under special circumstances: opinion evidence, hearsay evidence, secondary evidence, privileged communication, and evidence concerning character or reputation.

Opinion evidence.

Evidence of what the witness thinks, believes, or infers in regard to facts in dispute, as distinguished from his personal knowledge of the facts themselves; not admissible except (under certain limitations) in the case of experts.⁸⁴

As a general rule, a witness is permitted to testify only to the facts which are known by direct knowledge; not to their effect or result, or to his conclusions or opinions based on the facts. The reason for this restriction lies in the fact that it is the duty of the judge or jury to draw final conclusions from the facts presented. For this reason the witness is not commonly permitted to express his opinion about the facts he presents or about the facts in issue. Further, where the witness adds opinion to fact, the jurors may be unable to distinguish between what was observed as fact and what was derived from the witness's interpretation of these facts.

The purpose of expert opinion is to help the jury to arrive at a logical conclusion from the facts presented.

Experts may give opinion and other testimony on matters which are peculiarly beyond the knowledge of a

⁸⁴Black, 1910, op. cit., p. 448.

jury. A doctor may testify as to the results of a blood test or urinalysis examination of a drunken driver and state an opinion as to the degree of intoxication. A doctor may testify as to medical matters; a surgeon may testify about surgical operations; a physician may testify about nuclear fission, etc. . . . An expert is supposed to be a disinterested witness, and he is usually asked questions which are hypothetical. The hypothetical question may contain all the facts in issue as such, and the expert may answer such hypothetical question. The jury may weigh the answer to the hypothetical question and accept it as truth, or disregard it completely.⁸⁵

Since the court recognizes that certain simple judgments based on observation of sensory data often involve interpretation which is more reliable than the term "opinion" tends to suggest, courts will, to a limited extent, even accept "opinion" from lay witnesses.

The layman may express an opinion on matters of common observation. This exception arises in cases where an opinion is the only logical way to receive the information concerning the fact, since a recounting of all the facts which caused the formation of the opinion would tend to confuse the jury. Necessity and expediency dictate the exception. These opinions, of course, are permitted only concerning subjects in which the average man has considerable experience and knowledge.⁸⁶

Examples of matters in which lay opinion may be expressed include such things as physical properties (i.e., color, size, visibility, etc.); gross estimate of a person's age; implications of race, nationality, and language; the apparent physical condition of a person, etc. Just as in the case of expert opinion, this evidence can be challenged by

⁸⁵Hazen, op. cit., p. 84.

⁸⁶O'Hara, op. cit., p. 566.

both sides, and the evidence can be accorded its own credibility and weight by each member of the court.

Hearsay evidence.

Hearsay. A term applied to that species of testimony given by a witness who relates, not what he knows personally, but what others have told him, or what he has heard said by others. . . Hearsay evidence is that which does not derive its value solely from the credit of the witness, but rests mainly on the veracity and competency of other persons. The very nature of the evidence shows its weakness, and it is admitted only in specified cases from necessity.⁸⁷

Exceptions to the hearsay rule:

1. Confessions. A confession is a direct statement made by a person acknowledging the fact that he has committed an offense. Confessions may be repeated in evidence by the person to whom they were made. Confessions are admitted because of the strong probability that a person would not commit himself to an offense if he was not guilty of the crime.

To be admissible, any confession must be freely and voluntarily given.

The requirement that the confession must be given freely and voluntarily serves a dual function. First, unless the confession is so given, there may be a doubt about its trustworthiness, and second, unless it is given freely and voluntarily, the accused's right against self-incrimination may be violated.⁸⁸

2. Admissions. Admissions are competent as hearsay on the same theory as are confessions. Unlike confessions, admissions apply to all cases, civil and criminal.

⁸⁷Black, 1910, op. cit., p. 564.

⁸⁸Stuckey, op. cit., p. 134.

A confession is an acknowledgement of all the material elements of the crime charged, if it is believed, whereas an admission may be a statement of only one or more facts against the interest of the speaker and may be explained.⁸⁹

Admissions include more than oral declarations of the accused. Admissions can be defined in the broad sense as any "act" or "declaration" of the accused which is inconsistent with the allegation of innocence. Admissions may be implied by silence, conduct, testimony in other cases, etc.

3. Declarations against interest.

Declarations differ from admissions in that the declarations are made by other than the parties to the action, or their agents or representatives. This exception applies mainly to civil cases.⁹⁰

4. Business records. Records kept in the ordinary course of business are admissible if the person who made the record, or the person under whose supervision the record was made, identifies it and describes its mode of preparation. Such records must have been kept in the regular course of business at or near the time of the act.

5. Dying declarations. Three conditions are necessary to gain admission of dying declarations: it must be shown that the declaration was made on the verge of death; the declarant must have realized his condition; and death must have followed.

The dying declaration is admissible only insofar as it relates to the circumstances immediately surrounding or leading up to the conduct which caused death. A

⁸⁹Hazen, op. cit., p. 73.

⁹⁰Ibid., p. 74.

dying declaration may be made in answer to a leading question or urgent solicitation. It is not necessary to prove expressions indicating apprehension of death, if it is clear that the victim does not expect to survive the injury.⁹¹

Dying declarations are still hearsay and they are not equivalent to nor do they carry the weight of testimony given by a witness under oath in open court.

6. Other exceptions to the hearsay rule include: sworn statements not made at trial; declarations concerning pedigree; spontaneous and excited utterances ("res gestae"); certain matters of public notoriety; etc.

Secondary evidence.

"Secondary evidence" is all evidence which falls short of the standards ascribed to "best evidence" or "primary evidence" and it is evidence which in its nature suggests that there is better evidence of the same fact.⁹²

"Best evidence" is the evidence which is the most natural and satisfactory proof of the matter of fact under investigation.

Problems with secondary evidence normally arise when attempts are made to introduce documents which are not the original documents.

When the contents of a document become an important part of a trial, the document itself must be introduced to prove its content. This provision is known as the "best-evidence rule." Legally, the rule provides that "there can be no evidence of the contents of a writing other than the writing itself." This rule means that

⁹¹Klotter and Meier, op. cit., p. 170.

⁹²Hazen, op. cit., p. 70.

if information is to be offered during a trial concerning what is contained in a document, the best evidence or best proof, of the contents of the document is the document itself, and so it must be introduced.⁹³

Where it is either impractical or impossible to introduce the original document, guidelines have been established for using a substitute. The substitute is then entered as "secondary evidence" and not as "primary evidence."

Privileged communication.

Information obtained in certain confidential relationships will ordinarily not be received in evidence. The court considers such information to be privileged communication and in the interest of public policy will refuse to receive evidence by the person whom it benefits. The court may, however, receive this evidence from a person not bound by the privilege.⁹⁴

Communications made during conversations between certain persons in strict confidence may be privileged, although, if the conversation takes place in the presence of a third person, the third person might be permitted to testify. Privileged communications are commonly not admissible in court unless the privilege is waived by the person whose interest or relationship is sought to be protected.

Privileged communications may occur between: husband and wife; attorney and client; physician and patient; or priest and penitent.

⁹³ Stuckey, op. cit., p. 270.

⁹⁴ O'Hara, op. cit., p. 572.

Evidence concerning character or reputation.

"Character" can be defined as what a man is while "reputation" is what other people think about him.

As a general rule, testimony concerning a person's character and reputation cannot be introduced for the purpose of raising an inference of guilt. This exclusion is based on the difficulty that the jury may experience in separating the fact that a defendant has a previous record of crime from the question of his guilt in the crime under consideration.⁹⁵

If the defendant happens to call a character witness, the prosecution can introduce a character witness who will contradict such testimony. Even where the defendant does not call a witness to testify to his good character, the prosecutor may introduce previous acts of crimes of the accused if they tend to show that he probably committed the crime for which he is being tried. Modus operandi from past crimes of the accused may be used to identify the defendant with the modus operandi used by the criminal in the present case. Evidence of prior crimes by the accused is also admissible to show guilty knowledge, motive or intent.

In general, the following categories of evidence will meet the requirements for admissibility in terms of relevancy and materiality. Whether the evidence is finally admitted will also depend upon the other rules of evidence governing the admissibility of evidence.

⁹⁵Ibid., p. 567.

1. Evidence which tends to establish the identity of persons involved or of things connected with the crime.
2. Evidence which relates to circumstances or events which have occurred prior to, during, or subsequent to the criminal act.
3. Evidence which relates to defenses claimed by the accused.
4. Evidence concerning guilty knowledge, motive or intent.

"Admissible evidence" is the third and most selective class of information which has been discussed. "Information" is the broadest category of data equal to or encompassing the category of "evidence." While both "information" and "evidence" are useful, if not necessary, to consider, it will be the "admissible evidence" which ultimately determines the fact of the case. In terms of prosecution and conviction, both information and general evidence should be seen primarily as guides for developing evidence which will be admissible in court.

There is a danger, however, in overemphasizing the value of admissible evidence. In terms of compiling information, the investigator's first duty is to collect information which appears relevant to the crime (within legal limits). This information will then be classified into more functional categories of general evidence. In most cases all of the information assembled will be appropriate for one category of evidence or another. Evidence which seems relevant should be maintained irrespective of

materiality and competency. Failure to collect information or to preserve evidence may result in an irreversible investigative error.

While the investigator does not have the authority to determine which evidence will be admissible in court, he can make an effort to anticipate the potential for admissibility. In formulating hypotheses concerning the crime, the investigator must bear in mind that information which is simply relevant and trustworthy may not be admissible. This fact, however, should not stop the investigator from legally compiling such information, nor should it prevent him from using the information to develop his case.

