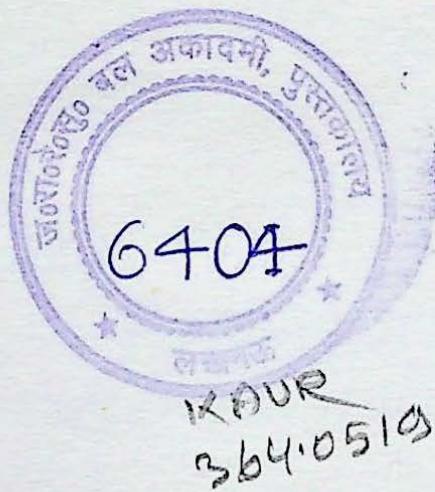


CRIMINAL PSYCHOLOGY

New Trends and Innovations

Rajpal Kaur

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**Criminal
Psychology
New Trends and Innovations**

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RAJPAL KAUR



**DEEP & DEEP PUBLICATIONS PVT. LTD.
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CONTENTS

<i>Preface</i>	xiii
1. Criminal Psychology: An Introduction	1
Introduction	1
2. Foundations of Attitude Toward Human Behavior	17
Professional Attitude and Personal Involvement	17
Professional Attitude in Operation	20
Summary	21
3. Preconditions of National Literatures	22
Introduction	22
4. Conditions of Stakes and Positioning	37
Introduction	37
5. Conditions of Emergence: Running The Show	50
Introduction	50
6. Determinants and Prevention of Criminal Behavior	57
Introduction	57
Early Sources of Delinquency and Crime	58
Peers and Crime	62
Age and Crime	63
Gender and Crime	64
Versatility	65
Nature of Delinquent and Criminal Acts	66

Crime and Criminality: Implications for Policing	68
Restriction of Opportunity	71
Crime Control <i>via</i> Expansion of the Concept of Preventive Policing	72
7. Driver Behavior and Road Safety	74
Introduction	74
Meaning of Driver Behavior	75
Overview of Chapter	75
Principles of Traffic Law Enforcement	76
Traffic Regulations	76
Punishment Options and The Courts	77
Mechanisms of Enforcement and Behavioral Change	78
Need for Psychological Theory	78
Operant Learning	79
Deterrence and Detection	80
Certainty, Severity and Celerity	81
Role of Punishment and Rewards	83
Education and Enforcement	83
Need for Better Models	84
Drink-Drive Initiatives	85
Research into Drink-Driving	85
Random Breath Testing Effectiveness	86
Implications for Enforcement	88
Community Attitudes to Drink-driving	89
Supplementary Drink-Drive Interventions	90
Speeding and Behavior	91
Speeding Problem	91
Research into Speed and Crashes	92
Speed Limits and Safety	93
Speed Enforcement	94
Camera Enforcement and Behavior Change	95
Behavioral Models of Speeding	98
Community Attitudes to Speeding	100

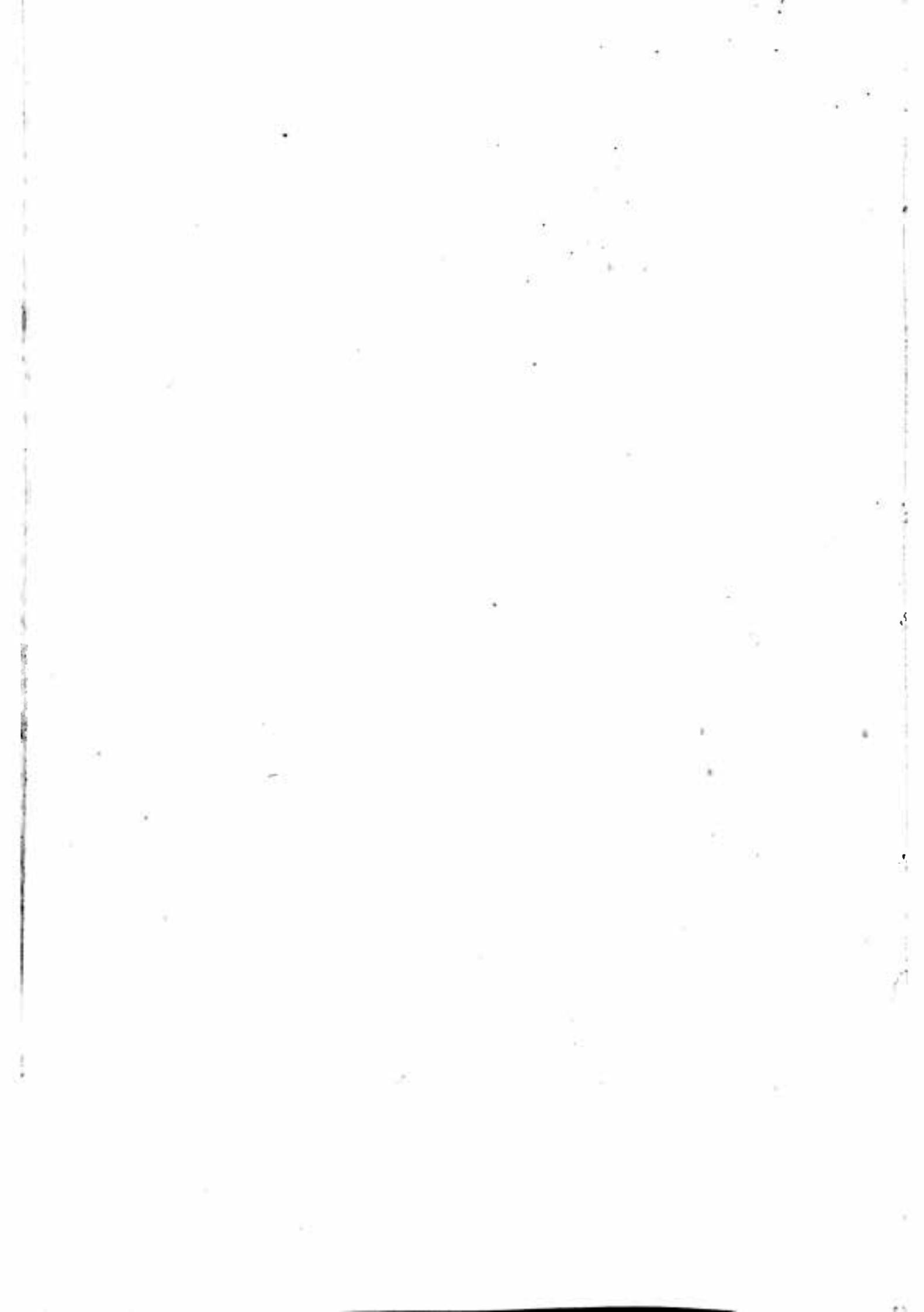
Additional Speed Enforcement Measures	102
Conclusions	103
Implications for Police Enforcement	104
Implications for Psychological Theory	104
Challenges for the Future	105
8. Normal Personality Development	107
Introduction	107
Constitutional Factors	107
Developmental Factors	108
The Id	108
The Ego	109
The Superego	110
Situational and Environmental Factors	111
Three Levels of Mental Activity	113
Summary	115
9. Personality Disorders	116
Introduction	116
General Characteristics of Personality Disorders	116
Passive-Aggressive Personality Disorder	118
Histrionic Personality Disorder	119
Paranoid Personality Disorder	120
Compulsive Personality Disorder	121
Law Enforcement Officers	123
Summary	124
10. Neurotic Disorders	125
Introduction	125
General Considerations	125
Anxiety Neurosis	126
Historical Background	126
Characteristics	127
Underlying Factors	128
Depressive Neurosis	129

Historical Background	129
Characteristics	129
Underlying Factors	130
Obsessive-Compulsive Neurosis	131
Historical Background	131
Characteristics	132
Underlying Factors	133
Phobic Neurosis	134
Historical Background	135
Characteristics	135
Underlying Factors	136
Conversion Neurosis	137
Historical Background	137
Characteristics	138
Underlying Factors	139
Dissociative Neurosis	139
Historical Background	139
Characteristics	140
Underlying Factors	140
Neurotic Disorders and Situational Trauma	141
Post-Traumatic Stress Disorder	141
Historical Background	142
Characteristics	142
Onset	143
Managing PTSD	143
Panic Attacks	145
Law Enforcement Officers	147
Summary	148
11. Psychotic Disorders	150
Introduction	150
Common Characteristics	150
Schizophrenias	152
Underlying Factors	153

Undifferentiated Type	154
Paranoid Type	155
Residual Type	156
Catatonic Type	158
Disorganized Type	158
Affective Disorders	158
Historical Background	159
Underlying Factors	159
Bipolar Disorder	160
Major Depressive Disorder	161
Intermittent Explosive Disorder/Organic Personality Disorder, Explosive Type	163
Underlying Factors	164
Characteristics	164
Law Enforcement Officers	165
Summary	166
12. Normal Personality in Operation: Conflicts and Defense	167
Introduction	167
Frustration and Conflict	167
Reactions to Frustration and Conflict:	
Guilt and Anxiety	168
Anxiety	168
Guilt	169
Defense Mechanisms	170
Fight and Flight	171
Internal Defense Mechanisms	172
Displacement	172
Rationalization	173
Compensation.	174
Projection	174
Reaction Formation	175
Denial	176

Repression	176
Identification	177
Substitution	178
Fantasy	178
Regression	178
Sublimation	179
Isolation	179
Summary	180
13. Information Retrieval: Trends and Processes	182
Introduction	182
Principles of The CI	183
Memory and Cognition	183
Social Dynamics and Communication Between the Interviewer and the Eyewitness	186
Empirical Evaluation	187
Extensions and Current Research	193
Training to Learn The CI	197
Challenges to The CI	198
Limitations of the CI	200
Conclusion	202
14. Information Retrieval: Reconstructing Faces	203
Introduction	203
Face Memory	205
Model of Face Memory	205
Remembering and Reconstructing Faces	210
Verbal Recall and Pictorial Description	211
Matters of Caution and Guidelines for Good Procedure	216
Nature/State of the Witness	218
Procedural Issues/Legal Implications	219
Conclusions	220
Value of Technological Advances	221

15. Future Role of the Police Officer	222
Introduction	222
Working of Police Personnel	221
The Changing Role	224
The Core Element	226
Reactive <i>Versus</i> Proactive Policing	229
Summary	231
<i>Bibliography</i>	232
<i>Index</i>	236



PREFACE

Criminal psychology is that form of psychology used in dealing with crime; not merely, the psychopathology of criminals, the natural history of the criminal mind. But taken even literally, this is not all the psychology required by the criminalist. No doubt crime is an objective thing. Cain would actually have slaughtered Abel even if at the time Adam and Eve were already dead. But for us each crime exists only as we perceive it, as we learn to know it through all those media established for us in criminal procedure. But these media are based upon sense-perception, upon the perception of the judge and his assistants, i.e.: upon witnesses, accused, and experts. Such perceptions must be psychologically validated. The knowledge of the principles of this validation demands again a special department of general psychology even such a pragmatic applied psychology as will deal with all states of mind that might possibly be involved in the determination and judgment of crime. It is the aim of this book to present such a psychology. "If we were gods," writes Plato in the Symposium, "there would be no philosophy" and if our senses were truer and our sense keener, we should need no psychology. As it is we must strive hard to determine certainly how we see and think; we must understand these processes according to valid laws organized into a system otherwise we remain the shuttlecocks of sense, misunderstanding and accident. We must know how all of us, we ourselves, witnesses, experts, and accused, observe and perceive; we must know how they think, and how they demonstrate; we must take into account how variously mankind

infer and perceive, what mistakes and illusions may ensue; how people recall and bear in mind; how everything varies with age, sex, nature, and cultivation. We must also see clearly what series of influences can prevail to change all those things which would have been different under normal conditions. Indeed, the largest place in this book will be given to the witness and the judge himself, since we want in fact, from the first to keep in mind the creation of material for our instruction; but the psychology of the criminal must also receive consideration where ever the issue is not concerned with his so called psychoses, but with the validation of evidence. It may be announced with joy and satisfaction, that there came to life a rich collection of fortuitous works which have brought together valuable material. Concerning the testimony of witnesses, its nature and value, concerning memory, and the types of reproduction, there is now a considerable literature.

The present book on Criminal Psychology deals with the mental states of judges, experts, jury, witnesses, etc., as well as with the mental states of criminals. And a study of the former is just as needful as a study of the latter. The need has fortunately since been recognized and several studies of special topics treated in this book--e. g. depositions of witnesses, perception, the pathoformic lie, superstition, probability, sensory illusions, inference, sexual differences, etc.--have become the subjects of a considerable literature, referred to in our first edition.

I am grateful to all who have cooperated in finalising this book. I acknowledge with thanks the help of various librarians and authors of various books which have been referred to in this book. I would also like to thank the publishers for bringing this book out in time.

RAJPAL KAUR

1

CRIMINAL PSYCHOLOGY: AN INTRODUCTION

Introduction

Crime: Its definition and punishment Cesare Bonesana, Marquis of Beccaria, first published his *Dei delitti e delle pene* in 1764 anonymously, for fear of persecution. His book attacked the very foundations of the existing criminal justice systems. It proclaimed the equality of all before the law, denounced the unlimited powers vested in the authorities, demanded the abolition of torture and of the death penalty, called for measures to protect the accused before and during trial, and affirmed the necessity of graduating punishments according to the crime. These revolutionary proposals were to be acclaimed by philosophers and ministers, philanthropists and businessmen, princes and emperors alike. *Dei delitti* was translated and discussed throughout Europe; its author was provided with a chair of political economy at the University of Milan, and appointed councillor of state. What were these revolutionary proposals so obviously acceptable to all enlightened rulers?

Inspired by the writings of Montesquieu, and accepting Rousseau's social contract theory, Beccaria founded the right to punish on the need to protect each individual's rights and freedoms from possible usurpation by others. A set of written laws equally

applicable to all members of society allowed them to rise above their state of primitive barbarity and be protected, by the rule of law, from the violent rule of the mightiest. Punishments should be analogous to the crime and administer just a little more pain than the amount of pleasure derived from criminal behavior. Jeremy Bentham, in *An Introduction to the Principles of Morals and Legislation*, developed this principle into an elaborate "felicity calculus": the utilitarian system determined appropriate punishments according to the harm done to society, the fundamental rule being to protect "the greatest happiness of the greatest number" from individual abuse. The classical view of crime, punishment, and society was gradually accepted as the basis for criminal codes throughout Europe, starting in France with the Declaration of the Rights of Man, the Constitution of 1790, and the Codes of 1791 and 1810, and eventually including the Prussian, Danish, Belgian, and Italian codes, among others. How could the same principles comply to such various political and social organizations?

From the outset it is clear that they could be made to serve the varied interests of the ruling classes. As outlined by Leon Radzinowicz in *Ideology and Crime*, their adoption allowed "enlightened despots" to check the power of both the clergy and the aristocracy (through the selective abolition of certain superstitions and privileges) while enhancing their favor with the people (through the elimination of torture and the softening of penalties). The middle classes equally profited from the abolition of aristocratic privilege, and were further protected from the whims of absolute power (in the forms of torture, lettres de cachet, and the like). In fact, the new criminal justice systems gave considerable powers to the middle classes, whose members acted as J.P.s, jurors, and M.P.s able to enact new laws as dictated by (their) changing needs. Thus, different measures could be taken for middle- and working class crimes. Fines, demotions, or dismissals were judged punishment enough for what has come to be known as white-collar crime, while prison sentences, often qualified with hard labor, were considered necessary for the repression of "ordinary crime" (such as vagrancy, thefts, minor assaults, drunkenness, and disorderly conduct), the infractions of the "lower classes," which were processed without jury in the special circuits of police courts and the summary justice of the Petty Sessions. The Master and Servant Act of 1823, for example, provided different

forms of punishment for breach of contract: employers could only be prosecuted in civil law, whereas employees were subject to criminal prosecution.

In theory, however, the criminal justice system was set apart from economic conditions, reified into a set of logical relations between equal individuals: one of the most important functions of the new legal discourse was to erase all class divisions by establishing a blind social process in which position and wealth—but also starvation and misery—played no role. In this process, classical principles acquired their universality: they could answer the needs of human nature itself, saving the rights of man from barbarity, only insofar as social organizations were not acknowledged.

The works of the Classical School have traditionally been remembered as the voice of compassion and humanity rising against cruel systems of repression. Some historians, however, have pointed out that their main objective was not so much to punish less but to punish better, more swiftly, and through rational procedures because the old methods were simply not working that well any more. In the face of the death penalty, English juries often refused to find the accused guilty, even when their verdict blatantly contradicted evidence. The chances of being executed when sentenced to death were also constantly diminishing. Reformers like Samuel Romilly wanted to substitute "swift and certain punishment" for this "lottery of justice." The system of "suspended terror" could only work in closely knit societies, where mechanisms of personal benevolence and submission could operate: in large cities like London or Paris the discretionary powers of magistrates to pardon or convict no longer held the same force of example, and imprisonment or release became a game of chance for the accused. Among the most ardent supporters of reform were the members of the middle class involved in manufacturing, commerce, and banking, who were eager to find new and more efficient ways of protecting their property, and sent petitions to Parliament to that effect. The landowners' resistance to reform was eventually overcome; by 1861 capital offenses had been reduced from 200 to 4: murder, treason, piracy, and the destruction of arsenals and dockyards. In France the Revolution reduced the number of capital offenses from 115 to 32.

Although Beccaria and Bentham had proposed a series of punishments analogous to the crime (for theft, restitution and fines, for assault, corporal punishment, and so on), these varied forms were neglected in favor of imprisonment as the universal mode of sanction. However, the establishment of state penitentiary systems was not accomplished without a series of struggles and political upsets. In France prison construction was delayed by debates over the best methods of moral reform. One of the main battles concerned the choice between the solitary confinement system or the Auburn silent system, where the prisoners would sleep in solitary confinement but work together in absolute silence during the day. A Royal Society of Prisons was created in 1819, and various official and private inquiries, reports, and proposals were published with unrelenting regularity from then on, as the issue was a controversial one at the time. It took until 1875 for a compromise to be reached, whereby only prisoners sentenced to one year and one day would be kept in solitary confinement (to prevent their contamination through contact with hardened criminals), while all others would be treated with the Auburn system. In England it was the colonies' refusal to admit convicts, rather than a government policy, that stopped transportation. The temporary cramming of convicts waiting for transportation into warships gave birth to the infamous hulks, which were to be used for eighty years. A national prison system was only achieved in 1877.

From the start, penitentiary scientists and prison officials stood paradoxically in opposition to the legislators and codes which had authorized their emergence. Charles Lucas, recognized as the father of penitentiary science, argued thus:

Legislators have forgotten the actors and focused on the acts. Such codes are based on false and vicious presumptions. False, because in reality the degree of perversity of a crime changes with each actor since the intentionality is different. Vicious, because reformation is more or less rapid according to this degree of perversity; thus the length of punishment should be proportionate to the actor's perversity and not to his violation as such. Repressive justice should then be focused on agents and not on acts.

Here is a first example of how the status and mandate of a discursive practice determine the limits of its sayable. Legal

discourse had to exclude the historic reality of social organizations in order to found the right to punish on the theory of a contract holding within a community of equals. It is only by precluding human beings in concrete circumstances that it could claim to defend the universal rights of man—and be adaptable to various specific social and political systems. It also had to be presented as deriving from enlightened reason in continual progress, to justify the relations of direct domination that it imposed. The limits of its authority could only be recognized in terms of the limits of human nature itself, to allow the socioeconomic conditions of its historical evolution to remain unsaid, and indeed unthinkable, within its established institutional boundaries. The administration of justice, however, required a further specification of the convicted: notions such as "intention to commit a crime," "extenuating or aggravating circumstances," and preoccupations with sentencing and reform began to draw in the notion of the criminal where it had been so efficiently erased by the reformers of the Classical School.

In his treatise entitled *Droit criminel à l'usage des jurés. Science morale, code et vocabulaire du jury*, Gustave Bascle de la Grève thus called upon jurors to pay special attention to the criminal's constitution and educational background before applying the blind rules of justice. Insisting that the moral examination of the accused was especially worthy of attention, he reminded his readers that "undoubtedly, the son of a scoundrel can be a very honest man; but rarely can the son of a man of good standing be a scoundrel." Similarly, the notion of pardonable crimes allowed further social divisions to be drawn. The murder of a husband by his wife or of a wife by her husband were not pardonable, unless the life of the husband or wife committing the crime had been in peril at the moment of the murder. However, in France a husband could be pardoned for killing his wife and her lover if he caught them in flagrante delicto in the conjugal home. The principle of equality before the law was qualified before judges and juries: doxological maxims ("It is unlikely that an honest man's son be a criminal") and rules of behavior according to gender (a husband can excusably kill an adulterous wife—but not the reverse) determined the likeliness or the very existence of guilt, following class and gender divisions. Finally, in the administration of punishment, the criminal's soul—his degree of perversity—constituted the object on which power and authority

could be exercised. The possible reformation of the criminal soul through scientific procedures opened new and infinitely expandable fields of knowledge and power, as discussed by Foucault in Discipline and Punish:

It would be wrong to say that the soul is an illusion, or an ideological effect. On the contrary, it exists, it has a reality, it is produced permanently around, on, within the body by the functioning of a power that is exercised on those punished. This real, noncorporal soul is not a substance; it is the element in which are articulated the effects of a certain type of power and the reference of a certain type of knowledge, the machinery by which the power relations give rise to a possible corpus of knowledge, and knowledge extends and reinforces the effects of this power.

Criminality thus became a much wider problem than legal definitions could cover.

How did these new apprehensions of crime and punishment effect the nature and exercise of power? They allowed the middle classes to tend to their economic needs (protect themselves not only from theft, but also from strikes and riots) and gradually increase their power in the political and judicial circles (as makers and administrators of the new criminal justice systems). The power of the central government increased through the establishment of national police and penitentiary systems, and expanded into an elaborate network of surveillance and reform procedures. The form, exercise, and feeling of power were modified in the process. At the turn of the century, power was more of a personal attribute. Magistrates were local men of standing, known to the entire community; jailers or hulk operators were private entrepreneurs, who made their money from their prisoners; watchmen were paid for directly by householders. By the last quarter of the century, all of these operations had been centralized under the control of the state, and power became the attribute of the system rather than of the person who happened to be in a position of authority. This transfer usually marked the entrance of the public as the supposed beneficiary of the new processes of power. For example, prison officials were now paid by the state to reform criminals so that they could be safely returned to the community. Registration and examination procedures, uniform diet and work schedules could be imposed by

the system on masses of people throughout the nation, all in the name of science, in the line of duty, and in pursuance of that great cause, public peace. Similarly the watchmen's organizations were replaced by a police force whose mandate was preserving the peace rather than watching the street. When Sir Robert Peel's Police Bill of 1829 introduced an organized police force in England, it was met with considerable suspicion from the upper classes (who feared government spying) and loathing from the working classes, who called them "Peelers" or "Peel's bloody gang." By the end of the century, however, they had become generally accepted as the helpful bobbies, serving the public interest. In fact, the powers they enjoyed were considerable, and allowed close supervision of certain segments of the public: beggars, vagabonds, licensed criminals, strikers, rioters, or anyone who cursed or swore in public could be arrested without warrant. Moreover, the 1869 Habitual Criminals Act allowed magistrates to give twelve-month sentences to anyone arrested for being suspicious and found guilty of that charge. Thus a criminal justice system which systematically imprisoned and punished the "lower classes" derived its legitimacy from the community presupposed by the Classical School.

All of these developments contributed to the emergence of a new science centered on the criminal:

1. The reduction of the death penalty and the implementation of imprisonment as a general mode of punishment produced a large population of prisoners who needed to be reformed in order to be reintegrated into the community. Concern over the management of these criminals became a social issue which could serve as leverage in numerous and varied power struggles. An urgent need to know about criminals would be as strongly advocated by political and economic circles as by purely administrative ones (prison and police officials), thus increasing the issue's proliferation within social discourse.
2. New fields of knowledge and power were developed from the momentum of administrative bodies: penitentiary science emerged with international associations and congresses to promote its development; police science claimed great advances with the introduction of new methods of identification such as bertillonage (which brought the

establishment of anthropometric cabinets), fingerprints, and the beginnings of national criminal files. Considerable overlapping took place between institutions: at the judge's discretion, doctors could be called in to testify in courts, and forensic medicine began as a new specialization. Criminology would cut part of its domain from these interconnected, discursive fields.

Criminality: The sign of broader social maladies The cities of nineteenth-century England and France suffered from huge management problems, which attained their most acute state in London and Paris. Municipal and state governments had not kept pace with the problems created by unprecedented population growth and increased industrial activity: uncontrolled air and water pollution, contamination of foodstuffs, ever expanding waste dumps and cesspools in slum areas were widely feared as sources of infection. Perhaps more importantly, they were also perceived as symptoms of a physical and moral deterioration of society: images of sewage, filth, prostitution, poverty, vice, and crime blended in contemporary apprehensions of (and for) a sick society. The notion of crime was thus included in a web of concepts where pathology, sociology, and morality interconnected: fields such as "sanitary science," "social hygiene," and "moral and political sciences" covered this hybrid domain.

The "laboring and dangerous classes" were to be the prime targets of these new fields of scientific investigation. For the purposes of clarity, the huge mass of output on their nature and conditions of existence can be ordered into three approaches, each bringing forth new domains of visibility, using different techniques of knowledge production. First, statistical studies of various kinds, originating from penal and government institutions as well as from private societies, afforded a broad view of criminality as a social phenomenon, correlated to such factors as climate, race, sex, and education. Second, empirical studies undertaken by journalists who ventured into the infamous rookeries to then sell their stories to an interested middle-class audience provided knowledge about criminality as the manifestation of degeneration and disease in regions excluded from the purifying influences of civilization. Similar narratives were also produced by those employed by the criminal justice system, either as police officers or as ex-criminals turned informants. Finally,

medical studies focused on the bodies of those manifesting the symptoms of criminality, and searched for the physical determinants of their condition. These various analytical grids (from general statistics to first-hand exchanges to the examination of skull formation) eventually delineated the discursive space from which a science of "criminal man" would emerge.

In England statistical societies conducted local inquiries into the moral, physical, and criminal characteristics of the "lower orders"; The Journal of the Statistical Society of London published the results of several investigations into slum and average areas. The publication of the first criminal statistics, the *Compte général de l'administration de la justice criminelle en France*, provided the data for the famous works of the French lawyer Andre-Michel Guerry and the Belgian astronomer and mathematician Lambert-Adolphe-Jacques Quetelet, both of whom studied the correlations between such factors as climate, sex, race, age, poverty, education, profession, and crime. Guerry devised a "cartographic method" to represent crime rates by shaded maps which he first presented in his *Essai sur la statistique morale de la France*, and further expanded in *La statistique morale de l'Angleterre comparée avec la France*. Quetelet's "social physics" brought him to develop the notion of "propensity to crime," which depended on race, sex, climate, and so on. He discounted poverty as a determining factor per se, but considered that a rapid fall from relative comfort to misery could create conditions leading to crime. Both researchers were astounded to discover regularity in the total number and in the categories of crimes committed per year, as well as in the relative participation of certain groups of the population. From these discoveries Quetelet argued that "society includes within itself the germs of all the crimes committed, and at the same time the necessary facilities for their development. It is the social state, in some measure, which prepares these crimes and the criminal is merely the instrument to execute them."

Such work questioned the foundations of the free will theory of classical jurisprudence which precluded social factors and considered the individual to be solely and entirely responsible for his or her criminal act. However, both Guerry and Quetelet hesitated to deny free will entirely, and recognized it as an important factor for the individual and an auxiliary one for society. These studies marked the beginnings of a sociological approach to the

understanding of crime, which were empirically pursued by various individuals from the journalistic, police, church, government, and philanthropic circles.

Henry Mayhew, journalist and author of *London Labour and the London Poor*. A *Cyclopedia of the Conditions and Earnings of Those that Will Work, Those that Cannot Work and Those that Will Not Work*, endeavored to describe the everyday life of criminals and other "wandering tribes" who made their living in the streets. The introduction to Mayhew's four-volume opus began with an anthropological division of human beings in "two distinct and broadly marked races, viz., the wanderers and the settlers—the vagabond and the citizen—the nomadic and the civilized tribes." Recalling the findings of Pritchard and Smith, he differentiated each of these "races" by physical, moral, and intellectual characteristics. The first striking difference rested in the shape of the head: whereas nomadic tribes had highly developed face bones (prognathous jaws and high cheek bones), the civilized tribes were characterized by large skulls, signaling a better development of the brain. As a rule, each civilized tribe of the world had a "wandering horde attached," which would prey on the fruits of its industry. Nomadic tribes were characterized mainly by their "repugnance to regular and continuous labour," their various and violent passions, their lack of provision, religion, and morality toward women, and, perhaps worst of all, by a "looseness" of "notions as to property." All of these traits Mayhew could plainly discern in the "lower classes," the predatory wandering tribes of the English civilization. The criminals among them he further distinguished by a moral defect which caused their determination not to work. Similar views were widely recognized in France, as evidenced in the essay granted first prize by the Academy of Moral and Political Sciences in its 1838 competition. Written by H. A. Fregier, once bureau chief of the Prefecture of the Seine, this treatise, entitled *Des classes dangereuses de la population dans les grandes villes et des moyens de les rendre meilleures*, recognized the laboring and criminal classes as belonging to a single group, the "dangerous classes," and ascribed their physical and economic distress to moral deficiencies.

This blending of crime and vice, disease, depravity, and barbarity authorized the involvement of multiple groups in the social management of crime in general, and the "dangerous classes" in

particular. The municipal governments' inquiries were doubled at the state level, where numerous commissions of inquiry were set up during the 1830s and 1840s. Philanthropic associations equally set out to "elevate" the criminal classes, and church organizations marched into the battle. All these efforts were not just aimed at relieving poverty: the main object was to instill the right amount of discipline, the proper values, and the methods of self-help needed to combat pauperism and delinquency, considered as signs of moral weakness rather than economic struggles—the generalization of acceptable behavior remained the principle goal. Such an approach to crime offered the immediate advantage of transferring economic and social problems onto moral and even medical planes which left structures of authority untouched. Edwin Chadwick, former secretary to Bentham, expert in the field of national health, and author of the Report on the Sanitary Conditions of the Labouring Poor, could thus propose sanitation as a "universal specific" able to cure all social and political problems.

Medical experts often voiced the fear that uncontrolled "lower classes" would threaten not only the rule of law, but the reign of reason itself. Treatises on subjects as diverse as phrenology, degeneration, physiology, and heredity routinely included criminals as part of their investigations, and usually examined them in relation to insanity. That deviations from the legal or rational scales of acceptable behavior be considered conjointly could be expected, as criminals and lunatics had been locked up together, along with the indigent, vagabond, and unemployed population, since the middle of the seventeenth century. The institutional separation of criminals and the insane, the great revolution of W. Tuke and P. Pinel, dated back to the 1790s—only then did the medical nature of insanity become obvious. However, it also had an immediately recognizable social dimension. Pinel insisted that alienation originated mostly in the "inferior classes of society." The search for links between insanity and social position, criminality and physical constitution would focus on skull structure and brain functions as well as on the effects of heredity.

At a time when human passions and psychic functions were widely associated with the heart and other viscera, François-Joseph Gall proposed a detailed map of the human brain, identifying both animal and specifically human psychic functions to precisely

situated brain "organs." Postulating that the skull was molded by the brain, Gall thought that an overly developed faculty would mean larger corresponding cerebral circumvolutions, and cause a perceivable bump on a living human being's head. Gall's "cranioscopy" and "psychophysiology" led to a particular interest in the insane and criminal population: studies of the skulls of criminals condemned to death revealed a greater development of the areas of acquisitiveness or destructiveness situated between the top of the ear and the temple. H. Lauvergne, author of *Les forçats considérés sous le rapport physiologique, moral et intellectuel*, also examined convicted criminals to verify if they displayed the "murder bump," that "fateful seal," or the general configuration of the "genius of evil," known as the "sugar cone head."

By identifying morality as the function of a specific brain organ, phrenology precluded the social power structures which determine acceptable behavior. From this perspective, deviance could no longer signify protest of any kind, be it political or moral—it became a simple matter of biological damage or malfunction. As far as criminal deviance was concerned, just how much should be blamed on physical organization was a matter of contention. Gall thought that criminal acts could result either from bad physical constitution or bad circumstances. Therefore, he proposed that punishment be determined in accordance with the nature of the criminal and not his act, a solution advocated by penitentiary scientists. Lauvergne hesitated, at times recognizing cerebral constitution as the ultimately determining and inalienable force in certain criminal cases, and at others holding on to a faith in moral reform.

Prosper Lucas, in his great and widely recognized opus on heredity, *Traité philosophique et physiologique de l'hérédité naturelle dans les états de santé et de maladie du système nerveux*, equally dealt extensively with the question of criminal responsibility, and cut the Gordian knot by arguing that only a propensity to crime was hereditary, and not the act itself: thus, human liberty was preserved, and the spirit of the law maintained. Lucas argued that "a culpable act, even when seeming most spontaneous, is always accomplished under the even more electric light of the soul." To prove the hereditary transmission of a "propensity to crimes against persons" or "against property," Lucas gave a series of short narratives wherein crimes were committed by entire families, which he found

in newspaper reports and presented in true popular novel style, complete with exclamations as to the "horrible details" of "hair-raising examples." Lucas thus started a subsection on the hereditary transmission of a propensity to crime quite similar to insanity as follows:

There are also cases where the heredity of a disposition to shed blood takes on a character which touches naturally on the extreme limits of a passionate state neighboring on madness, without assimilating itself to it.

On May 29 1845, a dreadful crime, unheard of in the annals of the isle of Bourbon, spread stupor among the population of this lovely colony. A small inhabitant of the large woods, Jean Philidor Merlo, taken by a violent passion.

The fascinating feature of this kind of argumentation is that Lucas naturally continued with a discussion of Merlo's trial, giving his legal and medical opinions on the basis of the reports given in the *Gazette des Tribunaux*. Thus the truth of the medical theory of a hereditary propensity to crime was authenticated by its correlations with the law, speaking as "the interior verb of humanity," based on newspaper reports, and produced following the narrative conventions of realist literature. The medical theory itself drew a very fine line between responsibility and irresponsibility—for how "free" could one be if one had inherited a perverse propensity to crime on which education had little effect? The "light of the soul" theory, however, gained its acceptability and high truth value from its position within social discourse. Once recognized and in place, Lucas's work would serve to authenticate other discourse in law, medicine, and literature.

At stake were not only the foundations of the criminal justice system (who was to blame, how should punishments be given?), but the definition of human nature itself: to what extent could people control their thoughts, passions, and actions? Debates over these questions lasted throughout the century, and the discovery and discussion of "moral insanity" played a major role in their direction. This disease was described as a "mania without delirium": its victims would think and reason quite lucidly, but act in a way which offended moral standards. Said J. C. Prichard, the first to coin the immensely successful phrase "moral insanity," "There is scarce any

offence against public decorum that has not been frequently the result of mental disease."

At the beginning of the century it was believed that anyone could fall prey to mental derangement: pocket size manuals on how to overcome this condition were published, as Thomas Blackwell's *The Domestic Guide in Cases of Insanity*. Emphasis was given to the power of the will to combat insanity: discipline, moderation, and self-help (that is, "moral management") provided the key to mental health. Once again, certain groups (the "lower classes," and women and children generally) were recognized as needing guidance in this struggle to maintain sanity. However, by the last quarter of the century moral management had lost much of its appeal, and insanity was defined more as a character flaw, largely hereditary, and often incurable. Criminal or otherwise, it became a specific ailment attacking a certain segment of society, rather than an insidious disease threatening anyone who let up on his or her morals. Henry Maudsley brought this point home in his *Responsibility in Mental Disease*:

All persons who have made criminals their study recognize a distinct criminal class of beings, who herd together in our large cities in a thieves' quarter, giving themselves up to intemperance, rioting in debauchery, without regard to marriage ties or the bars of consanguinity, and propagating a criminal population of degenerate beings. For it is furthermore a matter of observation that this criminal class constitutes a degenerate or morbid variety of mankind, marked by peculiar low physical and mental characteristics.

B. A. Morel had studied the concept of degeneration from a psychiatric perspective in his influential *Traité des dégénérescences physiques, intellectuelles et morales de l'espèce humaine*. He traced the beginnings of human degeneration to original sin: man's efforts to adapt to a difficult environment had caused him to deviate from an ideal primitive type, and these alterations had been transmitted to his children. The noxious influence of climate, insufficient diet, or disease would produce insanity, criminality, or pauperism in the following generations. He identified a set of "stigmata of degeneracy," which included physical and moral characteristics ranging from high-domed palates and distorted ears to innate perversity, and thereby constructed the mental derangement type.

Moral insanity tied the knot between crime and mental disease as similar expressions of biological defects: Maudsley stated that "crime is a sort of outlet in which their unsound tendencies are discharged; they would go mad if they were not criminals, and they do not go mad because they are criminals." Both of these ailments were recognized as particularly prominent in the "lower orders," and little hope was now held for reform. Maudsley held that "the criminal psychosis, which is the mental side of the neurosis, is for the most part an intractable malady, punishment being of no avail to produce permanent reformation. The dog returns to its vomit and the sow to its wallowing in the mire." Rather candidly, he admitted that differentiations between criminality or insanity were of little consequence, as the outcome would be the same--institutionalization.

Both interpretations of moral insanity, as a curable or incurable defect of the moral sense, erased the social structures of power which produced moral standards of behavior by presupposing an organic unity in society: the needs of the social body were somehow transmitted to each individual and inscribed in his or her bio-moral sense-social roles and positions were thus naturalized. In *Self-Help* Samuel Smiles described character as "human nature in its best form. It is the moral order embodied in the individual." However, by the last quarter of the century, many of the "lower orders" had nowhere to go: degenerates in mind and body, losers in the struggle for life, they seemed only good for institutionalization. Many of those with interests in social matters agreed. General Booth, in his *In Darkest England and the Way Out*, sadly recognized that,

There are men so incorrigibly lazy that no inducement that you can offer will tempt them to work; so eaten up by vice that virtue is abhorrent to them, and so inveterately dishonest that theft is to them a master passion. When a human being has reached that state, there is only one course that can be rationally pursued. Sorrowfully, but remorselessly, it must be recognised that he has become lunatic, morally demented, incapable of self-government, and that upon him, therefore, must be passed the sentence of permanent seclusion from a world in which he is not fit to be at large.

Penitentiary scientists strongly agreed with this diagnosis. There existed a wide consensus on this point; discourses originating from

different institutions (medical, penitentiary, as well as government, private, and "sociological" centers of inquiry) and employing different methods of knowledge production (empirical surveys, statistical compilations, and medical examinations), all agreed to describe a segment of the "dangerous classes," often labeled the "residuum," as lower forms of human life, a race apart suffering from largely incurable physical, intellectual, and moral defects. For the others, the rest of the "lower orders" whose sense of morality could be reformed, measures needed to be taken, in well-defined doses: too much education or indiscriminate charity were recognized as major contributing factors to crime.

Describing criminality as the result of physical and moral defects especially prevalent among the "laboring and dangerous classes," nineteenth-century discourse transformed the notion into an effective, multifarious tool of social integration: to be undisciplined or unemployed, unhealthy or drunk, poor or irreligious was in some way to be part of the criminal classes. The concept of criminality transgressed its legal constraints and became entangled in a web of concepts which included morality, rationality, propriety, biology, as well as economic and political standing--an omnibus notion potentially able to authorize all and any means of social control. However, to be fully operational, it needed to be positively "true": the object, audience, mandate, and institutional locus of a new science on "criminal man" had been arranged.

2

FOUNDATIONS OF ATTITUDE TOWARD HUMAN BEHAVIOR

Professional Attitude and Personal Involvement

Professional police officers must learn to view behavior from a perspective similar to that of behavioral scientists in order to ensure maximal efficiency in handling the many complex situations they face. Although recruits may interpret this as an admonition to avoid involvement with others, this attitude is not desirable, especially toward the non criminal public.

For example, one police department received a citizen's complaint from a woman whose car had been stopped by an officer for speeding on a deserted street late at night. She was returning from a hospital emergency room where she had taken her sick baby. Her complaint was not that the officer had stopped her unjustifiably, but rather that he had shown no concern for the condition of her baby. As she said in her complaint, "He might have at least asked how the baby was."

The image of the aloof police officer runs contrary to practice. Police officers are involved each moment they are in contact with the public or with a criminal offender. They are certainly personally involved when their lives are in danger and when their action or decision can avert a crisis or solve a problem. However, this kind of personal involvement must be contrasted sharply with the behavior

of officers who take a situation personally and then react emotionally to it.

To further explore this distinction, the following analogy is pertinent. The psychiatrist does not get angry at the mental patient who calls him a potbellied quack, but accepts the remark as evidence of the patient's anger and hostility. He then directs his attention to the reason for the anger. Is it because the patient feels neglected on the ward, or because his wife failed to visit him that afternoon? The doctor tries to understand the patient's behavior by searching for the reasons behind it. Only with this understanding will the psychiatrist be able to alter or control it. As professionals, police officers also must try to understand the behavior they encounter so that they may have the opportunity to alter or control it.

In another sense, personal involvement is inevitable for police officers. They will often see behavior that is shocking, immoral, or degenerate. For example, they may encounter a father who has just beaten his four-year-old son to death, a rapist who has violated and tortured a seven-year-old, or an armed robber who has beaten an old man and left him to die in the streets. John G. Stratton reminds us that "academy training often encourages the violent and/or dangerous. Tragedies are part of the job, what you get paid for, and a non-emotional response is a necessity".

But police officers cannot avoid experiencing feelings of anger, frustration, revenge, or disgust. Police officers are human beings with normal human reactions to deviant behavior. They cannot and should not stifle these personal reactions but should develop ways of handling them and turning them to good use. Police officers who learn to anticipate their reactions to offensive and difficult situations and who have developed ways of dealing with them not only have removed a serious barrier to effective performance of their duty but have also taken a first step toward the acquisition of a professional attitude toward behavior. They have discovered that although personal involvement is unavoidable, emotional involvement is controllable.

Contemporary police officers have as their primary task the regulation, direction, and control of human behavior. This is usually understood to refer only to the behavior of those persons, criminal and noncriminal, with whom officers come in contact while

performing their duties. But the officers' own behavior also must be under their control. They must handle their own feelings, whatever they are and in whatever situation they encounter them.

Consider, as an example, the feeling of fear. During World War II, much was learned about the emotions experienced under conditions of stress and danger. Prior to that time, soldiers were taught that the feeling of fear was an indication of cowardice and that cowardice was despicable. This attitude was exemplified by General George Patton when he scolded and slapped an enlisted man who had been hospitalized for combat exhaustion. In what was perhaps an overzealous attempt to spur the man to greater effort, Patton accused the soldier of cowardice and demanded that he not be treated. Patton was apparently unable to understand or admit the existence of the normal emotion of fear. The alternative, though entirely out of character, would have been for the general to have openly recognized the emotions experienced by the soldier and to have assisted him in finding ways to cope with them.

Patton's attitude was not shared by all American military authorities. Army psychiatrists and field commanders know that in combat, fear is a constant companion. Everyone is afraid. The important thing is not whether soldiers are afraid but how they handle their fear. If they can admit to fear and use it positively (for example, fear can make one more alert or lead to a better effort), they can then perform effectively.

In a study comparing military units where it was possible to admit and talk about fear with those where it was never admitted or discussed, it was found that the former experienced fewer casualties, both physical and mental. Professional police officers, like professional soldiers, cannot let feelings of fear interfere with effectiveness. Officers with a professional view of behavior who acknowledge fear and learn how to deal with it will perform more effectively under conditions of emotional stress.

As one police officer put it: "Fear is a natural response to danger which gives us that necessary shot of adrenalin. I don't think courage is the absence of fear, but rather the ability to control fear and maintain composure in the tightest of jams".

Thus, the first element in the foundation of a professional attitude toward behavior is the realization that in all stress situations, every

human being will experience certain normal emotional reactions. This is as true for the professional police officer as for the ordinary citizen. What, then, differentiates professionals from citizens?

Professionals enter into these situations not only anticipating their own emotional reactions but also those of the person or persons with whom they are dealing. By anticipating what they and others may be feeling, professional police officers reduce the number of unknowns inherent in the situation. This will enable them to direct their attention to other factors and will enhance their effectiveness.

As an added benefit, their knowledge of what to expect from their own emotions and those of others will permit them to achieve the second element of a professional attitude: the ability to control their own behavior. For example, they will see that recognition and control of their own fear will contribute to their efforts to cope with a hostile crowd.

Professional Attitude in Operation

As described thus far, a professional attitude toward behavior rests upon several fundamental principles. Professionals who deal with human behavior must maintain control of their own emotional involvement in any situation. They must seek, with scientific interest, the motivations for that behavior, and they must strive objectively to understand how it was learned before attempting to change it.

Several years ago, one of the authors (HER) was requested to perform a psychological evaluation on a young man who had spent an entire evening torturing a small boy (his stepson) to death. He was very angry because the boy's mother had gone away with another man that afternoon, leaving him with the two children. In his extreme frustration and anger, he started drinking and, after becoming intoxicated, took both children in the bathroom, where he slowly and methodically tortured the little boy while the ten year-old girl was forced to watch. As part of the psychiatric team ordered by the court to examine this man to determine if he was sane and could stand trial, the author easily could have allowed his own personal feelings of disgust and anger to interfere with the important task of establishing the good rapport with the prisoner necessary to complete the psychological testing. Had he allowed his personal

feelings to take control of his behavior, the author would have lost his professional attitude.

Police officers will face situations like this daily. If they have to arrest a man for setting drunks on fire, they cannot judge and condemn him; they cannot allow their feelings to permit them to strike out or to handle him roughly. To do so would not only detract from their performance as professional police officers, but might also provide the offender's lawyer with a means of achieving the client's release because of a civil rights violation.

In these situations it is helpful to police officers to remember that people learn to be the way they are and that in all probability offenders who beat and torture victims were themselves subjected to similar treatment while growing up.

FBI agents who were assigned the task of interviewing serial rapists found that conducting such interviews was mentally and emotionally fatiguing. To quote from their research:

One cannot leave such an interview without experiencing a strong sense of sympathy for the victims of rape and an occasional feeling of empathy for the offender. There were documented instances of childhood physical, sexual, or emotional abuse suffered by some of the rapists. Those who read of such occurrences, or watch a man cry as he describes his father beating or raping his mother in front of him, cannot help but feel a sense of outrage toward the parents of the offender. Investigators must never cease to experience these essential human emotions. Without them, a person will become callous and lose effectiveness as an investigator or a researcher.

This understanding will enable police officers to be professionally more tolerant and accepting of behavior that would otherwise alienate them.

Summary

This chapter has discussed some basic principles in the development of a professional attitude toward human behavior. It has pointed out that since personal involvement is unavoidable, it must be recognized, accepted, and handled.

3

PRECONDITIONS OF NATIONAL LITERATURES

Introduction

The development of marketable literary products launched onto the market as a commodity, the literary work was exposed to the same economic and political pressures as those exerted on the press. The need to increase sales made all the time-honored marketing tricks previously reserved for the promotion of cheap literature now acceptable for "quality" goods: books were given new titles and covers to obtain a better reception the second time around; smaller editions were printed to make a novel bear the sign of popularity at a faster rate; gifts, prizes, and price wars were turned to in the 1890s. Advertising costs steadily increased until they reached 25 to 50 percent of production costs by mid-century. Whereas the publishing industry traditionally had been "long on expertise and short on capital," market conditions in the 1840s and 1850s required increasingly large capital investments in order to achieve profitability.

The scale of the capital and risk involved tended to encourage the reproduction of winning formulas, even in serious fiction (Martin Chuzzlewit was bought and sold as another manifestation of the "true Pickwickian style", and to require the censorship of all material possibly offensive to any section of the buying public, as aptly

described by Grant Allen in 1895: "Most novels nowadays have to run as serials through magazines and newspapers; and the editors of these periodicals are timid to a degree which outsiders would hardly believe. This story or episode would annoy their Catholic readers; that one would repel their Wesleyan Methodist subscribers; such an incident is unfit for the perusal of the young person; such another would drive away the offended matron." In *Victorian People and Ideas* Richard Altick documents such censorship and states that "editorial squeamishness seems to have reached its peak in the sixties and seventies." Those involved in the sale and distribution of books were equally active in the determination of allowable directions for fiction. Bookstall firms such as Hachette in France and W. H. Smith in England banned books which they considered below acceptable moral standards (that is, harmful to sales or to the firm's reputation), and thus held devastating powers over the sale of books and subsequent careers of their authors. Owners and directors of circulating libraries such as Charles Edward Mudie could literally "make or break an author's career" through their book purchasing decisions. Those in charge of local or school libraries, Mechanics' Institute libraries, and the like also exercised their authority, often with great zeal. In the face of such strong opposition to the circulation of books in any way deviant from established political, economic, and moral standards, one can only agree with Darko Suvin's estimation that "a rare conjunction of both author and publisher powerful enough to resist snobbery, ostracism from one's 'bettters,' fear of financial failure and finally, in some cases, fear of legal prosecution, was needed to get such matters [subversive of the politico-economic system] into print, particularly into cheaper forms of print."

