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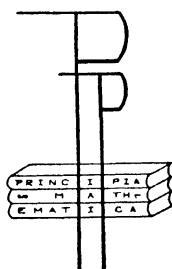
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OPIATE ADDICTION

by

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1947

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INTRODUCTION BY HERBERT BLUMER

In the extensive literature on the problem of drug addiction, the present work by Dr. Alfred R. Lindesmith should gain a place of distinct importance. It presents, as a product of careful and thoughtful research, an interpretation which is both novel and illuminating.

Dr. Lindesmith has devoted himself to the study of drug addiction as a form of conduct. To understand the value and unique character of his work one should view it against the background of ideas which dominate the conception of drug addiction held by laymen and scientists alike. Two ideas stand out among the numerous mythical and fantastic notions which lay people entertain on the subject of drug addiction. It is thought, on the one hand, that the addict is weak-willed, morally deficient, and unwilling to meet personal responsibilities; on the other, that he is caught in the toils of a mysterious organic craving of chemical proportions, which renders him helpless. These ideas, with their curious inconsistencies are reflected in the current police practices of apprehension of addicts, and in the reliance on both punishment and medication as methods of cure.

These two notions, with only slight modification, have hitherto largely dominated scientific studies of drug addiction. Considerable research has been posited on the underlying assumption that addicts are aberrant individuals and must be understood in terms of aberration. Such research, as a consequence,

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has sought to isolate the human characteristics setting off addicts from non-addicts; statistical studies being made to ascertain in what traits and to what degree addicts differ from non-addicts. Addicts are investigated clinically for the presence of peculiar psychological deficiencies.

The bulk of the remainder of the scientific studies of addiction has centered on inquiry into the pharmacological character and operation of drugs, usually with the hope of discovering some neutralizer or harmless substitute for the drug under investigation. Obviously the study of the addict in terms of peculiarities or deviant traits and the study of the physiological functioning of drugs correspond to the two popular notions mentioned above.

The inadequacy of lay opinion and scientific belief alike under the influence of these two ideas is, I assume, quite apparent. Neither idea alone, nor the two combined, has led to a fruitful understanding of drug addiction. We still need a more thorough knowledge of drug addicts as human beings, of the conditions which are crucial in the formation of addiction, and of the factors which account for the puzzling persistence of the drug habit.

Viewed in the light of such needs, Dr. Lindesmith's study is refreshing and novel. His findings and interpretations give a promising insight into the nature of drug addiction and illuminate much that has been obscure. He has stressed the importance of the difference between *addiction* and *habituation*, and has skillfully drawn out the implications of the distinction. He has shown the crucial position of the *awareness* by the addict that the distressing "withdrawal" experience can be alleviated by the use of the drug. He has caught the significance of the self-conception formed by the addict when he realizes that he has become an addict, a conception moulded by the culture of the "society" of drug addicts. In revealing these fundamental points, Dr. Lindesmith has woven together

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the physiological, psychological, and sociological factors, not by an act of mechanical addition or of eclectic synthesis, but by a distinctive approach of a social-psychological character. In this respect his contribution extends beyond the field of drug addiction; it shows how one may keep organically united what conventional academic views separate.

What many readers will find most impressive in Dr. Lindesmith's study is its neat, logical, and clear methodology. Dr. Lindesmith has endeavored to realize the perfect form of scientific knowledge, i.e., propositions conceived as universal in character that would permit the discernment of exceptions, and thus make possible the perfecting or refinement of the propositions. No mere correlation, no mere partial proposition, and no mere suggestive declaration would suffice. He has aimed to develop not an interpretation that would account for only a part, even though a larger part, of drug addiction, but one that covers all instances of drug addiction. His achievement of this aim stamps his work with a distinction rarely attained in social science research.

It should be noted, also, that his investigation is empirically well grounded. He made splendid contacts with the drug addicts who were his informants. He was skillful in his interviewing and inquiry, avoiding sources of deception, bias, and rationalization. He conducted his investigation in the midst of the cooperative life of drug addicts and not in an isolated clinical situation. In these respects, as well as in his methodological procedure, he presents an impressive example of social inquiry.

In the light of these features one may commend the present volume to those interested in a new and promising approach to drug addiction and to those appreciative of significant methods of research.

University of Chicago

OPIATE ADDICTION

by

ALFRED R. LINDESMITH

PART I

THE NATURE OF THE OPIATE HABIT

CHAPTER I



METHOD AND PURPOSE OF THE STUDY

The present study is concerned exclusively with opiate addiction and its conclusions are not applicable to the use of other drugs or to alcoholism. The purpose is exclusively to understand and to provide a rational theoretical account of the behavior of opiate addicts, and to avoid making moral or ethical judgments concerning the conduct of the addict. The central theoretical problem of the investigation is posed by the fact that some persons who are exposed to addiction and experience the effects of morphine or heroin become addicted, while others under what appear to be the same conditions escape addiction. The attempt to account for this differential reaction leads, as will be seen, to a consideration of the essential characteristics of addiction as well as of the conditions of its origin.

The second part of this study is a brief statement of the author's position on the narcotic problem in the United States, with proposals for reforms which would, in his opinion, not only mitigate the problem and give the addict relief from the cruel treatment to which he is now subjected, but would also have wholesome international effects by eliminating the huge

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American illicit market. These proposals are neither new or revolutionary. Many observers have noticed that, as compared with other Western nations, the handling of the narcotics problem in the United States has been backward and needlessly inhumane. The suggested reforms would merely have the effect of bringing American practice into line with the standards and practices which have already been tested and accepted by other countries.

It should be understood by the reader that whenever such terms as "drugs", "drug addict", "narcotics", etc. are used they refer only to opiate drugs and to opiate addicts. Marihuana and cocaine are excluded. They are not opiates and their effects are not at all comparable to the effects of opiates, even though they are included within the meaning of "narcotics" in anti-narcotic legislation.

The author's main source of direct information on his problem was the testimony of from sixty to seventy addicts whom he personally interviewed. Some of them were interviewed only a few times but most of them were seen repeatedly over a considerable interval of time. The interviews were in the form of informal friendly conversations. Introductions to new cases were secured from a few unusually intellectual persons among the addicts, who understood the purpose of the investigation and wished to assist. It was explained to the new interviewee that the author merely wished to study the "psychology of the habit" or obtain an understanding of it. They were not told of the central hypothesis of the study, and were in fact, not interested. All contacts with addicts were in the open, that is, outside of offices or institutions, and most of the addicts were using drugs when they were being interviewed. Some of them changed their status in this respect during the course of our contacts with them. The writer made it a practice to buy meals for persons he interviewed, or to give them small sums of money as a reward. The addicts

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were, on the whole, exceedingly cooperative, apparently because they seemed to appreciate the impartial research attitude and believed that accurate impartial study might benefit them.

The writer made it a practice to record the results of each interview after it was concluded. Between interviews the materials of previous interviews were examined in terms of the implications of the central hypothesis as it was formulated at that time. Means of verifying the theory or testing its implications were devised and applied in future interviews. As the guiding hypothesis was revised its new implications were continuously explored and checked. In this process of formulating and revising the hypothesis of the study the addict was not taken into the writer's confidence for fear that this would prejudice his answers.

The literature of drug addiction was at first not consulted for fear that the opinions expressed would introduce an initial and perhaps decisive bias into the investigation. The first temporary hypothesis was formulated exclusively on the basis of observation of and conversations with addicts, and it was only after the study had crystallized around a few central problems and theories that the literature was intensively examined. It was examined particularly with the view of uncovering negative evidence which would force revision of the theory, and also to explore exhaustively all possible aspects of the subject and all implications of the theory.

The first tentative, and obviously inadequate hypothesis formulated was that individuals who do not know what drug they are receiving do not become addicted and, on the positive side, that they become addicted when they know what they are getting and have taken it long enough to experience withdrawal distress when they stop. This hypothesis was destroyed almost at once by negative evidence. One of the first addicts to be interviewed, a doctor, had once received morphine for several weeks; he was fully aware of the fact but he did not

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become addicted at that time. The difficulty presented by this case remained unresolved until the writer's attention was attracted to a rather casual and incidental comment made by Dr. Albrecht Erlenmeyer in an article which was concerned mainly with the physiological effects of morphine. Speaking of withdrawal distress, Erlenmeyer said, "In such moments the *craving for morphine* is born and rapidly becomes insatiable, because the patient has learned during the period of habituation, when abstinence symptoms always set in after the effect of the last morphine dose has passed off, that those terrible symptoms are banished as if by magic by a sufficiently large dose of morphine".¹ In the light of the above statement, the second hypothesis of the investigation was that persons become addicts when they recognize or perceive the significance of withdrawal distress which they are experiencing, and that if they do not recognize withdrawal distress they do not become addicts regardless of any other considerations.

This formulation proved to be much more significant and useful than the first one, but like the first one it did not stand the test of evidence and had to be revised when cases were found in which individuals who had experienced and understood withdrawal distress, though not in its severest form, did not use the drug to alleviate the distress and never became addicts. The final revision of the hypothesis involved a shift in emphasis from the recognition of withdrawal distress, to the use of the drug after this insight has occurred for the purpose of alleviating the distress. This hypothesis was found to be superior to the others. It had the advantage of attributing the origin of addiction, not to a single event, but to a series of events, thus implying that addiction is established in a process. This fact also provided the clue for accounting for the characteristics of addiction behavior, since it implied that

¹ As quoted by Terry, Charles E. and Pellens, Mildred, *The Opium Problem*, New York, Committee on Drug Addiction and the Bureau of Social Hygiene, (1928), p. 602.

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the basic attitudes of the addict are generated in the process of using the drug to alleviate withdrawal distress, assuming that the individual understands the significance or the causes of the distress. No negative evidence necessitating the rejection of this hypothesis was found even though an extensive search for such evidence was made. The hypothesis in its final form had high explanatory value, making it possible to account for various features of addiction which have often been called paradoxical or puzzling, and providing a simple unitary explanation of the central causal problem of addiction; namely the reason that some persons become addicts when others who are also exposed do not.

The fact that the hypothesis was revised several times in the course of the investigation suggests that additional evidence may necessitate still further revision. Such a possibility cannot be denied; in fact, it seems to be one of the distinct advantages of the chosen method of approach. In its various stages the hypothesis has evolved steadily and with increasing exactitude in the light of negative evidence. Each succeeding tentative formulation was not constructed *de novo*, but was based upon that which had preceded it. The eventual hypothesis altered the preceding formulations sufficiently to include the cases which had earlier appeared as exceptions to the theory postulated.

It may be asked whether the search for negative cases was properly conducted and if the observer has not neglected evidence of a contradictory character. To this, of course, there is no final answer. It is probable that somewhere in the course of any study unconscious distortion takes place. Concerning the central hypothesis and the direct lines of evidence, however, certain procedures were followed which may be said to exclude bias. For example, when the theory had been stated in an approximation of its final form it occurred to the writer that it could be tested in cases where an individual had had two

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separate experiences with morphine or opiates, each of which was sufficiently prolonged to produce withdrawal distress but with addiction following only the second episode. Case 3 in Chapter IV is an example. It was concluded that if the theory was valid, the person would report that he had failed to realize the nature of the withdrawal in that experience from which he had escaped without becoming addicted. Thereupon a thorough search was made for cases in which an individual had undergone such an experience with the drug prior to becoming an addict. All cases of this kind which could be found, or of which any record could be located, were taken into account. Any of these cases might have contradicted the final hypothesis, but none did so. The inference or prediction which had been drawn on the basis of the theory was thus fully borne out. This procedure was followed throughout the study wherever possible, and, as will be seen, is implicit in the form in which the theory is stated.

As previously mentioned, the present investigator scrupulously refrained from informing the addict of any theories which he held or of the exact reasons for his inquiries. Thus when an addict was asked about his experience during gradual withdrawal cures he was not apprized of the fact that an attempt was being made to check the implications of the theory. It was inferred that if the addict actually felt normal, it should be possible to deceive him as to whether or not he was really getting the drug. During the discussion of such gradual withdrawal cures, the information was often volunteered by the addict that he himself had been deceived at some time into believing that he was getting the drug when he actually was not, or vice versa. This information was usually introduced with the remark that he did not expect to be believed, whereupon he would proceed to give the facts which corroborated the theory and which had been anticipated. In none of these cases, however, did the addict know when he gave the infor-

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mation that it had any particular significance for a theory of addiction.

It has often been said that the testimony of addicts is virtually worthless because of the secrecy surrounding addiction and the tendency of drug users to distort and falsify. The writer has found that this view is incorrect. The addict lies and distorts, not because he has any indiscriminate urge to do so, but in order to obtain certain definite and practical results. If it is clear to him that he has nothing to gain by lying and nothing to lose by telling the truth, he is as straightforward and honest as anyone else. Of course, he will rationalize and offer excuses, but in this sense he is no different from non-addicts.

It is true that there are certain areas in which the addict has very strong inhibitions against giving the unvarnished truth, but these inhibitions applied entirely to information which was not relevant to the central problem of the study. Thus, a drug user is particularly cautious about information concerning the sources of his supply, and if he is engaged in theft or other illegal activity he will be very reluctant to describe this activity. Since matters of this kind had no bearing on the central problem being investigated no special effort was made to obtain this data, although practically all the addicts who were interviewed eventually volunteered it. The drug user has no special tendency to falsify concerning the nature of the drug habit. The fact that contact was maintained with some of the cases over a period of several years was a further insurance against deception. On the whole, once friendly contact is made, drug users are probably above average in cooperativeness, because many of them believe that they ought to be studied and better understood. The data which they provided the writer was found to be quite consistent with the material that the literature on opiate addiction offers.

To eliminate the possibilities of distortion because of the

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author's biases, crucial cases in the study were always checked against cases of a similar character reported upon by writers with altogether different viewpoints. No essential part of the theory presented here rests entirely upon evidence obtained through the writer's interviews with addicts. Every portion of it is corroborated by comments and evidence taken from the works of writers with widely divergent backgrounds and theories, none of whom shared the present writer's viewpoint.

The investigation of any subject necessarily proceeds on the basis of assumptions which cannot themselves be established as valid in the research in question. One such assumption which underlies the present study is that the scientist who studies social or other phenomena must seek to formulate generalizations which will apply to all of the instances of the problem with which he is concerned, rather than to most or some of them only. In other words, it is assumed that genuinely scientific causal propositions must be stated as universals. This does not imply a belief in absolute truth as is sometimes erroneously assumed, since it is anticipated that all such generalizations will be accepted provisionally only, as long as no contradictory evidence is available or no better theory is at hand. This assumption means that the writer believes that it is possible and indeed necessary for the social scientist as well as for the natural scientist to state theories in such a form as to suggest crucial instances testing the theory and to permit the search for negative cases. It is assumed, in other words, that the exceptional instance is the growing point of science and that cumulative growth and progressive development of theory is obtained by formulating generalization in such a way that negative cases force us either to reject the generalization or to revise it.²

² George H. Mead, "Scientific Method and Individual Thinker", in *Creative Intelligence*, John Dewey, et al. (New York, 1917); A. D. Ritchie, *Scientific Method: An Inquiry into the Character and Validity of Natural Laws* (New York, 1923), pp. 53-83.

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One of the major faults of many contemporary studies of addicts is that they appear to be based upon the assumption that scientific explanation involves nothing beyond simple statistical correlations. Addicts are described in the aggregate, and it is noted that certain traits or factors appear to be associated statistically with the presence of addiction. It is then usually assumed that the factors or traits which occur relatively frequently are of etiological significance and that drug addiction may be "explained" by enumerating the appropriate percentages and correlation coefficients. It is a sad, but accurate commentary on most studies of this kind that have been made in this country that control groups of non-addicts have not been used, and that there is ordinarily no way of determining to what extent the traits considered are effects rather than "causes" of addiction. Moreover, little attempt has ever been made to analyze the relationships between the "variables" and to construct a unitary theory to take account of the results of many fragmentary statistical studies. The technique of mass comparison provides many useful clues and, when properly executed, provides a description of the manner in which any given phenomenon varies from place to place or from group to group, and of the degree of association between it and a great many traits or environmental conditions. The facts which it provides must be taken into account, but statistical comparison in itself, particularly when it is unimaginatively done, and when no attempts are made to interpret findings, does not provide explanatory theories. The demonstration of a positive correlation between variables may undoubtedly be significant, but many students forget what is axiomatic among competent statisticians, namely, that statistical correlation does not necessarily imply and is not identical with causal relationship.

The discovery of causal relationships requires the careful examination and analysis of all available evidence, including the results of statistical studies, but it particularly requires inten-

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sive, exhaustive probing of individual cases and comparison of certain crucial types of cases. Thus, when we noted that some non-addicts receive drugs regularly for long periods of time in hospitals without becoming addicts, we were compelled to compare them with addicts in order to isolate and describe the causal processes which were present in the cases of addiction and absent among the non-addicted hospital patients. No tabulations were necessary in making this comparison because it was assumed that the essential causal process of addiction would be found in all cases of addiction and that it would not be found in any case of non-addiction.³

In one sense, the number of cases involved in the present investigation is small, in another it is very large. Although only from sixty to seventy addicts were interviewed, the evidence garnered from published studies involved many more. A critical aspect of the study was the comparison of addicts with non-addicts who receive opiates in medical practice without becoming addicted. It was found that the techniques used by doctors to prevent patients from becoming addicted are reasonably well standardized, and that these techniques have a highly significant bearing on the hypothesis of the study. The implicit comparison that is made possible in this way involves all persons who receive morphine in medical practice for a week or so without becoming addicted. There are undoubtedly thousands of these annually in the United States alone. Non-human subjects even became implicated, since an experimental psychologist, who administered morphine to chimpanzees, elicited from them behavior which seemed to resemble the behavior of the human addict. We have demonstrated elsewhere that the causal factor of addiction was absent in these cases and that the chimpanzees could not be called genuine addicts because their behavior was essentially different from that of the human drug user, though it resembled it superficially.

³ This is John Stuart Mill's "method of difference".

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The cases that were examined directly, and others taken from the literature, contributed very unequally to the study. Some persons were too inarticulate and too lacking in intelligence to be of any use. The time spent talking to these people was largely wasted. On the other hand, in some cases intelligent addicts described the manner in which they became addicted exceedingly well and presented what may be called crucial cases. These crucial cases, in a number of instances, caused the abandonment of the hypothesis which had guided the research up to the time they were encountered. Others seemed to bring out in a striking and obvious way the operation of the causal process which is present in all. This process, which became visible to the investigator as he investigated certain special cases, appears obvious after it has been pointed out, but not before. The actual process of the study may best be described as an analysis of a series of crucial cases which led to successive revisions of the guiding theory and to a broader and broader perception of the implications of that theory. Isolated bits of information and apparent paradoxes one after the other seemed to fall into place to form integral parts of a consistent whole.

The strategy of the present research has been to carve out a limited but specific problem and to analyze it as exhaustively as possible, leaving out of consideration many other related but peripheral matters. It would be interesting to know, for example, how alcoholism compares with drug addiction, yet this subject could not have been undertaken without enormously extending the scope of the inquiry and weakening its principle purpose. The principle of limited inquiry was also applied to the definition of the object matter of this study. Opiate addiction was rigorously described as a behavior system characteristic of certain persons in our society. It was defined in such a way as to exclude a great many persons who use opiates, whether regularly or irregularly. It was hoped that by this

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means it would be possible to use the key terms in this discussion in a precise and unambiguous way.

This study is not a study of motives, but consists rather of the isolation of an invariable sequence of events which constitute the causal process in which addiction is generated and which are accompanied by highly variable rationalizations or motives on the part of the persons involved. Although this process is psychological in character it is impossible to describe it in terms of verbal or sub-verbal rationalizations of purpose. This is true for two reasons: (a) the rationalizations or motives of drug addicts vary from person to person and from culture to culture and, (b) in those cases where the initial use of opiates results from disease and from a physician's order the motivation of the patient who does not know what he is receiving obviously can not have any etiological significance. In one sense we have been concerned with the study of motives, since we have attempted to explain the origin of the motive or drive which dominates the lives of opiate addicts, but we have not accounted for the drug user's drive toward the drug in terms of other motives because we believe that to be impossible.

The concept of "cause" must be kept sharply distinct from that of "motive." The first refers to invariable sequences of interrelated events; the latter to purposes which exist in the minds of people either as verbally formulated propositions or as vague unformulated drives. This study is focused upon the search for causes rather than upon the analysis of motives. It is therefore in no sense a psychiatric study. The problem of describing and explaining all of the manifold, variable personality changes that occur in the personalities of drug users remains relatively untouched by this investigation. The author is a sociologist and he is willing to agree that this problem should be handled by competent psychiatrists and others who specialize in it.

The conventional view of addiction is that it is an escape

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mechanism for defective persons, who are variously characterized as "inadequate", "inferior", "frustrated", or "psychopathic". It is assumed that persons become addicts for the "purpose" or "motive" of escaping from or alleviating their psychic troubles. This confusion of "cause" and "motive" leads to difficulty because of two stubborn facts which cannot be ignored or explained away: (1) some persons become addicts as a consequence of medical practice under conditions which preclude the influence of their motives on any part of the process of becoming addicted, and (2) a substantial percentage of addicts are admittedly "normal" prior to addiction,—that is, no evidence of defects, inferiority feelings, inadequacy, etc., can be found. The proponents of this conventional view satisfy themselves in this situation by asserting that *most* addicts are abnormal prior to addiction and ignore or write off in advance a considerable body of exceptional cases. No satisfactory explanation is offered for the fact that "normal" individuals become addicts. It is even admitted sometimes that the generalization probably does not apply even to *most* addicts in some parts of the world, as for example, in some places in China and India where a large proportion of the adult male population is addicted. This implies that the cause of addiction in the United States is not the cause of addiction elsewhere. Moreover, the same explanation in terms of abnormality or psychopathy is given for other kinds of behavior besides addiction.

The logical inadequacy of this approach should be obvious. No crucial test of the theory is possible because the exceptions are admitted in advance. Many variables are found to be correlated with addiction depending upon how the sample of addicts is taken and from what country it is obtained. Since equally plausible cases may be established for the several theories of this type, it becomes a matter of opinion or personal taste as to which one will be accepted by a particular scholar in a particular country. This procedure is based upon a mis-

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understanding of the significance of statistical correlation. As a statistician himself stated, "The statistical method of correlation by itself shows only the fact of variance. . . . No substitute for the experimental method of the physical sciences has yet been found for the purposes of establishing dependable causal connections."⁴

Basically, the point of view being criticized here rests upon preoccupation with the fact of variability and a consequent scepticism concerning the possibility of formulating exceptionless propositions concerning the facts of human behavior. This defeatist attitude is rationalized in a variety of ways. It is said that human behavior is too complex and too dynamic, that it varies from culture to culture, that each person is unique and can be understood only in terms of his total biography, and so on. Sometimes Heisenberg's "principle of indeterminacy" is referred to. The following comments by Kurt Lewin in his essay on "The Conflict Between Aristotelian and Galilean Modes of Thought in Contemporary Psychology" apply equally well to the social sciences:

The conviction that it is impossible wholly to comprehend the individual case as such implies . . . a certain laxity of research: it is satisfied with setting forth mere regularities. The demands of psychology upon the stringency of its propositions go no further than to require a validity "in general" or "on the average" or "as a rule". The "complexity" and "transitory nature" of life processes make it unreasonable, it is said, to require complete, exceptionless validity. According to the old saw that "the exception proves the rule", *psychology does not regard exceptions as counter-arguments so long as their frequency is not too great.*

The attitude of psychology toward the concept of lawfulness also shows clearly and strikingly the Aristotelian character of its mode of thought. It is founded on a very meager confidence in the lawfulness of psychological events and has for the investigator the added charm of not requiring too high a standard of validity in his propositions or in his proofs of them . . .

Methodologically also the thesis of the exceptionless validity of psychological laws has a far-reaching significance. It leads to an extraordinary increase in the demands made upon proof. It is no longer possible to take exceptions lightly. They do not in any way "prove the rule", but on the contrary are completely valid disproofs, even though they are rare; indeed, so long as one single exception

⁴ Thomas C. McCormick, "The Role of Statistics in Social Research: An Elementary Interpretation", *Social Forces*, I (1938), pp. 50-1.

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is demonstrable. The thesis of general validity permits of no exceptions in the entire realm of the psychic, whether of child or adult, whether in normal or pathological psychology.⁵

The advantages of the method which require the researcher to attempt to formulate propositions which apply to all the instances of the problem without exceptions, are that, (1) it makes it possible to disprove theories and to test one against another, (2) it provides the possibility of cumulative growth as old theories are revised to take into account new negative evidence, and (3) it makes for close articulation of theory and fact, for whatever a temporary hypothesis may be it must be changed to conform to the evidence which contradicts it. In contemporary social science fashion appears to play a large part in determining what theories are accepted and what vocabulary is used in the discussion of human behavior. Powerful or well advertised persons or heads of big departments find their theories accepted and elaborated by young and ambitious disciples who are rewarded for their discipleship with desirable positions. The social position and academic position of the scholar in some of these cases appears to be more important than the validity of his theories. It is unnecessary to assert that the validity of a theory is determined exclusively by the evidence and not by the personality or academic position of its author.

The method used in this study seems to the writer to be essentially what Znaniecki calls the method of "analytic induction" and concerning which he wrote as follows:

The only reason for the existence of this method (analytic induction) is, as we have seen, the impossibility of arriving by enumerative induction at judgments of the type "All S are P", or rather "if p then Q". Whenever such judgments can be formulated, the use of the statistical method is precluded. Now everybody knows that in physical and biological sciences there are innumerable judgments bearing upon empirical reality which have this form. Every botanist or zoologist in describing a species means to characterize all the living beings

⁵ Reprinted by permission from *A Dynamic Theory of Personality* by Kurt Lewin, Copyrighted, 1935, by the McGraw-Hill Book Company, Inc., pp. 18-19, 24.

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of this species; every physicist or chemist in formulating a law claims that the law is applicable to all the processes of a certain kind. Does this mean that the reality with which the botanist or the physicist is dealing is so uniform empirically that no exceptions, no deviations from the type can ever be observed? Of course not; the botanist or the physicist well knows that cases may be discovered which will contradict his generalization. But he is not afraid of them. He is ready to grant any exception as raising a problem and thus stimulating new research. The research may enlarge and confirm his theory by helping to discover a new species or a new law definitely connected with his previous generalization—which will mean that the exception was only apparent. Or further research may invalidate his former generalization and force him to reach wider and deeper in creating a new and more efficient theory.⁶

Znaniecki adds the following exceedingly interesting observation:

" . . . Though I consider the traditional form of scientific systematization very bad and see the possibility of a radically new form, more in accordance with the logic of scientific research, I still keep personally to the old form . . . I discovered the new possibilities too late in life: the old ways had already become deeply ingrained in the functional organization of my personal knowledge. True they might be changed, but at the cost of efforts which can be more productively used elsewhere."⁷

The theory of addiction presented in the pages that follow must be checked and revised in the light of future research. The attempt will now be made to set forth accurately and completely the evidence and reasoning upon which this theory is based.

⁶ Znaniecki, Florian, *The Method of Sociology* (New York, 1934) pp. 232-33. Reprinted by permission of Rinehart and Company, Inc., publishers.

⁷ Znaniecki, Florian, *op. cit.*, p. 245. Reprinted by permission of Rinehart and Company, Inc., publishers.

CHAPTER II



THE EFFECTS OF OPIATES

If a person were to study the alcohol habit, he might be expected to imbibe a sufficient quantity of spirits to understand what a drunkard experiences. By the same logic, a student of the drug habit might be expected to try narcotics. There are, however, two excellent arguments for not doing this in the case of opiates. In the first place, the effects of a small amount of drugs upon a non-addict are in almost no sense comparable to their effects upon an addict; indeed, in many respects, these effects are quite the opposite, and the difference is not only one of degree, but is definitely qualitative as well. The second reason is that the experiment would be too dangerous. Under normal circumstances a man can deliberately make himself drunk and be none the worse when he recovers. But it is doubtful whether anyone can use morphine long enough to acquire the same experiences as an addict without himself becoming one.

Since the first injections of morphine which a non-addict receives are almost always gratifying, either in a positive sense or because of the relief from pain afforded, it is the popular impression that the pleasure of the addict must be immensely greater, especially in view of the enormous sacrifices that he

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makes to keep himself supplied with the drug. Plausible as this notion seems, it is nevertheless as fallacious as almost all popular beliefs on the subject of addiction.

The effect of opiates upon the human organism constitutes a problem for physiologists and biochemists. We are here concerned mainly with the question of how the physiological and psychological effects of the drug are perceived by the addict.

INITIAL EFFECTS

As already suggested, the first effects of opiates when administered to a non-addict are ordinarily pleasurable. The sensation varies considerably in degree, depending upon the person, his particular mood or condition, and the size of the dose. Sometimes the effects will not be noticed at all. Sometimes, the first hypodermic of morphine produces nausea, dizziness, headache, or other discomforts. There are also a few individuals who experience none of the soothing or euphoric effects of opiates, but rather increasing discomfort and distress; such individuals cannot, of course, become addicts.

To the average person, however, the first dose may bring sleep, or it may, especially if it is small, stimulate him to extra activity or mental effort. Under different circumstances the same person will be variously affected, even though the dose is of the same strength. When the subject is depressed or fatigued the effects of a small dose are usually much more noticeable than when he is normal and in good spirits. In fact, the more closely he approximates a normal condition, the less likelihood there is of his noticing any reaction at all when he takes the first dose. In many cases with which the writer is familiar, even involving persons who later became addicts, the initial effects of the drug were not perceived at all or, more precisely, the effects that were present were not attributed to the drug. For example, a man who deliberately experimented upon himself in the presence of two addicts reported that his only feeling was nausea

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and that it came fully an hour after taking the drug; it required several tests under varying circumstances for this man to learn what he actually could expect from opiates. Another addict told of a woman who wished to try the drug and who complained after one injection that she felt nothing. She took another and still felt nothing. She finally took so much that, at the very time she was complaining that she could feel no effects, she was rubbing her nose violently due to the tingling or itching sensation that is sometimes caused by large initial doses.

The disagreeable effects of the initial trial ordinarily disappear with a few repetitions of the dose, and, during the remainder of the beginning period, the drug's usefulness seems to consist largely of its ability to alleviate pain and its quality of enabling persons who feel depressed, fatigued, or otherwise below normal to regain what they regard as a desirable state of mind. There is produced a feeling of unusual well-being, which is sometimes described as "euphoria." However, this state does not usually consist of anything more pronounced than a feeling of warmth and a sense of being at peace with the world. This is a state of mind which the average individual occasionally achieves even without the aid of drugs.

One of the addicts interviewed made the following statement concerning the drug's effects:

Contrary to the belief entertained by many, if not most, non-addicts, a dose or a series of doses of opium derivatives does not produce a supernormal state. It does not produce the ability to do things better, to think or reason with greater clearness than would be possible without the drug. It is true that in some conditions of mind or body, and perhaps during the short initial period of addiction, the drug will seemingly lift one up to a state where the perceptibilities are sharpened, where the senses are better able to cope with any given situation than would be the case without drugs. But a careful analysis of the condition of the individual would usually elicit the fact that he was considerably below par, in some respect, before he took the drug. All that it has done is to restore him to a normal, or nearly normal, state of mind and body.

An important factor in creating false impressions of drug-taking is no doubt the flamboyant manner in which De Quincey

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wrote about it. Though unreliable as a source of information on drug addiction, his book appears to have become a sort of literary stereotype; its imitation by other writers has helped to establish an erroneous general impression.

The notion that narcotics produce hallucinations or dreams is completely false. There is no evidence that morphine or heroin ever cause such mental conditions, even during the first period of their use. Friedrich Chotzen noted as early as 1902:

Nearly all authors agree that the chronic abuse of morphia in contra-distinction to other poisons gives rise to no special psychosis . . . When mental disturbances occur in chronic users of morphine, these are referred for the most part to contemporary complicating poisoning by other poisons, especially alcohol, chloral hydrate, and cocaine.¹

Along similar lines, Lawrence Kolb observed in 1925:

There is no destruction of protoplasm such as follows prolonged excessive use of alcohol. Neither nerve cells nor fibers degenerate; consequently, the drug cannot produce diseases analogous to Korsakoff's psychosis, acute hallucinosis, or alcoholic multiple neuritis, and hospitals for the insane have remarkably few cases diagnosed as drug psychoses. Such psychoses are so rare that one is led to suspect that case 72 is typical of most of those that do occur. (This was a case of the use of cocaine and morphine in combination.)²

The initial effects then consist largely of a general dulling of sensibilities, accompanied by a pleasant though not sensational or uncanny state of mind which is characterized by freedom from pain and worry and by a quickened flow of ideas. It should be emphasized again that normal, healthy persons may fail to notice any initial effects whatsoever if they are not on the watch for them. As C. Edouard Sandoz has stated:

The widely spread belief that morphine brings about an uncanny mental condition, accompanied by fantastic ideas, dreams and what-not, is wrong, notwithstanding certain popular literature on the subject. The most striking thing about morphine, taken in ordinary doses by one who is not an addict, is that it dulls general sensibility, allays or suppresses pain or discomfort, physical or mental, whatever its origin, and that disagreeable sensations of any kind, including unpleasurable states of mind, are done away with. In fact, the suppression of

¹ Quoted by Terry and Pellens, op. cit., p. 186.

² Lawrence Kolb, "Pleasure and Deterioration from Narcotic Addiction," *Mental Hygiene*, IX (1925).

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pain is the only outstanding effect of morphine when given for that purpose. The more normal a person feels, the less marked, as a rule, the effects will be.³

Naturally, the evaluation of the first effects of opium will vary in accordance with the character of the individual. Thus a sensitive man, with certain neurotic ailments, may be tremendously impressed with the soothing qualities of the drug, and by contrast with his usual state of mind, may feel intense pleasure. On the other hand, a prosaic and stolid person, with no sense of strain or conflict, may be wholly unaffected.⁴

A good account of the most common initial effects was given by Louis Faucher, who experimented on himself while preparing a thesis on morphinism at the medical college of the University of Montpellier.⁵ He took one dose each day for six days, stopped for fifteen days, and then repeated the experiment. He wrote:

The initial effects were pleasant . . . Then, for a brief moment I noticed a feeling of unusual well-being; my bed was more pliable, the objects in my room seemed more familiar, my body seemed lighter. I also had at the same time two unpleasant experiences . . . Then when everything became silent again I began to experience the euphoria of morphine. It made the night sweet for me; I can scarcely express in any other way the subtle pleasure that I experienced. It is true I noticed nothing extraordinary; I had no illusion or hallucinations. My breathing was easier and freer. I thought about my personal affairs, my work and my dislikes. Things that had seemed difficult now seemed easy. Some of the problems of real life appeared to me in a new guise, with their solutions perfectly obvious . . . It was nothing. It was scarcely noticeable. But it was good.⁶

³ C. Edouard Sandoz, "Report on Morphinism to the Municipal Court of Boston," *Journal of Criminal Law and Criminology*, XIII (1922), p. 13.

⁴ It is repeatedly said that certain psychoneurotic types are peculiarly susceptible to the pleasurable effects of narcotics. See, for example, *Report of the Departmental Committee on Morphine and Heroin Addiction*, British Ministry of Health, 1926; Lawrence Kolb, "Drug Addiction in Relation to Crime," and "Pleasure and Deterioration from Narcotic Addiction," *Mental Hygiene*, IX (1925); Paul Sollier, "Hystérie et Morphinomanie," *Revue Neurologique*, XI (1903); and Terry and Pellens, *op. cit.*, Index entry, "psychopaths, predisposition of."

⁵ Louis Faucher, *Contribution à l'Etude du Rêve Morphinique et de Morphinomanie* (Thèse de Montpellier, No. 8, 1910-1911.)

⁶ *Ibid.*, pp. 18 ff.

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WITHDRAWAL SYMPTOMS

The regular administration of opiates, extending over a period of time, creates a physiological need for its continuance. Once habitual use is stopped, a number of distressing symptoms appear, increasing in severity in proportion to the period of addiction and depending upon the size and frequency of the dosage. In fact, no matter why the drug was first taken, its continued use leads to a periodic, artificially produced depression and distress which disappear immediately upon repetition of the dose. After about three weeks of regular daily use, the abstinence symptoms apparently increase at an accelerated tempo and rapidly become very severe and even dangerous. A discussion of almost any aspect of the drug habit invariably involves a consideration of these withdrawal symptoms, which are uniquely associated with the use of opiates. Animals and infants, as well as adults, who unwittingly receive drugs suffer withdrawal symptoms which are similar to those of adult human habitués. This fact demonstrates that the distress is not "imaginary" but is based upon disturbances of organic functions.

A. B. Light, E. G. Torrance, and their co-authors give an excellent chronological account of the withdrawal symptoms accompanying the discontinuance of opiates, based on observation and experimentation with American underworld addicts who submitted themselves to "the cure" at the Philadelphia General Hospital. They describe the behavior of their patients during withdrawal as follows:

As the time approaches for what would have been the addict's next administration of the drug, one notices that he glances frequently in the direction of the clock and manifests a certain degree of restlessness. If the administration is omitted, he begins to move about in a rather aimless way, failing to remain in one position long. He is either in bed, sitting on a chair, standing up, or walking about, constantly changing from one to another. With this restlessness, yawning soon appears, which becomes more and more violent. At the end of a period of about eight hours, restlessness becomes marked. He will throw himself onto a bed, curl up and wrap the blankets tightly around his shoulders, sometimes burying his head in the pillows. For a few minutes he will toss from side to side,

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and then suddenly jump out of the bed and start to walk back and forth, head bowed, shoulders stooping. This lasts only a few minutes. He may then lie on the floor close to the radiator, trying to keep warm. Even here he is not contented, and he either resumes his pacing about, or again throws himself onto the bed, wrapping himself under heavy blankets. At the same time he complains bitterly of suffering with cold and then hot flashes, but mostly chills. He breathes like a person who is cold, in short, jerky, powerful respirations. His skin shows the characteristic pulmotor activity well known to those persons as "cold turkey." The similarity of the skin at this stage to that of a plucked turkey is striking. Coincident with this feeling of chilliness, he complains of being unable to breathe through his nose. Nasal secretion is excessive. He has a most abject appearance, but is fairly docile in his behavior. This is a picture of his appearance during the first eight hours.

Often at the end of this period the addict may become extremely drowsy and unable to keep his eyes open. If he falls asleep, which is often the case, he falls into a deep slumber well known as the "yen" sleep. It takes unusual noises to awaken him. The sleep may last for as long as eight or twelve hours. On awakening, he is more restless than ever. Lacrimation, yawning, sneezing, and chilliness are extreme. A feeling of suffocation at the back of the throat is frequently mentioned. Usually at this stage, the addict complains of cramps, locating them most frequently in the abdomen, but often in the back and lower extremities. A right rectus rigidity with pain localized over the appendice region is not uncommon; one can easily be misled in the diagnosis, since at this stage a leucocytosis is frequently present . . . Vomiting and diarrhea appear. He may vomit large quantities of bile-stained fluid. Perspiration is excessive. The underwear and pajamas may become saturated with sweat. Muscular twitchings are commonly present; they may occur anywhere, but are most violent in the lower extremities. He may sit in bed with his leg flexed, grasping it tightly below the knee, fearing the twitch will suddenly throw it into a complete extension which he cannot control. If he is handed a cigarette to smoke, his hands tremble so violently that he may have difficulty in placing it in his mouth. The tremor is so marked that he is unable to light it himself. He refuses all food and water, and frequently sleep is unknown from this point. It is at this stage that he may one minute beg for a "shot" and the next minute threaten physical violence. Nothing can make him smile. He will beat his head against the wall, or throw himself violently on the floor. Any behavior which he thinks will bring about the administration of the drug will be resorted to. Occasionally he may complain of ciproia. Seminal emissions in the male and orgasms in the female frequently occur.

We believe that the height of these withdrawal symptoms is reached somewhere between the period of forty-eight hours and seventy-two hours following the last dose of the drug taken. The readministration of the drug promptly brings about a dramatic change. The patient becomes exceedingly docile almost with the puncture of the hypodermic needle. In a few minutes he begins to feel warm, and the goose flesh and perspiration are no longer visible. He speaks about a "heaviness" in his stomach, but regards this as a welcome symptom presaging relief. In a period ranging from thirty minutes to one hour the tremors

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disappear. He has become strong and well. He no longer walks with bowed head and stooped shoulders. He stands erect, is quite cheerful, and lights his cigarette like any normal person. He becomes profuse in his apologies for his conduct during the abrupt withdrawal of the drug.⁷

Withdrawal symptoms are ordinarily manifested after a very few injections, provided that the shots are spaced close together and are large enough to produce a cumulative effect. At first, however, the descent from the drug-induced state of well-being to the succeeding feeling of depression, which is the first noticeable effect of the drug's disappearance, is much less abrupt and lasts longer. Initially, one injection a day may prevent the distress or depression resulting from withdrawal. With each succeeding injection, the effects are of shorter duration; the fluctuations occur more often, and the ensuing depression becomes more intense. The extent of elation following a shot is determined by the degree of depression preceding it; in addition, a progressively larger dose produces a contrastingly more pleasurable sensation for a time. In short, although initial effects and withdrawal symptoms in their earliest stages may be slight and unrecognized, repeated and increased doses cause both the pleasure and the abstinence symptoms to become more pronounced; however, as will be seen later, the pleasant state diminishes and eventually vanishes.

REVERSAL OF EFFECTS

According to Sandoz, the continued administration of morphine causes the following changes in initial effects:

The duration of the effect of the morphine is shortened. Whatever untoward effects were present at the beginning disappear. The same dose will become less and less effective, or must be increased in order to obtain the same effect. More than that, the original feeling of unusual well-being can no longer

⁷ A. B. Light, E. G. Torrance, W. G. Karr, Edith G. Fry, and W. A. Wolff, *Opium Addiction* (Chicago, 1929), pp. 7ff. This material appeared originally in the *Journal of the American Medical Association*. Reprinted by permission.

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be obtained; under the influence of morphine the chronic user will simply feel "normal".⁸

As addiction develops, euphoria tends to disappear, and the addict notices unusual sensations only if the drug is removed. Similarly, from a physiological point of view the drug at first produces functional disturbances, as would be expected, but in a remarkably short time a new body equilibrium, or a state of "drug balance," is established, and disturbed functions return approximately to normal.⁹ Henceforth, the only important physiological changes follow upon the discontinuance of the drug. In short, as opiates are administered regularly over a period of time, there occurs a "reversal of effects" in the sense described. Many investigators have described these physiological effects, and all recognize the distinction between "chronic" and "acute" morphine poisoning. Albrecht Erlenmeyer, for example, writes:

*The continued administration of morphine exerts an entirely different effect on a morphinist from that exerted by a single medium dose of morphine injected into a healthy person. While this latter causes nausea, even vomiting, feeling of faintness, heart weakness, pulse acceleration and lowering of the blood pressure, the former occasions just the opposite feelings sensations and states . . . namely pleasant feeling, euphoria, increased power, and, in the heart and vessels, strengthening of the contraction, invigoration of the pulse, and rise of the blood pressure. Since every morphinist has once had the first morphine injection, there arises the question: by what means and at what time of the continued abuse does this reversal of effect take place? It is brought about as follows: The morphine, originally foreign to the body, becomes an intrinsic part of the body as the union between it and the brain cells keeps growing stronger; it then acquires the significance and effectiveness of a heart tonic, of an indispensable element of nutrition and subsistence, of a means of carrying on the business of the entire organism . . . This reversal does not occur abruptly, but very, very gradually. If morphine is withdrawn before this reversal, the abstinence symptoms do not appear.*¹⁰

⁸ Sandoz, *op. cit.*, p. 13.