If good sufficient evidence cannot be presented at trial to support prosecution then you have wasted both time and resources. Not only will the suspect go free, he will probably be immune to future prosecution for the same crime. Hopefully the use of MACI will encourage the investigator not to wait until prosecution before he considers how important the rules of evidence are in regulating the use of information.

CHAPTER VIII

FORMULATE HYPOTHESES

Hypotheses suggest the possibility of satisfying the stated objectives in MACI. Though theoretically unproven at this time, hypotheses can be formulated and tentatively accepted on the basis of data which has been collected. Up until this point the preliminary hypothesis has been used to guide the collection of relevant information. The preliminary hypothesis states that "Evidence of guilt can be provided which will prove a given party is guilty of committing a specified criminal act." This hypothesis did not provide for a complete theory, but only for a rough outline to guide the collection of data. As explained in Chapter V of this thesis, significant observation requires some form of working hypothesis.

Once the investigator has compiled information sufficient to satisfy the preliminary hypothesis, he will then be in a position to formulate hypotheses which are directly responsive to the six basic objectives of criminal investigation:

1. Provide evidence of guilt sufficient to support reasonable grounds or probable cause.
2. Identify guilty party.

3. Trace and locate guilty party.
4. Apprehend guilty party.
5. Provide evidence of guilt sufficient to support proof of guilt beyond a reasonable doubt.
6. Promote adjudication and conviction.

Two primary hypotheses can be formulated from an integration of the first four objectives:

I. Evidence of guilt against party (X) is sufficient to support reasonable grounds or probable cause.

II. It is physically possible to trace, locate, and apprehend party (X).

(Note: it is assumed that party (X) has been identified.)

A third hypothesis can be formulated from an integration of the fifth and sixth objectives:

III. Evidence of guilt is sufficient to support adjudication and conviction of party (X).

While the criminal investigator will commonly have the authority to propose and evaluate the first two hypotheses, at best he can only influence the outcome of adjudication. Ideally the investigator will not encourage prosecution until he has good and sufficient evidence to confirm the third hypothesis in his own mind. The final truth of this proposition, the fact of the case, can only be determined by a legal tribunal.

The investigator will be in a position to satisfy the six primary objectives when all three hypotheses can be answered in the affirmative. Confirming the first hypothesis will mean that the first two objectives can be satisfied;

confirming the second hypothesis will allow for satisfying objectives three and four; and affirming the third hypothesis will indicate that objectives five and six can and should be discharged.

The objectives directly concerning recovery of stolen property can be stated as one hypothesis:

A. Stolen property can be identified, located, and recovered.

Confirming this hypothesis will indicate that the following objectives can be satisfied:

1. Confirm the fact that property was stolen.
2. Identify the stolen property.
3. Trace and locate the stolen property.
4. Recover stolen property.

The fifth objective under stolen property states:

5. Dispose of stolen property in appropriate manner.

This objective does not warrant statement of a hypothesis.

Methods of Formulating Hypotheses

The methods of formulating hypotheses can be broken down into two categories: those which make conscious use of logic; and those which rely on insight or intuition.

Although the investigator is basically a collector of facts, he must also construct hypotheses and draw conclusions relating to the problem of who committed the crime and how it was accomplished. It is expected that his reasoning process will be logical and that, even when he engages in speculation, good judgement and common sense will be in control.⁹⁶

⁹⁶O'Hara, op. cit., p. 19.

By the same token, when faced with a complex crime, the investigator may be forced to employ the same resources of reasoning used by the research scientist: "To arrive at the correct determination, the investigator blends his experience, imagination, ingenuity, and intuition."⁹⁷

Experimental method.

While the actual discovery of relationships may always require imagination and sometimes genius, the experimental method can, on occasion, be used to guide discovery. Relationships which are developed from use of the experimental method are tentative and they may break under the weight of additional evidence.

The scientific method is not presented here as either a method of discovering or proving invariant relationships. Within the scope of this study, the idea of cause will not be used to imply the existence of a necessary and inherent connection between two events. To say that "X" is the cause will simply mean that "X" may in some way be related to the event under investigation and that "X" may be responsible for the occurrence of the event. The association between "X" and a given event may range from possible to probable. As a general rule, the greater the number of relevant factors known, the higher the probability of identifying a significant relationship. Even where a relationship is

⁹⁷ Turner, op. cit., p. 7.

discovered, the actual nature of the relationship must be determined by further investigation.

Bearing in mind these limitations, the experimental method can be stated as five canons of inductive inference: the method of agreement; the method of difference; the joint method of agreement and difference; the method of residue; and the method of concomitant variation.

1. The method of agreement. If two or more instances of an event under investigation have only one circumstance in common, the circumstance in which alone all the instances agree is the possible cause of the events.

Assume that an investigator working on a series of arson cases takes some pictures of the spectators each time he arrives at the scene. Examining the pictures at a later date he notices the same man appears at each fire. Thus, using the method of agreement, the investigator has developed a lead.

It should be noted however, that while this man may be the cause of the fires, he may also be the effect. In time order of occurrence, the cause must occur prior to the effect. Perhaps this man is simply attracted to fires after they occur. In such a situation, the fire would "cause" the man (the effect) to appear. He may also be related to the cause.

2. The method of difference. If an instance in which the event under investigation occurs, and an instance in which it does not occur, have every circumstance in common

except one, that one occurring only in the former, the circumstance in which alone the two instances differ is possibly an indispensable part of the cause, the cause, or the effect.

Assume the investigator is working on a series of burglaries which have occurred during large parties. Checking through the guest list he notices that "Joe Doe's" name is the only significant difference between parties where thefts have occurred and parties where they have not taken place. Further investigation will be required to determine Joe Doe's relationship, if any, to the crimes under investigation.

3. The joint method of agreement and difference. If two or more instances in which the event occurs have only one circumstance in common, while two or more instances in which it does not occur have nothing in common except the absence of that circumstance, then the circumstance in which alone the two sets of events differ is possibly the cause, the effect, or a necessary part of the cause. This method is simply a combination of both the method of agreement and the method of difference.

Working on a series of bank robberies, the investigator finds that a green car has appeared in the vicinity of each crime both prior and during the robberies. This fact appears to be the only circumstance which the events have in common (method of agreement). Further investigation reveals that robberies have not occurred when the green car was absent (method of difference). Therefore the investigator

concludes tentatively that the green car is somehow related to the cause of the bank robberies under investigation.

4. Method of residue. Eliminate from any event such part as is known by previous inductions not to be the probable cause of the effect under investigation, and the residue of the event will possibly embrace the cause of the effect in question. Unlike the other methods which require examination of several situations, the method of residue requires examination of only one situation.

The investigator is trying to determine which subject is responsible for a recent homicide which occurred in the victim's home. Only four people were present in the victim's home at the time of death. Since the dead man appeared to have been physically thrown over a table and through a window, this tended to eliminate the maid, the wife, and the man's small son from the four subjects present in the house. The investigator would probably be correct to conclude that the fourth subject, James, the large butler, was in some way responsible for the death.

Of course this conclusion is not necessarily true. For instance, the man may have been thrown by a combination of two or more of the remaining subjects or, the facts of the case may have been in error. The man may not have been thrown, he may have jumped or, there may have been more people in the house than those identified. Even if the butler did contribute to the death, he may have done so with a little help from his friends. The investigator must

remember that hypotheses are provisional; as such, they may break under the burden of new information.

5. Method of concomitant variation. If a certain factor varies in concurrence with variations in a second factor, then the second factor is possibly the cause, the effect, or connected with the first factor through some form of relationship. Unlike the first four methods, this method is quantitative and can handle degrees of variation.

The investigator might use this method to determine whether a particular group of juveniles has an influence on the crime rate in a given area. Concomitant variation between two factors can be either direct or inverse. Direct variation would imply that an increase in one factor would cause an increase in the second factor or vice versa. Inverse variation means that an increase in one factor is accompanied by a decrease in the other factor or, a decrease in one factor is accompanied by an increase in the other factor.

If the crime rate in an area increases with an increase of juveniles from the particular group (direct variation), then it would be reasonable for the investigator to conclude that the juvenile group is probably responsible in some way for the increase in crime. This belief would be given further support if the investigator notices that when the number of group members decreases, the crime rate also decreases (direct variation).

Intuitive method.

In complex situations where all relevant circumstances can not possibly be known, intuition or insight offers an alternative method of formulating hypotheses. In fact, some people would claim that intuition is the only significant method of discovery.

Webster's New World Dictionary defines intuition as: "the immediate knowing or learning of something without conscious use of reasoning." Possibly intuition is in reality a logical process but one which occurs on a subconscious level. While this theory should not be discounted, by the same token it has not been proven.

While the sudden enlightenment or comprehension of a situation which can result from the use of intuition may be useful to the criminal investigator, intuition should not be used until adequate information has been compiled, prepared and processed. The reason for this qualification is simple: intuition or insight based on limited information and pure speculation tends to be highly inaccurate and often untestable. Further, it may discourage the investigator from collecting additional information.

Intuition which occurs after the mind is saturated from prolonged contemplation of the problem and data will be accepted as a valid technique of formulating hypotheses. It is believed that great interest and desire for solution will force the subconscious mind into operation when conscious methods of reasoning fail.

Insight, or the ability to "see through" and beyond the obvious attributes of a phenomenon connotes a particular type of observational awareness. Essentially, insight refers to the ability to see qualities or relationships not evident to most observers; and deriving an insight is largely a matter of intellectual ability--particularly the kind of ability defined by the Gestalt school of psychology as intelligence or, more specifically, "structural thinking." Observational sensitivity, then, is a combination of trained experience and insight.⁹⁸

Webster's New World Dictionary defines insight as: "the ability to see and understand clearly the inner nature of things."