The slowness of returns on capital investments (with many editions taking years, or a second generation of readers to turn a profit) favored the nurturing of a cultivated market, and this in turn sharply increased the importance of the literary reviewer, whose function it was to guide the reading market to appropriate works. The forums available for literary criticism multiplied and diversified (in reviews, magazines, specialized journals, and the daily press), and the career of literary critic acquired new prestige: Jules Janin, "the Prince of Critics," provided *Le Journal des Débats* with a weekly "feuilleton dramatique" for forty years, and received 12,000 francs a

year for his services; George Saintsbury and Ferdinand de Brunetiere reached glorious heights as literary critics known through their collections of essays and criticism, their international speaking tours and courses. The high profile of such experts favored mass sales of carefully chosen works; their position in social discourse thus produced fields of visibility, networks of shared cultural material which fit within the parameters of acceptable--and marketable--truths.

Apart from this sector, highly considered, tightly knit, and generally cooperative in the maintenance of high prices, a series of efforts were made to reach a wider audience: non copyright works were offered in cheaper, often illustrated number publications or classic reprint libraries, and recent fiction reprints were sold in 5s or 6s volumes (as compared to 31s 6d for the three-decker new fiction volumes). Massive readership and profits were finally obtained with the part publication of new fiction: Dickens's *Pickwick Papers* did for number publication in England what Sue's *Mystères de Paris* did for the romanfeuilleton in France. Serialization proved extremely lucrative for all concerned, and the fortunes amassed by popular writers like Dickens, Dumas, and Sue legitimized literary careers and greatly increased the status of fiction writers. Such profits led most of the major publishing firms to expand and consolidate their operations, and those "who missed the period of flux were to a large extent excluded after the period of consolidation in the 1840s and 50s. Between 1850 and 1880 there were few major producers of good fiction established."

The turning point seems to have been reached in the 1850s and 1860s when the scale of operations changed dramatically. Routledge, for example, was able to turn out 10,000 copies a day of *Uncle Tom's Cabin* in the early 1850s. The export trade grew until it could reach 30 percent of a firm's business by mid-century; Walter Besant calculated that the reading public for English books went from 50,000 to 120,000,00 between 1830 and 1890. With the generalization of 6s reprints in mid-century, the increase of cheap classics in the 1860s and 1870s, and the price wars of the 1880s, the price of fiction decreased until the eventual disappearance of the three-decker in the 1890s. Similar expansion and consolidation took place in France: a "littérature industrielle" (in Sainte-Beuve's words) started to expand in the 1840s, and dramatically enlarged its scale of operations in the

second half of the century. Sharp increases in total output from 1875 to 1890 led to a glutted market in the 1890s: 14,849 books were copyrighted in 1889 (as compared to 5,442 in 1812), a total which would not be reached again until the 1960s. From 1891 to 1893 two out of three books lost money for their publishers, and underselling brought prices down to ludicrous levels: from 3.5 francs to 60 centimes per volume, to 45 centimes for every 500-volume purchase.

Thus, through the application of marketing methods proven successful in the most popular shares of the readership (serialization, part publication, cheap reprints) and the establishment of efficient networks of production (with capital and machinery intensive organizations), distribution (with railway bookstalls, circulating libraries, and a brisk export trade), and advertisement (and the promotion of "proper culture" for the middle and lower middle classes), a market for quality fiction was demarcated by mid-century, and actively developed thereafter. All of these factors worked to limit the sayable of fiction into the innocuous "interesting to all, offensive to none" category previously outlined for the press. Widely disseminated, this kind of knowledge favored the emergence of a consensual public in social discourse.

The nature and function of a nation's literature Whether held as the last bastion for the expression of visionary truths in capitalist societies (Coleridge, Carlyle, Balzac) or as the "recognized amusement of our lighter hours" (Trollope), whether condemned as "instruments of abomination and ruin" (the Evangelical Magazine) or hailed as a powerful motor for promoting social reform (Dickens, Zola), literary works were typically evaluated--their nature and function determined--within the framework of the nation. Arnold argued that the teaching of literature would elevate the lower classes, civilize the middle classes, and fuse all into a common nation under the guidance of the state. English and French literature were indeed first taught in Mechanics' Institutes and Working Men's Colleges, in elementary schools, and in girls' schools in short, to all those who could not be expected to learn the classics but needed to be moralized into acceptance of their social position. Governments adopted various methods to promote the production of appropriate literature. Apart from the usual powers of censorship and taxation, the French established a Commission du Colportage to establish a list of permissible works, and the government went as far as to offer money

for the production of good material: in 1851 prizes of 3,000 to 5,000 francs were offered to works which would "serve to educate the laboring classes by the propagation of healthy ideas and the spectacle of good examples." A similar program was outlined in the 1855 East India Company report, which held that administrative posts should be awarded to men who knew English literature well, and could display this "superior" cultivation to the people of India, presumably to facilitate submission to British rule. Thus, literature in the restrictive sense emerged with the modern chronotope of the nation, the alibi which unifies the time and space of social conflicts between divergent classes into the single evolution of a people in its motherland.

Novels were particularly suited for this integrative purpose, not only because of their popularity (extending to all classes), but also because of their textual construction. Indeed, the narrator in realist novels produces the textual equivalent of the "nation," as it allows the limited perspectives of the characters to be united in an overarching structure of understanding. The narrator, as origin of the tale, is able to order facts in a causal chain of events. Barthes has shown how technical devices such as the use of the third person or the preterit allow this power to be manifested: "by its preterit, the verb implicitly takes part in a causal chain, it participates in a set of solidary and directed actions, it functions as the algebraic sign of an intention maintaining an equivocation between temporality and causality, it calls for a development, i.e., an intelligibility of the Narrative." Barthes pointed to Balzac and Michelet as similar makers of self-enclosed, autarchic worlds, and recognized their shared preference for the narrative form as the "choice or expression of a historical moment"--for other periods could write novels in letter form, or history as chronicles. The moment in question is that of positivism, and its affirmation that the progressive development of knowledge would eventually allow "man" to understand and dominate external reality. The conventions of nineteenth-century realistic narrative allow this program to be enacted, as they work to produce a "genial consensus" which, according to Elizabeth Deeds Ermath, implies "a unity in human experience which assures us that we all inhabit the same world and that the same meanings are available to everyone. Disagreement is only an accident of position." This consensus is

achieved (or rather simulated) by the narrator's ability to bridge the gaps between the characters' limited perspectives.

This position is also the one held by the state, theoretically and pragmatically, in its recognized responsibilities toward all citizens (as told in the narrative of national needs), and in its systematic attempts to supervise, normalize, and control the population as a whole. Miller has demonstrated how Victorian novels display these disciplinary processes, and police the reader in the reading process: "the novel encourages a series of deferential cathexes—all the more fundamental for being unconscious--onto various instances of authority. What is promoted in the process is a paternalism that, despite the dim view the novel takes of the power structures of the British state, can only be useful in maintaining such structures."

However, unlike the state, the narrator achieves this position of dominant knowledge and power at a significant price, described by Ermath as the "price of disembodiment": "standing forever in a continuous actual present that has no concreteness or measurable change and consists only of remembering, the narrator has no perceptible identity. Like time and consciousness, the narrator is everywhere and nowhere, suspended from participation in actions and choices by the very reflective consciousness that presumably makes reasoned choice and action possible." The invisibility and ultimate passivity of the narrator in relation to the events it recalls is reduplicated in the reader of realistic narratives, who is also trapped into passivity by the conventions of realism (and thus holds the same position as that produced for the reader of a press engaged in the production of a consensual "we"). Miller argues similarly when he states that the novel's "discourse on power only comes to light in (as) a discourse on 'the way things are.' 'Revealing' the character of modern power only insofar as it 'masks' it as an ontology, [the novel] is thus perfectly obedient to the imperatives of such power the novel's discourse on power must finally be taken as a discourse of power." The function of such discourse, according to Miller, is to produce subservient subjects.

It is at this juncture when literature was championed by many in positions of authority as a useful agent for the founding of a unified nation, when the novel, in particular, was seen as providing the grounds for a common culture cutting across class barriers, and

when the narrator of realist novels both enacted this political program and produced a passive position for itself and the reader—that the rhetoric of gender was modified in its application to literature. The role of literature was now described as feminine (to "mother" the nation, "civilize" the lower and middle classes, and reintegrate the emotional and spiritual dimensions of life in societies increasingly dislocated by the effects of industrial capitalism), and thus designated women as particularly well suited for the profession of literature teachers. This feminization of literature corresponded to the reconceptualization of reading as a passive form of learning. D. J. Palmer and Lionel Gossman have argued that, whereas during the seventeenth and eighteenth centuries reading had been linked to writing and to the learning of rhetoric as means for an effective participation in public affairs, reading literature in the nineteenth century was promoted as a form of communion with the great minds of the past: "The reader's relation to books was thus no longer in the first instance that of a potential writer, a producer, an equal; it was that, at best, of an adept or worshipper, at worst, of a consumer."

The feminine characterization of literature was furthermore a powerful means to limit its sayable. "Woman" and "literature" were at times practically collapsed as equivalent classes in their constitution of the concept of the "feminine," for both included beauty and disinterestedness as their primary objects. A widely used French textbook entitled *L'Instruction morale et civique des jeunes filles* insisted that a woman must never forget that "what men require above all in a woman, is that she be feminine in virtues and appearance." Such requirements paralleled those placed by men in positions of authority on literature: that it be literary in virtues and appearance. Gustave Flaubert's *Madame Bovary* was not criticized—and prosecuted—for being untrue, but for incorporating truths which were out of place, untrue to the mission of art. During Flaubert's trial the prosecutor quoted the description of a waltz and declared: "I know very well that one waltzes a little in this manner, but this does not make it moral." He concluded with a revealing comparison: "Art without rules is no longer art; it is like a woman who would take off all her clothes. To impose on art the unique rule of public decency, is not to subjugate it, but to honor it." True literature should not be allowed to explore or reveal reality "as it was": its proper mission was to represent beauty and guide readers to a "higher truth." As

women should have "no right to meddle with public affairs, no right to follow professions, no right to occupy themselves with any really intellectual pursuits," literature should not deal with social or political controversies: "we admit that Mr. Dickens has a mission, but it is to make the world grin, not to recreate and rehabilitate society." If women needed education, it was "not only to show them what they can do, but what they cannot do and should not attempt": "the great fault in a woman is to want to be a man, and to want to be learned is to want to be a man." Similarly, novels should not be cluttered with medical, architectural, economic, sociological, or political knowledge alien to the nature of art; realist descriptions which incorporated such matters only managed to substitute clinical observations for artistic sensitivity. Works by Flaubert or Eliot were constantly being accused of performing inhuman dissections: "Mr. Flaubert is not only a painter disguised as a novelist, but a surgeon who has missed his vocation. He does not hear the cries of the patient that he is dissecting. One would think he is working on a cadaver."

Throughout the century, writers resisted the limits imposed on the sayable of literature. Charlotte Bronte doubted the very possibility of writing within boundaries recognized as "feminine": "Come what will, I cannot, when I write, think always of myself and what is elegant and charming in femininity; it is not on these terms, or with such ideas, that I ever took pen in hand." In a scathing article entitled "*De la moralité*," Zola denounced the social hypocrisy of newspapers which purged narrative fiction of material routinely published in police columns and reports of court proceedings. Why should descriptions of the "lower orders" or of criminals and prostitutes be widely disseminated in newspaper reports, bluebooks, and medical and sociological treatises but rejected in fiction? Close textual analyses will serve to clarify the reasons for this particular trauma over what literature could say, but it can be noted from the outset that descriptions allowed the novel to operate the intertextual rewriting of commonly held discursive truths; the very choice of objects worthy of description hinged on other practices. A born criminal's description in a naturalist novel such as *La bête humaine* would thus almost necessarily include a reference to a prognathous jaw, as this anatomical feature was systematically recognized by criminologists, anthropologists, sociologists, and newspaper reporters. However, novels could then use this scientific truth to

other ends, in the narrative context, and thereby display discursive modes of knowledge production—a process potentially threatening to the maintenance of established knowledge and power relations. As it was through their scientific and impersonal descriptions that novelists articulated their texts to the latest discoveries, and thereby claimed to produce scientific truths themselves, the battle over their right to include such material involved high stakes: not only the status and mandate of their discursive practice, but also the epistemological grounds for the production of knowledge in the age of positivism.

Those who worked to limit the sayable of narrative fiction usually did so in the name of taste and morality: "If Mr. Zola lacks taste and spirit, just as if he lacks psychological finesse, it is because Mr. Zola lacks a moral sense. The moral sense, for us, is therefore strictly speaking the human sense, or, to speak more clearly, the sense of what in man is superior to nature. For rather than being a part of nature, man separates and distinguishes himself from her." As usual, class distinctions were inscribed in the concept of morality:

Mr. Zola, who barely knows the meaning of words, has evidently never known the value or the power of words. If he were writing for workers, we could let him get away with it; but he is writing for the bourgeois; and if he believes that an ignoble blasphemy or a dirty insult have the same signification for a bourgeois who reads them printed in a book as for a peasant or a worker who utters them unknowingly, as he swallows a glass of wine or a bowl of cider, I can assure him that a "writer" or a "naturalist" could not be more mistaken.

Whereas the "lower classes" enjoyed rough manners and crude entertainment, and were therefore closer to nature in their life-style, the bourgeois had developed taste, spirit, and psychological finesse, and had thus lifted themselves up from this primary state: the bourgeois had a moral sense which Zola—and his readers—could not grasp. Zola committed the unpardonable outrage of believing the bourgeois to be determined by the same natural forces as those affecting the "lower orders": "Are we considering high society through open doors, or high society behind closed doors? If we are curious, if we look through the cracks, I suspect that we will see, in the distinguished classes, what we saw in the people, for the human

beast is everywhere the same, only the clothes are different." By denying taste, defined by one critic as "the free will of the intellect," Zola destroyed the grounds for bourgeois distinction and authority. Naturalist writers were also greatly handicapped by their popularity: recognizing their worth would have been tantamount to acknowledging the discernment of hundreds of thousands of readers. For the cultured elite, as for penitentiary scientists and anthropologists, morality served as the point of dispersion of "man," the point where distinctions according to class, race, or gender could be recognized within the category of "universal man"; it also provided the grounds for the dominant classes to claim power, both physical and spiritual, over reality, through this indescribable sense.

The epistemological basis for this articulation of power first to "man" and then to specific categories of men qualified with a distinct moral sense (or men of distinction) can be drawn from Foucault's analysis of an epistemological break occurring at the end of the eighteenth century, which placed "man" as the origin and measure of meaning. Whereas classical thought recognized living beings existing in nature in an ordered relation to meaning as determined by the will and wisdom of God, modern thought perceived the meaning of existing economic, linguistic, and life systems as deriving from their respective development in time. The shift, therefore, was from an episteme founded on the principle of order to one based on history and centered on "man," as it was through human labor that meaning was established, languages developed, riches accumulated, and history registered. The study of legal, criminological, educational, and press discourses has shown that "man" was also the telos of knowledge production: each of these discursive practices defined its ultimate goal as increasing the knowledge, and power, of "man." Institutions established to regulate the distribution of knowledge, wealth, and political authority according to differences of class, race, and gender were all theoretically imposed for the protection of human rights and the enrichment of human nature. "Man" became the center through which power could be exercised.

However, the episteme which placed "man" at the origin of meaning also paradoxically revealed his inevitable domination by exteriority: language, labor, heredity, and environments over determined human nature and behavior. The power of knowledge

at once revealed the finitude of "man": "Man's finitude is heralded—and imperiously so—in the positively of knowledge; we know that man is finite, as we know the anatomy of the brain, the mechanics of production costs, or the system of Indo-European conjugation; or rather, like a watermark running through all these solid, positive, and full forms, we perceive the finitude and limits they impose, we sense, as though on their blank reverse sides, all that they make impossible." What appropriate literature and criminology (the psychological novel, or the French sociological criminology) provided was room for an indescribable--and therefore unknowable--uniqueness in "man." Referred to euphemistically as the moral sense, the human sense, the soul, or free will, this quality endowed certain men with the power to choose and thus regain power over themselves and the environment.

Within this context, the narrative fulfilled two essential functions in the production of positivist truths. First, it emerged as the most appropriate medium for the investigation of "man": George Meredith voiced a widespread conviction when he stated that the aim of the novel was to present "the natural history of man." G. H. Lewes went so far as to assert that the novel's intrinsic rules were universal in application, because they derived from human nature itself: "The art of novel-writing is founded on general principles, which, because they have their psychological justification, because they are derived from tendencies of the human mind, and not, as absurdly supposed, derived from 'models of composition,' are of universal application."

Moreover, the narrative served as a stopgap in the production of the ultimate blanket of positivist knowledge. Previous analyses have shown that narratives were vital for the elaboration of scientific criminology, for whenever an essential theoretical point could not be proved by measurement or argument, it was demonstrated in a short tale. Similarly, medical theories on heredity could rest on crime stories taken from the *Gazette des Tribunaux*. History as practiced by Macauley or Michelet incorporated narratives to order facts into meaningful representations of their author's philosophy. Paleoanthropology made extensive use of the narrative to elaborate its knowledge on prehistoric man: from the discovery of bones or flintstones elaborate stories of everyday life were drawn, including

the details of eating and dressing habits, and sexual behavior. 51 The emergence of new fields of scientific investigation into the various dimensions of human nature (criminology, sociology, psychology, and prehistoric anthropology) was generally accompanied by the development of equivalent narrative subgenres. Criminological research into the influence of heredity and milieu on the behavior of the "lower classes" was doubled by equivalent interests in the naturalist novels of Zola, Rosny Aine, and Gissing, with *La bête humaine* exemplifying their symbiotic development. Forensic and police sciences were established along with romans judiciaires, romans policiers, and detective novels. Claude Bernard's efforts to institute experimental medicine in the 1860s were duplicated in the Goncourt brothers' attempts to develop clinical novels studying temperaments. Prehistoric anthropology was institutionalized when Rosny Aine, H. G. Wells, and many others were writing their apeman stories. Psychology was recognized as a science when the psychological novel was gaining prominence; the first French psychology laboratory was established at the College de France in 1889, the same year that Bourget published his most celebrated *Le Disciple*. Thus, an extensive use of the narrative form throughout social discourse was coterminous with the apprehension of "man"; or perhaps better stated, "man" was known through narratives which took charge of times past, present, and future and aligned events in an order representative of the human scale.

The wide circulation of the narrative throughout social discourse increased the value of the novelist's work, for while short tales could be incorporated into scientific discourse as valuable tools for knowledge production, it was in novel-length stories that the ultimate desire for a total apprehension of "man" could be enacted. Only in the novel could the influence of heredity and environment be followed and fully documented in an individual's life story. Said Zola, "If my novel must have a result, it will have the following: to tell the human truth, dismantle our machine, show its secret hereditary mechanisms, and make clear the influence of environments." Narratives could eliminate within their sphere that great enemy of positivist thought, doubt. When asked what would be his greatest sorrow, Zola answered "To be in doubt." Jevons explained in his *Principles of Science* that a scientific or "truly philosophic" mind could not tolerate doubt because it was "the

confession of ignorance and involved a painful feeling of incapacity." Narratives allowed this thirst for absolute certainty—and power—to be temporarily quenched.

This capacity of the narrative form would perhaps explain its prominence in such a place as the *Gazette des Tribunaux*, the paper which scientists and novelists alike pillaged for material for their work. Whereas matters of civil court were presented concisely (lists of pertinent articles quoted in italics, precedents, and technical reports on matters of litigation), reports of criminal court proceedings were strewn with entertaining descriptions of defendants and witnesses, long narratives of the lives which led to criminal activity, and full reproductions of exciting testimony or stirring summations. As the outcome of the trial was life or death, guilt had to be established beyond reasonable doubt--and the *Gazette des Tribunaux* often opted for the narrative form as the most appropriate means to transmit information about the defendants. Indeed, the paper had no interest in casting doubt on criminal proceedings, and the narrative allowed "true accounts" of the life of the accused to be entirely molded by ideological maxims on criminal behavior. On January 1, 1856, the paper reported the trial of Rose Berlioz on counts of attempted abortion, infanticide, and poisoning. The report stated that Antoine Maubleu had married her even though she was an unwed mother, in the hope that she would soon settle down. The narrative continued:

Unfortunately these hopes were dashed, and the Maubleu woman continued to abandon herself to her evil instincts. The profession she exercised [midwife], by allowing her to go out at all hours of the day and night, favored her misconduct, and the well-founded advice and reprimands of her husband only provoked insults and contempt on her part. The disorderliness of the conduct of Rose.

Rose did not cease to increase, and, when a detachment of the army of the Alps was stationed in the commune of Saint-Etiennede-Crossey, the profligacy of this woman knew no limits.

With this kind of presentation, reasonable doubt could be effectively dispelled. Novelists, sociologists, and medical doctors gathered much of their knowledge of the "lower orders" from these detailed narratives of the everyday life of peasants,

workers, thieves, and murderers. Stendhal described the paper as "the golden book of French energy in the nineteenth century." The obvious fascination this publication held for many of the learned elite probably also derived from their recognition of the tribunal situation as the epitome of their own search for truth. The juge d'instruction had to confront facts, sort them in an ordered chain of events, and discover their single true meaning in order to exercise his power effectively. The encounter between judge, defendant, and jury involved social definitions of right and wrong, truth and falsehood: knowledge of "man" and society held in the balance. Finally, the exchanges taking place in a court of law had to end with an absolute conclusion, excluding the possibility of doubt. Whether applied to the discovery of human nature (in anthropology, sociology, criminology, psychology, and medicine) or in the determination of guilt or innocence, whether used in scientific treatises, the press, or in novels, realist narratives seemed endowed with a unique capacity to determine essential truths.

The institutionalization of literature was thus made possible by the convergence of multiple economic, political, textual, and epistemological factors. Economic imperatives sketched the boundaries of the sayable for literature, which largely overlapped with those of the press, and worked to forge a consensual "we," often identified with the ideal family circle. Political imperatives favored the cross-class dissemination of this material, to institute the nation; textual conventions allowed the enactment of this political program, through the narrator, and the passive position it assigned to the reader. In an age (or an epistemological configuration) recognizing "man" as the origin and telos of knowledge, novels, which were said to relate the natural history of "man," were valued as privileged means for the production of truth. Novels which foregrounded morality would be most prized by those holding positions of authority, as this sense—defined as their sense—served to found their privilege on biosocial grounds and deny the finitude inscribed in their knowledge and power. But if "man" was the origin and goal, "criminal man" would be the means, the discursive object allowing the narrative process to begin, and the nature of "man" to be implied. Indeed nineteenth-century novels

began with a crime, lack, or scandal (the "narratable") whose narrative development allowed an originary positivity to be known, a contrario; as argued by Charles Grivel, "the disorder of the novel is only legible because it signifies, in depth, the generalized acceptance of the positivity and implies the adequation of the reader to this positivity."

4

CONDITIONS OF STAKES AND POSITIONING

Introduction

Historical outline accounts of the emergence of criminology as a new human science usually run along the following lines. In 1876 Cesare Lombroso, an Italian psychiatrist and prison doctor, published *L'Uomo delinquente*, in which he described the criminal as an atavistic throwback to prehistoric man. This theory, originally sparked by the discovery of an enlarged middle occipital fossa and an overdeveloped vermis in the skulls of 383 criminals, was elaborated through various means, including batteries of anatomical, physiological, psychological, intellectual, and moral tests, the development of analogical correlations with the vegetable and animal worlds, historical studies of the evolution of crime and punishment, as well as ethnological, linguistic, and social studies measuring certain groups for their relative proneness to criminality. The end result was the production of the born-criminal type, characterized by a set of hereditary physical, intellectual, and moral stigmata impervious to any kind of reform: Lombroso believed that the discovery of this type in criminals should lead either to execution or to permanent seclusion from society. Enrico Ferri, a lawyer, editor, professor, and at one time Member of Parliament, and Baron Raffaele Garofalo, whose career would include the functions of lawyer,

prosecutor, and magistrate, joined Lombroso and together these prominent figures formed the center of the *nuova scuola*, the Italian School of Criminal Anthropology. In 1880 the school launched its journal, *Archivio di Psichiatra e Antropologia Criminale*; in 1881 Ferri published his world-famous *I nuovi orizzonti del diritto e della procedura penale*. In 1885 Garofalo published his *Criminologia*, and the First International Congress of Criminal Anthropology was convened in Rome. By then the school had achieved an international reputation and was competing with the juridical and penal communities to influence the elaboration of the new Italian Penal Code. The Third International Penitentiary Congress, held in Rome at the same time, sent observers to the Criminal Anthropology Congress who voiced reservations in the face of the great success enjoyed by the theories of the *nuova scuola*. Alexandre Lacassagne, doctor of forensic medicine teaching at Lyon, sounded the first French rumblings and reminded the audience of the social nature of crime with his soon to be famous aphorism, "societies have the criminals they deserve."

The French opposition rapidly organized: Lacassagne launched the *Archives de l'Anthropologie Criminelle et des Sciences Pénales* in 1886 as the main publishing outlet of the sociological "Ecole de Lyon." Gabriel Tarde, a provincial judge, entered the debate with several articles and his *Criminalité comparée* of 1886 in which he introduced his theory of the criminal as a professional type, as distinguished by the demands of his or her career (both physically and intellectually) as would be a butcher or lawyer. Henri Joly Le crime: *Etude sociale* and *La France criminelle* made important contributions to the French sociological approach. When the second congress was held in Paris in 1889, the grounds for the battle against the *nuova scuola* had been well prepared. In their devastating attacks, Lacassagne and Tarde were supported not only by judicial and penal authorities, but also by leading anthropologists such as Léonce Manouvrier and Paul Topinard.

Manouvrier criticized Lombroso's theories for "criminalizing" anatomical traits of unknown significance: crime, in his view, was not necessarily contiguous to anatomy. He criticized the documents advanced as proofs of the theory of the born-criminal type (judging their numbers unreliable), and lamented the absence of a control group of honest men (while recognizing the difficulty of defining

"honest"). He further argued against the need for a pathological perspective on crime. Describing the born criminal as a "harlequin," he concluded that a born criminal could always find solace by considering that he was honest nevertheless. The Lombrosian type was also criticized by Topinard who stated that some of its defining characteristics were totally normal (such as facial asymmetry or plagiocephaly) while others amounted to simple individual variations from the norm (as in the relative size of the forehead, or differences in the cephalic index), which could not be considered as anomalies; other traits he described as pathological lesions which could be found in any social group, criminal or not. Tarde and Lacassagne insisted on the importance of social factors such as imitation and environment in the determination of a criminal career.

The Italians were not very successful in their replies, arguing generally about their irrefutable "facts" and resorting to ad hominem attacks, accusing their adversaries of contradicting themselves and of displaying great ignorance. They ended the final meeting by demanding that a committee be set up to make a comparative anatomical study of one hundred criminals and one hundred honest men, so that the next congress, to be held in Brussels in 1892, be based on facts and not mere speculations. The committee was formed, but never did the test; the Italian school protested by boycotting the third congress, during which the born-criminal type was generally pronounced dead by the assembly.

In 1901 the Deputy Medical Officer at Parkhurst Prison, Dr. G. B. Griffiths, began the comparative analysis demanded by the Italians. His project received government support and was extended to include the measurement of three thousand convicts from Borstal, Dartmoor, and Portland prisons. Dr. Charles Goring took over the study when he replaced Griffiths at Parkhurst in 1903, and eventually was personally responsible for a large part of the measurements and for the actual compilation and publication of the data, under the auspices of the government, in the 1913 book entitled *The English Convict. A Statistical Study*. This was presented as the final refutation of the Italian theoretical extravaganza. The British had remained rather aloof from the continental criminological debate, often advocating plain common sense as the only valid tool when dealing with crime and its perpetrators. In his introduction

Goring expressed the widely prevailing amazement felt by the English: "nothing is more startling than the organised confusion masquerading to-day under the scientific name of criminology." Indeed, Lombroso's serious descriptions were literally a joke for Goring, who could not help adding a few editorial comments when quoting the master, whom he described as "our intrepid explorer borne onward by the flood of enthusiasm."

At first sight, this would seem to provide a clear example of a scientific revolution as described by Thomas Kuhn: a change of explanatory paradigm within a scientific community, which makes communication between competing schools impossible—hence the mirth or violence of the polemics. The English Convict is generally recognized as the book which marked the beginning of a truly scientific criminology, and the end of the born-criminal type: did not its author state clearly that "Lombroso's criminology is dead as a science," and that "no evidence has emerged confirming the existence of a physical criminal type, such as Lombroso and his disciples have described"?

History revisited There are many problems with this history of criminology. The first arises when one considers that Lombroso's *L'Uomo delinquente* presented very little original information: as was shown in chapter one, there was a wide consensus among medical doctors, government, prison, and police officials, sanitation experts, and philanthropists as to the existence of a separate kind of criminal beings, a primitive, degenerate, and immoral race which needed to be controlled and segregated from the rest of the community. Long before Lombroso, penitentiary scientists had promulgated the need to turn from the abstract crime to the criminal individual, and called for the establishment of indeterminate sentences allowing the punishment to fit the criminal's inner perversity rather than his or her actual crimes; early statisticians had correlated crime to such factors as race, sex, and climate, and developed the notion of an innate propensity to crime; medical doctors had studied the hereditary transmission of this propensity, and identified a set of physical stigmata manifesting its presence in individuals and families; all the subgroups involved in the social management of the "lower orders" easily recognized an incorrigible segment among them, which should be isolated permanently from

the rest of the community. Lombroso's techniques for proving his theory were also widely used and some were over fifty years old: recourse to skull measurements, criminal statistics, and other testing techniques to quantify the relative importance of heredity or degeneration in criminality were hardly new; the drawing up of hierarchical tables establishing the innate criminal propensity of the "lower orders" or races, or of women and children generally were common preoccupations which arose in all kinds of medical and sociological treatises. Even Lombroso's now rather comical comparisons with the vegetable and animal reigns were not unusual in his time.

In the face of these resemblances in both methods and results between the works of Lombroso and a great number of medical, legal, political, and social treatises, the first question to be raised is why did *L'Uomo delinquente* cause such an international commotion? What were the reasons for its function as a discursive event, from which a new science would emerge?

Traditional historical outlines of criminology also fail to account for the fact that in spite of violent rhetoric and emotionally charged confrontations, there were very few significant differences between the competing schools of anthropological and sociological criminology. Lombroso only claimed that 40 percent of criminals were born with physical constitutions which inevitably led to deviant behavior, and recognized the importance of other factors such as race, climate, sex, and environment in the determination of 60 percent of criminal activity. Ferri insisted on the importance of these factors as well in his *Sociologia criminale*. Conversely, while the French school accentuated social factors, it recognized an innate, incorrigible, and largely hereditary perversity in some criminals, and a personal propensity for evil in most, if not all, of them. Tarde put it quite succinctly: "Stimulations to crimes, from social or other origins, can only be exercised on individuals more or less predisposed to receive them." This confusion of social and biological factors generally originated from a social Darwinist perception of society, whereby social winners were the most physically fit for the struggle for life—and vice versa. Charles Fere could thus recognize the fact that most criminals were indigent, and blame their criminality on inferior physiology and morality, rather than on abject poverty.

Tarde's notion of the criminal as a professional type, as opposed to Lombroso's born type, illustrates the very fine line drawn between biological and social factors by the most combative representative of the French sociological school. Indeed, Tarde contended that every profession--including the criminal one--carried its particular physical type, not only because of the repetitious use of the same muscles, but also because individuals born with the talents required by a specific profession were naturally attracted to it. The class of professional criminals thus consisted of the "naturally" ugly, lazy, perverse, and vicious, who were "born" into the trade--a concept not that far removed from the Lombrosian one. Tarde even recognized the rare existence of innate criminals, who could be neither cured nor reformed.

Joly argued in a similar vein: insisting on the social character of crime, he nevertheless continually described it as the outcome of vicious and perverse individual desires. The social milieu was defined in a way that made the "sociological" approach somewhat limited: "The milieu of crime is society, or in other words, it is the set of affections, sympathies, encouragements, and concurrences, but also the rivalries, competitions, jealousies, enmities, and hatreds which constitute the common life of humanity." Not surprisingly, this definition of society led to rather vague suggestions as to the measures which needed to be taken to prevent crime: "The mission of public authorities is then to do everything which, while respecting individual freedom, can bring the propagation of what is good and prevent the propagation of what is bad." Manouvrier followed roughly the same lines as he described criminals as the most unfavored "physio-sociologically" and recognized that they were on the average slightly more imperfect anatomically than the noncriminal or truly honest population. He actually narrowed the definition of social milieu by claiming that no two individuals could be said to belong to the same one; he insisted that a single word, gesture, or look could significantly alter anyone's environment. The sociology of the French opposition was thus so mixed with moral and psychological data as to reduce the antagonism between the two schools to a matter of degree.

Finally, no matter how strongly he ridiculed Lombroso, Goring himself ended up with the same results under slightly different labels:

The physical and mental constitution of both criminal and lawabiding persons, of the same age, stature, class, and intelligence, are identical. There is no such thing as an anthropological criminal type. But, despite this negation, and upon the evidence of our statistics, it appears to be an equally indisputable fact that there is a physical, mental, and moral type of normal person who tends to be convicted of crime: that is to say, our evidence conclusively shows that, on the average, the criminal of English prisons is markedly differentiated by defective physique as measured by stature and body weight; by defective mental capacity-as measured by general intelligence; and by an increased possession of wilful anti-social proclivities--as measured apart from intelligence, by length of imprisonment.

Goring, like Lombroso, found a marked association between criminality and "alcoholism, epilepsy, sexual profligacy, ungovernable temper, obstinacy of purpose, and wilful anti-social proclivity--everyone of these, as well as feeble-mindedness, being heritable qualities." He even went further than Lombroso in discounting environmental factors: "relatively to its origin in the constitution of the malefactor, and especially in his mentally defective constitution, crime is only to a trifling extent (if to any) the product of social inequalities, of adverse environment, or of other manifestations of what may be comprehensively termed the force of circumstances." Goring's suggestions for a "crusade against crime" were the conventional ones: education, imprisonment, or sterilization.

These striking similarities between the different schools' evaluations of criminals and the necessary means for their elimination lead to a second question: what were the arguments about? What stakes produced this international discursive event over, what would appear to be, a general consensus?

A third problem posed by historical accounts of the emergence of criminology concerns the identification of Goring's work as the beginnings of a true science. In fact, criminology did not steadily develop from these pioneering texts; its elaboration was marginal and tentative at best, nonexistent in many of the Western countries contributing to its early recognition. This surprising lack of development was documented in the late 1950s, when the University

of Cambridge sent Leon Radzinowicz, a renowned authority on criminal matters, on an international investigation of the state of criminological studies, with the intention of rejuvenating their own work in the field. The results of this fact-finding mission were published by Radzinowicz in a book laconically entitled *In Search of Criminology*. Every country the author investigated seemed to offer the same, rather dismal, results: behind a façade of illustrious institutes offering degrees or certifications in criminology were found haphazard programs, with no funds and very little staff, offering incongruous mixtures of practical and theoretical courses to small numbers of students. In Italy, for example, much pomp and circumstance accompanied the official inauguration of the Institute for the Study of Criminal Sciences in the School of Law at the University of Rome on February 18, 1912. Among the honored guests were the "Prime Minister, the Ministers of Justice and Public Education and other members of the government, the President of the Senate, the heads of the judiciary, the Chief Public Prosecutor, the leaders of the bar, the Mayor of Rome and many other personalities prominent in the cultural and political life of the capital." The event was internationally recognized as a major breakthrough for criminological studies. And yet, apart from space in the law faculty and a library, the institute received no funds for research or the appointment of senior staff; its four months' courses provided students (law students, police and prison officers, and indeed anyone who met the director's criteria) with certification if they attended class, and a diploma if they passed an oral exam. In 1961 Radzinowicz described the institute as "at present in a state of disintegration," and affirmed that "the fate of the school at Rome is symptomatic of the condition of criminological studies in Italy generally." France presented a similar tableau, in that its eleven institutes of criminology established within faculties of law across the country were "all in a grave predicament," not only as far as funds were concerned, but also in regard to their theoretical and practical orientation. Radzinowicz summed up the situation as follows: "The path to the recognition of criminology as an academic science is still rugged and thorny. What parades under the name of criminology is no more than a cursory survey of elementary information about the treatment of offenders, tacked on to the instruction of law proper."

Why did the development and consolidation of the field of criminology prove to be such an arduous, if not impossible task? What were the stakes involved in its sudden emergence and subsequent failure on an international scene? If no new or especially revolutionary knowledge was being produced, what factors accounted for the fierce competition between schools, the scramblings of the penitentiary scientists, and the interest of the press? Why were criminological institutes established with great ceremony and then left stranded with no money and no staff?

Strategic Positioning : The Italian School of Criminal Anthropology never considered its main goal to be purely theoretical: from the start it affirmed in a combative tone that the scientific facts it uncovered about criminals demanded a reevaluation of the entire judicial and penal systems. Denying any reality to the concept of free will, they repudiated penitentiary reform procedures; they asserted the need to broaden the legal minds of magistrates with the scientific advances of medicine, psychiatry, and sociology; they called for the abolition of the jury, who could not be expected to have the necessary expertise to determine whether or not a criminal was of the incurable born criminal type. All of these proposals threatened established judicial and penal organizations which did not welcome this apparent takeover move by newly self-proclaimed criminologists.

Unlike their Italian adversaries, members of the French school were careful not to tread on the territory of penal and judicial authorities: their milder version of determinism, which recognized environmental factors as well as individual moral perversion, did not attack the theoretical grounds for either the right to punish or the value of reform procedures. Such a compromise offered the distinct advantage of not attacking the position of the *juge d'instruction*, whose work depended largely on the presumption of free will and reasoned behavior in the accused. Moreover, the doctors of forensic medicine involved in the French attack had special reasons to nurture good relations with the judicial community, as careers in their field depended entirely on the judge's discretionary power to allow professional testimony in his court: Robert Nye makes these points and insists that any serious rift with the judicial community could jeopardize "income and professional status.

Finally, the French appreciated the importance of their credibility with the juries, and hesitated to use radical theories which could alienate them from public opinion: Magnan thus argued during the second congress that the born-criminal type was useless, and that only the individual examination of suspects by doctors of forensic medicine could be of value to presiding magistrates.

Penal authorities were equally unwilling to accept the notion that physical constitution could determine criminal behavior, as this idea attacked their mandate of education and reform. During the second congress, Herbette, the French director of penitentiary administration, spoke of the necessity of tact and discretion in the rendering of this public service. Arguing against biological determinism, he advocated the need for criminologists to adopt psychological explanations for deviance, which would preserve the notions of human conscience and liberty, and encourage both prison officials and inmates to persevere in reform. The French school of criminology would heed these warnings.

Finally, the zeal with which anthropologists of the stature of Manouvrier and Topinard joined in the attack against the *nuova scuola* is at least partially explained by Nye as a measure to protect the integrity of their science: they opposed applying the word "anthropology" to Lombroso's project, and Topinard asked the assembly of the second congress to use Garofalo's term, "criminology," rather than criminal anthropology. Manouvrier, surely the most active critic of the congress, attacking representatives of both the Italian and the French schools, particularly resented attempts to annex parts of the anthropological field, and argued that the criminological venture could only make sense as a subsection of anthropology.

The convergence of these different interests thus explains why judicial and penal authorities, doctors of forensic medicine, and anthropologists alike could rally in a common opposition to Lombrosian doctrines. The debate over criminal anthropology illustrates how a subgroup could attempt and fail to gain power through the determination of a new field of specialized knowledge. The Italian Code of 1889 repudiated the positivist doctrines and did not even recognize limited degrees of criminal responsibility; the freedom enjoyed by penal authorities in the determination of the proper means of administering punishment continued to increase;

law students, magistrates, and judges were not retrained in criminological science. However, power struggles among subgroups involved in the administration of the criminal justice system do not fully explain the violence of the opposition to the Italian school. There seemed to be a general consensus in social discourse, not just in scientific circles and in penal administration but also in the press, to reject the Lombrosian definition of criminal man. The reasons for this rejection will only become apparent through further textual analyses, but before undertaking this task, the role of the state in the emergence of criminology needs to be considered a little more closely.

As a rule, the institutionalization of a science requires the backing of the state in one form or another, yet it seemed of particular importance in the case of criminology. State governments actively promoted the development of criminology and the personal advancement of its proponents. Delving into criminological matters brought considerable personal reward and public recognition. Tarde was a rather obscure provincial juge d'instruction for over twenty years until his works in criminology became known internationally: he then was appointed director of criminal statistics in the Ministry of Justice in 1894; in 1900 the assembly of professors at the College de France elected him for the Chair of Modern Philosophy, a vote ratified by the minister. Both he and Lombroso received ranks in the Légion d'Honneur. Apart from giving awards, state governments usually sponsored criminal anthropology congresses, and moreover sent delegates to them—a level of support which was always gratefully acknowledged. Even when the Italian school boycotted the 1892 congress, representatives of the Italian government did attend.

As previously noted, however, this celebratory backing for congresses and awards was paradoxically not followed by adequate financial provisions for day-to-day pedagogy and research, at least not until conditions were more favorable. In 1961 Radzinowicz could still complain of the unwillingness of governments to fund criminology, citing the U.S. Congress as a prime example of this reticence. This situation, however, radically changed in the mid-1960s, when a much publicized crime wave prompted the president of the United States to declare a war on crime in a speech to the House of Representatives. The Omnibus Crime Control and Safe Streets Acts was passed by Congress, and from then on formidable

funds were made available, and schools and institutes, government committees and official inquiries proliferated once more. All the major original criminological texts were reprinted, and once again, the need to know became a critical issue. The President's Commission on Law Enforcement and Administration of Justice stated in 1967: "The Commission has found and discussed many needs of law enforcement and the administration of criminal justice. But what it has found to be the greatest need is the need to know. There is virtually no subject connected with crime or criminal justice into which further research is unnecessary." Somewhat predictably, a new science emerged: "victimology" made its official debut at an international symposium held in Jerusalem in 1973. The new field of knowledge was divided just as criminology had been roughly a hundred years earlier. Its main concerns were "the definition of the concept of the victim," "the locus of victimology in the realm of the social sciences," "victim definition and classification, and their impact on empirical research," and, of course, research into the means of providing "the restoration of the social equilibrium in all its aspects, individual and collective, following the disturbance by the criminal act," and the discussion of "problems related to the treatment of the victim at the hands of the criminal justice system."

The similarities between the modern resurgence of criminology and its emergence at the end of the nineteenth century are amazingly numerous and far-reaching. All the old theories are being revived, from the simple recognition of innate individual evil ("Wicked people exist. Nothing avails except to set them apart from innocent people,") to the utilitarian, professional view of criminal activity ("A person commits an offense if the expected utility to him exceeds the utility he could get by using his time and resources at other activities,") and its accompanying deterrence theory of punishment. Once again, the boundaries between criminal and deviant behavior are becoming blurred, while attempts are made to expand state processes of social control. Richard Quinney illustrates this expansionary movement in his *Class, State and Crime* by discussing the recommendations given in the 1975 report of the National Advisory Commission on Criminal Justice Standards and Goals, which include a suggestion that alternative agencies be established to handle deviant behavior:

The Commission advises, in particular, alternatives to legal processing outside of the criminal justice system. Cases are to be diverted from the courts, and new agencies ("non-criminal-justice institutions") are to deal with cases formerly handled by the police and the courts. This leaves the criminal justice system free to deal with serious offenses against the state and the economy and at the same time makes a wide range of social behavior subject to surveillance and control by the state. Criminal justice is expanding.

Thus criminology has a history of emerging--or at least of becoming a social issue of enough importance to be publicized and promoted--when the state lets it. The intertextual circulation of criminological discourse has coincided with periods marked by civil unrest: during the great depression of the end of the nineteenth century, when movements fighting for the rights of the working classes in general or women in particular were increasing their momentum, and toward the end of the twentieth century, during the 1960s and 1970 s, when civil rights movements, ban-the-bomb marches, feminist organizations, and even consumer groups were actively protesting established structures of authority. It is as though organized opposition to power-knowledge relations triggered the proliferation of discourse and research on criminals--as though criminology's first function was to generate discourse capable of widening the definition of deviance and of authorizing tighter control procedures. As other discourses dealing with crime were already in place (penitentiary and police sciences, legal definitions of crime and punishment), it seems possible to assume that the concept of "criminal man" (or the current "dangerous offender") must present specific ideological advantages warranting the emergence of criminology, the science of "criminal man," when authority structures are threatened. An analysis of the textual modes of production of scientific knowledge on the criminal at the end of the nineteenth century will clarify this issue.

5

CONDITIONS OF EMERGENCE: RUNNING THE SHOW

Introduction

The golden age of the press in England and France was one of unprecedented expansion. Newspaper sales rose dramatically: there was a fivefold increase in the circulation of Parisian dailies (and a tenfold increase of provincial dailies) between 1875 and 1914, while sales in England multiplied by at least 600 percent after 1856. Unprecedented profits were reaped in this ever expanding market. With the price per issue and the French franc remaining stable, the gross profits made by *Le Petit Parisien* increased 55 times between 1880 and 1914, going from 85,000 to almost 5 million francs. Before the harder times caused by the split over Home Rule, the *Daily News* gave dividends of 133 percent. From a sideline occupation of printing establishments, the newspaper business was transformed into a full-fledged industry requiring large amounts of capital for its operations; its organizational structure evolved from small family firms and partnerships to joint-stock companies in the 1860s, corporations and syndicates in the 1880s, and to the beginnings of the amalgamated press at the turn of the century. Ownership was concentrated to the point where in London in 1910, as noted by A. J. Lee, "two-thirds of the morning and four-fifths of the Sunday circulation was shared

by only four proprietors." In Paris in 1914 four large dailies together sold 4.5 million copies a day, or 75 percent of the capital's newspaper circulation and 40 percent of the total circulation of all French dailies. The end result was the creation of a few large, vertically integrated enterprises, owning their own paper and printing plants, office buildings, distribution networks, and, at times, advertising agencies.

The emergence of mass-produced dailies and their rapid growth have often been correlated to the expansion of the middle and lower middle classes, and to various transformations occurring in the marketplace which made mass advertising an integral part of business development. In *The Long Revolution*, Raymond Williams argues that whereas most products were sold without elaborate advertisement at the beginning of the factory system, during the second half of the nineteenth century product branding (especially in new patent foods) and attempts to organize and control the market made large-scale advertisement, mainly through the medium of the press, absolutely indispensable. A mass-produced press drawing most of its revenue from advertising thus allowed big name products to be successfully launched on the market and new department stores to attract sufficient numbers of consumers to sell cheaply by selling more.

Financial circles, both foreign and domestic, engaged in intricate exchanges to secure their interests through the press. Foreign embassies routinely bought the services of politicians and journalists to promote investment in their countries, as shown in the vast orchestration of favorable articles which took place immediately before and during the 1904-05 revolution, in order to secure Russian funds. The handling of such funds became a normal part of political, financial, and journalistic operations. Domestic financial manipulations (epitomized in the Panama Canal scandal), usually involved the farming-out of stock market reports and financial bulletins in newspapers. As favorable reports needed to be unanimous to be effective, specialized firms were established to act as intermediaries between advertisers and newspapers; such firms were often connected with commercial advertising agencies. Monopolistic trends were soon noticeable in these practices, and denounced by parties as diverse as the police prefecture (which warned of the dangers inherent in this situation in an anonymous report in 1914) and Jaures, who lamented the organization of a trust

of financial reports leading "all of public opinion like a herd along the same path" in a speech to the Chamber of Deputies on April 6, 1911.

The effectiveness of such criticisms, however, was limited by the close relations between the press and government which accompanied these economic developments. At the beginning of the nineteenth century, printers and publishers involved in newspaper production were denied access to government and judiciary positions, as it was feared that journalists on the local council or bench would be dangerously susceptible to bribery and political manipulation. Even in the 1880's it was considered difficult for a journalist to assume the function of Justice of the Peace; by the end of the century, however, such reservations were considered obsolete. Journalism had acquired the status of a profession, and the positions of academic, lawyer, journalist, M.P., or J.P. were often considered as interchangeable in a successful career path. Ministers often used honors to secure friendships among journalists; theirs was the most decorated profession in France, while famous English journalists were often ennobled. These individual links were redoubled at the institutional level. In spite of its loudly proclaimed freedom, the press continued to receive political subsidies; governments also used monopolistic news agencies to filter foreign news according to their priorities.

Thus during the last quarter of the nineteenth century and up until the First World War, political, economic, and press interests converged to the point where orchestrated manipulations of information (foreign or financial news, and political coverage) could take place routinely, with large sums of money being involved. Governments could filter foreign news and direct financial reports through the collaboration of news agencies and individual newspapers and journalists; these in turn were given privileged information, titles, and money for their services. Financial groups could also use the press to obtain access to French savings and to counteract social developments considered harmful to business development, such as the rise of socialism before the war.

These developments were bitterly denounced by some contemporaries. L.T. Hobhouse wrote in 1909: "the Press, more and more the monopoly of a few rich men, from being the organ of democracy has become rather the sounding-board for whatever ideas

command themselves to the great material interests." Such criticisms were countered with affirmations that the press had obviously never been as free, as strong, and as widespread in its readership; anyone with a halfpenny could have access to the news of the world; there had never been a greater popular educator.