⁹ While most addicts suffer from constipation and their sex activities are virtually eliminated by the drug, it must be noted that these effects are associated with the amount of the drug used and how it is used, rather than with the drug *per se*. Addicts can, and many do, avoid these effects by moderate and careful use. It is significant that a substantial proportion of R. N. Chopra's Indian addicts reported no depressing effects on the sex function, and some even regarded the drug as an aphrodisiac. The excretory function also need not be disturbed if the doses are spaced properly.

¹⁰ Quoted by Terry and Pellens, *op. cit.*, pp. 601-2.

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Although Erlenmeyer's apparent assumption that primary effects are always unpleasant and his use of the word "euphoria" are subject to dispute, the main point which he emphasizes is also the unanimous opinion of those who have investigated the pharmacological effects of opiates.¹¹ Discussing the effects of drugs, Cäsar Amsler writes that morphine has both a depressing or narcotic effect, and a stimulating one. At first, he notes, the depression is more noticeable, lasts longer, and is followed by a short period of stimulation, while later the second phase becomes more pronounced and encroaches upon, reduces, and finally eliminates the depressing, or narcotic phase.¹²

Amsler contends that an explanation of the habit cannot be based solely upon a consideration of the first effects of the drug. Not only do these effects vanish, but they may not be experienced at all by the hospital patient who is unconscious

¹¹ Ernest S. Bishop, "Narcotic Addiction—A Systemic Disease Condition," *Journal of the American Medical Association*, LX (1913), p. 431ff., writes: "Morphine action as commonly observed following therapeutic administration or in animal experimentation gives no conception of its manifestations in a man or woman grown tolerant to its use. Very many have never experienced the pleasurable sensations to the enjoyment of which is widely attributed their indulgence." The necessity for distinguishing between effects upon tolerant and non-tolerant organisms is taken for granted in careful experimental work. This is well illustrated by the fact that Terry and Pellens, p. 184, criticize an experiment because opiates had been administered to an animal for only one month. The authors doubt if tolerance is fully established in so short a time and therefore question whether the conclusions can be applied to human addicts who use the drugs for years.

¹² See "Ueber Gewöhnung an Narkotische Gifte und Entwöhnung davon, insbesondere ueber Morphingewöhnung und Entwöhnung," *Wiener Klinische Wochenschrift*, XLVIII (1935), pp. 815-18. Other authors have also noted this reversal of effects. Rudolf Schoen, quoted by Terry and Pellens, *op. cit.*, p. 233, states, "In human beings at rest, basal metabolism was reduced about twenty-five per cent in the first hour after injection of morphine in doses of one and two centigrams. Repeated doses were attended by a very rapid disappearance of this diminished metabolism and by a return to the initial level. At the same time, the acidosis previously described as following morphine also disappears." These findings were confirmed by S. Nishigishi, quoted by Terry and Pellens on p. 260. Also see Ernst Jöel and Alice Ettinger, "Zur Pathologie der Gewöhnung. III Mitteilung. Experimentelle Studien ueber Morphingewöhnung," *Archiv für Experimentelle Pathologie und Pharmacologie*, CXV (1926), pp. 334-50; Otto Wuth, "Der Heutige Stand unserer Kenntnisse ueber die Physiopathologie der Morphingewöhnung und Abstinenz so wie deren Therapie," *Nervenarzt*, VI, p. 617; and Ernst Grünthal and Paul Hofer, "Untersuchungen über Akute und Chronischen Morphinwirkungen," *Klinische Wochenschrift* (January, 1929), pp. 104 ff.

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or seriously ill. Addiction may follow regular injection regardless of the motivation for the first shots and even when they are entirely unmotivated. The central problem of addiction therefore appears to be to explain the continuance of the habit rather than to account for the first shots.

Taking regular, closely spaced doses, the beginner soon notes a feeling of slight depression before each shot, and a vague depletion of energy signaling the beginning of the withdrawal symptoms. Following the injection, his energy is revived, his efficiency, both mental and physical, is restored, and he is again prepared to go about his ordinary affairs. An injection delayed beyond the usual time will bring greater relief, varying according to the depression preceding it. Various methods of administering the drug produce different effects. For example, intravenous injection brings an intense physical thrill, sometimes compared by the addicts to sexual ecstasy. The sensation is momentary. On the other hand, oral use of opiates causes a gradual transition of feeling tone, with relief as the primary sensation. Then, too, certain habitués find pleasure in making the puncture with the needle, and in playing with the injection, while others who are "needle-shy" may find the puncture distasteful. Whether or not he likes these incidental effects, the addict must adjust himself to them. Some unpleasurable symptoms are valued positively for their significance in regard to the quality and quantity of the drug and as signs presaging relief.

NORMALITY OF THE ADDICT

Can the addict's assertion that he feels normal only under the drug's influence be literally accepted? It may be said that there is no evidence regarding the addict's condition other than his own report, and that such testimony must be accepted unless adequate motives for deception can be demonstrated or evidence of malingering can be produced through mental and physical

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tests. Notwithstanding the popular notion that attributes euphoria or some sort of vague, uncanny mental sensations to the habitu , such feelings have been repeatedly denied by drug users. The man in the street believes that the user cannot possibly feel normal, and that if opiates do not cause "super-normal" feelings, their use is incomprehensible.

Conclusive corroboration of the addict's insistence that injections do not cause any extraordinary sensations is furnished by experimental evidence. Under certain conditions, an addict may be deceived into believing that he is under the influence of the drug when he actually is not, and vice versa. In fact, a number of cures have been advocated which involve gradual reduction of drug dosage, finally stopping it entirely without notifying the patient, while saline injections or other inert ingredients are substituted to deceive the addict. When this pseudo-treatment has been maintained for a considerable period the patient is informed of the actual procedure, and he is discharged in the hope that the experiment will have proved that he really did not need the drug.

The writer has interviewed ex-patients who sheepishly admitted that such deception had been successfully practiced on them for as long as ten days. One addict said that he knew of two women who had received water or saline for an entire month under the impression that it was morphine. It is also reported that addicts who demand drugs for insomnia can sometimes be put to sleep with a sterile hypo if they believe it is morphine. Conversely, when they have been given a morphine injection and have been told that it was a non-opiate drug, they may continue to complain. Instances of this kind have been so generally noted in the literature and reported by addicts that the possibility of such deception is considered an established fact.

Dr. Charles Schultz performed an experiment in which half of a group of subjects were put on a seven-day reduction treat-

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ment, and the other half on a fourteen-day schedule; for the former, the daily dose was reduced by one-seventh, and for the latter by one-fourteenth.¹³ The plan was not divulged to either group. As a result, some patients on the fourteen-day schedule thought they were receiving the seven-day treatment, and after the expiration of seven days began to show great nervousness and restlessness, one subject even resorting to an apparently simulated convulsion. When it was explained to them that they had been put on a fourteen-day course, and that they were still getting half of their beginning dosage, all symptoms disappeared at once.¹⁴ A similar illustration is furnished by a former addict, a soldier who was wounded at the front and lay unconscious in a hospital for several days. Opiates were freely administered to him, but when he regained consciousness he did not realize that he was under the influence of drugs until the characteristic and unmistakable distress of withdrawal appeared.

In a personal communication to the writer, a physician reported that a woman patient about to undergo a painful operation had asked him not to administer opiates under any circumstances, explaining that, although an abstainer, she had once been addicted and that a single injection might cause a relapse. Even if it were a matter of life and death, she begged that no opiates be given her. The doctor agreed, but after the operation the patient suffered such intense pain that a narcotic prescription became absolutely necessary, and was administered orally disguised in liquid form. It made the patient more comfortable and relieved the pain. Since she was not aware that she had received the opiate there was no relapse into the former habit. Later she thanked the doctor for his support of her program of abstinence.

¹³ "Report of the Commission on Drug Addicts to the Honorable Richard O. Patterson, etc.," *American Journal of Psychiatry*, X (1930-31), pp. 509 ff. A portion of this report was written by Charles Schultz.

¹⁴ *Ibid.*, p. 519.

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R. N. Chopra and his collaborator performed an ingenious experiment along the same lines. They disguised opium by administering it in oil of citronella as "tonic number.X" to patients in a Calcutta hospital who complained of pain and demanded relief.¹⁵ This device revealed the malingerer addict, for he always continued to complain after the opium had been taken, while non-addicts admitted that they felt relieved.

The absence of a distinctive or unusual state of mind produced by the drug is clearly revealed by another interesting phenomenon. The addict's common complaint is not that he suffers from withdrawal, but that he cannot "feel the shots." When such a point is reached many addicts demand that the drug be discontinued entirely, preferring not to prolong the suspense; since they cannot feel the injections, they may as well not take them. In commenting on this attitude, Schultz observes:

When they reach the end of the reduction, with complete withdrawal, there is not the same reaction of euphoria as after abrupt withdrawal, for several reasons. First, they are never really sure that they are getting less than they should anyway, and, in fact, they are always in a paranoid, suspicious state thinking they are not getting a square deal. They believe they are being fooled by sterile hypodermics and resent this idea because they often think they can detect when no more narcotics are given them, although often they actually do not. When they are still getting opiates they sometimes believe they are getting sterile water (they call it "aqua" or "Swanee River" or "onion juice"); and, vice versa, they often think they are getting morphine when plain saline is given them.¹⁶

One addict reported to the writer that he had been similarly deceived in a hospital, and that when he discovered it he left at once, resenting "their making a fool of me." He had been getting sterile hypodermics for ten days and was feeling quite well until an attendant, whom he had bribed to find out how much morphine he was getting, disclosed the truth. Instances of

¹⁵ R. N. Chopra and J. P. Bose, "Psychological Aspects of Opium Addiction," *Indian Medical Gazette*, LXVI (1931), pp. 663-66.

¹⁶ "Report of the Commission on Drug Addicts to the Honorable Richard O. Patterson, etc.," *op. cit.*, p. 518.

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this kind are quite common. Indeed, it is remarkable that veteran addicts who have run the gamut of experiments with the drug can be deceived about its effects. Needless to say, individuals who have not had previous experience are much more readily and completely deceived. The patient who receives therapeutic drug treatment, or who becomes dependent upon it physiologically without knowing that he is getting a narcotic, does not show any unusual reactions except relief from pain and withdrawal symptoms, the latter usually being identified with the disease.

It is apparent, then, that drug injection does not produce an uncanny or extraordinary state of mind. In fact, if incidental events which serve as signs of the drug's presence are manipulated, the injection itself cannot even be recognized. In other words, nearly all the direct effects of the drug which last beyond a few minutes after the shot are such that they could easily be attributed to other causes if they appeared in isolation. Knowing that he is addicted, the addict ascribes his mental changes to the drug, not because they are recognizable as such but because they always accompany the shot. The characteristic impact of the drug, coupled with the changes in feeling tone intimately associated with the injection, assures him that an opiate and nothing else was received. In addition, the withdrawal symptoms inevitably remind him of the need for a further supply. When all these incidental aspects of addiction are taken out of his control, the patient becomes uncertain of his feelings, and the psychological satisfaction derived from the belief that he is receiving morphine may closely simulate the cyclic changes that occur with actual injections. During an abrupt withdrawal, without substitute medication, it is quite impossible to deceive an addict into believing that his distress is due to any cause other than a shortage or absence of opiates in his system. It will be noted that all deception involves the suppression of the drug's physical impact, and the absence of

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pronounced withdrawal symptoms. When either of these two factors is clearly identified, deception is no longer possible.

DIRECT AND INDIRECT EFFECTS

The addict's claim that he feels normal when under the influence of opiates is general, and medical research appears to substantiate this assertion to a large degree, even in regard to physiological functioning. W. G. Karr, professor of bio-chemistry at the University of Pennsylvania, writes:

The addict under his normal tolerance of morphine is medically a well man. Careful studies of all known medical tests for pathologic variation indicate, with a few minor exceptions, that the addict is a well individual when receiving satisfying quantities of the drug. He responds to work in the normal manner. His weight is normal. His cardiac and vascular system is normal. He is as agreeable a patient, or more so, than other hospital cases. When he is abruptly withdrawn from the drug he is most decidedly a sick individual.¹⁷

Light and Torrance reach a similar conclusion. They observe:

. . . morphine addiction is not characterized by physical deterioration or impairment of physical fitness aside from the addiction *per se*. There is no evidence of change in the circulatory, hepatic, renal or endocrine functions. When it is considered that these subjects had been addicted for at least five years, some of them for as long as twenty years, these negative observations are highly significant.¹⁸

In view of the typical findings quoted, any attempt to attribute decay of "character" or of "moral sense" to the drug must be regarded as unwarranted, since there are no known physiological or neurological changes to which they may conceivably be related. Moreover, in the therapeutic administration of opiates to patients who are unaware of what they are receiving, no such results have ever been reported. In fact, the trend has been in the opposite direction. After an exhaustive review

¹⁷ From *Documentation of the Fifth Annual Conference of Committees of the World Narcotic Defense Association and International Narcotic Education Association* (New York, 1932).

¹⁸ A. B. Light, E. G. Torrance, et al., *op. cit.*, p. 115.

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of the alleged effects of "dope," Terry and Pellens conclude: "Wherever the truth may lie, the evidence submitted in support of statements . . . dealing with type predisposition and with the effects of opium use on mental and ethical characteristics is, in our opinion, insufficient to warrant the opinions expressed."¹⁹

When the user is questioned about the effects of the drug, however, he may praise them very highly and at the same time claim that the drug makes him feel "normal." This apparent contradiction is easily explained. When he states that he is "normal" he uses his psychological condition between injections as a reference point; on the other hand, when he attributes a great many desirable effects to the drug, he refers to the way he feels at the time of injection. The sharply contrasting psychological states immediately preceding the succeeding injection are the basis of the addict's notions of the drug's good effects, and he himself is very often, although not always, aware of this fact. A certain addict spoke very highly to the writer of the effects of the drug, but when he was asked how much of the pleasure was due to the contrast between the distress of withdrawal and relief produced by an injection he said that most of the satisfaction could probably be explained in this way.

Among the myths circulated about addiction is the notion that a "dope fiend's" inner life is serene and untroubled. The addict may be disgusted or depressed by occurrences entirely unrelated to the drug. On one occasion, an addict questioned by the writer complained that he was "feeling rotten." It was immediately assumed that he had not obtained his regular supply, but it turned out that he had not felt well during the day because of unpleasant incidents and so was depressed, as anyone else might have been, even though he was full of the drug. In addition to the usual vicissitudes of life, the addict's life is colored by the addiction process. An essential effect of the

¹⁹ Terry and Pellens, *op. cit.*, p. 515.

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drug, however, is to furnish a means of controlling one's moods; the drug habit is superimposed upon and dominates the fluctuations which would normally occur, but it does not eliminate them. It places limitations upon them by providing the means of avoiding extreme or protracted depression. The addict does not stop thinking of his troubles when he is under the influence of the drug, but his reactions are more adequate following injection.

In some instances, or for periods of time, the drug may elevate the user above his usual or normal state. It may also have the opposite effect. Indeed, it may cause the same individual to feel better than normal at one time and worse than normal at another. The very existence of these variations suggests that the question of whether the drug produces a super or subnormal mental state is not crucial. What happens is that the cyclic fluctuations induced and controlled by the drug tend to assimilate changes in feeling tone arising from other causes, and in this way help to create the impression that all changes are regulated by the drug. It is apparent, though, that the drug's effects are only concomitant. A misfortune which occurs to an addict in dire need of a shot seems to depress him much more than it should. When he is using the drug, the same incident will affect him only as much as it would a non-addict. At least, this is the rationale of the addict.

It is well known that many addicts have led useful and productive lives, relatively unaffected by their habit. Lawrence Kolb, in a study of 119 cases addicted through medical practice, found that 90 had good industrial records and only 29 had poor ones. He comments:

Judged by the output of labor and their own statements, none of the normal persons had their efficiency reduced by opium. Twenty-two of them worked regularly while taking opium for twenty-five years or more; one of them, a woman aged 81 and still alert mentally, had taken three grains of morphine daily for 65 years. She gave birth to and raised six children, and managed her household affairs with more than average efficiency. A widow, aged 66, had taken 17

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grains of morphine daily for most of 37 years. She is alert mentally but is with age and rheumatism. However, she does physical labor every day makes her own living.²⁰

After three years of observation and tests upon 453 addicts, Chopra found changes in personality and social behavior in only one-third of the cases, and in only 3.6 per cent were these described as major changes.²¹ The most usual were the acquisition of a sad expression, vacant look, bad memory, or tendency toward slow cerebration. About 60 per cent of his subjects had a healthy and normal appearance, and were mentally unaffected by the habit. A notable case was that of a British army officer who, at the alleged age of 111, was said to have used opium or morphine in huge quantities for the preceding seventy years. His army career had been brilliant, and at his advanced age he was described as unusually active and alert.²²

Chopra asked 1,070 addicts whether they regarded the habit as beneficial or harmful. Grouping the cases according to the size of the daily dosage, his investigation yielded the following principal findings:²³

No. of Addicts	Dose in Gr.	Beneficial		Harmful	
		No.	Percent	No.	Per cent
255	1 to 5	165	65.0	90	35.0
247	6 to 10	137	55.6	110	44.4
287	11 to 20	142	49.6	145	50.4
281	21 and over	100	35.6	181	64.4
1070		544		526	

Grouping the same cases according to the reason given for the original use of opium, he obtained the following results:

²⁰ Lawrence Kolb, "Drug Addiction—A Study of Some Medical Cases," *Archives of Neurology and Psychiatry*, XX (1928), p. 178.

²¹ R. N. Chopra, "The Present Position of the Opium Habit in India," *Indian Journal of Medical Research*, XVI (1928), pp. 389-439.

²² See "The Opium Habit," *The Catholic World* (September, 1881), pp. 827-35.

²³ Chopra, *loc. cit.*

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Reason for use	Total cases	Beneficial		Harmful	
		No.	Per cent	No.	Per cent
Disease -----	416	309	75.8	107	24.2
Fatigue, old age, worry, etc.	126	85	67.2	41	32.8
Association -----	247	77	31.3	170	68.7
Pleasure-euphoria -----	222	56	25.2	166	74.8
Replacement of alcohol or other addictions-----	59	17	28.8	42	71.2
	1070	544		526	

These data suggest that, disregarding social consequences, the effects of the drug are beneficial in inverse proportion to the size of the dose, and depending upon whether the drug is used to alleviate such conditions as old age, worry, fatigue, and disease, or for other reasons. This conclusion harmonizes with medical opinion. Although it may strike the reader as a paradox, the morphine habit may actually benefit particular individuals, such as the chronic alcoholic or the psychoneurotic. Drug addiction and drunkenness are incompatible vices, for liquor causes the addict's withdrawal symptoms to appear sooner than usual, and morphine tends to make an intoxicated man sober. Neurotic symptoms may sometimes be suppressed by the regular use of opiates. Roger Dupouy describes a woman who took morphine for hysterical symptoms.²⁴ She used it for thirty years without any further seizures until the drug was removed, whereupon the paroxysms immediately returned.

It is generally conceded by students of opium addiction that the deteriorating physical effects so frequently reported are in reality the consequences of such conditions as malnutrition, too frequent cures, and a generally unhygienic life related not so much to opiate usage as to the struggle to obtain the drug. Evil effects upon personality and social relations are connected with such factors as loss of social status, conflict with relatives, a

²⁴ Roger Dupouy, "Morphinomanie Familiale d'Origine Therapeutique: deux morts; deux guerisons, apres vingt ans de morphinism continu," *Encephale*, II (1912), p. 499.

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sense of guilt, fear of discovery, and with other personal and social changes.

It is impossible to interpret the effects of a drug habit upon a person's social life or his character in terms of organic deterioration or alleged "toxic effects" on the central nervous system. There are no demonstrable major effects that necessarily follow the use of opiate drugs, and to assume them is an act of sheer faith. Addicts escape most of the alleged degenerative results of the drug if they are sufficiently well-to-do, and many addicts suffer serious "character deterioration" only after the narcotic agents catch up with them. In other countries about which we have excellent information, England and India, for example, addicts do not suffer the evil effects that are forced upon American users. They do not steal, lie, engage in prostitution, or become derelicts to the extent that our addicts do. If the toxic effects of the drug on the central nervous system promote degradation, or if addiction is a biochemical affair, as some authorities insist, why do not similar conditions result in other countries or in our own upper class? To interpret the changes in personality in terms of postulated and unobserved physiological or biochemical changes is to disregard elementary canons of scientific method. Even assuming that addiction brings major organic changes, the problem of relating this alteration to the behavior of the addict would still present grave difficulties. The difference in the social behavior of addicts in various countries and in various classes of society would still remain unexplained.

CONCLUSION

Three points emerge from the preceding discussion. First, the initial effects of opiates are not comparable to the effects after tolerance has been established; they are, in fact, opposite in many respects. Secondly, the psychological effects of the

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drug during prolonged use do not differ sufficiently from the state of mind of the non-addict, or from that of the user who has become an unwitting abstainer, to offer any clue to an understanding of the power of the habit. During addiction, aside from relieving the recurring distress of withdrawal, opiates merely keep an individual mentally and physically normal. Finally, the observed antisocial characteristics of the American addict cannot be regarded merely as the automatic effects of opiate injection; rather, they are occasioned by the legal, social and economic situation of the addict.

It is clear that a single injection of narcotics received by a non-addict will not suffice to furnish him with a reliable basis for understanding addicts. The reversal of effects makes it both difficult and dangerous for a non-addict to seek an understanding of addiction through personal experimentation, and in a measure accounts for much of the popular misunderstanding of this subject. While it would no doubt be considered odd if a sociologist studying chronic alcoholism had never taken a drink, the student of addiction would find one dose misleading and repetition too dangerous to be recommended. This fact limits the possibility of a general understanding of the subject, and suggests that current misconceptions may be expected to persist.

THE PARADOX OF ADDICTION

If the addict succeeds only in feeling normal, why does he go on using the drug? Why spend five dollars a day just to feel normal? And if the addict is not normal "off the drug" it may be asked how it is possible for him to be deceived into believing that he is receiving opiates when he is not, or vice versa. Such considerations undoubtedly moved Dr. Ivan Ostromislensky to declare that "the phenomenon of morphinism seems from the outside to be a chaotic mixture of strange and

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apparently illogical facts, seeming nonsense and various paradoxes."²⁵ The layman naturally thinks that there is something mysterious and sinister about addiction, and tends to look upon addicts with horror and loathing.

Finally, a major methodological error dominates the study of addiction. Enthusiastic specialists have all too frequently assumed *a priori* that the problem is purely biological. Vast sums of money and much energy have gone into research on subtle physiological problems of morphine effects which are, strictly speaking, irrelevant to the central problem of addiction. Viewing the observed characteristics of addicts as the result of biochemical effects of the drug, rather than the effects of stupid legislation, and lacking knowledge of addiction in other cultures, investigators have, in the main, ignored the social aspects of the problem.

²⁵ Ivan Ostromislensky, "Morphinism," *New York Medical Record*, CXLI (1935), p. 556.

CHAPTER III



HABITUATION AND ADDICTION

Not all persons receiving opiates regularly for long periods of time become addicted. Edouard Levinstein, a prominent nineteenth century German authority, designated persons who were not addicted, but who were receiving the drug, as "Morphinists," and applied the term "Morphiumsüchtiger" (morphine addict) to those who were addicted. French students made the same distinction. In this country, also, there have been attempts to introduce separate terms for the two conditions.¹ Patients who receive the therapeutic doses of opiates for a period of time without becoming addicted do not, however, constitute a homogeneous group requiring separate conceptual treatment. There is no generally accepted term to differentiate the two conditions, and yet each needs to be treated separately. One condition involves pharmacological tolerance and withdrawal distress upon removal of the drug, without the usual manifestations of intense desire that occur in addiction; the other concerns, in addition to these two symptoms, intense and persistent desire for periodic injection.

¹ See Albrecht Erlenmeyer, *Die Morphiumsucht* (3rd Edition, Munich, 1887); Edouard Levinstein, *Die Morphiumsucht* (Berlin, 1880); F. McKelvey Bell, "Morphinism and Morphinomania," *New York Medical Journal*, XCIII (1911); and Daniel Jouet, *Étude sur le Morphisme Chronique*, (Thèse de Paris, 1883).

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That morphine or some other opiate may be given to a patient over a long period of time without creating an independent craving is confirmed by many scientific reports. In a study of morphine use among ex-soldiers, Friedrich Dansauer and Adolf Reith found many had been using the drug regularly for years, sometimes more than five, but were, nevertheless, not addicted. These users are designated as the "symptomatic type," and are not classified with true addicts who are called "the idopathic type." Classifying 240 of their cases in the former category, the authors give representative summaries of about twenty.²

In the following discussion, the writer applies the term "habituation" to that condition in which the physiological factors occur in isolation, without arousing the self-conscious desire for the drug which characterizes the addict and around which he organizes his life. The term "addiction" is limited to users in whom the occurrence of the physiological conditions is accompanied by a "craving," or desire, independent of its biological origin since it continues when tolerance and withdrawal distress are no longer experienced. "Habituation," therefore, applies primarily to the non-psychological aspects of addiction, i.e., to the mere fact of organic adaptation.³ A person may become habituated, but obviously not addicted, while he is un-

² Friedrich Dansauer and Adolf Reith, "Ueber Morphinismus bei Kriegsbeshädigten, *Arbeit und Gesundheit* Schriftenreihe zur Reichsarbeitsblatt, XVIII (1931), p. 23. Cf. also Kurt Pohlisch, "Die Verbreitung des Chronischen Opiatsmissbrauchs in Deutschland," *Monatsschrift für Psychiatrie und Neurologie*, LXXIX (1931), Part I, pp. 1-32. C. E. Terry, in *Report on the Legal Use of Narcotics in Detroit, Michigan, and Environs for the Period July 1, 1925, to June 30, 1926*, Bureau of Social Hygiene (New York, 1927), p. 18, notes that "patients suffering from chronic painful maladies and taking large doses of morphine or other opium equivalents were said by their physicians not to be addicted."

³ Not entirely, however, for even when a person receives the drug unknowingly, psychological effects are undoubtedly present, even if unrecognized by the patient. Such reactions are obviously different from those which occur in the addict, and, when reference is made to the "psychological" aspects of addiction, the former will be excluded. The effects of the drug upon a person who does not know that he is receiving it may be regarded as the psychological consequences of the opiate before they have been influenced by social factors and before they have had any social effects.

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conscious. The distinction between the two concepts may be indicated more exactly by considering the difference between the effects of the opiate upon a hospital patient who unknowingly receives morphine, and those shown by the typical addict. Further justification for such a distinction and a more exact delimitation of the two concepts will be found in later chapters.

CHARACTERISTICS OF ADDICTION

In any inquiry the subject matter to be investigated must be defined and described as exactly as possible. This description is usually found at or near the beginning of the study even though the definition itself is to a large extent the result of the research. The distinction between habituation and addiction must be made by describing and enumerating those characteristics of the behavior of addicts which are unique and common and which do not occur among non-addicts. It is particularly necessary that a definition of addiction take into account the similarities and differences between habituation and addiction and sharply differentiate between them.

As already indicated, the most obvious characteristic of the addict's behavior is his intense desire and striving for the drug. This desire is not casual or vague, but is a powerful motive driving him to seek satisfaction in the face of almost insuperable obstacles and at the cost of unbelievable sacrifices. A universal aspect of the behavior of addicts is that they permit little or nothing to stand between them and the drug.⁴ That addiction is characterized by intense desire for the drug scarcely needs elaboration; however, it should be emphasized that this craving is self-conscious and its object is known.⁵ It would be

⁴ A Chinese program of "curing" addicts was to execute them when they were re-addicted the third time. This indicates that Chinese addicts desire the drug with the same persistence as do our own. There is no suggestion in any of the publications of the League of Nations that addiction to opiates varies from the pattern described here.

⁵ It differs in this respect from the "desire" with which psychoanalysts often concern themselves. If the addict's desire for his drug were "unconscious," it would obviously be ineffective.

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ridiculous to speak of an addict who wanted drugs but was unaware of the need. In fact, his need for opiates motivates virtually all of his behavior.

Another characteristic of the addict, and one that is as universal as the first, is his tendency toward relapse. Once addiction is confirmed, the craving acquires an independent status; the desire persists even after the original physiological conditions have disappeared. In other words, when the addict's supply is cut off and he is treated for withdrawal symptoms, he may be restored to apparent health, but he still tends to relapse. Were it not for this, addiction would obviously be no great social problem. It would only be necessary to separate the addict from his source of supply and then release him. Yet, in the vast majority of cases, the "cured" addict returns to his old habit.

There is a belief prevalent among addicts that it is a misnomer to speak of a "cure" for addiction. They remark, "Once a junker, always a junker." They admit that now and then an addict may refrain absolutely from using the drug for years, even though it is available, and that others do not use it for long periods of time simply because, either as a result of incarceration or for other reasons, they cannot get it. These cases are not regarded as cures, however, for the habitué knows only too well from bitter personal experience that the so-called "cured" case is merely one in which the regular use of the drug has been temporarily discontinued. The number of cases accessible for study in which an individual has voluntarily abstained from the narcotic for a period of years is, indeed, very small. The writer found that approximately half the addicts he interviewed stated that they knew of no one who had quit for more than five years. The others variously reported that they knew one or, more rarely, several users who had quit for a longer period. Without exception, however, all maintained that for those once addicted susceptibility to relapse is permanent. Their conception of the matter is fairly represented by an addict who stated

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that he knew of two users who, he believed, had not used the drug for about five years, yet he counted them as "junkers" because "all that would be necessary in cases like these would be about twenty-four hours of skillful propaganda, if one wanted to do it, and they would relapse."

There are cases on record of relapse after ten or more years of abstinence. There is no evidence available which indicates that this impulse to relapse can ever be eradicated. This is true, not because of permanent biological changes produced by the drug, for these occur also among hospital patients who never become addicted, but because once having become addicted there is no known technique for erasing the memory of that experience. The individual's attitudes are irrevocably altered just as the adolescent's attitudes toward sex are permanently changed by his first heterosexual experience. The drug addict is therefore incurable in the sense that he can not escape his own past—his attitudes toward drugs have been altered by his experience with them.

The reformed addict—that is, one temporarily not using drugs—is a familiar figure to other addicts. They know the feeling of boredom that assails the temporary abstainer and they are familiar with the subtle rationalizations by means of which unhappy "cured" addicts seduce themselves into a resumption of the habit. In their language an abstainer is simply a "junkie who is off stuff"—temporarily. He is not spoken or thought of as a non-addict or "square john," nor does he regard himself in that way. Even those addicts who maintain that they have quit the habit permanently ordinarily refer to themselves as "junkies," thus recognizing the fact that once having been hooked a bond of unity between persons with the same experience has been created and a barrier erected between them and non-addicts who do not share their experience.

It is unnecessary to emphasize that an incarcerated user does not cease being an addict, even though deprived of his supply.

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He not only considers himself an addict, but, by constant conniving to obtain a supply, he makes prison authorities painfully aware of it. The individual who abstains voluntarily clearly falls into a different class, but here, too, the crucial question is not whether he is using the drug at a specified time, but whether he has been "hooked." If he has ever been "hooked," he belongs to the brotherhood and knows it.

RATE OF RELAPSE AMONG ADDICTS

There are, of course, no reliable statistics on relapse among American drug addicts, and an estimate can be made only by indirect means. A careful study of about 800 German addicts led to the following findings: 81.6 per cent of the cures were followed by relapse within a year, 93.9 per cent within three years, and 96.7 per cent within five years.⁶ It seems probable that the relapse rate among American addicts may be even higher because of the predisposing circumstances in which "cured" American addicts usually find themselves. Moreover, relapse can take place after more than five years of abstention, so that even the remaining 3.3 per cent noted above could scarcely be regarded as cured, in the sense that the impulse to relapse had been permanently eradicated.

In correctly evaluating alleged cures, a number of factors besides the time element must be considered. Commenting on a cure for morphinism effected in nine out of ten cases by F. G. Laughton-Scott, Dr. Samuel Park states: "I can claim an even longer series of unrelapsed cases, but attribute the permanency of the cure to several factors, one of which is the lack of opportunity to secure the drug. Does Dr. Laughton-Scott take this

⁶ Dansauer and Rieth, *op. cit.*, p. 59. A slight error occurs due to the authors' inclusion of a few cures taken by "habituated" or "symptomatic" cases who were suffering from severe disease and pain. However, some of these cures were probably evidence of addiction, and hence these cases were wrongly classified, as the authors themselves suggest.

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factor into account in his cases?"⁷ In addition to availability of the drug, it should be noted that cured addicts sometimes resort to substitutes in order to prevent relapse. If an individual resorts to whiskey, barbitol preparations, cocaine, or other drugs to prevent himself from using morphine, he can scarcely be regarded as cured. Abstaining addicts frequently use alcohol to excess; in such cases the fact that an opiate is not being used is merely a technicality.

Captain Edgar King stated, on the basis of a study of cases in the United States Army, that there was no cure whatever unless the reformed addict was placed in an environment where it was impossible to get drugs and had associates who would assist him in his abstinence program.⁸

Chopra shows that Indian addicts, who generally take opium orally, exhibit the same tendency to relapse. He further comments: "We have treated in our hospital a number of addicts taking moderate doses of opium, who have willingly come to us to get rid of the habit, and our efforts in this direction have proved miserable failures."⁹ In a treatise published in 1871, Alonzo Calkins quotes several authorities who declared that they knew of no permanent renunciations of the habit.¹⁰ Apparently drug addicts in all countries show a strong tendency to relapse, and although they may not always succumb, the impulse itself persists. The writer has never interviewed an addict who did not believe that this drive was universal and ineradicable.

⁷ *British Medical Journal* (December 3, 1927), p. 1056.

⁸ Edgar King, "The Use of Habit Forming Drugs by Enlisted Men," *The Military Surgeon* (October, 1916), p. 380.

⁹ R. N. Chopra, "The Present Position of the Opium Habit in India," *Indian Journal of Medical Research*, XVI (1928), p. 389.

¹⁰ Alonzo Calkins, *The Opium Appetite* (1871), p. 186. The estimates (guesses) of the percentage of permanent cures vary, as a rule, between 15 per cent and zero, and naturally depend upon the meaning attributed to the word "cured." Erlenmeyer believed that 99 per cent of the cases relapsed eventually. Such statements are, of course, nothing but guesses, but they indicate general agreement. In this respect, medical opinion agrees with that of the addicts themselves.

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COMPARISON OF HABITUATION AND ADDICTION

Claims are frequently made that a "cure" for addiction with a low percentage of relapse has been found. Such claims are either sheer quackery, broadcast with the aim of attracting patients, or they are founded upon a restricted and inadequate conception of a cure. Thus, one physician may arbitrarily define a cure as one month's freedom from the drug, another as one year's abstinence. Still others may judge the treatment successful if the withdrawal symptoms are cured, and consider the case closed if, after an arbitrary stay in the hospital, the patient manages to get along without the drug. Hence the term "cure" may refer to the removal of the drug *per se* and a subsequent abstinence of varying duration, to the medical treatment of withdrawal distress, or to a permanent reformation. It is only in the third and last sense that the term "cure" is used in the present discussion.

It may be pertinent to give here a brief review of the literature on the problem of a cure for addiction. G. F. Raynor and H. E. Bauer claim 29 cures out of 50 cases, but this means only that the drug was successfully eliminated before the patient left their care.¹¹ In most cases, the patient was not known to have remained free of the drug for more than a week. Another well-publicized cure is reported by Dr. Theophil Klingmann and Dr. William H. Everts, who claim 37 cures out of 57 cases.¹² Their subjects were, as they report, "required to return to the out-patient department at intervals of from two weeks to a month, for three months. After this, inquiries are made from time to time for three and one-half years." The utter inadequacy of this method of determining whether relapse occurs

¹¹ G. F. Raynor, and H. E. Bauer, "A New Treatment of Drug Addiction," *Medical Record*, CXLII (1935), pp. 139-42.

¹² Theophil Klingmann and W. H. Everts, "An Intensive Treatment of Morphine Addiction," *Journal of the American Medical Association*, CVI (1936), pp. 18-20.

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scarcely requires comment. It may be said that addicts view this particular technique with cynical amusement.

Careful students of addiction agree that nothing but actual physical examination and quarantine can determine whether the "cured" addict is using drugs or not, and even then deception is sometimes successfully practiced.¹³ It is also generally recognized that the permanence of a cure is not properly tested in three and one-half or even in five years. A German practitioner who claimed to have obtained sensational results has been completely exposed as a quack.¹⁴

In cases of habituation as distinguished from those of addiction, the successful elimination of the drug is not followed by the same tendency to relapse. Drug intake is ordinarily resumed only when and if the recurrence of the disease or pain for which it was originally used makes it necessary. The contrast may best be brought out by the consideration of a number of cases of habituation, keeping in mind the behavior of the addict in similar circumstances. Dansauer and Rieth report the case, for example, of a patient who was given an opiate regularly from 1922 to 1927; when the drug was withdrawn the patient was weak and unable to work for seven months, after which he resumed his activities. These investigators do not classify the case as a genuine addict. Similar cases are reported elsewhere in the same treatise.¹⁵ In all instances, the drug had been used daily for several years, yet the conclusion was that since these patients showed none of the craving typical of addicts they could not be considered addicts.

The outstanding characteristics of these cases are that the use of the drug was related to painful and chronic disease, and

¹³ Hans Schwarz, "Ueber die Prognose des Morphinismus," *Monatschrift für Psychiatrie und Neurologie*, LXIII (1927), pp. 180 ff.

¹⁴ See Dansauer and Rieth, *op. cit.*, pp. 70 ff., and H. Ripke, "Kahles Wunderkuren," *Deutsche Medizinische Wochenschrift* (1931), pp. 376-77.

¹⁵ Dansauer and Rieth, *op. cit.*, Case No. 588, p. 96. Also pp. 92, 94, and 97.

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that upon withdrawal the patient had no desire for the drug, nor did he resort to it except when the disease recurred. Then, too, drug craving as expressed verbally and as manifested in the devices and chicanery employed by addicts to obtain narcotics was absent. These cases are no more distinctive or unusual than hospital cases to whom other types of medicine have been given with good results.¹⁶

The work of Dansauer and Rieth has been emphasized here because of the long period of time during which opiates were administered to their subjects (in some instances for more than ten years) without inducing a state of addiction. Although the time factor involved in similar cases known to the writer was less crucial, the situation on the whole was essentially the same. For example, a patient who had received the drug for two months suffered considerable distress when it was withdrawn, without knowing the reason until the nurse later explained it. When he heard that the writer was studying drug addiction, he expressed amazement that one could become addicted to morphine. He had felt absolutely no desire for it when the morphine treatment was suspended.¹⁷

In summary, then, there are two principal aspects of addiction which distinguish it from non-addiction and from habituation. First, the addict desires the drug continuously, intensely and consciously. Second, this craving, once established, becomes independent of the physiological conditions of tolerance and withdrawal distress, and predisposes the individual to return to the drug even after a lapse of years. The chronic user in the prison at Leavenworth, for example, looks forward eagerly to his release and upon his discharge usually loses little time in securing an injection. He learns in advance exactly where to go in Kansas City to get his shot in the briefest pos-

¹⁶ See *ibid.*, p. 97, for authors' description of these cases.

¹⁷ All the cases of habituation interviewed in the present study conform to this pattern.

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sible time. The desire for the drug in such cases has become an independent psychological complex.¹⁸

There is still another difference between the addict and the individual who for a time is merely the passive recipient of the drug. The former, while under the influence of the drug, is constantly aware of his dependence on it, and attributes his state of mind to its effects.¹⁹ The latter, on the other hand, receiving the drug unknowingly in connection with illness, cannot analyze its precise effects, even though he is under its influence and dependent upon it physiologically. In describing a cancer patient habituated to morphine, Bernhard Legewie reports that the drug obviously stimulated the sufferer and made him feel better. However, the patient failed to associate the beneficial effects with the injection, so that instead of desiring the drug he came to dislike it. According to Legewie, "the lack of desire for the drug in our patient was striking."²⁰ This attitude may be contrasted with that of the typical addict, whose point of view was well expressed by J. C. Layard, himself an addict. After a period of abstinence, he resumed the drug and reported: "I now liked to work, the harder and the more of it, the better. The morphine had such a bracing and

¹⁸ Thus Charles Schultz, "Report of the Commission on Drug Addicts to the Honorable Richard O. Patterson, etc.," *American Journal of Psychiatry*, X (1930-31), p. 492, as the result of careful experimentation on 318 patients with different kinds of cures remarks: "As far as 'obliterating the craving for narcotics' by immediate medical treatment, we have found this 'craving' to be present after all treatments. The patients look forward to being discharged, in fact count the days, and if not discharged when they expect to be, some of them go into a state resembling frenzy, so great is their apparent eagerness to revert to drugs. Every imaginable excuse and pretext will be tried in order to be discharged sooner."

¹⁹ This preoccupation of the addict with the drug in his system is brought out in an amusing way by the fact that some of Schultz' patients, who volunteered for the cure, "refused to take hot showers for fear that the ensuing perspiration might cause a loss of some of their morphine."

²⁰ Bernhard Legewie, "Delirium beim Morphinismus, Zugleich ein Beitrag zur Frage der Gewöhnung, *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, LXXXIX (1924), pp. 558-78. Quoted by Terry and Pellens, *op. cit.*, p. 236.

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tonic effect! I felt when I walked as though I had a man on each side of me, supporting me."²¹

Dependence upon morphine or other opiates in the case of addicts is particularly emphasized when the drug is withdrawn. Craving for the drug and dependence upon it drive the user irresistibly to any lengths to obtain a supply. In desperation, even suicide may be resorted to as a way out. A writer, himself an addict, stated that he knew of two suicides resulting from failure to secure drugs: "The awful mystery of death, which they rashly solved, had no terrors for them equal to a life without opium, and the morning found them hanging in their cells glad to get 'anywhere, anywhere out of the world.' " The same writer describes a Chinese addict whom he saw "tear his hair, dig his nails into his flesh, and with a ghastly look of despair, and a face from which all hope had fled and which looked like a bit of shriveled yellow parchment, implore for it (opium) as if for more than life."²²

The addict, of necessity, organizes his entire life around his need for the drug. This preoccupation with the narcotic and slavish dependence upon it are incomprehensible both to the patient who is only habituated and to the neophyte. As Calkins observed, "Opium, an equivocal luxury in the beginning, daintily approached, becomes ere long under the demands of a perverted appetite a dire alternative, a magisterially controlling power."²³ The hospital patient who every four hours is given an injection, the nature of which he does not know and concerning which he does not trouble himself, clearly cannot be compared with the addict who is eager to sacrifice anything to obtain the same substance.