Regardless of whether or not intuition is logical or non-logical on the subconscious level, the value of intuition to the criminal investigator should not be underestimated.

Intuition, in any event, is not to be despised, particularly in difficult cases where little progress is evident. The conditions of relaxation and even distraction which often encourage this phenomenon should be sought in those situations. Since there is no evidence that crimes are intrinsically soluble, the investigator can expect in many cases to reach a point where sheer plodding work and deductive reasoning are no longer fruitful and where hope would appear to lie in intuition or chance.⁹⁹

Intuition may be useful in cases where the meaning of the data is not immediately self-evident. When you first look at a jigsaw puzzle, you may find that the concept of order is basically not apparent. While the logical method of eliminating all but the two edges which fit together may

⁹⁸Lastrucci, op. cit., p. 159.

⁹⁹O'Hara, op. cit., p. 22.

work, for the most part this method will be too time consuming. Some people are capable of using insight as an effective alternative. After pondering on the pieces and the problem for a length of time, these people will simply commence to fit the pieces together as if they were following a mental road map. In other words, without the conscious use of reasoning, the solution to the puzzle simply appears to the conscious mind. The same phenomena may occur when working crossword puzzles, mathematical problems, or when writing a composition.

Insights may occur hours after conscious consideration of the problem. A person might go to bed pondering a problem only to wake up with the solution.

Various conditions are conducive to the formation of insights or intuitions. Perhaps the most important prerequisite is prolonged contemplation on the problem and data until the mind is completely saturated with the problematic situation. Other positive stimuli include contact with other minds which can relate to the problem (i.e., discussion, reading, etc.); time to think and meditate; and a firm belief in the value of intuitions.

Both Thomas Edison and Leonardo da Vinci are said to have carried pencil and paper with them to note down original ideas as they flashed into the conscious mind. This technique should prove equally as valuable for the investigator. Unfavorable intuitions especially should be noted; this type of insight has a tendency to slip from the memory

more readily than welcome insights.

Even where the method of formulating the hypothesis is intuitive, the hypothesis must withstand the test of conscious logic. Though perhaps useful, insights are certainly not infallible.

The use of intuition is not uncommon in science.

Most but not all scientists are familiar with the phenomenon of intuition. Among those answering the questionnaire of Platt and Baker 33 per cent reported frequent, 50 per cent occasional, and 17 per cent no assistance from intuition.¹⁰⁰

Chance.

The role of chance should not be overlooked by the criminal investigator. Significant clues do not come very often, and the frequency of these clues may well be the product of chance. Even if the clue materializes, it may be simply a matter of chance that the clue is noticed and interpreted properly.

The only way the investigator can prepare himself for adventitious clues is by training his powers of observation and by maintaining a constant vigilance for the unexpected. The occurrence of significant clues merely provides an opportunity for the investigator. An open and observing mind is required to grasp the opportunity and take advantage of those clues which are accidentally encountered.

¹⁰⁰Beveridge, op. cit., p. 96.

New knowledge very often has its origin in some quite unexpected observation or chance occurrence arising during an investigation. The importance of this factor in discovery should be fully appreciated and research workers ought deliberately to exploit it. Opportunities come more frequently to active bench workers and people who dabble in novel procedures. Interpreting the clue and realising [sic] its possible significance requires knowledge without fixed ideas, imagination, scientific taste, and a habit of contemplating all unexplained observations.¹⁰¹

As the saying goes, "chance favors those who know how to court her."

Reconstruction of the crime scene.

In his attempt to piece the various parts of an investigation into a coherent whole, the investigator may find it useful to reconstruct the crime scene. Relying on logic, intuition, and evidence, the investigator may be able to reconstruct the circumstances of the crime in such a way that it will make it possible for him to draw useful inferences which can eventually be synthesized into a reasonable theory.

The investigator can use either inductive or deductive reasoning to construct a reasonable theory of the crime. Inductively the investigator can reason from the collected evidence which has been analyzed, to a general theory of the crime. Deductively the investigator can reason from assumed principles and facts to a hypothetical theory explaining the crime. While induction will be used more extensively

¹⁰¹Ibid., p. 55.

than deduction, frequently the investigator will use both methods of logical inference to develop a rational theory about the case under investigation.

Information used to reconstruct the crime can be gathered from many origins: the physical appearance of the crime; accounts of witnesses; inferences drawn from the evidence; past experience; and sometimes incautious or careless acts caused by the perpetrator who consciously or unconsciously leaves a significant clue.

The next step in MACI, "EVALUATE HYPOTHESES," can be used to test for inconsistencies and improbabilities in the hypothetical re-enactments of the crime.

CHAPTER IX

EVALUATE HYPOTHESES

Basically, evaluation of the hypotheses involves two phases: first, consideration of the hypotheses in the light of all data which has been collected; and second, deducing the consequences of the hypotheses and testing them in the light of those consequences. If the consequences do not occur that one would expect to occur, then the hypothesis should be considered as questionable, or totally rejected.

The second phase of evaluation is commonly referred to as the experimental phase. The concept of experiment entails both deliberate and controlled observation, the significance of which is partially determined by the hypothesis which it presumes to test.

Deduction is the primary type of reasoning used to test hypotheses experimentally. From initial facts of the hypothesis it should be possible to deduce or imply the existence of new or additional facts. In some cases the experiment will be simple and it may be possible to confirm or reject the consequences by immediate observation or inspection. For instance, if a child claims he was beaten by his father, this statement can be partially tested by examination of the boy's body for physical injury. In

other cases, confirmation may require complex experimentation. It may be necessary to use the techniques and instrumentation of forensic science to test the consequences of some hypotheses. Whether simple or complex, "experiment" can be defined as any test of consequences undertaken to demonstrate or discover the probable truth of a hypothesis.

The experiment serves two purposes, often independent one from another; it allows the observation of new facts, hitherto either unsuspected, or not yet well defined; and it determines whether a working hypothesis fits the world of observable facts. --Rene J. Dubos¹⁰²

In the first case, experimentation may result in additional facts which can be used as evidence. In the second case, it will indicate to the investigator whether he should confirm or reject the hypothesis.

Both validity and reliability are important to the significance of any experiment. An experiment is valid when it measures what you want to measure and reliable, when replication of the experiment would give you the same results. Unfortunately, criminal investigation and certain natural sciences have a problem with reliability or repeatability:

The essence of any satisfactory experiment is that it should be reproducible. In biological experiments it not infrequently happens that this criterion is difficult to satisfy.¹⁰³

This problem can be partially offset by carefully recording

¹⁰²Ibid., p. 19.

¹⁰³Ibid., p. 23.

the facts and details of the experiment. At minimum, the investigator should never be without at least a notebook to record information of importance.

While a true statement cannot logically have false consequences, confirming the consequences does not guarantee the truth of the antecedent. If a man's brain is completely destroyed (antecedent), then he will die (consequent). If the antecedent is true (brain destroyed), then the consequent must also be true (man dies). However, if the consequent is affirmed (man dies), this will not guarantee the antecedent (brain destroyed). The fact that the man died (consequent) could have been the result of other antecedents (destruction of heart or exclusion of air). Simply finding a dead man does not prove he died of brain damage, although knowing a man's brain has been destroyed would tend to indicate the man is dead.

The higher the number of consequences confirmed, the higher the probability that the hypothesis is true. If a man deliberately kills his wife (antecedent), then he must have had motive, means, and opportunity (consequences). While showing that the husband had a motive (one consequence) would tend to provide some confirmation of the antecedent (man killed wife); showing further that he had the physical means and the opportunity to commit the crime would provide a higher degree of confirmation. The investigator should attempt to prove as many consequences as possible.

While confirming the consequent will not prove the

antecedent, disproving the consequent will disprove the antecedent. For example, "If the subject is the man who robbed her (antecedent), then he must have a large scar on his right hand (consequent)." Careful examination of the man's right hand (and left hand) reveals no large scar of any type (consequent). Therefore, knowing the consequent is false, we also know that the antecedent is false (the subject is not the man who robbed her).

Three assumptions have been made in the above argument which should be called to the attention of the investigator: first, the woman was robbed by a male subject; second, there is a man with a large scar on his right hand; and third, the man who robbed the woman does have a large scar on his right hand. If the woman was not robbed, if there is no man with a large scar on his right hand, or, if the woman was not robbed by a man with a large scar on his right hand, then using the above argument will not prove anything. In logic, a distinction is drawn between the truth and falsehood of propositions, and the validity or invalidity of arguments.

Truth and falsehood are properties of propositions, and may derivatively be said to characterize the declarative sentences or statements in which propositions are formulated. But arguments are not properly characterized as being either true or false. On the other hand, validity and invalidity are properties of arguments rather than of propositions or statements.¹⁰⁴

¹⁰⁴Irving Copi, Symbolic Logic (United States: The Macmillan Company, 1967), p. 4.

Logic distinguishes between two valid forms of implication arguments (also referred to as "if-then" arguments). Assuming that the antecedent in the relationship implies the consequent:

I. If the antecedent is true, then the consequent is true.

II. If the consequent is false, then the antecedent is false.

Implication arguments are valid when they have one of these two forms. "Validity" simply means that if the antecedent is true, then the consequent must be true; and if the consequent is false, then the consequent must also be false. Whether or not the antecedent is true or the consequent false is a fact which must be determined by the investigator.

Using our two argument forms, it is now possible to restate the previous arguments in a more logical manner. Arguments of form one (antecedent is true, therefore consequent is true) are commonly referred to by the name Modus Ponens. Assuming the implication relationship is true based on the investigator's experience and common sense:

Relationship: If a man's brain is completely destroyed, then he will die.