The implications of a mass market When the economic survival of newspapers depended on political subsidization, their target market was necessarily a small group of readers sharing the same political beliefs and enjoying an elevated economic status. In an article entitled "La presse parisienne," Emile Zola described the relationship between the newspapers of the first half of the nineteenth century and their readers in terms of a family where each member had respect for and faith in the paper received at home, read thoroughly from title to advertisements, and collected with pride over many years. Papers were not sold on the street and did not fall into the hands of passersby: each copy was addressed to a specific subscriber. The primary product of such a press was opinion, or "influence" sharing: a newspaper's viability depended on how well it answered the political and economic aspirations of both its backers and its audience. This applied even to The Times which, although it proclaimed its independence from political subsidization in the 1830s, owed its success mainly to its ability to crystallize the economic and political expectations of its middle-class readers. Made famous by its thundering for reform ("The Bill, the whole Bill, and nothing but the Bill"), the paper always knew how to pick a winning cause, and stand "ever strong upon the stronger side."

The economic survival of emerging mass newspapers depended on circulation. This new basis for newspaper production, which still applies today, radically transformed the end product of the press, as outlined by Roger Martin in the Canadian newspaper The Globe and Mail (July 28, 1983):

In studying the structure of an industry it is necessary to define the product and its market. The definition of the product of a modern newspaper is important to the analysis. At first blush, the answer appears to be news information, but in actuality the product is not information that is sold to readers; it is readers who are "sold" to advertisers. Fully 80 per cent of newspaper revenue comes from this source. The reader is part of the production process;

to sell its product, the newspaper must "produce" readers. If it cannot produce readers it has no product to sell.

The target market thus necessarily became the mass, or the broadest possible cross-section of the reading public. The methods used to attract and maintain mass readership radically transformed press content and selling procedures.

From the outset, marketing techniques were geared to capture street consumers through their curiosity, senses, and emotions. Mass journalism started with a bang: vendors cried out sensational titles, shoved free first issues of the latest serial in the hands of pedestrians, and ran behind buses offering their papers at the end of a pole to the passengers; bands followed by carriages or bicycles proclaiming a new title roamed the streets, which were often painted over with ads; buildings were covered by posters; sandwich men worked the sidewalks and squares—city streets were overtaken by a sudden flow of more information, for more people, for less money than ever before. Tubes filled with gold sovereigns were buried in the streets of London and Paris, and readers searched for clues in the newspapers and for treasure in the streets. Ties of friendship and solidarity between readers and "their" newspaper were carefully fostered to promote sales: insurance against railway accidents was offered by Newnes' Tit-Bits, and sales shot up to 700,000; to help readers of Pearson's Weekly through an influenza epidemic, the paper was sprayed with eucalyptus. Newspapers "took care" of their readers, not only by providing information, but also by giving them a chance in life: to get a prize, find financial security, become a winner.

This family spirit, however, had to be broadened to produce enough readers, and national events were sponsored by the new penny dailies. The Daily Telegraph, famous for its appeal to save the elephant Jumbo in 1882, organized the presence of 30,000 children in Hyde Park for the 1887 Jubilee. Sports activities were also backed by major papers, with Le Petit Journal, for example, sponsoring the first bicycle race between Paris and Brest in 1891, and the first automobile race between Paris and Rouen in 1894. As good corporate citizens, newspapers also championed charitable and patriotic ventures. National subscriptions organized by the Parisian press provided the French naval forces with a submarine in 1899 (thanks to Le Matin's campaign), and the same method was

used to offer the war minister, Alexandre Millerand, the first military air force in the world. Despite appearances to the contrary, newspapers were essentially accomplishing the same task when they were fighting to save an elephant or to establish a military air force: their prime concern was to mobilize a mass market for their product. In the process, penny dailies gained a higher status as they participated in the moral, civil, and military life of the nation. In spite of their dubious taste for trivia and their frivolous ad campaigns, the noblemen in charge of the cheap press after all did run charities and participate in government and military operations.

Competition was fierce between large newspapers, and the name of the game to increase circulation was to flatter the most while offending the least. Even witch hunting required tact; during the Dreyfus affair, *Le Petit Journal* lost 600,000 readers to *Le Petit Parisien*, for having talked too much about the matter. The last editorial, which tried to close the subject long after the readers had gone, started with "What if we talked about something else." From the precarious position of filling page after page with the least (the least economic, political, social, or religious issues) to acquire the most (a national readership covering as many classes as possible) came many of the characteristics of new journalism: the accent on the human interest story, the interview, the endless columns of *faits divers*, more sports, less politics, and so on. These were the traits that made many describe the cheap papers as "feather-brained," and blame the mass for their existence. Matthew Arnold, the man credited for coining the phrase "new journalism" described the situation as follows: "it [new journalism] is full of ability, novelty, variety, sensation, sympathy, generous instincts; its one great fault is that it is feather-brained. Well the democracy, with abundance of life, movement, sympathy, good instincts, is disposed to be, like this journalism, feather-brained."

However comforting this argument might seem, the readers of the mass-produced newspapers were not yet the "million." Apart from statistical evidence demonstrating that not everyone bought a newspaper, it is hard to imagine people living in slums going without food to read the latest news. The cheap papers found their readers in the middle and lower middle classes, the new army of clerks, shopkeepers, and skilled artisans. Moreover, it was becoming apparent even at the time that all newspapers, including the

prestigious ones, were adopting at least part of the new journalistic formula. Finally, it is not inconceivable that the serious readers of *Le Temps*, for example, who enjoyed its melodramatic serial crime novels, could also indulge in *Le Petit Parisien*.

The theoretical premises of the present study suggest that the economic and political basis of the commercial dailies narrowed the range of their allowable content until it became feather-brained: the new press could only champion conservative political, economic, and artistic interests. Conversely, to build up circulation and win a larger share of the reading market, it had to promote winning causes, issues considered safe and simple: nationalism and its adjuncts, militarism and imperialism, Revanche, spy mania, and, most prominently, crime stories. This double process of narrowing the range of sayable, acceptable truth while promoting specific discursive exchange has been described by Roland Barthes as the most powerful form of censorship: "Real censorship, however, deep censorship, does not consist in prohibiting (in cutting, excising, starving), but in overfeeding, in maintaining, retaining, choking and ensnaring in stereotypes (intellectual, romantic, erotic), in giving as all nourishment the consecrated speech of others, the repeated material of current opinion. The true instrument of censorship is not the police, it is the endoxa." If this content appeared superficial at best, manipulative at worst, it certainly was not trivial-too much money and political power were involved for the press to be so dismissed.

6

DETERMINANTS AND PREVENTION OF CRIMINAL BEHAVIOR

Introduction

Social and behavioral scientists have created a large body of empirical literature on the determinants of delinquency and crime, much of which has relevance for policing. Some of this knowledge cannot readily be translated directly into practice, but it can help place the police role in perspective and suggest where the boundaries of and opportunities for effective crime prevention by the criminal justice system may lie. At the same time, research on the determinants of crime and delinquency gives some clear guidance about the comparative likelihood of offending by different groups and to the nature of crime and delinquency that is typically encountered by the police. Because it is not possible to review all of the large literature on the correlates of delinquency and crime in one short chapter, it is perhaps best to discuss the findings concerning the strongest and most robust determinants. Accordingly, in this chapter, we first review some of the major, agreed-upon psychological correlates of delinquency and crime and describe in broad terms the nature of the most common forms of delinquency and crime. We then explore some of the implications of these facts for policing.

Early Sources of Delinquency and Crime

Of overwhelming importance to expectations about policing is the now well documented finding that individual differences in the tendency to commit crime, delinquency, and analogous acts can be documented very early in childhood. Psychologists have used a variety of techniques to measure the tendency to engage in delinquency, over an extended period of time and in a variety of cultures, and have discovered that differences in this tendency reliably predict difficulties with the law prior to actual involvement with the juvenile or criminal justice system. The variety of markers for later problem behaviors include such early childhood behaviors as repeated temper tantrums, dysfunctional family life, poor intra familial relations, misconduct in the first few years of school (such as truancy, tardiness, and inability to conform in the classroom setting), low measured intelligence and academic difficulty in school, childhood accidents, poor peer relations, and early and frequent use of tobacco and alcohol.

On the basis of such markers, researchers from a variety of disciplines, ranging from psychology and family studies to sociology, have shown the ability to measure reliably a trait (essentially a cluster of these early behaviors) that differentiates individuals in the probability of subsequently engaging in a wide variety of delinquent acts. Several measures of delinquency and crime have been used to establish these differences, including official police reports on contacts, arrests and convictions, questionnaires and interviews in which children report on their own behavior (so-called "self-report" methods), and interviews with family members and teachers. With very few exceptions, these correlates are found regardless of the method used to measure delinquency and crime. In a large number of such studies, the children have been followed through adolescence and into adulthood and it has been shown that these early differences in misbehavior correlate substantially with misbehavior later in life. That is, children who are found to have high rates of misbehavior in early childhood, in comparison to other children, are likely to have higher rates later in life as well.

The fact that differences among individuals in the tendency to engage in delinquency can be measured so early in life and that these differences are correlated substantially with later problem

behaviors have lead researchers to focus attention directly on the childhood years in a search for the determinants of both juvenile delinquency and adult criminality. Increasingly, criminologists have documented large correlations between differences in family functioning and the development of these antisocial or problem behavior tendencies. Thus, it is known that differences in parental disciplinary practices are substantially correlated with the tendency to engage in problem behaviors. Overly lax, or erratic, discipline and unusually harsh, or cruel, discipline are strong correlates of this tendency. Additionally, criminologists have documented that a strong affectional bond between parents and their children serves as a barrier to delinquent conduct. For example, in his initial description of what has come to be called control theory, Hirschi showed that children who admire and respect their parents, children who have parents that supervise their activities, and children who think about the future and how their actions might affect desired goals, are considerably less likely to engage in delinquency than are others. In other words, children who have strong attachments to parents, to friends, to the school and other conventional institutions are much less likely than others to become delinquent as children or criminal as adults. The robustness of control theory principles have been further substantiated and expanded in more recent operationalizations investigating the link between elements of a weakened bond between parents and children and the later deviance of the youth.

An additional family factor in delinquency causation appears to be the criminality level of the parents; parents who themselves have extensive records of criminal and delinquent involvement are much more likely than other parents to have delinquent children. However, recent investigations have shown that an aggregate generational relationship between parent and child crime may be only temporarily important for the behavior of the child. Family size also seems to be a reliable predictor of delinquency; all things being equal, larger families (in terms of the number of children relative to the number of caregivers) have higher delinquency rates. Nevertheless, life-course research has shown that the effect of cramped housing conditions (more family members than rooms) on deviant activity fluctuates as one ages. Therefore, these relationships

appear much more complex than had been previously believed and may require research to attend to the changing effect of family composition on deviant behavior.

A recent thorough empirical analysis of the relation between family functioning and delinquency by Sampson and Laub concluded that family "process" variables, such as supervision, attachment and discipline, are among the most important predictors of delinquency. Furthermore, these family process variables seem to mediate the effects of social structural variables that tend, in the aggregate, to go together with family functioning variables.

The importance of family functioning—supervision, attachment, discipline, and parental absence—in the causation of crime and delinquency is no longer in much dispute. Although the mechanisms by which these factors affect delinquency continue to be argued, systematic reviews of the literature reveal these family correlations across a wide range of settings, times, and cultures. A recent meta analysis of the family/delinquency relationships by Loeber and StouthamerLoeber concluded that family socialization variables—supervision, affection, and involvement with children—are among the most powerful and consistent predictors of delinquency revealed in the psychological research literature.

Factors related to the school and to educational potential have also been established as reliable correlates of early problem behaviors and later delinquency and crime. Consistent differences in scholastic performance and in scholastic ability have been established across a wide range of subjects and for a considerable period of time. Delinquents, relative to nondelinquents, perform less well in school beginning at an early age and score lower on tests of scholastic abilities.

Attitudes toward school also differentiate delinquent tendencies. Relative to nondelinquents, those highly engaged in delinquency and analogous behaviors report disliking school and have very weak attachments to their teachers. They have higher rates of school misconduct, including truancy, tardiness, and within school disciplinary records.

There is reason to believe that these family and school correlates of early delinquency tendencies reflect differences in socialization. Each can be seen as an indicant of developmental differences in the

ability to defer immediate gratification for longer term goals what has been referred to as self-control. Not only can such differences be measured early in life, but they predict involvement in a variety of delinquent and criminal activities. The manner in which attachments to family, friends, and school are developed and self-control becomes established are areas of active research for psychologists and sociologists. Research supports the idea that these develop as a direct consequence of differences in parental action. Gottfredson and Hirschi argue that both supervision and socialization are critical ingredients to delinquency prevention in the family, although of varying importance at different ages. Parents who consistently monitor their young children's behavior, who recognize the signs of deviancy in them, who themselves are committed to the long-term interests of the child, and who sanction inappropriate behavior when it occurs have children with many fewer behavioral difficulties in adolescence. Such parenting practices effectively socialize children and develop in them self-control, an enduring characteristic that serves as a barrier to delinquency and crime over the life course. Employing a rational-choice model, in which humans are expected to pursue pleasure and avoid pain, self-control theory argues that individuals vary in the extent to which they have been socialized to attend to painful consequences of criminal and delinquent acts, particularly those that are far removed from the immediate situation. Since delinquencies and crimes can be seen as providing universally sought pleasures (money, a good feeling, freedom from the constraints of school, dominance in an interpersonal situation, etc.), what differentiates some individuals from others is the degree to which they succumb to pleasures of the moment at the risk of negative long-term consequences. Individuals who do not care about parental or school reaction, or who have less to lose because of a lack of success in school, or who discount future consequences of acts, are said to be "free to deviate" because they are not restrained by ordinary socializing influences. They are, therefore, more likely than others to fall prey to the temptations of the moment.

In any event, the psychological research literature clearly documents that a trait representing individual differences in the tendency to commit delinquent and criminal acts is established very early in childhood and must be construed to be a major determinant of crime and delinquency. This is not to imply that situational factors

are not also determinants of delinquency and crime; indeed, as discussed next, research on the characteristics of criminal events clearly identifies some strong situational factors. Although other causes are influential, differences in childhood socialization by the family and the school that result in individual differences in self-control have a profound influence on the amount and distribution of delinquency and crime in society, a fact with considerable relevance for ideas about policing.

Peers and Crime

Two correlations between delinquency and peers are among the strongest that have been reported by researchers: (a) A very considerable amount of delinquency is committed in the company of others, and (b) Delinquent individuals are much more likely than others to report having delinquent friends. Interpretations for these long-established correlations differ among criminologists. Those in the social learning tradition argue that the basis for these correlations is the tendency of delinquents to recruit nondelinquents into membership of delinquent gangs or groups and to teach the skills, attitudes, and motives necessary to engage in delinquency. Those in the control theory tradition argue that "birds of a feather flock together"—that is, that individuals select friends and companions in part on the basis of delinquent proclivities and in part on the basis of availability (i.e., teens who are not in school during the day or who are out of the home after 2 Am are not a random representation, of teens). As noted before, many delinquents have very few friends, because some of their attributes do not lend themselves well to friendships. To control theorists, the fact that delinquents tend to have delinquent companions and that nondelinquents tend to have nondelinquent companions is not of causal significance (delinquent peers do not cause others to be delinquent) but rather reflects natural groupings of adolescents along dimensions strongly related to delinquent tendencies. It is known that relative to nondelinquents, delinquents have weaker affectional ties to their companions. Work on delinquent gangs suggests that gangs tend to be loose networks with highly unstable membership and that members do not trust and even tend to dislike the other members, suggesting that gangs tend to be much less well organized than commonly supposed.

Whatever the causal significance of delinquent peers, it is known that groups of adolescents will tend to be relatively homogeneous on the tendency to engage in delinquency.

Age and Crime

The relationship between age and crime is one of the most significant and well established general correlates in the field of criminology. For at least 100 years a characteristic relationship has been established between age and rates of offending, especially for common-law crimes: Crime rates rise dramatically in early adolescence, peak sharply in the late teens and early 20s, and then decline precipitously and continuously throughout life. First described in detail by the English criminologist Charles Goring in his classic study *The English Convict*, the age effect is a robust and powerful indicator of the tendency to commit crimes and delinquencies. Figure 6.1, constructed from the FBI's Uniform Crime Reports arrest statistics, shows this characteristic distribution by presenting age-standardized robbery arrest data for a recent year. With only modest variation in mode and in the rate of decline with age, this distribution has been found to characterize the relation between age and crime, albeit at markedly different levels, regardless of gender, ethnicity, culture, period, and type of crime.

The relationship between age and crime resists explanation by psychological and sociological variables. Because it is found for assaultive offenses (such as homicide, forcible rape, and aggravated assault), for theft offenses (such as burglary, auto theft, fraud, and embezzlement), and for drug offenses (including both hard and soft drugs and alcohol use), the relationship does not seem to depend on the offense under consideration.

Several features of the relationship between age and crime merit note in the context of this chapter. First, the magnitude of the effect is difficult to overstate. As in the example of robbery in Fig. 6.1, most common-law offenses can best be characterized as teen-age behavior. A vastly disproportionate amount of crime will be committed by those in late adolescence and very early adulthood. A related feature pertains to the very rapid decline in crime rates with increasing age after the teen years. The rate of robbery in Fig. 6.1 falls to half its peak by about age 24. Although crime rates continue to decline throughout

adulthood (much to the mystery of most theories of crime causation), it is fair to say that at least by age 30 most of the crime committed by any cohort has already been accomplished. It may be thought that the age curve depicted in Fig. 6.1 results from the situation that some older, active offenders are incarcerated and that their removal from these data produces an apparent age effect, but research that does not rely on official statistics has shown that the decline in crime with age is not a consequence of taking active offenders out of the population. Several studies of highly active offenders reveal the tendency for offense rates to decline with increasing age. Given the generality of the relation and the circumstance that it holds regardless of level of criminal activity (i.e., among high-rate offenders as well as low-rate offenders), the implications of the age-crime relationship for criminal justice are profound. Prevention efforts must focus early in life if they hope to have appreciable effect and targeting adults as the focus of crime policy can have only very limited crime reduction benefits.

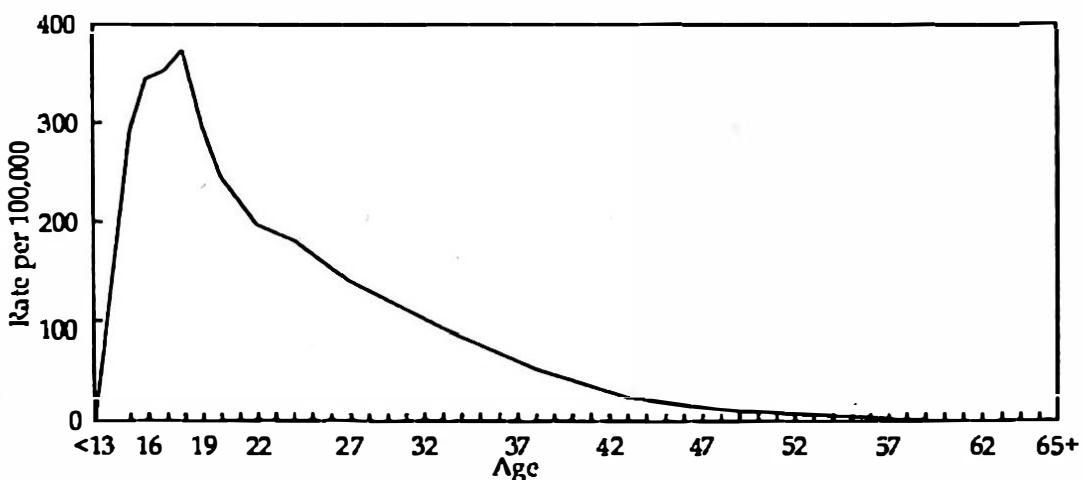


Fig. 6.1. Age-standardized arrest rates for robbery, United States.

Gender and Crime

Most reviews of research that have pertained to the topic have concluded that gender is a major and persistent correlate of crime, delinquency, and problem behaviors. Although gender ratios vary somewhat from crime to crime, males have rates of offending substantially higher than females, and this conclusion does not depend on the method of measurement (official or self-report), or time period and it seems to hold wherever the matter has been studied

by criminologists. Differences in opportunity to commit delinquency and crime can create apparent differences in offending ratios, but when such differences are controlled the greater tendency for males to engage in most offenses emerges.

Versatility

Although much criminal justice and policing policy is designed, either implicitly or explicitly, with offense specialization in mind, research on crime and delinquency paints the opposite picture. Delinquents and criminals are highly versatile in the acts they commit. There is a strong tendency for those who engage in one form of delinquency or crime to engage in others as well. Highly specialized offenders are rare, particularly in the delinquency years. Studies of both official records and self-reports reveal a virtual absence of meaningful specialization in offending. Thus it can be misleading to refer to individual offenders as "burglars" or "rapists" or "drug users" or "car thieves." This lack of specialization spans the distinctions among property, personal, and drug crimes, and has been shown to characterize both juvenile and adult offending. Furthermore, there is very little evidence in the research literature to support the notion of escalation in seriousness of offending; that is, the commonly held notion that there is a progression from less serious to more serious offenses or patterns among offending is less apparent than is general versatility over the offending years.

Criminologists now recognize that this "versatility effect" does not apply solely to criminal behavior. In fact, a very wide variety of problem behaviors seem to cluster together in the same realm. Delinquents and adult offenders are also much more likely than others to be involved in automobile accidents to drive under the influence of alcohol and drugs to have unstable school and employment experiences, to have poor interpersonal relationships with friends and family and to use drugs more heavily.

Some apparent specialization in offenses can occur, depending on situational or opportunistic factors. Thus, a particular offender may take advantage of burglary opportunities in his neighborhood or engage in several "grab and flee" purse snatches in a particular period. But analysis of a lengthy period of offending will typically reveal considerable versatility in offending. The versatility effect can

readily be understood from the perspective of control theory, since each of these problem behaviors can be understood as presenting to the offender an opportunity for immediate, uncomplicated satisfaction of ordinary human desires that carries with it the possibility for substantial negative long-range consequences that are ignored. To the extent that individuals vary in self-control, that variation would be expected to show up in differential rates of each of these problem behaviors, with none of them being particularly more preferable than others.

The implications of the versatility effect for crime policy are substantial. It suggests, for example, that one form of problem behavior is, in general, not the cause of others (say, drug use and criminal behavior or school truancy and drug use.) Rather both are caused by the same underlying individual trait. Policies that attack one of these behaviors without considering the underlying problem will be unlikely to effect the others. On the other hand, each of the acts in the cluster of problem behaviors is the consequence of fairly spontaneous action—the intersection of an individual relatively low on self-control and the opportunity to pursue momentary pleasure. Thus, the versatility effect also suggests that a focus on the opportunity structure of crimes, with effort expended to reduce the ease with which some acts can be accomplished, may effectively dissuade a potential offender without fear of displacement or of making the situation worse with respect to other offenses.

Nature of Delinquent and Criminal Acts

Recent trends in criminology have focused on the distinction between the offender and the criminal event in the analysis of causation. In order for a delinquent or criminal act to occur, there must be an intersection in time and space between an individual with the propensity to offend (or at least an individual who does not feel restrained about offending) and a suitable target for the offense. The characteristics of targets have been referred to as opportunity factors or the opportunity structure of criminal acts. Most empirical work on the determinants of delinquency and crime have, historically, focused on the offender side of this equation, attempting to explain why some individuals have greater propensity to offend than do others or to have fewer restraints about offending.

Recent work with victimization surveys and on situational crime prevention have focused attention on routine features of crime as a method of discovering the opportunity characteristics that seem to facilitate the commission of crime. Thus, studies have revealed that there is considerable temporal and spatial regularity for most crimes (e.g., late evening on the weekends and in particular public places). Specific studies of burglary, auto theft, vandalism, drug use, robbery, and assaults have all shown that, in addition to unique properties that define specific crimes, criminal acts seem to share these common properties as well.

Crimes tend to be rather easily accomplished. Most include no prior planning on the part of the offender, but rather seem better characterized as taking advantage of opportunities of the moment. Overwhelmingly, they tend not to require special skills or knowledge. They promise only the most temporary of satisfactions (very big "scores" are quite infrequent); in fact, the vast majority of offenses are only attempted, with the offender not able to accomplish the aim of the crime at all. Shapiro distinguished the nuances of what he described as planning, suggesting that people with little self-control are unable to plan in the long term, whereas, short-term plans may involve different cognitive processes which might be highly developed in the impulsive individual. Felson has developed a series of common "fallacies" about crime and offenders based on victimization and situational crime research. One particularly important common misperception he labels the "ingenuity fallacy," by which he means the common tendency to overstate the sophistication and cleverness of common offenders. Citing research on burglary as an example, Felson describes the common burglary as an event conducted mainly when residences can be assumed not to be occupied, in which the offender enters an unlocked door or window (or simply smashes in a locked door), quickly looks around for anything intuitively worth taking that can easily be carried off. Similar analyses of auto theft result in similar conclusions: cars that are unlocked, have keys left in the ignition, are parked in poorly lighted areas without human supervision and which are attractive to young males are considerably more likely to be stolen than are others. Most assaults have similar properties--they occur disproportionately at night, on weekends, in places frequented by young males, particularly in settings involving alcohol, and are

frequently seen by the offender to be a solution to a rather immediate irritation or difficult circumstance. The use of illegal drugs seems highly determined by the availability of particular substances at low prices and considerable substitution among substances is evident. Such insights into the opportunity side of crime have major implications for prevention and for an understanding of the etiology of crime and delinquency. With respect to our understanding of the offender, this portrait of common offenses is compatible with the image of the offender as painted by self-control theory. Criminal and delinquent acts are not, for the most part, highly motivated in which an individual is driven to offend by forces over which he or she has little control. Rather, they tend to be the natural outcome of the confluence in time and space of immediately attractive targets, few obvious restraints, and an individual relatively low on self-control.

Crime and Criminality: Implications for Policing

Of the many possible implications of the determinants of delinquency and crime for police practices, three seem particularly noteworthy:

1. Crime control efforts that focus on prevention of the tendency to engage in delinquent and criminal acts should focus early in life if they are to be effective and thus may be beyond the reach of the police as their activities are normally construed;
2. Crime control efforts that focus on the opportunity structure for criminal acts (situational crime prevention) can be highly effective;
3. Efforts to expand the concept of preventive policing, from an exclusive focus on intervention and apprehension, to the full range of causes and prevention possibilities for the problem behaviors implicated in low self-control may be desirable.

Realistic expectations about the effectiveness of the police in reducing crime should acknowledge the causes of low self-control over which police have little influence in a democratic society. We shall briefly discuss these implications, attempting illustrations from the research literature about policing.



Crime Control via Sanctions

It has been suggested in this review of the determinants of delinquency and crime that the tendency to engage in delinquent behavior is established relatively early in life by actions of parents, peers, and teachers. This tendency may be reflected in the trait of low self-control, according to which long-term negative consequences are of relatively little consequence in the calculations of potential offenders. If so, then it follows that the sanctions available to the criminal justice system, including police arrest practices, will have little deterrent impact on delinquents. The ability of arrests and subsequent criminal justice sanctions to alter the rate of crime may thus be highly circumscribed, a limitation that should be acknowledged in considering the police role in modern society.

The difficulty in affecting crime by increasing the rather far-removed sanctions of the criminal justice system is well illustrated by recent efforts to curb the amount of driving while under the influence of alcohol. Ross has shown that deterrence efforts that rely on increasing arrests and penalties for drunk driving can show a reduction in offending, but that they tend to have little, long lasting effect. Apparently, it is possible to have a sudden, short-term impact through such strategies as road-blocks, crackdowns, and publicity campaigns. These presumably affect the perceived probability of an immediate sanction. Given the combination of the modern reliance on the automobile, the social acceptability of alcohol, and the relative ease by which offenders can avoid detection most of the time, large-scale and long-lasting change has proven difficult. When coupled with the disproportionate involvement of individuals who are relatively low on self-control in the offense of driving after drinking, larger gains in the reduction of such offenses may be possible by greater restrictions on the opportunity to consume alcohol in situations in which driving is likely, especially for young drivers.

In a somewhat similar vein Sherman and Berk have been criticized for the Minneapolis experiment that promoted pro-arrest policies for law enforcement in response to domestic violence calls. However, they contend that a careful reading of the original research shows that they have always suggested that police policymakers proceed cautiously, particularly in the face of recent replication studies that do not find any straightforward deterrent effect of

mandatory arrest rules in cases of domestic violence. Cases such as these epitomize the complex nature of crime and the need to develop multifaceted prevention and control strategies.

Nevertheless, effective prevention of crime can take place on a variety of levels and can be accomplished by many different actors. Thus, according to control theories, parents, friends, and teachers may be instrumental in providing the interpersonal attachments necessary to deter most people from engaging in delinquent and criminal acts. Those with strong interpersonal bonds are less likely than those without such bonds to risk losing affection and good reputation a vital form of prevention. However, an increasingly common feature of modern societies is the tendency to rely on the formal criminal justice system, especially the police, to develop, guide, and administer prevention strategies. The transfer of crime control practices from individuals to government agencies has resulted in the expectation that prevention strategies should fall largely under the purview of governmental entities. Apart from effectiveness concerns, ceding to the police the responsibility to control crime is not without potential hazards. When crime control and prevention become the responsibility of government institutions, the police become viewed as the "fire" required to fight the "fire" of crime. Not only does this bring the police into conflict with the citizenry they are meant to protect and serve, but, as the review in this chapter suggests, it is likely to be rather ineffective in the prevention of crime and delinquency, resulting in frustration and angst about the police role. Ironically, as greater responsibility is ceded to the police to prevent crime and less responsibility is placed with individual caregivers and citizens, crime is less responsive to efforts to prevent it, resulting in ever greater calls for more intrusive policing. Wilson and Kelling had predicted that a combination of the fear of crime and disorganization in the community may lead to an informal alliance between police and the community in which officers forcibly remove or displace from the neighborhood those persons who presumably threaten the well-being of the enclave. However, such practices might also result in the rousting, or arrest, of persons for behavior that does not violate any standing law. The potentially negative outcomes of such practices is readily apparent in any major newspaper covering drug sweep practices, tactical narcotics squads, and search and seizure routines that, upon

examination, respond to the communities concern for crime but often fail to meet constitutional mandates.

Restriction of Opportunity

A different strategy, consistent with the determinants reviewed in this chapter, focuses attention on tangible aspects of the environment that make delinquency and crime more or less easily accomplished. Recognizing that offenders tend not to be highly or persistently motivated to commit any given offense and that, as a consequence, even small barriers and deflections may deter most offenders, Clarke and his colleagues have undertaken a series of studies aimed at understanding the possibilities of changing the opportunity structure of everyday life in ways that make crime more difficult. These studies have resulted in a topology of potential techniques, based on assumptions about offending that are consistent with the research reviewed.

Efforts designed to increase, even minimally, the effort required for an offense, to increase the immediate risk of apprehension by police or by others, and to decrease the immediate rewards of offenses have all been shown to have some crime prevention benefits. Thus, programs to make cars more difficult to steal by steering locks, to make burglary more difficult by locks and street closures, and graffiti more difficult and less gratifying by limits on sales of spray paint and by its immediate removal, may all prove effective. Similarly, increasing the momentary risk of offenses by border searches, baggage screening, enhanced employee surveillance, immediate sanctions for minor offenses delivered by the police, and by neighborhood watches can have modest crime prevention effects. And, reducing apparent rewards for offenses, such as the removal of car radios, exact change fares, graffiti cleaning, and reduction of transactions by cash can help prevent offenses also. The aim of many of these efforts is to target the community environments that may facilitate criminal activity or, at least, characterize the "abandonment" of community responsibility. Each of these situational crime prevention methods takes advantage of an understanding of crime and delinquency as depicted here and are consistent with low self-control as a determinant of crime. Each is also an activity readily incorporated

in the police role of crime prevention, particularly their role as educators of the citizenry.

Crime Control via Expansion of the Concept of Preventive Policing

The decision to broaden the prevention role of the police, from one focused exclusively or largely on law enforcement through the arrest and prosecution of offenders to one that considers the psychological and social determinants of crime in prevention efforts, is a requisite for more effective crime prevention by the police. Over the past several years Goldstein and others have argued persuasively that agreement about the goals of policing must precede development of strategies about policing.

Noting that the majority of crime that comes to the attention of the police is reported to them by ordinary citizens (and is ultimately solved through participation by citizens), he suggests that an integration of citizens into policies regarding police service delivery would be advisable. Historically, innovations in policing have tended to emphasize internal structural alterations, have depended upon technological advances, or have sought relief from procedural constraints in the treatment of offenders.

The latest of these innovations appears to be community or problem-oriented policing, which recognizes that the police may have forgotten their "community context," thereby becoming estranged from the people they police. The new strategies of policing must be more than just the buzz words of past crime control and prevention efforts and, therefore, must involve more than just police administrators. Police crime prevention must be rationally seen as political entities that incorporate the thoughts, goals, and activities of all levels of the law enforcement organization in concert with the citizenry. The most problematic feature of this context is maintaining both citizen and police commitment to the time and labor consuming activities of crime prevention. At present, the empirical evidence on the impact of community policing efforts is inconsistent and mixed. Therefore, a shift in goals to the broader notion of crime prevention would recognize the opportunities afforded by understanding the true nature of most crime and the limits established by the circumstance that major determinants of individual offending

proclivities are established very early in life and are very largely beyond the ken of criminal justice interventions. These circumstances may require a restructuring of police organizations as well as a much closer interaction between law enforcement and the community than either entity has previously found altogether comfortable.

DRIVER BEHAVIOR AND ROAD SAFETY

Introduction

Driver behavior has long been recognized as a major cause of road crashes. Treat and Sabey pointed out that human factors, either alone or in conjunction with the road environment or the vehicle, accounted for roughly 90% of crashes in the United States and Great Britain at that time. Recent estimates suggest that the situation has not changed appreciably in recent years.

There have been impressive reductions in the road toll over the last 30 years throughout most of the Western world. In Australia, Vulcan and others have reported reductions in the rate of fatal crashes from over 8 to well below 2 persons killed per 10,000 registered vehicles during this time period. Much of this improvement is claimed to have been derived from indirect changes in road user behavior through programs such as improved vehicle safety, better roads and cars, and greater use of seat belts, the so-called "engineering measures." However, there is some evidence that behavioral change through police enforcement has also contributed to reductions in the road toll over this period. Campaigns aimed at reducing the incidence of drink-driving and speeding have had some influence, particularly in recent years in Australia.

Nevertheless, given the overwhelming preponderance of human factor causes in road crashes, there is clearly an urgent need for new

programs aimed at changing motorists behavior on the road if current trends are to continue. Obviously, the role of police enforcement (in conjunction with greater education and other measures) is important for helping to bring about this change in road user behavior.

Meaning of Driver Behavior

In discussing the role of driver behavior in road safety, it is really inappropriate behavior or misbehavior that is at issue. Good or appropriate behavior is rarely highlighted in road safety; the implication is that inappropriate driver behavior causes accidents. Moreover, inappropriate behavior is also taken to mean inappropriate attitudes or decisions on the part of the driver (the behavioral precursors). All too commonly, these aspects are improperly thrown together in assigning behavioral fault for crashes. Johnston pointed out that, as the driver is often the only "active element" in the system, it is not too surprising that behavioral causes predominate in almost every crash. He noted the need for road safety and enforcement to focus on specific unsafe behaviors in attempting to reduce accidents, rather than misbehavior per se. As Klein argued, deviant behaviors are really in the eye of the beholder and only have relevance in road safety if they lead to over involvement in road crashes.

Overview of Chapter

This chapter examines the role of inappropriate driver behavior and the effects of police enforcement on traffic safety. We first examine the role of the police in road safety and the contribution that enforcement makes in reducing the frequency and severity of injury to road users. The experiences of drink-driving programs and, more recently, speeding initiatives are reviewed to demonstrate how enforcement can positively influence driver behavior. Finally, the main findings of this review are summarized and challenges for the future toward improving both driver behavior and the effectiveness of police enforcement in influencing behavior are discussed.

It is unashamedly an Australian perspective, justified on the basis of the substantial contribution that this rather small country has made to road safety advancements world wide. Perhaps it is because of its size that Australia has been able to play a leading role

internationally in encouraging safer road user behavior through legislation and enforcement. Examples include initiatives such as mandating seat belt wearing during the 1970s, helmet wearing for motorcyclists during the 1970s and 1980s, and, more recently, compulsory helmet wearing for bicyclists. Random Breath Testing (RBT) and speed camera enforcement programs have also met with considerable success in Australia; other countries have not been so successful it seems in sustaining road safety benefits in many of these areas due, in part, to differences in philosophical and legal issues.

Principles of Traffic Law Enforcement

It is important to note that traffic laws are fundamentally different from other laws in our society in that they are, for the most part, regulations, rather than criminal offenses. Thus, the way traffic laws are enforced and their associated levels of punishment, including policing, have been the subject of much debate.

The primary role of policing, traditionally, has been to enforce society's rules and regulations (its laws). However, in road safety, police see their objectives quite differently. Axup, for instance, noted that the primary aims of the police in traffic law enforcement, which he noted are the subject of operational "Standing Orders," specify four major objectives: first, to reduce the number and severity of collisions; second, to improve and promote road safety on the road; third, to facilitate traffic flow; and fourth, to enforce the traffic laws. He argued that it is a deliberate policy that traffic law enforcement is seen as the last of the major objectives (although not an unimportant one). Indeed, police perceive their role in enforcing road user behavior as one of deterrence, education, and punishment and this is generally accepted as appropriate by the road safety community.

Traffic Regulations

Enforcing traffic laws is the most visible aspect of policing to the general public and often the most misunderstood. Part of the reason for this lies in apparent inconsistencies in traffic law regulations. Axup reported a number of important criteria for traffic law regulations, taking the form of a number of key questions to be satisfied in introducing a new regulation: (a) Is there a need for the

regulation? (b) Is it acceptable to the majority of road users? (c) Is it clear and unambiguous? (d) Is it consistent with other (existing) regulations? and (e) Is it enforceable?

He also claimed that in assessing the need for additional traffic regulations, one must demonstrate community benefits in terms of reductions in the number of collisions, increased efficiencies in the road system, improved traffic flow along arterial systems, correction of aberrant behavior for specific groups, and/or safer mobility for the community as a whole. It is not clear, however, how rigorously these criteria are applied to all new traffic regulations. Petersen argued that the transport system has evolved as a product of policy decisions, rather than having been actively designed. He claimed that economic, political, and social factors play a large part in shaping traffic regulations. Thus, while it is desirable for traffic laws to satisfy these objective criteria, there is no guarantee that they will necessarily do so, especially as traffic regulations are ultimately determined through the political system.

In addition, police are given discretion in applying traffic regulations. This is positive in that police can be responsive in applying the law in special circumstances. However, it does open up the possibility of inequities in administering traffic laws that can lead to particular groups of road users being unfairly targeted. Homel reported that young drivers (possibly unskilled) in high powered cars were over represented in drink-driving citations, although he acknowledged that this group may also be over involved in their propensity to speed and be exposed at times of high police activity. They are also a high risk group for drink-driving so this finding is not totally surprising.

Punishment Options and The Courts

McMenomy noted that punishment options available to the police for traffic offenses include Traffic Infringement Notices (TIN) (on-the-spot fines), summonses and, on rare occasions, arrest of the offending driver. The courts in Australia have argued for the need to decriminalize minor traffic offenses and to bypass the criminal or civil court system by the greater use of Traffic Infringement Notices. This seems to be aimed as much at relieving pressures on the courts as it is on questions of equity and fairness. Much of the debate between

the use of TINs and citations has focused on questions of demarcation of the seriousness of the offense. For example, is it as serious a crime to double park as it is to drive in an unfit state (the punishment needs to fit the crime)?

The type of punishment employed for traffic offenders has ramifications, not only for the behavior and civil liberties of the individual, but also for the legal system in court loads, costs, and penal provisions. Moreover, many within the legal system have a vested interest in pursuing court procedures for traffic offenses. The effectiveness of the punishment in changing behavior, however, cannot and should not be overlooked in this debate.

Mechanisms of Enforcement and Behavioral Change

Leivesley argued that the central theme of enforcement is behavioral change through (a) behavior modification as a conditioned response through police presence; (b) attitudinal change from internalizing road safety laws; and (c) acceptance by the community of these social norms so that these laws are reinforced through informal social interaction. She noted that the degree to which enforcement is effective at bringing about behavior change will depend on motorists' perceptions of risk, personality types, past enforcement experience, and possibly accident involvement. Behavior change can decay over time if drivers' perceptions of risk decline or the severity of punishment is inadequate. Many of these topics are reviewed later in this section to understand fully how they operate and the complex interactions they have with each other in influencing traffic behavior. However, it is first useful to examine the role of (and need for) theoretical models as an aide to better understanding enforcement mechanisms.

Need for Psychological Theory

Current psychological thinking and best practice stresses the need for comprehensive theories and models of behavior as a basis for understanding existing problems and bringing about effective and long-standing behavioral change. Mechanisms of enforcement procedures need to be fully understood if they are to be effective and

optimal in the long term. Traditionally, there has been little emphasis on understanding how enforcement has brought about behavioral change. Punishment has long permeated police enforcement on the road without much thought for alternative theories or models. If the effectiveness of police operations is to be improved, greater attention needs to be given to understanding not only what is effective at bringing about changes in road user behavior but why these changes occur.

Operant Learning

The most relevant theory in psychology dealing with this area of police activities is operant conditioning or learning, first articulated by B.F. Skinner. There are a number of psychological texts available that describe this theory in detail. Operant learning refers to the process by which the consequences contingent on the occurrence of a particular response are manipulated to increase or to decrease future rates of responding. Reinforcers can be used to encourage particular behaviors, and may be administered either continuously (i.e., each time a desired behavior occurs) or intermittently, with the latter either systematically or randomly determined. Punishments, on the other hand, are used in an attempt to discourage particular behaviors.

Positive reinforcers are most commonly used in shaping an individual's behavior in a clinical setting, and there is much evidence to suggest that rewarding certain actions over a specific period of time can lead to long-term changes in behavior. Yet, as Skinner himself noted, punitive sanctions are more common in social environments than credit or praise. He noted that they are different in the way they function. Reward and punishment differ more than simply in the direction of change they induce. Praise is to give credit for conspicuous desirable actions, to induce people to be good, whereas punishment is used, not to induce people to be good but to behave well. Thus, changing a person's behavior does not necessarily change his or her inclinations. People learn to escape punishment by not behaving in a particular way under supervision but may well resort to undesirable actions when that supervision is removed. The amount or duration of reinforcement (or punishment) therefore is critical in bringing on long-term behavior change. While

learning can be shaped through encouragement or punishment, so too, unlearning can occur when the individual no longer believes that reinforcement is happening. For long-term behavior change, periods of reinforcement need to be sufficiently long for the individual to internalize the modified behavior as part of its normal behavioral repertoire. This can vary enormously between individuals, depending upon their likes and dislikes and their willingness to take on new or different behaviors.

It should be stressed that operant conditioning has been used in a number of real-world situations to bring about behavior change, most notably in clinical, educational, and organizational settings. Of relevance here, the principles espoused by operant conditioning are the basis of many police operations on the road and elsewhere, albeit more with a focus on punishment than reward. Supervision and punishment of undesirable behavior on the road are implicit in police enforcement operations, although there would seem to be some scope for the use of positive reinforcers in inducing desirable safe road behavior.

Deterrence and Detection

Police operations on the road are commonly based on deterrence models of social control. Deterrence theory assumes that individuals will be deterred from undertaking a particular action by the threat of punishment, either real or perceived. Detection is the mechanism of deterrence, with the fear of being caught in the act of breaking the law and/or the consequences of being detected (prohibition or punishment) act to prevent undesirable behaviors on the road. Deterrence theory is based on two main premises. One is that all road users will be deterred from violating road laws by the ever-present threat from law enforcement officers and the likelihood that they will be detected and punished for any inappropriate behavior. This is referred to as "general deterrence." The other is that having experienced an example of detection and punishment (either personally or to a family member or friend), an individual will be "specifically deterred" from undesirable behavior. In both cases, enforcement will only be effective if the individual believes that there is a high risk of being detected, the so-called "perceived risk of detection."

It has been demonstrated that the perceived risk of detection is correlated with the actual risk of detection (that being caught by the police for violating a particular law such as speeding will enhance the likelihood in future of being caught again for repeating the offense). However, there are often differences between perceived and actual risks where motorists under- or overestimate the likelihood of being detected for committing an offense. The number of red light camera detections issued in the state of Victoria for running red lights is evidence of differences between perceived and actual risks. These sites are clearly marked and known to most motorists, although they are only manned with cameras for a proportion of the time. A sizable number of motorists are prepared to risk detection and punishment believing that the perceived risk of being caught is considerably lower than is the actual risk. The utility (benefit) of the activity and an individual's willingness to take risks seems to play a part in explaining these actions.

Obviously, deterrence theory and detection assume that certain behaviors on the road have undesirable consequences and in most situations (e.g., driving after drinking or when fatigued) this is supported by scientific evidence. However, in some circumstances, the road safety benefits are not always apparent (e.g., running a red light late at night when there is no other traffic around). Clearly, there is a need to target enforcement to proven unsafe actions on the road to optimize crash reduction and minimize cries of the police "revenue raising."

Certainty, Severity and Celerity

The three classic mediators of behavioral change through deterrence are the certainty, severity, and celerity (immediacy) of punishment. In other words, if deterrent effects are to be maximized in police enforcement, there needs to be high likelihood of immediate and severe punishment for those who do not comply with the road laws.

The effect of certainty of punishment on the road has received some attention in the literature. Ross claimed that increasing the certainty and severity of punishment was an essential component of an effective behavior change strategy. Shinar and McKnight and Rothengatter argued that the threat of punishment, rather than a

change in attitude, motivation, or perception of safety, is more effective in bringing about a change in behavior. Recent programs of Random Breath Testing (RBT) in Australia have been cited as proof of powerful and sustained deterrent impacts through high certainty of the threat of punishment. Yet surely the long-term effects of threat of punishment must also lead to changes in attitude and ultimately behavior change (that is, the concepts would not seem to be totally independent).

Severity of punishment is postulated in conditioning theory to mediate the effects of behavioral change. Swedish studies by Aaberg, Engdahl and Nilsson and Andersson reported that two examples of doubling the amount of fines for speeding in that country during the 1980s had no measurable impact on speeding behavior. This was put down to the low levels of penalties and the fact that the change failed to reach some minimal threshold of perceptible change. Bjornskau and Elvik noted that greater differences in fine severity, such as those introduced in Sweden for failure to wear seat belts, have influenced behavior. However, it is not clear whether the change in penalty was also accompanied by changes in enforcement effort. Fildes, Rumbold, and Leening argued that increasing the level of fines for violations on the road will only be effective with a subsequent increase in enforcement effort by showing motorists that the police are serious about changing this behavior, rather than simply increasing revenue. As noted earlier, Ross did find some effect for severity of the punishment but only in conjunction with increasing the certainty of detection.

The immediacy of the punishment (or reward) in classic conditioning is considered important in eliciting behavior change. In general terms, the longer the time lag between the event and the punishment or reward, the less apparent is the link and the less likely is a lasting change in behavior. The celerity of the punishment has not received much attention in the road safety literature as traditional police road patrol methods have tended to be immediate. However, with the advent of automatic enforcement through devices such as camera surveillance, the effectiveness of these procedures may be somewhat limited by the inevitable delay between the commitment of the offense and the subsequent punishment, often 1 or 2 weeks after the event. Thus, the issue of celerity of the punishment may become an issue of greater importance in the years ahead.

Role of Punishment and Rewards

Deterrence theory is based on the fear of being detected committing an offense and/or being punished. Punishment for road offenses in most Western countries can include warnings, fines, licence disqualification or, for severe violations, imprisonment. Demerit points are used in many countries to accumulate misdemeanors before driving privileges are withdrawn.

All of these are examples of the use of aversive or punishing stimuli. Yet behavioral theory has long recognized that positive reinforcement is a more effective mechanism for bringing about lasting changes of behavior. The evidence of the effectiveness of positive reinforcement on the road is scant and rather old. Harano and Hubert found that a 12 month free licence incentive could reduce the number of crashes and violations by up to 22% for those with a previous crash or violation record. Marsh also reported a significant reduction in crash and violation involvement for demerit adjustments of 1 point for 6 month subsequent noninvolvement. Wilde and Murdock further suggested that these incentive programs can lead to greater improvement in subsequent years if allowed to continue.

Christie and Sanderson argued that the biggest problem with these schemes is that they are difficult to implement in association with existing punishment-based systems. However, they suggested that there is sufficient evidence of their likely success to warrant a thorough trial program. However, no such scheme has been implemented recently to the author's knowledge. While the effectiveness of positive reinforcement is still to be firmly established in modifying road user behavior, it would seem worthy of further research and development in the future. In particular, whether you attempt to reinforce safe behavior (not always clearly established) or desirable outcomes (fewer tickets) would seem to be an important topic. The introduction of merit as well as demerit points to reward good as well as to punish bad behavior would also seem worthy in enhancing the overall effectiveness of police enforcement on the road. Clearly, the costeffectiveness of these programs needs to be firmly established.