The addict, if awake, is usually keenly aware of the fact that a shot buoys him up and he knows precisely when he must

²¹ James C. Layard, "Morphine," *Atlantic Monthly*, XXXIII (1874), p. 705.

²² "Sigma," "Opium Eating," *Lippincotts' Magazine* (April, 1868), pp. 404 ff.

²³ Calkins, *op. cit.*, p. 188.

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have another. He proceeds to regulate his activities almost exclusively in terms of this drive. He takes a shot when he goes to bed. Upon awakening, his first thought is of the drug, and his first act, sometimes even before he gets out of bed, is to take his morning dose. Should he awaken during the night, the thought of a shot tempts him, and if he lies awake for any length of time he is likely to yield to the desire. In other words, the addict is dependent upon the drug during every conscious moment. The thought of the drug constantly sustains him.

By contrast, the patient who is only habituated reveals a different mode of behavior. A physician told the writer the following story:

A woman went to a quack doctor with a stomach complaint. He gave her medicine which helped her, but in the course of time she noticed that whenever she stopped taking the medicine for a time her stomach trouble came back. Wishing to be really cured of her disease, she decided to consult another doctor. She realized that the prescription was helping her, but was troubled by the fact that (as it seemed to her) the medicine had only repressed her ailment without eliminating it. The new doctor found that the medicine contained opiates and that there was nothing whatever wrong with her except that she had become habituated to the drug.

This case is a prototype of habituation associated with physical disease, the drug being used because of actual pain associated with the disease. The important factor is obviously the patient's belief. It will be shown later that as long as a patient believes he is using the drug solely to relieve pain, and regards it as a "medicine", he does not become an addict. When the pain or disease vanishes the drug may be removed without danger of relapse.

The patient's sense of dependence on drugs in the above case was clearly different from that of the addict; her preoccupation was with a disease rather than with the effects of opiates, which she recognized only vaguely. When she swallowed her medicine, the disease seemed to be abated. In the same way, a person who has a headache and takes an aspirin

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knows only that his headache is gone and that a hindrance to normality has been eliminated. He does not believe that normality is dependent upon the drug. This type of opiate use has frequently been termed "innocent" addiction, and—in contrast with the exceedingly pessimistic prognosis for genuine addiction—it is usually permanently cured following withdrawal of the drug, provided the disease does not recur. T. D. Crothers, a prominent American authority, distinguishes these two types in the following manner:

Where morphine has been used ignorantly, or from a physician's prescription for the relief of some temporary pain, the permanent cure of the case may generally be expected to follow its withdrawal. . . . In cases where the patient has had a long preliminary occasional use of the drug, and then a period of protracted use until immunity to very large doses has been established, the withdrawal is always difficult, and the permanence of any cure is somewhat doubtful.²⁴

Discussing the possibility of a cure for addiction, Lawrence Kolb expresses the belief that there are thousands of cured addicts in the country (though the word "cure" evidently refers here to addicts who are merely off the drug). He says: "If we class as former addicts all those persons who after several weeks of opiate medication suffered for a few days with mild withdrawal such as restlessness, insomnia, and over-activity of certain glandular functions—the number of cured addicts must exceed those who remain uncured."²⁵

Another important respect in which habituation usually differs from genuine addiction is in the size of the dose and in its progressive increase. Physiological reasons for increasing the dosage are well established. For example, when morphine is administered over a period of months to a patient with incurable cancer, the dose is necessarily increased, but rarely, if ever, in the proportions that the addict finds necessary. The latter is so powerfully impelled to increase the dosage that he often

²⁴ T. D. Crothers, *Morphinism and Narcomanias From Other Drugs* (Philadelphia, 1902), p. 138.

²⁵ Quoted by Terry and Pellens, *op. cit.*, p. 616.

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regards an excess as essential and finds it virtually impossible to reduce it voluntarily. In therapeutic treatment, even in cases of protracted illness and pain, a daily dose of three or four grains is regarded as an extraordinary amount. The addict who has a large supply available to him regards three or four grains of morphine a day, taken in "skin shots" or orally, as a small allotment.

The difference between the addict's dosage and that of the patient in the condition of habituation is effectively demonstrated by data collected by Kurt Pohlisch in an attempt to determine the approximate number of drug addicts in Germany.²⁶ These data were taken largely from druggists' prescription blanks, and Pohlisch was therefore compelled to define addiction purely in terms of the size of the doses and the length of time during which they were taken. He was familiar with the distinctions made by Levinstein, Erlenmeyer, and others between "habituation" and "addiction," and he recognized the validity of this distinction; nevertheless, he was forced by the nature of his data to take these things into account only as they could be translated into amounts used per day. Therefore, he established the minimum dosage as 1.5 grains per day but admitted that this figure classified too many as addicts.²⁷ If one were to use the concept of addiction (morphinismus) generally employed in German clinics, the limit might have been placed, he said, at 4.5 grains per day. By using a very low limit he corrected unavoidable errors in the other direction.

When his cases are distributed according to dosage, they fall into a frequency pattern which does not all correspond to expectations.²⁸

²⁶ Kurt Pohlisch, *Die Verbreitung des Chronischen Opiatsmissbrauchs in Deutschland, ermittelt auf Grund eines vom Reichsgesundheitsamt zusammengestellten und geprüften Materials*, Sonderabdruck aus des *Monatschrift für Psychiatrie und Neurologie*, LXXIX (1931), pp. 1-2.

²⁷ *Ibid.*, pp. 3-4.

²⁸ *Ibid.*

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TABLE I

<i>Size of Daily Dosage in Grains</i>	<i>No. of Cases</i>
Under 1.5 -----	2,856
1.5- 3.0 -----	1,276
3.0- 4.5 -----	650
4.5- 6.0 -----	421
6.0- 7.5 -----	309
7.5-15.0 -----	607
15.0-30.0 -----	212
30.0-45.0 -----	16
45.0-60.0 -----	9

It will be noted that the number of cases using less than three grains per day is very large, about 65 per cent of the total, and that the number in each classification becomes progressively larger as one approaches the smaller doses. This, of course, contradicts general experience with addicts. Kolb found in a study of 119 cases of addiction that the average dose was 7.66 grains per day.²⁹ His subjects were medical cases, that is, persons who had become addicted in medical practice—and who were not denizens of the underworld. Since the majority obtained their supplies from legitimate sources, the average dosage reported by Kolb is therefore more reliable than figures derived from the testimony of underworld addicts, who use diluted drugs, generally do not know precisely how much they are taking, and cannot be counted upon to report it correctly if they do know. The only plausible explanation of Table I, an explanation made by Pohlisch himself, is that a high percentage of the cases using very small amounts were not addicts, and that the percentage of those who were only habituated, but not addicted, decreases as the dosage increases. This conclusion is borne out if the physicians included in the Pohlisch study are listed separately, as follows:³⁰

²⁹ Lawrence Kolb, "Drug Addiction: A Study of Some Medical Cases," *Archives of Neurology and Psychiatry*, XX (1928), p. 174.

³⁰ Pohlisch, *op. cit.*, Table I.

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TABLE II

<i>Size of Daily Dosage in Grains</i>	<i>No of Doctors</i>
Under 1.5 -----	38
1.5- 3.0 -----	99
3.0- 4.5 -----	94
4.5- 6.0 -----	64
6.0- 7.5 -----	66
7.5-15.0 -----	144
15.0-30.0 -----	81
30.0-45.0 -----	7
45.0-60.0 -----	5

The marked concentration around the lower figures is absent in this distribution; only 22 per cent of the doctors used less than 3 grains per day. One would expect that the percentage of addicts among doctors who are regularly taking morphine would be larger than among non-medical persons. Thus Table II corroborates the distinction made here between habituation and addiction. Further support of the writer's thesis, that addiction and habituation are radically different, may be obtained by listing separately those cases mentioned by Pohlisch in which cocaine was used in connection with morphine, heroin, or another opiate. One could also expect most of this group to be addicts because of the relative infrequency with which cocaine is prescribed and because the use of cocaine and an opiate in combination represents a degree of sophistication ordinarily encountered only among addicts. The users of cocaine and an opiate (usually morphine) took the following amounts per day:³¹

TABLE III

<i>Size of Daily Dosage in Grains</i>	<i>No. of Cases</i>
Under 1.5 -----	9
1.5- 3.0 -----	11
3.0- 4.5 -----	15
4.5- 6.0 -----	11
6.0- 7.5 -----	14
7.5-15.0 -----	35
15.0-30.0 -----	23
30.0-45.0 -----	2
45.0-60.0 -----	4

³¹ *Ibid.*

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Only 16 per cent used less than three grains per day, as contrasted with 65 per cent of the total cases (including physicians and cocaine users). The distribution is again strikingly different from that of the ordinary run of cases and corresponds rather closely to general observation concerning the approximate size of the addict's dosage, as well as to the average of 7.66 grains per day reported by Kolb for his medical cases.

The impulse to increase the dosage is so powerful that most drug users with whom the writer discussed the matter regarded it as almost inevitable that an addict should use too much. They were skeptical of any addict who claimed to require only as little as two or three grains per day. It may be possible by resolute determination to stabilize drug consumption at a low level, but the trend towards a progressively larger dosage is probably a distinguishing characteristic of addict behavior. There is nothing in medical practice remotely corresponding to the insatiable appetite for large doses that characterizes most chronic users. It may safely be assumed that even those addicts who manage to stabilize their intake at a low level feel the desire to use more. Again in contrast to the addict, the habituated person not only uses a smaller amount on the average but does not feel the progressive need for more. Many German addicts studied by Dansauer and Rieth, for example, obtained their narcotics from two different doctors at the same time and tried similar deceptions, while nothing of the sort occurred among those who were using the drug without being addicted. The writer has known a number of cancer cases in which morphine was administered orally for more than a year without reaching a maximum of two grains a day, the equivalent of perhaps one grain hypodermically. Such moderation is practically unheard of among addicts, unless it is involuntary.

A final characteristic of addicts is that they know they are addicts and speak of themselves as such. American underworld

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addicts refer to themselves as "junkers" or "users," and are so regarded by their class. Frequently, in a jocular sense, they use the more expressive term "dope fiend." Even the drug user in respectable society, who may have few or no addicted associates, secretly labels himself a "drug addict" or "dope fiend."

The most obvious way of defining addiction or of determining if a person is an addict is to ask him, provided, of course, that one has his confidence. Another simple procedure is to inquire among those of his associates who are in a position to know. While the writer was gathering the material for this study, he asked individuals who had once been "hooked" if they were addicts, and they always replied unhesitatingly in the affirmative, even though they were free of the drug or had voluntarily abstained for several years. In contrast to the addict, the hospitalized patient who has been receiving opiates to deaden pain does not regard himself as an addict. If he does not recognize withdrawal distress, he obviously cannot infer that his experience has any connection with drugs. The most striking demonstration of this point is to be found in Case 3, cited in Chapter IV. Further illustration is offered in the following case:

While in his teens, Mr. D. fell from a telegraph pole and fractured his spinal column. He was taken to a hospital, and, to relieve the pain, was given a number of white pills. His back was put into a cast and the pills were discontinued, but the family doctor continued to give him a tonic. As he gradually recovered he continued to take this medicine, but derived absolutely no pleasure from it as far as he was able to recall, nor did he have the slightest notion that it contained an opiate. He had never seen a drug addict and had no conception of what addiction was. After ten months of this treatment, he suddenly decided to leave town and go to a distant city to seek work. He had noticed, in the meantime, that whenever he didn't take his medicine he didn't feel well, but attributed this to his accident. When he left home it did not occur to him to take any medicine along, so that when he became ill from withdrawal distress, he had no notion of what was wrong but assumed it was disease. He tried at first to treat himself, but when he continued to feel worse and noticed that he was losing weight rapidly, he consulted a doctor who diagnosed his condition correctly. It was then that he realized for the first time that he had been using an opiate. He then defined himself as a drug addict and began to read all the medical books on the subject that he could find. He also increased his dosage

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until he reached approximately sixty grains a day. This took place before the enactment of the Harrison Act, when narcotics were easily available and inexpensive.

It is noteworthy that during the initial period of habituation in this case the behavior symptomatic of addiction was entirely absent. Then, when the true situation was brought home to Mr. D., a pronounced change occurred in his attitude toward the drug, as evidenced by his interest in reading about it. It should also be observed that when this turning point was reached the dosage was rapidly increased.

SUMMARY

Addiction may be defined as that behavior which is distinguished primarily by an intense, conscious desire for the drug, and by a tendency to relapse, evidently caused by the persistence of attitudes established in the early stages of addiction. Other correlated aspects are the dependence upon the drug as a twenty-four-hour-a-day necessity, the impulse to increase the dosage far beyond bodily need, and the definition of one's self as an addict. This complex of behavior will hereafter be referred to as "addiction" and the organism which exhibits it will be called an "addict."³² The term "habituation," on the other hand, will be used to refer to the prolonged use of opiates, and to the appearance of tolerance and withdrawal distress, when it is not accompanied by the behavior described above as addiction behavior.

It is evident from the above discussion that an animal cannot be called an "addict," regardless of how much opiate drug it is given. Johannes Biberfeld correctly expresses the relationship of animal experimentation to, and its bearing upon, the problem of drug addiction when he asserts that addiction in-

³² Cf. E. W. Adams, "What is Addiction?", *British Journal of Inebriety*, XXXIII (1933), pp. 1-11. See also S. D. S. Spragg, "Morphine Addiction in Chimpanzees," *Comparative Psychology Monographs*, XV (1940), p. 122, for a different definition.

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volves two types of phenomena, tolerance for morphine and a craving for morphine, and that only the former has any connection with animal experimentation. The craving, he believes, is an exclusively human phenomenon and animal behavior cannot be compared with it.³³ Certainly from the point of view of social science it would be ridiculous to include both animals and human beings in the concept of addiction. For precisely the same reasons, infants must also be excluded, regardless of how long they may be given opiates.

The physiological conditions produced by the drug when habitually assimilated by the body are essential to addiction but other factors are also present, for the physiological conditions are not always followed by addiction. The problem of the present study, then, narrows down to that of isolating the factors which account for the transition from a biological condition, induced by regular drug administration for a period of time, to a psychological state of addiction or craving. Undoubtedly the physiological concomitants play a role in addiction, for certainly no one becomes an addict without first experiencing them. Any explanation of addiction must, therefore, consider these phases but it must also take the psychic aspects into account. The theory proposed in this study must also account for the fact that some persons escape addiction while others, under essentially the same physiological conditions, become incurable addicts. In other words, the physiological factors must be regarded as necessary concomitants of addiction, but they are not causal in the sense that they "produce" such behavior.³⁴ In subsequent chapters, the writer will develop a

³³ Johannes Biberfeld, "Ueber die Spezifität der Morphingewöhnung," *Biochemische Zeitschrift*, LXXVII (1916), p. 283. Cf. also S. D. S. Spragg, *op. cit.*, p. 120 ff. Spragg agrees with Biberfeld's statement concerning experiments other than his own. It is the writer's opinion that Biberfeld's observations also apply to Spragg's work.

³⁴ Dr. John Killian asserts "That there are psychologic forces contributing to the inception and the maintenance of the narcotic habit cannot be doubted. But the independence of these psychologic forces from physical or physiologic forces may be questioned. The establishment of a relationship of cause and effect

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method for isolating and describing the conditions that account for the beginning of addiction as it emerges from habituation.

In disagreement with the writer are authorities who insist that addiction is essentially a biochemical phenomenon, and that the definition presented here is erroneous because it is not biochemical. It may be said, in answer, that the task of definition in this field is not to assign arbitrary meanings to words, but rather to describe specifically the behavior of individuals constituting a functional social unit. The essential elements in the characterization of such behavior are assumed to be exclusively applicable to all cases of addiction, but not to those of habituation.

Following this methodology, it becomes impossible to define addiction in biochemical terms. For one thing, if such a definition is used, the addict who is incarcerated and deprived of his supply can no longer be referred to by that term, because the biochemical conditions of addiction are not present. It would be patently absurd, however, to say that an imprisoned addict was not an addict. Moreover, if it is maintained that the use of morphine creates certain organic or biochemical changes which persist after drug removal, it should then be pointed out that the same changes are found in countless hospital patients unknowingly receiving morphine. No one would think of designating these patients as addicts.

Another objection to a biochemical definition is the impossibility of excluding animals or infants who are given opiates. The behavior of addicts is unlike that of animals or infants to whom narcotics are administered. Likewise, such terms as "drug addict" and "dope fiend" were invented to identify a clearly distinguished, unhappy group whose members also apply the terms to themselves. An extension of the term "addict"

between psychic phenomena and physical phenomena is, in my opinion, hopeless." *Documentation of Fifth Annual Conference of Committee of the World Narcotic Education Association*, Appendix No. 8, "The Part of Science in the Narcotic Drug War."

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to other and different groups, such as children or animals, seems to be a gross misapplication of a technical expression.

In view of the foregoing arguments, the writer emphatically asserts that no biochemical definition of addiction has ever been proposed that will actually apply to all addicts, and differentiate them from all non-addicts. Such a definition is impossible in the light of the principle that a scientific definition should consist of an enumeration of the traits or characteristics which are common to all the members of a class and are not present in the members of any other class. Physiological conditions are admittedly necessary concomitants of addiction, but they alone cannot and do not determine or cause addiction or define it.

CHAPTER IV



THE NATURE OF ADDICTION

A discussion of the nature of addiction may profitably be introduced by describing three cases which illustrate how addiction begins. Case 1 is quoted from L. L. Stanley;¹ Case 2 and Case 3 (and subsequent cases not otherwise designated) are condensed accounts of stories obtained at first hand by the writer.

Case 1. In 1899 I went to the Philippine Islands with the Third Infantry, landing in Manila in March. Along about the end of my service I developed dysentery and as a result became so weak that from 140 pounds I went down to 100 pounds. I would report at the sickline and the doctors would give me C and O (camphor and opium) pills. These pills I took for four months until the time of my discharge in 1900. Returning from Manila on the *Sherman*, I was so weak that I had to go to bed. I felt miserable, and the steward accused me of being an opium smoker. At this time I did not know anything about the habit, and did not know what made me so restless and nervous. After my discharge I could not sleep. I met an ex-soldier who said, "I know what's the matter with you. You've been up against the pipe. You'd better start to shoot it." Before this, though, he had given me laudanum and yenshee, which relieved my habit. I bought a gun and began to use two one-fourth grain tablets three times a day. I used more and more until I was using thirty grains a day.

Case 2. Before 1910, Mr. R. became acquainted with a number of persons who were using heroin nasally. At this time heroin was cheap and not regarded

¹ L. L. Stanley, "Drug Addiction," *Journal of The American Institute of Criminal Law and Criminology*, X (1919-20), pp. 62-70.

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as habit-forming. He had once tried cocaine and found it unpleasant but observed that heroin seemed to have different effects, transforming a weak and miserable man into a normally alert one. He tried it once and liked it, and, inasmuch as it was cheap, he bought a dime's worth and kept it in his room. Every now and then, whenever it occurred to him or when he felt particularly downcast, he used a little. At first he used it only every few weeks or so, but gradually he began to take it more and more frequently, until, after five years of intermittent use, he had gone from once a month to once a week, to once a day, and finally to several times a day. He did not realize that he was in any danger of acquiring a habit even when he used it every day. In the morning he took a sniff before he went to work, to arouse himself. Then, toward the latter part of the afternoon, when he noticed a let-down feeling which he attributed to the blazing sun under which he was forced to work, he found that a sniff of heroin, which he now carried about with him, enabled him to finish out the day's work in a satisfactory state of mind and body. He had no idea that he was "hooked."

Somewhat later, while Mr. R. was on his way to Chicago, he made plans to be picked up by a friend in Joliet, but when his friend failed to appear he became worried, since he hadn't sufficient funds to pay his fare. Having exhausted his heroin supply, he threw away the empty box and did not think of buying another. Gradually he noticed that he did not feel well; his eyes and nose were running, and he yawned incessantly. He began to wonder if he were getting the "flu." He walked into a restaurant for he suddenly realized that he had not eaten for a long time, but the sight of food repelled him and he left without eating.

At the corner drug store he might have purchased all the heroin he needed for only a dime, but it did not occur to him to do so. Instead he attempted to obtain money from a stranger whom he accosted and to whom he explained his condition, but he was turned down. This affected him so much that he could not accost another prospect.

By catching a ride on a train, he finally got into Chicago that night, and early the next morning, feeling more miserable than ever, he visited a friend who was still in bed. As he sat talking, he noticed a box of heroin tablets on the dresser. Quite naturally, without altering the tone of his voice or interrupting the conversation, he reached for the familiar box and mechanically broke up a tablet of heroin and sniffed it. In a few moments the entire aspect of the world changed, and in a flash he realized that this was what "dope fiends" experienced and that he was addicted. All his distress and misery vanished and then, feeling hungry, he went out and ate heartily. Mr. R. attributed great importance to this critical experience, saying that if, instead of coming to Chicago and meeting a heroin user, he had been taken to a farm, he might have suffered a few days and then recovered rapidly and never have been the worse for it. He believes that he would never have become a "dope fiend" under such circumstances.

Case 3 Dr. H., a physician, was given morphine liberally and regularly for months, when he was undergoing an appendectomy and two subsequent operations resulting from complications. For a time he was not expected to live, but as he recovered the dosage of morphine was gradually reduced and finally with-

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drawn. He knew that he had received morphine, but during the gradual withdrawal he attributed those symptoms of distress which he noted to the after-effects of the operations and to the processes of convalescence. During the next five years he went on with his practice, without craving the drug, and nothing whatever was amiss with his mental life. He had seen drug addicts in the course of his medical practice and felt a horror of them. He believed that he would certainly shoot himself in preference to being one. This attitude remained absolutely unaltered by the hospital experience just described. Several years later Dr. H. contracted gallstone trouble and was advised that an operation would probably be necessary. With his previous operations still fresh in his mind, he wished to avoid another, if at all possible, and was told that it might conceivably not be required; in this case it would be necessary for him to take opiates for his attacks. He did not like the idea of using narcotics, but was more afraid of an operation, so he resorted to them to ease his pain. He now required them more and more frequently, both because the attacks came oftener and because he gradually used the drug for less severe pains. Being permitted to administer the opiates himself, he finally "caught himself" taking injections every day, even when he had no pain. During the process his horror of drug addiction disappeared, and he began to read all the books he could find on the subject. He still believed he was an exception to the rule and would be able to quit easily. He realized in retrospect that he had experienced withdrawal symptoms several years before and had failed to recognize them. His efforts to cure himself soon ended, and a year later he acceded to his wife's request to enter a sanitarium. Upon discharge, after three years, he did not feel right without the drug. He is still an addict; he has lost his practice, money, and family, and uses the drug whenever he is out of jail.

A comparative analysis of these three cases indicates that the common factors invariably associated with the beginning of addiction are the perception of the true significance of the withdrawal symptoms and the use of the drug thereafter with the express purpose of avoiding them. Not the knowledge or ignorance of the fact that opiates were given, but *the knowledge or ignorance of the meaning of withdrawal distress* and the use of opiates thereafter determines whether or not the individual will become addicted.

This is the central proposition of the present study. The process of becoming addicted begins when an individual realizes that all of his discomfort and misery is due to the *absence* of opiates, and then proves it to himself by trying the opiate. After one successful trial, he uses the drug again and again for the same reason. This conscious use of the drug to alleviate

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the distress which its removal produces is the characteristic aspect of addiction. As Case 3 implies, when the withdrawal symptoms are not understood by the person experiencing them, they do not lead to addiction.

At first glance, it may seem incomprehensible that the novice who deliberately experiments with drugs, and who knows and associates with addicts, should fail to realize the cause of the distress that accompanies sudden abstention. But the withdrawal symptoms are poorly understood by the layman, and even by doctors and students of the problem, and are often regarded as "imaginary" or purely mental, without any organic or physiological basis. There is, moreover, nothing about the initial use of the drug for very short periods of time that forecasts future developments. The confirmed user ordinarily cannot explain this "yen" (which signifies both the withdrawal symptoms and the desire for opiates). The non-addict finds it difficult to visualize himself as an addict; being inclined to look down upon such persons, he discounts the tale of suffering, and either regards the abstinence symptoms as imaginary or as insignificant. A trial or two may convince him further that his opinion is correct, and eventually this very self-confidence—this feeling that *he* cannot become an addict—causes him to become careless in using the drug. He unwittingly takes too many injections at too frequent intervals until, as the addict puts it, "he wakes up some morning with a yen." The following cases illustrate the changes which the withdrawal symptoms bring to the beginner, and the inability of the non-addict to realize the nature of the habit:

Case 4. Mr. H. became addicted to opium smoking in about 1909, when he was living in California. Acting as a messenger and in other capacities, he was in a racket that brought him into association with underworld characters. He also attended parties with pimps and prostitutes at which opium was smoked. He smoked along with the rest and liked it. The pimps told him that he would get hooked and warned him against it. He laughed and told them to mind their own business.

When asked how he finally got hooked, he said, "Well, just the way most

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of 'em do. I kept using the pipe and one day I woke up gasping and feelin' like hell. My bones ached all over. Naturally, I don't know what was the matter, and like they all do I told somebody how I felt, and naturally I told an addict. He said, 'Jesus, boy, you've got a habit,' and then I took a pill and smoked it and was all right."

Case 5.² I told you that I first got acquainted with narcotics through a woman I was living with on Wabash. She used to go to the Chink joints to fix her yen. She smoked the pipe. She asked me to go with her and I went. . . . I first learned that I was hooked when I could not satisfy the girl with whom I was living and she told me that I was just like the rest of the birds. This did not mean much until I got under the weather and could not get the usual dose that I needed. Some of the boys in the honky-tonks told me I was weak under the gills. I went to see a Negro doctor and told him that I was sick. He asked me how I was sick and I told him that the pain I had began in my stomach and went out through my toes. He laughed and told me, "It's got you, kid. What is the usual dose you take?" I went from that doctor feeling that this could not have happened to me. I couldn't be affected the same as the rest of the muff divers that were hanging around the corners, but I soon grew to know that the dinge [Negro] was right. From that time on I knew that the whole world would be against me the same as I had been when I had seen the condition of the other dopes around the South Side. . . . It is not a pleasant feeling to be told that you are a dope. It is something like the doctor telling you that you are suffering from an incurable disease, although at the time I did not think so.

Dr. Schultz observed that the drug user does not intend to become an addict and that he is surprised the first time he notices the withdrawal symptoms. He writes:

A drug user does not expect at first to become addicted, but addiction is impressed upon the individual as soon as the abstinence symptoms are severe enough to frighten him. He then awakens to the fatal knowledge that he is "hooked," which information other addicts are only too glad to give him. When more of the drug is taken and the symptoms are relieved, this idea of the necessity of continuing its use is indelibly impressed on his mind and accepted without much resistance, as there is, besides the pain of withdrawal, considerable pleasure and relief also.³

C. E. Sandoz comments upon the same point as follows:

People who have acquired the morphine habit and do not know about withdrawal symptoms sometimes do not realize that the latter are due to the want of the drug when they try to stop its use, but will attribute them to some other

² Interview by Mr. Steven Orskey.

³ Charles Schultz, "Report of Mayor's Committee on Drug Addiction to the Honorable Richard C. Patterson, etc.," *American Journal of Psychiatry*, X (1930-31), pp. 469-70.

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cause, and perhaps consult a physician. Occasionally in these cases, the physician himself does not suspect or recognize morphinism, and interprets the symptoms as due to some other diseased condition.⁴

A person who deliberately experiments with the drug may be regarded as looking in the wrong direction: he expects to be lured toward the drug by the well-advertised, supposedly seductive pleasures associated with it, and in consequence is not prepared for the insidious abstinence symptoms which steal upon him and force him to continue the habit. Herein lies the significance of the drug user's selection of the term "hooked" to describe the effects of the withdrawal symptoms. The following case well illustrates how addiction may sometimes come as a veritable bolt from the blue:

Case 6. Mr. G. was severely lacerated and internally injured in an accident. He spent thirteen weeks in a hospital, in the course of which he received opiates frequently both by mouth and hypodermically. He was unconscious part of the time and suffered considerable pain during convalescence despite the intake of opiates. He did not know what he was getting and noticed no effects except that his pain was relieved by the shots. He was discharged from the hospital but in several hours he began to feel restless and uncomfortable, without recognizing his condition. That night he became nauseated and vomited blood. Fearing that he was going to die, he summoned his family doctor. The physician did not realize what was the matter and administered a mild sedative. During the next day Mr. G.'s condition became steadily worse, and by the second night he was in such misery that, as he said, he began to wish that he would die. He again summoned his family doctor. This time the doctor began to suspect that Mr. G. was suffering from opiate withdrawal and prepared an injection of morphine. Mr. G. remembers nothing after the injection except that the doctor sat down by his bed and asked him how he felt. He replied that he noticed no effect, but the doctor said, "You will in a few minutes." Soon the patient fell asleep and continued in perfect comfort for many hours. When he awoke, he was informed of the true nature of the relieving dose by his wife and by the physician's comment: "Now we're going to have a hell of a time getting you off." The patient remained free of the drug for a few days and then purchased a syringe and began to use it himself.

In most of the cases reported above, it is apparent that the addict learned about the withdrawal symptoms from a physician or other addicts; in other words, in a social situation. Even

⁴ C. E. Sandoz, "Report on Morphinism to the Municipal Court of Boston," *Journal of Criminal Law and Criminology*, XIII (1922), p. 16.

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where a person makes his own interpretation of the symptoms, as in Cases 2 and 3, he does so as a result of information previously acquired from social sources—from addicts, medical reports, and popular beliefs. Of course, an individual would not necessarily and in all circumstances be unable correctly to interpret withdrawal symptoms by himself and without prior information. Apparently, mankind very early acquired some sophistication in this respect, for the effects of the poppy have been known since ancient times. As in other socially transmitted knowledge and customs, however, the drug user is not compelled to discover these truths for himself. They are thrust upon him by his social environment.

A considerable theoretical advantage is obtained if one can show that the power of the opiate habit rests upon the person's reaction to withdrawal distress rather than upon his reaction to a fleeting and often non-existent euphoria. The reversal of effects and the apparent paradox that the drug user continues his habit only to feel "normal" become intelligible, indeed, they become integral aspects of the habit. In terms of the euphoria theory they are inexplicable paradoxes and contradictions. A similar view is held by Erlenmeyer, who writes:

Precisely in the difference between the effect produced by a dose of morphine just once to a healthy person and that produced by morphine when habitually incorporated, lies the fatal development of the morphine craving. . . . If the withdrawal is made *after* this reversal, there comes into existence a "vacuum" as Legewie says, i. e., the abstinence symptoms; that host of painful sensations, intolerable feelings, oppressive organic disturbances of every sort, combined with an extreme psychic excitement, intense restlessness, and persistent insomnia. In such moments the *craving for morphine* is born and rapidly becomes insatiable, because the patient has learned during the period of habituation, when abstinence symptoms set in after the effect of the last morphine dose has passed off, that those terrible symptoms are banished as if by magic by a sufficiently large dose of morphine.⁵

⁵ Terry and Pellens, *op. cit.*, pp. 601-2. Dr. L. Guy Brown also corroborates this view, although he does not elaborate upon it. "There is still another sense in which drug addiction is acquired. If a person is given morphine or some other drug in the hospital without his knowledge of the fact, or without any previous information concerning the habit, he will not become an addict even though he suffers all the bodily 'aches' when its administration has been dis-

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The viewpoint stated above also accords with the addict's typical comparison between the opiate habit and the use of cocaine. He says that "there is no habit in cocaine," and that it is a "luxury," whereas morphine is a "necessity." Cocaine does not create a state of bodily tolerance during the early period of use, and there is no reversal of effects as in opiate addiction. Moreover, nobody under the influence of cocaine can be said to be normal, nor is the discontinuance of this drug accompanied by any organic or physiological withdrawal symptoms.⁶ One addict emphasized the contrast between the two drugs by characterizing the use of cocaine as a matter of "desire," and that of opiates as a "habit."

Since the use of narcotics for the conscious purpose of alleviating withdrawal distress causes addiction, according to the writer's theory, it may be asked: What happens if a person has used the drug long enough to cause the symptoms to appear when it is discontinued, recognizes them, but resolutely refrains from using opiates to relieve them? There is, of course, nothing extraordinary about the desire of a sick man to be well, and the original desire for the opiate to relieve abstinence distress is the equivalent of this. Why, however, does not a person who is habituated and then discovers that he is dependent upon the drug refrain from its further use and so free himself from the danger of addiction? The answer is at least two-fold. In the first place, the individual is not likely to appreciate the significance of the choice that faces him; secondly, even if he does realize it, the persistence and intensity of withdrawal distress may wear down the firmest resolution, for human nature is frail in the face of suffering. Furthermore, the temptation to

continued. Unless his suffering has been defined to him as being caused by a narcotic drug, he will not have a desire for the drug." "The Sociological Implications of Drug Addiction," *Journal of Educational Sociology*, February 1931, p. 359.

⁶ For a further comparison of the effects of cocaine and morphine in these respects, see Ernst Jöel and Fritz Fränkel, "Zur Pathologie der Gewöhnung. II Mitteilung, Ueber Gewöhnheit und Psychische Gewöhnung," *Therapie der Gegenwart*, LXVII (1926), pp. 60-63.

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use the drug to seek relief is strengthened by its availability, and the individual's failure to see that any moral issue is involved. He persuades himself that it is logical to take a shot, that there is no danger, and that he will not be trapped thereby. This rationalization becomes still easier since all that is involved is the repetition of an act to which he is already accustomed. He may intend to quit at the first opportune moment, tomorrow, the next day, or next week but not immediately. The writer has never heard of a user who, having experienced the full intensity of the withdrawal symptoms in full knowledge of their relation to the absence of opiates, did not become an addict. This fact is easy to understand when one considers the severity of the symptoms and the impression they make on the uninitiated. Note Case 6 in which Mr. G., on the second night of withdrawal, was in such misery that he wished to die.

There still remains the problem of explaining those cases in which the person knows exactly what to expect from the very beginning and therefore is aware of the withdrawal symptoms before they become severe. The most illuminating instance of this kind which has come to the writer's attention is that of Louis Faucher who, as already mentioned, deliberately experimented upon himself, taking one injection every evening for six days in succession, then stopping for fifteen days, and finally repeating the experiment. He describes his experience as follows:

My first series of injections was finished. Well and good, but night was still ahead of me. I took advantage of every opportunity so as to be able to resist more effectively. I dined out; I drank with friends; I amused myself; and I returned home very late. All of this entertainment seemed dull to me, the wine and the food seemed bad. Nevertheless, I had had the necessary diversion, and after coming home early in the morning I went to bed fatigued and slept a little. The following night I was enabled to sleep by a small dose of veronal which took immediate effect. During the following days I invariably thought of and desired the injection, when the time came, but I was able to resist.⁷

⁷ Faucher, *op. cit.*, p. 18. .

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In the second series he increased the dose greatly. The euphoria was thus increased but it lasted a shorter time after each injection:

Needless to say, these seductive hours left behind them a certain regret which caused me to stimulate myself artificially in order to combat the darkness that invaded me. It made it necessary for me to exert myself deliberately for several days in activity so as not to find life stale as an ordinary alcoholic does. In the intellectual sphere I noticed for several days an intense apathy, a remarkable disinclination to work, and a noticeable lack of decision.⁸

From Faucher's conclusions it is obvious that, in his own case, six days' injection was sufficient to produce a condition bordering on addiction. This suggests that the use of the drug to avoid the abstinence symptoms, even during their incipient stages, quickly leads to attitudes that characterize addiction. Faucher, of course, had advance knowledge and therefore noticed and understood the symptoms at once. He first became aware of them after the third or fourth dose; when the fifth dose was due he began to look forward to it eagerly. This case may be contrasted with that of the patient in a hospital who unknowingly receives the drug for weeks, months, or even years, and is none the worse when it is successfully withdrawn. The writer described Faucher's experience to an addict, whose comment was that the former was "half-way hooked."

Another border line case, showing how early and rapidly the symptoms of psychological dependence upon the drug are established, is the following:

Case 7. While in his teens, Mr. W. had an affair with the wife of a doctor who was much younger than her husband. She was a drug addict, and gave W. an injection at his own request. He liked the effects, returned for more, and used it regularly for a few weeks until the doctor sent his wife away, presumably for a cure. The doctor then discovered that the boy also had been using the drug, for the usual withdrawal symptoms set in. The doctor took him in hand and reduced the dosage gradually. The entire experience, from the first injection of the drug to its complete elimination, lasted about six weeks, and the maximum dosage attained was about one grain a day. The boy was not in a position to know

⁸ *Ibid.*, p. 23.

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how to renew his supply or to make the money necessary to continue the habit. When interviewed, he affirmed that he had not used the drug for nine years. He was using marihuana, however, and said that he felt an attraction to drugs which he compared to the fascination that dizzy heights exercises upon some people, mingled fear and desire. The fact that this man was using marihuana regularly and associated with a drug addict, suggests the strong probability of his returning to opiates. Having had only one opportunity of talking to him, the writer does not place unqualified confidence in his story, presenting it here for whatever it is worth.

Unfortunately, borderline cases are exceedingly difficult to find, so that definite conclusions cannot be made regarding the length of time it takes to establish addiction. Further research may bring more instances to light and permit a closer examination of the initial stages of addiction. For example, it would be interesting to know what the effects would be if the person who suffers intense withdrawal distress were to be informed of his condition, but prevented from obtaining any drug. Two possibilities are suggested by this hypothetical situation: either the experience would serve as a warning and a deterrent, or it would create something like the usual desire, resulting in a tendency to resume the drug at a later time. One might also reason that the individual could not truly be said to know that an opiate would relieve his suffering until he had actually tried it. In the absence of cases illustrating these borderline problems, no definite conclusions are justified.

There still remains for consideration the adequacy of the writer's theory as an explanation of the essential characteristics of addiction. As noted above, these characteristics are: a desire for the drug and dependence upon it; a powerful impulse to increase the dosage beyond the point of bodily need; an awareness of addiction and the definition of oneself as a "junkie" or addict; and the tendency to relapse into the habit when the drug has been withdrawn. The first three aspects will be discussed here, the fourth in a later chapter.

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THE DESIRE FOR AND DEPENDENCE UPON THE DRUG

Before withdrawal symptoms drive the user to continue injection, the purpose which opiates serve and the motivation behind their usage are distinctly different from those of the chronic stages of addiction. At first a person may use drugs to alleviate pain, to produce pleasure, or simply to be sociable. Mr. A. R., an addict known to the writer, stated that before his initiation he had looked upon needle users with disgust and opium smokers as creatures of a different world. His story follows:

Case 8. Mr. A. R. began to mingle with habitués and gamblers before he was twenty. He was in poor health, and had been sporadically spitting blood for more than a year when an older man who smoked opium noticed it and made inquiries. "You'd better smoke hop" was his advice. Mr. R. soon acquiesced and accompanied the man to an opium smoking joint. He liked his first trial very much. "I kept myself so full of hop for the next eight months that I didn't have a chance to find out about being sick. I just liked it and used it. I didn't think about whether it was habit-forming or not." On one occasion, when he accidentally happened to omit smoking, he began to yawn and to manifest the usual symptoms; without any great difficulty he realized that opium was the cause, yet continued its use for about four years without thinking of quitting. He stopped spitting blood shortly after beginning to use the drug, but does not pretend that that is why he continued to use it. He says that he liked opium so much at first that he used far too much, and got himself into a state of drowsiness and sluggishness which he found unpleasant.

The casual way in which the drug was first used may be compared to the manner in which a child sometimes eats candy simply because he enjoys its taste, without any thought of ultimate consequences. Opium, too, may be desirable at first, but unlike candy it becomes a necessity with continued use. Mr. R. still regards opium smoking as the most satisfactory form of addiction, but its continuance is now less a matter of desire than of necessity. This element of compulsion is characteristically absent during the initial use of the drug. The following case also illustrates the casual character of the first usage.⁹

⁹ From unpublished documents collected by Bingham Dai.

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Case 9. Mr. X., at about the age of eighteen, began to live with a prostitute who smoked opium. After spending his first night with her, he describes his subsequent experiences as follows: "We slept most of the day until late afternoon, and when I woke up she got up and got a tray out of the dresser drawer and brought it over and placed it on the bed. I had seen opium pipes two or three different times since I had been working on the messenger force, so I recognized the contents of the tray as an opium layout. She told me she was a smoker and asked me if I had ever smoked hop. I told her I never had and she said that I ought to try it once, as she was sure I would like it." He then smoked. "I suddenly became very nauseated and had to leave to vomit. I vomited till there was nothing left on my stomach and I was still sick so I went to bed. She wet some towels with cold water and put them on my forehead and after an hour or so I fell asleep. I slept two hours and when I woke up I felt all right again. I went to work that evening as usual, and every time I would sit down in the messenger office I would feel drowsy and fall asleep and my body would itch all over and when I scratched it would feel awfully good."

The next night the girl again offered him a smoke. "It made me so sick the night before that when she started cooking the opium this morning it seemed to kind of nauseate me again. So I declined, and told her that I didn't feel very well, and I wanted to get some sleep. . . . As soon as we were awake she again got the tray and lit the lamp and got back into bed and started to cook her opium again. She cooked and smoked six or eight pills as I lay there watching her and then she again offered me some. I told her that I was afraid to smoke again for fear that it would make me as sick as I was the night before. She told me that it wouldn't make me sick this time, and she coaxed and coaxed until I finally gave in and said all right, that I would smoke a couple pills with her just to be sociable.

After I had lived with her for six or seven months she told me that she had a letter from a sister who was very sick, so she asked me if it would be all right if she went to Helena to see her. I told her to go if she wanted, so I gave her enough money to go with and took her to the train. We had smoked just before she left and she had packed the layout in a small handbag and took it with her. I worked that night as usual and everything went along fine, until I went home in the morning, and then I started to get sick. I went to bed, but I couldn't sleep. I felt very restless and I rolled and I tossed all day. Towards evening I began getting awful cramps in my stomach and was also nauseated and started vomiting. I had not eaten any food all that day, so there was nothing on my stomach but a little water, and when I started vomiting nothing came up but green bile and the more I vomited the sicker I got. I finally rang the bell and sent for a messenger, and when he came I told him to tell the boss that I was sick and wouldn't be able to come to work that night. The messenger asked me what was wrong and I told him I didn't know. I told him that I had awful cramps and was vomiting all the time. He asked me if I had been smoking every day with my girl and I told him I had. Then he asked me if I had had any opium since she had gone to Helena, and I told him that I hadn't. He told me that was the reason why I was so sick. . . . He looked in the drawer and found a jar of opium, so he cooked some and gave me three pills. He went to the restaurant

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and got me a pitcher of black coffee and told me to swallow the pills and drink some of the coffee. I did as he told me, and laid down on the bed again, and in about ten minutes I began to feel all right again. This was the first time that I had missed smoking in the six months that I lived with this girl.