Fact: The man's brain is completely destroyed.

Therefore fact: The man is dead.

Argument form two (consequent false, therefore antecedent false) is commonly referred to as Modus Tollens.

Relationship: If a man's brain is completely destroyed, then he will die.

Fact: The man is not dead.

Therefore fact: The man's brain is not completely destroyed.

In essence, valid arguments are much like computers, if the information you feed into the computer is true, then you will get useful information. On the other hand, if the information you feed into the computer is false, the information you get back will be meaningless. Logic only provides you with a method of correct reasoning, you must supply the facts concerning the real world.

While confirming the consequences will not conclusively prove the truth of the antecedent, in many cases it will provide some degree of confirmation. The following argument form is technically invalid.

Relationship: If a man deliberately kills his wife, then he must have had a motive.

Fact: The man had a motive.

Therefore fact: The man killed his wife.

INVALID

The same is true of the following argument:

Relationship: If a man deliberately kills his wife, then he must have had motive, means, and opportunity.

Fact: The man had a motive, the means, and an opportunity.

Therefore fact: The man killed his wife.

While this argument form is still invalid, the probability is higher in this argument that the man killed his wife

than in the first argument. More consequences have been affirmed.

The last argument presented is another Modus Tollens.

Relationship: If the subject is the man who robbed her, then he must have a scar on his right hand.

Fact: The subject does not have a scar on his right hand.

Therefore fact: The subject is not the man who robbed her.

If a hypothesis is scientific, it should be testable. A hypothesis which intrinsically has no promise of ever being subjected to test really has no more scientific status than a fairy tale. A scientific hypothesis relies on corroboration by fact, a fairy tale on fanciful truth.

Testability. The chief distinguishing characteristic of scientific hypotheses (as contrasted with unscientific ones) is that they are testable. That is, there must be the possibility of making observations which tend to confirm or disprove any scientific hypothesis. It need not be directly testable. . . In other words, there must be some connection between any scientific hypothesis and the empirical data or facts of experience.¹⁰⁵

While both the investigator and the prosecutor test hypotheses, the ultimate decision will still be made by the court which is responsible for determining the fact of the case.

Frustration often results from the inability of the criminal investigator to realize that when courts "test" for criminality, they are not solely concerned with who

¹⁰⁵Copi, Introduction to Logic, op. cit., p. 382.

committed the crime. Not only does the ruling of criminality indicate to the court that a given person has committed the crime for which he was charged, it also indicates that certain legal requirements have been satisfied. In some cases the fact that the defendant in all probability committed the crime may not be the major concern of the court. Suspects "known" to be guilty are often released on legal technicalities. For this reason, investigators should be more concerned with the probability of prosecution and conviction than with simply determining who is responsible for committing a given criminal act. Hypotheses must be tested in the light of legal requirements as well as in the light of available information.

Based on an evaluation of the hypotheses, two alternatives are possible: confirm the hypothesis; or, reject the hypotheses. While the primary hypotheses (I, II, and III) will normally be confirmed in sequence, all of the hypotheses need not be confirmed at the same time. Confirming the first hypothesis will indicate that objectives one and two can be satisfied: "Provide evidence of guilt sufficient to support reasonable grounds or probable cause"; and second, "Identify guilty party." Affirming the second hypothesis implies that objectives three and four can be satisfied: "Trace and locate guilty party"; and "Apprehend guilty party." Confirmation of the third hypothesis corresponds with the possibility of satisfying objectives five and six: "Provide evidence of guilt sufficient to support

proof of guilt beyond a reasonable doubt"; and "Promote adjudication and conviction." Affirmation of hypothesis "A" simply indicates that the stolen property can be identified, located, and recovered.

If rejected, the hypothesis would either be recycled in an attempt to formulate a hypothesis which can be confirmed, or, if the case fails to warrant further consideration, directly channeled down to the next step, "ANALYZE INFORMATION," without having first corrected for the deficiencies. The reason for this being that a fruitless investigation cannot be protracted indefinitely.

Ideally, the rejected hypothesis should be recirculated through the system so that corrections, additions, and modifications can be made. Where the rejected hypothesis has been totally vitiated, it may be necessary to formulate an entirely new hypothesis in response to the same objectives.

The investigator should not be too discouraged by failure to confirm a hypothesis. Many important discoveries and fruitful alternatives have been suggested by failures.

CHAPTER X

ANALYZE INFORMATION

Analyze information is the final phase of evaluation before departmental action is taken. Not only must the investigator and the department be concerned with implications of the hypotheses, they must also be concerned with economical, political, social, and legal consequences which might develop in the course of satisfying the objectives. If investigators are to consider more than simply prosecuting and convicting the perpetrators of criminal acts, this would be the step for it.

"Effectiveness" can be defined as the number of cases closed by conviction over the number of criminal cases investigated (i.e., total cases closed by conviction/total cases investigated). This value can be expressed as a ratio, a decimal, or as a percentage. Complete or absolute effectiveness would be represented by a ratio of "1/1," by a decimal of "1.0," or by "100%."

The reason for using "cases closed by conviction" in the numerator is quite simple. As pointed out in the introduction, merely identifying a suspect or arresting him proves nothing. The investigator's primary function is to connect the criminal with the crime. A man is not legally

a criminal until he is found guilty of an offense by a court of law. Criminality cannot be determined until after prosecution, and then, only if prosecution results in conviction does criminality become a fact.

While effectiveness implies prosecution and conviction, failure to prosecute or convict does not necessarily prove ineffectiveness. There will be cases where some element of the crime is beyond the control of the investigator. There will be exceptional circumstances in some cases where, regardless of the investigator's effectiveness, he will simply not be able to secure prosecution or conviction. Even so, if the investigator consistently fails to win his cases in court, this should be taken as an indicator of ineffectiveness.

At this point in MACI, not only must effectiveness be considered however, but also efficiency. While theoretically efficiency will increase proportionally with an increase in effectiveness when cost remains the same, on a practical level, cost seldom if ever remains constant.

The term "efficiency" is currently defined by the Encyclopaedia of the Social Sciences in the following manner:

Efficiency in the sense of a ratio between input and output, efforts and results, expenditure and income, cost and resulting pleasure, is a relatively recent term. In this specific sense it became current in engineering only during the latter half of the nineteenth century and in business and in economics only since the beginning of the twentieth. . . ("Efficiency," Encyclopaedia of Social Sciences, 5:437).¹⁰⁶

¹⁰⁶Herbert A. Simon, Administrative Behavior (New York: The Free Press, 1965), p. 180.

Not only are we concerned with connecting the criminal to the crime (output or results), we must also be concerned with the input, effort, expenditure or cost.

The actual effectiveness of a specific organization is determined by the degree to which it realizes its goals. The efficiency of an organization is measured by the amount of resources used to produce a unit of output. Output is usually closely related to, but not identical with, the organizational goals. . . Measuring effectiveness and efficiency raises several thorny problems. When an organization has a goal which is limited and concrete, it is comparatively easy to measure effectiveness. . . The same problem attends measuring efficiency and such related concepts as output, productivity, and costs.¹⁰⁷

While the problem of measuring effectiveness has been simplified to the ratio of "crimes solved by conviction" over "the total number of crimes investigated," this measure is not universally accepted. Different departments use different measures of effectiveness. Some departments consider cases "cleared" or solved when the investigator feels he can identify the suspect or when there is sufficient evidence to take the suspect into custody. Other departments clear a case by actually taking the suspect into custody. Most investigators will accept the ratio of crimes solved over the number of crimes investigated as a measure of effectiveness if allowed to use their own definition of "crimes solved." Many of the definitions will not include prosecution and conviction as an intrinsic part of "solving the crime."

¹⁰⁷ Etzioni, op. cit., pp. 8-9.

For the purpose of simplicity, The Uniform Crime Reports will not be considered. In this report the F.B.I. (Federal Bureau of Investigation) defines clearance rate as the percentage of crimes cleared of the total crimes known to police. The statistic is not relevant to the criminal investigator since many of the crimes reported are not investigated. In any event, from the above discussion, it should be evident that measuring "crimes solved" and effectiveness is not as easy as counting the production of tangible objects.

The problems of measuring costs are even more confounding than the problems of measuring effectiveness. How do you place a value on the political, social, or legal consequences of a criminal investigation? Even estimating the monetary cost of a criminal investigation would be a herculean task.

While criminal investigation may exist for the express purpose of solving crimes, the investigator must take other factors into consideration. In a sense he must ask himself, "What will be the cost of solving this crime?"

The unfortunate fact is that many departments have been unable to extricate themselves from the political power structure. While the possibility of political reprisal should not be an ultimate guiding principle, political consequences should, in some cases, be considered.

Socially, there are times, for example, when promoting effectiveness by making an arrest in the black community will

not be of sufficient value to counterbalance the possible loss of community support or the possibility of precipitating a riot. In such cases, if the identity of the suspect is known, it may be advisable to postpone arrest until more appropriate circumstances present themselves. In some cases it may be sensible to postpone apprehension and prosecution indefinitely.

The same type of efficiency analysis can also be applied to illegal police practices such as those cited in Mapp v. Ohio, 367 U.S. 643, 1061. Certainly in cases such as these the investigator should consider whether the ends justify the means.

It is sometimes charged that too much concern with efficiency will distort the goals of the organization.

Two other lines of criticism assert that the criterion of efficiency leads to an incorrect relationship between "means" and "ends." On the one hand it is alleged that, in the interest of efficiency, ends are taken to justify any appropriate means. . . . On the other hand, it is charged that efficiency directs all attention to means, and neglects the ends.¹⁰⁸

The best way to escape this dilemma is through the horns. While the possibilities mentioned above are very real possibilities, they are not exhaustive of the alternatives. Ends and means need not be mutually exclusive. "Common to all these criticisms is an implication that the 'efficiency' approach involves a complete separation of

¹⁰⁸Simon, op. cit., p. 183.