Education and Enforcement

As noted earlier, education of motorists to promote safe road behavior is seen as a primary aim of police operations. It is also a

function often performed by road safety authorities, educationalists, and some motoring organizations. Education can take different forms in the community, ranging from formal education in a school environment teaching basic principles and procedures to the more simple general publicity aimed at informing the community of desirable or undesirable actions on the road. The police are often involved in both formal and informal education activities. In the former, they actively participate in visits to schools offering student instruction and demonstration. The value of these activities is rarely evaluated in terms of road safety benefits as they are generally considered to be part of an individual's all round education. Informal education, though, is usually undertaken specifically as a road safety countermeasure and hence subject to scrutiny in terms of effectiveness and cost-effectiveness. It is this latter type of education that is of most interest in this discussion.

There have been several evaluations of publicity campaigns in Victoria during the 1980s, both with and without associated enforcement effort. For the most part, those combining publicity and greater enforcement effort were considerably more effective than those involving publicity alone. This point was also made by Homel, Carseldine, and Kearns in respect of drink-drive countermeasures throughout the 1980s in Australia and more recently by the Insurance Institute for Highway Safety from increased seat belt use promotion in North Carolina. What constitutes a successful publicity and enforcement campaign was the subject of detailed analysis by Elliott. The most salutary message from this evidence is the need for publicity and enforcement effort to be combined if behavioral change aimed at improving road safety is an expected outcome.

Need for Better Models

The lack of sufficient models or theories of enforcement has been recognized on a number of occasions by practitioners, researchers, and policy makers alike. Explanations of enforcement mechanisms are essential for understanding how police procedures influence driver behavior, both positively and negatively, and hence necessary for developing effective policing practices, penalty structures, remedial programs, etc. Without this knowledge, policing procedures will tend to be ad hoc and will meet with varying degrees

of success. Practitioners will be forced to adopt procedures that seem on the surface to be effective yet subsequently are shown to be less effective than first thought or to have undesirable side-effects. This can hamper efforts to improve the efficacy of police operations by developing more effective or alternative methods of enforcement. In the long term, greater knowledge is essential to ensure enforcement effort leads to long-term behavioral change.

Drink-Drive Initiatives

To appreciate the role of driver behavior and road safety more fully, it is useful to examine programs that have been successful in helping bring down the road toll in recent years. This will help demonstrate how psychology and police methods can affect a positive change in behavior. Two issues in road safety have been widely implicated in inappropriate or deviant driver behavior on the road, namely drink-driving and speeding, and recent experiences in these two areas are discussed more fully.

Research into Drink-Driving

In discussing the association between the level of alcohol and increased risk of crash involvement, it would be remiss not to mention the preeminent work of Borkenstein and his colleagues and the Grand Rapids study in the early 1960s. They demonstrated that the risk of being involved in a crash was an exponential function of the Blood Alcohol Content (BAC) of the driver. This work subsequently led to the introduction of maximum BAC levels for all drivers in many countries including Australia. Raymond provided an excellent review of alcohol in relation to road safety around that time.

For the most part, Australian States and Territories have now adopted a uniform 0.05 BAC limit for full license holders, although some States apply more strict criteria for probationary license holders. The drink-driver has been the subject of considerable research in Australia and overseas in recent years. Young male drivers and those driving at night have been shown to be over involved in alcohol-related road crashes. Not surprisingly then, police enforcement has tended to be aimed at these road users and times of the day.

The main weapon against drink driving since the mid 1970s in Australia has been Random Breath Testing (RBT) where police randomly stop motorists and conduct breath tests.

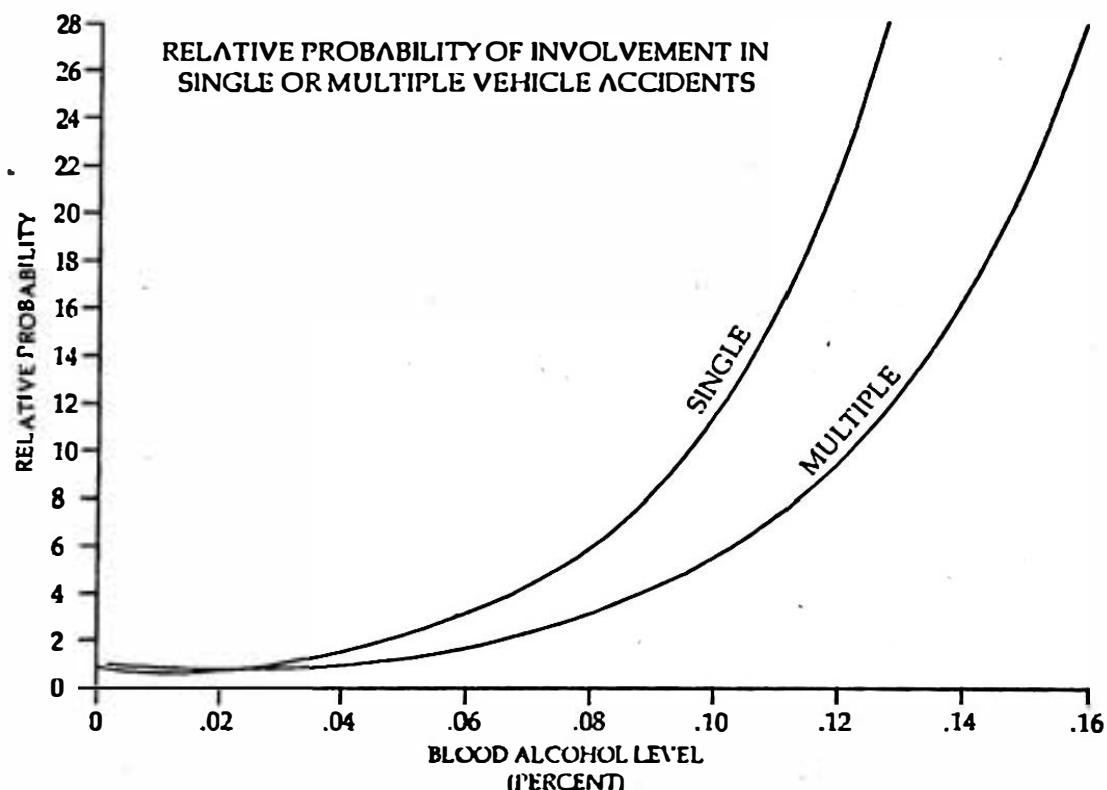


Fig. 7.1. Relationship between Blood Alcohol Content (BAC) and crash involvement.

Those who register above the legal limit are then taken to a police station and charged. As Homel noted, Australia has had a greater commitment to the mass breath testing of motorists than almost any other nation. The level of activity of RBT operations has varied across Australia and there are a number of studies that have evaluated their effectiveness.

Random Breath Testing Effectiveness

Random Breath Testing was first introduced in Australia in 1976 in the State of Victoria. It set out to increase enforcement effort against drink-driving and was introduced with a substantial increase in penalties for those found to be practicing this inappropriate behavior. The effectiveness of this early campaign was reported on by Cameron, Strang, and Vulcan who found large

reductions in fatalities and serious casualties at night in areas where RBT was conducted as well as an increase in the perceived risk of detection for drinking drivers whose driving was not obviously impaired. They concluded that when conducted intensively, RBT reduced the risk of severe night-time crashes, particularly alcohol involved single-vehicle crashes. Although Ross noted certain criticisms with the methodology used in this study (history was uncontrolled for and the statistical tests was not overly rigorous), he nevertheless concluded that this report ". . . yields evidence of a predicted change in perceptions of risk of apprehension, which is consistent with the deterrence model."

The experiences of the neighboring Australian State of New South Wales is of particular interest as it was the first State to undertake RBT operations at consistently high activity levels. Homel noted that in the first 12 months of RBT operations in NSW during mainly 1983, approximately one million tests were carried out, which equates to one test for every three licensed drivers. This program was supported with extensive media coverage that emphasized threat of arrest and humiliation at failing the test. The program has continued at these high levels. Homel reported that the proportion of Sydney motorists who were breath tested steadily increased from 25% to 53% by early 1987. Subsequently, Homel, Carseldine and Kearns evaluated the program comparing 5 years pre-RBT with 5 years post-RBT, and found a 36% reduction in the rate of alcohol related fatalities over that time period, which they attributed to Random Breath Testing.

Annual surveys conducted by the Roads and Traffic Authority in New South Wales between 1982 and 1987 confirmed these trends. They reported a reduction in the number of drivers who reported drinking and driving at least once each month from 47% to 41% and a reduction from 16% to 6% for those who admitted to have driven (self-assessed) above the safe BAC limit. Interestingly, many of the respondents reported not having been tested, which Homel and his colleagues attributed to the fact that they rarely drove at night and therefore were unlikely to be tested.

Following the lead of New South Wales, Victoria recently increased its RBT operations to much higher levels with associated multimillion dollar publicity campaigns conducted by the Transport

Accident Commission. Two evaluations of the effectiveness of this program between 1989 and 1991 have been conducted. Both studies reported significant reductions in the number of fatal crashes in Melbourne (19%-24%) and serious injury crashes in rural Victoria (13%-15%) during high alcohol times (night-time). There were no significant reductions in fatalities in rural areas in both studies (probably because fewer RBT operations were conducted in these areas), while the serious injury results in Metropolitan Melbourne were equivocal between studies.

Both reports were unable to elaborate on which aspect of the program (RBT or publicity) had the most effectiveness. Moreover, Cameron, Cavallo & Sullivan argued for the need for further clarification of the relative effectiveness of operational parameters (number of hours, sessions, tests conducted, etc.) and driver perceptions to help tease out the full deterrent effects of these devices and programs. Unfortunately, driver perception studies have not been carried out to date for this program.

Implications for Enforcement

These results collectively enabled Homel to propose a model of general deterrence, based on this form of drink-driving enforcement (although he claimed it can generalize to other forms of traffic enforcement as well). The central tenet is the classical deterrent process where police intervention influences criminal (inappropriate) behavior via perceptions and the fear of legal sanction. However, he expanded the model to allow the "physical and social environments" to influence this process. He claimed that these environments can be manipulated by the legal processes (enforcement, sanctions, etc.). For instance, the act of drink-driving in the face of possible retribution (fear of legal punishment) evokes social control mechanisms such as guilt and possible social stigma, as well as likely physical and/or material losses (loss of license, money, thrill of driving, etc.). The drinking driver will only pursue this undesirable behavior, therefore, if he or she believes that the likelihood of detection is so small that it offsets any possible social and/or physical disbenefit from undertaking the action (what he calls a "choice between losses"). This assessment varies between individuals, depending on their own

personal character and stature and their willingness to risk being caught.

Homel noted that prevention of drink-driving can focus on any aspect of the behavioral process and lists several possible interventions such as strengthening internal control mechanisms, informal group process and norms, fear of displeasing family and work mates, modifying drinking environments, exposure restrictions, and the various costs associated with legal action and the possible loss of driving privilege. Police enforcement can play a part in many of these interventions, especially those that lead to the loss of driving privileges.

Community Attitudes to Drink-driving

One of the most important questions to be raised in regard to RBT and drink driving (or to any program of sustained enforcement for that matter) is to what extent does the intervention lead to a permanent change in community attitude towards the inappropriate behavior. That is, will constant deterrence lead to a community attitude change against the undesirable behavior or will it simply burn itself out and become less and less effective? There are parallels here with issues of maintenance and generalization of effects as raised in the operant learning literature.

In his book *Deterring The Drinking Driver*, Ross concluded that for drink-drive interventions to succeed in the longer term, a raised level of enforcement is required for a sufficiently long period to lead to a shift from "general deterrence" to "moral deterrence." He defined moral deterrence as the avoidance of a behavior because it is perceived to be wrong, rather than because it might lead to apprehension. It is worth reviewing the evidence that such a shift in community attitude may be happening.

Public acceptance of an intervention is a measure of its long-term success. From their community surveys, Homel reported that public support for drink-driving legislation in NSW went from 64% in 1982 to almost total support (97%) in 1987. Moreover, negative perceptions of drink-drivers as being "irresponsible, criminal or potential murderers" grew from 77% to 86% over the same period. It would be useful to examine whether these levels are currently sustained today, although anecdotally it would appear that they are.

Vulcan also examined the percentage of fatal drivers and motorcyclists with a BAC exceeding the legal limit between 1988 and 1992 in Victoria (the same period that this State also had sustained RBT enforcement operations). He reported a reduction over the 5-year period from 38% to 20% during that time span, which equated to an even more substantive reduction when you consider that the absolute numbers killed over that period fell from 279 to 181 (65%). This seems to suggest that there is a change in community attitude to the inappropriate behavior of drink-driving currently underway in Australia. As Homel noted, legal intervention can have a profound effect by altering the physical and social environment, although whether society is prepared to tolerate these changes in the longer term is another question. At least in the case of drink driving, it would appear to be so.

Supplementary Drink-Drive Interventions

There are a number of additional (supplementary) and meritable enforcement measures for drink-driving beyond the direct policing approach. South drink-drive interventions to succeed in the longer term, a raised level of enforcement is required for a sufficiently long period to lead to a shift from "general deterrence" to "moral deterrence." He defined moral deterrence as the avoidance of a behavior because it is perceived to be wrong, rather than because it might lead to apprehension. It is worth reviewing the evidence that such a shift in community attitude may be happening.

Table 7.1. Driver and Motorcycle Fatalities by BAC Level

Year	Number Below .05% BAC	Number Exceeding .05% BAC	Percent Exceeding .05% BAC
1988	279	105	38%
1989	349	113	32%
1990	246	73	30%
1991	243	70	29%
1992 (prelim.)	181	37	20%

Homel, Carseldine and Kearns also reviewed supplementary countermeasures, many of them similar to those discussed by South.

They argued that "although a dramatic impact of non-legislative countermeasures cannot yet be demonstrated, they have the potential to bring about a significant reduction in alcohol-related crashes." In particular, they supported South's call for more attention to removing roadside hazards as well as calling for exposure restrictions in alcohol consumption and availability. Somewhat surprisingly, although Honiel and South discussed the possibility of greater use of engineering countermeasures such as engine interlocks they seemed less than enthusiastic about their widespread use. This is difficult to understand, given the relative success of this approach in modifying road user behavior over the last 10 or 20 years in this country.

Speeding and Behavior

Speeding on the road is another area where inappropriate driver behavior can have undesirable safety consequences, both for the speeding motorists as well as other road users. Speeding is defined here as traveling too fast for the prevailing conditions and at marked variance to the rest of the traffic. This can also be stated in terms of exceeding the posted speed limit, although this makes the controversial assumption that speed limits always represent the most appropriate travel speed.

Speeding Problem

It is important to recognize from the outset that like many road safety problems, the issue of speeding is really a question of relativities. Modern society requires a greater degree of mobility for all individuals, thus speed and safety will always be, by necessity, a tradeoff. The real question to be addressed by the community, therefore, is what level of road trauma (risk of accident involvement) is acceptable for the privilege of being mobile.

It is difficult to be precise in estimating the size of the speeding problem in most countries because of this tradeoff and the general lack of accurate speed data in the crash statistics. Ruschmann, Joscelyn and Treat reported that excessive speed played a causal role in up to 37% of fatal crashes in the United States. Bowie and Walz claimed that speed was a primary causal factor in 12% of

cases they investigated and cost the United States in excess of \$10 million annually. In Australia, Fildes and Lee noted that inappropriate speeding accounted for up to 30% of fatal crashes that occurred during 1991 and was likely to cost that country approximately a billion dollars each year. They noted the relative lack of research and development in this area compared to other problem areas such as drink-driving and the need for urgent attention to reduce speeding on the road.

Research into Speed and Crashes

When discussing the relationship between speed and crashes, it is important to distinguish between "crash involvement" (how speeding causes crashes) and "crash consequence" (the likelihood of injury given a crash). Much is known about the latter where, in general, the faster the collision, the higher the likelihood of injury and death. It is a function of the physics of collision where the force of the impact is equal to the vehicle mass \times velocity². While the relationship is somewhat dependent upon the type of vehicle, the level of safety features and so on, injuries in collisions are ultimately related (exponentially) to impact speed as shown in Figure 7.2 by Solomon.

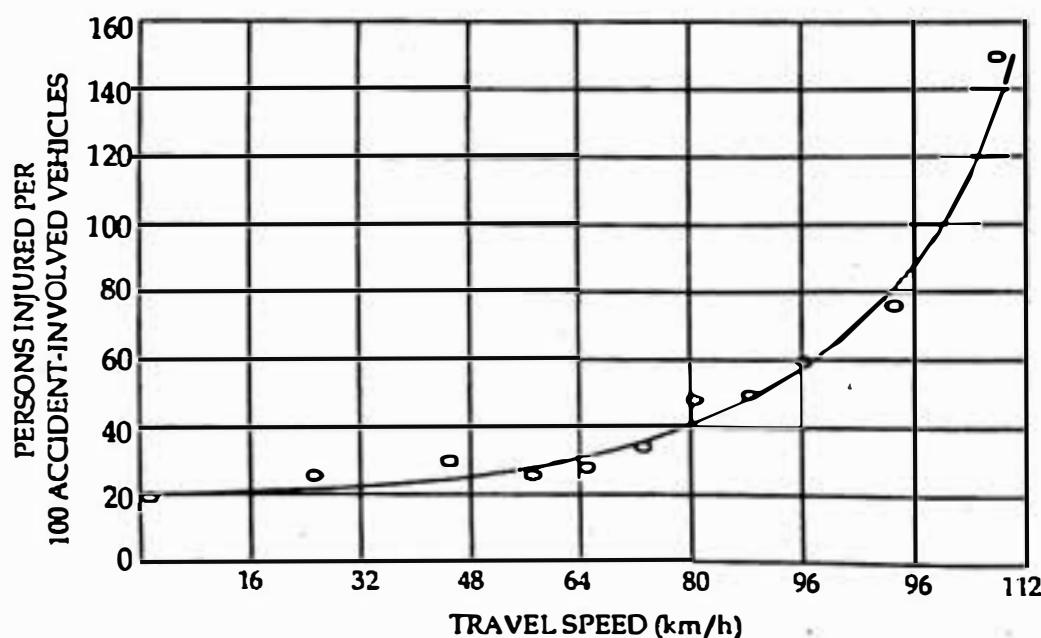


Fig. 7.2. Injury involvement rate by absolute travel speed.

The role of speed in crash involvement, however, is less clear cut. Early reports by Solomon, Munden and the Research Triangle Institute suggested that the likelihood of crash involvement on rural highways was a function of the variance of an individual vehicle's speed, relative to the rest of the traffic, the so-called "Variance Hypothesis".

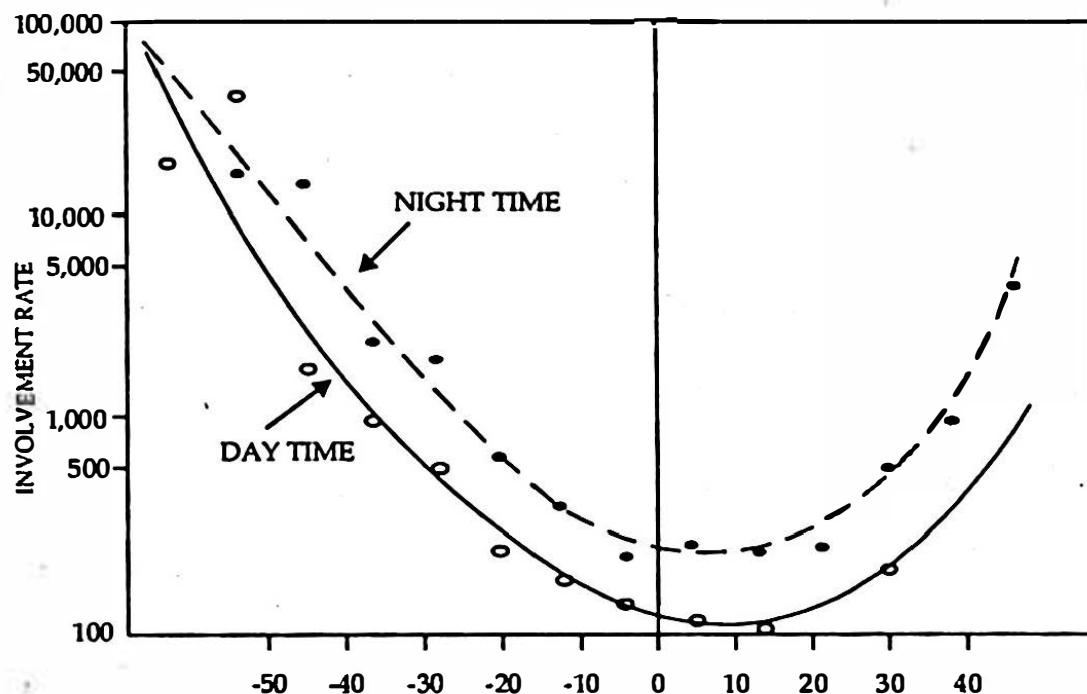


Fig. 7.3. Crash involvement rate by variation in travel speed.

The finding that slow travelers are at risk of causing collisions has been seriously questioned recently by Fildes, Rumbold, and Leening who failed to show any increase in crash risk for those traveling below the mean traffic speed in both urban and rural environments. Indeed, they reported a simple linear finding between travel speed and accident involvement, although these findings were based on self-reported accident histories. This is clearly an important area requiring further research to provide guidance for future behavioral change programs.

Speed Limits and Safety

As discussed earlier, the need to set limits on travel speed and the resultant enhancement in safety for those involved in crashes has a sound scientific research base. Yet, speed limits are not always

respected by road users. This can be the result of inappropriate speed limits for particular locations as well as motorists not appreciating the dangers they face when they markedly exceed these limits. Traditionally, speed limits have been based on the 85th percentile method, which is the level at or below which 85% of the traffic travels at for a particular section of roadway. While in theory this should reflect behavioral choice and hence what the community believes are acceptable limits on the road, it ultimately proved to be too simplistic and ignored other important design criteria. Modern methods of setting speed limits such as the VLIMIT expert system used in many States in Australia incorporate a range of road and surrounding environment factors as well as accident, behavioral, and policy aspects.

Several studies have evaluated the effect of changes in speed limits on resultant crash and injury performance. The most comprehensive European research has been carried out by Salusjarvi in Finland and Nilsson in Sweden. Nilsson developed formulae for predicting the injury consequence of changing the speed limit where the number of fatalities is a 4th power function of change in velocity, serious injury a 3rd power, and all injury a 2nd power function. Researchers in the United States have systematically evaluated the effects of speed limits on injury rates. During the fuel crisis of the 1970s, there were several studies that reported road safety benefits from lowering the national limit to 55mph in that country. A similar experience was also reported by Sliogeris in Victoria. More recently, increasing limits to 65mph on U.S. national highways has been associated with an increase in trauma on these roads. Unfortunately, none of these studies were able to separate crash involvement and crash consequence effects.

Speed Enforcement

Enforcing speed limits has traditionally relied upon police presence and various methods of measuring speed such as radar guns, anerometer units, electronic road sensors, and even manual timing approaches typically used in aircraft surveillance. Although the technology for measuring speed may differ, these methods all rely on police officers intercepting the vehicle and issuing the offender with a citation or an on-the-spot fine. These approaches are demanding of human resources, but they do offer an immediate

and effective link between committing the offense and the punishment.

A number of studies have shown the effectiveness of direct police operations on speed behavior. Hauer, Ahlin and Bowser reported decreases in traffic speeds of 23% to 28% within 2km of a visible police operation. Armour also noted a reduction in the proportion of drivers exceeding the posted speed limit at visible police sites. Both these authors reported, however, that these speed reduction benefits only lasted within a small distance (or time) of the test site, a phenomenon known as a "halo effect." Barnes attributed the ineffectiveness of these enforcement techniques to visibility and predictability of these fixed site enforcement operations. One of the more effective and longer lasting speed enforcement programs was reported by Leggett in Tasmania (Australia). This program strategy involved the regular deployment of several marked police cars at random sites along a major highway approximately 200km long. He reported distance halo effects of up to 21km, reduced rate of speed offenses, and a 58% reduction in serious casualty accidents along that highway. However, these impressive findings required substantial police personnel and resources, which is difficult to sustain on an ongoing basis.

With the advent of new enforcement technology and fewer resources available for direct police intervention in other than major offenses, speed cameras capable of high levels of detection (up to 60 per minute) are now in widespread use in Australia and are also used in Germany and Sweden. To expedite processing speeding infringements, at least one Australian State has introduced "Owner-Onus" legislation, which makes the owner of the vehicle responsible for the fine if he/she fails to name the driver. This legislation permits high numbers of fines to be processed thereby increasing the level of actual and perceived risk of a speeding infringement. However, it also lengthens the lag between the offense and the punishment making it theoretically less desirable and effective and is often perceived as "revenue raising" by the motoring community.

Camera Enforcement and Behavior Change

The use of camera technology for speed enforcement has made significant inroads recently, not only in terms of reducing travel

speeds and crashes, but in furthering knowledge about speeding behavior and enforcement theory. I draw heavily on the work of Max Cameron and his coworkers at the Monash University Accident Research Centre for this review.

Victorian police first trialed speed cameras in December, 1989 and the current speed camera program commenced in April, 1990. The program had two fundamental differences from other speed camera trials throughout the world. First, the cameras were mobile and inconspicuous; they were fitted to unmarked police cars that could be parked anywhere on any road and their presence was deliberately not advertised. Second, the level of speed camera activity was unprecedented. Moreover, this intensive speed camera program was supported with a massive promotional campaign showing, in grim reality, the dangers of excessive speeding.

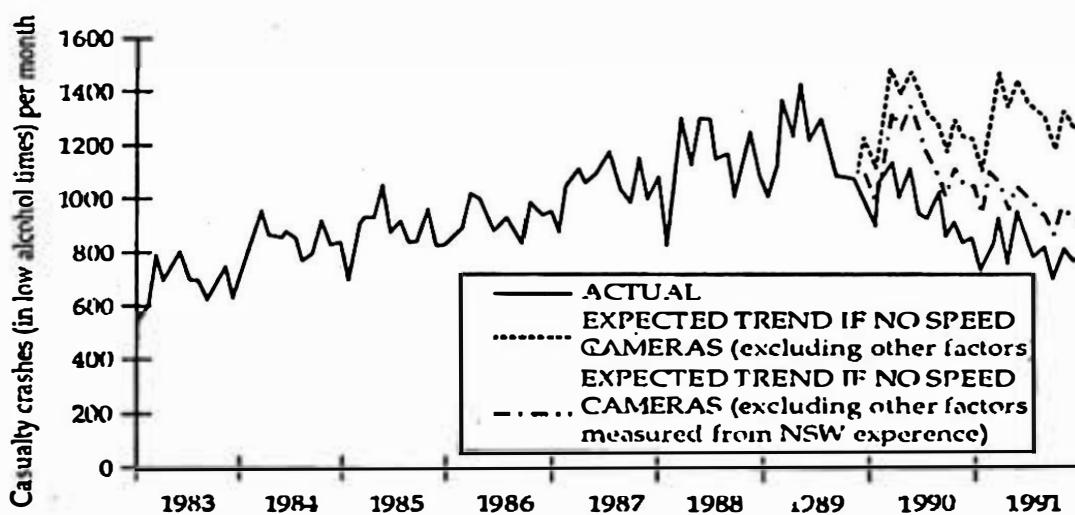


Fig. 7.4. Number of casualty crashes per month in low alcohol times.

Cameron, Cavallo and Gilbert reported statistically robust decreases in the frequency and severity of casualty crashes resulting from the speed camera program (severity was the ratio of fatal and serious injury to minor injury crashes). These findings are shown in Figs. 7.4 and 7.5. They noted that the program had its greatest effect on major arterial roads in Melbourne and on 60km/h rural roads where the majority of speed camera operations occurred.

They also examined the effects of the program mechanisms using time-series analysis that was able to exploit differences between the various components of the program (that is, by assessing the relative

effects of publicity, camera operations, fines, and demerit points as they were introduced at different times during the program and with differing levels of activity). From this analysis, these authors concluded that the frequency of casualty crashes was a function of the number of infringement notices issued to drivers, as well as publicity (both general road safety and specific speed related publicity), while injury severity was related to the number of infringement notices and speed camera operations. Subsequently, Rogerson, Newstead, and Cameron reported significant reductions in the number of casualty crashes within 1km of a camera site (compared with control sites) after receipt of infringement notices and for at least 2 weeks thereafter. This analysis was possible as the cameras were not repeatedly used at these sites within the test period. However, there was no equivalent reduction in crash severity at those sites, suggesting that benefits found earlier had been from "area-wide" rather than "site-specific" effects. The proportion of benefit from the camera operations and the associated publicity is currently being evaluated by these researchers.

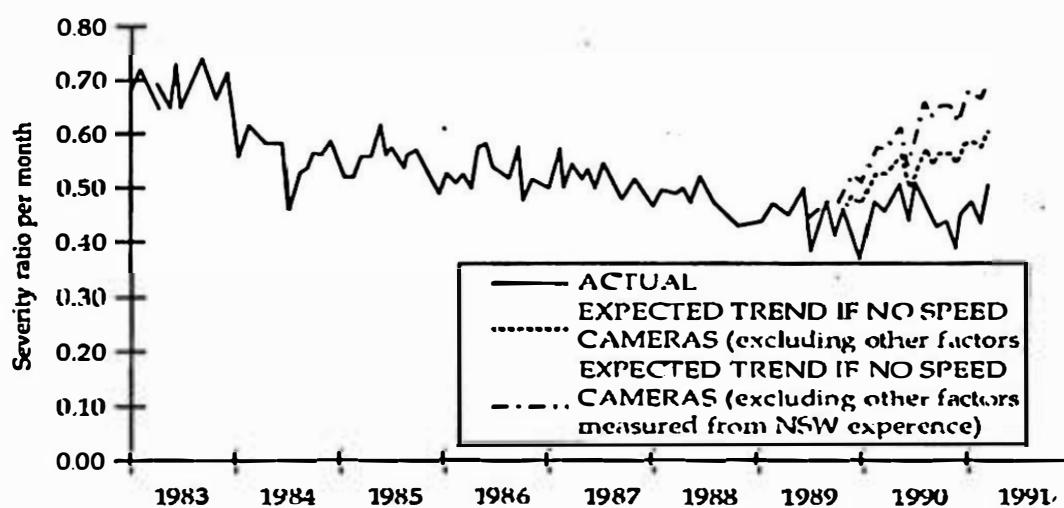


Fig. 7.5. Casualty crash severity per month in low alcohol times

The results from this work suggest that the speed camera program's success was due to the general deterrent effects of these operations (motorists reduced their travel speed generally for fear of being caught for speeding on any road in Victoria). This was confirmed by speed surveys taken at that time. Unfortunately, there were no driver surveys conducted in Victoria to test for changes in

driver perceptions at that time. Nilsson reported site-specific reductions in personal injury, road casualties, and travel speeds for a fixed camera installation in a black-spot location in Sweden but no area-wide effects of the kind noted by Cameron and his colleagues. This illustrates the need for this form of enforcement to be surreptitious and intensive to bring about a change in speeding behavior among the community. Whether speed cameras are more effective at reducing speeds than normal police operations at similar levels of intensity is still to be determined, but clearly it is more likely to be cost effective. The experience in Victoria has relevance for other Australian States and overseas countries in enforcing excessive speeding on the road. Although the press and motorists are quick to point out the vast amount of revenue raised by the program, nevertheless, it has the potential to significantly modify driver behavior and improve safety while, at the same time, be a self-funding road safety initiative.

These findings also have implications for the importance of punishment celerity. It was argued earlier that for punishment to be an effective deterrent, it must be swift and certain. Yet, for the most part, these offenders typically only become aware of their speeding violation 2 weeks after the event. Thus, offenders are encouraged to change their behavior some time after they break the law (it is presumed that they continue to speed during the intervening period). Operant learning theory would suggest this is less than optimal for securing a long-term behavioral change. The long-term effects of this program on speeding behavior are yet to be established and this is discussed further in a later section on community attitudes to speeding.

Behavioral Models of Speeding

In developing effective policing strategies against speeding, it is useful to have a clear understanding of the behavioral and attitudinal characteristics of excessive speeders to help target enforcement effort at those most likely to offend. Enforcement officers are quick to acquire insight into population subgroups most at risk. However, these insights are often subject to recency bias (the most immediate cases have an overwhelming influence on police perceptions) and it is important therefore to examine the behavioral characteristics of

those who choose to travel fast (and slow) on our roads systematically.

Table 7.2. Summary of the Relationships Between the Various Study Factors and Travel Speed at the Urban Sites

Variable	Overall	Fast	Slow
Driver age	sig.	34 yrs.	55 yrs.
Driversex	n. s.	n. s.	n. s.
P-Plates		insufficient numbers	
Seat belts		insufficient numbers	
Number of occupants	Sig.	single	two
Purpose of trip	Sig.	business	rec/dom
Travel schedule	Sig.	behind	don't care
Vehicle type	n. s.	n. s.	n. s.
Y.O.M. Vehicle	sign.	5 yrs.	5 yrs.
Towing a trailer		insufficient numbers	
Vehicle ownership	n. s.	n. s.	n. s.
Accident involvement	Sig.	more crashes	less crashes
Number accidents	Sig.	2 or more	n. s.
Injury severity	trend	moresevere	No severe
Weekly travel	Sig.	long	short
Prior distance	n. s.	n. s.	n. s.
Post distance	n. s.	n. s.	n. s.
Time of last stop	n. s.	n. s.	n. s.
Tiredness	n. s.	n. s.	n. s.

sig. = significant p* .05

n.s. = not significant p* .05.

There has not been much research in this area to date, presumably because of the lack of accurate speed data that has constantly beset speed research. Solomon first attempted to identify the characteristics of speeding motorists on rural highways in the United States in the 1960s. He noted that speeding vehicles were more likely to be driven by young drivers, involve out-of-state vehicles, armed forces vehicles, buses, and new model passenger cars,

especially sports models. More recently, Nilsson (1989) compared interview responses with speed data on 90km/h main roads in Sweden and reported a relationship between vehicle speed, trip purpose, length of journey, vehicle performance, age of the vehicle owner, width of the road, and use of a trailer. Unfortunately, how he linked observations with interviews is not perfectly clear from this report.

In Australia, Fildes, Rumbold and Leening observed vehicle speeds in urban and rural locations in Victoria, then stopped vehicles in various speed categories and interviewed the driver (without their knowledge that their speeds had been taken). They reported significant relationships between excessive speeders and vehicles not towing, young drivers, vehicles with either single or three or more occupants, those traveling on business, those traveling behind schedule, recently manufactured vehicles, those who normally travel long weekly distances, those not owning the vehicle they drove, and those who reported higher previous accident histories. Moreover, using factor analysis and multiple regression techniques, they demonstrated the relative importance of these variables in both urban and rural environments. This research has been subsequently used to help develop a campaign aimed at reducing speeding in one Australian State where its effectiveness is to be evaluated.

Community Attitudes to Speeding

The drink-drive experience discussed earlier noted an overall change in community attitudes to drinking and driving over the last 10 or so years. It was argued that this change was the result of considerable education, enforcement, and engineering effort involving several long-term sustained programs and initiatives. Speeding as a road safety issue has not attracted the same degree of research and promotional effort to date, probably because of the lack of good data available and the paucity of detailed studies examining the role of speed and crashes. As noted earlier, speeding as a road safety issue is sizable and, clearly, efforts to reduce the incidence of speeding on our roads are urgently required.

As in the earlier days of understanding the drink-drive issue, the speed debate is characterized by inconsistencies and fables. Although accepting that speeding is undesirable generally, individual

motorists are less likely to see their own speed as particularly dangerous. Moreover, as a community, we are content with the fact that for the most part, highways throughout the world are governed to maximum speeds not exceeding 130km per hour. Yet many of the vehicles, available to anyone with the money to buy them and not requiring any test of competency whatsoever, are capable of reaching top speeds well over 200km/h. Moreover, high quality roads and current manufacturing standards for vehicles produce situations where speeding is implicitly encouraged.

Table 7.3 Summary of the Relationships Between the Various Study Factors and Travel Speed at the Rural Sites

Variable	Overall	Fast	Slow
Driver age	sig.	34 yrs.	55 yrs.
Driver sex	n.s.	n.s.	n.s.
P-Plates		insufficient numbers	
Seatbelts		insufficient numbers	
Number of occupants	sig.	single	two
Purpose of trip	sig.	business	rec/dom
Travel schedule	sig.	Behind	n.s.
Vehicle type	sig.	n.s.	vans/L. cars
Y.O.M. Vehicle	sign.	5 yrs.	5 yrs.
Towing a trailer	sig.	not towing	towing
Vehicle ownership	n.s.	n.s.	n.s.
Accident involvement	sig.	more crashes	less crashes
Number accidents	sig.	2 or more	n.s.
Injury severity	trend	more severe	no severe
Weekly travel	n.s.	n.s.	n.s.
Prior distance	n.s.	n.s.	n.s.
Post distance	n.s.	n.s.	n.s.
Time of last stop	n.s.	n.s.	n.s.
Tiredness	n.s.	n.s.	n.s.

Sig. = significant p* .05

n.s. = not significant p* .05.

What is required is a change in community attitude to speeding similar to that experienced for drink-driving. In a recent workshop of researchers and policy makers in Australia, a change in community attitude to speeding was listed second top priority among 12 action items identified to counter excessive speeding. However, it was acknowledged that such a change in attitude to speeding would require a similar commitment of resources and effort to that devoted to drink-driving. It was conceded that there were no quick solutions available to bring about this behavioral and attitudinal change. As with drink-driving, the police would be expected to play a major role in developing a more responsible attitude to speeding in the community. As well as maintaining a high level of enforcement activity in deterring excessive speeders on our roadways, they could also play a part in educating the motoring population of the dangers of this unsafe behavior.

Additional Speed Enforcement Measures

Enforcement measures against speeding discussed so far in this section have involved police operations, either as direct policing or in overseeing and administering camera infringements. However, there are a range of engineering solutions available that could supplement police effort and help reduce the incidence of speeding behavior.

The undesirable discrepancy between vehicle top speed and the maximum speed limit could be overcome by limiting the top speed possible on all passenger cars. Tamper-free devices are currently available that will not interfere with acceleration rates yet effectively prevent vehicles from exceeding maximum speed levels. These units would negate the need for speed enforcement on rural highways, thereby releasing police for other duties. Manufacturers claims of marketing disadvantage would be negated if all vehicles were required to have these devices fitted.

Urban speeding would require other solutions. Low technology measures such as warning lights and buzzers or devices that apply resistance to accelerator movements when a vehicle is running at the posted speed limit would at least alert motorists who inadvertently exceed these levels. However, these devices require motorists to set their desired travel speed, which may or may not

comply with posted speed limits. High technology solutions from area-wide control systems such as "Prometheus" and other Intelligent Vehicle and Highway Systems (IVHS) could involve network systems of feedback or speed control where posted speed is read "off the road." In-vehicle registration of speeding offenses (monitored from electronic road loops) is another option available for enforcing speed control through non police intervention. Road safety experience suggests that these engineering measures are likely to have high success in modifying undesirable driver behavior.

Conclusions

This review of driver behavior and road safety has focused on the role of enforcement mechanisms in modifying inappropriate driver behavior on the road. It was argued that traditional legislative approaches have met with some success in modifying driver behavior essentially through the deterrent process. The degree to which this approach will continue to be effective in modifying driver behavior and the precise mechanisms and processes by which they have been effective, however, is still unclear.

Drink-driving initiatives involving mainly Random Breath Testing (RBT) police operations over the last 10 or 15 years in Australia have significantly reduced the number and proportion of alcohol-related crashes. In addition, a major change in community attitude against this unsafe practice seems to have occurred during this same time period (and may still be occurring). It was argued that a change in community attitude was essential if these benefits are to be sustained in the longer term. A number of supplementary (nonlegislative) countermeasures were identified that have potential to further these reductions, although some of these may need further research and development effort before they can be implemented.

Inappropriate speeding behavior is another area where the enforcement approach is central to programs aimed at changing this deviant behavior. Although the amount of research and action effort designed to reduce excessive speeding does not compare with that of drink-driving, there is evidence to suggest that the legislative approach has the potential to influence this behavior. The wide use of speed cameras with little notification of where they are to be found appears to have a general deterrent effect, while site-specific use

seems to have some marginal benefit as a "black-spot" measure. It was argued that continued use of these measures will ultimately result in a change in community attitude against this inappropriate behavior. As with drink-driving, there are a number of additional measures available to supplement direct police enforcement effort in this area that are worth trying.

Implications for Police Enforcement

A number of principles are apparent from this review. First, enforcement operations need to be persistent and at a reasonably high level of activity to influence deviant behavior. This approach will induce a high perceived risk of detection (certainty of being caught if one offends), which acts as the main deterrent mechanism. Second, enforcement effort needs to be supported with widespread publicity to reinforce the likelihood of detection and, with reasonably severe penalties, to maximize compliance. The evidence suggests that these measures are less likely to be effective in the absence of police enforcement. Consistent commitment to these programs over reasonably long periods of time can lead to changed attitudes to these inappropriate behaviors among the community but they do require considerable resources to bring about these changes.

The experiences of the RBT and speed camera programs have considerable relevance for determining what effective and efficient policing operations should be. For instance, it would be assumed that police effectiveness in reducing undesirable road behavior would initially improve with higher levels of enforcement activity but beyond some critical value, would become less efficient. This phenomenon is typical of most human endeavors and the key to minimizing effort for maximum return is determining the point of optimal resource effort (the peak of the U-shaped function). To the authors knowledge, this has not been previously attempted for either RBT or speed camera operations, yet would seem to be essential for the rational allocation of scarce police resources.

Implications for Psychological Theory

Psychological theory, which explains these processes, seems reasonably well advanced in terms of explaining the deterrence

process. However, there are few alternative theories offered to aide enforcement; retribution is the predominant model in current enforcement practice. Although the retribution approach is successful, other models are still worth exploring to enhance the effectiveness of driver behavior in traffic safety. Very little attention has been paid to the role of positive reinforcement in bringing about behavioral change on the road even though there would be some merit with this approach.

The relative role of legislative retribution with nonlegislative measures (engineering compliance) is an interesting area for future research and development. The extent to which motorists will adhere to system controls such as drink-drive interlocks or top speed monitors will influence how effective we are in future in modifying driver behavior.

Challenges for the Future

Road trauma rates have fallen dramatically over the last 20 to 30 years in most western societies. Nevertheless, inappropriate driver behavior is still the predominant cause of road crashes. The greatest challenge for the future, therefore, must be to continue to develop effective ways of reducing unsafe (deviant) driver behavior. Police enforcement will continue to be a major weapon against unsafe driving actions, although more needs to be known about enforcement mechanisms to maximize its usefulness. It is clear, therefore, that there is a need for a closer working relationship between psychologists and police in modifying driver behavior. Closer attention needs to be paid to understanding this behavior more fully and subsequently using this knowledge to develop more effective and efficient police methods to counteract unsafe driver behavior. The development of more comprehensive behavioral theories of driving is necessary to provide guidance for enforcement agencies. To date, they have had to rely on the lessons gleaned from day-to-day policing operations without adequate support from sound research findings.

In addition to improved knowledge and effective and efficient policing principles, there is also a need for additional, supplementary interventions to address unsafe driver behavior. System controls involving intelligent highways and vehicles

seem to be the way of the future in reducing conflict opportunities and hence crashes. Indeed, perhaps the ultimate means of reducing the role of driver behavior in crashes will involve reducing the scope for drivers to have unconditional control over their vehicles.

8

NORMAL PERSONALITY DEVELOPMENT

Introduction

Professional police officers who constantly encounter both normal and abnormal behavior must have some understanding of how personality normally develops. There are three major influences on normal personality development: constitutional or hereditary factors, developmental factors within people themselves, and situational factors that arise from the interaction between people and their environment. Today the interaction of these three influences is known as the biopsychosocial model.

Constitutional Factors

Constitutional factors exist at birth and represent heredity's part in personality development. They include, among others, potential for growth in terms of height and weight, color of hair, intellectual potential, and sex. Less commonly, hereditary factors can include a predisposition toward various diseases such as diabetes and bipolar manic-depressive disorders, or a variety of anatomical defects, such as harelip.

Each of these features or conditions may influence the development of personality, helping in some ways and hindering in others. For example, whether one is born a male or a female has profound implications for personality development. A serious

anatomical birth defect can pose problems with which the developing personality may or may not successfully cope. Will the person become too dependent or feel inferior as a result of the defect, or will he or she adjust to the situation and even compensate by a greater effort in other areas?

Hereditary factors can therefore be considered the physical foundation for all subsequent personality development. They determine the outer boundaries of the personality's development. For the most part, they do not change during the course of life, although many congenital defects can be corrected surgically.

Developmental Factors

Sigmund Freud, one of the earliest and most influential students of personality development, constructed a theory based on assessment of those mental functions that he encountered in his adult patients. In his theory, Freud postulated a series of concepts concerning the workings of mental processes that, through their interaction, influence personality development. His concepts of the id, ego, and superego represent interdependent aspects of mental functioning that relate dynamically to influence personality and behavior.

The Id

According to Freud, from birth and through almost the entire first year of life, the newborn's mental processes are influenced entirely by the id. The id may be conceptualized as a mental inheritance, a complex of biological urges and needs (instincts). Examples include hunger and the instinct for self preservation.

Newborn babies do not learn to be hungry. They are hungry because their biological need for food makes their stomachs uncomfortable, leading to a behavior pattern that can be altered by providing food. Likewise, the instinct for self-preservation is common to all living things, ranging from the plant that turns to face the sun and sends roots deep into the soil for water, to the infant who reacts with a startle-withdrawal pattern to a painful stimulus.

Libido is a term that refers to the energy of the id. It may be compared to electricity flowing through a wire. Just as turning on

an electric switch sends current through the bulb, so the libido finds expression when a "connection" is made between the needs of the id and suitable fulfillment for them in the environment. Psychologists call this process need gratification.

The Ego

The ego, Freud's second basic mental concept, first makes its influence on mental processes felt toward the end of the first year of life. Until then, newborn babies' psychological functions are influenced entirely by biological urges and needs (id) and the desire to gratify them. They are unaware of any distinction between self, needs, and the world outside. Nipple, breast, bottle, mother, and self and are mentally fused into one unit and experienced as such.

However, as they begin to grow older, children become aware that, unlike the situation in the womb, they are no longer protected from outside stimulation. Hunger and elimination needs are no longer automatically and immediately gratified. Now when they are hungry, they begin to recognize that there is often a delay before the caregiver usually mother feeds them. Bright lights and noises intrude, and elimination can produce uncomfortable, even painful results if children are not changed promptly.

They slowly begin to realize that something exists outside of the self and that their own well-being depends on this outside caregiver for gratification. As their recognition of her increases, they also become more aware of themselves as a separate person (individuation). As this awareness grows, the ego begins to form and assumes a role in the mental processes.

The ego functions somewhat analogously to a corporate executive. Just as the executive gathers information on all aspects of the company and its place in the total economy, then makes decisions on corporate actions to be taken, the ego gathers information about the body, its needs, and its relation to the environment, then decides which course of action to take. The ego acts as the mediator or negotiator between the basic desires of the id and the outside world.

The ego should not be seen as totally antagonistic to the id. Rather, the ego and id may be conceptualized as partners, since it is the function of the ego to find realistic ways of gratifying the id's

desires. To return to the analogy, the corporate executive acts within the economy as a whole to best serve the interests of corporate stockholders.

Not only does the ego mediate the influences of the inner world through contact with the outer world, but it also serves a protective function to the individual. Should the ego fail in its protective and executive function, serious mental illness will ensue.

Thus, an important function of the ego is to maintain a tolerable state of psychological equilibrium, or balance. Scientists refer to this equilibrium as homeostasis. Coined by physiologist Walter Cannon, this term was first used to describe the system of physical checks and balances existing within the body to help maintain physiological equilibrium. For example, if a person goes out into the hot sun from a cool room, the body temperature does not change. A temperature-regulating mechanism in the body maintains constant body temperature regardless of the outside environment, thereby preserving physiological homeostasis. This concept also can refer to the psychological state. The ego is analogous to the physiological temperature regulating mechanism and helps keep the individual in psychological homeostasis.

The Superego

In Freud's postulates, the third aspect of mental functioning is the superego, a psychological construct closely related to the concept of conscience. As children grow up, they acquire from their parents a system of values things they should or should not do. At first, these are forced on children from the outside (for example, by parents, church, and school), but eventually they become internalized so that even in the absence of parents or other authorities, children will follow them.

The values that are first learned from parents form a rather primitive superego, which judges right and wrong in absolute terms. As children later come into contact with the moral and social code derived from police officers, teachers, Clergy, scout leaders, and other authority figures, a more mature social superego develops. Finally they become acquainted with the formalized laws and regulations of society. This superego is reinforced and strengthened throughout one's whole life.