It is evident that Mr. X was not preoccupied with opium during these six months. His chief interest, naturally, was his first major sex experience. His apparent unconcern about his future supply of the drug is striking, and contrasts sharply with the behavior of the confirmed addict. Keeping in mind the casual or episodic character of initial use before withdrawal symptoms have achieved dominance, it is instructive by contrast to observe the addict when his supply is threatened or actually cut off. Light, Torrance, and their colleagues describe the behavior of addicts who *voluntarily* took the cure under their care:

After a person has become firmly addicted to the use of opium or one of its derivatives, we have reason to believe that the problem of securing and maintaining an adequate supply of the drug comes to mean the major purpose of his existence. To an extraordinary degree he comes to develop a sagacity and persistence in this direction which may outmatch the abilities of those conducting the investigation. The ingenuity that is displayed in maintaining channels of supply is amazing. We have come to believe that practically every word which the addict utters, and every deed which he may perform are based directly or indirectly on a motive concerned with the maintenance of these channels of supply. He will plead with or threaten those about him who are in a position to supply him with the drug. Whatever method he may use has been previously determined by careful consideration on his part as to which may be the more successful. . . . When the addict is admitted to the ward and understands that the drug is available and will be given for a time, he is amenable. He is co-operative in anything which does not interfere with his daily dosage. . . . But when the effect of the drug passes off, all the sagacity and ingenuity on his part are brought into play, as only those who have been associated with this type of person can appreciate.

Not only must the observer forestall the schemes which the addict is devising to obtain the drug, but he must defeat plans, made before the admission, for the restoration of his supply should his craving become unbearable. He may have attempted to bring the drug into the ward concealed in his clothing, jewelry, or in any orifice of the body large enough to hold it. . . . Should his attempts to bring a certain quantity into the ward have failed, he resorts to plans devised to obtain it from friends outside of the hospital, or he schemes with fellow addicts who are about to be discharged, and who have signified their intentions to him

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of immediately returning to the drug. He will attempt to bribe anyone who appears open to temptation. Letters will come addressed to him which have been written on paper previously saturated with the drug, dried, ironed out, and then inscribed with some harmless message. . . . Sometimes the drug is concealed under the stamp of an envelope. The wooden stem of a match changed into a cylinder has been found to contain a drug. He will accuse or betray his best friend in order that he may obtain favor from those in charge. Telegrams and telephone messages will arrive, bringing the news of the death of a member of the family, asking his immediate return home. These are but a few of the methods employed to obtain drugs, and unless forestalled, they will ruin any studies made during the withdrawal period. In addiction, there is always danger that the patient may be aided by a fellow addict who may have drugs in his possession, or by a drug peddler who will furnish drugs without charge when it insures him the return of the addict with funds in the near future.

The scopolamine treatment that we have employed has always been stated by the patient, who has been previously treated and who wishes to enter the ward, to be "the best he has undergone, all others being torture." When he is just recovering from the effects of the scopolamine, it is the "worst," all others being excellent. When the time approaches for his discharge, and he is anxious to obtain his liberty, the treatment again becomes the most successful he has ever had; he appears to have fully recovered his normal strength, when he may still be so weak that he may not be able to walk several blocks without collapsing.¹⁰

The fact that the patients here described volunteered to have the drug gradually eliminated, and then behaved in this manner, suggests the desperate preoccupation of the addict with the maintenance of his supply. This preoccupation arises from the addict's apprehension of the consequences of deprivation; it depends, in other words, upon his anticipation of the withdrawal symptoms. Before realizing that there are withdrawal symptoms, or understanding their true nature, the addict is naturally not interested in the problem of supply. Not comprehending that the drug has become a daily necessity, he supposes that he can stop taking it any time he wishes. The following sentiments of a true addict remain essentially unintelligible to anyone who has not himself been tortured by withdrawal:

To the opium consumer, when deprived of this stimulant, there is nothing that life can bestow, not a blessing that man can receive, which would not come

¹⁰ Light, Torrance, et. al., *op. cit.*, pp. 7-12. Reprinted by permission of the *Journal of the American Medical Association*, publishers.

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to him unheeded, undesired, and be a curse to him. There is but one all-absorbing want, one engrossing desire, his whole being has but one tongue—that tongue syllables but one word—morphine.

Place before him all that ever dazzled the sons of Adam since the fall, lay sceptres at his feet and all the prizes that vaulting ambition ever sighed and bled for, unfold the treasures of the earth and call them his; wearily, wearily will he turn aside and barter them all for a little white powder.¹¹

From his experience in avoiding the withdrawal symptoms which recur after each injection, the addict comes to regard himself as being supported, or as he says, “carried” or “held up”¹² by the drug at all times. Whenever he omits a regular dose, he feels himself slipping into a state of mental and physical depression which seems to him unbearable. This realization of being constantly supported by the drug makes apparent the fact that the addict’s normality is self-conscious and introspective, and inextricably related to the presence in his body of a sufficient quantity of opiate. If he has had his supply, the addict, when asked how he feels, may answer, “Fine!” and perhaps add, “The shot I had this morning is holding me up well.” It is as though an ordinary person, when asked the same question, were to reply, “I am feeling fine. The dinner I had this noon is holding me up well.”¹³

The desire for opiates, which begins after the initial period of use as a relief from physical suffering caused indirectly by the opiate itself, grows rapidly with the continued use of the drug. Every additional dose makes it more difficult and painful to quit. Every fruitless struggle to free himself from the habit only impresses upon the addict his imperious need for the drug. The beginner does not usually have the information that would enable him to fight the habit intelligently and effectively. The expenses and discomforts associated with the habit in its early

¹¹ “Sigma” “Opium Eating,” *Lippincott’s Magazine*, April, 1868, p. 406.

¹² Cf. Glossary, Appendix I.

¹³ See also Chapter VI for a discussion of the differences between the “normality” of the addict and that of the non-addict. Scarcity of food results in preoccupation with the means of obtaining it and one might perhaps argue that there is a parallel between addiction to drugs and addiction to food.

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stages are not sufficiently pronounced to furnish him with a powerful enough motive for combating the desire to be relieved of withdrawal distress. Consequently, by the time the beginner has fully awakened to the seriousness of the situation, the habit is likely to be irrevocably fastened upon him—in other words, he is “well hooked”.

The most substantial pleasures associated with addiction are probably actual relief and exaggerated anticipation of this relief. To a considerable extent, the addict's life is one of anticipation; of withdrawal, of a loss of supply, and of the relief which is sometimes glorified as pleasurable in itself. When he does suffer, he exaggerates his distress.¹⁴ During the initial stages of withdrawal, every slight stomach cramp, which De Quincey described as “the gnawing of some imprisoned reptile,” is endowed with some of the significance and painful attributes of all the stomach cramps the user knows there are to follow. The suffering becomes all the more unendurable because the means of relief are so simple.

THE INCREASE OF THE DOSAGE

Although not every addict increases his dosage greatly beyond the point of bodily need, probably all have the impulse to do so; success in controlling this tendency comes only through resolute will and calculated self-control. Dosage may be divided into two parts: first, the daily quantity necessary for comfort, and second, the additional amount which the user *believes* to be necessary. This “de luxe” dose,¹⁵ as the latter has

¹⁴ T. D. Crothers, *Morphinism and Narcomanias from other Drugs* (Philadelphia, 1902), p. 222, states, “The addict's conceptions of pain are very largely anticipatory and imaginative, and associated with mimicry.” The implication that the withdrawal distress is unreal or slight is incorrect, but the author evidently perceived the importance of the imaginative and anticipatory aspects of the habit. It is only fair to repeat that the withdrawal distress is not trivial. Its severity accounts for and enhances its influence on the imagination of the addict.

¹⁵ Terry and Pellens, *op. cit.*, p. 553. Roger Dupouy, following Joffrey, called this part of the daily dose “the proportion of luxury.”

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been called, represents for the most part just so much more expense and trouble. Its physical effects are detrimental, yet it is usually regarded as a necessity, and the addict will often move heaven and earth to maintain a daily consumption far exceeding that which would result in maximum physical efficiency. The *de luxe* dose may thus be said to represent a psychological rather than a physiological need. Its psychological character is evident, from the fact that an addict using large quantities daily may have the amount cut to a fraction of its former level and be none the wiser, providing he is unaware of the reduction. His condition tends to improve when this is done, but when he attempts to reduce his own dosage, even though he is fully aware of the resulting benefits, he finds it difficult or impossible.

This irrational tendency to increase the dosage may be interpreted, according to the writer's theory, as the result of an increased sensitivity to the withdrawal symptoms.¹⁶ As the user becomes familiar with these symptoms, he learns to detect the very first signs; these warn him of future distress and as a result he is inclined to magnify their extent and importance. He feels sicker than he really is and since he regulates the time of each injection by the way he feels, he is impelled to use the drug sooner than otherwise. Then, having taken the dose prematurely, he finds that he does not "feel the shot" as he did the last time. The effects of an injection are noticed in proportion to the contrast between the states *before* and *after* the dose takes effect; it follows, then, that in order to "feel his shot" the addict must now increase the size of the dose. The impact of the drug has become a symbol of security from withdrawal; if, however, he takes his injections a little sooner than before, the symbol is blurred, and in order to restore it he must use a greater quantity. The process is further promoted by the tendency of the organism to adapt itself to doses of any

¹⁶ Cf. Case No. 164 in Dansauer and Rieth, *op. cit.*, pp. 109-110.

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size. Caught in this vicious circle, the addict's consumption often is limited only by the tremendous expense involved.

A further incentive for increasing dosage is often found in the addict's realization that he is trapped. Since he must, in any case, continue the shots, he throws caution to the winds and seeks the greatest possible satisfaction. Having learned to value the physical impact of the drug for its symbolic significance, he may strive to enhance this symbol quantitatively. As a result, he creates the illusion that he feels well even at the expense of greater financial outlay and actual physical discomfort.

THE AWARENESS OF ADDICTION

The awareness of addiction, and the admission that one is "hooked" date from the moment that withdrawal distress bars the way to voluntary abstinence. The full realization of addiction comes gradually; it is reasonably complete after the beginner has succeeded in staying off the drug for a period of time, fortified by the best intentions, only to find himself using it again. The first experience with withdrawal distress convinces him that it is hard to quit, but often he continues to cherish the belief that, despite the difficulty, he will eventually succeed. The first awareness of dependence, of being confronted with the problem of quitting, or of asking why, if it is so easy, he does not quit, may lead to a revulsion against the habit. The net result of this struggle only further impresses the fact of addiction upon the individual. The struggle to quit is almost an invariable reflex of the awareness of addiction.

As soon as the user realizes that he must begin to plan for his future supply, he is ripe for assimilation into the drug addicts' culture. It is now vital to know others of his kind from whom he must obtain his supply. He thus learns the various devices and customs by means of which his problems are solved. The following case describes this assimilation process:

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Case 10. Mr. Q., a professional criminal, began to use drugs about 1925, when his wife died. He drowned his sorrows in liquor, and one night, as he was coming home after considerable indulgence, he was accosted by an addict who had often begged money from him before. Knowing that the man was an addict because he had been pointed out as such, Mr. Q. decided to play a joke on the beggar by pretending to arrest him. Then, dropping this pose, he decided on the spur of the moment to try some morphine. They went to the beggar's regular agent and the purchase was made. Mr. Q. took a very small injection and gave the rest to the addict. He greatly enjoyed the sensation produced by the drug. Several weeks later, the addict looked up Mr. Q. in order to get help in obtaining a supply, offering to share the returns fifty-fifty. Mr. Q. had had no intention of using the drug, but agreed to help, so the addict insisted that Mr. Q. accept his share. He first refused, then accepted the drug and took it home, forgetting about it for quite a while. He had no means of administering it at this time. One day a friend who ran a small business establishment moved into new quarters where he found an all-metal syringe concealed behind the molding. Mr. Q. took it home and, finding that it worked, began to use his little supply of morphine. When it was exhausted, he noticed that he wasn't feeling entirely right, and remembering that morphine had helped him before when he felt depressed, he decided to try to buy more. He went to the place where he and the beggar had first purchased some, and there, by sheer accident, met a man who had a large bottle of the stuff which he was willing to sell cheap. Mr. Q. commented, "Well, I took it home, and really got hooked on that stuff. Before it ran out I knew that I would have to have more, so I went out and made connections."

When asked how he knew that he was addicted, he explained, "I used to take a couple of shots a day of the stuff, and then I noticed that I was beginning to depend on it, so I thought I'd do without it one day and didn't take my morning shot. Well, along in the afternoon I was with some of the fellows in a saloon somewhere, and I was feeling rotten and yawning all the times. One of the fellows was an addict and asked me if I had a yen.

"'What the hell's a yen?' I asked, and he said it came from having the drug habit. He asked me if I was taking morphine at home, and I said I was, about two times a day.

"'When did you have your last shot?'

"'Yesterday afternoon.'

"'And you didn't have anything this morning?'

"'No.' He asked me if my legs hurt, and they did.

"'Why, Jesus Christ!' the man said, 'You've got a habit and don't know it.'

"I went home and on the way I thought I could hardly make it because my legs were so wobbly. Well, when I got home, naturally I was feeling bad and wanted to feel better, so I fixed up a shot and thought I would see if that fellow was right. In a few minutes I was all right, feeling as lively as a spring chicken. Naturally, I began to find out what I could do about the habit by talking to addicts and by reading."

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By way of contrast is the case of Mrs. D., who suffered from withdrawal symptoms but did not use the drug to relieve them:

Case 11. Mrs. D. received morphine for about a month because of an illness. A relative, who was a doctor, was free and easy with morphine, leaving it at her bedside. She does not recall how much she used or how often, and noticed only that after a dose she would feel stimulated and would want to talk and play cards. She noticed no let down when the effects of the tablets wore off and after approximately a month, her condition was improved and the drug was to be discontinued. Withdrawal symptoms appeared and were reasonably severe though they were not accompanied by nausea or vomiting. She realized fully that these were due to the cessation of the drug, noting chiefly restlessness, nervousness, and aching joints. A number of times it occurred to her to try morphine, but inasmuch as it was no longer called for, and because she recalled that it was not supposed to be good practice to go on using it when the illness was gone, she did not do so. In two days the symptoms disappeared.

She asserts that if the distress had been severe, or if her original ailment had returned, she would unhesitatingly have taken more drug, yet she is quite sure that she could not have become an addict.

This confidence of the individual who has used the drug but has not been properly "hooked"—this feeling of immunity—commonly precedes addiction. Few normal, healthy persons ever believe that they can become addicts, and this very self-confidence facilitates the process of getting "hooked."

CONCLUSION

According to the viewpoint outlined above, addiction to opiates is determined by the individual's reaction to the withdrawal symptoms which occur when the drug's effects are beginning to wear off, rather than upon positive euphoric effects often erroneously attributed to its continued use. More specifically, the complex of attitudes which constitute addiction is built up in the process of conscious use of the drug to alleviate or avoid withdrawal distress. This theory, though simple in form, has considerable explanatory value, and offers a means of accounting for varied and paradoxical aspects of the habit, such as the addict's claim that he feels normal under the drug's

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influence, as well as his tendency to increase the dose to a point where its use becomes much more unpleasant and burdensome than it need be. The hypothesis presented makes intelligible the constant preoccupation of the addict with the drug, and explains how the unpleasant and unwelcome appellation "dope fiend" is forced upon him.

The psychological experience which marks the beginning of addiction and which forms the matrix in which the complex of distinguishing symptoms are generated may be analyzed into the following essential and interrelated steps: the perception of the withdrawal symptoms as being due to the absence of opiate drugs; followed by the use of opiates as a cure for these symptoms and for the conscious purpose of keeping them suppressed. Out of the growing sensitivity to the withdrawal symptoms, there inevitably arises a powerful tendency to increase the dosage beyond purely physiological requirements. As shown in a later chapter, the attitudes and knowledge derived from this experience persist long after the consumption of the drug has been stopped and the patient is restored to health, and they act as predisposing factors toward relapse.

One of the chief advantages of the theory presented here is that the well-known and undeniable physiological aspects of drug addiction are not ignored; they are accounted for rationally, for it has been shown that physiological conditions are not sufficient to cause addiction. They operate in this manner only when understood by the individual who experiences them. They must be conceptualized and incorporated into a structure of meaning before they significantly determine human conduct. As has been pointed out, each of the various possible interpretations of these symptoms presented by the envioning culture carries its own special implications or plan of action. The person who regards them as the beginning, let us say, of an attack of grippe, acts accordingly and consults a doctor; the person who regards them as symptoms of the absence of opiates also

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acts accordingly—he tries the drug and becomes an addict, acquiring the customs and attitudes which other users impart to him. He applies to his own conduct the generalized symbols which the group applies to it; this also means that the drug user assimilates the attitudes and sentiments which are current in his social milieu. At first he struggles against the unpleasant implications involved, but eventually he is compelled to adjust himself to the prevailing conceptions, to admit that he is an addict, and to rationalize his conduct and make it intelligible and tolerable to himself.

The manner in which an individual assimilates experiences into his personality by conceptualizing them in terms of categories which he obtains from the society in which he lives has been described as follows by Charles Blondel, a follower of Durkheim:

We do not conceive reality as it actually is, but as the group to which we belong conceives it and wishes us to conceive it. This is true not only of external reality but also of internal reality. To think is to speak one's own thought. To understand clearly a state of mind, no matter how personal it may seem, means to apply to it the social categories which the group has created for it. It means to be affected by the value assigned to this state of mind by the group, and even to identify the mental state with the value and categories applied to it.¹⁷

The process which Blondel describes, and which we have shown to be the central process in the establishment of addiction, presupposes the individual's membership in social groups, and his ability to communicate with his fellows in terms of language symbols. Addiction is therefore confined exclusively to man living in society.¹⁸ It depends upon those complex functions which are made possible only by the existence of the symbolic structures of language.

¹⁷ George Dumas (ed.), *Traite de Psychologie*, II, p. 412

¹⁸ Cf. S. D. S. Spragg, "Morphine Addiction in Chimpanzees," *Comparative Psychology Monographs*, XV, and our comments on Spragg's work in Chapter VII.

CHAPTER V



THE PROCESS OF ADDICTION

THE USUAL CASE

The view outlined in the foregoing chapter calls for a resume of the evidence regarding the role of withdrawal symptoms in addiction in order to determine whether the theory is valid. Are there cases in which addiction is established in other ways than those described? Are there users whose reactions do not conform to the pattern outline? Are there habitués who have used the drug consciously and deliberately to avoid withdrawal distress, but who nevertheless escaped the addiction? The main lines of evidence presented here offer the means of testing the proposed theory and of supplying answers to questions such as these.

The writer found no case among those with whom he was personally acquainted that gave any reason for discrediting the theory. Obviously, all drug addicts experience and understand withdrawal symptoms and, in view of the well-known diminution of positive effects would not use opiates in increasing amounts daily if it were easy to quit or if it were no more difficult, for example, than to stop eating ice-cream. The cases investigated by the writer may be grouped into two main classes, according to first experience with withdrawal symptoms. The

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first group became acquainted with them suddenly, at a critical moment occasioned by withdrawal distress in an acute form. The initiation of the other group was gradual, either as a result of previously acquired information, or because recurrent experience with the symptoms in a mild form had effected a progressive realization of their significance. In this instance, the chronic user suddenly becomes apprehensive but decides, without realizing that he is "hooked," to stop using the drug in order to see what will happen. When he delays an injection for half an hour or so, the withdrawal symptoms persuade him to postpone the program of abstinence. As a result, he renews the use of the drug with a fuller realization of the habit's insidiousness. Through repeated experiences with such brief attempts at abstinence, he may gradually build up a thorough understanding of his dependence upon the drug, without passing through the critical type of withdrawal experience that characterized the majority of cases.

One chronic user told the writer that in his first experience with narcotics, he was quite confident of his capacity to resist. Later he "began to be afraid of himself" and, in a gradual process of transition, came to a point where he "had to have it." He confided, "Whenever I was full of it, I would wish that I wasn't using it, but when the effects began to wear off, I'd go out for more." In this process, no sudden realization of addiction occurred, and even when encouraged to give a detailed account, he continued to describe his experience as a gradual and continuous transition. This case is at the opposite pole, with all degrees of reaction between, from that in which the realization of addiction comes as a sudden fatal flash of insight in connection with severe and prolonged withdrawal.

Addicts of the class to which this case belongs may fail spontaneously to emphasize the role of withdrawal symptoms simply because the sensations were gradual and unimpressive, or because the whole experience seemed self-evident.

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Nevertheless, as Terry and Pellens state:¹ "It is self-evident that there can be but one direct cause of addiction, namely, the continued taking of the drug over a sufficiently long period to produce upon withdrawal distress of some kind to the patient." Formal attempts at defining addiction invariably include withdrawal distress. In this connection, Emil Kraepelin's statement is pertinent. He writes:

The severity of the symptoms of withdrawal varies to an extraordinary degree. It depends upon the size of the dose, the duration of the addiction, the general condition of the patient, and the individual tendency. Sometimes the disturbances are limited to a little diarrhea, sweating, excitability and insomnia, while in other patients the condition becomes exceedingly severe, threatening life. My experience, however, does not include an instance of withdrawal wholly without discomfort. When the manifestations are very mild or the health altogether undisturbed, morphine is unquestionably being supplied clandestinely.²

As a matter of fact, the addicts interviewed by the writer regarded withdrawal symptoms as a perfectly obvious and essential aspect of addiction, and could not conceive of addiction without them. This explains the belief among "dope fiends" that "there is no habit in cocaine." Withdrawal symptoms determine for them whether or not a drug is "habit forming." This conception of habit, of course, is not identical with the common meaning of the term.

LINGUISTIC EVIDENCE

A consideration of the argot of the addict also reveals that withdrawal symptoms hold the center of the stage.³ Of primary importance is the word "hooked" as synonymous with "addicted." The mechanical analogy embodied in this term could scarcely be more appropriate. The reference to withdrawal symptoms is obvious. The rationale is that anyone who

¹ Terry and Pellens, *op. cit.*, p. 134.

² Quoted in *ibid.*, p. 197.

³ See Appendix I, Glossary of Addicts Argot. Cf. David W. Maurer's "The Argot of the Narcotic Underworld Addict," *American Speech*, XI (1936), pp. 116-27.

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is "hooked" has used the drug so long that if he tries to stop the withdrawal symptoms which occur will compel him to continue. Naturally, the addict is not faced with the necessity of making an analysis sufficiently precise to distinguish between those who are "hooked" and know it, and those who are "hooked" without knowing it. Should a novice fail to recognize the cause of his misery in his first experience with withdrawal distress, the addict attaches little importance to the enlightenment of the sufferer. Since his own tendency is to identify withdrawal symptoms with the drug habit, a user suffering withdrawal distress must, *ipso facto*, have the habit. It is simply regarded as interesting or odd that some addicts do not understand these symptoms the first time they are experienced.

The possibility of receiving the drug without knowing it, suffering withdrawal symptoms when it is removed without realizing it, and not becoming addicted, is admitted by the addict. Such persons, however, are not regarded as being "really hooked"—implying that the process of being "really hooked" involves not only withdrawal symptoms but also realization that they are due to the absence of the opiate. Furthermore, when an addict inquires of someone whom he meets for the first time, "Have you been hooked?" an affirmative answer not only implies a withdrawal experience, but also a recognition of it. On the other hand, an individual who had been "hooked without knowing it" would not be likely to comprehend the question, and if it were explained he would answer in the negative.

Anyone who has ever been "hooked" is regarded by other addicts, as one of the "in-group." Whether or not he is using opiates at the moment, he is considered "one of the boys," a "junkie," "user," or as an "ex-junkie"—never a "square John" or non-addict. The addict who is temporarily not using drugs is familiar to other addicts and is regarded with tolerance and encouraged in his efforts to stay "off the drug." He is never

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viewed as an outsider. Since other addicts remember only too well their own helpless efforts to quit, they fully appreciate the position of the former user. Consequently, they wish the abstainer good luck by such remarks as "I hope you make it; I can't." Between the addict who is using drugs and the one who is not there is never the social barrier that separates the addict from the non-addict.

In the present study, drug users were asked in their own vernacular whether they had ever known or heard of an habitué who had experienced withdrawal and used the drug to avoid these symptoms without becoming addicted. The writer asked the self-contradictory question, "Have you ever heard of a person who got hooked without becoming an addict?" or "Did you ever hear of an addict who was never hooked?" Both questions were meaningless to addicts, and the writer was compelled to explain the problem. To the drug user, to be "hooked" is to be addicted and to be addicted is to be "hooked."

Another term, "yen," is used popularly as a synonym for "desire;" for example, "I have a yen for a piece of pie." In the addicts' argot, this word signifies the desire for narcotics incidental to abstinence distress. In this sense, the drug user who is full of narcotics cannot feel a "yen," nor can he feel it after he has been in prison a few months and the withdrawal symptoms subsequent to the removal of the drug have vanished. The desire for narcotics that persists after abstinence symptoms have vanished is not called a "yen" by addicts.⁴ On the other hand, the term is actually applied to the withdrawal symptoms as such, whether they are understood or not by the individual experiencing them. Thus, it will be recalled that in Case 10⁵ Mr. O., who was yawning and "feeling rotten," was asked if he had a "yen." This question was evidently asked, not because Mr. O. had verbally expressed any desire for narcotics, but because he

⁴ Cf. Chapter IV.

⁵ *Ibid.*

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yawned constantly and showed other physical symptoms of opiate withdrawal. The identification of withdrawal symptoms with the desire for narcotics is evident in the warning frequently given to those who experiment with the drug: "You'll put too many shots too close together sometime and wake up some morning with a yen." In other words, the "yen" or "desire," which is basic to addiction, is so inextricably bound up with withdrawal distress that the two are designated by the same term. The writer once jokingly remarked that he was talking so much about drug addiction, withdrawal, etc., that he was beginning to wonder about the possibilities of developing a "yen." The addict's reply was that "it can't be done by proxy."

As further evidence it may be mentioned that when a drug user declares that he "feels his habit," he means that the distress of withdrawal is approaching or is being felt. On the other hand, the addict who has all the drug he wants does not "feel his habit." Another significant usage distinguishes between the "pleasure user," or "joy popper," and the addict. A "joy popper" is simply an individual who uses the drug intermittently and *who has never been "hooked."* It is true that most of the so-called "pleasure users" eventually become addicted, but as long as they indulge in sufficient moderation to avoid severe withdrawal symptoms, they are sharply distinguished from those who have been "hooked" and they do not regard themselves as addicts. Those who smoke opium only once a week are called "pleasure smokers", or they may be said to have a "week-end" or "ice cream" habit. These terms indicate how the addict's conception of the opium habit differs from that of the general public. The addict's own attitudes towards addiction may be summarized by his saying, "Once a junker, always a junker." A drug user elaborated this idea to the writer in the following words: "Any man who has ever been hooked that says he doesn't want to use morphine again is either a damn fool or a liar."

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IMMUNITY TO MORPHINE EFFECTS

The wide range of differences commonly observed with respect to withdrawal effects suggests that certain individuals may use the drug with impunity, or at least without suffering much distress. It is well known that in certain rare cases the drug may have other than the usual pleasant effects during the initial period of use.⁶ In such cases, continued injection does not produce tolerance, but simply results in progressively aggravated distress. Such persons obviously cannot become addicted. Are there, on the other hand, persons who obtain the usual pleasurable effects from opiates without experiencing the customary withdrawal symptoms? In this connection, the writer was astonished by the report of an unusually reliable addict concerning a user who was ostensibly immune to the withdrawal symptoms. Since no other pertinent information is available on this case, it is reported with a frank acknowledgment of its hearsay source.

Case 12. Mr. Y. was accustomed to the periodic and excessive use of liquor, as well as that of morphine, in association with drug addicts residing in a small Illinois town. According to the informant, who was a professional thief, Mr. Y. used morphine regularly for at least two weeks and probably longer. At the end of this time he stopped it abruptly, gave away whatever morphine he had left, and went about his affairs. The addicts with whom he had associated were dumbfounded at his casual attitude toward the drug and his ability to withstand addiction. He himself was astonished, and discussed the situation with his friends. With the exception of a pain in his back lasting only a few hours, he noted nothing unusual after he stopped, and had neither an inclination to use the drug steadily nor a craving for it. In fact, he considered the behavior of addicts with as great surprise as they did his. Their constant conniving and sacrifices to keep themselves supplied with the drug were absolutely unintelligible to him and he told them so. In his entire association with these men he never succeeded in acquiring an understanding of them nor did he become addicted. One occasion particularly impressed the informant. Setting out to attend the funeral of a mutual friend who had died from an overdose of morphine, the whole group stopped their automobile in front of the public library to administer shots of morphine in the library wash rooms. Mr. Y. was amazed and remarked upon the utter absurdity of a group of apparently sane individuals attending the

⁶ Known in medical parlance as "feline reaction."

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funeral of a user who died from the effects of morphine and finding it necessary to consume the same poison before going to the funeral!

Since there was no way for the writer to communicate with Mr. Y., he questioned the informant closely. No motive for exaggeration or distortion of the facts was found and the story is offered for what it may be worth.

THE FIRST SHOT

At first glance it may seem that those cases of addiction in which the results of the first injection were tremendously impressive, necessitating continuous use, are exceptions to the theory under discussion in that addiction may have preceded the experience of withdrawal symptoms. A very intelligent addict, asked to explain the drug habit, cited his own case to support his contention that the very first injection was decisive:⁷

Case 13. Mr. F. was wounded in World War I, and during his convalescence in an English hospital, was employed by the hospital authorities. He had expected the work to be easy, because of his condition, but found instead that he had to spend fifteen to sixteen hours a day at it. Consequently, he became very exhausted, and in an effort to overcome his chronic fatigue, drank whiskey in small quantities in company with other members of the staff. As he said, "For months I wasn't either entirely sober or entirely drunk." The drug supplies of the hospital were under his care, and one day he determined to try a little heroin to see if it would help overcome his chronic fatigue. He sniffed a little and found the effects marvelous. It not only enabled him to work long hours, but gave him enough energy for recreation and entertainment. He used the drug a little each day for two months.

At this point in his story he stopped, feeling that he had sufficiently explained the crucial importance of his first experience. Encouraged to continue, he reported:

After two months of using the drug regularly, he went on a short vacation without taking a supply, for it did not occur to him that there was any need for it. Gradually he became more and more affected by withdrawal distress. At first he was unable to diagnose his trouble, but eventually he realized what it

⁷ See Chapter II.

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was. The symptoms became so severe that he was forced to take the train back to the city where he worked in order to replenish his supply. It was then he realized, though in an incomplete way, that he "was hooked." After about six months he returned to America, using the voyage as an opportunity to quit his habit. He threw his supplies overboard. Persons on board attributed his withdrawal symptoms to sea-sickness. After surviving the abstinence distress, he was certain that he could stay off the drug, but he relapsed after about six months, stating that he was then convinced that "this thing was stronger than I was."

In spite of Mr. F's theories, it should be noted that in his case, as in others, the drug was continued for reasons intimately associated with the very use of the drug itself and not because of the original drive. The fact that Mr. F. abandoned his source of supply without providing for future needs demonstrates that his attitude toward the drug did not at that time qualify him as an addict. What really impressed addiction upon him was his experience with the acute withdrawal distress during the sea voyage. Evidently during the first four months of use the withdrawal symptoms were an unconscious and unrecognized factor which favored the continuance of the drug, although Mr. F. himself thought that he used it solely to avoid fatigue and to increase efficiency. After his experience with withdrawal, however, these symptoms became conscious factors in his conduct.

Mr. F.'s story may be considered representative of cases in which the initial trial of the drug was so pleasurable that it was continued long enough to insure addiction. In such cases one may speak of a habit of using the drug and desire for it, preceding actual addiction. However, both of these features can scarcely be compared with the "desire" or the "habit" involved in addiction.⁸ Mr. F. would undoubtedly have discontinued the opiate without the least hesitation had his abstinence program been unattended by extreme fatigue and distress. Thereafter, he learned to desire the drug for its own sake and to use it whether or not he was fatigued. In a discussion of similar cases, manifesting what the authors call a primary or pre-existing

⁸ The reasons for this statement have been elaborated in Chapter III.

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desire for some sort of euphoric drug, Ernest Jöel and Fritz Fränkel say:

The unusual and complicating aspect of this second phenomenon is that the continued use of morphine with the gradual development of tolerance and the appearance of withdrawal distress upon the removal of the drug, leads to a morphine-hunger which has not the slightest connection with the original desire for euphoric drugs . . . It is possible to make a drug addict out of anyone, regardless of his constitutional make-up.⁹

In the same connection, Kolb comments:

The original impulse (toward narcotics) may have subsided long ago, but this new craving grows stronger and is more difficult to throw off the longer the drug is used. Normal people, who never had an intoxication or narcotic impulse, are as much subject to it as the inebriate.¹⁰

Elsewhere the same author asserts:

"It thus happens that the drug taken in the beginning because of its power to raise an inferior individual above his normal level, must be taken in the end to keep him from sinking below it and to relieve conditions that the drug itself has produced."¹¹

SELF-EXPERIMENTATION

A consideration of cases of self-experimentation by technical workers with advance theoretical knowledge of the habit presents interesting problems. If one assumes, for example, that a thorough-going acquaintance with the phenomenon of addiction confers upon the investigator the ability to control his reaction, it follows that opiates could be systematically used for relatively long periods without inducing addiction. Louis Faucher, as noted above, may be placed in such a category. He used the drug only once a day for six days, and affirmed that knowing what to expect enabled him to take precautions to discontinue

⁹ Ernst Jöel and Fritz Fränkel, "Zur Verhütung und Behandlung der Gift-süchten," *Klinische Wochenschrift*, IV (1925), p. 1716.

¹⁰ Lawrence Kolb, "Types and Characteristics of Drug Addicts," *Mental Hygiene*, IX (1925), p. 307.

¹¹ Lawrence Kolb, "Pleasure and Deterioration from Narcotic Addiction," *Mental Hygiene*, IX (1925), p. 700.

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its use after that time. What would have happened had he extended the experiment for six weeks? Faucher declares that further use of the drug for even a short time would have made him an addict. How may one account for the difference between this case and that of the patient, mentioned by Dansauer and Rieth, who received opiates steadily for six years without showing any desire for the drug?¹²

The implications of the theory advanced here with respect to such cases is quite clear. The deliberate self-experimenter, who knows what to expect, will note and understand the withdrawal distress sooner and more certainly than an ignorant layman, and he is, therefore, more susceptible to addiction under these conditions. Morphine addiction seems to be a case in which foreknowledge is a dangerous thing, in the sense, that, if the drug is administered regularly, this very knowledge aggravates susceptibility to addiction rather than providing immunity. In the light of this interpretation, it should, therefore, be expected that cases of habituation which did not lead to addiction would be relatively more numerous among non-medically trained individuals than among members of the medical profession.

This is precisely the situation found among German medical men; here addiction, defined by Pohlisch as the use of more than 1.5 grains of morphine or its equivalent per day for at least six months, was over 100 times more prevalent in the medical profession than in the general population.¹³ The percentage of doctors estimated to be habituated but not addicted was only 6.6. per cent of all medical men studied, in comparison with 48.9 per cent of non-medical cases.¹⁴ Pohlisch's distinction between addiction and habituation, based solely on the size of the dosage, is, of course, arbitrary and subject to error as we have already indicated.

¹² Dansauer and Rieth, *op. cit.*, p. 96, Case 58.

¹³ Pohlisch, *op. cit.*, p. 27.

¹⁴ *Ibid.*, Table I.

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The literature on the subject records numerous instances of personal excursions into addiction by curious individuals who have been lured into smoking opium once or twice or trying a few injections of morphine. During part of the nineteenth century, when the drug habit was little understood and its dangers inadequately realized, such experiments were more common than they are today. Nevertheless, so far as the writer has been able to ascertain, not a single instance has come to light of a self-experiment, carried out beyond the several weeks' trial admittedly necessary to establish full fledged withdrawal symptoms, which did not end in the addiction of the experimenter.

This fact is all the more significant in view of the frequent accounts of supposedly "cured" addicts, and the interest in "cures." One would suppose that a user, demonstrating his immunity to the habit-forming tendencies of the drug would be widely advertised, and pointed out as proof that persons with "strong will-power" or a certain type of character might escape addiction despite steady and prolonged use. Apparently, such experiments have always ended in grief, for while it is easy to find accounts of addicts who began out of "curiosity" or a desire to experiment, accounts of individuals who have knowingly *experimented with severe withdrawal symptoms and escaped addiction* are entirely absent.

William Willcox describes a patient who believed that regular use of heroin or morphine would not be dangerous:

This patient, who is a man of very strong will and brilliant attainments, took morphine some years ago in order to relieve the pain of sciatic neuralgia. He said, "I have a strong will, and there is no risk in my taking morphine, though others should not do so." He has been an addict for fifteen years.¹⁵

In another article, Willcox declares:

It has been said with truth, I think, that the administration of morphine or heroin hypodermically daily for a month is likely to give rise to addiction in

¹⁵ William H. Willcox, "The Prevention and Arrest of Drug Addiction," *British Journal of Inebriety*, XXIV (1926-27), pp. 4-5.

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a person of normal temperament. We know people who say: "I am a man, and one having a strong will. Morphine or heroin will not affect me; I can take it as long as I like without becoming an addict." I have known people—sometimes medical men—who have made that boast, and without exception they have come to grief.¹⁶

Dr. J. B. Mattison records instances resulting from too frequent self-experimentation; commenting on the causes of the frequent addiction among medical men, he states:

"Still another genetic factor, and in my opinion the one which outranks all others relative to the frequency of this disease in medical men, is their ignorance or unbelief as to the subtle, seductive, snareful power of morphia."¹⁷ He adds that physicians do not usually use the drug for pleasure. "Rather, they are impelled thereto by force of physical conditions that, with the largely prevailing failure to realize the risk incident to incautious morphia using, are practically beyond control . . . The subtly ensnaring power of morphia is simply incredible to one who has not had personal observation or experience . . . I make bold to say that the man does not live who, under certain conditions, can bear up against it . . . Let him not be blinded by an underestimate of the poppy's power to ensnare. Let him not be deluded by an over-confidence in his own strength to resist, for along this line history has repeated itself with sorrowful frequency and, as my experience will well attest, on these two treacherous rocks hundreds of promising lives have gone awreck."¹⁸

Thus, though the theory advanced in this study makes the reaction to withdrawal symptoms the decisive factor in the establishment of addiction, and although this theory could be destroyed by the self-experimentation of a single person, if he demonstrated his immunity, no such negative evidence has appeared in the literature of the last century. Those who have been bold or fool-hardy enough knowingly to risk the prolonged

¹⁶ William H. Willcox, "Medico-Legal Aspects of Alcohol and Drug Addiction," *British Journal of Inebriety*, XXXI (1933), p. 132.

¹⁷ Jansen B. Mattison, "Morphinism in Medical Men" *Journal of the American Medical Association*, XXIII (1894), p. 187.

¹⁸ *Ibid.*, p. 188. Writers on drug addiction who experimented upon themselves through motives of "scientific curiosity" are Louis Faucher, *op. cit.*; F. S. Queré, *Contribution a L'étude comparée de l'opium et de l'alcool au point de vue physiologique et thérapeutique*, (Thèse de Bordeaux), 1883; H. Libermann as described in Roger Dupouy, *Les Opomanes*, (Paris), 1912, p. 83. For authors who have commented upon the fatal results of experimentation and have cited cases, particularly of medical men, see Daniel Jouet, *Etude sur le Morphinisme Chronique* (Thèse de Paris), 1883; Alonzo Calkins, *The Opium Appetite* (Philadelphia, 1871). "Curiosity" and "experimentation" are often cited as "causes" of addiction.

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experimental use of morphine on themselves have either stopped before it was too late, as did Faucher, or have fallen into the ranks of the addicted. New recruits are being enlisted in this manner today, for in the course of the present study several non-addicts have told the writer with perfect assurance that *they* would never become addicts, even though they might take morphine or heroin regularly for a long time.¹⁹ This belief is an important factor in the spread of addiction among the general population, even as Mattison, in 1894, showed it to be of primary importance in seducing the members of the medical profession.

Alexander Lambert, an outstanding authority on addiction, makes the following assertion:

Morphine given daily for three weeks or longer, in small doses, almost invariably produces that peculiar narcotic necessity which we designate as the narcotic habit. Some patients may resist longer than others; but the average power of resistance is slight.²⁰

Charles E. Scealth, another well-known student of the subject, states that three weeks of regular use of opiates can form the habit in anyone, no matter how strong his will, and that three months will make it impossible to break the habit unaided.²¹ C. C. W. Wholey likewise affirms:

Unlike the poet, the morphinist may be made, not born such; there need be neither special neuropathologic constitution, nor hereditary taint . . . The average individual can take alcohol in ordinary doses for long periods and still retain his independence; no individual can do this with morphine. It is not a rare occurrence for some alcoholic of some length of habit to take a brace and the pledge, and remain sober ever after. But after a corresponding period with morphine—a period much less in point of duration,—it is almost unheard of that an habitué is able voluntarily to break away from his habit.²²

¹⁹ It has already been pointed out that this belief characterizes **practically** all addicts before they become addicted.

²⁰ Quoted in Terry and Pellens, *op. cit.*, p. 149.

²¹ Charles E. Scealth, "A Rational Treatment of the Morphine Habit," *Journal of the American Medical Association*, LXVI, p. 862.

²² C. C. W. Wholey, "Morphinism in Some of Its Less Commonly Noted Aspects," *Journal of the American Medical Association*, LVIII, p. 1855.

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Similar statements, common in the literature,²³ would seem to conflict with another well established finding—namely, that many persons who receive narcotics systematically for long periods of time do not become addicts. These statements apparently imply that addiction is simply the invariable and necessary consequence of the development of tolerance, but the assumption is obviously implicit in them that tolerance and physiological dependence are accompanied by *awareness*. Otherwise they would be contradicted by an immense body of evidence which proves beyond question that the development of tolerance for morphine (in medical practice) is, in fact, rarely followed by addiction.²⁴ If it may be said that statements such as those quoted assume that the prolonged and systematic use of morphine inevitably leads to addiction, when accompanied by the addict's full recognition and understanding of his dependence upon the drug, then they clearly accord with the theory advanced by the writer.

HABITUATION AND ADDICTION DURING THE NINETEENTH CENTURY

This point leads to the interesting problem of habituation so prevalent during the nineteenth century and the first decades of the twentieth when opiate-containing patent medicines abounded. Preparations such as Laudanum, McMunn's Elixir of Opium, Godfrey's Cordial, Mother Bailey's Quieting Syrup, Winslow's Soothing Syrup, and Black Drop were widely used. Also, in those days physicians gave opiates liberally, believing

²³ F. J. Masters, for example, states that fifteen days of opium smoking makes a habit, "The Opium Traffic in California," *The Chautauquan News*, XV (1896), p. 56. As a rule the time required is said to be longer.

²⁴ See Terry and Pellens, *op. cit.*, Chapter V. Whereas during the nineteenth century authorities were in the main agreed about the primary importance of medical practice in producing drug addicts, there is now equally unanimous agreement that only a very small percentage of new addicts in this country owe their addiction to medical practice.