'means' and 'ends.'"¹⁰⁹ Wise investigators (or administrators) should realize that both "ends" and "means" are part of the same operation. To subordinate one to the other will only reduce the efficiency of the total organization.

While MACI has been designed primarily to promote effectiveness; MACI has not been constructed to encourage the belief that "ends" justify the "means." When analyzing information prior to departmental action, the investigator should consider both components of efficiency, "cost" and "effectiveness."

This step should also be used to consider the total information available in the system. The relevant information summarized within the scope of this step will later serve as a basis for departmental action.

For problem solving to be effective, the investigator or department must have access to necessary information. While problems cannot be solved in a factual vacuum, simply having the facts collected and available may not be enough. By marshalling the facts into good order, the decision maker will be provided with a better opportunity for choosing intelligently from among the alternatives generated by the situation. The correctness of departmental action will depend heavily upon the organization and availability of information.

If necessary, information can be reorganized within

¹⁰⁹Ibid., p. 189.

the scope of this step. Not only will availability and arrangement of the information have an influence on decision making, rearrangement of the same information may stimulate new considerations and consequently more accurate decisions.

Information at this stage of MACI should be kept current. As new and relevant information develops which is highly pertinent or critical to the decision, it should be fed either directly or indirectly into this step. Decisions are seldom better than the information upon which they are based.

CHAPTER XI

DEPARTMENTAL ACTION

On a "hot" case or even a "warm" case, departmental action may consist simply of the investigator's direct response to the situation. Organizational influence in such a case would be primarily of the internalized variety without the direct presence of external authority. In "cold" cases however, the investigator must generally operate within the formal organization of the department. Failure to coordinate efforts in such a case may depreciate both investigative effectiveness and efficiency.

Regardless of which alternative is selected or who is responsible for selecting the alternative, any form of departmental action should be coordinated within the department to avoid internal conflict. Coordination of effort will depend heavily upon the effectiveness of communications.

In police work, the purpose of coordination is the attainment of a smoothly functioning department. No group can function smoothly unless its members agree to cooperate. Thus, the first concern of the coordinator is to achieve cooperation from all personnel.

Several methods of attaining cooperation can be recommended, but the wise coordinator will use many methods in the course of his work. His most important tools have been found to be:

1. open communication
2. direct contact between personnel

3. the delegation of responsibility and authority to the lowest level possible
4. the development of leadership.

Without excellent communication, coordination cannot be achieved, for all units and all members of the department must be kept informed of all other units and all other members of the group.¹¹⁰

The problem of communication will be especially acute where patrol officers and detectives share responsibility for an investigation. Otherwise good cases are frequently lost because the patrol officer fails to pass on critical information to the detective who is responsible for continuing the investigation.

Investigators taken collectively can be viewed as a group working within a larger organization. This group is not an isolated entity because it will have linking functions to be performed and relationships to be maintained with other groups. Membership within the group will vary with members, on occasion, coming from and going to other work groups. Even so, the investigative group can be broadly distinguished from other groups at any given time.

In his book, New Patterns of Management, Rensis Likert refers to the following properties and performance characteristics of the "highly effective work group":

1. The members are skilled in all the various leadership roles and functions required for interaction between leaders and members and between members and members.

¹¹⁰John P. Kenney, Police Management Planning (Springfield, Illinois: Charles C. Thomas, Publisher, 1959), p. 118.

2. The group has been in existence sufficiently long to have developed a well-established, relaxed working relationship among its members.

3. Members of the group are attracted to it and are loyal to its members, including the leader.

4. The members and leaders have a high degree of confidence and trust in each other.

5. The values and goals of the group are a satisfactory integration and expression of the relevant values and needs of its members. . .

6. In so far as members of the group are performing linking functions, they endeavor to have the values and goals of the groups which they link in harmony, one with another.¹¹¹

Other characteristics of the highly effective work group include high motivation to abide by values and achieve the goals of the group, a supportive atmosphere, a superior who can exert strong influence over atmosphere and tone of the work group, and effective communication.

While the word "leadership" is frequently used in discussing the highly effective work group, the problems of leadership and supervision present special problems for the administrator of investigative functions. To comprehend the meaning of "DEPARTMENTAL ACTION" in MACI, it will be necessary to understand some of these problems.

Criminal investigation by its very nature requires the use of individual freedom. Much of the investigator's time is spent away from the office and beyond the immediate control of supervision. To function at all while in the field, the investigator must have freedom of movement and

¹¹¹Rensis Likert, New Patterns in Management (New York: McGraw-Hill Book Company, 1961), p. 166.

the right to use his own judgment.

By the same token, the investigator does need some supervision even though the nature of investigation may make this task difficult. The leader is responsible for linking his group with other groups, responsible for the performance of his group within the organization, and responsible for performance within his group. While the leader cannot make all the decisions, especially where immediate action is imperious, he can influence the decisions made by the other members of the group by clearly defining the standard operating procedures.

Where immediate action is not imperative, the leader can influence decisions by participating with the investigators in group type decision-making process. When decisions are jointly made between leaders and other members of the group, each member will feel he has a vested interest in the decision and will be more highly motivated to execute it fully and most effectively.

On the other hand, some decisions must be made exclusively by the leader. In such cases, the group can attempt to influence the leader, but the leader must personally make the decisive judgment. This situation may occur in emergencies where the group process is too slow, or in cases of major criticality.

Based on facts and values, the department must select from among the available alternatives the course of action which offers the most reward or the least punishment. In

response to the above discussion, three fundamental types of investigative decision can be distinguished: investigator only decisions; group decisions (investigator and supervisor); and leadership decisions. Of all these decision types, the one most commonly displayed by the effective work group is the group decision.

Relating this to criminal investigation, whenever possible, departmental action should be the product of a group decision making process. However, because of the special problems which face the criminal investigator, the meaning of the term "leader" must be qualified. Unless working entirely alone, any person who has the authority to command will be referred to as the leader of the group. When two officers of the same rank are working together, the officer who is most persuasive will be defined as the "leader" of the group.

In other words, no distinction will be made between the "official" and the "informal leader."

The power of an organization to control its members rests either in specific positions (departmental head), a person (a persuasive man), or a combination of both (a persuasive department head). Personal power is always normative power; it is based on the manipulation of symbols and it serves to generate commitment to the person who commands it. Positional power, on the other hand, may be normative, coercive, or utilitarian. An individual whose power is chiefly derived from his organizational position is referred to as an official. An individual whose ability to control others is chiefly personal is referred to as an informal leader.¹¹²

¹¹²Etzioni, op. cit., p. 61.

The implications of this distinction are quite clear: whenever two or more people are engaged in the enterprise of criminal investigation, ideas should commonly be exchanged before the "leader" of the group makes the final decision. By forcing communication among members of the group, it should be possible to encourage both coordination of efforts and cooperation.

Alternatives

The investigator will have three alternatives to opt from unless the "official" leader chooses to intervene in the decision making process: recycle; close or inactivate case; and satisfy objectives.

Recycle.

After total information in the system has been analyzed, the primary consideration being efficiency, certain alternatives will exist when the major objectives cannot, or should not, be satisfied. Recycling is the first of these alternatives.

If the department chooses to recycle a case, additional time and effort must be exerted on the case in an effort to correct for deficiencies. The step titled "RECYCLE" allows for feedback of the case into the system. By reinserting deficient cases back into MACI, the case can be modified as the situation requires. Once inadequacies in the case have been corrected for (if possible), the case is then channeled back down to "DEPARTMENTAL ACTION" for

reconsideration.

If the case is found to be incorrigible, it will again be brought down to "DEPARTMENTAL ACTION" from where it will probably be closed or inactivated.

Case closed or inactive.

A second alternative when major objectives can not be satisfied is to declare a case closed or inactive. Cases are closed at this point because further investigation would be futile. Perhaps the prime suspect has died or the complaint has been withdrawn. Possibly all leads have been exhausted or the statute of limitations has expired. In any event, further investigation is considered to be unwarranted. "Case inactive" simply means that the case is not closed but no action is currently being taken for some reason or another.

Satisfy objectives.

If the case has been successful up to this point, the decision will probably be made to satisfy objectives. The objectives expressly stated are: "RECOVER STOLEN PROPERTY"; "PROVIDE EVIDENCE OF GUILT"; and "APPREHEND GUILTY PARTY." The implied objectives are listed in Chapter IV. The most important of the implied objectives being: "Identify guilty party"; "Trace and locate guilty party"; and "Promote adjudication and prosecution." Also, "PROVIDE EVIDENCE OF GUILT" has two parts: A. "Provide evidence of guilt sufficient to support reasonable grounds or probable

cause"; and, B. "Provide evidence of guilt sufficient to support proof of guilt beyond a reasonable doubt." While the step "PROVIDE EVIDENCE OF GUILT" can be satisfied by one or both parts, prior to prosecution part "B" must be satisfied.

While ideally it would be best to satisfy all objectives contemporaneously, there is nothing to prevent the investigator from satisfying objectives as the information develops. It may happen that the investigator can satisfy the objective "PROVIDE EVIDENCE OF GUILT" long before he can satisfy the objective "APPREHEND THE GUILTY PARTY." However, the investigator cannot satisfy the objectives out of sequence. "APPREHEND GUILTY PARTY" for instance, cannot be satisfied prior to the step titled "PROVIDE EVIDENCE OF GUILT."