However, some people fail to internalize these positive social values. Consequently, since they lack the "police officer from within," they respond only to the "police officer from without." For example, a common response to the question "Why is it wrong to steal?" by those arrested is "Because you get caught." They do not recognize that stealing in itself is wrong.

The don'ts internalized by children represent the conscience. However, Freud also described another part of the superego that he called the ego ideal. This represents the positive values and ideals with which individuals identify. Clinical psychologist Robert W. White defined the ego ideal as "the self that one wants to become". It may be an ideal of personal conduct (an upright citizen, a charming woman, a successful executive), or an ideal of desired accomplishments (to stand for honest city government or to protect the consumer).

When this ego ideal is threatened, anxiety, fear, and/or anger can occur. While some people may have a very poor ego ideal that is easily threatened, others may possess an exaggeratedly superior one. The latter is often a defense against hidden powerful feelings of inferiority and inadequacy that would overpower the ego ideal if recognized openly.

Situational and Environmental Factors

Although the Constitution states that all men are created equal, reality can be very different. Even in the uterus, the yet-to-be-born baby is affected by social, economic, and environmental conditions. If the mother lives in a ghetto, she may not receive adequate prenatal care. Her diet may greatly affect her unborn baby's development. The incidence of complications at delivery may increase, and the baby may suffer some type of brain or physical damage.

After birth, environmental forces are also influential. Studies have shown that prejudice and discrimination adversely affect personality development. They may lead to a very negative self-image.

The theories of psychologist Erik Erikson are helpful in understanding the influence of social and environmental factors on personality development. Erikson postulates that the first stage of personality development involves formation of a basic sense of trust.

He emphasizes the importance of adequate mothering during the first year of life and claims that to be effective, it must move beyond the satisfaction of only physiological needs. Psychological needs must also be met: to be rocked, cuddled, sung to, comforted, and loved. If the mother adequately fulfills these needs during the first year of life, the infant will develop a basic sense of trust. If infants do not receive this mothering -- if cries go unattended for long periods, if they are not cuddled -- this basic sense of trust will not develop and infants will perceive the world as hostile and ungratifying.

In Erikson's conceptual framework, the second stage of personality development is the time of the growth of a sense of autonomy. This begins at approximately twelve to fifteen months of age. For the next two years, children's energies are centered on proving that they are separate people with a will of their own. In this stage, children must be allowed to make choices in order to develop a sense of self-reliance. At the same time, they must be protected from exceeding the boundaries of self-determination of which they are capable. The interaction between child and parents will again determine success or failure in developing this sense of autonomy.

In Erikson's third stage, at four years, children begin to want to find out what kind of person they can be and to develop initiative. They observe others, especially parents, and try to imitate their behavior. At no other time in life will most people be as eager to learn and to do. Parents should always encourage and support initiative, but it is especially important that they do so during this time of life.

Very soon, children move into the fourth stage. They want to be engaged in tasks that will give them a sense of accomplishment. During this period, children acquire not only knowledge and skills but also the ability to cooperate and interact positively with others. If they encounter situations in which they are labeled too often as a failure, they will develop a sense of inadequacy rather than accomplishment. At this time in life, school and school personnel play an important interactional role with children. Positive or negative reinforcement in school can influence the development of a healthy or unhealthy personality.

The fifth stage occurs as children enter adolescence. At this time, the central problem becomes the establishment of a sense of

identity. Who are they? What will their role be in society? What job or profession will they seek? Will they marry and when? Can they make it even though they are part of a minority? Will they be a success or failure? They worry about acceptance by the peer group. They worry about their future. They become fearful of developing sexual desires and of the whole experience of sexual relationships.

As adolescents mature into adulthood, they also must be capable of developing intimacy with others. This ability to experience intimacy is necessary for the mature emotional give-and-take of a successful marriage. Some people, because of inadequacies in previous stages of emotional development, can never get close enough to others to achieve this. They tend to retire into psychological isolation and maintain interpersonal contacts on a formal level that lacks true warmth and spontaneity.

In Erikson's view, positive movement through these stages is the basis for normal personality development. As will be pointed out later, interaction between a person and his or her environment can be negative at any point in this process, leading to a variety of emotional problems, both minor and major.

Three Levels of Mental Activity

The developmental theories of Freud and Erikson are associated with Freud's theory of mental processes, which introduces the concepts of the conscious, the preconscious, and the unconscious. He described these three layers of mental activity as follows: (1) the conscious -- our immediate experience; (2) the preconscious -- that which is currently outside consciousness but which can be recalled immediately into consciousness; and (3) the unconscious -- that which is made up of events and feelings that cannot readily enter into consciousness or the preconscious.

The following analogy is useful in understanding these concepts. A person stands in the center of a room with a flashlight. That portion of the room within the beam of the flashlight is the conscious (what she is now thinking, seeing, hearing). She shines the flashlight into another portion of the room and stops it on a part previously darkened (the preconscious). The unconscious is that portion of the room beyond the reach of the flashlight, because of

distance, objects that block portions of the room, or inadequate brightness.

Of all behavior, the unconsciously motivated is perhaps the most powerful and significant. Although Freud postulated this concept in a new framework in this century, it actually reaches far back into history. Socrates, the early Greek philosopher, said, "In all of us, even in good men, there is a lawless, wild beast nature which peers out in our sleep". Other philosophers often warned that a devil lurks within each of us, awaiting the opportunity to destroy our souls.

Nevertheless, it was Freud who formulated the first clinically workable theory to explain the dynamic nature of the unconscious. He demonstrated that the unconscious is not merely a jumbled collection of past experiences, memories, and feelings but rather a dynamic system of primitive needs and urges, constantly seeking immediate gratification through entry into consciousness. Some of these unconscious thoughts are allowed expression under only certain conditions; others are never allowed into conscious expression.

Evidence of unconscious activity includes dreams, slips of the tongue, sleepwalking, psychosomatic symptoms, accidents, and the processes of remembering and forgetting. Freud called these behaviors "the psychopathology of everyday life" and gave many examples from clinical histories to illustrate how some feelings of guilt, jealousy, and hostility that are usually unconscious can find expression in consciousness through these mechanisms.

For example, a woman may not want to go out with her husband and another couple because she is unconsciously afraid and jealous of the other woman. She develops a severe headache, forcing cancellation of the evening's plans. In another case, a person hostile to a coworker may "accidentally" let a pipe slip through his fingers that strikes and injures the other worker. Or consider the fellow at the bus depot who approaches the buxom ticket seller and says "Two plickets to Pittsburgh." In this case there was no need for a mental health professional to interpret the slip.

As we shall see in the chapter on suicide, some people who "accidentally" fall from windows, are hit by cars, or fail to make the curve on a lonely highway may be satisfying an unconscious urge

to do away with themselves. They may not consciously intend to commit suicide, but their unconscious urges interfere with their ability to avoid these situations or to take appropriate countermeasures.

Summary

Police officers with professional attitudes toward behavior must be able to assess and understand the behavior of those with whom they deal. Why is the adolescent running away from home? Why are some people more violent than others? What causes abnormal sexual behavior? Why do some offenders always get caught so easily?

To answer these and similar questions, officers must possess a frame of reference that includes appreciation of ingredients necessary for healthy personality development. Comparing the background of an offender with the known requirements for healthy personality development will enable officers to evaluate more effectively that offender's motivation.

The basic psychological terms and theories presented in this chapter are part of the knowledge necessary to appreciate the complexity of human behavior and personality development. In the next chapter we will continue our discussion of basic psychological principles by exploring the development of defense mechanisms and the part that they play in both conscious and unconscious behavior.

9

PERSONALITY DISORDERS

Introduction

Diagnostic terminology used is consistent with the DSM-III-R (the most recently adopted version of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association), where we have chosen to retain the term neurotic disorders because of its familiarity to nonpsychiatrists.

With one exception, not discussed are diagnostic categories of abnormal behavior characterized primarily by psychological factors in association with physical conditions, such as specific disorders first evident in infancy, childhood, or adolescence (excluding mental retardation); mental retardation; and organic mental disorders (caused by or associated with impairment of the brain or its associated functions).

General Characteristics of Personality Disorders

Patterns of normal and abnormal behavior originate during early development. Personality disorders result from aberrations in this developmental process, influencing patterns of perceiving, relating to, and thinking about the environment and the self.

The path from normal personality development to personality disorder is not analogous to a divided highway where a normal personality becomes a personality disorder as soon as the center

divider is crossed. Rather, the path is more analogous to a two-lane highway divided by a dotted line, where an individual with certain traits may use them to his or her advantage at times (for example, stay in the proper lane), but also may use them dysfunctionally (for example, crossing over into the opposite flow of traffic), leading to behavior that does not serve the individual's best interest.

There are many significant periods in childhood development in which a failure to receive appropriate care from parents and others can lead the child to develop abnormal behavior patterns. These can serve initially as a defense against increased environmental stress. However, once adopted, they are very difficult to give up, especially if the child is not encouraged to change but is instead rewarded for maladaptive behavior. For example, if Johnny gets what he wants by having a temper tantrum, he may repeat this behavior because it has been rewarding.

Other negative early experiences may include the unreasonable demands that parents sometimes place on their children by failing to accept excuses when the child's behavior does not meet their expectations. Faced with this situation, a child may adopt a behavior pattern in which he or she quickly mobilizes energy to meet each demand, not necessarily with the goal of being successful but simply to avoid punishment if he or she fails.

Those with personality disorders often lack flexibility in responding to situations. While the normal personality is flexible and responds with appropriate patterns of behavior to different environmental events, the person with a personality disorder cannot significantly alter or change the pattern of behavior toward events that require different responses. As a result, the person experiences distress and often has trouble in social and occupational situations.

In contrast to neurotic disorders, personality disorders are generally ingrained in the development of a person's life-style over a long period. Those with neurotic disorders more often exhibit specific symptoms, such as anxiety or depression, rather than a pattern of behavior. Psychotic disorders are marked by thought disorders, delusional thinking, or hallucinatory experiences.

This chapter will describe four types of personality disorders most commonly encountered by law enforcement officers. Other personality disorders include the schizoid (in which the major defect

is in the capacity to form social relationships), the narcissistic (in which the major defect is a grandiose sense of self-importance), and the borderline personality disorder (in which there is an instability in interpersonal relationships, mood, and self-image).

Passive-Aggressive Personality Disorder

The passive-aggressive personality disorder is a major cause of failure in jobs, school, and interpersonal relationships. The essential feature is a direct or indirect resistance to demands for adequate performance. Those with this disorder often passively express hidden aggression. Their behavior may be characterized by procrastination, stubbornness, intentional inefficiency, forgetfulness, and delaying tactics. Despite their aggressiveness, these people are often dependent and lack self-confidence. They may express pessimism about the future, but at the same time are unable to recognize that their behavior is responsible for the difficulties they encounter. They frequently blame others. Authority figures are a favorite target for resistance and resentment. Many of these people also have a magical anticipation that all their needs will be met regardless of their behavior.

Case Example. Gregory Martinez, who is twenty years old, came to the police's attention one evening when his mother called the emergency number. She said that her son was lying on the bathroom floor and that his arm was bloody. Upon arrival, the paramedics administered emergency first aid and took Gregory to the hospital, accompanied by his mother.

While the doctor was treating the cut Gregory had inflicted on his arm, the officer obtained the following information. Gregory had just graduated from a vocational rehabilitation program after taking courses in automobile body work. He had entered it after his parole, having served one year for felonious assault on the boyfriend of a girl Gregory had dated earlier. More recently, his mother said he had been very upset because even with his diploma, he could not find work. In the days before cutting himself, Gregory had been complaining bitterly of the prejudice he felt from others because of his past prison record and his Mexican-American heritage. In reality, however, it was a period of high unemployment in the community and jobs were scarce all over.

Gregory had been a spoiled only child and until recently had never demonstrated any motivation to help himself. Even entrance into the rehabilitation program had occurred only after he had been cajoled by his parents, girlfriend, and other friends. Gregory's mother said, "He always seems to want everything to happen for him, and when he doesn't get his way, he strikes out." When asked to explain further, she recalled how, as a teenager, he had many problems in school with both classmates and teachers because he would not accept direction. His teachers told his mother that he couldn't handle criticism no matter how small and that his typical response was to become more disruptive. They all felt he could do better, but noted that he was his own worst enemy, always managing one way or the other not to do what he was asked.

Histrionic Personality Disorder

Those with histrionic personality disorders are easily excited and overreact to many situations in a dramatic manner. Minor stimuli lead to emotional hyper responsiveness. This dramatic behavior is always attention-seeking and may appear seductive. Furthermore, histrionic people are generally self centered, immature, and tend to be impressionable. They are easily influenced by others, particularly by authority figures.

Police sometimes encounter them as victims of sexual attack. In presenting their stories of the attack, they are likely to embellish dramatically the details of the event, missing nothing in their description.

Those with this disorder are often incapable of forming mature heterosexual relationships; they act dependent and helpless while constantly seeking reassurance. They are perceived by others as shallow, even if they are superficially warm and charming.

Case Example. Hilda Davis is twenty-two years old and twice divorced. She was brought to the emergency room after she had reportedly fainted at home. She had been living with her sister and brother-in-law and their children in a small trailer following her most recent divorce. She remembered feeling nervous almost as soon as she moved into the house.

On further questioning, Hilda revealed she had had an affair with her brother-in-law several years earlier. Although she did not

see any connection between this event and her feelings of nervousness, Hilda revealed, perhaps inadvertently, that she felt edgy and dizzy at night when she was alone with her sister and he was working, and got better during the day when he was there and her sister was working.

Hilda was given some tranquilizers and asked to return to the clinic the next day. When she appeared, the doctor immediately noticed a remarkable change in her appearance. Instead of the disheveled young woman he had seen the night before, Hilda was now seductively dressed with somewhat overdone makeup. When invited into his office, she immediately said, "I'm so glad to be here. That medicine you gave me last night made me feel so much better."

More than seeking a sexual relationship, these people seek attention. When this attention was lacking during childhood, they learn to get it by dramatizing their behavior or feelings. If this is not successful they may try other routes, such as feigning illness.

Paranoid Personality Disorder

Hypersensitivity, rigidity, unwarranted suspicion, jealousy, and feelings of excessive self-importance, coupled with a tendency to blame others for any failure that they encounter, characterize those with a paranoid personality. They often use projection as a defense mechanism and see the entire world through a very personal set of references. They view their frustrations as further evidence that their suspicions about the world are true.

These people often have an exaggerated sense of importance. They see themselves as the focal point of all activities that surround them, whether or not this is true. They make mountains out of molehills and are often concerned with hidden motives and special meanings. Usually appearing tense, they are rejected by others because their underlying hostility and lack of humor make others very uncomfortable.

Case Example. Mary Rutherford is twenty-six years old and single. She is employed as a secretary and is the least liked woman in the office. She is impossible to get along with because of her constant accusations that others are picking on her, giving her too much work, or not treating her properly. This is puzzling because she appears intelligent and ambitious. A woman who used to share

an office with her remembers one encounter that illustrates why Mary is not well liked.

One day this woman was called into the office of one of the people for whom she and Mary worked. The two women had been proofreading a manuscript. When Mary's coworker got up to go into the office, she said, "Be back in a minute." Unfortunately, her return was delayed because the boss had a lengthy task to explain to her.

When she finally returned to her desk, Mary was enraged, sarcastic, and jealous. Without provocation, Mary immediately launched into a tirade, accusing her office mate of trying to seduce the boss. Attempts to quiet Mary were unsuccessful, and both the conversation and the accusations ended only when the woman excused herself, went to the powder room, and remained away from Mary the rest of the day.

Paranoid personalities usually grew up in a home filled with parental conflict. One parent is usually domineering and the other submissive. Not only are the children unable to deal with the domineering parent, but they also do not receive help from the submissive one.

As one way of handling this devastating situation, the children adopt a behavior pattern in which they may react defensively to almost any situation in which a threat is felt from the domineering parent. The children become constantly vigilant and fearful of individuals and situations, whether or not the fear is justified. Feelings of rejection are exaggerated and further reinforce this vigilant attitude.

Compulsive Personality Disorder

Excessive concern with rules and conformity, adherence to strong standards of perfectionism, an inability to relax and to tolerate ambiguity, a characteristic rigidity that makes it impossible for them to change their minds after arriving at decisions, and a failure to express warm emotions characterize those with a compulsive personality. At work they often initially draw the positive attention of superiors because of an ability to organize their thinking and to conduct affairs in an orderly fashion. However, these positive traits

quickly become obscured by their stubbornness and by the eventual recognition of their inefficiency.

Case Example. After several years as a patrolman, Mike Morris was promoted to sergeant. While complimented in the past for his attention to detail, excellent reports, and seemingly appropriate observance of the rules of safety, he was a total failure as a supervisor.

Those who had been his peers and were now his subordinates quickly found it impossible to work for him. With his new responsibility of enforcing rules and regulations rather than following them, he made life miserable for his subordinates. His attention to detail, while admirable as a patrol officer, interfered with the ability of other officers to perform their work. His demands for more and more reports and his tirades when officers did not "go by the book" created a morale problem.

While his excessive attention to orderliness was ignored by his peers when he was at their level and was complimented by his superiors, it now became obstructive and antagonistic. Initially officers under him tried to please him but soon found they could not succeed. Finally they gave up and began devising ways of getting around him and discrediting him. The situation deteriorated, and finally the officers felt forced to go to Mike's superior and ask for his removal or their transfer.

Mike's compulsive personality disorder nipped a promising career in the bud. However, like most compulsive personality disorders, his never received psychiatric attention. Many such people can function effectively, provided they are placed in a suitable environment.

This need to maintain rigidity is an outgrowth of early developmental problems involving parental control. Faced with the need to comply with parents and overly threatened with loss of love if they do not, children may either be overly compliant and compulsive or become rebellious. Children often give up the latter alternative quickly because of parental demands and the children's need for love. The children learn quickly that parental approval and love will come if they are compliant. By paying attention to detail, they avoid dangerous feelings of fear and anger directed at the parent for enforcing this standard of behavior. In attempting to gain control of anger, they pay the price of giving up opportunities to express

this emotion. If they encounter a stressful situation in which these emotions are overwhelming, the compulsive behavior pattern can break down and a psychotic reaction occur with severe depression. Even in this decompensated state, they may continue to pay attention to detail. A well-known example of this is Lady Macbeth who, while psychotic, focused on a spot of blood and compulsively repeated, "Out, damned spot!"

Law Enforcement Officers

The interpersonal relationships of those with personality disorders present a unique problem for law enforcement officers. Police-officers who are called into a situation involving someone with a personality disorder often find behavior out of control and violence looming. Officers should remember that this person has adopted a disorderly behavior pattern to protect him- or herself from life's stresses. When this pattern is threatened, the person may become dangerous and likely to act impulsively in a desperate attempt to protect the self.

In handling these situations, law enforcement officers should work in teams. The team approach enables officers to assess the situation quickly and to divide up those responsibilities that will help to bring the situation rapidly under control. When a person is in tense conflict with another, officers should remember that it will not be enough to direct all attention toward the individual with the personality disorder, even if it is obvious who that person is. Since the person is reacting to a stress from another individual, he or she will be reassured if officers also direct their attention to that other person.

It is important to remember that since those with personality disorders may do poorly under acute stress, they will respond positively to any activity that helps remove that stress. This does not mean that officers should be lulled by magical expectations. Rather, they can help remove the stress by indicating to the person in forceful, clear, and tactful terms that there is no way that the wish can be granted. This direct confrontation with reality, in clear and nonargumentative terms, can have a calming influence because it helps the person reestablish contact with a reality that has been lost temporarily as emotions gained control.

Summary

In this chapter we have described those personality disorders that police most often encounter. Officers can learn to recognize the signs of passive aggressive, histrionic, paranoid, and compulsive personality disorders in a variety of situations. Officers can act more effectively if they are aware of the characteristics of these disorders and their influences on behavior.

Although the clinical examples in this chapter tend to focus on noncriminal aspects of law enforcement, those with personality disorders can readily be found in criminal situations. This will become clearer when we later examine psychopathic behavior, deviant sexual behavior, delinquent behavior, and drug abuse.

10

NEUROTIC DISORDERS

Introduction

We discuss the specific symptoms of each of the major neurotic disorders, it will be helpful to understand some of their general characteristics.

General Considerations

The most important element in the development of symptoms is the presence of an impulse, generally coming from the id, that is likely to create anxiety if allowed into consciousness. If it becomes conscious, symptoms also may occur if the impulse is not dealt with appropriately. Defense mechanisms are used to ward off anxiety, but symptoms may occur if the defenses do not work effectively or work so well that the behavior resulting from them impairs functioning.

This is a simplified description of the process of symptom formation and does not do justice to its complexity. The complexity results in part from childhood experiences. Consequently, a specific impulse that creates anxiety in one person may be warded off by another. Similarly, the way one person wards off anxiety may differ from another person's method.

An illustration will help clarify this point. Suppose that the unacceptable impulses coming into consciousness are sexual. Let

us say that they involve a woman. One woman might handle these impulses through sublimation by choosing a job, such as modeling, that helps her successfully channel her unacceptable sexual impulses. Another might use projection and channel unacceptable sexual impulses into a belief that others are looking at her on the street and thinking about picking her up. Why one person chooses sublimation and another projection to handle the same unacceptable sexual impulses may be a reflection of early development factors, including those defense mechanisms that the child used to handle positive or negative reactions from parents.

Both women could develop neurotic symptoms if their defenses came under attack. Suppose that the first loses her modeling job or the second is picked up on the street. Both events could generate great anxiety or depression.

While neurotic symptoms may be disturbing, they also can serve a positive purpose. Freud called these advantages secondary gain, referring to the benefits obtaining from being sick, when others may pay more attention and do things that they would not ordinarily do if the person were well. Although secondary gain may not play a major role in the onset of neuroses, it may support their continuation. If its benefits are great, there is less motivation to give up the neurotic symptoms. The pursuit of secondary gain is not conscious. When it is, it is called malingering. Sometimes it is difficult for the professional to distinguish between conscious malingering and unconscious secondary gain.

Anxiety Neurosis

An anxiety neurosis (also referred to as a generalized anxiety disorder) is defined as an episode of "generalized, persistent anxiety of at least one month's duration" without the specific symptoms that characterize other mental disorders. It is characterized by apprehensive expectation, physical complaints, and hyper attentiveness, but should be differentiated from normal apprehensiveness or fear.

Historical Background

The concept of anxiety neurosis has been used by many psychiatrists and psychologists in their attempts to explain the

dynamics of personality development, abnormal behavior, and emotional disturbance.

In his early theory, Freud viewed anxiety as resulting from an inability to discharge physical tension. In his later theory, however, he adopted a more psychological orientation and made an important contribution to our understanding by recognizing the protective function of anxiety. In his concept of signal anxiety, he described a state in which the individual first perceives danger and then uses signal anxiety to mobilize defense reactions to avoid the danger. If these attempts to avoid danger are not wholly successful, anxiety may increase and become a diffuse state that affects all behavior, thereby contributing to the development of a more generalized anxiety disorder.

Harry Stack Sullivan, a later theoretician, stressed the early mother-child relationship in the origin of anxiety neuroses. He proposed that the original model for adult anxiety could be found in the child's fear of mother's disapproval. This early anxiety is related not only to the child's knowledge that maternal approval is essential to his or her own comfort, but also can serve as an alerting mechanism in situations where maternal disapproval might be forthcoming.

Characteristics

The person with an anxiety neurosis may have a history of chronic anxiety not necessarily related to any specific situation. This anxiety can become more acute in some situations, but there is usually not any particular pattern to the casual observer. Physical complaints can be wide-ranging and involve almost every organ system of the body. Headaches, nausea and vomiting, shortness of breath, palpitations, menstrual dysfunction, and insomnia are often associated with anxiety neuroses. In addition to these specific physical complaints, general uneasiness may be present, characterized by such statements as "I feel uptight," "I can't sleep," "I don't like to be by myself," or "I'm always worried."

Mild depression symptoms, along with anxiety, are common. It is not rare to encounter abuse of alcohol, barbiturates, and tranquilizers, especially in those whose anxiety is persistent or where episodes have occurred frequently. The following example will further illustrate the characteristics of the anxiety neurosis.

Case Example. Hazel Newton is a twenty-one-year-old college junior who was brought to the hospital after police were called to the campus. Her roommates had found her apparently unconscious with a half-empty pill bottle by her bed. After receiving medical attention, she told the following story to the psychiatrist who interviewed her.

Although she had never gone for help, she recognized that she had not been her normal self for at least a year. During the summer between her freshman and sophomore years, she had broken up with the fellow she had been dating since her sophomore year in high school. Up to that time, he was the only man she had dated.

Since then, she said, "I have been uptight all the time." Upon further questioning, she also told the doctor that she had had insomnia for two years. She had made many visits to physicians because of vague physical complaints and had many tests to find the cause of these symptoms but without success.

Furthermore, her grades, excellent during her first year of college, had gone steadily downhill. When asked about the suicide attempt, she revealed that several days previously, she had been called into the dean of women's office and told that if she did not pull her grades up, she would not be able to graduate.

Hazel also stated that she no longer felt comfortable with men and that no man she had dated in the past year had asked her out again. She commented, "I just can't seem to relax on dates."

Underlying Factors

Hazel's anxiety is consistent with the definition of an anxiety neurosis, since it is diffuse and not restricted to specific situations or objects. Her case illustrates another common characteristic: the inability to link the onset of the neurotic behavior with any single precipitating factor. In Hazel's case, the breakup with her boyfriend two years previously and the prospect of failure and rejection conveyed to her by the dean several days before her suicide attempt were critical factors in the original onset and recent worsening of her anxiety disorder.

As previously suggested, events in early childhood serve as the focus for the development of the condition. In Hazel's case, her

mother's long absences from home because of work and illness may have been an important underlying factor. Prior to breaking up with her boyfriend, Hazel had been able to cope with her fears of abandonment and rejection through a close and clinging relationship. However, after the relationship ended she could no longer handle her fears of abandonment. Her anxiety grew and grew until it culminated with the suicide attempt.

Depressive Neurosis

Depressive neurosis (also referred to as dysthymic disorder) is a condition in which there is a chronic disturbance of mood or a loss of interest in almost all usual activities. It differs from a major depressive disorder (chapter 8) in that the person with a depressive neurosis does not experience the severe or lengthy distortion of reality and behavioral disorganization that characterizes a psychotic disorder; also, the genetic predisposition noted in the latter is not present in a dysthymic disorder.

Historical Background

During the past seventy years theoreticians, clinicians, and biologists have paid much attention to the differences between the various types of depression. These differences have become more critical since the advent of medication because it appears to have a variable effect on different types of depression.

Characteristics

Persons with symptoms of depressive neurosis feel disturbed, sad, blue, miserable, and depressed. Along with this alteration of mood, these people may show a general loss of interest in the environment, including their home, family, work, or schooling; a tendency to be more self-critical without apparent reason or justification; and an increase in physical symptoms, such as a sleep disturbance, loss of appetite, and a marked change in weight. Suicidal thoughts may be present, often associated with a pessimistic attitude toward the future.

Like the anxiety disorder, this depressive disorder is pervasive. In full force, the depressed mood colors all life events. A specific

precipitating experience may be identifiable, although it can also be absent. The following example will illustrate.

Case Example. Martin Dine, a twenty-six-year-old police officer, had recently been divorced. He took twenty-five Nembutal after drinking beer for several hours and was found by the police, whom he had called just prior to passing out. He was taken to the emergency room and interviewed after receiving medical attention.

He had been depressed for some time since his wife told him she was involved with another man, did not love him anymore, and wanted a divorce. When she was interviewed later, she said that Martin seemed to take the news very well initially, that he recognized their marriage was on the rocks and perhaps a divorce was for the best.

However, shortly after the divorce became final and six weeks prior to his suicide attempt, he became very depressed. His fellow officers noticed that he was paying less attention to his work and occasionally took unnecessary risks. Furthermore, he was obviously losing weight, as he was not eating when his squad took a dinner break.

On the day prior to his suicide attempt, he was called into the sergeant's office and told that his poor work was noticeable and that if it did not improve, he faced disciplinary action and possible termination. Later that day his former wife called him to say that she could not care adequately for their two children on his alimony payments. Feeling even more depressed and seeing his situation as hopeless, Martin decided to kill himself.

Underlying Factors

Those with a depressive neurosis, like those with an anxiety neurosis, have usually encountered difficulties in early childhood that contribute to a personality foundation that is highly susceptible to development of a neurosis. These early factors may include a poor self-image, which develops either as a result of a lack of positive parental reinforcement or in the presence of overcritical parents. People with depressive neuroses usually have very strict superegos, developed as a result of an identification with the overcritical parent. Thus they become overcritical of themselves.

When faced with failure, as Martin was when his marriage ended and his job was threatened, they perceive these events as a natural consequence of their own inabilities, a point of view consistent with their underlying poor self-image. Prior to the onset of the full-blown disorder, they may have experienced less severe episodes of depression as they attempt to compensate for their poor self-image. If they fail, they also experience guilt because they have been unable to live up to not only their own expectations, but also those of their parents and their profession.

In a depressive neurosis, one of the principal underlying characteristics is an inability to handle feelings of anger appropriately. The unexpressed hostility Martin felt toward his wife at the time she told him about her extramarital affair was an important contributing factor to the onset of his acute illness. In treatment, Martin later learned that one of the reasons he was unable to express this hostility was because of the nonacceptance of hostility in his early childhood surroundings. He was forced to hold back these feelings unless he was willing to run the risk of further criticism and rejection from his parents.

Obsessive-Compulsive Neurosis

The obsessive-compulsive neurosis (also known as obsessive-compulsive disorder, or OCD) is characterized by ideas, thoughts, or impulses that are repetitive (obsessions) and by actions that are repeated for unexplained reasons in a patterned form of behavior (compulsions). These obsessions and compulsions are usually perceived as unwanted or unacceptable. The person usually recognizes the senselessness of these thoughts and derives no pleasure from this behavior, other than a relief of tension.

Historical Background

Observations of obsessional thinking patterns and compulsive acts date from medieval times, when these people were often thought to be under the devil's influence. Consequently, many early theories about the origins of obsessive-compulsive neuroses dealt with spiritual forces or witchcraft.

By the nineteenth century, however, theorists began to view obsessive compulsive neuroses differently. Pierre Janet was among

the first to assume a more modern view of this emotional disturbance, describing a biological base in which the central disturbance was the result of a lessening of mental energy.

However, it was Freud who recognized the importance of the unconscious and conflict, and devised the first modern theory. He viewed obsessive compulsive symptoms as related to three defense mechanisms: isolation, undoing, and reaction formation.

He saw obsessive thinking as an attempt to remove from consciousness any feelings associated with the thought. Only after fully isolating these feelings successfully could the individual allow the previously unconscious and dangerous thought into consciousness.

The amount of energy required to keep the emotional component isolated often involves the entire personality in the process. In the preneurotic state, this defense mechanism of isolation begins to break down, and the emotional component of the thought or impulse constantly threatens to break through into consciousness and escape the controls placed upon it.

Other defenses must then be employed to counter this threat. The defense mechanism of undoing is a behavioral attempt to handle the obsessional thought that makes the person anxious. This leads to the compulsive act. For example, a mother's compulsion to check the baby's room three times before going to bed might be her way of unconsciously undoing a death wish that she has toward the baby.

In reaction formation, the third defense, the person tries to handle unwanted thoughts and emotions by channeling them into a pattern of behavior that is the opposite of the behavior associated with the underlying impulse. For example, the overprotective mother may really be a rejecting mother who deals with this unacceptable impulse by becoming over concerned about her child's welfare.

These formulations will be clearer as we talk about the characteristics of obsessive-compulsive disorder and present an example.

Characteristics

As described previously, the characteristics of all OCDs are the presence of obsessional thinking, accompanied by a pattern of

compulsive and ritualistic behavior. Kleptomania (compulsive stealing) and pyromania (compulsive fire setting) are variants of the compulsive neurosis occasionally encountered by police officers. These kinds of behaviors protect against the release of even more dangerous, usually aggressive, impulses. In later stages of the illness, the person may give in to them, no longer having the desire to resist them.

Neurotics may not recognize or accept this aggressive content because it is too threatening, but it is usually obvious to a trained observer. Likewise, the person who experiences the compulsive behavior pattern that is designed to ward off the obsessional thoughts is not able to make the connection between the acts and the thought pattern. The following case is an illustration.

Case Example . Michael Monroe was eighteen years old when he was admitted to the hospital's psychiatric unit because he felt he was going crazy. He told the interviewing psychiatrist that for the past three months he had been constantly preoccupied with thoughts about cleanliness and more recently had been spending great amounts of time washing himself and his clothes. His mother confirmed his story and said she also had noticed other changes in his behavior, including an increase in nail biting, a willingness to eat only certain foods, and a peculiar pattern of leaving notes all over the house to avoid talking with family members.

Several days prior to admission, a new behavior pattern emerged whenever Michael left the house in which he would walk out the door three steps and back up four steps into the house. This would be repeated four or five times before he could leave the house.

When questioned, Michael was unable to present any reason for these actions. He could only state that his behavior had completely interfered with his schoolwork and was seriously threatening his expected graduation from high school in June. He also admitted that the reason he had agreed to come to the hospital was that he had begun to have thoughts of violence toward his father.

Underlying Factors

In Freudian theory, an obsessive-compulsive neurosis has its origins in early childhood, particularly during the period of toilet

training. According to this theory, there is a marked degree of ambivalence and uncertainty during this phase of development. This early ambivalence of not knowing what to do, accompanied by a frequent changing of one's mind can evolve into a ritualistic pattern of compulsive behavior when stresses are great enough. This ambivalence is exemplified by Michael's inability to make up his mind whether to leave the house. He must first go through a compulsive behavior pattern before he can give himself permission to go.

When obsessive-compulsive patterns begin to fail to accomplish their purpose, regression may become the last defense available as an escape from the ambivalent bind. This regression is illustrated by the observations of Michael's psychiatrist. Although Michael reported being obsessed with cleanliness, he appeared as a dirty, sloppily dressed young man who had not paid attention to his personal hygiene for at least several days.

Michael's mother revealed that just prior to the onset of this obsessive compulsive pattern, his father had been seriously injured in an auto accident. Later, in treatment, the therapist was able to identify that this precipitating event had been a magical carrying-out of Michael's previously unconscious hostility toward his father. A characteristic of the obsessive-compulsive neurotic is an inability to deal with rage, leading to the ambivalence. In this case, the accident had served as the trigger that brought many of these formerly successfully repressed hostile impulses to the surface. The obsessive-compulsive neurosis represented Michael's frantic attempt to prevent these hostile, aggressive impulses and thoughts from breaking through to the surface, which they had finally done in the days immediately prior to his admission to the psychiatric unit.

Phobic Neurosis

Phobic neurosis can be distinguished from the preceding three neuroses because its symptomatology is usually limited to a specific phobic object or phobic situation. A person with a phobia restricts some normal activities. The phobic neurosis often coexists with other neurotic symptoms, such as anxiety and depression.

Historical Background

The term phobia did not appear until the nineteenth century. In 1872 Kurt Westphal, a German theoretician, reported on three male patients who had specific fears of open places, a condition he labeled agoraphobia. Today we recognize a variety of phobias that are generally named after a particular fear. Other examples include claustrophobia, a fear of closed-in places, and acrophobia, a fear of high places.

Characteristics

A phobia must be distinguished from a normal fear. It refers to a morbid fear of a particular object or situation a fear of something that normal persons do not perceive as any great threat or danger.

However, this distinction is not always entirely clear. Some phobic objects or situations may create normal fear. When this occurs, we have to look at the strength of the individual's reaction to the object or situation and judge whether a phobia is present by the degree of fear.

When anxiety about a specific object or situation cannot be handled appropriately, it is displaced in a phobic neurosis onto a previously neutral object or situation that then becomes the phobic object or situation. Phobias are always accompanied by anxiety when the person is in the presence of the phobic object or situation. However, this anxiety is secondary; it is not the original anxiety.

In the phobic neurosis, displacement is used as a defense. The unacceptable feeling or thought is unconsciously transferred from its source to a less threatening substitute. Through displacement, the neurotic combats the original anxiety. If this person avoids the phobic object or situation, he or she can function effectively.

Occasionally, however, the phobic neurosis becomes more severe because the anxiety generated becomes so great that the person develops a phobia for almost every object or situation. Sometimes one or more of the phobic objects or situations becomes so important to the individual's life-style that they cannot be avoided. An example will help illustrate this point.

Case Example. Judith Rosenberg is a forty-three-year-old woman who was accompanying her husband when he had an auto accident.

Mr. Rosenberg told the investigating officer that his wife made him so nervous when he drove that she really caused the accident. In response to the officer's questions, he said that his wife was much less nervous if she drove the car. The officer suggested that Mrs. Rosenberg might seek professional help about her nervousness. She did not do so at first, but when her anxiety became so great that it was almost impossible for them to go anywhere unless she drove, she agreed to professional help.

The psychiatrist learned that Mrs. Rosenberg's aged mother, Mrs. Schwartz, had died after a twelve-year illness six months ago. During the terminal phase of her illness, Mrs. Schwartz had been in a nursing home. Prior to that, she had lived with the Rosenbergs for close to twelve years. During this time Mrs. Rosenberg had the principal responsibility for caring for her mother.

Underlying Factors

Those who are prone to phobic neuroses as adults have a history of observed anxiety, even as children, in association with certain impulses. Most commonly, the impulses are sexual and aggressive. In normal personality development, the person develops appropriate defense mechanisms that channel these unacceptable impulses.

Prior to devoting all of her energy to her invalid mother, Mrs. Rosenberg had spent much time doing volunteer work for the sick. Consequently, it was natural for her to assume the responsibility of caring for her ill mother. At the outset, before her mother moved into her home, the physician had told Mrs. Rosenberg that he anticipated that Mrs. Schwartz had only a year to live. However, Mrs. Schwartz lived for twelve years, and Mrs. Rosenberg devotedly cared for her every day.

Through this attention, Mrs. Rosenberg could continue, through sublimation and reaction formation, to channel many of her unacceptable aggressive impulses. She had begun this pattern with her volunteer work and continued it through her care for her mother. Only when her mother became so ill that she was unmanageable at home was she moved to a nursing home. This was done against Mrs. Rosenberg's wishes, but at her husband's insistence. Mrs. Schwartz died several weeks later.

In treatment, it became clear that the onset of Mrs. Rosenberg's phobic neurosis was directly related to her failure to develop adequate mechanisms for handling her unacceptable aggressive impulses. When her mother died, her mechanism for sublimating this aggressive impulse was also lost.

Her choice of the car as the phobic object was related to the corollary phobia of an accident. This latter phobia represented both a displacement and projection of her hostile impulses. She could feel more comfortable if she was in control of these impulses by driving the car but was more anxious when she was not in control and her husband was driving.

Conversion Neurosis

In conversion neurosis, also referred to as hysterical neurosis or conversion disorder, individuals convert the unacceptable impulse threatening them with overwhelming anxiety into a physical symptom, usually associated with the parts of the body under voluntary control. These symptoms lessen anxiety and are often symbolic of the underlying conflict.

Conversion neurosis is both similar to and different from phobic neurosis. The similarity is in the use of the defense of displacement; the difference is that the displacement is to a part of the body rather than to an outside object or situation.

Historical Background

Like obsessive-compulsive neuroses, the unusual symptoms of conversion neuroses contributed to an intense mythology during the Middle Ages, the seventeenth, eighteenth, and early part of the nineteenth centuries. Only in the latter part of the nineteenth and early part of the twentieth century was a psychological basis for these symptoms recognized and their causative mechanisms worked out by Freud and his predecessors, Jean-Martin Charcot and Hippolyte-Marie Bernheim.

In Freud's theory, the emotions associated with a specific psychological trauma cannot be expressed directly because they would lead to unacceptable impulses and behavior. Consequently, these feelings and impulses are displaced and converted into

physical symptoms. Furthermore, they are so well blocked that the person is characteristically indifferent to physical symptoms. If he or she is hysterically blind, for example, the emotional concern that most of us would display is not evident.

Characteristics

The physical symptoms associated with conversion neuroses are either motor or sensory. Motor disturbances usually take two forms: impaired movement and paralysis. In both cases, a complete neurological examination will not reveal any organic basis for the symptoms. The symptoms are often inconsistent with known anatomical pathways. In sensory disturbances, the areas affected also will not be consistent with known anatomical pathways (for example, in stocking anesthesia, the patient's insensitivity will cover the same area of the leg that a stocking would — an anatomical impossibility). While it is more likely that those with repeated episodes of conversion neuroses will experience the same symptom during each episode, it is also possible that the conversion symptom may vary in site and nature. Usually the symptom appears suddenly in a situation where extreme stress is present.

Case Example: Officer Clarence Kanner had been transferred to Vice from Patrol about six months prior to his admission to a hospital. He complained of blinding headaches and feared a brain tumor. Thorough medical and neurological examinations were negative. A consulting psychiatrist was called in, and he established the following sequence for the development of the symptoms.

The officer had led a rather protected life as a youth and had dated only one woman since high school. Shortly after graduation, they were married. After several short-term jobs that did not interest him, he joined the police department. After he had been in Patrol for about four years, he was transferred to detectives and assigned to Vice. Here he was thrown into association with many young women who, despite their lack of an acceptable moral code, were physically attractive to him. It was evident that a number of them also found him attractive.

When he came home from work to his wife and family (he had two small children), the problems of family living contrasted sharply with the night-life environment of his job. His own strict moral code

and sense of responsibility as husband and father were in conflict with the role he had to play at work. Unable to resolve this emotional conflict, he developed blinding headaches -- sometimes on the job (perhaps when temptation was becoming too great for his unconscious desires) and sometimes at home (when family pressures built up). He began to suspect that he had a brain tumor, and this aggravated his symptoms. His emotional conflicts were thus converted into physical symptoms that had no organic basis.

Underlying Factors

The benefits of a conversion symptom to the neurotic are twofold: the person achieves a primary gain by keeping an internal conflict or need out of conscious awareness; and the person also may achieve a secondary gain by using the conversion symptom to avoid a specific activity that is unacceptable or by obtaining support from important people who would not otherwise provide it.

In contrast to other neuroses that have their origins in conflicts surrounding very early stages of development, the roots of the conversion neurosis are related more directly to the sexual conflicts that the child encounters between ages three and five. As in Officer Kanner's case, conversion neuroses and conversion symptoms occur as a result of the displacement of unacceptable sexual impulses that, if allowed to come into consciousness, would cause overwhelming anxiety.

Dissociative Neurosis

The dissociative neurosis (or dissociative disorder) is especially important to law enforcement officers. It is in this category that psychological amnesia falls. This psychological forgetting is often difficult to distinguish from a true amnesia based on organic injury or disease.

Historical Background

In early theories, dissociative neuroses and conversion neuroses often were included together under the general label of hysteria. However, later theoreticians, including Freud, differentiated between the two on the basis of the physical symptoms present in conversion

neuroses. In the Diagnostic and Statistical Manual of Mental Disorders, the distinction is even greater; conversion neuroses are considered part of the class of somatoform disorders, while dissociative neuroses are a separate class altogether.

Characteristics

Because of their many forms, the dissociative neuroses form a complex group of emotional disturbances. It is important to know whether the temporary alteration of personality integration is in the area of consciousness, identity, or motor function. Depending on the form, the illness will be hysterical amnesia, multiple personality, a sleepwalking trance, or, of special interest to law enforcement officers, the phenomenon of highway hypnosis.

All are related by the phenomenon of dissociation, in which events originally blocked from consciousness because of their unacceptable nature become so overwhelming that the only way to deal with the problem is to dissociate completely from the environment. A case of highway hypnosis will serve as an illustration.

Case Example. It was a clear day when John Vincent, twenty-seven years old, died at 2:14 P.M. in a single-car accident on an interstate highway in northwestern Arizona. The investigating officer reported that a thorough perusal of the highway on which John had been traveling just prior to crashing into a telephone pole did not reveal the characteristic pattern of weaving associated with falling asleep at the wheel or the skid marks commonly noted when the brakes are applied abruptly after the victim awakes. John's death was probably a result of highway hypnosis.

Underlying Factors

In highway hypnosis, the victim becomes dissociated from the environment as a whole, losing track entirely of the passage of time and place. Mild cases of highway hypnosis are known to all of us. When we emerge from our dream state, we recognize that we have been driving for seconds or minutes and have passed several familiar landmarks without realizing it.

In serious cases, such as led to John Vincent's death, this trance state leads to complete immobilization at the wheel. Because of it,

the driver is often unable to negotiate a curve. Highway hypnosis associated with fatal traffic accidents is most likely to occur on long, straight, monotonous stretches of turnpikes where curves are few and far between, offering little challenge to the motorist to pay attention to the road.

Neurotic Disorders and Situational Trauma

Recent manuals of psychiatric diagnosis include two specific types of disorders that arise in response to what is perceived as severe life-threatening circumstances: post-traumatic stress disorders (PTSD) and panic attacks.

Either PTSD or panic attacks can expand into a "full-blown" anxiety disorder or neurosis – usually as a result of interaction with preexisting stress conditions and/or with preexisting psychological disorders, such as those previously described.

Police officers are exposed to both of these disorders much more frequently than the average person. They occur not only in the people police officers deal with in the line of duty but also in police officers themselves and in other emergency service personnel. It is especially important for officers to be alert to their symptoms.

PTSD and panic attacks are fairly common during or following major traumas or life-threatening situations. Rape, other violent crimes, sexual molestation or abuse (of adults or children), family violence, natural disasters, and cataclysmic accidents with mass casualties (for example, airplane crashes) are some of the situations or circumstances that often lead to one or both of these disorders. On occasion, automobile accidents can also produce a post-traumatic stress disorder or a panic attack.

Post-Traumatic Stress Disorder

Post-traumatic stress disorder often continues to produce symptoms long after occurrence of the precipitating trauma. Police officers may be exposed to acting-out or aggressive behaviors that are delayed symptoms of PTSD, resulting from trauma that occurred months or years before (for example, as in the case of some Vietnam veterans). In fact, this diagnosis came into being largely as a result of the observations made by mental health professionals treating

such Veterans Administration patients. However, the disorder is not limited to Vietnam veterans or to combat experiences. PTSD can occur as a result of experiencing any sudden trauma that is outside the range of "normal" or ordinary day-to-day human experience (such as rape/violent crime, accidents, disasters, and so on). Because a conflict is present resulting from the trauma, anxiety or depression are predominant symptoms. PTSD is considered a type of neurotic disorder.

Historical Background

Post-traumatic stress disorder is listed in the DSM-III-R as an anxiety disorder. Because it is triggered in children and adults by traumatic circumstances of all sorts, it is particularly relevant to those in law enforcement. PTSD appears to be the most prominent disturbance found among victims of rape and other violent crimes. In general, the situations that trigger PTSD are associated with feelings of intense fear, terror, and helplessness.

Characteristics

Criteria used to establish the diagnosis of PTSD include:

1. Presence of a stressor that is easily recognized and capable of evoking distressful symptoms in virtually anyone.
2. Continuing experience of the psychically traumatic event as evidenced by uncomfortable and disquieting thoughts about the event that appear suddenly despite efforts to keep them out, disturbed sleep with recurring dreams about the event, and/or visual experiences that cause the victim to feel as if the disturbing event is happening again.
3. Psychic numbing or "emotional anesthesia" manifested most often by reduction of interest in activities that were previously important, feeling estranged from other persons, and/or loss of the ability to express emotions and feelings.
4. Appearance of specific symptoms not present prior to the disturbing event, such as feeling jumpy, edgy, and easily startled, fitful sleeping, feeling bad or guilty about some aspect of behavior during or after the event, difficulty with concentration or memory, avoiding activity that might cause the victim to remember the event, and/or recurrence of sudden

distress when something occurs to remind the victim of the traumatic event or symbolizes it.

In acute PTSD, symptoms of this disorder may become manifest within six months after the traumatic event; symptoms generally disappear within six months of their occurrence. In chronic or delayed PTSD, symptoms first appear more than six months after the event and persist for more than six months.

Onset

The most common trauma involves either a serious threat to one's life or physical integrity; a serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been or is being seriously injured or killed as the result of an accident or physical violence. In some cases the trauma may be simply learning about a serious threat or harm to a close friend or relative.

PTSD is a "family disease." Family members and/or close friends of people who suffer trauma, such as violent crime, can be the victims of PTSD just as much as the person who actually suffered the original trauma. Family violence is one instance in which police officers may find themselves dealing with several sufferers of PTSD in the same household, all experiencing emotional anesthesia, paranoia, hypervigilance, difficulty sleeping, and so on.

"Family violence may often be both a symptom and a cause of PTSD. That is, in situations where one member of the family has been exposed to extensive stress or suffered trauma, the violence may be one manifestation of the rage and depression that have grown since the original trauma. For those who are the victims of this violence, the violent event may be setting the stage for the later eruption of symptoms of PTSD".

Those who have survived a life-threatening trauma or traumatic death when others did not, often describe painful guilt feelings about surviving.