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that morphine taken hypodermically was not "habit forming."²⁵ As already observed, when heroin was first introduced at the beginning of the twentieth century it was widely hailed as a non-habit forming substitute for morphine.²⁶

In 1888, Virgil G. Eaton examined 10,000 prescriptions from Boston drugstores and found that 1,481 of them contained opiates.²⁷ Of the prescriptions renewed once, 23 per cent contained opiates; 61 per cent of those renewed twice, and 78 per cent of those renewed three times contained opiates. In raising the question as to what percentage of patients progressed to addiction through the initial consumption of opiate-containing medicines, Eaton says:

It is hard to learn just what proportion of those who began by taking medicine containing opiates became addicted to the habit. I should say, from what I learned, that the number was fully 25 per cent—perhaps more . . . When a person once becomes an opium slave, the habit usually holds for life.²⁸

How and why does the change from opiate-containing medicines to morphine, or from innocent habituation to confirmed self-conscious addiction take place? This transition should have occurred when the user who had become physiologically dependent upon the drug was told, or himself realized, the nature and significance of this dependence; namely, that it was caused by withdrawal symptoms induced by consumption of that very same drug.

Fortunately, Eaton gives an excellent illustration of how the transition occurs in the story of an old woman who took opiate-containing "cough balsam" in order to "quiet her nerves."

One apothecary told me of an old lady who formerly came to him as often as four times a week and purchased a 50 cent bottle of "cough balsam" . . . He told her one day that he had sold out of the medicine required, and suggested a substitute which was a preparation containing about the same amount

²⁵ *Ib id.* p. 66.

²⁶ *Ibid.*, Chapter II.

²⁷ Virgil G. Eaton, "How the Opium Habit is Acquired," *Popular Science Monthly*, XXXIII (1888), p. 666.

²⁸ *Ibid.*, p. 665-6.

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of morphine. On trial, the woman found the new mixture answered every purpose of the old. The druggist then told her she had acquired the morphine habit, and from that time on she was a constant morphine user.²⁹

In 1881, an anonymous writer stated:

The careless manner in which physicians prescribe opiates, and the prevailing custom among druggists of duplicating prescriptions, are prolific sources of the evil. The physician prescribes morphia for a patient suffering from some painful disease, and relief is obtained. Moreover, the sensations experienced under the influence of the medicine are peculiarly pleasurable. He goes back to the drug store and has the medicine renewed without the physician's advice or direction. He finally learns that it is morphia he has been taking, purchases a quantity, and finds that by its use he can relieve his pain or waft himself into Elysium at pleasure. Finally he ascertains that his health is being injured, or is otherwise warned of the danger, and attempts to give up its use. Suddenly his eyes are opened to his folly and he realizes the startling fact that he is in the toils of a serpent as merciless as the boa-constrictor and as relentless as fate. With a firm determination to free himself he discontinues its use. Now his sufferings begin and steadily increase until they become unbearable. The tortures of Dives are his; but unlike the miser, he has only to stretch forth his hand to find oceans with which to satisfy his thirst. That human nature is not often equal to so extraordinary a self-denial affords little cause for astonishment. At length he surrenders, but with bad grace, determined to renew the contest at no distant day under more favorable circumstances; returns to the drug and is again happy—happier than ever in contrast with the misery lately endured—but far from satisfied. He realizes that he is being enslaved and suddenly resolves that it shall not be. Little he reckons that he is enslaved already, or that his late submission has shortened his chain a link. He waits for the favorable opportunity, meantime increasing the quantity imperceptibly but steadily, and, when the effort is repeated, finds himself more firmly bound than before. Again and again he essays release from a bondage so humiliating, but meets with failure only, and at last submits to his fate—a confirmed opium-eater. The effort made and the misery endured before finally submitting can never be realized by the self-righteous man who arrogantly inquires: Why doesn't he stop it? Is it strange that opium-eating is styled by the people of the East the "Sorcery of Majoon" or that superstition attributed the power of the poppy to the influence of an evil spirit?³⁰

Old accounts, such as this, indicate that, although the methods of consumption were oral rather than hypodermic, and the manner of exposure was different than at present, the same essential steps were involved. The startled surprise of the be-

²⁹ *Ibid.*, p. 665.

³⁰ "The Opium Habit," *Catholic World*, XXXIII (September, 1881), pp. 829-830.

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ginner at his first experience of withdrawal distress a realization of its significance is the same; so also is the struggle against the withdrawal symptoms which fixes the habit. The theory that addiction begins with and is caused by perception of the significance of withdrawal symptoms, and the subsequent need of the drug to forestall suffering, explains why some users of opiate-containing patent medicines become addicts and others did not. The proposed theory likewise permits an acceptable explanation of the consequences of the Harrison Act. After passage of this and other restrictive laws, opiate users were eliminated from the legitimate market. Many who were habituated to laudanum and other patent medicines undoubtedly discontinued them, experienced varying degrees of discomfort, and were none the wiser. On the other hand, it is equally certain that some who had the misfortune to know the nature of their ailment continued to use the drug illegally.³¹

ADDICTION IN INDIA

In addition to its applicability to drug addiction in our own culture, the theory also applies to it in other cultures. From the writings of R. N. Chopra it appears that chronic users in India are like American addicts; that is, they feel a desire for the drug; it makes them feel "normal;" when deprived of it they suffer intensely for a time and later resume the habit. Chopra and K. S. Gremal tell of a "curious" case in which an individual regularly drank opiate-containing tea with a friend. When the friend left, this person became miserable even though he continued to drink tea.³² Chopra and Gremal do not say how

³¹ The significance of the knowledge of the name of the drug administered is brought out by the *British Medical Journal*, June 4, 1932, commenting editorially upon the 25th annual report of branches of the Norwood Sanitarium, Ltd., which handled 580 drug cases: "In some instances the patient had only learned the nature of the drug used by seeing the label on an empty tube left at the house by the doctor."

³² R. N. Chopra and K. S. Gremal, "The Opium Habit in India," *Indian Journal of Medical Research*, XV (1927), p. 61.

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he discovered that the tea contained opiates, but this was evidently the case, for he became addicted. This report and others indicate that the role of withdrawal symptoms in causing addiction among Indian users is the same as in the United States.³³

MODERN MEDICAL PRECAUTIONS

While there can be little question that physicians and druggists were to a great extent responsible for opiate addiction during the nineteenth century, it is agreed that medical practice is responsible for only a few addicts developed today. What are the reasons for this change?

A report of the British Ministry of Health in 1926 furnishes a clue to the answer. It points out that although psychoneurotics may experience greater initial pleasure from opiates than most normal persons; they can be saved from addiction if the proper precautions are taken in opiate administration.³⁴ The report emphasizes that when these precautions are not taken, anyone may become an addict. Therefore, two of its chief recommendations are: that the patient be kept in absolute ignorance of the nature of the drug given; and, that the use of the hypodermic needle be avoided. Both precautions have been stressed for a long time, for it was soon appreciated that a patient who was ignorant of the dose, or who had been deceived about its true contents, could not become an addict. Pertinent is the statement of a physician in 1896:

The danger of physicians creating morphine fiends, it needs hardly be said, is greatly overestimated. Intelligently used, there is little danger of such results. With our highly neurotic temperaments we must, however, exercise more than usual tact, so as not to be deceived into its unnecessary use. It is the general and erroneous impression of the laity that all hypodermic injections are necessarily composed of morphia—it is the only drug that they can associate with

³³ Further support for this explanation is found in the work of Chopra and his associates: *Indian Journal of Medical Research*, XV, XVI, and XX, and in the *Indian Medical Gazette*, LXVI, LXVIII, LXIX, and LXX.

³⁴ Ministry of Health of Great Britain, *Report of the Departmental Committee on Morphine and Heroin Addiction* (London, 1926).

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them. When one has a patient wherein the protracted and regular hypodermic use of morphia may be required for a length of time, it would be well if an occasional hypodermic of strychnia were given, with particular care that some of the family, or the patient, should pick up *that* vial and read the label . . . It is a mistake to tell the patient that you are using morphia . . . Diminish the dose, or substitute something else with the dosage as you gradually diminish the morphia. Do not make a consultant of your patient in these matters.³⁵

Dr. Paul Wolff, an eminent German student of addiction, comments appropriately:

In my opinion a further great advance would be made if morphine, etc., were replaced as far as possible by the use of suppositories. Not only do these produce the same qualitative and quantitative effects, but also the patient is not immediately aware that he has received morphine. In many cases where medical treatment is the origin of addiction, numerous mental associations would be avoided in the absence of the symbol of the syringe.³⁶

It can be seen that the "mental associations" referred to are connected with the patient's previous knowledge or stereotypes concerning drug addiction. When these associations are made he becomes attentive to certain effects and expects them. The same effects under different conditions might have elicited no response, but his associations place him in the dangerous position of understanding the reasons for whatever distress he may experience when the drug is removed.

These two devices—avoiding the syringe and keeping the patient in ignorance—as well as other precautions such as mixing the opiate with less pleasant drugs, changing methods of administration, using sterile hypodermics, disguising the opiate in medicine, misinforming the patient, and gradually reducing the dosage when it is desirable to eliminate further use, all serve the same end. By preventing the patient from gaining a clear conception of the significance of his sensations and keeping him from associating what he knows or thinks he knows about drug addiction with his post-injection feelings, addiction is avoided.

³⁵ P. C. Remondino, "The Hypodermic Syringe and Our Morphine Habitués," *Medical Sentinel*, IV (1896), p. 5.

³⁶ Paul Wolff, "Alcohol and Drug Addiction in Germany," *British Journal of Inebriety*, XXXI (1933), p. 164.

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When a patient has been thoroughly deceived, and when he suffers withdrawal symptoms as the drug is removed, he cannot, in the nature of the case, realize what is the matter with him. In the case of disease, he must be made to attribute withdrawal symptoms to his ailment rather than to "dope."

QUASI EXPERIMENTAL EVIDENCE

If it were possible to experiment with human subjects, an experimental test might be undertaken by building up a prolonged, systematic administration of opiates in a group of individuals, keeping them, at the same time, in complete ignorance of experimental conditions; later the drug would gradually be reduced so as to keep withdrawal distress at a minimum. The experiment would then be repeated with the same group, informing them of its purpose, permitting them the self-injection of the opiate selected, and (when tolerance was established) allowing them to become ill from withdrawal; at the same time their attention would be called to the manner in which the drug would immediately dissipate their discomfort. According to the implications of the writer's theory, subjects who escaped addiction in the first experiment, but succumbed in the second, would be in a position to compare the two experiences and perhaps to isolate the differential factors. Since the hereditary factors would be constant in such an experiment, the differences in behavior could presumably be attributed to situational factors. Such an experiment, of course, cannot be rigorously performed, but in a sense it has already been performed by nature; there are cases of individuals who have had two such experiences with the drug, one leading to addiction and the other not. Since such cases meet the conditions for a crucial test of the writer's theory, it may be well to consider some of them in more detail.

One such case has already been cited—a physician became

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habituated to morphine during an illness, had the drug withdrawn, resumed his former manner of living, and got along without it for several years; then he used the drug in connection with a second illness, and this time became addicted.³⁷ In his experience with withdrawal symptoms when he became addicted he realized for the first time, in retrospect, that he had experienced them during his previous illness.

Erwin Straus tells of a German woman who was given a morphine injection twice daily for six months (February-July, 1907) because of gallstones.³⁸ In July she was operated upon, and during her ensuing convalescence the drug was successfully removed. Nine years later, at the age of 49, she lost her only son in the World War and was prostrated by grief. After weeks of anguish and thought of suicide, she happened to recall that she had once benefited from morphine. She then purchased some in a drug store and began to use it; she was helped but in a short time became addicted. When asked by the physician if she had experienced withdrawal symptoms in 1907, when the drug had been withdrawn, she replied *that she did not recall any*. Dansauer and Rieth give a brief summary of a similar case.³⁹ The writer himself interviewed such a case (in addition to Case 3 reported above), and found a third example in documents collected by Bingham Dai.

Cases in which habituation and addiction were at different times noted in the same user are rare, but those available correspond without exception to the descriptions included here. Withdrawal symptoms were not understood during the first experience with morphine uncomplicated by addiction, and were either understood in retrospect or could not be recalled

³⁷ See Case 3, Chapter IV.

³⁸ Erwin Straus, "Zur Pathogenese des Chronischen Morphinismus", *Monatsschrift für Psychiatrie und Neurologie*, XLVII (1920), pp. 90-97. The fact that the patient purchased the drug herself demonstrates that she was not ignorant of its name, and corroborates the view that although this knowledge is important, it is not the crux of the matter.

³⁹ Dansauer and Rieth, *op. cit.*, Case 115, p. 103.

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when addiction was later established. These cases constitute striking support of the writer's theory, while at the same time they are unexplained by other existing theories.

Finally, the relative ease with which an opiate habit is said to be established through the use of the hypodermic needle is readily intelligible by the present interpretation. The effects of the drug when administered in this manner are more immediate, and the direct contrast between the states of mind and body before and after the shot, therefore, emphasizes its effect in relieving withdrawal symptoms. Consequently it is easier to deduce the correct interpretation of the symptoms.

SUMMARY

In the present chapter, the theory expounded in Chapter III is elaborated. Evidence indicates that addiction to opiate drugs is impossible except through the influence of withdrawal distress. This theory is corroborated by the addict's argot. The theory also synthesizes and integrates many opinions expressed by students of the problem. It is further supported by the absence of records of persons who have knowingly experimented with withdrawal distress without becoming addicts, and by the success of physicians in preventing addiction by keeping patients unaware of the drug and its effects upon them. There is also evidence that the theory proposed is applicable to addicts in other cultures. Finally, the theory is directly and strikingly borne out by instances in which patients who receive morphine continuously for prolonged periods without immediate addiction later became addicted under different circumstances. On the whole, the theory seems to provide a simple, consistent, and adequate explanation of all the major phases of the opiate habit. Its implications for the problem of relapse will be discussed in the following chapter.

CHAPTER VI



CURE AND RELAPSE

THE DESIRE TO BE CURED

Certain paradoxical features of the opiate habit should be indicated here, and the reader's attention should be focused again upon the ambivalence of the user who not only bends all his efforts toward maintaining his supply, but also hopes to be extricated from his enslavement. The original effectiveness of the drug diminishes and eventually disappears with continued use, and at the same time its consumption must be constantly increased. Before long the user consumes large quantities merely to keep himself normal, and when this point is reached, as it usually is within a few months, the addict is trapped. As H. H. Kane said of opium smokers, "Then the good spirit of the pipe disappears, giving place to a demon who binds his victims hand and foot. Smoking no longer gives the pleasure of the first few months, and the victim of the habit continues not for the pleasure obtained from it, but is driven to it by the terrible suffering that surely comes if the pipe is not smoked at the accustomed time."¹ The drug user then sees the folly of the habit and,

¹ H. H. Kane, *Opium Smoking in America and China* (New York, 1882), p. 59.

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realizing the transitory character of its pleasures, he desires to escape. Sandoz said of drug users that "most of them realize their bondage and its consequences. If their lives were not all they should have been before their addiction, they know now how much worse they have become since."²

This desire to be cured is best demonstrated by the large number of cures attempted by the chronic user. Charles Schultz³ found that the average number of cures taken by each of the 318 addicts who came under his care was four. If one were to include those attempts to quit which were given up after a day or so, or even after several hours, there is no question that this average number would be much larger. The writer once asked an addict if drug users often tried to "go off the drug," and his reply was, "Every time they take a good jolt." The same idea was expressed by another user: "A junker always quits on a full ounce. He never quits when he is out." Kane has described this tendency as follows:

"A very old conceit obtains among many smokers. When you ask them, 'Can you stop this?' they will answer with the instant assurance, especially if they have been smoking opium for an hour or two and are well primed with opium, 'Stop it? Certainly. For instance, this will be my last smoke for a month.' Nevertheless you will find him there smoking as usual the next day, and for many days thereafter. Some men will bid their companions good-night and good-bye night after night, sometimes for months, about as follows: 'Well, boys, good-bye. I've had my last smoke with you. It has given me a world of pleasure and served to while away many a tedious hour, and I forgive it whatever it has done to me. I wish you joy. Good-bye.' The next night he will be found smoking again as hard as ever, and at the finish go through the same performance."⁴

The writer has never met a chronic user addicted for a year or more who has not tried to free himself of the habit. Moreover, contrary to the frequently expressed notion that "crim-

² C. Edouard Sandoz, "Report on Morphinism to the Municipal Court of Boston," *Journal of the American Institute of Criminal Law and Criminology*, XIII, p. 38.

³ "Report of the Mayor's Committee on Drug Addiction to the Honourable R. C. Patterson, etc.," *American Journal of Psychiatry* (1930), p. 471.

⁴ H. H. Kane, *op. cit.*, pp. 73-4.

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inal" addicts do not desire to be cured,⁵ the writer has encountered professional thieves who voluntarily abstained from opiates for five to eight years in grim determination to throw off the habit. Recognition of the evil effects of addiction, however, bears little relationship to the probability of permanent cure. Otherwise there would be few addicts, for they are keenly aware, and often bitterly resentful, of the accompanying disgrace and misfortune. Addicts relapse again and again after the drug has been removed at their earnest request. It is sometimes said, therefore, that the user's desire to be cured cannot be sincere, and that he is motivated by ulterior purposes, such as reducing the size of his dosage, recreating the initial pleasure, obtaining admission to an institution during the cold winter months, avoiding the law, or complying with the demands of relatives. This skeptical view is discussed by Schultz:

They do not think their habit is a vice, or that it degrades or injured them. To them it is a pleasure, which they see no reason for giving up, and as a result they are often amused at others' attempts to "reform" them.

If a patient of this type openly declares he is going to revert to drugs (and many do) and boasts about it, enlarging upon the pleasures of his first shot upon discharge, others are apt to do likewise.

This attitude is detrimental to the exercise of self-control and will power on the part of the more sincere patients, as sometimes they will ridicule such a patient's statement that he is going to try to stay off drugs; e.g., one patient declared on discharge that he was "through with drugs." Another patient then told him "For God's sake, be a man. Get shot up!"⁶

While this account is correct, as far as it goes, it does not imply that the hardened addict has no desire to be rid of his

⁵ Dr. Wilder D. Bancroft, for example, declares, "Nothing will keep a man from taking morphine again if he wishes to . . . I doubt whether much can be done in the way of permanent cure for the criminal addict. I am interested in the man who really wants to be cured." *Documentation of the Fifth Annual Conference of the Committee of the World Narcotic Defence Association and International Narcotic Education Association, 1932, Appendix No. 13, "The Chemical Treatment of Drug Addicts."* Cf. also, the writings of Lawrence Kolb. This invidious distinction between so-called "criminal" and "non-criminal" addicts simply discriminates against the impoverished addict. In this country, he is *ipso facto* a "criminal."

⁶ "Report of the Committee on Drug Addiction to the Honourable R. C. Patterson, etc.," *op. cit.*, pp. 532-33.

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habit. Such a perverse attitude represents rather the patient's disillusionment after many sincere trials of various cures which have proved either fraudulent or inadequate.⁷ The same addict who boasts that he will return to the drug immediately upon discharge may have embarked upon the cure with the earnest hope that he would find a remedy at last. The writer has observed that although addicts accuse others of insincerity in taking cures, they always insist that they themselves were really sincere. What appears to happen is that the drug user makes an about-face during the course of the cure: when he is using drugs, he wishes he were free; when he is cut off from his supply, he craves it again.

There may be "depraved" characters who do not fight the habit and simply permit themselves to be swept along by it, but the vast majority struggle against it. As to the pose of unconcern so often noted in the addict, the writer believes that it represents an individual's acceptance of a situation which he regards as hopeless. Supported by fellow addicts, he rationalizes his continued use of the drug by pretending to be satisfied with his condition.⁸ Group ridicule of users who try to quit further frees the individual, in some degree at least, from the sense of guilt and helplessness that comes from fighting a long losing battle. Eventually, having given up all hope of recovery, the user may come to regard all cures as expedient or inevitable

⁷ Home cures for addiction were widespread in this country during the last decades of the nineteenth century and even after the passage of the Harrison Act in 1914. The great majority were based upon the substitute-drug idea and involved gradual reduction. Practically all of them contained opiates, so that if the instructions were followed the victim found himself addicted to the cure when he got through. Institutional cures also flourished, but all that they accomplished was to remove the drug, forcefully or gently, with varying degrees of suffering. Inasmuch as the "cures" were business enterprises operated for profit, there was no particular point in being exacting about the definition of a "cure." The main purposes were to gain publicity, to make bold claims, and to charge what the traffic would bear.

⁸ This makes it seem to the casual observer that the "criminal" or underworld addict does not want to quit, whereas the non-underworld addict does. No doubt, the addict culture of the underworld constitutes a sort of group rationalization of the habit, which does, in some degree, encourage and support the addict.

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(e.g., when he is imprisoned) and simply try to fit them into his scheme of life. The hope of a cure is not easily extinguished, even in the confirmed and experienced addict; he wants to die a "square John," and he may, therefore, often permit himself to be deceived by advertisements of a new cure which promises to destroy the craving. He tries once more, and thus adds to his own disillusionment and to the profits of those who sponsor the cure. If the addict's desire for a permanent cure were not genuine and persistent, "cures" would not have been commercially exploited for so many decades. The addict steadfastly maintains that he wants to quit, and would quit if he could only "feel right" off the drug.⁹

One need only examine the actual history of attempts to break the habit to realize how sincere some addicts are. The following case is typical:

Case 14. Mr. T. became addicted to morphine in 1909 after using the drug occasionally for several years. He was a periodic drunkard, and first took morphine to recover from inebriety. An only child, his parents, reasonably well-to-do, left him an adequate income. The following list of cures shows how often he attempted to get rid of his habit.

1. 1910—took a home cure without any real determination to quit. He spent \$40, and reduced the dosage without getting off the drug.
2. 1912—took a cure lasting five weeks which cost him \$175. The drug was completely removed for a time. He resumed it immediately upon release.
3. 1916—took another home cure without serious intentions of quitting.
4. 1916—took a free cure lasting twelve weeks. He managed to get off the drug, but drank paregoric a number of times and relapsed at once when released.
5. 1917—took another free cure lasting six months. Resumed the drug at once when released.
6. 1917—took a free cure in an asylum for three weeks. He was off the drug one week and drank paregoric the other two.
7. 1919—He was jailed for fifty days. This was his only involuntary cure. Resumed the drug at once when released.

⁹ T. D. Crothers, *Morphinism and Narcomanias from other Drugs* (Philadelphia, 1902), p. 149, states: "Not infrequently the question comes up as to the advisability of treating elderly morphinists and opium users who seem not to be greatly injured by the use of the drug. Often such persons who have long been addicted . . . become very anxious to break away from its influence. The prognosis is usually unfavorable and the treatment unsatisfactory."

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8. 1920—took a cure in private sanitarium at a cost of \$200. Resumed the drug as before.

9. 1922—Six months' free cure in a state asylum. Resumed the drug at once.

10. 1922—took the "Keelikure" at a cost of \$250. Relapsed at once.

11. 1925—Cure lasting six months. Free. Relapsed.

12. 1927—Cure lasting three months. Free. Relapsed.

13. 1930—Cure lasting six months. Free. Relapsed.

14. 1932—Cure lasting three months. Free. Relapsed.

15. 1933—Six months' voluntary cure in the Chicago Bridewell. Relapsed.

16. 1934—Quit voluntarily while living in the Chicago shelters for unemployed men because of the extreme difficulty of begging sufficient money during the winter months. This was the first time in his life that he ever succeeded in quitting by himself, outside an institution. He resumed the drug as soon as warm weather began in the spring of 1935, and was killed in a traffic accident.

This man was repeatedly interviewed for a period of several months prior to his death, and the cures are described as he recalled them. He said he was not quite sure he had included all.

It will be noted that this addict distinguished carefully between those cures which he took with the serious intention of quitting, and those which he took for other reasons. He told the story with an air of shame and bewilderment. When asked to explain why he had taken so many cures, he was at a loss for an answer, except to remark that he had hoped each time to remain free. He confessed that his life had been ruined by the drug, and all that remained was to wait for old age and death. In the meantime, he thought he might as well go on using the drug, since he no longer had anything to lose thereby.

The genesis of the chronic user's desire to be cured can be understood in terms of the theory presented above. When the initiate first applies to his conduct the symbols of his group, he also adopts the group's attitudes towards his own behavior.¹⁰ These attitudes are implicit in the symbols, so that the beginner, defining himself as a "dope fiend," finds this definition intolerable or highly undesirable. Under normal circumstances, he formerly shared the derogatory opinions universally held by

¹⁰ Cf. George H. Mead, *Mind, Self, and Society* (Chicago, 1934).

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non-addicts towards the addicted. When he finds that he has slipped into a category that is regarded as undesirable in his social milieu, he rebels against the grip of the habit, and either makes an effort to quit or resolves to quit at some opportune time.

The addict's wish to be cured indicates his membership and participation in the wider social order that condemns his behavior. When he is under the influence of the drug and is functioning normally, these collective ideals exercise their greatest influence, for he is then in relatively full contact with society and responsive to its demands. Moreover, being full of the drug, he does not want it, and the social pressure which induces a desire to quit operates without opposition. Then, as the effects of the drug wear off, persistent and intolerable organic distress separates him from the wider social order. In this situation he changes his mind about quitting. Physical need eclipses all other considerations, as Jean Cocteau so graphically explains:

Let me profit by insomnia to attempt the impossible: to describe the craving for opium. Byron said: 'Love cannot survive seasickness.' Like love, like seasickness, the need penetrates everywhere. Resistance is useless. First there is discomfort. Then things get worse. Imagine a silence which corresponds to the cries of thousands of children whose nurses have not come home to give them their milk. An amorous uneasiness translated into the physical world. An absence which reigns, a negative despotism. The phenomena becomes more clear. Electric moire, champaign in the veins, frozen syphons, cramps, sweat at the roots of the hair, a sticky mouth, mucous, tears. Do not insist. Your courage is a pure waste of time. If you delay too long, you will not be able to take your material and stuff your pipe. Smoke."¹¹

The desire to quit represents an integral aspect of the drug habit, for obviously a person who is merely habituated and unaware of his dependence upon the drug, cannot wish to be cured.¹² While occasional users may be so out of line with their

¹¹ Jean Cocteau, *Opium; the Diary of an Addict*, translated by Ernest Boyd (New York, 1932), pp. 55-56. Reprinted by permission of Longmanns, Green and Co., Inc., publishers.

¹² It is significant that Dansauer and Rieth cite this desire to quit as evidence that a number of their cases of habituation had begun to develop a

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fellows that they do not experience any revulsion when they first realize that they are "dope fiends," the writer has never encountered such behavior. Indeed, few addicts do not regret the day they first tried the drug. There are non-addicts, to be sure, who may regard it as smart or thrilling to engage in an occasional "week-end" or "ice-cream" habit, but invariably they do not intend to become "hooked." In the vast majority of cases individuals become addicts without aspiring toward such a goal. It is not pleasant to become a drug addict and the drug user gives evidence of it by frequently indulging in self-reproach and by struggling to break the habit.

As the writer has attempted to show, there is abundant evidence of the authenticity of both opposing impulses—the desire to be cured and the yearning to relapse. Reference is again made to Sandoz's statement that "most critical authors hold the view, which seems to be correct, that relapses occur sooner or later in the great majority of all users, and that the outlook for a permanent cure is very dark."¹³ The next step is to describe the addict's inclination to relapse, and to show how the proposed theory helps to understand this phenomenon.

NATURE OF RELAPSE

Addicts occasionally relapse deliberately, but more often they yield without meaning to—that is, they try "just one more shot," but plan not to take the drug often enough to get "hooked" again. This type of reversion is known as "playing around," and it is proverbial that an addict cannot "play around" without being caught eventually. Nevertheless, the user just released from prison or from a cure often decides to take a shot only now and then, for old times' sake. When he is told, "If you keep putting that thing in your arm, you know

"craving" for the drug, that is, were becoming addicts. *Op. Cit.*, pp. 92-93, Case No 28; p. 95, Case No. 459; and pp. 96-97, Case No. 616.

¹³ Sandoz. *op. cit.*, p. 31.

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damn well you will get hooked," he probably protests that, while it is dangerous for other addicts with less will power to "play around," he will not succumb. At that remark, "You laugh right in his kisser," one addict said, for you know that in a week or so he will be right back on the drug.

The following incident illustrates the unintentional type of relapse:

Case 15. The author was talking one day with Mr. K., who had just been released from the penitentiary. He was out on parole and said that he was certainly not going to get hooked until he was off parole. Mr. K. was an intelligent individual of a serious and inquiring frame of mind. Another addict, whom Mr. K. did not know, appeared, and was introduced by the writer. The addict's first inquiry was whether Mr. K. was "hooked." He explained why he was not using the drug as yet, and said he would not use it until he was off parole in a few months. The other addict laughed and said, "I'll give you two weeks. By that time I bet you'll be hooked." Mr. K. protested and, after the other had gone, remarked on the tendency of persons to judge others by themselves.

The writer saw Mr. K. often during the next several weeks, and each time suspected, from the appearance of his eyes, that he was under the influence of the drug. He did not deny it but said he had only taken a "little shot" now and then so that his addict associates would not regard him as peculiar, and that he would certainly never permit himself to be a fool and get caught. After a number of repetitions of this incident, he finally said, "Well, I'm hooked again, and hooked good and strong." Then he elaborated on how "next time" he would not make the mistake of assuming that he could "play around" with impunity. He reproached himself for violating parole, and began to talk about taking a cure somewhere and getting off the drug before he was caught and sent back to prison. He felt that there was no possibility of avoiding detection. He was caught and sent back to prison for parole violation.

A similar example is the case of a user who related that he had relapsed several times because of liquor.¹⁴ He had taken to drinking during an abstinence period and finally, becoming disgusted with himself, decided to have a shot of morphine in order to "get straightened out." After obtaining the necessary dose from a doctor, he returned the next day for just one more, still believing ("kidding himself," he said) that he wanted it only to

¹⁴ This is a fairly frequent cause of relapse. After he has been drunk for a while, the addict usually decides that "it's better to be a junker than a drunkard," or he decides to have a shot to "get straightened out."

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relieve the after-effects of liquor. After three or four injections, he realized that he wanted the injections for their own sake, and remarking, "Aw, hell, what's the use? I'm hooked now anyway," he bought a full supply and used it regularly. After several experiences of this kind, he stopped "kidding himself," as he put it, and stated that he would never quit in the future unless forced to.

An another addict confided that the longest time he had ever voluntarily abstained was thirteen months. The first several months involved a struggle because of his debility and other after-effects of the habit. Later his condition improved, and he felt that he had freed himself entirely. However, he took an injection to celebrate his achievement, and in a short time again became addicted.

It is evident, then, that in a sense, relapse occurs regardless of the individual's intentions. The addict's whole mode of thought seems to change subtly, with the result that he readily rationalizes himself into resuming the habit. The pleasurable effects of the first shot, the fact that one or two shots do not create important withdrawal distress, and the minute dosage necessary at the start, all conspire to make it easy for the user to persuade himself that one shot cannot harm him. Once he begins, he is irresistibly impelled to continue.

The implication of the theory under consideration is that relapse is induced by the persistence of attitudes which become established with the use of drugs to alleviate withdrawal distress. What are these attitudes? Obviously, the addict's craving during the period of drug consumption is colored by the constant threat of the withdrawal ordeal. This relationship of drug need to withdrawal distress makes the craving of one who is actually using drugs different from that of the addict who has been off drugs for a long time and has no withdrawal distress with which to contend. The user himself distinguishes between these two types of desires when he designates the craving asso-

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ciated with withdrawal distress as "yen" but has no special term for the impulse to relapse. One might assume that if the desire to avoid withdrawal distress is fundamental to addiction, the user would never deliberately readdict himself once he has become free of the habit. That he does so is a result of complex rationalizations which are difficult for the non-addict to understand.

UTILITY OF OPIATES

As shown above, the initial use of the drug during habituation is usually for restricted purposes. An individual suffering from a chronic illness notes chiefly, if not solely, the alleviation of pain which the drug brings, and therefore uses it for that purpose. On the other hand, the addict soon learns that, no matter what his difficulty, it is aggravated by his need for the drug and at the same time is relieved by its use. The contrast between the depths of misery caused by the absence of the drug and the well-being which results from a good dose gives the addict an exaggerated notion of the effects of the shot. He begins by taking the drug for one or a few purposes, and finds that its usefulness constantly increases. Soon it becomes a necessity. He cannot work without it, and if he is ill or uncomfortable, he must have more of it. If he is required to appear in court, he must have an extra dose to bolster his morale. In the beginning, the drug is a luxury, and administering it a lark; later it becomes indispensable.

Having become accustomed to the drug and having learned to interpret all the vicissitudes of life in terms of withdrawal symptoms, the chronic user continues to identify his difficulties with withdrawal distress even after his supply is cut off. The mitigating dose is still a certain cure for any and all discomforts. Many unsophisticated users build up a very exalted notion of the drug's utility, and speak of it as "God's medicine;" they seri-

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ously believe that it cures most of the diseases that afflict mankind.

The addict may, of course, realize that personal difficulties are not associated with withdrawal distress. Thus an addict, earning \$90 a month on a WPA project, bought an ounce of heroin and remarked to the writer that it would last him about a month. He actually consumed it in half the time. Part of his explanation was that he had a foot complaint and simply *had* to use more. Other users to whom the writer mentioned the incident accepted this as a perfectly legitimate and satisfactory explanation. The point is even more directly illustrated by the report of a user who made hypodermic injections into a painful knee in order to alleviate the discomfort. Virtually every addict interviewed by the writer had high regard for opiates as a curative or ameliorative agent. The more intelligent insisted that the potency of opiates was a fact and not a figment of the imagination. On one occasion the writer in conversation with an intelligent addict, ridiculed the unfounded belief that morphine is good for anything. The addict joined in the laughter, agreeing that the drug was so regarded, then added seriously, "But, you know, morphine is good for anything."

The constant inclination of the cured addict to regard untoward events in his life as symptoms which call for narcotics is strengthened by the fact that the early manifestations of withdrawal distress resemble many of the difficulties that afflict non-addicts.¹⁵ Nervousness, irritability, depression, restlessness, and other initial symptoms of withdrawal cannot be distinguished from the same kind of behavior in non-addicts. Stated otherwise, the boundary between withdrawal distress and other discomforts is indefinite, so that the addict tends to consider all ills solely in terms of withdrawal distress. In fact, he actually uses the drug to alleviate the distress caused by an already ex-

¹⁵ This is also apparent from the fact that withdrawal symptoms are so often not recognized as such.

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cessive dosage. The distinction between any pain or discomfort and genuine withdrawal distress is purely academic to the addict, since he reacts to all in the same way. He may learn by experiment that the narcotic does not cure some ailments, but he will always try it just to make certain. Thus it is easy to understand that when the drug is removed, the contraction of an illness such as a cold will convince him that the symptoms resemble those resulting from the wearing off of the effects of a dose. Furthermore, he may recall that he was never bothered by colds when using the drug, and so the impulse to yield overcomes him. He may then say that he really does not crave the drug, but hates to go on suffering from a host of complaints which he can relieve instantly. This is a common rationalization.

The withdrawal experience is a terrible ordeal for the addict who has been using large doses of the drug uninterruptedly for a long time. It may take several months for him to recover entirely. Through this period he may know that a single small injection will restore peace of mind and body. Hence, many addicts weaken and resume their old habits before they have fully recovered from the effort to stop. A severe withdrawal aggravates the distress and thereby encourages relapse. On the other hand, gradual withdrawal prolongs suspense and indelibly impresses upon the patient his great need for the narcotic. In this connection, Schultz noted:

There is no feeling of sudden relief from intense suffering as in the abrupt withdrawal treatment, on the contrary they feel that an injustice is being done them when they are taken "off shots" as opposed to the feeling of relief and gratitude when taken off with the abrupt withdrawal treatment. They resent being taken off treatment and psychologically this suspicious, resentful frame of mind and the suggestion which is impressed upon them by each injection that the narcotics are essential to relieve their symptoms, is not one conducive to the patient's abstaining from narcotics when discharged.¹⁶

"Cured" addicts often relapse when they are in the best of health, much better than they were when using the drug. The

¹⁶ Schultz, *op. cit.*, p. 519.

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writer has been told by addicts discharged from Leavenworth that poverty-stricken addicts enter prison in an extremely emaciated and starved condition, as a result of the bitter financial struggle to maintain their habits. In fact, some are so bony that they find it difficult to make injections into their shrunken veins. Under the regular prison routine, they put on weight and gradually achieve sound, normal health. Often one of these ex-addicts will rub the veins of his well-rounded arm and exclaim with satisfaction, "Boy, will I be able to hit that when I get out!"

FAITH IN "DOPE"

One of the most potent and subtle influences in relapse is the belief in the efficiency of the drug. The addict acquires a fantastic conception of the potency of opiates.¹⁷ He has learned about the drug by observing its effects upon himself, not upon others, and his point of view is quite incomprehensible to the person who has received an injection or two in the hospital. It is not difficult to understand how the belief in the universal efficacy of the drug becomes established during its use to relieve withdrawal distress. Later, no matter what goes wrong, the user finds that he can endure it better with a shot than without. He knows that when suffering the complete physical and mental misery of abrupt withdrawal, his accustomed dose will relieve him of distress as if by magic and entirely transform his attitude

¹⁷ The traditional medical evaluation of the curative powers of opium and its derivatives has usually been very high. This was especially true before the dangers of addiction were fully realized. Alonzo Calkins, in *The Opium Appetite*, p. 135 ff., wrote: "Opium has been denominated, and in no extravagance of hyperbole, the grand catholicon for human ills. Laudation here has scarcely been exhausted, even in the excess. In the 'Opiologia' of Wedelius, opium is the 'medicamentum coelitus demissum,'—the heaven-born gift. Tillingius styles it the 'anchora salutis sacra,'—the bower-anchor of health. Sydenham says that 'medicine without it would go at a limping gait;' and John Hunter, in an exuberance of enthusiasm, exclaims, 'Thank God for opium!' Van Swieten in his estimate does not fall behind: 'Opium, le plus efficace de tous les médicaments et sans quoi l'art de guerir cesserait d'exister, est le remède de quoi le Tout-Puissant a fait présent pour le bonheur et la consolation de l'humanité souffrante.'"

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toward the world in a few moments. He can regulate his reactions with the drug and knows precisely how he is going to feel in advance. In short, he can feel normal at will.

As a consequence of his belief, the addict often concludes during abstinence that he is in a better state on the drug than off it and may relapse as a result. The user who is taken off the drug may feel that something is amiss, that he has lost initiative and ambition.¹⁸ A deadly sense of ennui pervades him. It does not appear to depend upon environmental conditions, but is a projection of his need for the drug. Patients who receive opiates unknowingly, however, never feel a sense of loss after the drug is removed. It is therefore erroneous to attribute the feeling of ennui to physical rather than to psychogenic causes.

Many addicts assert that after opiates have been removed, they notice absolutely no craving for them. Thus an anonymous addict, who had not used opiates for two years and believed himself cured, wrote:

There is one thing which the habitué wishing to be cured would perhaps anticipate with dread; that is an insatiable craving for the old stimulant, and a consequent prolonged and weary resistance of temptation. I can only say that, greatly to my surprise, I have felt no craving for it at any time since the beginning of the treatment. This may seem a strange statement to any one under the sorcery of the drug, and conscious of its fearful grip. There is of course the knowledge from experience of the marvelous potency of opium in annulling all discomfort and distress of body or mind, but this is all. The sense of profound satisfaction, ever present at the release from its slavery, as well as a lively appreciation of the great danger of again tampering with it, is sufficient to leave the temptation—whatever it may be—from such knowledge, powerless.¹⁹

This remarkable statement brings out clearly one of the common experiences of addicts prior to relapse. They seem to

¹⁸ An addict who read the writer's account of the habit said that this factor was of primary importance. When abstaining, he told of going to baseball games, which he ordinarily enjoyed very much, and of losing interest after a few innings. He also walked out of moving picture shows. He could not "enjoy life" without the drug, so he resumed it. An addict who had been off the drug for fifteen years without relapsing stated that he had not "felt right" during the whole period, used alcohol as a poor substitute, and finally resumed the drug in "disgust." Relapse often occurs when the addict is disgusted with life.

¹⁹ "An Experience with Opium," *Popular Science Monthly*, XXVII (1885), p. 339.

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have no desire whatever for the drug. Yet the impulse to relapse in the above case was present, but in a different form, as revealed in the words "knowledge from experience of the marvelous potency of opium in annulling all discomfort and distress of body or mind." The anonymous author underestimates the significance of this factor, for, when the "sense of profound satisfaction" at having quit has worn off, this knowledge is still present, subtly attracting the user to his favorite drug. Given a certain situation, certain misfortunes, or a certain mood, and the ex-user may decide to throw caution to the winds and have "just one pop." And one pop is enough!

When they are off the drug, many addicts become hypochondriacs. Asked if they desire the drug, they will answer no, but they will say they are suffering from many complaints, such as "weak" kidneys, sore throat, and miscellaneous pains and ailments. Some of these are real, and others are imaginary, but the addict recalls that when he was using narcotics he was not troubled by them.²⁰ The inclination to relapse in such cases takes the form of a rational decision. The individual concludes that he is "no good" off the drug, and might as well go back to it. In the writer's opinion, relapse after long abstinence is more often brought about in this way than in any other. It is clear that no cure of addiction effected by medication or administration of a substitute drug can alter such beliefs in the efficacy of narcotics. It is perhaps this intellectual compulsion which represents the essence of what is incurable in addiction.

The addict's desire to relapse differs from his craving for opiates while using them, in that the former lacks the quality of immediacy. He can, if he has an adequate reason, postpone his relapse for a month or two, or even longer. An addict out of prison on parole told the writer that he intended to resume the drug before his parole expired. However, since it was winter,

²⁰ A drug addict, who had been employed in a factory, told the writer of losing a finger in an accident. He blamed it on the fact that he was off drugs at the time! "If I'd been full of dope, it wouldn't have happened," he said.

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he decided not to begin at once, but to wait until spring when it would involve less hardship to leave town, travel, and live by his wits. When spring came, he did exactly as he had planned, trying with difficulty to get a shot before he left town. Another addict reported that he had gone to France during the First World War just after a prison term and that, although he could easily have obtained morphine while abroad, he did not do so because, as he said, "there were too many people around and not enough privacy." When he returned to this country he at once resumed his habit. The effectiveness of the desire to slip back to opiate consumption thus depends upon its persistence and subtlety rather than its intensity. As Cocteau exclaimed, "The patience of the poppy! He who has smoked will smoke again. Opium can afford to wait."

PREOCCUPATION WITH DRUGS

Another factor in relapse, which has its genesis in the use of the drug for the conscious alleviation of withdrawal distress, is the changed significance of the narcotic to the individual who has once been addicted. No matter what the evaluation of the drug may be prior to addiction, it does not have an intimate personal significance, nor is it always present in consciousness. With addiction, however, a radical change occurs by virtue of the ever present threat of withdrawal distress. The drug, used at first as a luxury, becomes a desperate need, goading the user to devote all his attention to the maintenance of a constant source of supply. As a result of this preoccupation, the slightest worry or trouble causes the addict to think immediately of the drug.