The step titled "RECOVER STOLEN PROPERTY" is optional and can be by-passed where not relevant.

While prosecution and conviction are objectives of the investigation, as stated previously, the investigator does not have direct control over these steps. He may, however, be able to influence the steps titled "ADJUCIATION" and "CONVICTION" if the investigation has been executed properly.

CHAPTER XII

SATISFY OBJECTIVES

The entire process of investigation serves but one universal function: to go from a disfavored, unknowing state of conditions, to a favored, knowing state of conditions. Satisfying the objectives within the immediate control of the investigator is the first major step in attaining the more favorable state of conditions: solution of the crime. The last step, of course, would be adjudication and conviction of the perpetrator.

Recover Stolen Property

The first objective, "RECOVER STOLEN PROPERTY," may or may not apply in a given case depending on whether or not property was stolen. Before stolen property can be recovered, it must be identified. The actual recovery of stolen property will depend largely on the description given to the investigator.

Where property has been taken in connection with a crime, the most accurate available descriptions should be furnished for police records. Case and movement serial numbers of watches, engraved initials, scratch marks or inscriptions, hat and clothing labels and sizes, laundry marks, and similar distinguishing means of identification are valuable. . . The recovery of stolen property will require effective contacts with, and control over, legitimate pawnshops as well as the unlawful pawnbroker who serves as a fence for goods

that are "hot."¹¹³

Provide Evidence of Guilt

The second objective, "PROVIDE EVIDENCE OF GUILT," must be satisfied to a degree sufficient to support reasonable grounds or probable cause before the subject can legally be apprehended. Before the investigator seeks to have the case prosecuted, he should develop what appears to him to be proof sufficient to support guilt beyond a reasonable doubt. "Elements of the offense" refer to those conditions which are necessary to prove the guilt of the accused.

By adding to the corpus delicti certain facts concerning the accused, such as his identity as the malefactor, we have the elements of the offense, the necessary and sufficient conditions which must be fulfilled by the evidence before it can be said that the guilt of the accused has been proved.¹¹⁴

For example the elements of first degree murder in Ohio can be stated in the following manner:¹¹⁵

Revised Code 2901.01. Murder in the first degree.

1. Establish venue. Venue can be defined as the county or locality in which a case of action may be tried, usually where the crime was committed. It must be shown that the act resulting in death was committed, or the victim died, within the jurisdiction of the trial court.

2. The commission of the act by the accused must have been the proximate cause of death.

3. The person killed must be "another" human being, alive at the time of the crime and dead at the time of trial.

¹¹³Eastman and Eastman, op. cit., pp. 140-41.

¹¹⁴O'Hara, op. cit., p. 31.

¹¹⁵Hazen, op. cit., pp. 18-19.

4. The accused must have acted "purposely."
5. The accused must have done the act, either (a) with deliberate or premeditated malice, or (b) by means of poison, or (c) in perpetrating or attempting to perpetrate rape, arson, robbery, or burglary.

Not only must it be shown that the accused was responsible for the act charged, the investigator must also develop evidence showing intent. Commonly, intent refers to the fact that the accused knew what he was doing at the time of the offense. Not all cases however, require that intent be shown.

There are some crimes in Ohio where an act without an intent may be punished, but they are all mala prohibita. [Mala prohibita: an act that was not wrong until a law was made calling it wrong.]

It has been noted that the commission of a crime requires a criminal act and criminal intent. However, a person may be liable for the results of a wrongful act in the absence of a specific criminal intent. If a person intends to commit a certain offense and, because of a mistake of fact or, if, for any other reason, his act results in the commission of some other offense, he may be punished for the latter.¹¹⁶

Apprehend Suspect

An arrest is a physical apprehension, a taking of a person into custody, so that he may be available to answer for the commission of an offense. It constitutes a deprivation of the liberty of a person by one who has the legal right to do so.¹¹⁷

Three basic elements of a legal arrest should be noted:

1. The intention or purpose of the officer must be to take the subject into custody.

¹¹⁶Ibid., p. 6.

¹¹⁷Dienstein, op. cit., p. 116.

2. The officer must act under legal authority when taking the subject into custody.

3. There must be seizure of the person, and the person arrested must come within the custody and control of the law.

For the arrest to be legal, the investigator or arresting officer must have at minimum, reasonable grounds or probable cause. A legal arrest can be made with or without a warrant. As a general rule, an officer can arrest for a misdemeanor committed in his presence or, when he has reasonable grounds to believe a felony has been committed or is being committed by the subject arrested. Officers can also arrest for a felony when the charge is based on a radio dispatch, wanted notice, or teletype information. When a person is arrested, he should be made to understand he is being placed under arrest for an alleged offense.

Investigators who make apprehensions should be informed of the law and trained in the techniques of arrest. Possibly the most important thing to do when making a legal arrest is minimize violence. The arresting officer should make every effort to protect innocent persons in the area and himself from injury. Violence can often be averted by treating the suspect in a manner which allows him to retain his human dignity. The next best safeguard is training in the use of force and the availability of reinforcements.

The investigator should exercise no more force than is legally permitted to control and restrain the subject being arrested. This will depend on the nature of the case

(misdemeanor or felony) and upon the amount of resistance which must be overcome.

Promote Prosecution and Conviction

Once the elements of the crime have been established and the suspect apprehended, the next logical step would be prosecution and conviction. The step titled "CASE PREPARATION" is designed specifically to promote and support prosecution and conviction of the suspect.

Unfortunately for the investigator, not all cases of apprehension will terminate with adjudication and conviction. In some cases the suspect will be apprehended but the investigator will be unable to supply evidence of guilt sufficient to support prosecution. In such cases the investigator should arrange for release of the suspect and prepare a release report.

You will note that it is not necessary to provide evidence of "innocence" before releasing a suspect; this would place the burden of proof on the suspect and not on the court where it legally belongs. For instance, if the investigator fails to develop some element of the offense which is necessary for prosecution, the only alternative is to release the suspect.

This does not mean, however, that evidence indicating innocence cannot be used as grounds for release. If a suspect's alibi checks out or if the investigator discovers that in reality no crime has actually been committed, this

would tend to exonerate the suspect and call for release.

Thus there are two types of exculpatory information which would require release of the suspect: failure to develop some necessary element of the crime; or evidence which tends to prove innocence. Ideally, the suspect should not be apprehended until elements of the offense have been proved. Realistically, however, investigators often rely on evidence collected after apprehension of the suspect to prove elements of the crime. Such evidence might include statements, admissions, or confessions given by the accused, lineup identifications, handwriting specimens, etc. Evidence which tends to prove innocence, on the other hand, cannot, nor should it, be discouraged. The investigator cannot remain objective if he ignores facts unfavorable to a preferred hypothesis and adduces only facts which are favorable.

We have described the investigator as a collector of facts relevant to an offense and, by implication, we have described him as gathering these facts impartially. We have not, however, sufficiently stressed this point of the investigator's objectivity, namely, that he has no special interest in establishing the guilt of a particular suspect, that he regards with equal interest facts which may exonerate the accused as well as those which are inculpatory, and that a biased collecting of facts with an exclusive view to the guilt of a designated suspect is destructive of the basic purpose of an investigation, namely, the discovery of the truth concerning the criminal event.¹¹⁸

¹¹⁸O'Hara, op. cit., p. 24.

CHAPTER XIII

CASE PREPARATION

Case preparation is the final stage of the investigative process prior to adjudication and conviction. The final report is a written account containing the information compiled during the course of the investigation. It is the investigator's means of communicating with and informing the prosecutor of his progress and findings.

The report of an investigation is the final job for the investigator. The report is a word picture of the activities and findings during the entire investigation. It is the method by which the investigator communicates his findings to those interested in his work. The report is the permanent record of the case, the basic reference to the case, the basis for further action, and the basis for prosecution. The report in effect, is the climax of the assignment.¹¹⁹

A synopsis is an abstract or conspectus of the evidence compiled throughout the entire investigation. The investigator should include only evidence which he believes to be relevant and material in the synopsis; other information should be contained in the body of the report. The body of the report will include the crime report, police reports, progress reports, documents, and other reports which are part of the investigation. This material should be identified and

¹¹⁹Dienstein, op. cit., p. 138.

arranged in chronological order. The final report along with a "face sheet" (an outline of the synopsis) will then be forwarded to the prosecutor.

In the synopsis the investigator should briefly evaluate the evidence which is presented. Mr. Wigmore has formulated four simple steps for analyzing a piece of evidence to determine its assets and liabilities:

1. State precisely the objective of the evidence and what exactly is its supposed value.

Each piece of evidence should help in determining: (a) If the suspect was at or near the scene of the crime or had an opportunity to commit the crime; (b) If the suspect had a motive for committing the crime; (c) Whether the elements of an offense are present; (d) If the accused has any defense.

2. State in specific terms precisely what the logical possibilities are for the opponent to explain away the inference.

3. Investigate the evidential probabilities for the opponent in dealing with the evidential facts.

4. Analyze the effect of a mass of evidential facts.

After examining each of the pieces of evidence and determining its value, all of the pieces should be assembled to determine the overall effect of the evidence. If some piece of evidence is missing, it will have to be produced or an explanation found.¹²⁰

In writing up the final report, the investigator should answer the questions necessary to satisfy the objectives of the investigation. Basic questions are commonly introduced by the interrogatives: who; what; where; when; how; and why. The answers to these questions will supply

¹²⁰Klotter and Meier, op. cit., pp. 246-47.

the information and material necessary and sufficient for prosecution of the case. With the rules governing the legality of investigative procedures, "how" these questions are answered may have a greater impact on the possibility of conviction than "what" the answers actually are.