Managing PTSD

In an effort to control or prevent flashbacks and reexperience of the original trauma, sufferers not only avoid any situation or stimuli

that might trigger it but also tend to avoid thoughts or feelings about the traumatic event. This avoidance may require a form of amnesia regarding an important aspect of the traumatic event. In the case of a violent crime victim, such amnesia or "denial" may make it difficult for an investigating officer to gather all needed information about the crime. For example, delayed recall is not at all uncommon among rape victims. If officers assigned the case are not sensitive to this symptom, they may have serious doubts about the credibility of the witness/victim and the information that is recalled weeks or even months after the crime.

Another element of PTSD that may confuse investigating officers is the characteristic "psychic numbing" or "emotional anesthesia." For example, the lack of feeling with which a rape victim may report the assault may cause interviewers to doubt the credibility of the facts or the witness. Officers should be aware that such flat affect or lack of feeling is common among PTSD sufferers.

Post-traumatic stress disorder can also be the cause for sudden and severe aggressive behavior. This is particularly characteristic of combat veterans and police officers who have been previously involved in acts of violence. The reduced ability to moderate or control one's impulses may be expressed in unpredictable explosions of aggressive behavior, often in the family setting.

Case Example. Police were called to a family disturbance where the husband, a Vietnam vet who had been diagnosed as a PTSD victim, became enraged when his wife came home late from work. He accused her of having sex with her boss and other men and became physically violent. When she managed to leave the house and call the police, he refused admission to the officers, claiming they were really Viet Cong coming to kill him. His wife advised the officers that her husband had several weapons in the house, including guns. After several hours of negotiation, he allowed the negotiator and police officer (both of whom had identified themselves as veterans) to enter the house. He kept them away with a bayonet for another hour before allowing them to advance and take the weapon. He then readily consented to be transported to the local veteran's hospital for treatment.

Panic Attacks

Case Example. It is about 3 P.M. on a sunny, hot afternoon. Captain Smith of the police department is on his way back to the main station, driving alone in his city car. Suddenly he feels pain in his chest, has difficulty breathing, and feels a tingling sensation around his mouth and hands. His heart is pounding in his chest. He pulls to the side of the street and radios for assistance. A Medic One unit from the fire department responds and rushes him to the nearest hospital emergency room. After extensive monitoring and evaluation, he is released with the diagnosis of "panic (anxiety) attack."

Case Example. Detective Brady gets up from his desk in sex crimes and starts to walk toward the snack bar for a sweet roll and juice. He suddenly feels faint, dizzy, and light-headed. He begins to perspire heavily. He feels his body becoming numb. He's confused, somewhat disoriented. He wonders what's happening? What does it mean? How serious is it? He manages to return to his desk and collapses in the chair. Others notice his condition and someone calls an ambulance. Detective Brady spends some time in the emergency room and is released with a diagnosis of "panic (anxiety) attack."

Everyone, including police officers, experiences the symptoms of anxiety even panic from time to time simply because of the stress of everyday living: problems inherent in the job, in the home, and in our interpersonal relations. Most of us usually weather these symptoms and get on with living. However, these symptoms may involve such strong physical experiences that we become frightened and either try to deny them or seek out a physician in an attempt to find out what is wrong. Usually denial does not work and the consultation may result in little if any explanation for these attacks and no effective techniques for dealing with a recurrence. When the attacks do recur, we become more frightened and fear we are "losing control." DSM-III-R states:

The symptoms experienced during an attack are: shortness of breath or smothering sensations; dizziness, unsteady feelings, or faintness, choking; palpitations or accelerated heart rate, trembling or shaking; sweating; nausea or abdominal distress; depersonalization.; numbness or tingling sensations; flushes (hot

flashes) or chills; chest pain or discomfort; fear of dying; and fear of going crazy or of doing something uncontrolled during the attack.

Acute panic disorders can be associated with disaster situations and generally respond well to brief psychological therapy. In only a small minority of cases are recurring panic symptoms associated with a physical problem. Most difficulties, even if associated with a physical disorder, are caused by excessive and/or prolonged stress and are sustained by a pattern of thinking that reinforces their recurrence. R. Reid Wilson states that if the panic symptoms persist over a period of time, they are usually associated with one of the following categories of mental disorder: panic disorder, generalized anxiety disorder, phobic disorder, obsessive-compulsive disorder, and post-traumatic stress disorder.

Although the first panic attack may take place in a distinct situation, further episodes are unpredictable as to time or place. It is this unpredictability that so frightens victims. While the panic attack seems to have come "out of the blue," clinical experience indicates that its occurrence is usually associated with a period of severe and prolonged stress -- not days of tension but weeks, even months. Life transitions (moving, marriage, divorce, job change, and so on) sometimes account for much of the psychological pressure.

In the two examples given at the start of this section, Captain Smith had been under considerable stress in the past year. His wife was threatening divorce if he didn't retire, but he didn't want to because he had nothing to retire to. One of his children was using drugs; the new chief seemed to be looking for a chance to retire him.

In Detective Brady's case, he had been working hard on his master's degree. The recent change in chiefs threatened his present assignment, which allowed him to continue school. His wife was threatening divorce because his excessive hours left no time for her and the kids.

Both these officers were fortunate to have psychological help available from the department's behavioral science unit, but for many officers, such resources are not available. Because of the predominant physical symptoms, if they seek help at all, they are most likely to consult the family physician or some other medical specialist. If the doctor is not familiar with the symptomatology of panic (anxiety)

attacks and/or does not know the treatment of choice or whom to refer the officer to, the officer will come away from the consultation with no effective help. This is sad because panic disorders are amenable to treatment.

Law Enforcement Officers

In handling someone with overwhelming anxiety, it is important to provide reassurance in order to help that person regain control over panic. It is not helpful for police officers to attempt to persuade the person that the anxiety or panic is unrealistic or unwarranted.

Even if officers perceive the reasons for the anxiety and consider them ridiculous, they must recognize that they are not ridiculous to the person experiencing the anxiety. Instead of belittling the person's symptoms, they should offer reassurance and try to remove the person to a protective situation. Then they can begin to talk with the person about the anxious feelings.

When police officers encounter someone who is depressed, they should be alert to the seriousness of this condition. Even though they may not perceive any realistic cause for the depression, they should try to identify with the person's depression by recognizing how painful it must be and by empathizing with the person's pain. After all, it is not how the officers see it but how the depressed person sees it that will determine what that person will do.

If the depression appears so great that a suicide attempt is possible, the person should be placed in a hospital immediately and watched very carefully until the depression has lifted. However, a word of caution: Many depressed individuals commit suicide just when they seem to be improving. It is thought that this false improvement is actually due to the neurotic's having made a final decision to commit suicide. Having done so, the person is able to put on a happy face because he or she knows that all worries will soon be over. This happy face sometimes fools even the professional, who may decide that the danger has passed.

Officers who have responsibility for prisoners should know that many depressed persons are encountered in jails. The stress of incarceration is likely to precipitate a depressive neurosis. Officers must be alert for depressed inmates so that they can make a judgment regarding suicidal potential. They should always be especially

sensitive to the inmate who, several days before, was profoundly depressed but now has undergone a remarkable mood alteration unrelated to any significant external event, such as imminent release. This person may have also made the decision that life is no longer worth living. Observant officers should then summon appropriate medical help.

If officers encounter someone with severe obsessional thinking or a ritualistic compulsive behavior pattern, it is important for them to recognize that this person is disturbed and should not be assumed to be "crazy." It is easy to assume the latter, since compulsive acts in particular are often nonsensical and funny to the casual observer.

As professional observers of behavior, officers should recognize these obsessive thought patterns and compulsive acts for what they are: symptoms of an emotional disturbance. Knowing this, they will be able to guide the person toward a therapeutic setting. Because of the seeming irrationality of the behavior (and in most instances its apparent harmlessness), it is often easier to ignore it rather than to take the trouble to refer the person to an appropriate facility. However, it may prove to be rewarding to suggest a referral because neurotic persons are generally very receptive to the idea of seeking help. They are in full contact with reality and recognize that their obsessional thoughts and compulsive behavior are symptoms of illness. Their ambivalence stops them from seeking help on their own, but the officer's influence will generally help them overcome it.

When officers encounter someone who is experiencing an unreasonable fear (phobia) in relationship to an actual situation, they also can help by reducing the person's panic through supportive intervention.

Summary

The neuroses include many examples of emotional disturbance that law enforcement officers are likely to encounter. Awareness of the various types, their characteristics, and some of the underlying factors will enable officers to assess their severity, the necessity for immediate intervention, and most important, their own response to the person who is experiencing the symptoms. Without this knowledge, law enforcement officers may respond inappropriately to neurotic people. With it, they are more likely to function as an ally

of the medical and nonmedical therapeutic professional by assessing these troubled persons correctly, responding appropriately, and referring them for treatment, if necessary.

In this chapter we have presented basic information about post-traumatic stress disorders. We have also directed the reader's attention to panic attacks, noting that these attacks occur with some frequency in police work as well as in other high-stress professions. Physical symptoms associated with panic attacks can be frightening, but the condition is often amenable to psychological therapy, combined in some instances with medication.

11

PSYCHOTIC DISORDERS

Introduction

No one knows for sure what causes psychotic disorders whether they are organic or functional in origin. In many instances, it may be a not well understood combination of the two. Some psychoses clearly have an organic component – a head injury, biochemical imbalance, or genetic abnormality while others appear to result primarily from developmental and situational factors something that occurred in childhood or as the result of unusual trauma.

This chapter will focus on the two principal groups of psychoses: schizophrenic disorders and affective disorders. We will discuss how people with these disorders behave, with illustrations from several case examples. We will explore current theories related to some of the factors underlying the behavior and will briefly describe a personality disorder (organic personality disorder, explosive type) that is commonly mistaken for a psychotic disorder and describe its behavioral characteristics. We will then provide helpful hints to law enforcement officers in handling people with such conditions.

Common Characteristics

The common characteristics of all psychotic disorders is a loss of contact with reality. In addition, there are six other major psychotic symptoms: disturbances in thinking, disturbances in

thought content, disturbances in perception, disturbances in judgment, disturbances in mood and emotions, and regression. The diagnosis of a specific psychotic disorder depends on the particular combination of these symptoms.

Disturbances in thinking occur when thought is no longer rational, logical, and goal-directed. Many terms are used to describe these types of disturbed thinking, ranging from the less serious, circumstantiality, to the more severe, loosening of associations. Officers listening to someone with an emotional disturbance will be better able to judge its seriousness if they understand these terms.

In circumstantiality, people's thinking remains goal-directed, but they reach the goal only after a series of lengthy digressions. For example, by the time they answer a question, the person who asked may have forgotten what was asked. In tangential thinking, people never reach the goal, but their thoughts still have logical connections. In contrast to both of these, persons with a loosening of associations neither reach the goal nor connect between thoughts rationally.

Other forms of disturbed thinking affect the flow of thought rather than the pattern of associations. These include the flight of ideas, in which persons go so rapidly from one connecting thought to another that the listener becomes lost trying to follow. In contrast to this increased flow of thought, blocking refers to a slowing down or complete cessation of thought expression because of threatened anxiety.

In addition to disturbances in the forms and expression of thinking, another important characteristic of a psychotic disorder may be disturbances in the content of thought. The most common form is the delusion, a false belief arising without appropriate external stimulation that is maintained more or less unshakably in the face of all reason. These false beliefs are generally not shared by other members of this person's peer group. Delusions may be either persecutory or grandiose. Their presence may relate to the person's mood. Someone who is depressed is more likely to experience delusions of persecution ("the Mafia has put out a contract on my life"), while the hyperactive person is more likely to experience delusions of grandeur ("my father was the President, and my mother was the Empress").

Closely related to disturbances of thought content are disturbances in perception. In many psychotic disorders, delusions

are accompanied by disturbances in perception (hallucinations). A hallucination refers to the apparent perception of an external object, such as a voice, when no corresponding real object exists. In most psychoses, these hallucinations are auditory ("I hear my mother telling me I'm no good"), but in the organic psychoses, where brain damage is present, visual, tactile, gustatory (taste), and/or olfactory (smell) hallucinations are common.

The loss of contact with reality is also commonly associated with disturbances in judgment. If judgment is a mental function whose purpose is to ensure reality-oriented action, then psychotics are invariably impaired in this area. Police officers can assess the degree of impairment by posing hypothetical problem-solving situations ("What would you do if you smelled smoke in a theater?") or by simply observing ongoing behavior.

In psychotic disorders, disturbances in mood and emotions are usually more severe than in the neuroses and interfere with effective functioning to such an extent that hospitalization is often necessary. These disturbances may include sudden changes in mood without accompanying changes in the person's situation, or the complete absence of mood change despite major changes in the environment that would normally result in change in the person's mood.

Finally, psychotics may also show regression, in which the ego returns to an earlier state of development in an attempt to avoid the present tension and conflict. The result is a deterioration from a previous level of functioning.

The degree to which some of these signs and symptoms are seen can assist police officers in deciding what type of psychosis is present. Disturbances in thinking primarily characterize the schizophrenias, while disturbed emotions are more prominent in the affective disorders. This does not imply, however, that disturbances in emotions do not occur in schizophrenia or, conversely, that disturbances in thinking do not occur in the affective disorders. Other disturbances described in this section are commonly associated with both types of psychoses.

Schizophrenias

Although observers recognized many symptoms of schizophrenia prior to the time of Christ, it was not described as a

disease until the end of the nineteenth century. In 1898 Emil Kraepelin was the first to combine many of these previous observations into a single entity.

In his paper "The Diagnosis and Prognosis of Dementia Praecox," he included many of these symptoms as having in common an apparent lack of external causes, an occurrence in young and previously healthy individuals, and an impact that led to an ultimate deterioration of the personality as the disease progressed.

Although Kraepelin was the first to bring together the signs and symptoms of schizophrenia, it was Eugen Bleuler who, several years later, substituted the term schizophrenia for dementia praecox. Bleuler's substitution reflected his disagreement with Kraepelin's concept of the disease's incurability and associated deterioration. He pointed out that only some patients deteriorated, while others recovered.

The current system of classification identifies five subtypes of schizophrenia that derive from the thinking of Kraepelin and Bleuler but also reflects more recent diagnostic research. These include the undifferentiated type, the paranoid type, the disorganized type, the catatonic type, and the residual type. We will emphasize the first two types, in either their acute or chronic forms, since these are the forms most frequently encountered by police.

Underlying Factors

There have been many theories on the cause(s) of schizophrenia. Various genetic, biochemical, physiological, psychological, and sociocultural factors have been described, but none of them has been shown to be the sole cause. The cure for schizophrenia is still unknown.

Some researchers believe that the origins of schizophrenia lie solely in developmental processes and, specifically, in the early interactions between the child and family. Disturbances in the mother-child relationship are considered crucial. These predispose the child to a weak ego, which in later life is not able to withstand stress. Consequently, the personality disintegrates, causing symptoms of schizophrenia.

Others believe that physical conditions are responsible for schizophrenia. Endocrine (glandular) problems, brain damage, and

toxic poisoning have been offered as causes. More recently, researchers have concentrated on certain biochemical factors substances in the body fluids that might play a role in schizophrenia's onset and occurrence.

Still others suggest a strong genetic (hereditary) factor. Studies completed with identical twins indicate a higher incidence of schizophrenia in monozygotic twins (born from the same egg) compared to dizygotic twins (born from two different eggs). Although these data support the hypothesis that genetic factors may play a role in the development of schizophrenia, the mechanism(s) is not clear. Possibilities include genetic factors operating through a physiological defect, such as the absence of an enzyme, or some broader gene mutation.

Theorists also have stressed the importance of sociocultural variables in the development of schizophrenia. They remark on the greater prevalence of schizophrenia among the lower socioeconomic classes. Whether this finding is related to the cause or the result of schizophrenia (through the drift of people suffering from schizophrenia into the lower socioeconomic brackets because of poor functioning) is not known.

In conclusion, our current knowledge is inadequate to account for the development of schizophrenia. Despite many years of research, sufficient data are not available to determine conclusively the relative importance of the psychological, physical, genetic, and sociocultural factors that may be involved in predisposing a person to schizophrenia, but it is known that a biophysical model is most likely.

Undifferentiated Type

The undifferentiated type of schizophrenia is characterized by a gradual deterioration of drive, ambition, and the ability to function. It is reflected in the absence of social relationships, the inability to work effectively at a job, or difficulty in functioning above a marginal level in school, and in generally disorganized behavior. This impairment is usually accompanied by delusions or hallucinations. While disturbed emotions (primarily depression) are characteristic, the major sign is a thought disorder, often accompanied by incoherence. An example will illustrate.

Case Example. Floyd Brown is twenty years old, single, and a recent college dropout during his sophomore year. The police were called to his home one evening by his mother following a violent outburst. When they arrived, Floyd's mother told them that her son had recently been very difficult to live with, pacing and yelling in an irrational manner most of the day and night. On the evening she called the police, he had hit her for the first time. The police officers obtained the following information.

Following graduation from high school, Floyd entered the local university and did well the first year. However, during his second year his functioning began to deteriorate rapidly. Not only did he lose interest in his studies, which led to his dropping out of school, but he also became preoccupied with many bizarre ideas concerning science and the meaning of life. Totally consumed by the quest for "truth," he began to withdraw and spent most of his time at home despite the family's urgings to go out. He lost interest in his personal hygiene. The family found it more difficult to cope with him because, as his mother remarked, "We couldn't talk to him, and he didn't make sense."

Within the past two weeks, he had talked about his special powers to control life and had even stated his conviction that his father, who had died the previous summer, had communicated with him and would soon be "returning home." When he was severely agitated, as on the evening he hit his mother, he talked about her as an agent of the devil, implying that she had something to do with his father's death.

The police decided that Floyd was a danger to others. As he was unwilling to go to the hospital voluntarily, they contacted the hospital by phone and received permission to take him into protective custody so that he could be transported there for a psychiatric evaluation and possible involuntary admission.

Paranoid Type

The paranoid type of schizophrenia is characterized principally by delusions of persecution and/or grandeur. Hallucinations, usually auditory, are often present. Prior to onset, paranoid schizophrenics often display a suspicious and guarded attitude toward everyone. These persons usually show less impairment of

functioning if they have not acted upon the delusional material. Severely disorganized behavior, as noted in the undifferentiated, catatonic, and disorganized types, is rare. A case example will illustrate.

Case Example. Judy Eden, twenty-eight years old and single, called the police to her home. When the responding officer arrived, Judy told him that she had a problem she wanted to explain. She began by saying that there were bottles of liquid in her home killing her and her dog and that the dog was already very ill. She took a wad of tissue from her purse and asked the officer to smell the odor. He did so and found no odor. When he did not confirm her suspicion, she told him that another officer had been to her home before and had told her to throw away the bottles. She said that she had done this but that both the bottles and odors had returned. In addition, she mentioned that her air conditioning was spreading the odors throughout the house.

On further questioning, Judy revealed that lately she had received messages from the television set. She told the officer how most of the people on the television were talking to her and telling her that she was going to die if she did not mend her ways.

The officer also learned that Judy had been widowed a year ago when her Air Force husband was killed in a plane crash while on a test flight. Initially she had seemed to make a good adjustment to this tragedy, continuing her job as a secretary. However, several months later her bizarre behavior began.

She mentioned that her friends and coworkers had seemed concerned, but she soon realized that it was because "I have a pension and they want my money."

Although Judy did not demonstrate evidence of violence, the officer recognized that Judy's illness had been progressive and that violence to herself or others was an eventual possibility. Consequently, he asked her if she would accompany him to the hospital and talk to someone else. She refused. The officer left but immediately notified the local mental health center, which sent a social worker to see Judy the next day.

Residual Type

The residual category of schizophrenia applies to those who have had at least one prior episode of schizophrenia. While it is true

that individuals with other types of schizophrenia may also have recurring episodes, the feature distinguishing the residual type is the recurrence of episodes without prominent psychotic symptoms. For example, while delusions, hallucinations, and grossly disorganized behavior are usually not present—or if present, occur in a very muted form—these people generally demonstrate illogical thinking, loosening of associations, emotional blunting, social withdrawal, and eccentric behavior.

By definition, therefore, this is the most chronic of the schizophrenias. People with this disorder do not have repeated acute episodes in which severe symptoms of hallucinations, delusions, and disorganized behavior are present, except perhaps at the first episode. A case example will illustrate.

Case Example. Mary Michael was picked up by the police at 3:00 A.M. on an interstate highway. A patrol car had been notified that several motorists had seen her standing at the side of the street, throwing various items of clothing from a large suitcase into the middle of the road.

When the police officers approached her and asked what she was doing and why, she replied, "I like to travel light, and besides, the last guy who gave me a ride didn't like the way I was dressed. He said I 'looked a mess' and put me out of the car. So there."

Further questioning revealed that Mary not only was unable to explain where she had been and where she was going but also spoke about how she was hoping to find the "end of the rainbow" so she could be young again.

Feeling that she represented a potential danger if left by the side of the road, the officers encouraged her to come with them to the local hospital. She agreed to accompany them.

In the emergency room, the doctor who spoke with her learned that Mary was thirty-eight years old and had been traveling for the past ten years from city to city, staying in one place no more than three months at a time. During this time, she had been hospitalized on at least six different occasions, once for as long as four months in a state hospital. Each time she was given medication that "helped her think better," but she usually discontinued it shortly after her discharge and headed on her way.

The doctor agreed to admit her for a few days so that she could be put back on her medication. However, he was not optimistic that

this would do much more than calm her down enough so that she could continue her travels without being an immediate danger to herself or others.

Catatonic Type

The catatonic type of schizophrenia is rare. Its importance to law enforcement officers lies in the extreme violence that may be associated with one of its forms catatonic excitement in which there is excessive motor activity, grimacing, talkativeness, and unpredictable emotional outbursts. When these symptoms are not present, the person is usually in a stupor, a state of total silence, and often bizarre posture. The person can remain in this single position for hours, seemingly paying attention to nothing and responsive to no one. This lack of verbal or physical response is accompanied, paradoxically, by an increased awareness of what is going on. This helps explain why, without warning, the person may fly into the rage of catatonic excitement, becoming extremely dangerous. In either case, careful supervision is required and hospitalization is indicated.

Disorganized Type

The disorganized type of schizophrenia is also rare. Knowledge about it, however, is important for law enforcement officers because of the severe disintegration of the personality.

If an adequate history can be obtained, this clinical picture is usually associated with extreme social impairment, a lengthy history, early onset of the illness, and a chronic course.

Generally people with this disorder are so disorganized that hospitalization is essential and should be arranged as quickly as possible.

Affective Disorders

In contrast to the schizophrenias, the affective disorders are psychoses in which the primary signs and symptoms are related to disturbances in emotions rather than to disturbances in the form of thinking (circumstantiality, tangentiality, and loosening of associations). However, disturbances in the flow of thinking,

thought content, perception, judgment, and regression are also characteristic.

The affective disorders may be classified into two types: manic-depressive (bipolar) disorder and major depressive disorder. Recent research suggests that although they are grouped together because of the primary disturbance in emotions, there also are differences between them.

Historical Background

Theories about affective disorders go back to the early writings of Hippocrates, who described the interaction of the four bodily humors (blood, black bile, yellow bile, and water) as closely related to the occurrence of mania (unusual elation) and melancholia (unusual depression). It was not until the passing of the Middle Ages, with its emphasis on demonology, that a modern classification of affective disorders could emerge.

In 1854 Jean Pierre Falaret published a description of an illness that he called "La Folie Circulaire," the first description of the "circular" syndrome associated with the manic-depressive psychosis. In 1882 Karl Kahlbaum was the first to view mania and melancholia as different stages of the same psychosis rather than as two different illnesses. Emil Kraepelin first proposed the diagnosis of manic-depressive insanity for this entire group of disorders. Although these are now more commonly referred to as affective disorders, the manic-depressive (bipolar) disorder is still recognized as one of the two major types — the other being the major depressive disorder.

Underlying Factors

Current research into the causes of affective disorders is slightly more advanced than research on the schizophrenias. A genetic (hereditary) factor has been suggested, and recent research confirms its existence. For example, affective disorders occur with significant frequency in the children of parents with affective disorders, in children of alcoholic parents, and in certain population groups like the Amish. However, the presence of an affective disorder in a family does not necessarily mean that it will occur in any or all of its children.

Similarly, theorists have noticed many biological changes in those with affective disorders, but whether they are causes or symptoms of the illness has not been clearly demonstrated.

Earlier inquiries into these disorders focused primarily on developmental and psychological factors. For example, in the early twentieth century, Karl Abraham drew attention to the obsessive-compulsive personality structures of those who were most likely to develop an affective disorder in late life. Freud added to our understanding of this illness by pointing out the similarities and differences between normal mourning after the loss of a loved one and melancholia (depression). He viewed mourning as a period of appropriate grief, and melancholia as resulting from an inability to resolve that grief. In melancholia, the loss is no longer confined to the departure of the loved one but is also turned against the self, through a loss of self-esteem.

However, today biological origins are believed to contribute significantly to the development of affective disorders; it is believed that less serious forms of depression have more psychological origins.

Bipolar Disorder

In bipolar psychoses, either a severe psychotic depression or an acute manic episode characteristically occurs first when persons are in their late twenties or early thirties.

If the psychotic depressive episode occurs first, it is often difficult to make the diagnosis until it has been followed by a manic episode. Sometimes it is also difficult to distinguish an acute manic episode from an acute schizophrenic episode.

In contrast to schizophrenics, manics are more apt to exhibit a flight of ideas rather than a loosening of associations. In addition, there is usually a marked increase in activity, either social or physical. Individuals in a manic state tend to be more talkative than usual and have a decreased need for sleep. They are usually quite distractible; their attention is easily drawn to unimportant or irrelevant external stimuli. Finally, they have a potential for excessive involvement in activities that may bring painful consequences that they do not generally recognize, such as buying sprees, sexual indiscretions, poor business investments, and occasionally reckless driving.

While these are some characteristics of a manic state, it is important to recognize that people with bipolar disorder may also first experience a major depressive episode. However, in contrast to individuals with a major depressive disorder, bipolar patients who suffer a major depressive episode eventually develop a manic episode.

Case Example. Alan Farr, twenty-seven years old, came to police attention in an unusual manner. He had been under a physician's care for his bipolar disorder for several months and had been placed on medication. One evening he found himself out of medication and planned to return to the hospital the next day to get more. However, he postponed his visit for several days because he did not have transportation and, as time elapsed, became increasingly manic. As he recognized the impending recurrence of his illness, he began to panic.

One evening he left the house and began walking. He passed a police officer on patrol and accosted him, demanding to be taken to the hospital so he could get his prescription. When the police officer refused, indicating that this was not within his duties, Alan, who at the time was standing in a gas station, took a book of matches out of his pocket. He lighted one and dropped it into a small puddle of gasoline on the ground. It immediately ignited, and Alan was placed under arrest for arson. He was taken to jail where, without his medication, he became increasingly manic and was eventually transferred to the hospital. Prior to his transfer from jail, the detention officer noted in the log the following comments about his behavior: "Won't stop talking, constantly making jokes, seems on the verge of losing control, doesn't sleep."

In the hospital Alan was placed back on medication and his manic behavior subsided after a week. For a period of several weeks he appeared normal. Then he gradually became depressed, increasingly withdrawn, and slow of thought. His condition gradually worsened until he was no longer responsive to the staff's questions. He spent most of his time in bed, had a poor appetite, lost weight, and began to have suicidal thoughts.

Major Depressive Disorder

In contrast to the bipolar disorder, where the manic episodes are usually the most prominent feature of the illness, persons with a

major depressive disorder display a marked loss of interest and pleasure in all usual activities. This may occur only once in a person's life or often, in similar episodes. The onset may occur at any time.

Physical and psychological symptoms include marked agitation, restlessness, and depression. The person's appetite is either poor or absent, and sleep is disturbed. Many physical complaints may also be present.

Disturbances in thought content include delusions of sin, guilt, and unworthiness. Suicidal and paranoid thoughts are common. Delusions may also develop around somatic complaints (for example, the person may show an unrealistic concern over cancer). Hallucinations are less common. When they occur, they are usually auditory and have a condemning quality consistent with the delusions of sin, guilt, and unworthiness. An example will illustrate.

Case Example. On a Friday morning police were called to the residence of Karen Bragen, age twenty-four, by neighbors who heard gunshots. They found Karen sitting quietly in the living room with her face buried in her hands. In the bedroom they found the body of her three-month-old son, who had been shot twice in the head.

From their interrogations of Karen, her husband, and family, the police obtained the following information. She had an uneventful pregnancy and, in fact, her husband commented how much happier she had seemed when pregnant. However, shortly after the baby's birth she began to be depressed. Initially both she and her husband attributed this depression to postpartum blues, typically seen within several days after a baby's birth.

However, her blues did not go away after a week or two, as is common in postpartum cases. Instead, she began to have bizarre thoughts, which initially occurred in the late afternoon or early evening, particularly when she was alone. These thoughts consisted of fleeting mental images in which she saw herself with a gun, killing her baby and husband.

She tried to get them out of her mind by keeping busy. When this failed, she began a compulsive pattern in which she sat with a book, reading for several hours in the late afternoon and early evening while the baby was left in the bedroom. When this did not stop her violent thoughts, she began to lock the bedroom door so that she could not reach the baby.

This was also unsuccessful. One week before the murder, Karen began to hear the voice of her mother, with whom she had always had a poor relationship. The voice condemned Karen, saying that she was a poor mother and accusing her of not taking care of the baby. She began to hear her mother's voice coming from the television set.

Her husband told police that in the two weeks prior to the infant's death, Karen became increasingly withdrawn and was constantly finding fault with herself as a mother. He tried to reassure her, but to no avail. She never told him her violent thoughts.

On the day of the murder, she heard a voice telling her to kill the baby. The voice said that then her problems would be solved because she would no longer have to be a mother. In her psychotic state, this seemed like a perfect solution. In response to the voice's continued urging, she took her husband's gun from the closet, walked into the bedroom, and fired two bullets into the sleeping baby.

This case underlines the serious homicidal and/or suicidal potential associated with this illness. If the possibility of a major depressive disorder exists, officers should always try to get the person to a hospital or a doctor.

Intermittent Explosive Disorder/Organic Personality Disorder, Explosive Type

The idea that there might be a psychological disorder characterized by sudden, unpredictable explosive or violent outbursts that is not the result of a known or identified psychiatric condition is relatively new. With the publication of DSM-III in 1980, the condition "intermittent explosive disorder" was described and placed under the category "impulse control disorders not elsewhere classified." By definition, this condition could not be the result of organic causes. Increasing empirical evidence led to a change in name and description of this condition in the DSM-III-R. It became organic personality disorder, explosive type, and organic causes were acknowledged as the most common source. While not a psychosis, this disorder is included in this chapter because the sudden violent acting-out behavior that characterizes it does not typically occur in other personality disorders and may be confused with the aggressive behavior

associated with some forms of schizophrenia or with bipolar disorder.

Underlying Factors

It is important that law enforcement officers be aware that sudden and extreme aggressive outbursts can occur unpredictably as the result of head injury, epilepsy, cerebral tumors, strokes, multiple sclerosis, and Alzheimer's disease, as well as other organic causes. The change in diagnostic criteria from DSM-III to DSM-III-R resulted from increasing evidence that these organic causes can often produce symptoms of sudden explosive verbal aggression or physical aggression against objects, self, and other people. Intoxication and withdrawal from alcohol use as well as the abuse of a variety of drugs and toxic reactions to prescription medications also can produce such symptoms.

Characteristics

The key features of this disorder are "recurrent violent events, either verbal or physical in nature, which are out of proportion to the precipitating stress or provocation and which stem from organic etiologies". People with this disorder change from states of relative calm to extreme aggression within an instant, often without objective warning signal. Such outbursts are rarely premeditated, and they are characteristically under less control than the aggressive acts of those with disorders that are solely functional.

Case Example. Michael Haynes was a sixty-three-year-old man who was struck in the head by a truck tire that exploded violently as he was filling it with air. He was in a coma for three weeks subsequent to the accident. Upon emerging from the coma, he began to develop agitation and episodic violent behavior. Over the year following the injury, his aggressive behavior intensified to the point that Michael would become angry and combative four to ten times per day, strike out dangerously at family members and nursing staff, and, uncharacteristically, scream profanities. Even minor frustration could result in an explosive discharge of violence. For example, during his hospitalization he requested a glass of orange juice. When the nurse replied that she would go to the pantry and be right back with the juice, the patient screamed, "No, I want the orange juice

now!" With that he swung his fist at the nurse, knocked her glasses from her face, and scratched the cornea of her right eye. Later, when the patient was more calm, he expressed remorse and shame over the incident as well as concern for the injured nurse. He said, "I just can't help myself, I don't know what gets into me".

It is important to note that sudden aggressive outbursts can occur in people with this disorder, even in the absence of the agitation or obvious disorientation that is more characteristic of someone in the midst of a psychotic episode. Further, this violent behavior may occur as a result of being stopped for a minor traffic violation or because officers have interfered in some way with the person's activities. As a result of frustration, the person explodes into unexpected aggressive behavior.

Law Enforcement Officers

Because of the psychotic's confusion, bizarre behavior, and capacity for violence, police officers are often the first to be called when a mentally disturbed person displays signs of psychosis. Officers' ability to handle the psychotic person appropriately is important not only for their own safety and the safety of others, but it is also important to the psychotic person, who is probably experiencing tremendous fear. In addition, the ability of officers to form a trusting relationship with this person may be very important in determining the outcome of further treatment efforts.

The mental confusion, distortions of thought content, and disturbances of perception increase the possibility that psychotics will distrust everyone, even those attempting to help. They may then react with violence.

It is important for officers to remember to approach psychotics in the most non threatening manner possible. Any display of force, including guns and restraints, should be avoided, unless officers suspect that their own safety or that of others is threatened.

The psychotics' sensory awareness is heightened. Consequently, it is important for officers to reduce sensory input in order to reduce psychotics' fear. This might include removing all nonessential people from the environment, speaking in a slow, soft voice, and reducing other sensory stimuli, such as police radios, bullhorns, and other equipment. By reducing sensory stimuli, officers

help psychotic individuals gain control of themselves, making them more approachable.

Persons suffering from depression are frequently in an ambivalent mental state, unable to make decisions, vacillating between pros and cons. Consequently they may argue the opposite of whatever officers suggest. For example, should officers suggest hospitalization, psychotically depressed persons may immediately resist the suggestion, saying that they don't need to be in the hospital and offering all kinds of reasons why they can't go. Officers should stick firmly to their decision, regardless of the depressives' pleas.

Therefore, it is important for officers to make up their own minds as to what must be done before revealing the decision to the person concerned. Once officers state their decision, they must act as if there is no alternative. Surprisingly, officers will find that their firmness is reassuring and that in response, the person may stop debating and arguing and instead follow their dictates.

The officers' approach to persons who demonstrate delusional thinking is also important. They should neither argue with the delusions nor agree with them. Rather, they should listen and hear out the person's concerns. They can then suggest that there are others who would like to help the person. Mention of going to a hospital or a clinic may disturb some people, but they are more likely to go along with officers who handle the situation in a tactful and firm manner.

Summary

Police officers frequently come in contact with psychotics who act in a strange or violent manner. Or they may come in contact with people with an organic personality disorder who give no sign that they are disturbed until they suddenly explode. In either case, officers should be aware of the strategies they can use to minimize the danger to others, the disordered person, and themselves. They also should be knowledgeable about the symptoms of these disorders so they can distinguish the psychosis from less serious conditions, personality disorders, and neuroses.

12

NORMAL PERSONALITY IN OPERATION: CONFLICTS AND DEFENSE

Introduction

To ensure that they do not disturb the balance among the id, ego, and superego, the ego employs defense mechanisms to handle these stresses. The failure of these defense mechanisms to work effectively often leads to emotional problems and mental illness. A complete understanding of defense mechanisms requires knowledge of other psychological concepts, including conflict and frustration. An unsuccessful resolution of frustration and conflict can lead to anxiety or guilt.

Frustration and Conflict

The definition of the id referred to a group of biological urges and needs. These needs also can be called motives or drives because they supply the power that motivates or drives the earliest forms of behavior exhibited by the personality. Psychologists refer to these early drives as primary drives because they are the basic inherited constituents of behavior. Those that appear later in development are secondary or learned drives. These include love and a need for acceptance. Behavior is the result of either primary or secondary drives or a combination of both.

Within the scope of these two types of drives falls a vast number of biological, psychological, and social needs, all seeking fulfillment. Not all of them can be fulfilled. All people experience the frustration of their drives. The experience of frustration can be represented by a diagram that shows the individual (I) striving toward some goal or objective (G) with a barrier (B) intervening.

I ? B G

The barrier may be physical (time, distance, space, confinement), biological (lack of intellectual ability, physical deformities, lack of strength), psychological (personality factors, feelings of fear, guilt, or anxiety), or cultural (group norms, pressures, and demands). At each barrier a solution must be found or an adaptation made.

Related to this concept of frustration is the concept of conflict. In this situation individuals must choose between two goals that are incompatible (G1 and G2).

G1 ? I ? G2

Individuals are torn between two goals of equal or near equal repulsion or desirability. They have difficulty choosing. If the choice is very important, the conflict can be very disruptive to psychological and even physical balance. If individuals resolve the conflict successfully, the probability of personality disturbance is slight. If not, some form of personality breakdown is likely to occur.

Reactions to Frustration and Conflict: Guilt and Anxiety

No one is immune or insensitive to frustration and conflict. If each frustration could be overcome easily and every conflict resolved quickly, there would be no inner turmoil. Anxiety and guilt, the common reactions to frustration and conflict, arise when problems in any area of daily living cannot be quickly resolved. Anxiety and guilt seem to operate as signals, warning the ego that the psychological balance is being threatened.

Anxiety

Anxiety is an emotion that is familiar to everyone. If it is normal anxiety, the reasons for it are usually obvious and the anxiety is in proportion to the cause. However, anxiety also can emerge when

there seems to be no apparent reason for it, or it can be manifested out of proportion to the cause. This is known as pathological anxiety.

Doctors first thought that anxiety occurred secondary to a physical dysfunction of the nervous system. Freud, however, postulated that anxiety is psychogenic, occurring secondary to mental processes rather than physical dysfunction. Erikson viewed anxiety as secondary to the conflicts that the child, adolescent, or adult encounters in each stage of life. This is not to suggest that anxiety has no physiological components when it occurs. On the contrary, changes in body functions are often one of the ways anxiety is noted.

Freud also pointed out the usefulness of anxiety. He claimed that anxiety also can act as a signal to the ego, informing it of impending or present danger. With this signal, the ego is better able to anticipate or recognize situations that threaten the psychological balance.

How does anxiety differ from fear? Fear is a relatively well-defined response connected to a specific object, event, or person, while anxiety is a vague, diffuse response whose relationship to any specific object, event, or person can be ill defined. Sometimes it is difficult to make the distinction. Fear and anxiety usually go together.

Anxiety-producing situations, or stress situations, have physiological effects that manifest themselves through the autonomic nervous system and the endocrine system. When people's security is threatened, physiological changes occur and help prepare them to meet the danger. Thus, anxiety, uncomfortable as it is, is useful to healthy people. It puts them on physical alert by heightening perceptions and reactions.

These physical changes vary. The heart may beat faster, blood pressure may go up, chest pain may occur, and respiration may increase. Digestion also can be disturbed, with a loss of appetite, nausea, vomiting, or diarrhea. Shaking or a sudden feeling of weakness can occur. Reactions may range from profuse sweating to cold and clammy hands and feet.

Psychologically, the expression of anxiety also may vary greatly, from mild worry or vague uneasiness to dread, apprehension, or panic. Associated feelings of gloom, depression, pessimism,

inadequacy, helplessness, or hopelessness may also occur. Individuals may be unable to sleep, have nightmares, or awaken easily.

In summary, anxiety may be both a normal sign of future or present danger or a symptom of psychological imbalance. As a signal, it can serve the useful function of alerting the organism and getting it ready to fight or flee. As a symptom, it represents a reaction to frustration or conflict that, if not dealt with, can impair functioning and lead to more serious emotional problems.

Guilt

Like anxiety, guilt is also a possible reaction to frustration and conflict. It may be conscious or unconscious. A person who must choose one of two unacceptable alternatives may feel guilty about the reluctant decision.

Guilt feelings are first instilled in children by parents, as an aid in setting limits on behavior, as a form of punishment for misdeeds, or perhaps for not living up to their expectations. Even if parents have no conscious intent to create guilt, children may still feel guilty because of their own interpretation. Guilt is often associated with id strivings, particularly sexual and aggressive urges. In our society, the creation of guilt feelings is also used to control the "base" nature of man. Søren Kierkegaard, the noted nineteenth-century Danish philosopher, stated that guilt "guides the individual and keeps the more violent tendencies of the personality in check".

People may feel guilty for something they did not do because they had an unconscious wish to do it, but the superego would not permit that wish into consciousness. For example, a woman who has had to care for an invalid mother for many years blamed herself for her mother's death. In treatment, it became apparent that her guilt feelings resulted not from inadequate care while her mother was alive, but rather from her wish, at first unconscious, that her mother would die so she would be freed from her responsibility.

Guilt feelings also vary in intensity. One person may feel little guilt in a given situation, while another may feel very guilty. Some may even worry for years about something that others would easily forget. For example, it is not unusual for the Internal Revenue Service

to receive guilt payments for tax errors or evasions committed years earlier.

Police officers also are familiar with some of guilt's variations. All have encountered the criminal who seems to want to be caught. The authors know of a burglar who broke into the snack bar at police department headquarters and was easily apprehended. The police may also encounter subjects who voluntarily confess to crimes they did not commit. Most often the chief motivation for such confessions appears to be a feeling of guilt for some actual or perceived behavior.

Defense Mechanisms

To this point, we have described (1) how a person strives to achieve certain goals, either for conscious or unconscious reasons; (2) how these goals are frequently not achieved because of some barrier or because they are incompatible, leading to frustration and conflict; and (3) how frustration and conflict can lead to anxiety and guilt.

We will now describe how the ego attempts to deal with these feelings of anxiety and guilt and maintain psychological balance. Of the techniques used by the ego, two are overt, physical, and always employed consciously. The others are internal and dynamic, representing a psychological process that may be conscious or unconscious.

Fight and Flight

The two overt and physical mechanisms are fight and flight. When people resort to fighting, they are trying to overcome anxiety and guilt through aggressive behavior. This behavior is intended to destroy the source of danger, thus protecting the individual. However, when aggressive, hostile behavior is allowed direct expression, it may arouse more guilt and anxiety that, in turn, may intensify the aggressive, hostile behavior and create a vicious cycle.

Choosing to flee rather than to fight may also be damaging. People who constantly make this choice may become passive and withdrawn or even resort to drugs or alcohol as a means of flight.

Internal Defense Mechanisms

The internal mechanisms, however, are of the greatest importance. Among these are displacement, rationalization, compensation, projection, reaction formation, denial, repression, identification, substitution, fantasy, regression, sublimation, and isolation. These mechanisms are usually employed unconsciously. Just as the body does not need to be told to evoke certain physiological defense mechanisms, such as temperature regulation, when physical equilibrium is disturbed, the mind does not need to be told to activate these psychological defense mechanisms when the psychological balance is threatened. However, these mechanisms may occasionally become conscious through increased self-awareness or treatment.

With the possible exception of repression, none of these processes is necessarily pathological or harmful to individuals. All of us use these defense mechanisms daily to protect us against guilt, tension, anxiety, inferiority, and other uncomfortable feelings. It is only when these mechanisms are employed indiscriminately and in an over determined or exaggerated manner, or when they are inadequately developed, that they become pathological.

Displacement

In displacement, a strong emotion (such as anger) is displaced onto a person or object other than the one that originally aroused the emotion.

Case Example. Officer Hunt is sitting on her motorcycle observing traffic when she notices a car approaching the corner of First Avenue from Salina Street. There is a stop sign, but the car merely slows down before turning right onto First Avenue. Hunt pursues the vehicle and makes the stop. She intends to give the middle-age driver a warning rather than a citation. However, when she approaches the driver, she is greeted with violent verbal abuse, which ends with the driver's suggestion that she take the ticket and "shove it."

Officer Hunt was a victim of displacement. Just before the motorist left home, his wife had announced that her cousin, whom he disliked intensely, was coming for a three-week visit. Although Officer Hunt may never know the reason for the displacement, she does not need to. She should be aware that a defense mechanism

may be operating in this situation and recognize that the motorist is not really angry with her. In this way, she can avoid losing her temper and responding negatively to the motorist's hostility and aggression. Knowledge of this mechanism may also help Officer Hunt become more introspective about her own behavior in situations where she loses control of her anger without sufficient cause.

Rationalization

Rationalization is the defense mechanism that enables individuals to justify their behavior to themselves and others by making excuses or formulating fictitious, socially approved arguments to convince themselves and others that their behavior is logical and acceptable.

Case Example. Sergeant Maloney is overweight. The chief has told him to lose pounds or face dismissal for physical unfitness. His own physician has advised him that his health is seriously threatened by his obesity. He is fully aware of his need to diet and has been trying to follow his doctor's orders. His wife nags him about losing weight but continues to cook many fattening foods because she feels the rest of the family shouldn't have to diet just because he has a problem.

The sergeant had been losing weight, but one night after a particularly exhausting and frustrating tour of duty, he opens the refrigerator door and notices a single piece of apple pie (his favorite) left over from supper and eats it.

However, Maloney could not have eaten that pie without feeling guilty or anxious (since his doctor told him dieting was necessary) unless he had first found a way to justify his action. This was possible through rationalization.

How did he rationalize this action? He might have convinced himself that (1) it is a fact that many people all over the world are hungry; (2) it is a sin to waste food; or (3) if someone doesn't eat this piece of pie tonight, it will be too dried out by morning and will have to be thrown away. In any one of these ways, it becomes not only excusable for him to eat the pie and thus avoid wasting food, but also his duty to do so even if he sacrifices his own welfare.

With these rationalizations, Malone can avoid guilt and anxiety. He is able to eat the pie, as he wanted to, and has justified his behavior to himself (and to others), thereby avoiding anxiety and guilty.

Compensation

Compensation is the defense mechanism through which people attempt to overcome the anxiety associated with feelings of inferiority and inadequacy in one area of personality or body image by concentrating on another area where they can excel.

Case Example. Scholastically, Recruit Thomas is the low man in his class, but he is the top marksman and judo expert. He spends every available extra hour either on the range or in the gym, perfecting these skills in which he is already overly qualified, even though his class work continues to suffer.

Compensatory behavior may be healthy and constructive. For example, Recruit Thomas compensates for academic inferiority by concentrating on judo and marksmanship. Excellence in these two areas helps his ego cope with anxiety generated by marginal performance in the classroom.

Projection

In projection, people ascribe feelings and ideas that are unacceptable to the ego or the superego to others, so that those persons will seem to have these feelings or ideas. People thus free themselves from the guilt and anxiety associated with those feelings. This process is analogous to a motion picture. There is a picture on the screen, but the real image is on a small piece of film inside the projector.

Case Example. Sergeant Bucko is one of the first motorcycle officers in the department. He is not too smart and lacks a high school diploma. Things go well for him until a new lieutenant takes charge of the squad. The sergeant has never had any trouble with lieutenants in command. However, this new lieutenant places demands on the sergeant that have made his life miserable. Sergeant Bucko informs the chief that he can't continue to serve under his new lieutenant because he thinks that the new man does not like him.

Although he has made no plans for retirement and could continue on the force for another ten years, and even though the chief urges him to reconsider, Sergeant Bucko resigns.

The sergeant has been confronted with duties that he cannot perform well. He feels inadequate, inferior, and harbors unconscious dislike for and anger toward the lieutenant. He avoids dealing with these feelings and emotions by projecting his anger and dislike onto the lieutenant. Thus, it appears to Bucko that the lieutenant is angry with him and also dislikes him.

Reaction Formation

The defense mechanism of reaction formation refers to development of a trait or traits which are the opposite of tendencies that we do not want to recognize. Individuals are motivated to act in a certain way but behave in the opposite way. Consequently, they are able to keep their impulses under control. Case Example. Mr. Brewster is a middle-age van driver who was raised in a strict religious family. He has never had a real date and considers sexual activity sinful and animalistic. He constantly calls his local police department with complaints about the goings-on in lovers' lane, urging patrol of the area twenty-four hours a day. He is the loudest voice in the community against indecency, advocating strict moral censorship of all movies, plays, and books.

If Mr. Brewster's personal history was carefully examined, it could be learned that he was reared by stern, moralistic parents who regarded sexual activity as dirty and disgusting. They considered the sex act acceptable only between married people, although they never explained how their son could change his attitudes and emotions when he did marry. The idea that a couple might enjoy sex was beyond his parents' comprehension.

Mr. Brewster grew up to be a physically healthy man with a normal sex drive. He cannot entirely repress these urges. They emerge in dreams, threatening to break forth into consciousness. His strict superego does not permit any direct expression of these drives.

Mr. Brewster seeks to reduce his anxieties arising from personal conflict by becoming overly concerned about community morality. By badgering the police department with complaints about

pornographic movie houses and lovers' lane, he can be preoccupied with sexual matters in a way that quiets his own unacceptable sexual urges and also supports his superego.