For the ordinary user who is trying to quit additional external factors often make his task difficult. If he has been addicted for some time, he usually has friends and acquaintances among addicts. He may have a criminal record or be known to

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narcotic agents. Unless extraordinarily fortunate, he has probably lost status in respectable society, and can keep a job only with difficulty. When such an addict attempts to quit, he is uprooted from a routine which, although it may not have been pleasant, at least kept him busy and prevented his brooding over other matters. His associates are mostly addicts, and every contact with them reminds him of the drug.²¹ The conversations which he hears are concerned in large part with narcotic matters. Under such circumstances, narcotics become a symbol of communion and companionship. It is for this reason that many addicts take the fatal "last pop" for old time's sake when they meet a former acquaintance.

ABSENCE OF THE DRUG AND BOREDOM

One addict whom the writer interviewed a number of times was imprisoned for a few weeks in the Chicago Bridewell on a charge of theft. When he came out, he returned to precisely the same locality in which he had been living. The writer expected him to relapse at once and was amazed that he did not do so. A number of weeks passed. The former addict denied that he felt any great temptation or craving, but admitted that he did not intend to practice abstinence permanently. His state of mind when off the drug appeared markedly worse than during addiction. He was inordinately bored and extremely inert, spending most of his time sleeping. He was no longer interested in reading magazines, and his conversation was unanimated and dull in comparison to the sparkle which had characterized it before. Later he obtained a temporary job distributing hand bills and, becoming fatigued by the great amount of walking, felt the need of a shot after work. Sometime later, when he had

²¹ Addicts frequently report dreaming about morphine when they are not using it. These dreams often involve situations in which other addicts are present and using the drug. The abstaining addict usually dreams that he breaks the needle when attempting to give himself a shot.

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developed minor, though irritating, complaints, he took nembutal hypodermically. The writer, seeing the fresh drops of blood on his bed, assumed that he was re-addicted. It was a week or so before he admitted having had a few little shots, and still another week before he announced that he was "hooked" again. He now resumed his alert, active attitude; his indifference, apathy, and dullness were gone. He had found a motive for living, and was himself again, conniving and stealing as before.

It cannot be assumed in the case of this addict, who abstained for only a few weeks, that he had recovered from the withdrawal of the drug. Erich David, for example, remarks concerning the time element in the treatment of addiction:

As we have seen, after six weeks the patient is generally physically well, but he still feels the lack of stimulation furnished him thus far by morphine. The days seem endless, but he has not yet the energy to busy himself with work. He has not yet regained completely the capacity and desire for work, and just because of that, he will inevitably be seduced to a relapse by the recollection of his former greater capacity and the oppression of his complete lack of energy. That he is not yet mentally fully recovered, we can easily prove by giving him some easy scientific book to read and asking him to give a report on it after a few days. The patient will not yet be capable of doing that. If it is at all possible for him to read the book through intelligently, it will take him weeks and weeks to finish his task.

This lack of stimulation, however, passes after several months, and I am willing to say that after four or five months every withdrawn individual has completely recovered capacity and desire for work. If then assigned the task just mentioned, he will perform it very quickly with utmost satisfaction. This test seems to me the most infallible indication as to whether the time for discharging him has arrived. To retain him any longer in an institution, just because it is true that physical alterations with reference to morphine still exist, would be absolutely senseless, since we have seen that the same phenomena are present even after a year. The prognosis is unfortunately very inauspicious ²²

This quotation excellently contrasts the two types of reversion under discussion. In the first, within two or three months of abstention, the physical and mental after-effects of with-

²² Quoted by Terry and Pellens, *op cit*, p. 594. David's conclusion concerning the length of time necessary for all traces of withdrawal distress to disappear are substantially the same as those reached by researchers at the Public Health Service Hospital in Lexington, Kentucky.

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drawal exert a steady pressure, tempting the addict to use the drug to avoid them. In the other case, relapse may occur after several months of successful abstinence when the after-effects of withdrawal have completely vanished. The latter situation is the more difficult to understand, because the external pretext is often apparently absent, and because it is difficult to meet addicts who have been off drugs for more than several months.

The writer discussed the problem of relapse with an addict who had not used the drug for over ten years. This man denied that he was tempted by his constant association with addicts, even when they were all using opiates in his presence. The veracity of this reformed addict is proved by the testimony of impartial observers, known to the writer. He is now engaged in legitimate employment, and is apparently leading an estimable life. A casual observer might conclude that this was a case in which twenty-five years of addiction in connection with a "life of crime" had left few traces; in other words, one might ask if this man were not a cured addict. In reply, it may be pointed out that he refers to himself as an "ex-user," not a "square John," or non-addict, and looks upon himself as "one of the boys." Two other aspects of his behavior indicate that there is justification for this definition. One is his belief that morphine is a marvelous cure for most of the afflictions of mankind. Secondly, he frequently sees friends who are addicts and talks with them about narcotics and associated subjects. The writer does not maintain that this man must of necessity revert to the habit, but only that certain conditions distinguish him from the non-addict and function as predisposing factors toward relapse. The factor of association *per se* cannot be regarded as the crucial condition in his case because he is and has constantly been in close association with drug users for more than ten years without relapsing.²³

²³ The addict described here relapsed some time after this paragraph was written. He had abstained from using drugs for more than fifteen years. The conditions under which relapse occurred are not known.

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That association is not the precipitating factor in relapse may be shown by other instances. An individual interviewed for this study, who had become addicted through medical treatment, knew no other addicts for several years after becoming addicted. During this time he five times stopped taking shots—on one occasion staying off for over a year—only to return to the drug. Here it is impossible to account for the relapse on the basis of an unfavorable environment or old associates. The primary condition again seems to be a craving known only to the ex-user—an urge which needs no particular external stimulus. In this connection, reference is again made to Mr. F., who became addicted in a British hospital.²⁴

Further illustration of the urge to seek a drug supply came to the writer's attention when a subject of this investigation, who was discharged from prison in the spring of 1937, went to Chicago with more than a hundred dollars in his pocket. Fearing re-addiction and yet desiring just one shot, he walked the streets for about two weeks looking for some old friend who might help him make the necessary contact. Frustrated on every side, he finally met another addict just released from the same penitentiary. The latter reported the meeting in these words: "He just fell on my neck and asked me for a shot of anything. He said he was sick of booze and blondes and just wanted a shot." From cases such as these it is evident that relapse cannot be explained in terms of the external situation.

A non-addict who wanted to buy morphine or heroin would experience great difficulties. He would not know who sold it, or how to go about asking for it, and if he met a drug peddler he would be under suspicion because he was not an addict. To an ex-user, these difficulties do not exist or the means of overcoming them are known. The technique of injection is also known, and certain tricks of the trade may be employed to deceive the peddler into believing that the prospective cus-

²⁴ See above, Chapter V, Case 13.

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tomers is using the drug at the time. Once adapted to the culture of drug addicts, an individual finds the drug much more readily available than before. A drug user emphasized the importance of availability by saying that if all the "hop in the world" were on a single ship, and he knew there were no further means of producing any, he would be willing to sink the ship, because "if I knew I couldn't get it, I know it wouldn't bother me." The writer has frequently been told by addicts that they could get along in prison quite well without the drug and were even able to dismiss it from their thoughts because they knew that they could not secure it. Availability of the drug is thus a major reason for the addict's preoccupation with it. All is changed when the addict is released from prison, for supplies are then again at his disposal.²⁵

Upon release from prison, the user gravitates to his old haunts, which both remind him of his narcotic and make it available to him. His prison associates and friends are a constant temptation when he meets them outside. Likewise, every "cure" broadens the addict's acquaintanceship and impedes abstinence. On this point Schultz observed:²⁶ "Incidentally, at every cure they increase their knowledge of drugs and the number of drug addict acquaintances, whom they meet later to be tempted again. In other words, many 'cures' make the environmental difficulties of the addict so much worse afterward."

Through intimate knowledge of the drug, the taboos that surround it lose their effectiveness. The addict learns that popular opinion is all wrong; that there is nothing horrible or uncanny about narcotics. Moreover, the injection of a bit of drug into his system, especially in view of its beneficial effects, does not seem to him to be a moral question. He may try to quit because he does not relish complete dependence upon the

²⁵ On this point, one addict quoted the Rubaiyat:

"If 'tis a blessing we should use it,
"If not, why then, who set it there?"

²⁶ Schultz, *op. cit.*, p. 473.

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drug, or because he wishes to appear in a favorable light before friends and relatives, but he does not seek abstinence because he thinks addiction is sinful. All moral arguments fall on deaf ears because of his personal experience with the drug.

An addicted physician, who had abstained for a few years, lost his money in the financial crash of 1929. Worry drove him to the conclusion that he must begin using morphine again or give up his practice. He decided that it was only rational to resort to the drug. Moral issues evidently played little if any part in his decision. In many instances the dissolution of taboos begins, in a preliminary form, when the non-addict first becomes acquainted with an addict whom he likes. It is completed when the individual applies to himself the symbols assigned to addiction by his group and is satisfied to call himself a "junkie."

All the interrelated factors discussed above are connected with using the drug for the conscious purpose of alleviating withdrawal distress. They do not and can not arise in mere habituation. Taken together, they abnormally sensitize the addict to certain types of experience when he tries to abstain. At such a time, his equilibrium is unstable; his environment becomes transformed into a world of "dope fiends" and "dope." Petty occurrences and all kinds of objects remind him of the drug and exert a steady pressure until the slightest stimulus may precipitate a relapse. The disadvantages of the habit fade out of consciousness, while the advantages and reasons for resuming the drug just as readily multiply and increase in importance.

AN ADDICT'S RATIONALIZATIONS

The following account of his own experiences by a nineteenth century American drug user is particularly interesting and significant because of manner in which it exemplifies the addict's rationalization of his addiction and of his relapses, pre-

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sented in this case with amazing naiveté but with obvious sincerity.²⁷

Finding then, that a grain of morphine was just the quantity required in my case, I took that amount every day in the evening, while the neuralgia continued, which was for three or four weeks; when this disease left me. Being now free from pain, I ceased taking morphine, as the necessity for it had ceased. This was my first experience with morphine; would to God it had been my last! And this experience was pleasant, leaving no sting behind. Is it then to be wondered at, that upon my next attack of my hereditary enemy, and in all subsequent attacks, I employed a remedy which had worked so well before, in fact the only remedy I knew for this painful affliction. . . .

But there came a time when matters took a different turn, when my relations with morphine were not of so friendly a nature, and when my reflections became of a more somber hue. . . . [He tells of becoming ill.] Before I had fully recovered from the effects of the fever, the neuralgia set in, in the chronic form; and I was never free from pain a single day for four months, except when under the influence of morphine. In the meantime I had become an inmate of a water-cure, but had not as yet received any benefit from the treatment. At the end of four months the neuralgia suddenly ceased, and I immediately laid aside the morphine, as I had done always before on the subsidence of the pain. Although I had been using the drug in moderation, never exceeding a grain to a grain and a half daily, yet having taken it continuously for four months, I found a difficulty in thus suddenly leaving it off which I had never experienced before. I felt as weak as a child, and as though I was falling to pieces. All the secretions of my system, which under the influence of morphine had been locked up, were now poured forth abundantly. Perspiration was profuse. Yet it was a cold and clammy sweat, and I was compelled to go to bed and cover up with blankets in order to keep warm in the middle of a July day. I had a gnawing sensation in my stomach which demanded for its satisfaction mustard, pepper, and other hot and stimulating condiments. And for eight days and nights I never closed an eye in sleep. But in a little over a week the system had fully reacted, and I began to feel pretty comfortable. I had not yet become a confirmed opium-eater, but I had made a narrow escape. I had been standing on dangerous ground. . . . The neuralgia returned before I had been free from it a month. Being still at the water-cure, I brought to my aid all the resources of hydropathy. I tried cold baths and warm baths, and a most rigid diet, all to no purpose; and after suffering as none but a neuralgic invalid can suffer, I again resorted to the old remedy, and the only remedy for this protean malady. It may be that I resumed the use of the drug without proper reflection; but when does a man in severe and agonizing pain ever reflect? Although I suffered, suffered severely, when last I abandoned the use of morphine, still I did not suffer as much from

²⁷ James C. Layard, "Morphine," *Atlantic Monthly*, XXXIII (1874), pp. 697-712. It is interesting to note that current public attitudes toward drug addicts would make the publication of an account such as this one in a nationally known periodical like the *Atlantic Monthly* virtually inconceivable.

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that cause as I was now suffering from neuralgic pain. I thought I was choosing the lesser of two evils. . . .

I now struggled both against the disease and against the remedy. I tried hard not to become an opium-eater. I tried hard to sever the links of the chain rapidly forging about me, links which were every day becoming more adamant. And at one time, and that within four months of the date of my last resumption, taking advantage of a temporary cessation of pain, I almost succeeded. Yet I did not succeed. After this period my pains increased, calling for increased doses of morphine.

I had now become a confirmed opium-eater. I had been taking morphine every day continuously for several months.²⁸

He then goes on to describe his relapses after temporary abstinence:

My health had now become pretty well established. But it was for a brief period indeed. About the beginning of July of this year symptoms of my old malady began to make themselves felt. I took every precaution to ward off the attack. I tried all the resources of allopathy, homeopathy, and hydropathy, together with a most rigid regimen; for above all things I did not wish again to become an opium-eater. But what was to be done? Although my condition before when taking morphine habitually was a truly deplorable one, still it was more tolerable than my condition was now, without it. While using it moderately I could give some attention to business, I had still some enjoyment of life, especially intellectual pursuits, for it seemed to stimulate the intellectual faculties to increased activity. And, barring all considerations of this kind, I was free from pain while under its influence. Now I was wholly incapacitated for business of any kind, and enjoyment was out of the question. I had no pleasure in existence; life was a burden. I fought the enemy long and desperately, I fought him with the energy of despair, until, overcome with suffering, I finally succumbed. Then I took morphine for a single day, making a truce with the enemy, as it were, for that short period, only to renew the battle the day following. Then on the third day I took morphine again. In this way I kept the enemy at bay for several weeks, making it a rule never to take morphine two days in succession, thus giving the system time fully to recover from the effects of one dose before taking another. I thought that in this way I incurred less danger of falling back again into my old habits. But the time came when this rule could no longer be observed, and I took morphine every day, but once a

²⁸ The striking manner in which this account conforms to the writer's theory should be noted. The addict mentions that the first experience left no "sting," and that the "sting" increased in proportion to the severity of withdrawal distress. As he himself points out, he became addicted only when his experience with morphine became unpleasant by reason of withdrawal experiences. The impulse to relapse was also not present until the withdrawal experience had forced the continuation of the drug. The first resumption could not be called relapse inasmuch as he says he was not yet an "opium eater," and also because the drug was resumed in an incidental sort of way in connection with disease.

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day for a while, and, by the time winter had set in, twice a day, or oftener, as required. Thus in about a year from the time I had gone through the tremendous crisis described a little further back, I was again in the gall of bitterness. Indeed, I had come to that condition in which I cared but little whether I lived or died. I had become, in short, perfectly reckless of consequences. . . .

Relapse No. 2.—It was about six weeks since I had taken the last morphine. My health in the meantime had not improved to that degree which I thought I had a right to expect. I was free from neuralgic pain it was true, but I was still nervous and irritable, and exceedingly uncomfortable every way. That cold and clammy perspiration still continued. It seemed to be more profuse than it had been three weeks before. Other symptoms there were too, which along with this, indicated a state of great relaxation of the general system. I saw that tonic remedies were called for, and I took quinine, but without any effect whatever. Mine is one of those constitutions upon which quinine never seems to have any effect. At length the time came when I must go to work, though in no fit condition for it. Shorthand reporting is a pursuit requiring in those who practice it the best condition of physical and mental capacity. The mental faculties which it calls into action are put to the utmost stretch, and the physical health must be such as to give them adequate support. However, the attempt must be made, and I made it. I very soon found that without assistance from some quarter I could not succeed. What was to be done now? I ventured to take a grain of morphine. The effect was marvelous. I could report, now, verbatim, never losing a word. And I could do any amount of labor at transcribing, the drudgery of the stenographer. I now liked to work, the harder and the more of it the better. The morphine had such a bracing tonic effect! . . . I found myself necessitated to take it every second day in order to be able to work, and I was determined not to take it oftener, for I knew that in this way alone could I preserve my freedom. I thought that in the meanwhile, perhaps in two or three weeks, my system might rally, and so become able to work itself out of its relaxed condition when the morphine could be dispensed with.

Here, and here only do I acknowledge guilt in my dealings with morphine: that is, in taking it merely to remove languor of the system, and brace it up sufficiently to enable me to attend to business, at a time when I was not suffering actual pain. Had I had my time fully at my own command I would doubtless have acted differently. But I was the victim of circumstances. Work I must, and in my then condition I could not work. Say, ye cavillers, what in like circumstances would you have done? It seemed as though I had now lost that wholesome fear of morphine which I had once entertained. . . . So I played with morphine as a child plays with fire.

Instead of any improvement taking place in my physical condition, such as I had hoped for, matters only grew worse, and to add to my other difficulties, neuralgic troubles began again to make their appearance about this time. It was not long, under this new condition of affairs, before I found myself compelled to take morphine every day, then twice a day, and also to increase the dose.

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A later relapse is described as follows:

I bore my suffering as well as I could until the end of the fourth day, and then I had to yield. . . . And in all subsequent trials that I made, I could never hold out against these gastric symptoms beyond the fourth day.

SUMMARY

The theme of the present chapter may be summarized briefly. As the addict uses the drug to alleviate withdrawal distress, he assumes a number of characteristic attitudes. Among these are the definition of himself as an addict, his desire to increase the dosage, and his constant dependence upon the drug. Certain other attitudes predispose him toward relapse. He learns that the drug has certain beneficial effects, and so acquires a belief in its universal efficacy; he interprets things that go wrong with him as calling for drugs, he becomes familiar with the effects of morphine, and thus the moral taboos associated with morphine wear off. It is important to note that such attitudes are formed in the process of becoming "hooked." When the addict has been taken off the drug and withdrawal distress is past, however, the attitudes persist. The former user still believes in the efficacy of the drug. He still interprets the vicissitudes of life to some degree in terms of opiates and never again exhibits a feeling of disgust or moral indignation toward drug usage such as he may have had before addiction. These changes are produced by the influence of withdrawal distress, as has been demonstrated, but once formed, they are independent of the withdrawal symptoms.

The writer has thus far attempted to show how his theory illuminates the various problems of addiction. The theory affirms that addiction occurs when the withdrawal symptoms are ascribed by the person experiencing them to the absence of the drug, and when the drug is used thereafter to avoid this distress. This interpretation exists in the surrounding culture

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and is imposed upon the new addict by his social milieu. It implies an explicit verbal formulation or definition of the withdrawal situation, in which the beginner indicates to himself the nature of the withdrawal symptoms and also first tentatively identifies himself as a drug addict. The theory advanced accounts for the essential characteristics of addiction. Evidence has been produced to show that it applies to all cases. Although the interpretation could be upset by a single case of an individual who had demonstrated his immunity to the influence of withdrawal symptoms, no such evidence has been found. It was likewise shown that in all cases where a person had become habituated prior to, and separate from, his later addiction, the implications of the theory were fully borne out, in that the individual reported either his failure to understand the significance of the withdrawal distress in the initial instance, or his inability to recall that he had experienced it at all. Finally, it was shown that the theory offers a ready means of understanding both the desire to be cured and the impulse to relapse.

CHAPTER VII



A CRITIQUE OF CURRENT THEORIES OF ADDICTION

PSYCHOPATHY AND ADDICTION

In a discussion of drug addiction, E. W. Adams, a well known British writer on this subject, states:

It is almost universally agreed now, that running beneath all other causes is an inherent mental or nervous instability of a greater or less degree. That statement may be said to rest upon evidence as convincing as that upon which most of the canons of medicine are based. Addiction can, as will later be seen, be brought about in persons mentally normal to all appearances, if deliberate attempts are made with this object or if their medical advisers unwisely subject them to unduly prolonged narcotic treatment, but such persons will not become addicts of their own accord. Ordinarily, then, addiction is a sign of a mental makeup which is not entirely normal. . . . We shall not go wrong, then, in accepting as a fact the existence of this psychopathic basis in the large majority of the victims of drug addiction.¹

Numerous other authorities who agree with this conclusion are also cited.

It is undoubtedly true as Adams contends that this view of addiction is widely accepted among students of addiction, and it is also true that the popular conception of addiction is very

¹ E. W. Adams, *Drug Addiction* (London, 1937), p. 53

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much the same, though expressed in different terms. The general public regards addicts as weaklings or degenerates. A narcotic agent told the writer, for example, that addicts use drugs because "they are weaklings." This popular view of addiction is apparently much older than the scientific theories with which it is in substantial agreement.

It is our purpose to examine critically the evidence upon which this theory is based to determine whether it is actually as well founded as Adams asserts. Two of the most competent students who have assumed this position are Dr. Lawrence Kolb of the U. S. Public Health Service and Dr. Charles Schultz.

In a study by Kolb, 225 addicts were classified in the following categories:

Normals who are accidentally or necessarily addicted in medical practice (14 per cent). Care-free individuals, devoted to pleasure, seeking new sensations (38 per cent). Definite neuroses (13.5 per cent). Habitual criminals—always psychopathic (13 per cent). Inebriates (21.5 per cent).²

Kolb states that all these addicts became addicted "because of the pleasurable mental satisfaction that the first few doses of the narcotic gave them":

The degree of inflation varies in direct proportion to the degree of pathology. It occurred only slightly or not at all in those considered nervously normal, but was very striking in some of the extreme psychopaths.³

Concerning the habitual criminal, Kolb asserts: "Habitual criminals are psychopaths, and psychopaths are abnormal individuals who, because of their abnormality, are especially liable to become addicts."⁴ He concludes:

The instability of the various abnormal cases expressed itself in some form of social or psychical reaction that marked them off as different from the average stable individual. They were not necessarily invalids or vicious; some of them were useful citizens and remained so; others were so abnormal as to have been

² Lawrence Kolb, "Types and Characteristics of Drug Addicts," *Mental Hygiene*, IX (1925), p. 301.

³ Lawrence Kolb, "Drug Addiction in Its Relation to Crime," *Mental Hygiene*, IX (1925), p. 77.

⁴ *Ibid.*, p. 88.

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social problems before their addiction, or the use of narcotics with its attendant social and physical difficulties, had seriously reduced their efficiency.

Frank cases of hysteria and psychasthenia were less common than cases that showed biased personality of one kind or another. Psychopathic characters, periodic inebriates, extremely temperamental individuals, and persons who had been problem children were more common than cases with phobias, fits, or pathological fears. A common type among these cases is a psychopath who, with his special deviation of personality, is, in the language of the street, an individual who knows it all and does not care. . . .

The psychopath, the inebriate, the psychoneurotic, and the temperamental individuals who fall easy victims to narcotics have this in common: they are struggling with a sense of inadequacy, imagined or real, or with unconscious pathological strivings that narcotics temporarily remove; and the open make-up that so many of them show is not a normal expression of men at ease with the world, but a mechanism of inferiors who are striving to appear like normal men.⁵

In another study of 119 cases who became addicted in medical practice, Kolb rated only 67 per cent as psychopathic,⁶ while in a third study he found that 91 per cent of 210 cases were defective prior to addiction.⁷ He summarizes his viewpoint as follows:

It has long been recognized by students of the subject that the addict is generally abnormal from the *nervous* standpoint before he acquires the habit, while some, like Block, assert that normal persons never become habitués. It is probable that Block does not class as habitués persons who, because of certain painful conditions, are necessarily addicted in the treatment of them. If this

⁵ Kolb, "Types and Characteristics of Drug Addicts," *op. cit.*, p. 302.

⁶ Lawrence Kolb, "Drug Addiction: A Study of Some Medical Cases," *Archives of Neurology and Psychiatry*, X (1928), pp. 171-83.

⁷ Lawrence Kolb, "Clinical Contribution to Drug Addiction: The Struggle for Cure and the Conscious Reason for Relapse," *Journal of Nervous and Mental Disease*, LXVI (1927), p. 22 ff. Quoted by Charles E. Terry and Mildred Pellens, *op. cit.*, p. 617 ff. The lowest percentage of abnormals among addicts which the writer has been able to ascertain, as reported by a competent authority, is 34 per cent as reported by R. N. Chopra in "The Opium Habit in India," *Indian Journal of Medical Research* (October, 1935), pp. 357-89. Kolb's 91 per cent is the highest. Other estimates were made by Theodore Riechert, "Die Prognose der Rauschgiftsuchten," *Archiv für Psychiatrie*, XCV (1931), pp. 103-26; Hans Schwarz, "Ueber die Prognose des Morphinismus," *Monatsschrift für Psychiatrie und Neurologie*, LXIII and LXIV (1927), p. 180 ff; H. M. Pollock, "A Statistical Study of One Hundred Sixty-four Patients with Drug Psychoses," *State Hospital Quarterly* (1918-1919), pp. 40-51; Johannes Lange and Emil Kraepelin, as cited by Alexander Pilcz, "Zur Konstitution der Süchtigen," *Jahrbücher für Psychiatrie*, LI (1934), p. 169, ff.; V. V. Anderson, "Drug Users in Court," *Boston Medical and Surgical Journal*, CLXXVI (1917), pp. 755-57; Karl Bonhoeffer, "Zur Therapie des Morphinismus," *Therapie der Gegenwart*, LXVII (1926), pp. 18-22; see also Charles E. Terry and Mildred Pellens, *op. cit.*, index, under "psychopath" and "psychology."

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assertion allows for this exception and is limited in application to countries which like the United States have laws that protect people from the consequences of their own ignorance, its accuracy is supported by my own findings. Ninety-one per cent of this group and eighty-six per cent of a group reported elsewhere by me deviated from the normal in their personalities before they became addicted. . . .

The unstable individuals who constitute the vast majority of addicts in the United States may be divided into two general classes: Those having an inebriate type of personality, and those afflicted with other forms of nervous instability. The various types find relief in narcotics. The mechanism by which this is brought about differs in some respects in the different types but the motive that prompts them to take narcotics is in all cases essentially the same. The neurotic and the psychopath receive from narcotics a pleasurable sense of relief from the realities of life that normal persons do not receive because life is no special burden to them. The first few doses, especially if larger than the average medicinal doses, may cause nausea and other symptoms of discomfort, but in the unstable there is also produced a feeling of peace and calm to which they are not accustomed and which, because of its contrast with their usual restless and dissatisfied state of mind, is interpreted as pleasure. These people have in their normal state unusual impulses and disturbing mental conflicts because of them. They feel inadequate or inferior, their usual restlessness and anti-social conduct are expressions of compensatory strivings against this, or specific acts may be pathological outlets, for impulses not properly directed. The narcotic properties of morphine and heroin are sufficient for the time being to remove all of this. Inferiority is replaced by confidence, restlessness by calm, and discomfort by contentment. The degree of contrast with their usual selves is in direct proportion to their degree of deviating from the normal.⁸

Schultz classified 318 cases of addiction in the following manner:

Unclassified, 42 patients (13.2 per cent); i. e., in 13.2 per cent of the patients treated, little or no evidence could be elicited of psychopathic personality other than the drug addiction *per se*. These cases gave the impression of having possessed and still retaining normal personalities.

Inadequate personalities, 96 patients (30 per cent). While the majority in this group were probably psychopathic types who had been the shiftless black sheep and ne'er-do-wells of their families before using drugs and whose failings may have been accentuated as a result of the addiction, there were some who appeared to have been fairly normal individuals before using drugs, but who went to seed afterwards, from what information was available.

Emotional instability, 65 patients (20 per cent). Here there is a question, in some cases, as to whether the instability was present before or came as the result of the addiction. Undoubtedly, the majority were unstable before using drugs. . . .

⁸ Quoted by Terry and Pellens, *op. cit.*, pp. 617-23.

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There are some types who from their previous histories appeared to have been more stable before using narcotics, and in whom the instability was secondary to the use of drugs. (In all observations carried out on these drug addicts, the emotional instability was the most striking feature.) . . .

The following groups appear to have been basically psychopathic. Criminalism, 41 patients (13 per cent). The dominant feature here is seen to be profound egotism combined with complete indifference in regard to ethical issues. The exclusive aim of such an individual is his own pleasure or his own interest. He has neither sentiment of honor nor respect for the truth. His unique pre-occupation is to escape conviction and punishment. . . .

Paranoid personality, 29 patients (9 per cent). In this type we find conceit and suspicion, and a stubborn adherence to a fixed idea; contempt for the opinions of others, values, argumentativeness, and a tendency to develop persecutory trends.

Nomadism, 26 patients (8 per cent). The nomadic or wandering tendency is present in most of us to some degree and, as all know, is in certain races so pronounced as to govern their mode of existence and social organization. . . .

Sexual psychopathy, 18 patients (6 per cent), homosexuality. These patients all showed the stigmata and reactions which were characteristic. In addition, many patients showed tendencies to be masochistic; e.g., pricking themselves with pins and needles during treatment or asking for "sterile hypos" after they were off treatment to get a "kick" out of it. This they termed "needlemania." [The followers of Watson and Pavlov might call this a conditioned reflex.]

Thus if we exclude all those in the unclassified and inadequate personality groups, we still have above 56 per cent who appear to have been constitutionally psychopathic.

However, most of those grouped as inadequate personality were probably also basically psychopathic, so that we have between 56 per cent and 87 percent of the patients who may well have been psychopathic before acquiring the state of drug addiction.⁹

The similarity of the methodology and assumptions of these studies is obvious. A major criticism of both is that no use whatever was made of control groups. Incredible as it may seem, the desirability of control groups is not even suggested despite the fact that the percentage of psychopaths in the general population may exceed that among the addicts. Because of the failure to use control groups, comparative statements are unjustified on the basis of the information given by these two authors. Moreover, neither offers any exact criteria for the

⁹ Schultz, *op. cit.*, p. 484.

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classification of addicts. In Kolb's scheme the largest percentage of cases is made up of "care-free individuals, devoted to pleasure, seeking new sensations," and according to Schultz the largest class is composed of those with "inadequate personalities." These terms are too loose to permit any exact classification and, therefore, are scientifically almost useless.

It is worth noting that both writers admit that normal persons may become addicts. Kolb places the percentage of normals at 9, 14, and 33 per cent in three different studies. Schultz says that he found 56 per cent abnormal, but suspects that 87 per cent may have been. According to him, the number of normals would therefore be somewhere between 13 and 44 per cent. If it is proposed that people become addicts because they are abnormal, why then do ostensibly normal persons become addicts? Kolb himself points out that normal individuals not only do become addicted, but that once addicted, they may have as much difficulty in quitting as anyone else.

Do normal persons become addicts because they are normal? Or do apparently normal persons become addicts because they have hidden defects? The latter explanation is not satisfactory, because if one attributes addiction to hidden defects, the explanation becomes hypothetical. A hidden defect can always be postulated even though it cannot be found. Moreover, one may ask if there are any human beings who do not have obvious or hidden faults. This approach appears to be an *ex post facto* interpretation achieved by taking addiction itself as evidence of psychopathy and searching for other justification of the assumption. Most of the positive assertions that are made about addicts before addiction are unwarranted, and the studies from which these conclusions are derived are invariably studies of addicts after many years of addiction.

It is interesting to note that crime is sometimes explained in terms of psychopathic personality just as drug addiction is. We may note also that those who seek to prove psychopathy

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among drug addicts cite criminality as evidence of it, while those who are interested in demonstrating the psychopathy of criminals cite addiction to drugs as supporting evidence.¹⁰ In this way error becomes cumulative and the fundamental weaknesses and circular character of the reasoning is concealed.

Kolb's suggests that his own tentative generalization that addiction is produced by abnormalities is probably not applicable to drug addicts in other countries, where laws do not protect individuals against the consequences of their own ignorance as they are presumed to do here. In other words, the "disease" is explained in the United States, but not in France, Germany, China, or in India, and in such a circumstance the value of an explanation becomes extremely questionable. An explanation of addiction which applies only to a certain proportion of cases, or which is applicable only in certain countries, is not adequate.

The writer has been unable to find a single study along these lines that made use of controls, or that was actually based on reliable information about the addict *prior to addiction*. He agrees with Terry and Pellens in their summary of the literature:

In the foregoing, one is struck with the contradictions apparent in the widely varying views expressed as to the types of individuals predominating among chronic opium users. Unless we bear in mind, along with other co-existing factors which will be discussed below, the fact that for the most part each writer was influenced by impressions received from observations on selected cases, we may become confused by the picture presented. For example, terms such as "constitutionally inferior," "degenerate," "vicious," "highly intellectual," "akin to genius," "of the upper social strata," "of the most depraved type," "potential criminals," etc., etc., commonly have been used to indicate type characteristics.

¹⁰ Harry Best, in *Crime and the Criminal Law in the United States* (New York, 1930), p. 274, notes that the medical section of the American Prison Association proposed the following classification of prisoners: I Normal; II Feeble-minded; III Neuropathic (abnormal constitution of character): (a) psychopathic personality; (b) epileptic; (c) post-encephalitic personality; (d) alcoholic; (e) drug addict; (f) psychoneurotic; (g) other brain or nervous abnormalities without psychosis specified; IV Psychotics; V Potentially psychotic. For an excellent criticism of the attempt to explain crime by means of psychopathy see E. H. Sutherland, *Principles of Criminology* (Philadelphia, 1934), pp. 84-109.

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All too often the proponent for one type or another loses sight of the fact that his experience has been limited because of certain influencing factors to be a selected group. It is obvious, therefore, that generalizations from such selected and hence quite atypical groups are valueless and prejudicial to a true conception of the real nature of the problem as a whole. . . .

In addition to the foregoing possible misinterpretations on the part of the writers quoted, is it not possible that where individual writers have accorded to certain types a tendency to the use of this drug, effect has been mistaken for cause? Have not these patients, possibly as a result of the situation in which they find themselves—the toxic effect of the drug, disturbed metabolism, fear of discovery and realization that unaided they cannot regain their health—presented temporarily characteristics that were not constitutional with them? In spite of frequently repeated statements that the use of opium and its derivatives causes mental and ethical deterioration in all cases, we are inclined to believe that this alleged effect has not been established. The evidence submitted in support of such statements, in practically every instance coming under our notice, has been secured *after* the development of the addiction and was not based on a knowledge of the individual's condition *prior* to his addiction. In other words, the pre-addict has not been studied, and traits of character, ethical standards, and intellectual capacities based on *post hoc* findings may or may not have a *propter hoc* significance and effects attributable to the influence of the drug quite possibly may be evidence—as also may be the taking of the drug—of pre-existing constitutional tendencies. It may be said with equal truth in considering the claims of those who state that certain types of individuals comprise the bulk of chronic opium users, that for one reason or another in the writings of many, "types" as generally understood are not considered as such until extraneous circumstances, possibly even the use of the drug itself, have altered the individual or group in question. In other words, what might be called the original type has come to be something else or attributes or factors not inherent in type delineation have been introduced as type-descriptive. Wherever the truth may lie the evidence submitted in support of the statements appearing in this chapter dealing with type predisposition and with the effect of opium use on mental and ethical characteristics is in our opinion, insufficient to warrant the opinions expressed. . . . Unfortunately, in an attempt to present a comprehensive picture of the sociologic, constitutional, and other types of individuals involved in chronic opium intoxication, we are handicapped by the fact that there are available few valuable data, but rather in their place we find categorical statements without any presentation of the evidence upon which they are based. For the most part, we have found as data brief series of cases which by reason of the factors determining their selection may not be considered typical of the opium-using population as a whole.

In general, however, it would appear from the data submitted that this condition is not restricted to any social, economic, mental, or other group; that there is no type which may be called the habitual user of opium, but that all types are actually or potentially users.¹¹

¹¹ Terry and Pellens, *op. cit.*, pp. 513-16.

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It is difficult to discover in what exact sense the term "normal" is defined by Kolb and others, who take the position that addiction can be explained by the pre-existing abnormality of the person who becomes an addict. It is clear, however, that the term is not used in the sense of "average." Kolb and Schultz admit that normal persons, as they define them, do become addicts, but the implication of their theory is that they should not—that they should show immunity. Apparently some practicing physicians have been more consistent in this matter. Ernst Meyer, a writer who holds to the psychopathic theory, tells of cases known to him in which physicians ordered morphine for repeated use with the explanation that there was no danger because of the absence of psychopathic predisposition. Meyer solemnly warns against this practice: "Care in the use of narcotics should still be maintained in spite of the theory that a psychopathic constitution is a necessary basis for the development of a chronic abuse of the drug."¹²

It appears, then, that the theory that the addict is a psychopath is without value except as an *ex post facto* explanation, that the psychopath and the hypothetically normal person must both be treated as potential addicts prior to addiction. If the term "psychopath" has definite meaning, a meaning which carefully excludes "non-psychopaths", it has not been shown in these studies.

The term seems to be used basically in a derogatory sense reflecting disapproval or lack of comprehension, by the individual making the judgment. Jöel and Fränkel have sharply criticized this view of all addicts as psychopaths:

This conception is wrong in all its details and has dubious consequences. Even disregarding the fact that the concept of psychopathy is so extended today that one can find some psychopathic traits in anyone, the addiction is itself often taken as evidence of degeneracy when psychopathy cannot be otherwise proved. This is, of course, to reason in a circle. Also when it has been demonstrated

¹² Ernst Meyer, "Ueber Morphinismus, Kokainismus und den Missbrauch anderer Narkotika," *Medizinische Klinik*, XX (1924), pp. 403-407

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that these persons have tainted heredities, therapeutically and for prognosis very little has been gained.¹³

Suppose someone suggested that persons become tobacco smokers because they are abnormal and, without using a control group, attempted to prove it by citing statistical evidence concerning the prevalence among smokers of certain traits assumed to be evidence of abnormality. Such a study would be ridiculed. Why, then, is the same kind of evidence accepted as proof in the case of drug addicts? The need of a control group is widely accepted in making mass comparisons. Why, then, does the failure to use controls when addicts are studied go unnoticed? The writer is inclined to believe that the reason is to be found in the general predisposition of students, influenced by popular beliefs, to accept the abnormality of addicts without proof. In other words, the "scientific" theories are simple rationalizations of pre-existing popular views. The student of addiction approaches the problem with pre-formed judgments. He finds flimsy evidence which at first glance appears to corroborate his view. Others express the same opinion. The public applauds because the theories of the experts confirm popular prejudices. The experts, influenced by popular views, have tended to assume in advance that addicts must be abnormal persons, and in their willingness to be convinced they have often taken addiction itself as presumptive evidence of abnormality and neglected to use control groups.

BINGHAM DAI'S THEORY

The writer has been told several times that his theory of addiction was in reality a mere restatement of self-evident truth which is accepted by all, particularly by other sociologists. This criticism is unfounded, since if it were true it would be un-

¹³ Ernst Jöel and Fritz Fränkel, "Zur Verhütung und Behandlung der Gift-süchten," *Klinische Wochenschrift*, IV (1925), p. 1714.

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necessary to ask why some persons become addicted when others under similar circumstances do not. The answer to this question, which has been the central theoretical question that has been raised in the literature of drug addiction, would then also be obvious, and it could not be in terms of predisposing abnormalities since our theory directly contradicts that view.

Since another sociologist has made a study of opiate addiction and reached conclusions concerning its etiology, it is instructive to note what these conclusions were. Dr. Bingham Dai discusses the problem as follows:

And this incapacity to face life situations, upon close examination, is found in many cases to be characteristic of the addict long before he or she forms the drug habit, and to consist mainly of defective or inadequate emotional attitudes toward people and toward life in general. In other words, we found that practically all of the addicts we have interviewed have an infantile type of personality, characterized by excessive dependence on other people and a persistent tendency to withdraw or escape from social responsibilities.

Upon closer examination, it was found that most of the defective or inadequate attitudes toward people that caused the addicts under investigation to shun the demands of culture, and that in the beginning predisposed them to the use of narcotics, and in the end made a permanent cure almost impossible, seemed to have definite connection with their childhood life, especially their relation with their parents.

Thus we found that drug addiction is at bottom a symptom of a maladjusted personality; and since the source of an addict's maladjustment either as a child or as an adult is social, drug addiction may also be said to be a product of general social disorganization.¹⁴

It is evident from this quotation, and from Dai's book, that his viewpoint is essentially that which we have discussed in the preceding pages. Thus, far from taking the same position as the writer, he has taken one which is directly contrary. It is obviously impossible to harmonize this fact with the charge that the writer's position is a self-evident truth to all sociologists.

Another statement by Dai indicates that other aspects of opiate addiction are by no means as self-evident to sociologists

¹⁴ Bingham Dai, *Opium Addiction in Chicago* (Shanghai, 1937), p. 174.

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as they might be. Concerning the nature of withdrawal distress he states:

Consequently, it is difficult to say whether the addict's craving for opium is due to a physiologic urge to recover the lost artificial functional equilibrium or more a psychological desire to re-enter the state of Nirvana, as we have called it. We are inclined to adopt the latter view, and evidence in support of it will be advanced when we come in a later chapter to discuss what the opium habit means to the individual. It is fitting to point out here that recent experimental evidence also seems to point quite definitely to the conclusion that the basis of withdrawal symptoms is emotional rather than pharmacological.¹⁵

How can this assertion be reconciled with the facts that animals exhibit withdrawal distress just as human beings do, and that the new born baby of an opiate-using mother experiences distress a few hours after birth?

HEREDITARY BACKGROUND OF ADDICTS

A significant aspect of the effort to prove that addicts are degenerates, defectives, or psychopaths, has been the study of their hereditary backgrounds. Schultz and Kolb simply stated that in a certain percentage of their cases they found hereditary defects. Schultz, for example, summarized his investigation of the backgrounds of 318 patients as follows:

Father alcoholic, 32 cases; father died of alcoholism, 4 cases; brother died of alcoholism, 1 case; brother a drug addict, 11 cases; two brothers addicts, 1 case; cousin addicted, 1 case; wife addicted, 1 case; mother died insane, 2 cases; brother died insane, 1 case; father died insane, 1 case; sister died insane, 2 cases; brother died from "neur-asthenia," 2 cases; sister had nervous breakdown, 1 case; mother had hysteria, 1 case; brother epileptic, 1 case; parents nervous, 1 case; family nervous, 1 case; mother nervous, 1 case. . . . Thus we have elicited evidence of psychopathy in the immediate family of 60 cases. The true number most likely is greater.¹⁶

It will be noted that addiction in the relatives is taken as proof of their abnormality in making out a case for the hereditary factor. But the addiction of a wife could hardly be related to the husband's heredity, and "nervousness" is a rather vague

¹⁵ *Ibid.*, p. 24.

¹⁶ Schultz, *op. cit.*, p. 470.

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term. Even disregarding these criticisms, defective heredity in 60 out of 318 cases is certainly not high, only about 19 per cent. Kolb found that 69, or about 58 per cent of 119 cases, had defective heredity as determined by the occurrence of drunkenness, psychosis, migraine, nervous breakdown, hysteria, asthma, and suicide among the grandparents, uncles, aunts, brothers, or sisters of the subjects. From a casual inquiry among his associates, and from a tentative inspection of his own genealogical background, it seems to the writer that this standard is comparatively high, and that a substantial percentage of the general population, if measured by such a yardstick, would have to be pronounced abnormal. Unfortunately, Kolb and Schultz do not attempt to make such comparisons.