Interrogatives can be used to ask more than basic questions such as: "Who committed what crime where, when, how, and why. The following list illustrates just a few of the fundamental questions which should be asked concerning the crime.

A. WHO?

1. Who committed the crime?
2. Who reported the crime?
3. Who discovered the crime?
4. Who are the witnesses?
5. Who is the victim?

B. WHAT?

1. What crime was committed?
2. What evidence is available?
3. What were the instrumentalities of the crime?
4. What were the fruits of the crime?
5. What do the witnesses know about the case?

C. WHERE?

1. Where was the crime committed?
2. Where was the crime discovered?
3. Where did the victim live?
4. Where are the witnesses?
5. Where is the suspect?

D. WHEN?

1. When was the crime committed?
2. When was the crime reported?
3. When was the crime discovered?
4. When was official police contact first made?
5. When can the witnesses be interviewed?

E. HOW?

1. How was the crime committed?
2. How was the crime discovered?
3. How was the victim involved?
4. How much damage was done?
5. How much property was stolen?

While it may be useful to theorize on "why" the crime was committed, this is something which cannot be known with certainty. What appears to the investigator to be the logical reason for committing a crime may or may not be for the suspect the real reason.

The "WHY" is a motive. The motive is a personal thing unique to the perpetrator. Unless the perpetrator reveals the true basis for his act, supposition may lead the investigator astray. The "WHY" is ordinarily too elusive and too nebulous a factor to be sought out as a factual entity.¹²¹

It should be mentioned that "motive" is not the same as "intent."

Motive or that which induces the criminal to act must be distinguished from intent. The motive may be the desire to obtain revenge or personal gain; the intent is the accomplishment of the act. Motive need not be shown in order to obtain a conviction, but intent must always be proved where it is an element of the offense. Although proof of motive does not show guilt, the absence of motive bears on the fact of whether the accused committed the crime. In cases which depend upon circumstantial evidence, proof of motive is especially important.¹²²

"Why" questions can sometimes be asked in an effort to establish intent.

Here are a few of the standard "why" questions:

¹²¹Dienstein, op. cit., p. 140.

¹²²O'Hara, op. cit., p. 19.

F. WHY?

1. Why was the crime committed?
2. Why was the crime discovered?
3. Why was the crime reported?
4. Why was the victim chosen?
5. Why was the suspect at the scene?

There is no general rule for when to use the interrogatives or questions listed above. They can be used whenever useful or convenient. At minimum the investigator's final report should answer the questions posed by the first five interrogatives (who, what, where, when, and how). The investigator might also speculate on the possible motive keeping in mind the inherent limitations on such speculations.

The first principle of good report writing is accuracy. The report must be a true representation of all the information and evidence which has been collected. One of the major reasons for inaccuracy is failure to distinguish between fact, hearsay, opinion, and conclusion. Another reason for inaccuracy is failure to articulate thoughts clearly and precisely. This often results from the use of ambiguous words or statements.

Reports should be complete; all relevant facts should be included. Reports should contain the entire body of significant truth as known to the investigator. Undeveloped leads and false leads which contribute to the case should be reported, but clearly separated from the more factual material.

Even when complete, reports should be brief and

concise. While all relevant and necessary material should be included, irrelevant and insignificant data should be excluded from the final report.

Good form is also an essential feature. Form will be determined by the rules of grammar and punctuation, writing ability, neatness, and departmental regulations.

Finally, a report should be fair. The investigator's duty is to present the facts and other information as it occurs. Bias should be avoided which may detract from the completeness or objectivity of the report. The investigator should include both favorable and unfavorable information in the report.

The following can be used as a general guide to the type of information which should be included in the final report.

A report of investigation should not be weighted down by a mass of information that is hardly material or only remotely relevant. Discretion should be exercised, also, in the inclusion of negative material which merely states that certain investigative measures were fruitless and does not prove a point, clarify an issue or aid the inquiry even by indirection. The report should be consistently functional, designed to prove or disprove the allegations.¹²³

While prosecuting offenders is not a direct or primary function of the police, the investigator's role includes assisting the prosecuting attorney's office in amassing and collating evidence sufficient to establish guilt.

Thorough and careful collection of evidence coupled with cogent court testimony is the essence of successful

¹²³O'Hara, op. cit., p. 43.

court presentation. To be of use to the prosecutor, this evidence and testimony must be more than just "collected." It needs to be analyzed, summarized, and presented in logical and intelligible form for the court. Since prosecutors usually have only limited time in which to review the facts of a case, police investigators should have all the evidence readied in a concise and readable form.¹²⁴

Final Report Outline

- I. Face sheet
- II. Synopsis
 - A. Presentation of evidence believed to be admissible
 - B. Evaluation of evidence
- III. Report proper
 - A. Information which is relevant and material resulting from the following sources:
 - 1. Instrumentation and physical evidence
 - 2. Interviews and interrogations
 - 3. Records and documents
 - 4. Surveillance
- IV. Enclosures (commonly arranged in chronological order)
 - A. Arrest report
 - B. Crime report
 - C. Reports of investigation
 - 1. Progress reports
 - 2. Summary reports
 - 3. Related reports

¹²⁴Eastman and Eastman, op. cit., p. 140.

- D. Actual statements, admissions, or confessions
- E. Photographs, sketches
- F. Charts, diagrams

Courtroom Testimony

In some cases the investigator may be forced to appear as a witness. One major reason can be cited for the investigator's appearance in court: to tell what he knows from personal experience to be the truth. While the investigator will normally state only facts, if he is classified as an expert witness, he may also be required to present opinion testimony. Not only must the investigator be concerned with the quality of his testimony, he must also consider his courtroom demeanor and personal appearance. If the investigator fails to impress the jury with the probative value of the evidence he presents, he may topple an otherwise stable case. Among other things, the investigator must be prepared for cross-examination; defense attorneys have a habit of jumping on investigators from a very great height.

Prosecutors

Ideally prosecutors should be of assistance to investigators and vice versa. Even though the prosecutor will have the investigator's final report which should be self-explanatory, pre-trial conferences are useful in planning case strategies. Certainly the investigator should consult with the prosecutor prior to courtroom appearances

and testimony. In reality, however, coordination between investigators and prosecutors is seldom what it should be.

While the final test of a criminal investigation is in the presentation in court, even some of the best cases may never reach the stage of prosecution.

Cases are not moved for trial or rejected as possible trial material solely on the basis of the work done by the investigator and the legal significance of the collected evidence. Tactical factors and the needs of law enforcement may indicate that a trial is not advisable. Prosecutors may waive prosecution in exchange for information or testimony against a more hardened criminal; the conservation of resources may suggest a negotiated plea of guilty to a lesser charge or the application of the sanctions of the criminal justice process does not appear justified by the circumstances of the case, for example, in processing first offenders and emotionally disturbed persons.¹²⁵

Still, the more promise of conviction a case offers, the better its chances of being prosecuted. Effective investigators should still maintain a higher percentage of conviction than lesser counterparts.

¹²⁵Weston and Wells, op. cit., p. 274.

CHAPTER XIV

NEW INFORMATION

The step in MACI titled "NEW INFORMATION" is a mechanism designed to allow for the use of new data which develops during, or even after, the course of the investigation. The investigator must always be prepared to modify his findings and behavior on the basis of new information.

"Adaptability" can be defined as "the ability to solve problems and to react with flexibility to changing environmental demands."¹²⁶ "NEW INFORMATION" was engineered to allow for the interjection of fresh data into the model at points where it can be acted upon directly and most effectively. Criminal investigations are subject to human caprice and the vicissitudes of time; without such a mechanism, MACI would be unable to cope with a changing external or internal environment.

"NEW INFORMATION" can be used for such purposes as re-opening closed cases; activating inactive cases; closing open cases; or compensating for the addition or loss of evidence.

¹²⁶Edgar H. Schein, Organizational Psychology, Foundations of Modern Psychology Series (New Jersey: Prentice-Hall, Inc., 1965), p. 97.

Even after a case has been officially closed, the case can be reopened upon receiving new information. New information would first be channeled down to the step titled "RECYCLE." By using "NEW INFORMATION" in conjunction with "RECYCLE," it will be unnecessary to start at the beginning of the model ("SITUATION GENERATES PROBLEM") and work through each step. New information concerning the reopening of a case would be imported directly to the step titled "ANALYZE INFORMATION." Based on total information available in the system, the department ("DEPARTMENTAL ACTION") would decide whether the case should remain closed ("CASE CLOSED OR INACTIVE"), or whether it should be recycled back into MACI for appropriate attention. If the case is reopened, the investigator might start by reconsidering the preliminary investigation, in which case the investigation would be recycled to the step titled "PRELIMINARY INVESTIGATION." The same would apply to case activation.

Cases are sometimes closed prior to prosecution for the following reasons: complaint is withdrawn, another person confesses; prosecutor refuses to prosecute; etc. Where the suspect has already been apprehended, the only way to close the case is to enter the system via "NEW INFORMATION." Such information, if sufficient to close the case, would travel from "NEW INFORMATION" to "RECYCLE" to "ANALYZE INFORMATION" to "DEPARTMENTAL ACTION" and finally to "CASE CLOSED OR INACTIVE."

If during the course of the investigation new

information is discovered after the investigator has passed the step titled "COMPILE INFORMATION," the new information would simply be recycled to that step. If during the trial, the defense attorney introduces new evidence into the trial, the investigator, possibly at the prosecutor's request, may want to recycle this evidence back up to "PROCESS DATA" from which point he can run it through MACI and determine its impact on the investigation. He may find he is forced to modify or completely abandon former hypotheses.