Denial

When people use the mechanism of denial, they refuse to recognize and deal with reality because of strong inner needs. Case Example. Patrolman Click has been experiencing shortness of breath and occasional chest pains, but he tells himself that these symptoms are probably muscular and of minor importance. While riding in a patrol car with his partner one day, he suddenly experiences crushing chest pain. His partner rushes him to the nearest hospital, where he remains for a week for tests. The doctor tells him he has heart trouble but it is not too serious. He will have to lose some weight, give up smoking, and take medication. He will also have to leave patrol duty and transfer to a desk job. Officer Click doesn't believe the doctor and insists on returning to full patrol duty. He even goes to another doctor, at his own expense and without telling anyone. Even though he receives a similar evaluation, it does not alter his thinking and he persists in demanding a return to full patrol duty.

Click refuses to believe that he has heart trouble because it is too threatening to his self-image as an active patrolman. He loves the duties of a patrolman and can't see himself in a desk job. To him, being on the streets is real police work. He therefore persists in his denial of medical reality as communicated to him by two competent doctors.

Repression

Repression is an unconscious process whereby unacceptable urges and/or painful, traumatic experiences are completely prevented from entering consciousness. Suppression, which is sometimes confused with repression, is a conscious activity by which an individual attempts to forget emotionally disturbing thoughts and experiences by pushing them out of mind (for example, a person may attempt to forget grief by losing him- or herself in work).

Case Example. Helen Smith was brought to the police substation by a motorist who found her wandering dazed and confused on the

highway. Her clothes were torn and she had obviously been beaten. A medical examination indicated probable rape. Helen could give no account of what happened and was hysterical. Investigation revealed that she had left a local bar with a man, later identified as a habitual sex offender who had served time for rape and assault. Days later, Helen could still not recall details of the incident and met all attempts to gather information with "I don't know . . . I can't remember."

Helen has apparently repressed the entire rape incident. Perhaps the experience was too frightening for her to assimilate and deal with consciously. Possibly she also feels some guilt and questions her own judgment. The physical pain of the beating, the terror of her experience, and her possible guilt feelings create a traumatic experience that she can deal with only through repression. She is not lying when she says she can't remember, nor is she trying to protect anyone.

Identification

In the defense mechanism of identification, people seek to overcome feelings of inadequacy, loneliness, or inferiority by taking on the characteristics of someone important to them. For example, children identify with parents, whom they see as models of strength and competence.

Case Example. Police were called when the body of an unidentified man was found in a local swimming pool with his feet tied together. Investigation established his identity and also that his wife died by drowning a few days before while they were on a fishing trip.

In this case, we have a specialized form of identification: introjection. People have an unconscious tendency to assume (introject) characteristics of someone close to them who has died recently. When this man's wife died by accidental drowning, grief and despondency drove him to employ introjection in his suicidal behavior. Knowledge of this defense mechanism could be of great value to the officer investigating whether the man's death was homicide or suicide.

Substitution

Through substitution, individuals seek to overcome feelings of frustration and anxiety by achieving alternate goals and gratifications. Unrequited loves, unfulfilled longings, unattainable plans and ambitions, and unacceptable urges and impulses will create feelings of anxiety and guilt unless people find some substitute gratification.

Case Example. Fifteen-year-old Marie Smith is arrested again as a runaway juvenile. She is found living with a thirty-eight-year-old man. This is the fourth time in two years this has occurred, each time with a different man. She always promises it will not happen again. However, when it does, she is at a loss to explain why.

It is likely that Marie is trying to find the love and affection she lacks at home by having sexual relationships with older men. If her father had given her normal love and affection, she would not have to seek it by running away and engaging in promiscuous behavior with a father substitute. The officer who finds Marie Smith might be more helpful if he understood the reasons behind her behavior.

Fantasy

Fantasy is one of the most useful defense mechanisms. Its content is determined by unfulfilled ambitions and unconscious drives.

Case Example. Officer Jeffers sometimes has trouble keeping her mind on academy lectures. She finds herself daydreaming that she will become the Dirty Harry of the department and imagines herself overcoming all sorts of obstacles in solving the case of the century. These fantasies occasionally lead to inappropriate behavior, such as the time she tried to arrest a dangerous criminal by herself.

Regression

A person who regresses reverts to a pattern of feeling, thinking, or behavior appropriate to an earlier stage of development.

Case Example. Officer Riley's husband seems mature to most people. However, whenever he cannot have something he really wants (like a fishing trip), he throws a temper tantrum. Even though they can't really afford it, Officer Riley finally agrees to her husband's demands to halt his tantrum.

While growing up, Mr. Riley never learned to deal maturely with denied gratification. He never had to learn because his father and mother gave in immediately whenever he started having a temper tantrum. Today, when he thinks he is denied something, he is only repeating the successful behavior learned in childhood.

Sublimation

Sublimation is the diversion of unacceptable id impulses into socially and culturally acceptable channels.

Case Example. Charlie Smith has always been hostile. Since early childhood, he has had frequent daydreams of hurting or killing someone. When he entered high school Charlie did not enjoy regular sports, such as baseball and basketball. One day a friend took him down to the local gym. Charlie soon realized that he had found what he wanted to become a boxer.

Boxing allowed Charlie to release his aggression with social approval and possible financial reward. Sublimation proved a positive and constructive defense against otherwise unacceptable impulses and needs.

Isolation

According to Henry P. Laughlin, isolation is in use when an idea or object is divorced from its emotional connotation. "Police officers see it in killers and rapists who speak about their crimes expressionlessly. They see it in hospitals where medical and nursing professionals cope with patients with such detachment that they seem cold and indifferent. And they see it in themselves when they stand over a pitiful victim and calmly order an investigation".

This mechanism permits officers to distance themselves emotionally from the immediate reality of the situation and enables them to appear in control. They maintain their police image and deny any emotional involvement in the situation. This defense mechanism is useful in that it allows officers to get the job done. However, it is one of the most deceptive and, if not controlled, emotionally dangerous defenses used by officers. If carried over to home and family, it seriously interferes with their role as spouse, parent, and neighbor. They will hear their spouse

complaining "I just can't seem to get through to you anymore you have no feelings".

Summary

This chapter has pointed out that the dynamic interaction of the id, ego, and superego, occurring on both a conscious and unconscious level, can often lead to frustration and conflict, creating feelings of anxiety and guilt.

Defense mechanisms, such as displacement, rationalization, and compensation, may operate automatically to protect individuals from these unpleasant feelings and to maintain psychological balance (homeostasis). When people use these defense mechanisms constructively and positively, they are acting in a healthy way; when people employ them indiscriminately and inappropriately, they are heading toward ill health. When people's defense mechanisms break down completely or have not been adequately developed, the individuals are likely to become mentally ill.

Reading this chapter should impress upon police professionals that there is some motivation for every action and that most persons are not necessarily aware immediately of the reason for their behavior.

However, the basic concepts considered here are only the starting point for understanding specific behaviors. Therefore, police officers must be cautious in drawing any conclusions regarding the underlying causes of a person's action. If people themselves are unaware of why they act in a certain way, officers will come to understand this behavior only after thorough investigation and study.

Police officers also should resist instant diagnoses of behavior. However, they may legitimately use their understanding of behavior to help form preliminary judgments that will guide their actions, recognizing that all the facts may not appear on the surface.

In addition, knowledge of defense mechanisms should afford police officers some insight into their own behavior, especially in stressful situations. For example, are they displacing some personal, private anger (perhaps from home or from an encounter with an angry supervisor) onto the hapless citizen, thus increasing the stress for both?

Knowledge of defense mechanisms should encourage police officers to examine the effect of their own presence on the behavior of others. In many cases, people may view officers' presence as a barrier to their desires, or as another factor they must consider before deciding on further action. With this knowledge, police officers can better anticipate the behavior they are likely to encounter and, by anticipating it, control their own reactions and increase their effectiveness.

13

INFORMATION RETRIEVAL: TRENDS AND PROCESSES

Introduction

Surveys of the criminal justice system indicate that the primary determinant of whether or not a case is solved is the completeness and accuracy of the eyewitness' account. Despite the importance of eyewitness information police detectives receive only minimal and often no-training in effective methods to interview cooperative witnesses. Typically police learn to conduct interviews by trial and error or by emulating the style of a senior officer. Often they simply receive a checklist of evidence to be gathered and are left on their own, without guidance, to elicit the information. Given this lack of training, it should not be surprising that police investigators (and others equally untrained, including attorneys, fire marshals, accident investigators, etc.) frequently make avoidable mistakes and fail to elicit potentially valuable information.

In response to the need to improve police interview procedures, Fisher and Geiselman developed a new procedure based on the scientific literature of cognitive psychology (and hence the name, Cognitive Interview: CI). This chapter reviews the work to develop the CI and is presented in six sections: Principles of the CI, Empirical evaluation, Extensions and Current Research, Training to Learn the CI, Challenges to the CI, and Limitations of the CI.

Principles of the CI

The CI has evolved in two distinct phases over the past 10 years. The original version of the CI was made up of a limited set of interviewing principles designed to enhance memory retrieval under the ideal conditions found in laboratory studies (simulated crimes observed by motivated and articulate witnesses). The technique has since been revised considerably to address the problems of police investigations that deal with real victims and witnesses of crime. In the real world of crime, the detective interviewer's task is infinitely more complex, as witnesses may be frightened, inarticulate, and unwilling to participate in an extensive investigation. We shall focus here on the revised CI, as it is substantially more effective than the original version and because of its established utility in realistic situations.

Most of the principles of the CI fall into one of two categories: memory/cognition, and social dynamics/communication between the interviewer and the witness. Because of space limitations here, we include only thumbnail descriptions of the underlying psychological principles and a sampling of the most important interviewing techniques. A more thorough description of the CI, written in the style of a user's manual, is available in Fisher and Geiselman.

Memory and Cognition

The principles of memory and cognition reflect generally accepted beliefs about mental representation, memory retrieval, and information processing. These principles are derived primarily from the scientific literature in cognition. Where feasible, we present a sample of the experimental research to support each principle.

Recreate Original Context. Memory probes are most effective when they recreate the context of the original event, as in returning to the scene of the crime. Therefore, prior to answering any material questions about the crime, witnesses are instructed to mentally recreate the environmental, cognitive, physiological, and affective states that existed at the time of the original event. One of the more exotic psychological experiments to support this technique comes from a study by Godden and Baddeley in which scuba divers learned

a list of words either on land or under water. Later they were tested on land or under water. Those tested in the same context as where they learned (e.g., learned under water, tested under water) recalled more words than those tested in a different context (learned on land, tested under water).

Partial information. The mental representation of a complex event is made up of several component features. Because of this witnesses are encouraged to describe individual features of an event even when the holistic label is not available. For example, if witnesses cannot think of a name that was mentioned, they are requested to recall partial information, such as the number of syllables in the name. A classic study by Brown and McNeill demonstrated to enhance memory retrieval under the ideal conditions found in laboratory studies (simulated crimes observed by motivated and articulate witnesses). The technique has since been revised considerably to address the problems of police investigations that deal with real victims and witnesses of crime. In the real world of crime, the detective interviewer's task is infinitely more complex, as witnesses may be frightened, inarticulate, and unwilling to participate in an extensive investigation. We shall focus here on the revised CI, as it is substantially more effective than the original version and because of its established utility in realistic situations.

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Varied Retrieval. There may be several retrieval paths to a stored event. Therefore, witnesses are asked to think of the event from many different approaches: for example, chronological order and reverse order. As a general safeguard against guessing, witnesses are explicitly cautioned not to fabricate answers. This principle is based on a study by Anderson and Pichert in which subjects read a story about children playing in a house. Shortly thereafter, the subjects attempted to recall the details of the story from the perspective of a

home buyer. Later, they recalled the story again, this time from the perspective of a burglar. Many burglar-relevant facts that were not recalled initially from the home buyer's perspective (e.g., location of safe) were recalled later when adopting the burglar's perspective.

Limited Mental Resources: People have only limited mental resources to process information. Because of this, distracting signals may interfere with the witness' retrieving information from memory. Interviewers can reduce distractions by eliminating extraneous noises (e.g., turning off their radios) and by not interrupting during the witness' response. One psychological study demonstrating that memory retrieval is not effortless, but requires mental resources, was conducted by Johnston, Greenberg, Fisher, and Martin. Subjects performed a motor tracking task at the same time as they either (a) did a simple counting task, or (b) recalled a short list of words. Performance was worse on the motor tracking task when the subjects did the concurrent memory task, indicating that memory retrieval demands attention.

Guided Imagery. Each witness may have several mental representations of an event. Some representations are highly detailed and reflect minute, sensory properties; other representations are more global and reflect a more abstract, meaningful interpretation of the event. For example, a witness could describe a perpetrator as "ugly" (global, meaningful representation) or as "having blemished skin, with red oval-shaped splotches two inches below his left eye (detailed, sensory representation)." To induce recall based on the more detailed, sensory representations, witnesses are encouraged to concentrate on the visual, auditory, tactile and other sensory systems to guide their search of memory.

Witness-Compatible Questioning. Each witness' mental representation of an event is unique. Interviewers must therefore tailor their questions to the unique mental representation of the particular witness instead of asking all witnesses the same set of questions. For example, if an eyewitness reported seeing an assailant from the rear, then the interviewer should concentrate on probing for details about the assailant's back, as opposed to the conventional approach of focusing on facial characteristics. This rule is often violated when interviewers use a standardized checklist to guide their questioning.

Social Dynamics and Communication Between the Interviewer and the Eyewitness

The following principles largely reflect the social nature of the interview and the difference between the interviewer's and the witness' knowledge. Some of our recommendations stem from the scientific literature in communication and small groups; others are based on a task analysis of investigative interviewing and a careful perusal of dozens of taped interviews.

Active Witness Participation. By definition, the witness has first-hand knowledge of the crime not available to the interviewer. Therefore the witness, not the interviewer, should be doing most of the mental activity during the interview. In practice, these roles often are reversed and the witness sits passively waiting for the interviewer to ask questions. Interviewers can induce witnesses to take more active roles by asking open-ended questions and by permitting them to engage in tangential narration.

Knowledge of Crime-Relevant Information. Although the witness knows more about the details of the specific event, the interviewer knows more about which dimensions of the crime are important for the investigation. The interviewer must therefore direct the witness' report to relevant dimensions, but without dominating the interview. This may be accomplished by framing questions to address informative content and asking closed questions strategically (to complete responses to open-ended questions).

Promoting Extensive and Detailed Responses. Witnesses may provide incomplete and imprecise responses even though they possess extensive, detailed knowledge. This occurs in part because witnesses edit information they believe to be forensically irrelevant or inappropriate. This limitation may be overcome by explicitly requesting witnesses (a) not to edit any of their thoughts, but to describe everything that comes to mind, and (b) to describe objects and events in minute detail.

Using Nonverbal Responding. Traditionally, interviews are conducted as verbal exchanges. By relying so heavily on the verbal medium, the quality of the interview is limited by the witness' vocabulary and verbal fluency. To overcome this limitation, witnesses should be encouraged to use nonverbal means to replace or

supplement their verbal responses. For instance, witnesses might be asked to draw a sketch of an object or act out a movement. Finally, the CI follows an orderly sequence of stages. We make the assumption that each scene of the perceived crime is represented by a mental image or file. This mental file can be recovered later, much as any file may be recovered from a storage bin. The general strategy is to guide the witness to those mental files that are richest in relevant information and to facilitate communication when these files have been recovered. Each of the five major sections of the CI makes a unique contribution to the overall goal:

The introduction and rapport-building stage establishes the essential interpersonal dynamics necessary to promote effective memory and communication during the remainder of the interview.

Beginning with an open-ended narrative is crucial for inferring the witness' mental representation of the crime--how the mental files are organized. This then becomes the basis for developing an efficient strategy to probe the witness' knowledge.

The probing stage is the primary information-gathering phase. During this phase the interviewer guides the witness to the mental files that contain the richest information and thoroughly exhausts them of their contents.

In the review stage, the interviewer reviews the information obtained from the witness to ensure its accuracy. This also provides the witness with an additional opportunity to recall.

Finally, the interviewer closes the interview by offering a suggestion to extend the functional life of the interview should the witness later recall additional facts.

Empirical Evaluation

The CI should not be thought of as a formula or recipe for conducting an interview. Rather, it should be regarded as a toolbox of techniques that are selected according to the specific needs of the interview, much as a carpenter's tools are selected according to the specific task. It is unlikely that any interviewer will use all of the recommended techniques in any one interview. We should expect that the technique as it is actually used will vary considerably across

interviewers and across specific situations. Evaluating the CI, then, is not so much a test of the individual techniques, but whether exposure to the range of techniques is valuable.

At the time of this writing, more than 30 experiments have been conducted comparing the CI with standard police methods of interviewing. Most of these studies were based on the original version of the CI, which contained only four guidelines: (a) recreate the context of the original event, (b) do not edit responses, (c) recall the information in different orders and from different perspectives, and (d) recall partial information. The results of these studies are reviewed thoroughly in recent articles by Bekerian and Dennett, Fisher, McCauley and Geiselman, Memon and Bull and Memon and Kohnken. We shall briefly summarize this body of research and focus primarily on the revised CI.

Original CI. In most of the original CI studies, volunteer witnesses (typically college students) observed either a live, nonthreatening event or a film of a simulated crime. Several hours or a few days later, the witnesses participated in a face-to-face interview that resembled either a standard police interview or that used the principles of the (original) CI. The interviewers were experienced police detectives or research assistants trained to conduct a police-style interview or the CI. All of the interviews were tape recorded, transcribed, and then scored for the number of correct and incorrect bits of information recalled.

Technically, there is no standard police interview, primarily because police receive little formal training in interviewing cooperative witnesses. Nevertheless, police are surprisingly uniform in how they conduct interviews. The typical police interview, as found by Fisher with American police and George with British police, can be characterized as follows. Following a brief introduction, the interviewer asks the witness to describe in narrative fashion what he or she can remember about the crime. Shortly thereafter the format changes, and the interview evolves into a succession of closed, short-answer questions, on the order of: How tall was he? How much did he weigh? What color was his shirt? This staccato style of brief-questions-brief-answers continues until the end of the interview, when the interviewer usually asks: Is there anything else you can remember about the event? (more often than not drawing a "No" response).

The bulk of the earlier studies were conducted in our laboratories in the United States; however, recently, Kohnken, Memon and their colleagues have conducted parallel studies in Germany and England. The results from the various labs are highly similar and converge on a common finding. Across 25 studies, the (original) CI elicited approximately 35% more correct information than did the standard interview. Equally important, there was no increase in the proportion of incorrect information.

Revised CI. After several years of successful laboratory research on the original CI, we realized that it could be improved considerably and be adapted for use in the field, with real victims and witnesses of crime. Many of the changes that we incorporated into the revised CI came about from our scrutinizing hundreds of hours of police interviews conducted in the laboratory, isolating those techniques that discriminated between good and poor interviewers. We also analyzed several police interviews conducted in the field. The primary additions found in the revised CI reflect (a) principles of cognition not contained in the original CI (limited mental resources, guided imagery, witness-compatible questioning), (b) the inclusion of noncognitive factors that affect the success of an interview, specifically communication and social dynamics between the interviewer and the respondent, and (c) providing a structure to guide the interview. In addition, we modified the training program to facilitate learning the recommended techniques.

Evaluating the revised CI is difficult, because of the limited number of studies. Only five published studies meet our criteria as proper tests of the revised CI. Some studies are not considered because they incorporated only a few of the principles of the revised CI; others did not provide extensive enough training--in our judgment--for the interviewers to learn the technique properly. The five studies described here include three laboratory studies and two field studies, with real victims and witnesses of crime.

In the first laboratory test of the revised CI, college students were interviewed 2 days after viewing a videotape of a simulated crime (bank robbery or liquor store robbery). Half of the witnesses received the original version of the CI and half received the revised version.

As in the earlier studies, the interviews were tape recorded and scored by comparing the transcripts with the videotaped crimes.

The revised CI yielded approximately 45% more correct information than did the original version (mean number of facts = 57.5 vs. 39.6) with no significant loss of accuracy (12.0 vs. 9.4 incorrect facts). Compared to a standard police interview, the revised CI elicited almost twice as much information (96% increase). This almost-twofold increase in information is even more startling when one considers that the standard interview was conducted by experienced detectives whereas the revised CI was conducted by high school and college students with approximately 10 hours of training.

A second laboratory study was conducted by George in England to compare the CI with standard (British) police techniques. In this study, college students observed two actors interrupt a lecture. Two weeks later the witnesses returned to the laboratory where they were interviewed by experienced police officers. Once again the total amount of correct information elicited by the CI (67.5 facts) was considerably greater than the standard procedure (49.8 facts). This 35% advantage for the CI was approximately the same for describing events as for describing people (intruders). The number of errors was approximately the same for the CI (7.25) and the standard procedure (7.75).

Not all of the information reported by a witness will be noted by the interviewer. If the interview is not recorded, the functional record of the interview will be the information retained by the interviewer. Therefore, Kohnken, Thurer and Zoberbier examined not only the amount recalled by the witness but also the amount of information retained by the interviewer. In an important methodological advance, the control condition was not simply the standard police interview, which, arguably, may reflect poor interviewer training. Rather, the control group ("structured" interview) received intensive training in generally considered effective interviewing techniques, such as asking open ended questions, making effective use of silence, not interrupting the witness, developing good rapport, etc. These techniques are part of the social and communication principles of the CI; however, the cognitive components of the CI were not included. In the study, witnesses observed a film of a blood donation and then were interviewed with the CI or the structured interview. The advantage of the CI was found in both the amount of correct information actually recalled by the witnesses (53% advantage) and

in the amount preserved in the interviewer's post interview protocols (42%). There were no differences between the types of interview for amount of incorrect information recalled or preserved by the interviewers.

One might argue that laboratory studies are biased against police interviewing techniques, as these techniques have evolved to meet the realistic conditions found in the field, not the artificial conditions found in the laboratory. In response to this objection, two studies were conducted in the field.

In one of these studies, 16 experienced detectives from the Robbery Division of the Metro-Dade Police Department (Miami) served as the interviewers. All of the detectives tape recorded 4 to 6 interviews, typically from victims or witnesses of purse snatchings or commercial robbery. The detectives were then divided into two equivalent groups. One group of detectives received training on the CI; the other group did not receive this additional training. Following training, the detectives conducted a "practice" interview in the field and received feedback on their technique. In the ensuing months, detectives tape recorded several additional field interviews with other victims and witnesses. The taped interviews were then transcribed and scored blind for the number of crime-relevant facts.

As a group, the detectives who received training in the CI elicited 48% more information after training than before. Of the seven trained detectives, six improved dramatically (34%-115%). Only the one detective who did not change his interviewing style failed to improve. A second analysis showed that the trained and untrained detectives were equivalent before training, but the trained group elicited 63% more information after training.

Unlike laboratory research, field studies do not permit us to determine the accuracy of the elicited information. We therefore estimated accuracy by determining the degree to which witnesses' statements were corroborated by other witnesses to the crimes. In 22 cases there was another victim or witness whose descriptions were recorded on the police crime report. In all there were 325 potentially corroborable statements. The corroboration rates (percentage of elicited facts corroborated by other witnesses) were extremely high and were similar for the pretrained (93.0%) and posttrained interviews (94.5). Although not equivalent to accuracy, these

corroboration scores lead us to believe that training in the CI did not promote inaccuracy.

Table 13.1. Number of Facts Elicited by Trained and Untrained Detectives

Training Group	Training Phase	
	Before	After
CI-Trained	26.8	39.6
Untrained	23.8	24.2

An independent field study of the CI was conducted by George with 32 British police investigators from various police departments. Each of the investigators initially tape recorded three interviews with victims and witnesses of street crimes or serious traffic accidents. The investigators then were assigned randomly to CI training or no additional training. Following training, each investigator tape recorded another three interviews with victims and witnesses. The tapes were then transcribed and scored for questioning style (kinds of question asked) and amount of information elicited.

The investigators' questioning style changed dramatically as a result of CI training. Compared to their interviewing style before training, the CI group after training (a) asked fewer questions, (b) asked a higher proportion of open-ended questions, (c) injected more pauses, and (d) asked fewer leading questions. This change in questioning style was accompanied by an increase in the amount of information elicited. The CI group elicited more information than did the untrained group, whether comparing trained to untrained interviewers (14% advantage) or comparing the trained detectives after versus before training (55% advantage). This advantage of the CI held for a variety of types of information (e.g., object, person, location).

The revised CI has now been found to be effective in five independently conducted studies with different pools of interviewers and witnesses in each study. In all five studies, the pattern was the same: the CI elicited more correct information than did a standard police interview (or than the original version of the CI which had earlier been shown to be more effective than a police

interview) and without eliciting additional incorrect (or uncorroborated) information.

Extensions and Current Research

Given the past success of the CI to elicit more complete witness descriptions, we are currently examining its use in two related witness tasks: identifying suspects from lineups and constructing facial composites. In addition, we are exploring the CI for use in noncriminal investigations. Finally, we are examining its use with children as witnesses.

Identifying Suspects. There are some suggestions that the cognitive processes mediating recall and recognition may differ, so we were initially uncertain about the CI's success in a person-identification task. In the first experiment, witnesses observed a staged theft; 2 days later they tried to describe the suspect and identify him from a four-person lineup. Half of the witnesses were given the CI before attempting identification and half were given a standard (description) interview before identification. Although the witnesses provided better descriptions of the thief with the CI than with the standard interview, they were no more successful in the identification task. Those receiving the CI were correct on 61% of the lineups; those receiving the standard interview were correct on 64%.

We then modified the CI in light of recent suggestions that face recognition (a) may be interfered with by verbal coding, and (b) relies primarily on holistic information. The modified (for recognition) CI encouraged witnesses to (a) develop pictorial information and suppress verbal descriptions, and (b) think in terms of holistic properties of the face rather than specific features. In a test of this modified-for recognition CI, 2 days after viewing a videotape of a robbery witnesses attempted to identify the suspect from a 5-person lineup. Again there were no differences: subjects in the CI and unaided conditions were correct on approximately the same percentage of trials (63% vs. 65%). Two additional studies were conducted and the results remained unchanged: the CI did not improve identification from lineups or photoarrays. It is not clear to us why the CI was ineffective with the identification task, especially given the success of other researchers who have used components of the CI (context reinstatement) to enhance person recognition.

Nevertheless, the fact remains that the CI did not enhance person recognition.

Facial Composites. Even though the CI was ineffective in a face-recognition task, there is good theoretical ground to expect it to work in a parallel task, constructing the assailant's face. The construction task relies more on the processes associated with production (recall) than does the recognition task, and past research has demonstrated the CI to be more effective for recall than recognition.

Luu and Geiselman examined the original CI with the Field Identification System (FIS) for generating facial composites. Immediately after viewing a videotape of a robbery, witnesses attempted to reconstruct the perpetrator's face by using the FIS. Some witnesses were provided with the instructions of the (original) CI; others were told simply to "think about the face of the suspect." When the witnesses were permitted to select the facial features in the context of other features, the composite that was constructed with the CI instructions was judged to be more similar to the target face than when the control instructions ("think about the face") were used. When the facial features were selected in isolation, however, there were no differences between the CI and control instructions.

Koehn conducted a similar study using the Mac-A-Mug composite program and with the revised CI. The resulting composites were of such poor quality—no more helpful than a verbal description of the face—that it was impossible to determine whether the CI was of any benefit. Koehn suggested that the effectiveness of the interview technique and also the composite program may depend on whether it permits the use of holistic information in constructing the face.

Noncriminal investigations. Criminal and noncriminal investigations may differ from one another on a legal basis. From the witness' perspective, however, the two tasks may require the same types of cognitive mechanisms. If so, we might expect that the CI will be equally effective in criminal and noncriminal investigations. Fisher and Quigley, for example, showed that the CI is useful in a public health investigation of ill persons recalling foods eaten at an earlier meal. We describe here another situation that is closer to police interests: witnessing a car accident.

In a study recently completed in our laboratory, college students watched a short videotape including a 15-sec excerpt of a car accident.

The witnesses were then interviewed either with the CI or with a standard protocol modeled after that used by investigators from the (U.S.) National Transportation Safety Board. All of the witnesses were interviewed twice: 5 minutes after viewing the accident and again 2 weeks later. Half of the witnesses received the same type of interview on the two occasions (either both CI or both standard) and half received different types of interview (standard on one and CI on the other).

The results showed that for both the initial interview and the second interview, almost twice as many facts were elicited with the CI than with the standard interview. On the initial interview, the CI elicited a mean of 32.3 correct facts compared to the standard interview's 18.1 facts. The scores were almost identical on the second interview: CI = 30.5 and standard = 18.4.

As opposed to the findings in all of four prior studies, we observed here that significantly more errors were elicited by the CI (10.4 and 10.5 on the first and second interviews, respectively) than with the standard interview (6.1 and 6.8).

Note that although the CI elicited more total errors than did the standard interview, the rate of inaccuracy (proportion of all responses that are incorrect) was approximately the same for the CI (.26) and the standard interview (.27).

Although the CI elicited more information than did the standard on the first interview, there was no carryover effect to the second interview. The CI/CI group (CI on first interview/CI on second interview) did not recall significantly more correct information on the second interview (mean = 32.6 facts) than did the standard/CI group (28.8). Similarly, there were no carryover effects when the standard interview was conducted second. The standard/standard group recalled approximately the same number of correct facts (18.3) as did the CI/standard group (18.5). In parallel fashion, the number of errors committed on the second interview was unaffected by the type of first interview. This lack of a carryover effect can be interpreted either positively or negatively. On the positive side, having conducted a standard interview immediately after an event does not mitigate the effects of a later CI (vs. a later standard interview). On the negative side, having done an initial CI does not increase the amount of information that will be elicited

by a later interview. The advantage conferred by conducting a CI is restricted to that particular interview.

One insight into the CI's effectiveness comes from analyzing the information recalled into those facts elicited by open-ended requests (e.g., Describe the car at fault) and those elicited by specific, closed requests (e.g., What color was the car at fault?). In the present experiment, the CI elicited considerably more correct information than did the standard for open-ended requests (mean number of facts recalled = 21.9 vs. 9.9, respectively). However, there was almost no difference between the CI and the standard when specific, closed questions were asked (19.0 vs. 16.7). This trend mirrors the results found in George field study, where the advantage of the CI was very large when open-ended questions were asked (24.1 bits of information for the CI, but only 6.4 bits for the standard). There was only a small advantage, however, when closed questions were asked (4.6 vs. 2.7). One possible implication of this finding is that the CI will be most effective in those cases where the investigator has the least amount of prior knowledge--and hence should ask more open-ended questions. Conversely, if the investigator is interested in ascertaining only a limited pool of facts, and can formulate all of the requisite closed questions, then the CI will have less value.

Children as Witnesses. In recent years, an increasing number of children have been asked to testify, especially about events in which they were alleged to be victims. Current research suggests that, although children's recollections appear to be accurate, they are often not very detailed or extensive. This is precisely the deficiency that appears to be remediable by the CI. We therefore examined whether the CI, modified to accommodate the processing styles of children, could improve recall.

McCauley asked 7-year-old children to interact with an adult experimenter by going through a series of actions in the form of a Simon-says game. One to four hours later or 1 week later the children were interviewed about the Simon-says game either with the CI (revised for children) or in the standard format used by investigative interviewers. Professional social workers who interview children for the legal system constructed the "standard" interview protocol for us by modeling their own procedures (as modified for the Simon-says format). As an additional control condition, two of the professional children's interviewers also served as interviewers in

the experiment. On the first interview (1-4 hours), the CI elicited approximately 65% more information than the standard interviews conducted by either our research assistants or by the professional interviewers. A similar pattern of results (45% advantage for the CI) was found for the second interview (2 weeks). The number of incorrect facts elicited was extremely low and equivalent for the CI and the two standard interviews. One interesting thing to note here is that, just as in Fisher, inexperienced students with a few hours of training in the CI outperformed experienced professional interviewers.

As in the traffic-accident study described earlier there were again no carryover effects from the first interview to the second interview. The amount of information elicited on the second interview was affected only by the quality of the second interview (CI superior to standard); there was no effect of the type of first interview. This is particularly important for cases of alleged child abuse, as these children are likely to be interviewed many times during the course of the investigation. Our data suggest that, regardless of the history of previous interviews, a currently conducted CI should elicit more information than a standard interview.

To summarize, empirical tests of the CI have shown it to be effective across many situations and witnesses. Most important for police work, it has been effective not only in the laboratory but also in the field, where actual police investigations take place. The only task in which the CI has not worked thus far is in identification tests.

Training to Learn the CI

As might be expected, learning to conduct the CI properly requires substantial training, as there are many skills to learn, some of which are diametrically opposed to the techniques used by many experienced police investigators. In that regard, it may be easier to train new recruits, before they have learned inappropriate techniques, than to retrain experienced police investigators. Nevertheless, our studies have shown that even experienced detectives can improve their performance with training.

For the CI to be used effectively in actual cases, it must be learned as a skilled act, not unlike driving a car or shooting a basketball. The goal of the learning program must therefore be performance, not the

mere reporting of answers on a written test. To promote this type of skilful behavior, training in the CI requires that the trainees receive ample opportunity to practice the recommended techniques. In the format currently used to train the CI, considerable time is allotted for role-playing exercises, with the trainees rotating through the roles of interviewer, witness, and observer. Feedback from participants in our training programs constantly remind us that the most important ingredient in training is the opportunity to practice the skills taught. Others have reported similar feedback on the importance of skills training. To maximize the effectiveness of the practice opportunities, trainees should be provided with feedback about their performance. This feedback can be provided individually by the teacher or as a group activity, with the trainees critiquing one another. Trainees can even critique themselves by monitoring a video or audiotape of a previously conducted interview. Our experience has been that allowing the trainees to critique one another during practice sessions is a valuable exercise, as the trainees learn from both receiving and giving feedback. The CI is currently being taught in intensive 1- or 2-day courses in various police departments and training centers in England and the United States (e.g., Federal Law Enforcement Training Center). In its ideal form the training program would be presented in a series short sessions (about 30 minutes) and over a long interval (1 month). Such a schedule promotes efficient learning by spacing out the learning sessions. It also allows for adequate time to master the basic skills before adding on the more esoteric skills. For a more detailed analysis of training issues, see Fisher and Geiselman.

Challenges to The CI

As with other new techniques, we expect the CI to be challenged by potential users. This reflects a healthy skepticism and should certainly be encouraged. We anticipate two areas where objections may be raised: legal concerns and practical utility for police.

Legal Concerns. We expect that legal challenges of the CI will follow along the same lines as those applied to hypnosis: (a) it is unreliable as a memory enhancer, (b) it leads to increased error or confabulation, and (c) it renders witnesses unduly suggestible to leading questions. We shall address these issues briefly in light of the empirical evidence:

1. We are aware of 31 published or unpublished experiments of the original or revised CI. Of these, all but three have found the CI to elicit more information than a standard police interview (or a comparable control). Note that this advantage of the CI holds only when witnesses are describing people, places, or events, not when they are identifying people from lineups or photoarrays.
2. The literature is mixed with respect to errors, with some experiments showing equivalent errors and other studies finding more errors with the CI. Kohnken meta-analysis shows that across 26 studies the CI elicits somewhat more errors than does a standard interview. In all of these studies, however, the error rates (proportion of responses that were incorrect) were either equivalent or lower in the CI than in the standard condition. The evidence suggests then that the CI does not lower recall accuracy.
3. When tested in the field, CI-trained interviewers asked fewer, not more, leading questions than did standard interviewers. This should not be surprising, given that, in comparison to standard interviewers, CI interviewers (a) asked proportionally more open-ended questions, which lend themselves easily to neutral wording, and (b) asked fewer questions overall. In the one laboratory study where misleading questions were introduced intentionally, those witnesses given the (original) CI were less influenced by the misleading information than those who were given the standard interview. Thus, the concern about suggestibility to leading questions argues in favor of, not in opposition to, using the CI.

Utility for Police. One might reasonably argue that academic psychologists do not know what information is relevant for police investigations. Hence, the "additional information" elicited by the CI may be of little practical import. This argument may be true in part, especially for laboratory studies that use research assistants as the interviewers. Various findings argue against this objection. First, many of the laboratory experiments were conducted with experienced police detectives as the interviewers. Second, Geiselman found that the CI was just as effective for the 20 most important facts

(e.g., describing weapons, assailants) as for more peripheral information. Third, and most important, the same pattern of CI superiority that was reported in laboratory studies was found in field studies where the detective-interviewers were trying to solve real crimes. Note especially that George's field study was planned and conducted by an experienced police officer. We are confident in assuming that he correctly evaluated the relevance of the information elicited.

A second objection might be that the extra information elicited by the CI does not add to what the police already know about the case. The additional information may be redundant with the facts collected in an earlier interview (e.g., by a uniformed police officer). Does the CI elicit any new information not gathered earlier? In our field study, we compared the facts elicited by the follow-up detective to those elicited in an earlier interview, usually conducted by a uniformed officer shortly after the crime. Both the CI and the standard interviews elicited new information not collected in the earlier interview; however, the CI elicited almost two-thirds more additional new information (34.4 facts) than did the standard interview (21.3 facts). A similar pattern was found in McCauley study with 7-year-old children. When the first interview (1-4 hours) was conducted in the standard fashion, a second interview (2 weeks later) that was conducted as a CI elicited 8.6 new correct facts, whereas a second interview conducted in the standard fashion elicited only 3.7 new correct facts.

To summarize, the CI reliably elicits more information than does a standard interview without reducing accuracy or increasing the witness' suggestibility. The additional information complements what police already know about the case, and is relevant for real-world police investigations. Although we are not aware now of any major liabilities of using the CI (cf. hypnosis) certainly we cannot rule out the possibility that some will be found in the future. If that occurs, we ought to modify the CI if possible and/or to recognize its limitations.

Limitations of the CI

Although the CI has been demonstrated to be an effective investigative procedure under some circumstances, there are

restrictions on its utility. The technique is geared to assisting cooperative witnesses to overcome the cognitive limitations of average people. In many police investigations the major stumbling block is that potential witnesses do not want to participate. They may not want to take the time; they may not want to "get involved"; or they may even be suspects. The CI is not intended to overcome these motivational barriers.

Although not intended for suspect interviews, effective use of the CI with cooperative witnesses may indirectly encourage suspects to confess. This reflects the finding that suspects are most likely to confess when the evidence is strongest. Furthermore, the stronger the perceived evidence against a suspect, the more satisfied the suspect is about having confessed.

The CI's effectiveness will be restricted to those cases that depend heavily on witness evidence: for example, robbery, assault. Cases that depend primarily on physical evidence or on documentation will be unaffected.

Despite some of our findings that the CI did not take reliably longer to conduct than did a standard interview, we expect that it should take somewhat longer. That should limit the CI's use to those cases in which there is adequate time to conduct a thorough interview. Given the workload of many investigators, the CI will likely be used only in major crimes, where more resources can be applied. Often, a preliminary interview will be conducted by a uniformed police officer shortly after a crime has been committed. This interview has limited scope (often to elicit a cursory description of the get-away vehicle and the assailant) and must be completed quickly. Given these constraints, we expect the CI to be less practical here.

The CI requires considerable mental concentration on the part of the interviewer. He or she must make more on-line decisions and show greater flexibility than is typically demonstrated in police interviews. In that sense it is more difficult to conduct the CI than the standard interview.

Finally, we expect the CI to be most valuable in the earlier phases of the investigation, before the witness has had ample time to rehearse the event repeatedly and to prepare a set account to be staged in the courtroom. In the courtroom, where much of the witness' testimony is scripted, the CI should be of less value.

Conclusion

Thus far, the CI has been found effective within limited parameters: eliciting descriptions of events from motivated child or adult witnesses shortly after the event has occurred (within 2 weeks). Clearly, this covers only a restricted subset of the kinds of investigative interviews that actually take place. Victims are often elderly, with unique information-processing deficits; several months or even years may pass before a witness is interviewed; innocent suspects must be interviewed to elicit exculpatory evidence, etc. For the CI to be of greatest value to the legal system, (a) it must be modified to meet the information-processing demands of these unexplored areas, and (b) its limitations must be clearly recognized.

The potential of the CI to improve the quality of forensic investigations has been demonstrated. Converting that potential into practice requires modifying the training that police and attorneys receive. We are encouraged to see that, recently, suggestions have been made to rectify this situation by providing training in CI techniques and that some law-enforcement institution are now offering training in the CI as standard fare (British police, U.S. Federal Law Enforcement Training Center). If this trend continues, two directions for future research are to develop (a) improved methods of training novices (and retraining experienced investigators) to learn the CI, and (b) selection devices that will screen out potentially good and poor interviewers.

14

INFORMATION RETRIEVAL: RECONSTRUCTING FACES

Introduction

We all know that the face has a unique place in human affairs. We identify an enormous number of individuals on the basis of their face. Further, we read peoples' faces to determine their emotional state and to assist in our understanding of what they are saying to us. From work on the physiology of vision we know that there are special "face" detectors to be found in the right temporal lobe. However, we all know also that our face recognition system is prone to error. We see someone out of context for example, the butcher at the beach--and we know that they are familiar, but we cannot remember who they are. Or, we see a friend and rush up to greet them, only to discover that the individual we are greeting is a perfect stranger. All of these facts are relevant to an understanding of face recognition and reconstruction. In what follows, we look at some of the problems of face recognition and reconstruction, and identify some solutions. Recent findings from the literature on face recognition and identification and the development of computer-aided procedures for the reconstruction of faces promise to revolutionize the way that police forces around the world deal with the complex problem of turning an eyewitness' account of a perpetrator's face into a lifelike picture of the original.

Let us begin by identifying some of the problems of face recognition and reconstruction. Bruce describes the case of Laszlo Virag who was convicted on the basis of eyewitness evidence in England. The crimes involved attempted thefts from parking meters and various firearms offenses committed during the subsequent pursuit. All told, there were 17 witnesses, six of whom were policemen. Eight of the 17 identified Mr. Virag as the perpetrator and of these eight, five were policemen. Later, a Mr. Georges Payen came under suspicion for the crimes and Mr. Virag was acquitted. Bruce notes that the faces of the two men are more alike than different and that it may be this likeness that led to the misidentification.

Lieppe, Wells and Ostrom provide some indication on the quality of eyewitnesses. An experimenter entered a room where four subjects and a stooge were standing, ostensibly waiting for an experiment to begin. The experimenter asked if anyone had seen a bag left by a previous subject. The stooge pointed to it, and then when the experimenter left the room, the stooge picked up the bag and walked off with it. Later, each of the four subjects was shown a photospread of 6 photos and asked to identify the stooge. Of 100 subjects, only 12.5% were able to do so. This "hit rate" is about what one would expect by chance.

Logie, Baddeley and Woodhead investigated the ability of the general public to identify someone who was unfamiliar to them from photographs published in newspapers. Logie describe a newspaper advertising stunt, run during the 1920s, which shows just how difficult this task can be. A British newspaper printed photographs of a Mr. "Lobby Ludd" and told their readers that Mr. Ludd would be at a particular seaside resort on a particular day. (Different resorts were visited on different days.) If a holiday maker sighted Mr. Ludd and approached him with a copy of the relevant newspaper, the individual could claim 5 pounds. Although there were lots of false alarms, the money often jackpotted to 100 pounds or more before Mr. Ludd was "apprehended." We return to these studies later.

Taken together, these three vignettes might suggest that eyewitnesses fail to see much, and when they do, they make mistakes. Moreover, even if they do provide a useful description of a perpetrator, the general public will be of little assistance in identifying him or

her. Wells has made the point that experimental psychology must do more than identify problems for criminal investigators and the legal profession: It must also provide solutions. In what follows, we hope to point to some of these possible solutions.

Face Memory

There is no doubt that when we meet a new person, we place great emphasis on two things, their name and their face. We think we can take for granted that no one committing a crime is going to tell us their name, at least not purposefully. Thus, we need to examine how we go about learning the attributes of a new face and how this can assist us in face identification. This might appear a daunting task. After all, we need to determine how we learn the attributes of a person who is unfamiliar to us, and then we may use this information to construct a picture so that others, also unfamiliar with the person, can identify them. It is the thesis of this chapter that this is not a sensible approach. We believe that an identification of a person or persons by the general public, on the basis of a picture, is so unlikely that we can ignore it. We argue, instead, that the purpose of a reconstruction should be to elicit information from people who may recognize the individual from the picture. If the latter is the case, then the task of face construction takes on a different emphasis. Most importantly, it means that the information we have built up on how people recognize familiar individuals becomes relevant.

Model of Face Memory

The most influential current model of face recognition is the Bruce-Young model, named after Vicki Bruce and Andy Young. The basic features of the model are illustrated in Fig. 14.1. We do not present an exhaustive review of the evidence favoring this model. However, some points are worth noting. First, note that the analysis of expression and facial speech is independent of face recognition. Common-sense suggests that this must be so. If we had to be familiar with a person to determine whether the expression they were exhibiting was angry or happy, life would be very complicated. In fact, of course, we can recognize such facial expressions in just about anybody. The same is true of our ability to use the movements of a person's lips in order to understand what they are saying. In both

cases, knowing a person may assist with some of the subtleties, but familiarity is not essential to our use of the information portrayed in the face.

Naturally, our ability to recognize a person is affected by the same factors that improve our ability to remember a picture for example, the length of time we are exposed to him or her, the lighting, the context, the delay between initial exposure and subsequent identification, and the nature of the social interaction. But how do we learn the unique attributes of a person's face? First, we know that it is necessary to see a person's face from different angles. However, we also know that if we are restricted to one view, then the three-quarter view is preferable over the frontal view, which is preferable over a profile view. This results from the fact that we have two types of face recognition cells in our brain, one type responding to a frontal view and the other responding to a profile view. However, a three-quarter view fires both cells.

Second, although our perception of facial expressions of emotion does not rely on familiarity, our ability to recognize a relatively unfamiliar face can be affected by a change in facial expression. Thus, if on the first few occasions we always see someone smiling, subsequently we may find it difficult to recognize them when they are enraged.

Third, we know that people focus on certain attributes of unfamiliar faces.

These are in descending order of importance, the hair (or how it affects the outline of the face), the eyes, and the mouth. It is no coincidence that if you want to disguise yourself, the best way to do this is to alter your hairstyle, put on (or change) eyeglasses, and grow a moustache (or shave it off). Note that these attributes are not catalogued in isolation, but in the context of the "look" of the whole face, as demonstrated by the fact that people use these same attributes when trying to remember upside down or "inverted" faces.

Fourth, it appears that during development, we produce a prototype of the human face that is a composite of the various faces we have seen. This has two implications. On the one hand, we are more likely to categorize a face as a face if it fits our prototype. On the other, we are more likely to remember a face that does not fit our prototype. That is, distinctive faces are more likely to be remembered.

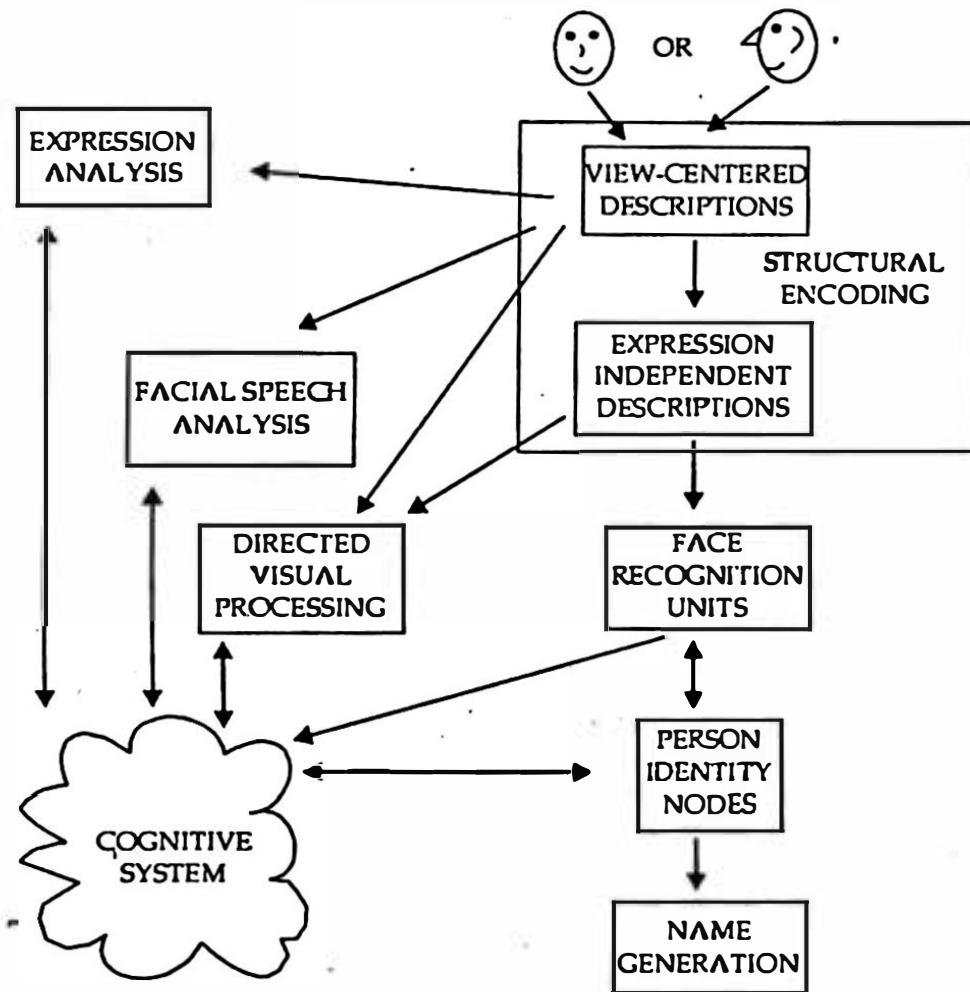


Fig. 14.1. The Bruce-Young model of face processing.