A number of more sophisticated studies of the hereditary backgrounds of drug addicts have been made by European scholars, especially by Mark Serejski, a Russian author, to whom goes the almost unique distinction of employing a control group. He points out that as early as 1883 Kraepelin called attention to the necessity of making comparisons with the aid of control groups. He takes as standard the findings of Jennie Koller and O. Diems with respect to the occurrence of tainted heredity in the general population—that is, 67 per cent as based on Swiss samples. On this basis Serejski found that the heredity of drug addicts varied from the normal to an insignificant extent, with respect to virtually all of the criteria except alcoholism.¹⁷ If alcoholism is disregarded, the addicts show approximately normal heredity, sometimes below and sometimes above the norm. The prevalence of alcoholism among the relatives of the Russian patients of Serejski should apparently be interpreted as a phenomenon peculiar to Serejski's sample, for it has not been verified by other research.¹⁸ In Germany, for ex-

¹⁷ Mark Serejski, "Ueber die Konstitution der Narkomanen," *Zeitschrift für die gesamte Neurologie und Psychiatrie*, XCV (1925), pp. 130-50.

¹⁸ Serejski's study was made in Moscow.

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ample, Kurt Pohlisch and Otto Wuth found that alcoholism was exceedingly rare in the heredity of their patients, more rare, in fact, than in the backgrounds of the general population.¹⁹

It has been noted by a number of writers that certain types of psychoses rarely, if ever, occur in the addict or in his family. Thus, Serejski states that schizophrenics are immune to addiction, and that manic-depressive insanity is generally absent in the backgrounds of addicts. This finding has been corroborated by other writers.²⁰ Alexander Pilcz drew substantially the following conclusions after studying the heredity of 432 cases:

1. Melancholics practically never become addicts despite long continued opium use.
2. In the genealogy of addicts unequivocal cases of manic-depressive insanity almost never occur.
3. The hereditary aspects of manic-depressive insanity and addiction are quantitatively and qualitatively very different.
4. There is a certain antagonism between the heredity of manic-depressives and of addicts.²¹

In other words, the investigations which have explored the statistical relationship between abnormality and addiction, with the use of control groups have tended to indicate that, in some respects, there is an inverse relationship. From a consideration of these tentative results, it is evident that the blanket assertion that abnormality in general causes addiction is untenable as well as unproved. It is necessary, before anything definite can be said, that such categories as "psychopathy," "defectiveness," "abnormality," be replaced by more specific concepts, and that the relationship of each to addiction be considered separately.

¹⁹ Otto Wuth, "Zur Erbanlage der Süchtigen," *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, CLIII (1935), p. 502 ff.

²⁰ Wuth agrees with this conclusion (*Ibid.*, p. 502), and notes that Pohlisch does also. Charles E. Sceleth and Sidney Kuh, "Drug Addiction," *Journal of the American Medical Association*, LXXXII (1924), pp. 679-82, notes that manic-depressive cases show complete immunity to addiction. See Chapter VIII for a further discussion of this matter.

²¹ Alexander Pilcz, *op. cit.*, p. 179.

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SELECTIVE FACTORS IN ADDICTION

Studies of the type described are based upon the assumption that the comparison of the traits of addicts with those of the general population will lead to an explanation of addiction—i.e., to conclusions about the etiology of addiction. As a matter of fact this assumption is quite unwarranted, because the kind of statistical comparisons required involve essentially the correlation of two variables. Etiological conclusions involve, on the other hand, statements concerning the nature and degree of connection between variables—in short, causal connections. But it is axiomatic among statisticians that correlation does not imply causation. It follows, therefore, that there is no *legerde-main* by which a statistical description of the traits of addicts and non-addicts can be transformed into a causal explanation.

If it were proved by perfectly valid procedures that according to certain criteria 45 per cent of the general population were abnormal, whereas by the same criteria 65 per cent of the addicts prior to addiction were abnormal, what conclusion would follow? It appears to the writer that it would be a logical error to draw any positive etiological conclusion whatever from such data. Of course, one could say that the data suggest that abnormality might be a factor in addiction, but no more. In criminology this sort of procedure has been carried very far without positive etiological conclusions and there is no reason to suppose that it will lead to different results when applied to addiction. Jerome Michael and Mortimer J. Adler must be praised for their criticism of such an approach to the study of criminology:

Even if we knew that criminals could be differentiated from non-criminals in terms of some set of definitive factors, we would not know the etiology of criminal behavior. To solve the etiological problem, not only must factors be distinguished as dependent and independent variables with respect to each other. We must be able to isolate and control sub-sets of variables within the total

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set of variables. We must know whether or not a given set of variables exhausts the field of relevant factors.²²

The problem of getting a reliable control group is difficult. For example, it would not be sufficient simply to compare the general population with addicts, because a large section of the general population is not exposed to addiction. Individuals in the upper strata of society who might possibly be otherwise predisposed, are prevented from developing the habit if the drug is not available—as, in fact, it is inaccessible to most of the population. It would, therefore, be necessary to have a control group in which the underworld and the medical profession in particular would be heavily represented. The writings of Kolb and Schultz lead one to conclude that psychopaths are much more numerous in the underworld than in respectable society. Let us assume for purposes of argument that 75 per cent of the underworld are “defective” persons, by any definition of the word. If it were found that 75 per cent of the addicts were “defective” by the same criteria, this would, therefore, demonstrate nothing beyond the fact that addicts represent the population from which they are in the main recruited.

Pohlisch demonstrated that in Germany addiction was 100 times more frequent in the medical profession than in the general population. Does the logic of the position lead to the inference that physicians are more abnormal than the rest of the population? This interpretation is not attached to the data; instead, it is more satisfactory to explain that doctors are often addicts because the drug is readily available to them. But the same argument applies to underworld users, for whom the drug is particularly convenient because of the traffic in illicit drugs.

No study can be found which demonstrates that addicts are a selected lot and also specifies the traits on which selection

²² Jerome Michael and Mortimer J. Adler, *Crime, Law and Social Science* (New York, 1933), p. 168. Reprinted by permission of Harcourt, Brace and Co., publishers.

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is based. This is also essentially the conclusion reached by Terry and Pellens.

Schultz and Kolb do not describe the criteria of abnormality. Kolb speaks of a class of addicts who are "care-free individuals, devoted to pleasure, seeking new sensations," and assumes that these traits are abnormal. This implies that it is undesirable to be "care-free, devoted to pleasure," and to "seek new sensations." In general, with respect to most such "pre-disposing" traits, it is assumed that any trait which leads a person to try the drug, or to become addicted, must *ipso facto* be evidence of "weakness," "psychopathy," "degeneracy," and the like. It is sometimes said that addicts begin to use drugs because of an inferiority complex, and then, inconsistently, that they also become addicts because of the opposite trait—excessive self-confidence. And to climax the absurdity, it is then assumed that both traits are evidence of abnormality! If self-confidence is a virtue among salesmen, surely it cannot be regarded as degeneracy among addicts. It is assumed that "curiosity" is abnormal if it induces one to try morphine. But curiosity is also the very basis of modern science, and it requires a high order of sophistry to associate it with viciousness or degeneracy.

In view of Kolb's assertion that some persons use the drug while realizing the danger, it may be asked if such deliberate risk does not involve courage. Perhaps one of the selective factors in addiction is courage—a willingness to take risks. If courage is regarded as a virtue in other situations, why should it be considered a vice in the underworld? It seems more logical to believe that, with drugs available and well advertised, they will be used, not because people are degenerate or vicious but only because they are human.

The writer does not wish to imply that the selective factors in addiction should not or can not be studied, but only that most studies along these lines up to the present have erred by assuming that any trait or circumstance which leads a person to

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become an addict may be taken as evidence of a weak or psychopathic personality. Sometimes this may be true, but at other times it is not. The assumption that any alleged trait which causes a person to become an addict must be a "bad" trait stems from general public disfavor with which addiction is viewed. It should also be recognized that the study of selective factors in addiction is not the same as the study of the causation of addiction, and even if it were properly carried out the study of selective influences would not solve the problem of etiology.²³

RELAPSE AND ABNORMALITY

According to Kolb, "Many addicts cannot be permanently rehabilitated. They have started with innate difficulties and have so formed their character by dissipation, idleness, delinquency and prison life that they regard as of little consequence the addition of what is to them such a little thing as addiction."²⁴ This assertion is consistent with other views of the same author and implies that the addict's persistent tendency to relapse is connected with the same innate traits which caused him to become an addict.

That this view is unwarranted is clearly indicated by the following facts: so-called "normal" persons who become addicted do not quit the habit any more readily than anyone else; the drug addicts of other countries (e.g. Germany) who in some instances are recruited mainly from the medical profession, relapse with great regularity; and, no studies are available to indicate that underworld characters relapse sooner than persons from respectable society. As a matter of fact, the implication that underworld characters do not wish to free them-

²³ Margaret E. Hall, "Mental and Physical Efficiency of Women Drug Addicts," *Journal of Abnormal and Social Psychology*, XXXIII (1938), pp. 332-45.

²⁴ Lawrence Kolb, "Addicts on Probation," *Federal Probation* (February, 1939), p. 25.

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selves of the habit is also incorrect. Virtually all of them have tried to quit, usually many times. The view of narcotic agents is that all addicts are incurable, regardless of class origin or personality traits. The drug user himself generally holds this view.

THE PLEASURE THEORY

It is a common belief that opiate addiction is based upon the pleasure or happiness which the drug is supposed to produce. In a sense, this view is incontestable, for obviously the user of drugs obtains satisfactions of some sort or he would not be addicted. The satisfaction of the addict's craving for drugs may itself be called a pleasure. The relief from withdrawal distress which an injection gives may also be so designated. So considered, the assertion that an addict uses drugs because he obtains pleasure or satisfaction from them is merely a tautology.

If one views this theory as a serious attempt at causal explanation it has serious faults. Virtually all addicts maintain, for example, that they only feel "normal" under the influence of the drug after the initial interval when addiction is being established. This contention can scarcely be denied, for, after all, the addict is the final authority on this question of how he feels. The drug user uniformly denies that he experiences euphoria except at the moment of injection.

His testimony does not bear out the hedonistic theory, for at the same time that he admits some positive gratification in the use of drugs he also complains endlessly of its numerous evil effects upon him. One may ask, if opiates produce euphoria or pleasure, and if that is the whole explanation of addiction, why do addicts appear to be so unhappy? No objective observer, acquainted with the conditions under which American addicts live, could describe them as anything but an exceedingly miserable group. If addicts weighed advantages against disadvantages and acted rationally there would be little or no addiction.

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A German physician and ex-addict protested as follows against the notion that an addict uses drugs to produce in himself a pleasant state of mind:

How false it is to say of a drug addict that he takes his injections to produce a "pleasurable state of mind". Good heavens! If people only knew how much misery it causes the addict each time he has to take the drug, they would not say this. True, that the first few injections cause some users to feel stimulated, alert, and so on. However, as soon as tolerance is completely established the euphoria vanishes. When this point is reached, the addict takes his morphine in the same spirit that the prisoner carries his chains. One would then have to use the term "euphoria" to refer to the fact that the distress of abstinence disappears after the injection, but by the same logic any person with a headache could be said to experience euphoria when it disappeared. According to such a standard every normal man spends his whole life in a state of euphoria. . . . And it is entirely false to believe as people do, that addicts use drugs to produce pleasurable sensations. Every addict who hears people talk in these terms, sighs and holds his peace.²⁵

Some persons become addicts without ever becoming aware of the euphoric effects of the drug which are alleged to be the cause or basis of addiction. This is often the case when drug users first used the drug in connection with serious and painful disease or when they were semi-conscious or unconscious when they received their first injections. As a German physician correctly observed:

A fundamental fact that must be added here is that the experience of euphoria is by no means a necessary precondition for the development of a craving. In addition to the fact that some people develop a desire for sedatives which never produce euphoria, I am acquainted with morphine users who have never, throughout the long period of their addiction, experienced any euphoria from the drug. In the case of most addicts, whatever pleasurable effects may be experienced are of short duration. Morphine addicts have become addicts after reacting to first injection with dizziness, painful vomiting, and headache, rather than with pleasure.²⁶

Another contradiction involved in the attempt to explain opiate addiction in terms of the pleasurable effects of drugs is

²⁵ Otto Emmerich, *Die Heilung des Chronischen Morphinismus* (Berlin, 1894), p. 123f.

²⁶ Fritz M. Meyer, "Ueber Einige Seltener Vorkommende Formen von Rauschgiftsucht," *Münchener Medizinische Wochenschrift*, LXXX (1933), pp. 732-33.

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that, precisely as in the case of alcoholism, the persons who experience the pleasurable effects alone are never addicts. The casual or social drinker who drinks a couple highballs is exhilarated and stimulated by them and suffers few if any bad effects. The chronic alcohol addict, on the other hand, suffers severe after-effects in the form of physical symptoms and the social effects may be serious as well. Similarly, it is the non-addict who experiences the beneficent effects of morphine with few or none of the evil effects which are so prominent in the case of the addict. The benign effects of morphine are so well recognized in medical practice that the drug is often spoken of as "G.O.M."—God's own medicine. Whatever unpleasant effects may follow from the medical use of a few injections of opiates are slight, and are in any case usually not recognized by the patient. On the other hand, the opiate addict himself, often describes the vast evil social and physical consequences that his habit brings upon him. The hedonistic theory of the drug habit shatters upon these facts. In strict logic it implies that every addict should maximize his pleasure in life by immediately and permanently renouncing the habit.

It is sometimes maintained that only pathological persons experience pleasure from opiates. This contention is incorrect, as anyone can discover for himself by talking to friends of his who have had injections of morphine or by talking to a few hospital nurses. Every person whom the writer interviewed who had had injections of morphine in connection with medical treatment described these effects as pleasant—some found them intensely pleasurable. None of these persons are addicts. Nurses and doctors testify that almost all patients, with a negligible percentage of exceptions, like the effects of morphine. The writer received his first injection, a quarter-grain, in connection with a minor operation in 1946. The effects were subtle and pleasant. If only pathological persons experience pleasurable

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effects from opiates, then virtually the entire population, including the writer, is abnormal.

The assertion, which is commonly made, that drug addiction is an "escape mechanism" is evidently based upon the assumption that the drug user's assertion that he feels "normal" is false. It implies that by means of drugs a person can escape from the problems that harrass him when he is not using drugs, into a realm of fantasy or pleasurable physical sensations which allow him to forget his inadequacies and his problems. As already indicated, there is no evidence that such a mental state is produced in morphine addicts. There is a great deal of evidence to indicate that it is not. Moreover, the drug user is fully aware of the disastrous effects of his habit, particularly upon his social life. It is therefore difficult to see how the drug habit can be regarded as an escape mechanism, since it does not produce forgetfulness as alcohol does, and since the habit itself constitutes a burden and a problem which is usually more serious than those for which it is alleged to provide an escape. It is true that there may be a parallel between the use of alcohol and the initial use of opiates, and that opiates may be used as an escape device before addiction is established. Morphine as used in hospitals is a potent escape device, enabling patients to escape from intolerable pain, from worry, insomnia, and so on. When addiction is established however, this effect is no longer present.

DOPE FIEND CHIMPANZEES

Dr. S. D. S. Spragg in a recent monograph describes the effects upon chimpanzees of repeated doses of morphine.²⁷ He claims that he found unequivocal evidence in the behavior of chimpanzees of a "desire for morphine" and therefore insists on calling them addicts. He concludes:

A discussion of the nature of morphine addiction in chimpanzee and man

²⁷ S. D. S. Spragg, "Morphine Addiction in Chimpanzees," *Comparative Psychology Monographs*, XV, no. 7, Baltimore, April, 1940.

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was undertaken, and the thesis was defended that morphine addiction is fundamentally a physiogenic phenomenon, developed according to principles of association. That the "societal" factor (which is usually present in human addiction) is not essential in the development of addiction has been demonstrated by the present results.²⁸

Spragg taught his chimpanzee subjects to associate withdrawal distress with the hypodermic injection of morphine. He contends that they exhibited genuine addiction behavior in the following ways:

(1) By showing eagerness to be taken from the living cage by the experimenter, at the regular dose times or when doses are needed, in clear contrast to behavior exhibited when taken from the cage at other times; (2) by struggling, under such conditions, to get to the room in which injections are regularly given; tugging at the leash and leading the experimenter toward and into that room; and exhibiting frustration when led away from the injection room and back to the living cage without having been given an injection, (3) by showing eagerness and excitement when allowed to get up on the box on which the injections were regularly made, and more or less definite solicitation of the injection by eager cooperation in the injection procedure or even by initiation of the procedure itself; and (4) under controlled test conditions, choosing a syringe-containing box (whereupon injection is given) in preference to a food-containing box.²⁹

The choice of food or drugs was offered these chimpanzees under four conditions, (1) when they were hungry and also in need of a dose; (2) hungry, but had recently been given an injection of morphine, (3) recently fed, but in need of a dose; and (4) recently fed and recently injected. Spragg anticipated that the chimpanzees would choose food under conditions (2) and (4) and drugs under conditions (1) and (3). His expectations were fulfilled in the course of the experiment, leading him to the conclusion that the desire for morphine had been unequivocally established and that the animals' behavior was essentially like that of human addicts.

If this conclusion is sound it contradicts the central thesis of the present study, which definitely implies that animals cannot become addicted. There are a number of serious objections

²⁸ *Ibid.*, p. 128.

²⁹ *Ibid.*, pp. 59-60.

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to Spragg's conclusions, however, which make it necessary to reject them. In the first place, the assertion that the chimpanzees desired morphine injections involves the fallacy of projecting human attributes into the animal subjects. On the basis of experimental evidence alone, Spragg might have concluded that the chimpanzees exhibited a desire to be pricked with a hypodermic needle. A second objection to Spragg's conclusions is that hospital patients to whom drugs have been given regularly for a short time frequently demand that the injections be continued and object strenuously if they are not. Such patients by no means necessarily become addicted, yet their behavior is essentially like that of Spragg's animals. Hospital patients, under the conditions mentioned above never become addicts if they do not learn the name of the drug. It is also possible to satisfy them by giving them other drugs than opiates. Spragg's assumption that the choices made by the chimpanzees are those which an addict would make under the same conditions is incorrect. American drug addicts, if given the choice of food or drugs when (1) hungry and suffering withdrawal distress, (2) hungry but not suffering withdrawal, (3) not hungry but suffering withdrawal symptoms, and (4) neither hungry nor suffering withdrawal distress, would unquestionably choose drugs under all four conditions provided that the other conditions of the experiment were identical with those imposed upon the chimpanzees. Spragg's results therefore demonstrate an essential difference between the animals and human beings, not a similarity as Spragg assumes.

Dr. Spragg mentions that the chimpanzees did not conform to one of the criteria of addiction as we have defined it; namely the tendency to relapse. As a matter of fact, however, he overlooked the fact that none of the criteria of our definition were applicable to his chimpanzees.³⁰

³⁰ For a detailed critique of Spragg's study see A. R. Lindesmith, "Can Chimpanzees Become Morphine Addicts?", *The Journal of Comparative Psychology*, XXXIX (April, 1946), pp. 109-17.

CHAPTER VIII



CONCLUSIONS AND IMPLICATIONS

It has been shown that the opiate habit rests fundamentally upon the effects which follow when the drug is removed rather than upon the positive effects which its presence in the body produces. Addiction occurs only when opiates are used to alleviate withdrawal distress, after this distress has been properly understood or interpreted, that is to say, after it has been represented to the individual in terms of the linguistic symbols and cultural patterns which have grown up around the opiate habit. If the individual fails to conceive of his distress as withdrawal distress brought about by the absence of opiates he can not become addicted, but if he does, addiction is quickly and permanently established through further use of the drug. All of the evidence unequivocally supports this conclusion.

This theory furnishes a simple but effective explanation, not only of the manner in which addiction becomes established, but also of the essential features of addiction behavior, those features which are found in addiction in all parts of the world and which are common to all cases.

The individual's interpretation of his distress as withdrawal distress is a belief or attitude which exists as a cultural and

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psychological phenomenon. It tends to be imposed upon the addict by his social environment. The crucial fact about it is not its validity, but that once having accepted it, the individual is subject to influences and social pressures of which he was previously unaware. The attitudes which he assumes toward himself are altered. He realizes for the first time that he may be a "dope fiend", and in the privacy of his own thoughts he begins to entertain tentatively that idea of himself and to explore its implications. Further experience with the drug quickly impresses him with the truth of his notion and he is soon compelled to accept it, though he usually struggles for some time and makes fruitless efforts to free himself. During this time the person is transformed from a non-addict to an addict with all that that implies.

The essential process involved in this transformation and basic to it is a linguistic one. It is through the use of the social symbols of language in conversation with himself and with others that the personality changes involved in becoming an addict are initiated and carried out. The individual, when he uses the symbols which society provides him, also assumes the attitudes appropriate to those symbols when he applies them to himself. He calls himself a "dope fiend" and gradually hardens himself to the fact that he has become an outcast and a pariah to respectable people. He of necessity seeks the company of other addicts, both because they can help to solve the problems arising out of addiction and because he feels more at home with them. He attempts to quit because he accepts the general public disapproval of addiction and wishes to remove himself from the pariah category. It is this whole process which George Herbert Mead has described as "taking the role of the generalized other" or assuming toward oneself the attitudes of the group or society in which one lives.¹

¹ George H. Mead, "A Behavioristic Account of the Significant Symbol," *Journal of Philosophy*. XIX (1922), p. 160.

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The development of addiction presupposes in the individual a complex conception of causality. He must be able to understand and believe that the way he feels at a given moment is due to the presence in his body of a minute quantity of drugs taken many hours earlier. The effects of morphine are subtle and often difficult to detect. A person who is not aware that he is under the influence of the drug often thinks that he is perfectly normal. The association between the effects of the drug and the drug itself is therefore a perception which has to be learned. It involves the association of events which occur separately with a considerable time interval between them. The understanding of withdrawal symptoms is even more complex since it involves grasping the connection between the interruption of a series of injections and the distress that follows several hours later. It also involves reasoning which is contrary to the ordinary. When a person suddenly becomes ill he usually assumes that a foreign substance has been introduced into his body, not that one has been removed.

A person to whom the drug is given without his knowledge does not feel the buoyant sensations because the opiate's effects in small doses are not unusual enough to produce such a response. But it is evident that the buoyancy can be so interpreted to an ignorant user, and, by virtue of this explanation, he can learn to feel buoyed up with a shot. In order that the explanation may acquire meaning, however, the individual must appreciate the causal sequence that associates his sensations at a given moment with a preceding injection. It may be concluded, then, that only those to whom the drug's effects can be explained develop addiction. It has been shown that in many cases the beginning of addiction was marked by an addict's or physician's explanation of the significance of the withdrawal distress. On the other hand, patients experiencing withdrawal distress without understanding its connection with opiates, because the connection was not pointed out, escaped addiction.

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It may, therefore, be concluded that the immunity of the insane, idiots, and young children who may have taken morphine, is based upon a feature common to all, namely, that the meaning of withdrawal symptoms cannot be explained to them.

The inexperienced non-addict fails to recognize the long-range effects of the first injection or to associate them with the immediate effect; hence he neglects, at first, to connect the withdrawal distress with prior use of the drug. Each aspect of opiate usage first appears as an isolated occurrence and is responded to in that way. When the withdrawal distress, the injection, and the drug's effects have been united into a single conceptual scheme, the individual no longer reacts to them separately but as an integrated whole, one reaction implying or symbolizing the others. Withdrawal symptoms signify the need of an injection and are identified with the desire for it. The conceptualization of these events not only puts the various parts into relationship with each other, but also relates them to the individual's self and to the culture of the group.

It is evident that the drug addict assumes the group's viewpoint with respect to his experience of withdrawal distress by virtue of the fact that, prior to addiction, he has been a non-addict and a participating member of society. In view of the very use of language symbols, in terms of which the processes of re-evaluation which constitute addiction proceed, the addict necessarily shares the traditional heritage which includes knowledge of, and attitudes toward, the drug habit. Prior to addiction addicts acquire the attitudes of non-addicts, and when they become addicted they must adjust themselves to these attitudes. In other words, as our theory emphasizes, addiction presupposes life in organized society. Children and animals can not become addicts because they lack the ability to use and respond to the complex linguistic structures which have grown up in human society.

It is interesting to ask at what point a child is old enough

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to become an addict. Infants of a year or two certainly do not become addicted, but a youth of fifteen can. At what age does immunity end and why? Only one case which appears to have some bearing on this question was found in the literature of the subject. This involved an infant to whom opiates had been given from birth. Withdrawal symptoms had occurred during the first few days of extra-uterine life, the mother having been addicted during pregnancy. The drug was withdrawn gradually when he was twelve years old, and, as far as is known, the boy did not exhibit the usual tendency to relapse.² It is impossible to form an exact conception of the special factors involved in this case because of the meagerness of the data. The work of R. N. Chopra, who demonstrated that the feeding of opium to infants for the first three years of their life was unrelated to addiction during adulthood, shows that three-year-olds cannot be regarded as addicts.

The question may be raised, whether the cases in which the drug was continually used from birth do not constitute an exception to the assertion that the addict must belong to a social group before becoming addicted. It is evident, since the three-year-old cannot be called an addict in our sense of the term, that the child who receives the drug continuously from birth would become an addict only with increasing participation in the culture of his group. The developing concept of self, the changing ideas of causality, and the growing appreciation of and ability to use the language are all involved in the normal development of a child; they are also implicated, as already shown, in the process of addiction.

Jean Piaget, describing some aspects of the mental development of children, writes: "Originally the child puts the whole content of consciousness in the world and draws no distinction between the 'I' and the external world. Above all we mean that the constitution of the idea of reality presupposes a pro-

² Terry and Pellens, *op. cit.*, pp. 426-7.

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gressive splitting up of this protoplasmic consciousness into two complementary universes—the objective universe and the subjective.”³ Piaget discusses the influence of the progressive differentiation of the subjective and objective upon the child’s ideas of physical causality and concludes:

In the course of our studies in child psychology we had expected to fix upon 7·8 as the age before which no genuinely physical explanation could be given of natural phenomena. Our present inquiry entirely confirms this expectation. After 7·8 the more positive forms of causality gradually supplant the others, and we can say that at the age of about 11·12 the evolution is completed. There is therefore, in the domain peculiar to causality, a process of evolution exactly similar to that to which we drew attention in speaking of reality: confusion of the self and the universe, then progressive separation with objectification of the causal sequences. . . . It is only after having assimilated the activity of external bodies to his own muscular activity that the child turns the new-made instrument upon himself and, thanks to it, becomes conscious of his internal experience.⁴

In view of Piaget’s description of a child’s developing conceptions of causality, the immunity of children to addiction, the apparently permanent cure of a twelve-year-old who had been given drugs from birth, and the complete absence of addiction in young persons below the age of ten years or older, are not accidental circumstances but exactly what one would expect from the theory that has been developed.

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One would also expect that insane persons would be incapable of the complex reactions necessary for the establishment of addiction.⁵ This is indeed the case. It has often been noted that psychotics rarely are addicts even though they may have been subjected to prolonged opiate injection. Pertinent

³ Jean Piaget, *The Child’s Conception of Physical Causality* (New York, 1930), p. 242.

⁴ *Ibid.*, p. 286. Reprinted by permission of Harcourt, Brace and Company, publishers.

⁵ This argument also applies to the more severe forms of feeble-mindedness which also confer immunity to addiction.

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statements by physicians with experience in this field may be cited. Sceleth and Kuh remark:

Several hundred patients suffering from the depressed stage of manic depressive insanity were given large doses of opium orally in many instances for periods of from six months to one year. Not one of these patients ever knew what drug he was taking or ever showed any untoward results when it was withdrawn, or in any other way gave evidence of a desire to continue its use. Nor do we recall a single instance recorded in the medical literature of the period during which this form of treatment was administered quite commonly, in which either withdrawal symptoms or a craving for narcotics was reported. This is significant in view of the idea that manic depressive insanity is based on an inherited unstable nervous system.⁶

Dr. Paul Wolff, formerly of Germany, reported the answers to the following question which was asked of many leading German medical men: "When is the prescription of opium justified?" Three of those who replied referred incidentally to the absence of addiction among psychotics. Dr. Wolff concluded:

Opium is indispensable in dealing with the fear states of the melancholic individual. But here we make the surprising discovery that the continued administration of opium, in the form of opium tincture, during the melancholic mental disturbances, even when continued over a long period of time does not produce drug addiction. That is, it does not, provided the dosage is adapted to the diseased mental state of the patient and provided that the doctor is careful to withdraw the drug at the correct time, as soon as he notes a decrease in the fear tension or excitement of the psychotic patient. In the last three and one-half decades I have seen a number of cases of morphine addiction develop as a consequence of the over-hasty application of morphine in physical distress or disease, but do not recall one single instance in which the administration of scopolamine-morphine during a psychosis led to a craving which lasted beyond the period of the illness.⁷

Dr. Emil Bratz, Director of the Berlin Sanitarium, replying to Dr. Wolff's questionnaire made the following observation

⁶ Charles E. Sceleth and Sidney Kuh, "Drug Addiction," *Journal of the American Medical Association*, LXXXII (1924), p. 680.

⁷ Paul Wolff, "Wann ist die Verschreibung von Opiaten Artzlich Begründet?", *Deutsche Medizinische Wochenschrift*, LVII (1931), p. 266. Wolff reported the results of the inquiry in a series of five articles beginning on pages 133, 178, 223, 266, and 318 of the volume cited.

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on this question, recommending morphine for use in case of depression and for endogenous psychoses,

. . . but also only in endogenous, that is in simple or periodic melancholia arising from a constitutional basis, and even then it should be administered only by an experienced neurologist. Warning must be issued against the administration of opiate preparation in cases of reactive depression in psychopaths—that is, depression in response to the vicissitudes of life. In these cases, it leads with especial ease to the development of addiction.⁸

Professor Karl Bonhoeffer stated:

Opium is indispensable in many cases of endogenous depressions. . . . The prescription of opiates for states of depression is unobjectionable also because we know from experience that the depressed persons feel no need for narcotics when the depression has passed away, and practically never become addicts.⁹

These medical opinions clearly suggest that the individual who is isolated from society by certain kinds of mental disease is immune to addiction. It is especially significant that some of the authorities insisted upon the distinction between “endogenous” depressions and those brought about, as Bratz said, by “the vicissitudes of life.” The latter, it is indicated, are associated with susceptibility to addiction, the former with immunity. This fact appears to run contrary to a widespread belief that psychotic behavior differs only in degree from “normal” behavior.

It should be noted that the above remarks apply only to some types of psychoses since opiates are not administered for all kinds. However, the infrequency of psychotic conditions among addicts suggests that the immunity conferred by mental disease is fairly general. In terms of the theory of addiction outlined this immunity to addiction on the part of the insane, which many observers have found surprising, is a predictable occurrence.

The theory outlined thus offers definite implications about the cure and prevention of addiction. In the first place, it con-

⁸ *Ibid.*, p. 181.

⁹ *Ibid.*, p. 223.

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firms the need for what is already fairly general medical practice, keeping the patient who is getting morphine in ignorance of the drug. It also implies that it is a mistake to enlighten a person suffering from withdrawal distress concerning the cause of his symptoms. It has been pointed out that a number of addicts interviewed were first made aware of the significance of withdrawal distress by a doctor. A physician who assumes that withdrawal distress is identical with addiction might have no qualms about enlightening a sufferer. The belief that addiction is only a physical affliction, therefore, may be regarded as helping to create addicts when it leads to imparting information of this kind.

So far as a cure of addiction is concerned, the writer's theory implies that this involves a radical psychological change in the individual. Indeed, it is not a medical or physiological problem at all. The medication of withdrawal distress has no demonstrable connection with the permanent relinquishing of the drug. The search for non-habit forming substitutes, based upon the assumption that the drug habit is a physiological problem, has so far proved fruitless. In view of the connection between desire and withdrawal distress, reference to non-habit-forming substitutes as a means of eliminating addiction becomes meaningless, for an addict would show no interest in a drug unless it were habit-forming.

It should also be noted that such concepts as "abnormality" and "degeneracy" have played no part in this discussion, in contrast with other theories which assume that these traits have some sort of causal relationship to addiction. Concepts like these, in part, merely reflect moral disapproval and lack of a critical understanding of the phenomenon; when the behavior in question is more closely scrutinized, what was first viewed as abnormal gradually ceases to be such, and becomes instead the necessary consequence of antecedent conditions.

In the writer's theory the question of the addict's normal-

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ity or abnormality is considered irrelevant; instead, addiction appears simply as the unavoidable product of a sequence of events and processes which could be evoked in any individual, provided only that certain specific conditions are met. Such a view removes the aura of mystery which has surrounded the addict. In terms of this theory, he is found to be simply another human being, rather than the monster of popular mythology .

If the author's approach to this problem is correct, the effort expended in the search for medical cures of addiction must be regarded as futile, for it has been shown that the habit is based upon experiences of the individual and attitudes that arise from these experiences. It is not based upon biological factors nor upon the inherited constitution of the person. The habit is difficult to break, as other habits such as the alcohol habit are, because memories of past experiences of this type can not be eradicated, and because techniques for changing deeply ingrained attitudes and viewpoints are unreliable.

There is indeed little basis for optimism concerning the problem of permanently curing confirmed drug addicts, but the present study indicates that the line that must be followed is to attempt to change the social environment of the addict and, by psychiatric and other means, to reorient or reeducate him. This is obviously not easy, but it is possible that an effort along the lines of "Alcoholics Anonymous" might be fruitful. It is the author's understanding that a project something like this is now underway at the Public Health Service Hospital in Lexington, Kentucky. Such a plan would provide the addict what he now so glaringly lacks, sympathetic human understanding, and group support in his effort to renounce the habit.

ADDICTION AS A PHYSIOLOGICAL PROBLEM

The attempt has frequently been made, as has been shown, to explain addiction in purely physiological or biological terms,

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although most competent writers today admit the uselessness of such an approach. It has been evident for many years that the physiological peculiarities of the drug habit are essential aspects of addiction; at the same time it has been equally clear that they do not provide a causal explanation. Almost a century of experimentation with medication for withdrawal distress, sometimes on the assumption that addiction was a purely physical disease, has led only to disillusionment. The following episode, related to the writer by the addict involved, portrays this feeling:

The addict, who had served a number of terms in prison, met one of the prison doctors on the streets of Chicago. He talked with him about the new narcotic farm in Lexington, Kentucky, where addicts serving terms for violation of the narcotic laws are given the most humane and careful treatment.

The addict said, "Well, what are they doing for the boys? Are they really curing them?"

The doctor hesitated a moment and replied, "Well—it's up to you fellows, you know."

"It's always been up to us, hasn't it, Doc?" was the addict's reply.

The effort to account for the whole problem of addiction in the conceptual framework of biological theory has failed because, although the physiological need for the drug can be controlled and eliminated, the desire for it persists. The contrary fact, that the presence of the physiological need does not by any means imply the presence of psychic craving for the drug, is also well established. The theory of the present study does not deny the essential role played by organic conditions; it recognizes that they have a necessary place and intelligible function, that before withdrawal distress can be interpreted it must be objectively present, that before a person can use the drug in order to avoid withdrawal distress he must have consciously suffered from it. However, it is insufficient merely to assert that a phenomenon has many aspects. For example, the statement that addiction involves both physical and psychological factors may seem profound to the man on the street, but

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for purposes of research the problem must be broken up into clearly delimited propositions. Each may then be exhaustively studied.

There is no question that the withdrawal distress in its organic aspects is entirely outside the field of social psychology. What the effects of morphine may be upon the various tissues and organs of the human body is clearly not a problem for the psychologist or social psychologist. On the other hand, the addict's interpretations of the drug's effects do not have any place in the conceptual framework of biological theory, and they must be handled within another and different field of discourse. It is only in this sense that various sciences can or should cooperate in solving the problems associated with opiate addiction.

Much valuable work on morphine effects and the causes of withdrawal distress has been done and much remains to be done. Many students who approach opiate addiction from the biological viewpoint realize and have stated that addiction is much more than a purely physiological phenomenon. Nevertheless, most current studies of addiction proceed as though this were not the case. In many of the institutions of the country which deal with addicts research is dominated by biological preconceptions which cause controversial social aspects of the question and an approach such as that represented by this book to be neglected. It is often assumed that all that can be done from the non-biological angle is to summarize the statistical information which the institutions collect.

PART II

OPIATE ADDICTION AS A
SOCIAL PROBLEM

CHAPTER IX



THE PROBLEM IN THE UNITED STATES DURING THE NINETEENTH CENTURY

Before tracing the development of the narcotic problem in the United States, it is appropriate to consider briefly the broader historical aspects of the problem. Morphine and heroin are derivatives of opium developed during the nineteenth century, but the history of opium itself and of its use by man begins at least several thousand years before the birth of Christ.

Mesopotamia is believed to have been the original home of the opium poppy. The Sumerians, who settled there five or six thousand years B.C., developed an ideogram for opium.¹ This ideogram has been translated as HUL GIL, the HUL meaning "joy" or "rejoicing". Methods of obtaining opium from the poppy were about the same then as they are now. The cultivation of the poppy and the use of opium spread from Mesopotamia to other parts of the ancient world. The Greeks, Romans, Persians and Egyptians became acquainted with the drug. Homer mentioned it in the ninth century B.C. Arab

¹ Charles E. Terry and Mildred Pellens, *The Opium Problem* (New York, 1922), p. 55.

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traders are believed to have introduced it into the Orient which is now the principal source.²

Inasmuch as opium was used as a remedy for human ills even before the Christian era, and constituted the main therapeutic agent of medical men for more than two thousand years (through the nineteenth century),³ it is not surprising that the people of the East, where the poppy is grown, should have suffered more than their share from addiction. Nor is it unusual that for a long time opium addiction was regarded in the West as something peculiar to the Orient.

In 1804, Friedrich Wilhelm Adam Serturner, a German chemist at Einbeck, discovered in opium meconic acid and an alkaline base which he named *morphium*. This discovery, which marked the beginning of modern alkaloidal medicine, gave great impetus to the development of the type of drug addiction which was to prevail in the West. Other opium alkaloids and derivatives were developed in rapid succession, often in the hope or belief that the new compounds would be free from the habit-forming propensities of previous ones. The climax was reached with the isolation of heroin, or diacetylmorphine, in 1898. This was the last opiate preparation to be hailed by medical men as a non-habit-forming substitute for opium or morphine or as a cure for drug addiction. Heroin turned out to be approximately three times as powerful as morphine (which was more potent than opium) and just as habit-forming.

While Orientals have, in general, persisted in smoking opium or using it orally, another tendency has appeared among them in recent decades as a consequence of efforts made to stamp out smoking. The West, returning favor for favor, has supplied the East with hypodermic needles and with more potent opiates, particularly morphine and heroin. As it becomes more difficult for Chinese addicts to continue their smoking

² *Ibid.*, pp. 55-57.

³ *Ibid.*, p. 58.

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habits it is to be expected that the hypodermic needle will become more popular among them and that they—like the addicts of the United States—will become “vein shooters”.

Thomas De Quincey's *Confessions of an English Opium Eater*, published in 1821, set the style and provided the terms which dominated discussions of opiate addiction for many decades thereafter. De Quincey drank his opium in the form of laudanum. As a result of his widely read work, addicts were called “opium eaters” regardless of the manner in which they consumed the drug, except that opium smokers were apparently never so designated. The users of morphine, who began to appear in increasing numbers in the 1820s and 1830s, were also referred to as “opium eaters”.

It is popularly believed today that most addicts are criminals or derelicts prior to addiction. As we have seen, this impression requires considerable qualification as it applies to contemporary drug users. It is even more inaccurate with respect to the opium eaters of the nineteenth century. In 1889 B. A. Hartwell solicited opinions from druggists in 180 Massachusetts cities concerning the economic and social status of the addicts they knew. Twenty-two per cent of those who replied said addicts were to be found in all classes, another twenty-two per cent said that the upper classes were principally involved, three per cent named the middle classes, and only six per cent the lower classes.⁴

Addiction during the nineteenth century, except opium smoking, was not linked up with crime to any appreciable extent. There are a few references to the use of laudanum by prostitutes but it was not suggested that women became prostitutes because of the drug. The principal stress was placed upon the vice of opium eating among the respectable classes rather than among criminals. W. R. Cobbe said in 1895 that

⁴ “The Sale and Use of Opium in Massachusetts,” *Annual Report of the Massachusetts Board of Health*, XX (1889), pp. 137-158.

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those who drank laudanum, swallowed gum or powdered opium, or used morphine were for the most part intelligent and respectable members of society. He also pointed out that they purchased their supplies of the drug openly and legally in the drug stores.⁵

Surveys conducted before the passing of the Harrison Act in 1914 invariably indicated that women addicts outnumbered men by about three to two. For example, in 1878 Orville Marshall found that 62.2 per cent of a sample of 1,313 cases in Michigan were women,⁶ and L. P. Brown in 1914 found 66.9 per cent of a group of 2,370 Tennessee addicts to be women.⁷ Current statistics based upon samples obtained from law enforcement agencies usually show a vast preponderance of males. Other portions of the population in which the incidence of addiction was relatively high, and probably still is, were ex-soldiers and the medical and allied professions.

Addicts experienced no difficulty in obtaining their drugs in those days; in fact, narcotics were almost forced upon them. Not only did the drug stores sell the supplies cheaply and openly, but all kinds of opiate-containing patent medicines were advertised. Thus the addict of the nineteenth century had unlimited sources of supply. He could buy paregoric, laudanum, tincture of opium, morphine, Winslow's Soothing Syrup, Godfrey's Cordial, McMunn's Elixir of Opium, or many other preparations. For a few cents a day he could keep himself "loaded to the gills." He could even obtain opium by purchasing the so-called "cures," widely promoted during the period. Virtually all such remedies contained opiates and were merely examples of quackery.

⁵ W. R. Cobbe, *Doctor Judas, A Portrayal of the Opium Habit* (Chicago, 1895), p. 127.

⁶ "The Opium Habit in Michigan," *Annual Report of the Michigan State Board of Health*, VI (1878), pp. 61-73.

⁷ "Enforcement of the Tennessee Anti-Narcotic Law," *American Journal of Public Health*, V (1915), pp. 323-333.

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A narcotic user once flatly asserted to the writer, "If a junker tells you he got on to the stuff through his doctor, spit in his eye." ⁸The addict of today does not ordinarily become initiated through medical treatment. However, most opium eaters of the last century did, in fact, form the habit through medical treatment or by self-medication. One of the most informative books⁸ on drug addiction in the nineteenth century cites more than a hundred cases of addicts who uniformly contracted the vice as a result of medical treatment. Terry and Pellens⁹ quote numerous concurring opinions on this point before 1900. Little emphasis was placed on the effects of evil association, and dope peddlers were not mentioned because they were rare or non-existent.