From "RECYCLE," new information can be transferred directly to any point in MACI within limitations. At minimum, any new information must pass through the step labeled "ANALYZE INFORMATION" before the department can take formal action ("DEPARTMENTAL ACTION"). This was designed as a safety precaution to prevent departments from acting prematurely before considering the other information available in the model.

The practical uses which can be made of "NEW INFORMATION" are probably limitless. This step should not be used, however, to circumvent the model.

CHAPTER XV

CONCLUSION

The advantages which accrue to those parties using MACI should be the same as those advantages which are commonly derived from use of the scientific method and systems analysis techniques.

What are the advantages of the scientific method over other methods? First, the scientific method is open, explicit, verifiable, and self-correcting. This method combines the rational elements of logic with the empirical element of observation. The results of the scientific method can be tested by replication; given the same facts and the same theories or laws, disinterested parties should be able to arrive at similar conclusions.

Unlike faith, intuition, or authority, the scientific method provides for meaningful discussion and debate. The scientific method is not without limitations however, the self-correcting nature characteristic of the method helps to guard it against persistent error. Each time a bit of knowledge is verified by the confirmation of others working on the same problem, the probability of error diminishes. Where the method is defined, retesting is quite possible.

In fact, retesting should be encouraged. Darwin used the term "fool's experiment" when referring to experiments which he undertook in order to test things that most people would consider not worth testing. A good investigator will never hesitate to test that which appears obvious or certain to other people.

Second, the scientific method provides for the highest degree of objectivity possible. The truth of a proposition can be established by logic and empirical methods common to all those people who accept the value of rational thought. Evaluation of conclusions can be made quite independently of any authority. Even when a statement is made by an "authority" on the subject, there must still be evidence good and sufficient to prove the statement.

A discipline achieves objectivity by making its own certain vital interests that all people share, and by setting itself to learn and follow the most effective way of satisfying those objectives.

A scientific law is not a description of how things behave when isolated from human motivation; we have no means of imagining what such a law would be like. Any description that can occur to a thinker and become a candidate for verification reflects the operation of forces in himself, and the ultimate force is his motivating interest.¹²⁷

A discipline can be objective only if practitioners accept a common framework or paradigm. Because investigators have

¹²⁷E. A. Burtt, In Search of Philosophic Understanding, A Mentor Book (United States: The New American Library, 1967), p. 177.

at least one vital interest in common, solving crimes, they will normally accept legal definitions and the reality of proven facts. Logic (the science of correct reasoning) however, must be used to relate value (law) with fact. Time and experience have proven that the scientific method is the most reliable of methods known for using logic to coordinate the relationship between value and fact. The discipline of criminal investigation can be objective only to the extent that investigators accept a common set of laws, the validity of proven facts, and a common method of relating fact to value. Thus the scientific method promotes objectivity by providing for a common framework for integrating the three elements of criminal investigation: law; fact; and logic.

Third, not only is the scientific method reliable and objective, it also indicates the techniques which are appropriate for testing and verification of hypotheses. Hypotheses can be tested and verified in two different ways: by logic and mathematics; and by empirical experience (observation and experimentation). Even hypotheses formulated in response to intuition must be tested by one of the accepted methods.

Fourth, with the scientific method, quantitative aspects such as the probable value can be treated quantitatively.

This is not to say that all matters can be reduced to numbers, or even that most can be, or that the most important aspects can be. It is merely to say that the appropriate method for dealing with some aspects of problems of choice. . . and strategies require

numbers, Non-quantitative judgement is simply not enough.¹²⁸

Fifth, the basic value of the scientific method lies in the fact that it can be used by the investigator to order facts of observation (primarily evidence) into a coherent and systematic form. Investigation is never simply the process of collecting "facts."

Scientific inquiry is not simply a matter of amassing facts, nor is science a dump heap of accumulated facts. Insofar as science is rational and critical, it is an attempt to order facts of observation, to represent them in some coherent, systematic way in the articulate structure of a language. Therefore, much of science begins where observation leaves off and, as we have seen, much of science concerns what goes on before observation begins.¹²⁹

Not only can the scientific method be used as a guide to observation, it can also be used to direct use of the information which is gathered. Further, the investigator can use the method as an aid to organizing his final report. The scientific method is the best known method for superimposing order on something which is commonly in a state of flux.

What advantages accrue to the organization which uses the techniques of systems analysis? First, the organization will exhibit more comprehensive and more integrative initial

¹²⁸Alain Enthoven, "Systems Analysis and the Navy," in Planning, Programming, and Budgeting: A Systems Approach to Management, edited by Fremont Lyden and Ernest Miller (Chicago: Markham Publishing Company, 1970), p. 278.

¹²⁹Marx Wartofsky, Conceptual Foundations of Scientific Thought (London: The Macmillan Company, 1968), p. 123.

planning and therefore be subject to less subsequent overhaul and disruption. Second, organizational conflict will be reduced. Third, organizations will show better organizational performance on traditional measures and will demonstrate faster adjustment to internal and external stress. Since the investigator must frequently rely on his organization for support, factors which favorably influence the organization will indirectly profit him.

The following benefits should accrue directly to the investigator of the organization using the systems approach. First, the investigator will feel more competent when faced with problems which require use of other departments. Investigators should manifest less departmental myopia because the need for communication and cooperation will be more apparent. The investigator using systems approach will tend to make greater use of staff specialists. And second, the investigator using the systems approach will consider a broader range of parameters in problem analysis, and use different criteria in deciding among alternatives.

Since MACI is a unique combination of both the scientific method and the systems approach, the advantages of both methods should accrue to the investigator who uses MACI. By the same token, if these advantages accrue to the investigator because of MACI's relationship to these other approaches, then quite possibly some of the limitations inherent to these other approaches will also apply to MACI.

The scientific method is nothing more or less than a

method of coordinating the relationship between facts, values (used as facts), and logic. If the facts are false, the values (laws) inappropriate, or the logic invalid, then resulting conclusions will probably not be ones upon which the investigator should depend. False facts may be the result of faulty perception or faulty memory. Legal failure may be the consequence of failure to know or failure to observe the appropriate laws. Invalid logic may be the product of logical fallacies or faulty inferences. While the scientific method will be no better than the person using it or the information it must work with, it will be more dependable than alternative methods which rely on appeals to authority, faith, or intuition alone.

The most significant defect found in systems analysis is the actual method of constructing the models. Judgment and intuition are used extensively in designing models and in deciding what the relationships are between relevant factors. Both judgment and practical considerations will influence the selection of alternatives and the choice of criteria. The results of the investigation however, must persevere the test of logic and experience.

Certain limitations should also be considered in relation to systems theory. First, analysis is necessarily incomplete: resources are limited; and the investigation can never circumscribe all of the relevant circumstances. Further, exacting and universally accepted measures of efficiency are lacking, and third, there is no satisfactory

way to predict the future.

Even so, in response to these criticisms, cases can be solved even though resources are limited (perhaps not as many cases as could be solved if resources were more available) and further, resources for any purpose are always limited. Limitations which apply equally as well to all methods of decision making and investigation are meaningless in terms of comparative evaluation. As for the other criticisms: most measures of efficiency are approximate; no method of research has yet been devised which can account for all relevant circumstances; nor has one been designed which can predict the ineluctable future.

MACI has much to offer the police administrator. Failure to supervise is frequently proffered as the cause of investigative failure. Still, how can you supervise something which is constantly in a state of disorganized movement? By using MACI to superimpose order, it should be possible to regulate investigative activity more efficiently. Not only will the supervisor be able to locate the investigator's state of progress on the model, he will also have a better idea of where to channel resources during a difficult case.

By using MACI, training divisions would be able to teach a systematic method of investigation as opposed to the present technique of simply describing the events which sporadically take place during the course of an investigation. MACI should allow training divisions to present

criminal investigation as an integrated and interrelated whole, each part depending on the other for survival. Each man's function is important to the case; one man's failure can eradicate the possibility of conviction.

Using MACI for case planning should eliminate many of the errors made because of oversights or omissions. This aim can further be advanced by incorporation of a check list. The model will indicate proper functions and the order in which they should be performed. Many times the investigator will have only one chance during an investigation to secure a particular piece of evidence; failure to secure evidence at the proper time may cause irreparable damage to the case.

While case analysis will not normally save a case which has been lost, it may prevent loss of future cases. Case analysis refers to breaking the case down into parts and then trying to determine at what point or points the case failed. It will be easier, in fact, to analyze lost cases than to use MACI for solving new and developing cases. Old cases will seldom present problems because of new information. For new cases, provisions have been made in MACI to allow for new information and corrective recycling.

Far too little time and effort is spent in analyzing past cases. The value of analyzing mistakes was learned long ago by the natural sciences. Ideally, after each case which is lost, the major contributors should jointly identify and discuss mistakes or failures in an effort to

avoid their recurrence in the future. If resources permit, successful cases should be analyzed and used as examples for future reference (assuming the case was solved because of effective methodology and not solely because of chance or pure speculation).

Whether MACI approaches the ideal set forth by James Osterburg can not be known with any certainty. MACI is, however, an attempt in that direction. Quoting Mr. Osterburg:

At the present time we are at an undefined point somewhere along the continuum and, hopefully we are moving towards the science end of the spectrum. However, criminal investigation is not yet a process that can be characterized in steps or by precepts which, when followed, will unerringly lead to a solution of a crime.¹³⁰

Of course we might be tempted to ask whether Mr. Osterburg has set the goal too high for MACI or for any other method of criminal investigation. How many sciences can claim unerring solution to their problems?

¹³⁰James Osterburg, "The Investigative Process," in Law Enforcement Science and Technology, edited by S. A. Yefsky (New York: Thompson Book Company, Academic Press, 1967), p. 591.

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