How does the foregoing fit into the Bruce-Young model of face recognition. According to Bruce and Young, we first recognize a face as familiar or unfamiliar. If the person is familiar, this is triggered by the firing of a face recognition unit. Sometimes, that is all we know about a person (e.g., someone who stands on the same train platform on the way to work). However, for other people, we may have formed some person identity nodes (of which the face recognition unit is one.) These may provide information about, for example, the person's occupation. Finally, we may be able to give a name to the person. Note that the model predicts that information will always be accessed in this order. For example, we can never know a person's occupation unless we see the person as familiar.

Similarly, we are unlikely to remember a person's name, without remembering something else about them. A little introspection should convince you that your own experiences fit well with this model.

Selected Findings. The Bruce-Young model is instructive in that it can suggest what we should and should not do with respect to procedure. First, our memory for an unfamiliar face is likely to be subject to interference. Thus, we should avoid showing an eyewitness a representation or description of the face produced by another witness. Research in this area clearly demonstrates that if we do so, the eyewitness is likely to be heavily influenced by the alternative description. For example, Loftus and Greene showed subjects the face of a male target. The subjects then read a description of the target in which one important feature had been changed, for example, a straight-haired target might be described as having wavy hair. Loftus and Greene observed that subjects exposed to the misleading information were much more likely to introduce it into their own description of the target, when choosing from a photospread, or when choosing features to produce a composite. This finding has been replicated by Jenkins and Davies, who also demonstrated that the effect was stronger if the misleading information was given just before a test, such as a photospread, rather than just after the event. Second, although the presentation of mug shots may seem relatively innocuous, it too may have deleterious consequences (and worse) on an eyewitness' ability to remember an unfamiliar face. For example, an eyewitness who views a number of different pictures of the same person may come to see that person as familiar. A famous example of such a misidentification is described by Bruce. A father and daughter were eyewitnesses to an armed robbery in which the wife and mother was killed. A Mr. George Ince, who had previous convictions for robbery and was under suspicion for other offenses, was placed into a line-up. The father failed to pick Ince from the line-up. However, the daughter did so. Ince was tried for murder but acquitted on appeal when he produced an alibi for the time in question. It later transpired that the daughter had been shown several pictures of Ince. Although she had not picked him out when viewing these photographs, he was clearly "familiar" to her when he appeared in the lineup.

Finally, we might ask who is the reconstruction for? We have assumed that eyewitnesses help reconstruct the face of the perpetrator to assist the general public and the police to identify the person. How likely is this? Work by Logie suggests that the probability of a member of the general public identifying someone in the street, from a face reconstruction that they have seen in a newspaper, on television, or in the window of a police station, is negligible. We have already used their example concerning Mr. Lobby Ludd. Let us now look at some further studies by Logie.

Logie, Baddeley and Woodhead report a series of studies in which they examined the ability of the general public to identify a confederate in the street after viewing a photospread. In one study, photographs of six confederates were published in three local newspapers around Cambridge, England, two confederates per pose: that is, a frontal, profile, and a three-quarter view. The pictures were published on a Thursday and on that following Saturday, two confederates walked through each town for 30 minutes, once in the morning and once in the afternoon. Readers were asked to avoid approaching the target but to ring in if they spotted a target. The readership of the papers was estimated at 120,000+.

In another study, a number of people viewed photographs of six male targets at the Applied Psychology Unit (APU) at Cambridge, England. Two weeks later the targets walked through Cambridge on a Saturday morning, along a specified route but from different starting points. The APU subjects had to identify as many targets as they could from their photographs, which they reviewed for 15 minutes just prior to leaving their homes. (They were not allowed to take the photos with them.) Only two of the six targets were identified and then only by one person each out of a possible 33."

Some Implications. Clearly, even when people are primed to seek a target and have knowledge of the route the target will take, they often fail to identify the target. Does this mean that face reconstructions are a waste of time? On the contrary, it suggests that the target audience is not the general public, but people who may know the perpetrator. We know of no research that addresses this issue but it would be our contention that identifications from face reconstructions will be made by people who are familiar with the person whose face is depicted in the reconstruction. Naturally, this

means that we have a much smaller pool of people who might identify the perpetrator. However, what we lose in numbers, we gain in expertise because as we have seen, if we are familiar with a face, we will be able to tolerate changes to that face and will still be able to identify the person depicted.

REMEMBERING AND RECONSTRUCTING FACES

Verbal Recall and Description

Normal Recall. Invariably, we require an eyewitness to give a verbal account of an incident and the people involved. Experimental psychology might be taken to endorse the recall of an unfamiliar face by both verbal and visual means. Representing information in a variety of forms is assumed to assist in our recall or recognition of that information. However, recent research indicates that being required to provide a verbal description of a face can have a marked influence on our ability to recognize that face. Let us begin by looking at the evidence. Schooler and Engstler- Schooler report a series of experiments in which subjects watched a video of a "crime." There were typically three groups of subjects. One group was asked to provide a verbal description of the face of the perpetrator, a second was asked to form a visual image of the target's face, and the third did nothing, acting as a control. The subjects were then presented with photospreads from which they had to choose the face of the perpetrator. Schooler and Engstler- Schooler found that the group required to produce a verbal description were invariably less accurate in choosing the target than the other two groups who did not differ from each other. This effect lasted with delays of at least 2 days between presentation of the target and the test. Interestingly, the effect disappeared if the subjects were only allowed to view the photospreads for a short period. Importantly, this was because of improved performance in the verbal group, not poorer performance in the imagery group or the control group.

Courts in the United States direct jurors to give greater weight to eyewitnesses whose verbal description matches the perpetrator and who pick the perpetrator out in a line-up. In fact, the evidence suggests that there is little or no relationship between one's ability to produce a verbal description of a target, what is known as a "recall" test, and

one's ability to recognize a target in a line-up. In a similar vein, jurors in the United States are directed to give greater weight to a witness whose account of an incident includes a more complete description of the peripheral details. In fact, theories of attention suggest that we should be wary of such a witness because if we know the color of the wallpaper, we cannot have been looking at the perpetrator's face. This is exemplified by the "weapon" effect. Eyewitnesses are likely to produce less complete accounts of an incident if a weapon is involved because they spend much of the time looking at the weapon.

Enhanced Recall. People often wonder whether there are ways to recall faces better. The simple answer is that the more familiar people are with a face, then the better they will be able to remember that face. One asks, however, if there are ways to improve people's recall or recognition of unfamiliar faces that they saw only briefly, when a crime was being committed. There are some techniques that have been used in an attempt to improve witnesses' memory of faces in these situations. Hypnosis, for instance, has been popular in the United States and in England, but its use has not been very successful. Wagstaff, for instance, presented photographs of faces to subjects and 1 week later asked them to choose the face they had been shown previously from an array of photographs. Hypnotized subjects were told they would clearly remember the previously seen face; the other nonhypnotized subjects were not given any instructions. Although the hypnotized and nonhypnotized subjects did not differ in the accuracy of their correct identifications, the hypnotized subjects made more incorrect identifications that they were sure were correct than did the other subjects. The use of techniques such as hypnosis do not tend to make people more accurate in recalling faces, but rather tend to make people more confident about what they are saying, no matter whether what they are saying is accurate or not. This is a general problem with techniques that are aimed at enhancing recall. They may not enhance recall very much, but they may lead people to believe more in what they already recall or in the little bit extra that they now remember.

Verbal Recall and Pictorial Description

Free Drawing. Until recently, a police artist has been employed to turn an eyewitness' verbal account of a perpetrator's face into a

picture. There is no doubt that this technique is quite effective. However, it does take a great deal of time and the end product can never be totally realistic because it is based on a line drawing. It is true that we can recognize individuals from line drawings, as is evidenced by our ability to recognize famous people from their caricatures. Nevertheless, it is most unlikely that someone will recognize an individual who is unfamiliar to them on the basis of an artist's rendition. It is clear that there is a degradation when an artist has to rely on the verbal description of an eyewitness. Thus, Laughery, Duval and Fowler found that sketches by a police artist produced better likenesses when the target was present than when the target was absent. Nevertheless, there is clear value in employing an artist in the reconstruction of the face of a perpetrator. As we see next, some of the problems noted here may be overcome by using a computer-based system.

Identikit and Photofit Systems. These systems consist of a number of drawings (Identikit) or photographs (Photofit) of parts of the face. Typically, these include different hairstyles, outlines, eyes, nose, mouth, and facial features such as glasses, and moustaches. The products of these systems are often identified by the name of their inventor, Penry. Penry's system has had an enormous influence on police practice. Unfortunately, the evidence suggests that it is based on a false premise concerning the way that people attempt to remember another's face. For example, one obvious problem with the Penry system is that only a small number of exemplars of the various facial features can be included because the presence of a large number makes the system unworkable.

Penry's system assumes that we remember faces by decomposing them into a number of salient features. Indeed, as we noted earlier, people do focus on the external features of the face of an unfamiliar person, including hairstyle, presence or absence of eyeglasses or moustache, and on internal features such as the eyes and mouth. However, while we may focus on these attributes when we are attempting to produce a verbal description of a face, we tend to remember the visual image of the face itself as a gestalt. Several lines of research speak to this issue. First, people are more likely to recognize a face subsequently if they are told to try to remember the face as a whole than if they are told to remember the face by forming a catalogue of facial features.

Second, Haig has demonstrated that people are very sensitive to the configuration of the various facial features mentioned before. Haig presented a small number of subjects with faces that he had altered by moving certain aspects either laterally or vertically. The observers had to say whether the face had been changed from an "original." The observers were sensitive to some changes and insensitive to others. For example, if the mouth was moved closer to the nose by 1 minute of visual angle, the observers noticed the change. This difference is at the threshold of visual acuity. In contrast, the distance between the eyes could be increased to the point where the eyes were almost outside the profile of the face before the observers reported any change! These results indicate why it is almost impossible to produce a very good likeness with the Identikit/Photofit technique. Constructing a face as though one were constructing a jigsaw puzzle can never accommodate the subtleties observed by Haig.

Third, Woodhead, Baddeley and Simmonds attempted to improve subjects' ability to recognize unfamiliar faces by training the subjects to use an analytic approach, decomposing the face into its constituent parts. They concluded that "the course made you worse, not better, at recognizing faces". Indeed, they were among the first authors to demonstrate that people were more likely to remember an unfamiliar face if they labeled it with a personality attribute such as "honesty."

Finally, a number of studies have demonstrated that the Identikit/Photofit technique does not produce particularly good likenesses. For example, the Laughery study described earlier reported that a rendition of a target by an Identikit/Photofit technician was no better when the target was present than when the target was absent. Although the Identikit/Photofit technique did produce a slightly better likeness than a police artist's when the target was absent, both were rated at a level of accuracy of less than 30 out of 100.

Computer-Aided Procedures. Increasing dissatisfaction with the Penry system and the increasing availability of personal computer systems has lead to the development of a number of computer-aided procedures for face reconstruction. We discuss four such systems.

One of the problems with the Identikit/Photofit system is that it produced a face that looks something like a jigsaw. The Computerized Identification System (CIDS) was developed in an attempt to overcome this problem. CIDS consists of a database of facial features much like the Identikit/ Photofit system. However, once the witness has picked out the various facial attributes, a "paint" program is used to merge them and produce a photorealistic version in black and white. Further, the resulting image can be modified to take into account details that the witness may suggest need altering. The end product can then be printed for distribution and faxed anywhere in the world.

There is little doubt that the reconstruction produced by CIDS is superior to that produced by the Identikit/Photofit system. Further, as already noted, only a relatively small number of exemplars of the various facial features can be included in the Identikit/ Photofit system. This is not the case with CIDS where a computerized search engine can be employed to call up exemplars fitting the witness' description. Nevertheless, the fact that CIDS makes many of the same assumptions as the Identikit/Photofit systems suggests that it needs to be evaluated in much the same way.

The second system developed with the assistance of the Victoria Police Criminal Identification Squad is known as "F.A.C.E.," which stands for Facial Automated Composition and Editing system. Again, the face is constructed employing a database of components. These are in full color and provide exemplars of Caucasian, Aboriginal, Southern European, and other faces, both male and female. The exemplars include eyes: open, medium, or closed; mouths, thin, wide, full, and so on. The process begins with the choice of hair/ forehead and then chin. When these components are correctly aligned, then the eyes, nose, and mouth can be chosen. "Accessories" can then be added and skin color modified. An automatic blending function removes the seams.

At this point, the police artist can take over and modify the image in conjunction with the witness. As with CIDS, the image can be printed out, in this case in color, and faxed anywhere in the world. The F.A.C.E. system is a sophisticated improvement upon previous practices. It, like CIDS, tries to focus on the face as a whole. However, because the face is built up from its component parts, it

also suffers from some of the assumptions of the Identikit/Photofit systems. Like CIDS, it needs to be evaluated, although experience suggests that both systems will demonstrate their utility.

The two systems described above were both designed in Australia and are available commercially. The next two systems are not available commercially so far as we are aware. However, they represent different ways of approaching the problem of computer-aided face construction and are worth examining.

A Witness-Computer Interactive System for Searching "Mug Shot" Files. Harmon and colleagues have developed a system that enables one to search through "mug shots," without the risk of familiarization leading to possible misidentification, as described previously. Basically, a large database of "mug shots" is held on the computer system. These are indexed according to a variety of facial features (e.g., race, hair color, eye color, size of mouth, and so on). The witness is then asked a series of questions about the facial features of the perpetrator. As each question is asked, a number of faces in the database are eliminated because they do not accord with that aspect of the facial feature. Eventually, the database is whittled down to one face. Thus, the whole process is gone through without the witness seeing any of the actual mug shots.

The Harmon system is a sensible approach to the problems raised previously concerning the presentation of mug shots. However, it can only cope with perpetrators who are already in its database. Indeed, if the perpetrator is not in the database, the system may well lead to false alarms. If we assume that the eyewitness does not have perfect recall of the perpetrator's face, a reasonable assumption, then the presentation of a face that is very similar to that of the perpetrator may elicit sufficient feelings of familiarity to produce a misidentification. In this sense, the Harmon et al. system is a useful advance on current practice, but it must be treated with great care.

The "Catch Model." Possibly the most exciting system has been put forward by Rakover and Cahlon. The "catch model" presents the eyewitness with two faces and the eyewitness has to say which of the two looks more like the perpetrator. For example, if the target was Abraham Lincoln and you were presented with pictures of George Washington and Ronald Reagan, you would choose Ronald

Reagan. Each of the facial dimensions has a value, where a dimension might be hair, and the values might be bald head, versus head of hair. Other values might then define light hair versus dark hair, and so on. Each pair of faces will share some values and be different on others. The computer checks this for each pair and each choice and eventually it will produce the most likely composite of the values of the various dimensions. Thus, the eyewitness constructs a face, but without having to describe it verbally, and without having to focus on the individual features (dimensions) of the face.

The catch model draws its strength from the fact that it focuses directly upon the way that we look at an unfamiliar face, that is, we use a visual code and we try to remember the face as a gestalt. Indeed, the model has additional strengths. For example, it is possible for a number of eyewitnesses to contribute towards the reconstruction of a face without ever seeing each other and their relative contributions. The computer can look for areas of agreement between witnesses and score the values of the dimensions accordingly. A perennial problem for investigators, and one that has been demonstrated in the laboratory by Loftus and colleagues, is the introduction of misleading information. The catch model avoids this problem because an individual witness is never exposed to the possible mistakes of other witnesses.

At this point in time, the catch model requires a great deal of work in terms of developing the computer algorithms and in cataloguing the databases needed for the presentation of the stimulus faces. However, it would appear to be the most promising of the various models described. We await its further development with interest.

Matters of Caution and Guidelines for Good Procedure

Anyone planning to commit a crime has the opportunity to disguise themselves. The most sensible disguise is to place a tight fitting stocking over the head because it distorts the facial features and their relationship with each other. Additionally, a balaclava will cover most of the face and thus hide identifying features such as birthmarks or scars. Davies and Flin demonstrated that it was the squashing effect of stockings that was important rather than any

increased difficulty in viewing the face. They required targets to wear polythene bags versus nondistorting mesh. The targets wearing the polythene bags were recognized less often than those wearing the mesh. It is difficult to see how even the computer systems described earlier will be of much assistance where the criminal is disguised in this manner.

If the perpetrator fails to wear a disguise then there are alternatives available to them. As noted previously, we tend to notice hairstyle, facial hair, and eyeglasses when viewing unfamiliar faces. Thus, a quick change of hairstyle, a shave, and the wearing of contact lenses will make us almost unrecognizable.

People have difficulty remembering the faces of other races and to a certain extent the opposite sex. The problem of recognizing other races is almost universal and appears to result from the fact that as we learn the attributes of faces during our development, we build up a face template and we then compare new faces to this template. However, if our template is built up from experience with one race, we may find that when presented with a person of another race, we focus upon attributes, which while useful for distinguishing between people of our own race, are of little value when trying to distinguish between different members of another race. This effect is quite strong and knowing how much experience an eyewitness has had with people of another race is likely to be a very good indication of their ability to reconstruct the face of such a person. The same is true, but to a much lesser extent, with gender.

Finally, what the person was thinking about when they viewed a face may be more important than what they were looking at. We know that you cannot read personality characteristics from a person's face. Thus, you cannot determine whether a person is truthful, intelligent, or suchlike, on the basis of facial features. Paradoxically, however, assigning a personality attribute to a person can aid us in remembering that person's face. A good example of such an outcome is provided by Devine and Malpass. In one study, they asked one group of subjects to look at a face and assign a personality attribute to the face. The subjects were given no indication that they would be required to recognize the face subsequently. In contrast, a second group was told that they would be presented with a series of photos of faces and that they would be tested on

their recognition of the faces in a subsequent test. The former group did as well as the latter. This finding has been replicated many times. Indeed, a group assigning personality labels has been shown to do better than a group that focuses upon identifying features of the faces such as thin lips, bushy eyebrows etc.

In a similar vein, assigning an occupational category to a face may assist in its recall. Klatzky found that assigning a face to an occupational category enhanced subsequent recognition of the face, as long as the face was a good exemplar of the category (e.g., a judge is seen as an elderly White male, typically with a good head of white hair!). However, a problem can arise with such categorical judgments in that individuals who also fit the "search" category will be picked more often as well. That is, there will be an increase in "false alarms."

Nature/State of the Witness

The age of the eyewitness is of obvious concern. The young and the elderly may be problematic but for different reasons. For example, Goodman and Reid allowed people of various ages to interact with a strange male for 5 minutes. They found that 4-5 days later, adults and 6-year-olds did not differ with respect to their ability to answer questions about the episode or to identify the confederate. However, the 6-year-olds were more suggestible and were able to recall fewer details of the event. Children younger than six provided poor descriptions of the episode and were unlikely to identify the male involved.

At the other end of the scale, older adults do not appear to have greater difficulty remembering faces. However, they are more conservative in their choices and are more likely to "miss" the perpetrator as a result.

The context in which an event takes place may influence an eyewitness' ability to recall the episode. We can conceive of context in two ways. First there are the external surroundings in which an event takes place. There is some evidence to indicate that external context can influence recall of an event. Thus, there may be some effect on a witness' ability to recall the details of a person's face. However, external context is believed to have little influence on recognition memory, which is the normal situation for face identification.

The second type of context is the internal state of the witness, which may also influence their ability to recall an event. Given that most crimes will involve some degree of emotional arousal on the part of the eyewitness it is of interest to determine whether such arousal enhances or interferes with recall and recognition. The evidence is inconclusive at this point, but some research suggests that eyewitnesses are able to remember the details of even highly traumatic episodes. Thus, Yuille and Cutshall interviewed 13 of 21 witnesses to a homicide, some 4-5 months after the event. They found that the witnesses were highly accurate in their accounts. They did show some lapses in recall concerning the color, height, age, and weights of the various people involved in the event, but this is not surprising given the number of people present. Interestingly, Scrivener and Safer have shown that witnesses can remember more of a violent event the more times they are asked to recall it. Recall was influenced by attempts to use the situation or the witness' emotion at the time as retrieval cues.

Differences in emotional arousal may or may not provide contextual cues that influence recall of an episode. However, the consumption of a drug will almost certainly affect our ability to recall an episode. Almost all recreational drugs exhibit what has come to be known as "state-dependency". Learning is said to be state-dependent when what is learnt in one state, for example, while intoxicated, cannot be remembered in another state, such as when sober.

In addition to state-dependency, many drugs interfere with our ability to attend to a situation and/or to encode the details of an episode. For example, Yuille and Tollerstrup demonstrated that the consumption of alcohol suppressed the amount recalled about an episode at both an immediate interview and 1 week later. Interestingly, however, alcohol did not affect the ability of an eyewitness to pick the target person's face from a photospread, although it did lead to an increase in false alarms.

Procedural Issues/Legal Implications

No matter what procedure is used to assist people to describe or to remember a face that they saw during a crime, it will almost certainly be the case that the use of that procedure will be evaluated

in court. Eyewitness testimony can be very unreliable and a range of factors, including those discussed in this chapter, can influence the reliability of people's descriptions and identification of those involved in a crime. There is an increasing use in the investigation and legal systems of psychologists who are expert in eyewitness evidence and the nature of memory for faces. These experts can guide good procedure and challenge poor procedure, and often do so with the weight of substantial scientific findings behind them. What psychology knows about face memory is often times quite different from commonsense views of face memory and good procedure. We have outlined some major problems of face memory and some issues involved in procedures that are used to get descriptions of faces and/or to get people to identify faces. Those problems and issues are starting to be understood more by psychologists as well as by police investigators and by the courts, and that may change the nature of how courts deal with the identification of faces.

Conclusions

We have examined some of the factors involved in remembering the attributes of an unfamiliar face. The former include such factors as length of exposure, lighting, angle of view, context, nature of social interaction, and the length of time between the initial exposure and subsequent identification. Importantly, we have noted that people focus on features such as hair, eyes, and mouth, and the extent to which an unfamiliar face fits their prototype of a face.

Retrieval is influenced by interference from hearing or viewing alternative descriptions of the perpetrator, or from seeing mug shots. We have indicated that current procedures, which require the witness to provide a verbal description of the perpetrator, may reduce the ability of the eyewitness to recognize the perpetrator subsequently. Further, techniques such as hypnosis, which may be used to enhance recall, may simply lead to increases in false alarms and/or unfounded increases in confidence on the part of the witness.

Finally, we have noted that the production of pictures of the perpetrator are unlikely to be recognized by the public at large. Rather, such reproductions are most likely to be recognized by people familiar with the perpetrator, in some manner. While this reduces the

"viewing" population, it means that the reproduction may not need to be an exact copy to be recognized.

Value of Technological Advances

We believe that the most profitable changes to procedure will arise from the use of one or more of the computer systems described earlier. The CIDS system described by Chadwick and the F.A.C.E. system described by Patterson are available now. Although they need evaluation, indications are that they are far superior to the Identikit/Photofit system and should replace those systems now. Further down the track the system for searching mug shots may avoid some of the interference problems described before. However, the catch system described by Rakover and Cahlon would appear to be the most promising. It will allow procedures to be developed that avoid many of the problems we described, such as the need to provide a verbal description. Further, because its development is based upon the way that we view and remember faces, it should enhance our ability to produce life-like copies of the face(s) of perpetrator(s). In summary, our knowledge of the ways that people go about memorizing peoples' faces and the ways in which these memories are retrieved, coupled with the application of computer-based systems, should revolutionize the manner in which we assist witnesses to remember and to reconstruct faces. In this way, experimental psychology should demonstrate that it is of practical value to criminal investigators and the legal profession.

FUTURE ROLE OF THE POLICE OFFICER

Introduction

Killers watched every move the ranger ace made. Slade knew it. So he tensed to alertness as two shadowy figures approached in the poorly lit Juarez street. They wore hoods and the flowing robes of brothers of the mission. But under the shorter robe of one, Slade spotted a pair of rangeland boots. Slade's guns streaked from their holsters as the "brothers" wheeled to face him. The quiet street exploded with gunfire. A slug ripped the crown of his hat. Then a stunning blow to his midriff sent him reeling -but both his guns pumped their lethal hail in the last few seconds of a duel to death.

Working of Police Personnel

"Looks to me like he panicked," Cardozo said. "Hitting on Hector for coke so hard that Hector let him have the gram and screwed up Debbie's delivery. Hector wouldn't have done that unless Loring had been in a very bad way."

A shadow rippled across Lucinda's face. "So we're talking murder two." "No, stick with murder one for a minute. Loring planned the killing. Afterwards he tooted a few lines to pull himself together, started taking the body apart with an electric saw, freaked, went to his girlfriend's to crash."

Her look seems to wonder at him. "Leaving the body half dismembered?" "It was a holiday weekend, no one was going to be around, he turned the air conditioning on so the body wouldn't cook, what was the rush."

"You're conjecturing that he reasons this way."

"Coke can lead to some pretty off-the-wall thinking. And we don't know what other drugs he was doing."

Newspapers, magazines, radio, television, movies, and plays perpetuate the idea that the police are a "body of men engaged in the exciting, dangerous, and competitive enterprise of apprehending criminals. Emphasis on this one aspect of police functioning has led to a tendency on the part of both the public and the police to underestimate the range and complexity of the total police task". The apprehension of criminals has been and will continue to be an integral part of police work. But this is not the only function of police agencies.

The daily experiences of many police officers provide evidence that their role as law enforcers is changing rapidly and extensively. There are some who do not regard this change as progressive and who are reluctant to turn from the methods and philosophies of the "good old days."

The "Good Old Days"

People who speak of the "good old days" of police work are recalling the past, when often the only things a police officer needed were a badge, a gun, and plenty of guts. Actually, it is doubtful if these alone ever sufficed. More likely then, as now, good police officers possessed other equipment and human attributes that contributed much to their ability to fulfill their assigned tasks.

Even back in the "good old days," police officers performed many social services, including distributing charity to the poor, helping the unemployed to find jobs, visiting the sick to check on communicable diseases, and escorting drunks safely home. J. E. Whitehouse concludes: "It would appear that police traditionalists have not read their police history closely enough. The police officer's dual function of performing law enforcement duties and peacekeeping community services has apparently been present as long as there have been municipal police departments".

Nevertheless, police officers were perceived by the community primarily as enforcers of the law. They detected and apprehended criminals, and their presence deterred others from engaging in criminal acts. Emphasis was on the physical and mechanical aspects of police work. Officers were usually selected according to size and general toughness. They received little, if any, formal training and had low status in the community and even lower pay.

The common viewpoints of those days concerning crime and criminals might well be described by the old saying "There is more justice in the end of a nightstick [or gun] than in all the courts of the land." Crime was fairly rigidly defined as a function of the individual's will, and its complexity as a social, economic, political, and psychological problem was little appreciated by the general public. Officers were neither given nor expected to have flexibility in determining the enforceability of certain laws. Criminals were considered to be those who, with malice aforethought and free choice, elected to engage in criminal activity. With this philosophy in vogue, enforcement of the law assumed first priority over other legal concepts such as civil rights, liberty, and sometimes even freedom. As far as law enforcement practices were concerned, the end justified the means.

The Changing Role

Today police officers patrolling a district in a large city are confronted with a variety of problems, few of which involve serious criminal activity. They probably recognize criminal activity as the essence of police work and may even succeed in convincing themselves that this is really why they are there. But most of their duty hours will involve such activities as helping a drunk, finding a lost child, settling a family dispute, preventing a suicide, taking a mentally disturbed person into protective custody, or helping a confused senior citizen.

Many officers do not feel that this is really police work and argue that these services should be someone else's responsibility. Yet none can deny the relationship between these services and at least the preventive aspects of crime. Family disturbances may result in homicides and assaults; the drunk may be robbed and/or assaulted; and on many occasions suicidal behavior can lead to

homicide. Besides, there is no one else to perform these services — at least no one who is on the job twenty-four hours a day, seven days a week.

Furthermore, people in the lower socioeconomic classes are accustomed Nevertheless, police officers were perceived by the community primarily as enforcers of the law. They detected and apprehended criminals, and their presence deterred others from engaging in criminal acts. Emphasis was on the physical and mechanical aspects of police work. Officers were usually selected according to size and general toughness. They received little, if any, formal training and had low status in the community and even lower pay.

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The police are seen as their first, and sometimes only, resource. Specialized agencies and personnel are often unavailable to handle these situations, so police officers have to function as psychologists, social workers, and family counselors. Police officers not only must deal with a broad range of tasks but also are expected to exhibit an equally wide range of skills in performing them, further complicating their job. As a careful observer of the police role has noted: Reviewing the tasks we expect of our law enforcement officers, it is my impression that their complexity is perhaps greater than that of any other profession. On the one hand, we expect our law enforcement officers to possess the nurturing, care taking, sympathetic, empathizing, gentle characteristics of physician, nurse, teacher, and

social worker as he deals with school traffic, acute illness and injury, juvenile delinquency, suicidal threats and gestures, and missing persons. On the other hand, we expect him to command respect, demonstrate courage, control hostile impulses, and meet great physical hazards. He is to control crowds, prevent riots, apprehend criminals, and chase after speeding vehicles. I can think of no other profession which constantly demands such seemingly opposite characteristics. Increased complexity is but one aspect of the new reality that confronts police officers in their changing role. Society itself also is changing and no longer appears to present the solid front against unlawful behavior that it once did. What one segment of society may consider a serious crime, another may not. Today the general public takes less responsibility in dealing with serious criminal activity. Despite the recent focus on crime, there is little desire to get involved. In contrast to the "good old days," police officers now feel more alone in enforcing the law. They often must perform in the midst of apathetic, indifferent, and often hostile surroundings. They must face situations in which emotions are high and danger is a constant threat. As Eddie Donovan, president of the International Law Enforcement Stress Association, notes: "Whether it is London, Miami, Seoul, Prague, Los Angeles, Toronto or Tampa, policing in the 80's has changed with the increase of drugs, guns, violence, unemployment and lack of housing. There seems to be little respect or fear of the authority of the police in the major cities of the world". A spokesman for London's Metropolitan Police observes: "There seems to be a general agreement that any police agency operating today has a much tougher task than it did 20, 10 or even 5 years ago".

Under these circumstances, today's police officers must rely on every personal resource they possess and not merely on a nightstick or weapon. In an oversimplified way, this is a measure of how the role of police officers has changed.

The Core Element

Although the role of police officers is increasingly complex, this is not to suggest that they now function in an endless state of confusion. There remains a single, core element in the role of police officers.

The one thing police officers deal with not just during duty hours, but during the entire waking day – is human behavior. This includes the behavior of criminals, of citizens, of fellow officers, and last, but by no means least, of themselves. Some of the behavior is criminal, some is not; some is sick, some is not; some is conscious, some is unconscious; some is simple, some is complex. Furthermore, they often deal with this behavior during conditions of emotional stress and in situations involving life-and-death decisions and personal danger.

Therefore, officers must be like mental health professionals: devoted students of human behavior. But they must practice this psychology on the street rather than in a clinic or a university classroom. They must make decisions in a minimum of time (sometimes in only a few minutes or seconds) that might baffle the academic behaviorist decisions whose ultimate resolution may involve months or even years of debate and legal consideration. More important, errors in the mental health professional's decisions are seldom critical; errors in a cop's judgment can be deadly.

The authors often tell recruits that they have a far rougher job than either of us. No one expects psychologists to be police officers, but police officers are expected to be psychologists – practical, street-level psychologists.

Today's police officers must know as much as possible about human behavior. They can no longer regard this subject as the sole province of the mental health professional.

The man who goes into our streets in hopes of regulating, directing, and controlling human behavior must be armed with more than a gun and the ability to perform mechanical movements in response to a situation. Such men as these engage in the difficult, complex, and important business of human behavior. Their intellectual armament – so long restricted to the minimum must be no less developed than their physical prowess.

"A fast-changing world by necessity requires law enforcement officers to be more experienced and sophisticated in carrying out their responsibilities. The 'tough' cop, today, is outdated and ineffective. The officers of the 80s need to be trained professionals". This comment will be even more true of the officers of the 1990s.

The view that J. W. Sterling presented almost two decades ago in *Changes in Role Concepts of Police Officers* is now shared by many:

This knowledge can be of limitless value to police officers as they face a perplexing array of interpersonal problems which are always accompanied by confusion, distress, danger, and heightened emotions. The police must act quickly, decisively, and lawfully, often with only a partial knowledge of the circumstances. However, their action orientation does not in any sense obviate the need for understanding behavior. Rather, it reinforces the necessity for a greater understanding of the self and others.

More recently, London's Metropolitan Police state that training has changed from learning the law by rote to a focus on complicated and sophisticated management issues. "But we [police administrators] were told, most often by junior officers and the public, that much more has to be done, especially in the area of interpersonal skills".

Knowledge of human behavior is essential to police officers, not only to ensure maximum effectiveness in their role but also for their safety. Statistics have indicated that approximately 20 percent of police officers killed in the line of duty were answering a family disturbance call. Another 40 percent of police officers' injuries occur on such assignments. Yet a group of officers with training in certain basic psychological techniques managed to handle over two thousand calls involving over one thousand different families in a tough ghetto area without suffering even a scratch. With proper training in certain psychological principles and techniques, police officers can perform more effectively and safely and can make a significant contribution to the care of those who live in their community.

In addition, a knowledge of deviant behavior will be of great value to police officers in preventing and detecting certain types of crimes. For example, a knowledge of suicidal behavior will provide officers with an investigative tool to help determine whether the deceased was actually a suicide or met death by accident or through the violence of others. A sadistic sex murder may indicate either a psychopath or a paranoid schizophrenic. Knowing about these two disorders may significantly help an officer's investigation. With a

knowledge of alcoholism and drug addiction, police officers may realize how alcohol can mask more serious neurological and psychiatric conditions that may bring death in a jail cell to a prisoner who is considered merely drunk and disorderly.

Reactive Versus Proactive Policing

Before closing this chapter, we must take note of a new development in policing that has the potential of altering even more drastically the traditional role of the police officers. James Q. Wilson, a noted authority in the field of police management, and George L. Kelling, a fellow at Harvard's Kennedy School, describe this change: "In what may be the most important change since radios were installed in police cars, police departments have been rethinking their basic tactics".

Traditionally, police response has been a reactive response to murders, rapes, burglaries, citizens' complaints, and so on. This "incident" (reactive) type of policing may lead to arrests but does little to address the basic problem that caused the incident. Now some departments are seeking to do more than simply respond to incoming calls. They are trying to ascertain the causes of the problem and what it will take to achieve some positive change in the various factors involved in order to alleviate the problem. This is called "problem-oriented" or "community-oriented" policing.

Example: The New Briarfield Apartments in Newport News, Virginia, once had the city's highest burglary rates. For decades, traditional "incident oriented" (reactive) policing had yielded no significant results. The deteriorating neighborhood kept deteriorating, burglaries kept occurring, and residents continued to live in terror.

In 1989 a detective named Tony Duke decided to interview the residents of the apartments about their problems. He found they were very concerned about the burglaries but were even more concerned about the physical deterioration of the neighborhood. Detective Duke began to investigate the buildings and found that the New Briarfield Apartments were a major headache to many city agencies. The report he wrote to Chief Darrel Stephens resulted in Stephens's recommendation that the apartments be demolished and the residents relocated. The city manager agreed. Barry Haddix, the

patrol officer assigned to the area, worked with various city agencies to fix up the project pending eventual relocation. They removed trash and abandoned vehicles, filled in potholes, repaired streets, and cleaned up the neighborhood. The burglary rate dropped by 35 percent after Duke and Haddix began this project.

This approach has been referred to as "the problem of the broken window." If the first broken window in the building is not repaired, people who like breaking windows will assume no one cares and will break more windows until all are broken. Likewise, when neighborhood deterioration is not attended to and disorderly behavior is left unchallenged (drugs, burglaries, vandalism), the signal is given that no one cares. Neighborhood decay continues and disorderly behavior escalates, possibly to serious crime.

"Community-oriented policing means changing the daily work of the police to investigating problems as well as incidents. It means defining as a problem whatever a significant body of public opinion regards as a threat to community order".

For example, citizens living near Mirasol Park in Tucson, Arizona, became very upset that crack dealers and transients had taken over their park. The citizens were afraid to use the park, even in the daytime. Tucson Police Chief Peter Ronstadt set up a two-man task force to patrol the park and to work not only with citizens and community groups, but also with the crack dealers and addicts. The two officers did not have any time limitations on what they did. They do not respond to regular calls. Chief Ronstadt states that the task force approach is designed to deal with problems rather than responding to problems.

In the past 20 to 30 years, police have been operating in a different mode -- now we're returning to a neighborhood by neighborhood approach. When the officers first started on the Mirasol Task Force, they went to local community organizations, local churches and recreation centers to gather support.

Apparently, the officers have made the right connections. With a phone call, they can arrange for people to enter job training and placement programs, child-care facilities, computer literacy classes, even funds to help with utility bills.

Community-oriented policing philosophy is also involved in such programs as Neighborhood Watch, the assignment of school

resource officers, and community relations programs providing citizens with information on rape prevention, substance abuse, and so on.

Many tradition-oriented police officers who were at first hostile to this problem-oriented approach have found that their conception of police work has changed after being assigned to a problem-oriented team. "They start meeting good people as well as bad guys and coming to grips with problems and not just complaints".

Summary

We have just described the differences between the role of police officers in the late nineteenth century and their present role, and the characteristics required of the officers in each. We have spoken of the changes in society itself and how these changes have affected the role of police officers. We have argued that, regardless of the complexity of this role, the officers deal basically with human behavior and thus must be competently prepared in this area of knowledge.

The role of police officers is changing in our society. In the "good old days" that role focused on apprehending criminals, while in the present day it centers on controlling, directing, and regulating human behavior. In other words, the kind of activity described has changed – from apprehending to acts of control, direction, and regulation.

Further, the object of this kind of activity has changed from criminal to human behavior. Today's officers must function in relation to a more general objective than in the past, widening their concern from criminal activity to the larger area of human behavior. The approach emphasized in "problem oriented" (proactive) policing versus the older, traditional "incident oriented" (reactive) policing presents new challenges to police agencies and personnel.

The greater complexity of the job facing today's police officers can be handled successfully by those who recognize in themselves a similar complexity. They must aim to be as well trained mentally as physically, as capable of using their minds as their weapons. Knowledge of how human beings -including themselves behave is essential.

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INDEX

A

Abolition of Torture, 1
Active Element, 75
 Witness Participation, 186
Affections, 42
Age, 63
Alcoholism, 42
Anatomical, 37
Anxiety, 168
 Neurosis, 126
Applied Psychology Unit, 209
Apprehensive Expectation, 126
Area-Wide, 97
Assaultive Offenses, 63

B

Bipolar Disorder, 160
 Manic-Depressive Disorders, 107
Black-Spot Measure, 104
Blood Alcohol Content, 85

C

Cartographic Method, 9
Cataclysmic Accidents, 141

Catatonic Type, 158
Catch Model, 215
Celerity, 81
Certainty, 81
CI, 183
Community Context, 72
Compensation, 174
Competitions, 42
Compulsive Fire Setting, 133
 Personality Disorder, 121
 Stealing, 133
Computer-Aided Procedures, 213
Computerized Identification System, 214
Concurrences, 42
Constitutional Factors, 107
Conversion Neurosis, 137
Crackdowns, 69
Cranioscopy, 12
Crash Consequence, 92
 Involvement, 92
Crime, 1, 62
 Control, 69
Criminal, 89
 Psychology, 1

Criminology, 33

D

Dangerous Classes, 10
Offender, 49

De La Moralité, 29

Death Penalty, 1

Dei Delitti, 1

Delaying Tactics, 118

Denial, 176

Depressive Neurosis, 129

Deterrence Theory, 80

Developmental Factors, 108

Disorganized Type, 158

Dissociative Disorder, 139
Neurosis, 139

Doxological Maxims, 5

Drink-Drive Initiatives, 85

Driver Behavior, 74

Drug Offenses, 63

E

Ecole De Lyon, 38

Education, 83

Ego, 109

Emotional Anesthesia, 144

Encouragements, 42

Enforcement, 83

Engineering Measures, 74

Enlightened Despots, 2

Enmities, 42

Epilepsy, 42

Evangelical Magazine, 25

Extenuating or Aggravating
Circumstances, 5

F

Face Memory, 205

Facial Asymmetry, 39
Composites, 194

Fallacies, 67

Family Disease, 143
Violence, 141

Fantasy, 178

Fateful Seal, 12

Feather-Brained, 55

Felicity Calculus, 2

Feminine, 28

Field Identification System, 194

Fight and Flight, 171

Forgetfulness, 118

Free to Deviate, 61

Frustration and Conflict, 167

G

Gender, 64

General Deterrence, 80, 89

Generalized Anxiety Disorder,
126

Genial Consensus, 26

Genius of Evil, 12

Grab and Flee, 65

Guided Imagery, 185

Guilt, 170

H

Hallucinations, 152

Halo Effect, 94

Harlequin, 39

Hatreds, 42

Hereditary Factors, 108

Historical Accounts, 37
Outline, 37

Histrionic Personality Disorder,
119

Horrible Details, 13

Hyper Attentiveness, 126

I

ID, 108

Identikit and Photofit Systems,
212

Inferior Classes of Society, 12

Ingenuity Fallacy, 67

Intellectual, 37

**Intelligent Vehicle and Highway
Systems**, 103

Intentional Inefficiency, 118

Intermittent Explosive Disorder,
163

Internal Defense Mechanisms,
172

Interpersonal Relationships, 118

Irresponsible, 89

Isolation, 179

J

Jealousies, 42

L

La Folie Circulaire, 159

Presse Parisienne, 53

Laboring and Dangerous Classes,
8

Law Enforcement Officers, 123

Limited Mental Resources, 185

Littérature Industrielle, 24

Lottery of Justice, 3

Lower Classes, 2

M

Mania Without Delirium, 13

Memory and Cognition, 183

Mental Activity, 113

Retardation, 116

Montesquieu, 1

Moral and Political Sciences, 8

Deterrence, 89

Insanity, 13

Management, 14

Tests, 37

Murder Bump, 12

N

National Literatures, 22

Natural Disasters, 141

Neurotic Disorders, 117, 125
 Symptoms, 126

New Journalism, 55

Noncriminal Investigations, 194

**Normal Personality
Development**, 107

O

Obsessive-Compulsive Neurosis,
131

Onset, 143

Operant Learning, 79

Ordinary Crime, 2

Organic Mental Disorders, 116

P

Panic Attacks, 141, 145

Paranoid Personality Disorder,
120

Paranoid Type, 155

Partial Information, 184

**Passive-Aggressive Personality
Disorder**, 118

Peelers, 7

Peel's Bloody Gang, 7

- Peers, 62
 Penalty Structures, 84
 Perceived Risk of Detection, 80
 Personal Involvement, 17
 Personality Disorders, 116
 Phobic Neurosis, 134
 Object, 134
 Situation, 134
 Physical and Social
 Environments, 88
 Complaints, 126
 Physiological, 37
 Physio-Sociologically, 42
 Plagiocephaly, 39
 Post-Traumatic Stress Disorders, 141
 Potential Murderers, 89
 Prehistoric Anthropology, 33
 Price of Disembodiment, 27
 Procrastination, 118
 Professional Attitude, 17
 Prometheus, 103
 Propensity to Crime, 9
 Proper Culture, 25
 Psychic Numbing, 144
 Psychological, 37
 Theory, 104
 Psychology, 33
 Psychophysiology, 12
 Psychotic Disorders, 150
 Punishment, 83
- R**
- Random Breath Testing, 76
 Rationalization, 173
 Recall Test, 210
 Remedial Programs, 84
- Repression, 176
 Repugnance to Regular and
 Continuous Labour, 10
 Residual Type, 156
 Residuum, 16
 Restitution and Fines, 4
 Revenue Raising, 81, 95
 Rewards, 83
 Rivalries, 42
 Rousseau's Social Contract
 Theory, 1
- S**
- Sanitary Science, 8
 Schizophrenia, 152
 Self-Report Methods, 58
 Severity, 81
 Sexual Molestation or Abuse, 141
 Profligacy, 42
 Site-Specific Effects, 97
 Social Hygiene, 8
 Sociology, 33
 Speed Enforcement, 94
 Speeding, 91
 Problem, 91
 Standing Orders, 76
 Stigma of Degeneracy, 14
 Strategic Positioning, 45
 Stubbornness, 118
 Sublimation, 179
 Substitution, 178
 Sugar Cone Head, 12
 Superego, 110
 Suspended Terror, 3
 Swift and Certain Punishment, 3
 Sympathies, 42

T

- The Conscious, 113
Diagnosis and Prognosis of Dementia Praecox, 153
Interior Verb of Humanity, 13
Preconscious, 113
Unconscious, 113
Traffic Infringement Notices, 77
Regulations, 76
Trollope, 25
True Pickwickian Style, 22
Truly Philosophic, 33

U

- Unemployed Population, 11

- Universal Man, 31
Specific, 11

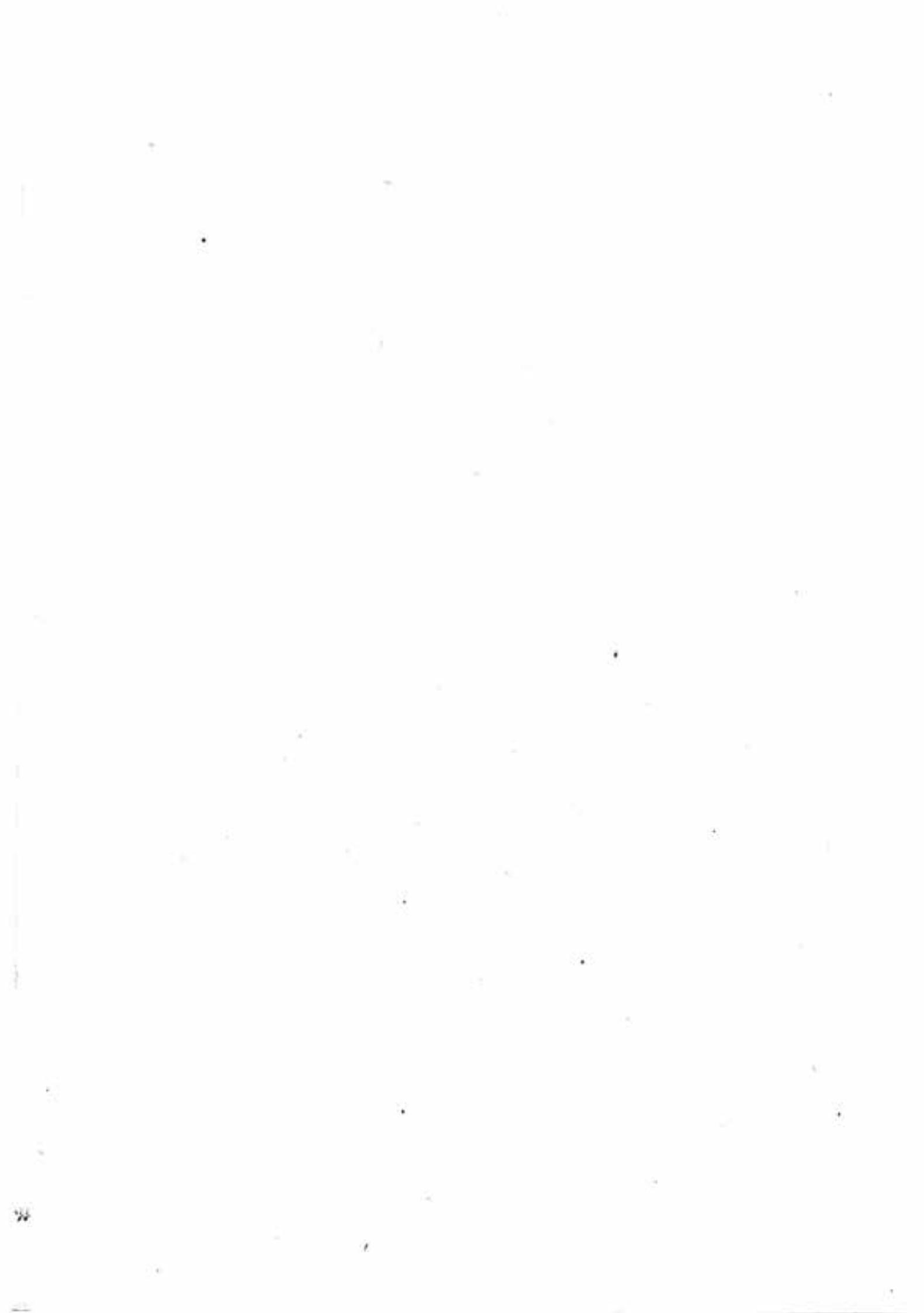
V

- Variance Hypothesis, 93
Varied Retrieval, 184
Versatility Effect, 65
Versatility, 65
Victimology, 48

W

- Wandering Horde Attached, 10
Wandering Tribes, 10
Witness-Compatible Questioning, 185





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