Th public then had an altogether different conception of drug addiction from that which prevails today. The habit was not approved, but neither was it regarded as criminal or monstrous. It was usually looked upon as a vice or personal misfortune, or much as alcoholism is viewed today. Narcotic users were pitied rather than loathed as criminals or degenerates—an attitude which still prevails in Europe.

The sharp contrast between the former public attitude and the present one is well illustrated by the case of the physician who contended in 1889 that it was obviously better to be a drug addict than a drunkard and therefore advocated that chronic alcoholics be cured by transforming them into drug addicts. He published the following statement on this question in a reputable medical journal:

The only grounds on which opium in lieu of alcohol can be claimed as reformatory are that it is less inimical to healthy life than alcohol, that it calms in place of exciting the baser passions, and hence is less productive of acts of violence and crime; in short, that as a whole the use of morphine in place of alcohol is but a choice of evils, and by far the lesser. To be sure, the populace and even many physicians think very differently, but this is because they have not thought as they should upon the matter.

⁸ Alonzo Calkins, *Opium and the Opium Appetite* (Philadelphia, 1871).

⁹ Terry and Pellens, *op. cit.*, pp. 94-110.

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On the score of economy the morphine habit is by far the better. The regular whiskey drinker can be made content in his craving for stimulation, at least for quite a long time, on two or three grains of morphine a day, divided into appropriate portions, and given at regular intervals. If purchased by the drachm at fifty cents this will last him twenty days. Now it is safe to say that a like amount of spirits for the steady drinker cannot be purchased for two and one-half cents a day, and that the majority of them spend five and ten times that sum a day as a regular thing.

On the score, then, of a saving to the individual and his family in immediate outlay, and of incurred disability, of the great diminution of peace disturbers and of crime, whereby an immense outlay will be saved the State; on the score of decency of behavior instead of perverse deviltry, of bland courtesy instead of vicious combativeness; on the score of a lessened liability to fearful diseases and the lessened propagation of pathologically inclined blood, I would urge the substitution of morphine instead of alcohol for all to whom such a craving is an incurable propensity. In this way I have been able to bring peacefulness and quiet to many disturbed and distracted homes, to keep the head of the family out of the gutter and out of the lock-up, to keep him from scandalous misbehavior and neglect of his affairs, to keep him from the verges and actualities of delirium tremens and horrors, and, above all, to save him from committing, as I veritably believe, some terrible crime that would cast a lasting and deep shadow upon an innocent and worthy family circle for generation after generation. It is not the duty of a physician when he cannot cure an ill, when there is no reasonable ground for hope that it will ever be done, to do the next best thing—advise a course of treatment that will diminish to an immense extent great evils otherwise irremediable? . . .

The mayors and police courts would almost languish for lack of business; the criminal dockets, with their attendant legal functionaries, would have much less to do than they now have—to the profit and well-being of the community. I might, had I time and space, enlarge by statistics to prove the law-abiding qualities of opium-eating peoples, but of this anyone can perceive somewhat for himself, if he carefully watches and reflects on the quiet, introspective gaze of the morphine habitué and compares it with the riotous devil-may-care leer of the drunkard.¹⁰

The consumption of opiates increased enormously, far outdistancing the growth of population, during the last half of the nineteenth century. Since there was relatively little illicit traffic, the following figures on the importation of opiates give a fairly accurate picture of the enormous increase in consumption of this drug during the last four decades of the last century:

¹⁰ J. R. Black, "Advantages of Substituting the Morphia Habit for the Incurably Alcoholic," *Cincinnati Lancet-Clinic*, XXII (1889), pp. 537-541.

OPIATE PROBLEM IN THE 19TH CENTURY

Decades	Opium (in pounds)	Opium Alkaloids (in ounces)
1860-69 -----	110,305 -----	588
1870-79 -----	192,602 -----	2,296
1880-89 -----	328,392 -----	20,212
1890-99 -----	513,070 -----	20,193

After 1900 there was a drop in these totals, but it is probable that the illicit traffic was on the increase since local restrictive legislation was becoming more frequent. In 1909 a federal law was passed prohibiting the importation of smoking opium. The figures in the above table represent an increased use of opiates in medical practice and in the production of patent medicines as well as an increased prevalence of addiction.

THE OPIUM SMOKER

In contrast with the opium eater, who was regarded simply as the victim of an unfortunate vice, the American opium smoker was typically considered, as H. H. Kane said, "a sporting character." Kane made a careful attempt to trace the development of the habit.

The first white man who smoked opium in America is said to have been a sporting character named Glendenyn. This was in California in 1868. The second—induced to try it by the first—smoked in 1871. The practice spread rapidly and quietly among this class of gamblers and prostitutes until the latter part of 1875, at which time the authorities became cognizant of the fact and finding, upon investigation, that many women and young girls, as also young men of respectable family, were being induced to visit the dens, where they were ruined morally and otherwise, a city ordinance was passed forbidding the practice under penalty of heavy fine or imprisonment, or both.¹¹

Kane quotes from a letter written by a doctor of Virginia City, Nevada:

"Opium smoking had been entirely confined to the Chinese up to and before the autumn of 1876, when the practice was introduced by a sporting character who had lived in China, where he had contracted the habit. He spread the practice amongst his class, and his mistress, a woman of the town, introduced it

¹¹ H. H. Kane, *Opium Smoking in America and China* (New York, 1882), p. 1.

OPIATE PROBLEM IN THE 19TH CENTURY

among her *demi-monde* acquaintances, and it was not long before it had widely spread amongst the people mentioned and then amongst the younger class of boys and girls, many of the latter of the more respected class of families. The habit grew very rapidly until it reached young women of more mature age, when the necessity for stringent measures became apparent, and was met by the passing of a city ordinance."¹²

Considerable numbers of Chinese arrived in the United States during the 1850's; there were thousands in the West by 1860.¹³ It seems incredible, therefore, that no white man should have tried the drug before 1868. An addict who began to smoke opium while he was in the West in 1906 told the author that although he had heard about the account given by Kane, he was disposed to regard it as legend. At any rate, the denizens of the American underworld acquired the habit from the Chinese, who taught them the ritual and the technique and at first supplied the drug. The Chinese influence upon the use of narcotics is evident in many words in the addict's argot.¹⁴

According to Kane:

The very fact that opium smoking was a practice forbidden by law seemed to lead many who would not otherwise have indulged to seek out the low dens and patronize them, while the regular smokers found additional pleasure in continuing that about which there was a spice of danger. It seemed to add zest to their enjoyment. Men and women, young girls, virtuous or just commencing a downward career, hardened prostitutes, representatives of the "hoodlum" element, young clerks and errand boys who could ill afford the waste of time and money, and young men who had no work to do were to be found smoking together in the back rooms of laundries in the low, pestilential dens of Chinatown, reeking with filth and overrun with vermin, in the cellars of drinking saloons, and in houses of prostitution.¹⁵

The San Francisco Chronicle of July 25, 1881, stated that "the habit in past years, so far as whites are concerned, was

¹² *Ibid.*, p. 3.

¹³ See Herbert Asbury, *The Barbary Coast* (New York, 1933), Chapter VII. Asbury states that in 1852 there were an estimated 22,000 Chinese in California. In 1870 the number was 71,328, according to the U. S. Census. This author gives an excellent picture of San Francisco when opium smoking was introduced.

¹⁴ See Appendix I.

¹⁵ Kane, *op. cit.*, p. 2.

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confined to hoodlums and prostitutes mostly." It added, "Now that there are scores of places where the habit can be contracted in clean rooms in respectable portions of the city, the practice will gradually extend up in the social grade."¹⁶

The rapidity with which the opium smoking habit spread was noted by an anonymous writer in *Chambers' Journal* in 1888:

In 1877 and 1878 when Deadwood, the Metropolis of the Black Hills, one of the richest mining camps ever discovered in the United States, was over 300 miles from the nearest railroad, it was ascertained that the Chinamen had introduced the vice of opium-smoking among the white inhabitants. I was employed at the time as deputy-sheriff, and received instructions to investigate the subject, with a view to closing the houses and punishing the proprietors.¹⁷

Action taken by local authorities was apparently not very effective for former smokers state that as late as 1910 they were able to travel almost anywhere in the West without taking along either a supply of opium or an opium pipe, depending solely upon the dens that operated in almost all sizeable towns.

The opium smoker of the nineteenth century belonged to an elite underworld group which despised and generally avoided all contact with the hypodermic user or "opium eater" of respectable society. Smokers usually regarded the hypodermic habit as more vicious and difficult to break than the smoking habit. They applied the term "dope fiend" to those who used the drug in some manner other than smoking, but did not apply it to themselves. Their attitudes were indicated by an incident which occurred early in the twentieth century in a New York opium-smoking "joint." One of the smokers discovered a hypodermic user in the bath room giving himself an injection. He immediately reported to the proprietor that there was a "god damned dope fiend in the can." The offender was promptly ejected.

¹⁶ *Ibid.*, p. 11.

¹⁷ "Opium Joints in the Black Hills," *Chambers' Journal*, LXV (1888), p. 654.

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Unlike "opium eating" the smoking habit did not involve contact with the medical profession for doctors did not prescribe it. Hence, the habit spread solely through contacts with persons who were already addicted, and this is the manner in which drug addiction in the underworld has continued to spread. A Special Committee of Investigation appointed in 1918 by the Secretary of the Treasury stated: "with respect to the addict of good social standing, the evidence obtained by the committee points to the physician as the agent through whom the habit is acquired in the majority of cases."¹⁸

It thus appears that the association between addiction and crime in the United States was built up as a consequence of the rapid spread of opium smoking in the underworld during the last decades of the past century. Considerable notoriety and public attention was directed toward this problem. The fact that many thieves and rascals were opium smokers gradually led the public to the belief that all addicts were thieves or rascals and that there was an inherent or necessary connection between the use of opiates and a life of crime. As a matter of fact, the principal reason for the American addict's criminality is not connected with the effects of the drug as such, but rather with the high cost of the drug. In India where there is much addiction but where opium is inexpensive there is relatively little criminality among addicts.¹⁹

¹⁸ Quoted by Terry and Pellens, *op. cit.*, p. 120.

¹⁹ See R. N. Chopra, "Drug Addiction in India and its Treatment," *The Indian Medical Gazette*, LXX (1935), pp. 121-131; and Lawrence Kolb, "Drug Addiction in its Relation to Crime," *Mental Hygiene*, IX (1925), pp. 74-89.

CHAPTER X



FEDERAL ANTI-NARCOTIC LEGISLATION

THE HARRISON ACT

The Harrison Act, passed in 1914, profoundly changed the nature of the narcotic problem in the United States. This law was intended as a revenue and control measure and was not designed to penalize the user of the drug, to whom no direct reference was made. The enforcement of the law was entrusted to the Bureau of Internal Revenue of the United States Treasury Department. It was evidently assumed or hoped that by requiring all persons who handled drugs to register with the government and maintain records the flow of drugs would be subject to public control. The Act applied equally to cocaine and to opiates and made no distinctions between them. It required all persons who imported, manufactured, produced, compounded, sold, dealt in, dispensed or gave away any derivative of opium or of cocoa leaves (cocaine) to register with the Collector of Internal Revenue, to pay special taxes, and to keep records of their transactions. Preparations containing minute quantities of cocaine or of opiates were exempted from the regulations.

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Who fraudulently or knowingly imports or brings any narcotic drug into the United States or any territory under its control or jurisdiction, contrary to law, or assists in so doing, or receives, conceals, buys, sells, or in any manner facilitates the transportation, concealment, or sale of any such narcotic drug after being imported or brought in, knowing the same to have been imported contrary to law.⁶

The Act also specified that mere possession of the drug was sufficient evidence for conviction unless the defendant could explain the possession to the satisfaction of the jury.⁷

SOCIAL EFFECTS

Some of the effects of the legislation mentioned were, no doubt, desirable; others were definitely undesirable. On the credit side it should be pointed out that for most portions of the population the removal of the drug from open and unrestricted sale and the regulations imposed upon doctors reduced the availability of narcotics and to this degree prevented the spread of the habit. Severe penalties imposed upon addicts and vendors of the drug may also have acted as deterrents. The exorbitant prices charged by illicit dealers also to some extent act as a deterrent to persons who might use the drug if it cost less. No reliable figures are available, however, to indicate whether the number of addicts in the United States has been increasing or decreasing.

Among the undesirable effects of the legislation are, the creation of the illicit traffic, the pauperization and demoralization of addicts, and the stimulation of crime, particularly theft and prostitution. All of these effects follow from the high cost of the illicit drug and from the fact that no legitimate sources of supply are open to most drug users. While it is true that some addicts are criminal prior to addiction, many, perhaps most of them, turn to crime only when the high price of the

⁶ *Ibid.* Appendix IV, 962-963.

⁷ *Ibid.*, p. 963.

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drug and the danger and inconvenience of maintaining a supply force them to do so. The vast proportion of all the crimes committed by addicts are either violations of the drug laws or theft in order to obtain money to buy the drug.

During the nineteenth century there were many opiate addicts, known as "opium eaters," who were not forced to live in the underworld because of their habits. As has been pointed out, they were usually reasonably respectable members of society, and there is even reason to believe that many of them belonged to upper strata of society. Today, this class has virtually ceased to exist, its former members having been forced into the underworld. Anyone who becomes an addict now finds it extremely difficult and hazardous to maintain his status as a law abiding person. Since no legitimate sources of the drug are open to him he must take the risk of dealing with peddlers. Once he is caught and sentenced his fate is sealed. He is branded as a criminal. He must thereafter live by his wits whether he wishes to or not.

While the severe restrictions which are placed upon the handling of drugs prevents a part of the population from being exposed to the possibility of addiction, it should be noted that at the same time, the illicit traffic, called into being by the same regulations, imports and distributes a vast quantity of the forbidden drugs, thus doubly exposing another portion of the population to addiction. The illegal dealer does not keep records or pay taxes on the supplies he handles and there is nothing to prevent him from giving or selling the drug to anyone he pleases. As a consequence, the spread of the habit in the underworld is not subject to any public control.

There is no doubt that the existence of the illicit traffic in opiates in the United States today is directly dependent upon the enforcement of the Harrison and Jones-Miller Acts which prevent almost all competition between the legal and illegal businesses in narcotics. Prior to 1914 there was some smuggling

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of smoking opium, but it was not until some years later, when the Harrison Act began to be seriously enforced, that illicit prices rose and the smuggling of drugs became a really big business.

Another interesting feature of our anti-narcotic legislation is that, whereas it purports to be aimed at the peddler of the drug rather than at the user and does not specifically define the use of drugs as a crime, it does in fact make every addict in the United States a criminal unless he happens to be so old and infirm that withdrawal of the drug would cause death or unless he has an incurable disease. It is possible for a man to be a chronic alcoholic and to drink himself to death without violating the law. It is not possible for an addict to use drugs without violating the law, or causing someone else to violate the law. As a consequence of the drug user's vulnerability to arrest much of the punishment for the violation of our drug laws is handed out to the user of the drug rather than to the peddler. The Federal institutions and prisons are filled mainly with the victims of the drug traffic, not with those who profit from the traffic.

The current evil reputation of drug addicts in the United States arises from the peculiar historical development of the problem of addiction in this country. The fact that opium smoking became a fad in the American underworld probably provided the original grounds for the idea that there is an inherent connection between crime and addiction and provided the impetus for anti-narcotic legislation. This legislation in turn reinforced the notion that addicts are necessarily criminals by actually making them that. The agencies which enforce anti-narcotic legislation have become a vested interest in the status quo and the fact that addicts in most of the other nations of the West are not nearly as criminal as those of the United States has been ignored. In no other country in the world does the opiate addict pay as much for his supply as he does here. This

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not only accounts for most of the crimes committed by addicts but it has also made the United States the most lucrative market in the world for the illicit trafficker and stimulated the cultivation of the poppy in remote portions of the earth.

A competent English observer and medical man commented as follows upon the American situation:

In the United States of America a drug addict is regarded as a malefactor even though the habit has been acquired through the medicinal use of the drug, as in the case, e.g., of American soldiers who were gassed and otherwise maimed in the Great War. The Harrison Narcotic Law was passed in 1914 by the Federal Government of the United States with general popular approval. It places severe restrictions upon the sale of narcotics and upon the medical profession, and necessitated the appointment of a whole army of officials. In consequence of this stringent law a vast clandestine commerce in narcotics has grown up in that country. The small bulk of these drugs renders the evasion of the law comparatively easy, and the country is overrun by an army of peddlers who extort exorbitant prices from their helpless victims. It appears that not only has the Harrison Law failed to diminish the number of drug takers—some contend, indeed, that it has increased their numbers—but, far from bettering the lot of the opiate addict, it has actually worsened it; for without curtailing the supply of the drug it has sent the price up tenfold, and this has had the effect of impoverishing the poorer class of addicts and reducing them to a condition of such abject misery as to render them incapable of gaining an honest livelihood.⁸

⁸ Harry Campbell, "The Pathology and Treatment of Morphia Addiction," *British Journal of Inebriety*, XX (1922-23), p. 147.

CHAPTER XI



THE EFFECTS OF WORLD WAR II

Every major war in which the United States has engaged, beginning with the Civil War, has had considerable effect upon the narcotic problem. World War II will evidently not be an exception. The Civil War, by popularizing the use of the hypodermic needle in medical practice, and through the none too careful use of opiates for wounded soldiers and for those suffering from such diseases as dysentery, caused an increase in the number of addicts in the United States. The Spanish American War also had a perceptible effect of the same kind but on a lesser scale. World War I again substantially increased the number of addicts, though by this time opiates were being handled with greater prudence and the number of new addicts created by Army medication was probably proportionately less than in earlier conflicts. The recent war has probably had two major effects. In the first place, by disrupting the channels of illegal distribution, it created a drastic shortage of drugs on the internal illicit market and thus reduced the spread of the habit in the civilian population. In the second place, the use of opiates within the Army has probably increased the number of

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addicts in the armed forces, and also added to the number of those who may be called potential addicts.

EFFECTS ON THE ILLICIT TRAFFIC

The war in Europe disrupted American connections with European sources of illegal drugs, but this was made up for by an increased flow from the Far East. Government supervision of shipping and of foreign travel handicapped the smuggler generally. From the point of view of the local addict, however, the situation became serious only after the beginning of the Pacific War which cut off supplies from the Orient, particularly from Japan and from territories controlled by Japan. A drastic internal shortage then developed rapidly. Smuggling declined to a record low, illicit prices skyrocketed, and quality deteriorated sharply. Heroin of one or two percent purity became common and was sold for as much as from thirty to fifty dollars an ounce. Addicts experienced great difficulty in maintaining their habits and resorted to desperate stratagems and inferior substitutes. A considerable increase in pressure to divert larger quantities of drugs from legitimate to illegitimate channels was noticed. In some cities drug stores began to do a booming business in paregoric which contains small quantities of opium. This entire picture is clearly portrayed in the annual reports of the Bureau of Narcotics during the war years. The Bureau seized the opportunity presented by this situation to tighten its controls and as a result the illicit traffic was reduced to a record low.

The fact that the Axis controlled a number of the major sources of opium caused that drug to become a strategic item for the Allies. There was, of course, a greatly increased demand for opiates because of the war, and supplies were short, not only on the illicit market, but generally. The shortage on the illicit market is indicated by the fact that seizures in the internal trade

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declined fifty per cent, and that addicts and peddlers increasingly resorted to burglary, robbery and forgery to obtain supplies.¹

The sharp rise in illicit prices and correspondingly increased profits apparently encouraged new producers of opium to enter the field to supply American users. The opium poppy can be cultivated in many parts of the world and it would have been over-optimistic to suppose that new sources of supply would not have appeared to replace the old. During the war years Iran (Persia), India and Mexico became the chief sources for illicit drugs that appeared on the American market. After the German submarine threat in the Atlantic had been brought under control smugglers were able to reestablish connections with India and Iran and to step up importations from those countries to make up for supplies previously obtained from European countries and from Japan. Although Mexico prohibits the cultivation of the poppy, an increasing tendency is noted in the annual reports of the Bureau of Narcotics for opium of Mexican origin to find its way to American addicts. The Bureau of Narcotics reported in 1944 that there was evidence that the acreage devoted to the clandestine cultivation of the poppy in Mexico was being increased. If the war situation had continued it is probable that a new equilibrium of supply and demand would eventually have been established, and that an increased volume of production in the countries named, and possibly in some other Central American countries, would have lowered illicit prices and improved the quality. The Mexican border and Southern and Atlantic ports became the focus of the smuggling problem during the war.

It is still too early to know what the effects of the termination of the war will be, but the Narcotics Bureau is probably correct in assuming that they will be favorable to an expansion

¹ Statement by Elmer Irey reported in the *New York Times*, 31 July, 1941. See also, *The Chicago Tribune*, September 13, 1941, on the increased demand for paregoric.

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of the illegal business. Having discovered the commercial possibilities of opium production, Central American producers will stay in the business and increase their output unless energetic counter-measures are taken. As trade channels to Europe, China and Japan are reestablished supplies from these pre-war sources will again appear to compete with Persian, Indian and Mexican opium. It is to be expected that prices will drop, supplies will become more plentiful, dilution will diminish, and the enforcement problems of the Narcotic Bureau will be increased.²

Indications that smuggling between China and the United States is already being resumed are available. A UP dispatch from Shanghai on May 6, 1946, describes counter-measures being taken by Counter Intelligence to prevent the smuggling of drugs out of China.³ It is pointed out that the profits on a small package of drugs may be 3,000 per cent between China and the United States. Because of the small bulk of opiates the traffic is extremely difficult to control. Many of the persons who transport packages of narcotics are unaware of the fact since they are paid simply to transport it without being told of its contents. Although American authorities in Japan and China are said to be taking energetic measures to prevent smuggling of narcotics to this country, it must be kept in mind that the vast poppy producing areas on the continent of Asia are not under American control, and that the detection of illicit shipments of drugs, particularly on merchant ships is exceedingly difficult if not impossible. The fact that narcotics may be transported on other than American ships to Mexican, Canadian or other neighboring countries makes the situation doubly difficult.

Chaotic conditions in many parts of the world and flourishing black markets will favor the traffic in drugs. Persons with criminal inclinations or experience, who have learned of the

² Cf. Piel, Gerald, "Narcotics; War has Brought Illicit Traffic to All-time Low but U. S. Treasury Fears Rising Postwar Addiction," *Life*, XV (July, 1943), pp. 83-94.

³ *Indianapolis Star*, 6 May, 1946.

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profits in the black market, may very well turn to the drug traffic which is probably the most lucrative of all. Current shortages of drugs for medical purposes in Europe may be expected to stimulate the manufacture of morphine. Unsettled conditions will make regulation difficult.

In the Far East, in that part of the continent of Asia occupied by Japan, the number of addicts increased during the war, and the cultivation of the opium poppy was stimulated. The production of opium has become, even more than before, an integral part of the economic structure of many communities. It has become a means of livelihood for many people and an important source of revenue. The millions of addicts in the Far East constitute a huge market and create a powerful demand for opium. As in the past, it is probable that this demand will call forth a large supply, some of which will undoubtedly go to the United States. Unsettled political conditions make it appear highly improbable that any effective means of dealing with the postwar narcotics problem in China will be found very soon. The existence of this situation in China will make our own problem that much more difficult.⁴

EFFECTS OF WORLD WAR II ON PREVALENCE OF ADDICTION

As has been indicated the high cost of drugs and their scarcity made it difficult for American users to maintain their habits during the war. Many of them, perhaps most of them, did manage, however, by one means or another to continue their habits. Usually they were compelled to reduce their daily dosage and sometimes they may have been compelled to abstain, but the ingenuity and persistence of addicts in maintaining their supplies has always amazed those who know them.

⁴ See Merrill, Frederick T. *Japan and the Opium Menace*, joint publication of the International Secretariat, Institute of Pacific Relations, and the Foreign Policy Association (New York City, 1942), for an excellent discussion of the opium problem in China under Japanese occupation.

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The use of inferior substitutes for heroin and morphine was one of the ways in which the attempt to continue the habit was facilitated. Paregoric is such a substitute. It contains a little less than two grains of opium per fluid ounce. American addicts have long been familiar with distillation techniques by means of which some of the non-essential ingredients can be eliminated so that the concentrated residue may be used hypodermically. Sometimes they also drink it straight. The writer once observed an addict drink an entire water glass of pure paregoric and follow it with a chaser of water. It is relatively easy to purchase paregoric because of its low opium content, and it was, therefore, inevitable that addicts resorted increasingly to it during the stringency of the war years.

The difficulty of obtaining morphine and heroin probably reduced the rate of appearance of new addicts in the American underworld, since available supplies were inadequate even for the old users. It is therefore probable that there was an overall decrease in the number of addicts in this country, though no good statistical evidence is available to prove that this was true. In prewar days, the large quantities of drugs continuously flowing through underworld channels of distribution accounted for a large proportion of the new cases that were constantly appearing. Persons who came in contact with these drugs, or with the peddlers and addicts who handle them, were exposed to addiction. It was relatively simply for the neophyte to obtain heroin or morphine for experimental purposes. The drug was relatively abundant and relatively cheap. The main necessity was to have the proper connection with the underworld. On the other hand, during the war the potential addict or the dabbler found himself crowded out by the fierce competition of old users for an inadequate supply. Some new addicts unquestionably appeared, but their numbers were considerably reduced.

The decline of addiction in the civilian population has, however, no doubt been cancelled, at least in part, by an increase

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among the members of the armed forces. Opiates were extensively used for the relief of pain and, of necessity, were often in the hands of persons with little or no medical training and with little conception of the danger they represent. Under combat conditions in particular it is impossible to administer morphine with the care that is normally exercised in peacetime medical practice. It is reasonable to suppose that some of the wounded and ill of the armed forces became addicts,⁵ and that others were exposed to addiction by experiencing the effects of the drug and might be classed as potential addicts. As demobilization proceeds, ex-servicemen of the types described will soon begin to be noticed among those who are arrested for violation of the narcotic laws. It is to be hoped that public sympathy for wounded veterans who acquired their addiction in Army and Navy experience will lead to an examination and overhauling of the assumptions that underlie present enforcement practices. It should be noted that after World War I nothing of this sort occurred. The veteran who became addicted by having been gassed, for example, was treated just like an addicted pimp or shop-lifter.

There is, of course, no way of knowing in advance the precise nature of our eventual postwar narcotics problem. It is certain, however, that the problem will become more acute and that addicts will appear to be more numerous than was the case during the war. It is possible that the postwar problem will be even more severe than the prewar problem. Unfortunately, available statistics in the United States are not sufficiently reliable, because of the subrosa character of addiction, to give a dependable index of the number of addicts or of trends.

Some persons will no doubt reason that since war is a time of worry and anxiety, it is to be expected that individuals seeking escape or relief from their worries and fears will resort to

⁵ One of the first of these cases to come to public attention is that of Barney Ross, who volunteered to Federal authorities for the cure of a drug habit allegedly contracted at Guadalcanal. (AP dispatch 12 September, 1946.)

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drugs more frequently than in time of peace. Though this argument is superficially plausible, it does not take into account the fact that opiates are simply not accessible to most people. Liquor is, and the argument is perhaps applicable to alcoholism. In the case of drugs, however, the dominant statistical determinant of the incidence of addiction is not personal inclination but availability of drugs. Addiction is common in the medical profession for that reason. Addiction declined among civilians in the United States because drugs were exceedingly scarce and difficult to obtain; it probably increased in the armed forces because drugs there were abundant, free, and easy of access. Addiction spreads rapidly in China because the extensive cultivation of the poppy and the large numbers of addicts there make the drug easily obtainable.

CHAPTER XII



NEEDED REFORMS

Many writers have assumed that there is only one basic solution to the opium problem, namely, the limitation, by international agreement, of the amount of opium produced to that just sufficient to meet the medical needs of the world. A number of international conferences have been held for this purpose, but all attempts to secure effective international action on this matter have failed. This failure has been due to the fact that those countries with vested economic interests in the production of raw opium have refused to sacrifice these interests. Since the opium poppy is not cultivated in the United States no such vested economic interest exists here and the American representatives found it relatively easy to assume the proper attitudes of moral superiority toward those nations in which the production or trade in opium was an integral part of the economic structure, forgetting perhaps that the lucrative market for illicit drugs in the United States offers the illegal dealer his best chance for large profits. Unfortunately, there has been so much discussion of international control of this problem that less dramatic and more practical things which we can do for our

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selves to put our own house in order have been neglected. It is these measures which we will now discuss.

The most important basic change which is needed in this country is to reinterpret the Harrison and Jones-Miller Acts so that the prescription of drugs to an addict by a physician is defined as being within the field of medicine. This would mean that a physician could legally prescribe drugs to an addict and it would give addicts a legitimate low-cost source of supply. This is the way in which English drug laws are interpreted. No change in the wording of the Harrison Act, and very few changes in the Jones-Miller Act would be required. All of the regulations, requirements, and penalties specified in these Acts to apply to persons who handle drugs, could be left untouched. The only change would be that if a physician wished to prescribe drugs to an addict he could do so with complete legality, provided only that he was registered under the Act and kept the proper records. It is probable that the Harrison Act was intended to function in this manner in the first place since it does not specifically prohibit the physician from prescribing for an addict, and since such a prohibition might have been interpreted as an unwarranted interference in the practice of a profession.

At first glance it might seem that a plan like the above would make opiates more available than they now are and lead to a spread of the habit. Further consideration reveals, however, that the opposite would be the case. In England where, as has been indicated, doctors do prescribe for addicts, there is much less addiction than in the United States, and there is scarcely any smuggling problem. At present the new addict in this country usually obtains his drugs from illicit sources; under the proposed plan he would have to obtain his supplies from a doctor registered under the Harrison Act. Certainly one would expect medical men to exert more of a restraining influence on the spread of addiction than the underworld peddler does! The

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reduction or elimination of illegal dealings in opiates would unquestionably remove the greatest source of new addicts now in existence.

August Vollmer, formerly Police Chief of Berkeley, California, and now professor of Police Administration at the University of California, and an outstanding authority on police problems, has the following to say about the narcotic problem:

Can the narcotic problem be met intelligently so that it may be controlled and possibly reduced to the point where it need no longer be regarded as a menace to the young men and women of this country, and where drug users will not aggravate the crime conditions, as they do at the present? Stringent laws, spectacular police drives, vigorous prosecution, and imprisonment of addicts and peddlers have proved not only useless and enormously expensive as means of correcting this evil, but they are also unjustifiably and unbelievably cruel in their application to the unfortunate drug victims. Repression has driven this vice underground and produced the narcotic smugglers and supply agents, who have grown wealthy out of this evil practice and who, by devious methods, have stimulated traffic in drugs. Finally, and not the least of the evils associated with repression, the helpless addict has been forced to resort to crime in order to get money for the drug which is absolutely indispensable for his comfortable existence.

The first step in any plan to alleviate this dreadful affliction should be the establishment of Federal control and dispensation—at cost—of habit-forming drugs. With the profit motive gone, no effort would be made to encourage its use by private dispensers of narcotics, and the drug peddler would disappear. New addicts would be speedily discovered and through early treatment, some of these unfortunate victims might be saved from becoming hopelessly incurable.

Drug addiction, like prostitution and like liquor, is not a police problem; it never has been and never can be solved by policemen. It is first and last a medical problem, and if there is a solution it will be discovered not by policemen, but by scientific and competently trained medical experts whose sole objective will be the reduction and possible eradication of this devastating appetite. There should be intelligent treatment of the incurables in outpatient clinics, hospitalization of those not too far gone to respond to therapeutic measures, and application of the prophylactic principles which medicine applies to all scourges of mankind.¹

Vollmer's proposal goes further than the plan proposed here, since he proposed federal dispensation at cost, probably under the auspices of the Public Health Service. It is possible that this sort of a plan would be necessary at first, but it is believed that in the long run most of the cases could and should be handled

¹ August Vollmer, *The Police and Modern Society* (Berkeley, 1936), pp. 117-118. Reprinted by permission of the University of California Press.

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by private practitioners. If every addict in the United States became a doctor's patient the average case load would be increased by less than one per doctor. However, since addicts are at present concentrated in large cities, temporary clinics might have to be set up there to handle the immediate problem, but as the addicts secured employment and bettered their economic and social status these clinics would become less and less necessary, for the drug user would certainly prefer to patronize a private practitioner rather than to attend a public clinic. The net long run effect would be, we believe, to reduce the visibility of the problem and to bring it under public control through the agency of the Public Health Service and of the medical profession.

Under this plan the drug addict would, in effect, be given the same status as the person who drinks alcohol. If the latter does not steal, destroy property, create public disturbances, or assault someone, or otherwise violate the laws he is left to his own private devices. Drinking is regarded as a question of private morality, in spite of the fact that drunken persons are in most respects more dangerous and are much more numerous than drug addicts. The proposal presented here is simply that addiction to drugs should be regarded like addiction to alcohol—as a private vice. If a drug addict steals, kills, or otherwise violates laws he should be arrested and punished, but he should not be punished simply because he uses drugs.

Another advantage of the proposed change would be that the present brutal and unnecessarily cruel methods of handling addicts, to which Vollmer refers, would be eliminated. The addict would be handled by medical men as a patient; not by policemen as a pervert and a criminal. It would no longer be possible or necessary to use drug addicts as informers in order to enforce the law. In taking these steps the United States would not be venturing into an unknown field of dangerous experimentation, for the drug addict in virtually all European

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countries has been regarded and treated as a patient for many generations. The United States would by these measures conform to generally accepted standards of humanity and decency.

There has been considerable publicity given to the Federal hospitals which have been established in various parts of the United States by the Public Health Service to handle and study addicts.² It is true that they represent a step in advance for this country, but Europeans have never attempted to utilize the prison as a means of controlling addiction and have always placed their opiate addicts in the hands of doctors and nurses. The inmates of these hospitals are still prisoners "doing time." In this sense we are still behind European practice.

Under the proposed plan the facilities of the Public Health Service and the Narcotic Bureau would continue to be useful. The Narcotic Farms could be used as hospitals for addicts or to administer cures to those seeking to free themselves from the habit. The Narcotic Bureau could devote itself more fully to checking on the flow of narcotics through the hands of registered dealers under the Harrison Act. There would also probably be a residual problem involving addicts who were professional criminals who would not conform to the new situation. There would also be the cocaine and marihuana problems to which narcotic agents could devote their energies.

One of the effects of the proposed plan which would, in the long run, be of the greatest importance, is that as the illegal traffic dwindled and as more and more addicts came to private physicians reliable information would become available concerning the numbers of addicts in each community. New cases would be detected quickly and measures could be taken to eliminate foci of infection. Under the present system very little reliable information of a statistical character is available and no one knows how many addicts there are, where they are, or where the new cases come from.

² Howard Whitman, "One Up on Narcotics," *Colliers*, 15 December, 1945.

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Arthur Woods, formerly New York Police Commissioner and international authority on the opium traffic, appraising the situation in the United States, states:

Since the passing of the Federal Narcotic Act in 1914, actually thousands of addicts and small peddlers have gone into the Federal prisons, while with but few exceptions the "high financiers" of dope smuggling remain at large. In practice this state of affairs amounts to little more than prosecuting the victims of the traffic and permitting those who reap the large monetary benefits to go untouched.³

Simple justice requires that this situation be corrected. The American people have had an experience with prohibition and from it they have learned that matters of private morality cannot be settled by legislation. The effects of prohibition on drug addiction are substantially the same as they were upon alcohol addiction. As in the case of the bootleg traffic in alcohol, the "high financiers" of the dope racket can only be eliminated by doing away with prohibition.

It should, of course, not be assumed that any change in the method of handling the narcotic problem will at once or even ultimately eliminate all problems connected with addiction. Many difficult problems would remain although the situation as a whole might be greatly improved. For example, if the changes recommended here were made, it is probable that some traffic in drugs would continue in the American underworld and that attempts would be made to sell these illicit drugs to addicts to supplement the supplies they were obtaining from medical sources or to enable persons not using the drug to start its use or resume its use. It would, of course, be impossible for illegal dealers to obtain the prices which they now can, and much of the financial incentive would be gone. Nevertheless, there would probably be a problem here and a task for the Narcotic Bureau. Other problems that would remain would be that

³ Arthur Woods, *Dangerous Drugs: The World Fight against Illicit Traffic in Narcotics* (New Haven, 1931), p. 62.

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of attempting to cure as many addicts as possible, and that of guarding against any spread of the habit.

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GLOSSARY OF ADDICT'S ARGOT

The following glossary of terms which are used with special meanings by American drug users was obtained largely from Chicago addicts. With Dr. David Maurer's permission, about forty words were borrowed from his work and included here. There is some local variation in the argot, and it is also in a constant process of rapid change. Hence, the list here presented is probably not complete nor entirely accurate for all parts of the country. The examples cited are in almost all cases actual utterances of drug users who were interviewed in the course of the study.

Abb: An abscess at the point where an injection is made, usually caused by bad drugs or an unsterilized needle.

Around the turn: To have passed through the severest part of the withdrawal distress which comes about three days after the last shot. Also, *to be over the hump*.

Away from one's habit: To have stopped using drugs. Example—"A fellow still feels pretty rotten when he is only a month away from his habit."

Bang, a; or to bang: An injection of drugs may be called a bang. *To be banging up* is to be giving oneself a shot. Also used as a synonym of *kick* as in "I get a whale of a bang out of the pipe."

Beat the gong: To smoke opium.

Bendin' and Bowin': Full of drugs. See *Loaded*.

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Big man: The big distributor of drugs. He is usually not an addict and he seldom goes to jail.

Big shot connection: A peddler or dealer who handles relatively large quantities of drugs. Government agents are particularly eager to trap him but he is wary and elusive. Example—"It isn't the *big shot connection* that does the time in the stir: it's the *bird-cage hypes*."

Bindle, a: A small amount of drugs done up in a paper. Also, *a paper, a deck, a go, a check, a cigarette paper.*

Bird-cage hypes: The poorest class of addicts who have trouble supporting themselves and their habits and live extremely destitute and miserable lives.

Bird's eye, a: A very small quantity of drugs. Example—"When Whitey brought the cap I took a tiny bit, a *bird's eye*, and gave the rest to him."

Black stuff: Opium.

Blow, to; to blow a shot: To waste a shot by spilling the drug or by missing a vein.

Blowing: Taking drugs via the nostrils. Also, *sniffing, snorting.*

Boo gee: The paper used to make the ends of the medicine dropper fit snugly into the hypodermic needle.

Boost, to: To shoplift. Perhaps the most common means of obtaining a livelihood among addicts.

Boots or Boot-and-Shoe dope fiends: The poorest class of addicts. See *bird cage hypes*. Example—"The Black Maria picked up about thirty *boots* at the Legion yesterday and took 'em to the band-house."

Break the habit, to: To stop using the drug. May also be used as follows: "'I *break* my habit in the stomach."

Brick gum: Raw opium. Also, *leaf gum, mud, gum, brick, leaf.*

Bring up, to or to back up: To cause the veins to distend by tying up the arm or leg between the place where the injection is to be made and the heart.

Bug, to: To inject coal oil, tobacco juice, or some other substance into oneself in order to cause sufficient poisoning to obtain a shot of drugs from a doctor.

Build up one's habit: To increase the daily dosage.

Bull horrors: Delusions of pursuit by the police on the part of one who has used cocaine.

Bunk-habit. One who likes to lie around in an opium smoking joint is said to have a *bunk-habit*.

"C": Cocaine. To camouflage a sentence such as "I want some 'C,'" an addict might say, "I'm looking for Charley," or "I want to buy some collars." Also, *snow, coke.*

Canned stuff: Commercial smoking opium. Also known by the name of the company, as *Lem Kee, Li Young*, etc.

Cap, a: A capsule containing drugs.

Carry, to or to be carried: To be supported by drugs. Example—"This shot will carry me for six hours." Also, *to hold or to be held.*

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Cat-nap: A short period of sleep. Example—"When a junker is kicking his habit he never gets a good sleep, just *cat-naps*."

Cement: Any kind of drug as it passes into commerce rather than when it is used by addicts.

Channel, in the: In a vein. Example—"His veins were so shrunken that he couldn't get it *in the channel*."

Chef: The person who prepares opium for smoking. This is something of an art and a good *chef* is therefore much in demand. Also *cook*.

Chinaman, to have a Chinaman on one's back: To have a drug habit or to be suffering withdrawal distress.

Chinese needlework: The handling or use of narcotics.

Chippy, a: One who uses a little bit now and then—same as a *pleasure user*.

Chuck-horrors: The addict's state after quitting the habit, when he cannot get enough to eat and will eat anything at any time. It develops after about a week of abstinence.

Coasting: The feeling of euphoria produced by a shot during the initial period of use, after a period of abstinence, or by an unusually large dose.

Cokie: A cocaine user. Also, *coke fiend*, *snow bird*, *cozomo*, *coke head*.

Cold Turkey; to kick a habit cold turkey: To stop using drugs suddenly without tapering off or without using other drugs for relief.

Connection: A drug peddler or distributor. Example—"My *connection* was knocked off yesterday." Also, *pusher*, *shover*.

Connector: One who acts as a go-between between the drug user and a connection.

Cooker: The receptacle in which drugs are dissolved and heated prior to being drawn into the medicine dropper.

Cotton, the: A small piece of cotton through which the drug solution is strained as it is drawn into the medicine dropper. This is done to strain out foreign material which might stop up the needle. An addict who is hard pressed may beg others for their cotton from which he is able to obtain a small amount of the drug solution. Hence, *to be using one's cotton* means that the user is having difficulty maintaining a supply. He may also express this idea by saying, "*I'm down to the rinsings*" "*M*" and "*C*" *Cotton* or the *Cotton brothers* are cottons saturated with morphine and cocaine respectively. Example—"Is Charley Cotton around?" A *cotton habit* is a small habit which may be maintained in part by begging cotton from more prosperous addicts. If an addict has a *cap* but no *joint* he offers the *cotton* as rental for someone else's joint.

Croaker: A doctor. Also, *blood-sucker*.

Cube: A cube of morphine containing a grain or two and about the size of small dice. Also, *block*.

Cut, to: To adulterate drugs. Morphine which usually is sold in cubes is adulterated before being put up in cubes. Heroin which is sold in powdered

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form can be cut more readily. Before the war drugs of from ten to twenty per cent purity were fairly common, but during the war the purity dropped to below five per cent, often to one or two per cent.

Cutered pill: A strong and unpalatable pill obtained when the bowl of the opium pipe becomes too hot or too full of *yenshee*.

Deadwood: To be arrested directly by a narcotic agent rather than through the intervention of a stool pigeon.

Dope fiend: A drug addict. Also, *gowster*, *junker*, *smecker*, *hop-head*, *user*, *cookie*, etc.

Dopehop: A term sometimes used in prison for a drug addict.

Dripper: An eye dropper or medicine dropper which forms an indispensable part of the addict's hypodermic outfit. Example—"The *dripper* leaked and I blew the shot." Also, *dingus*, *dinghizen*, *fake*, *fake-a-loo*.

Drive in, to: To deliver drugs to an imprisoned addict.

Dugout: An addict who has come to the end of his resources.

Dynamite: Unusually strong or pure drugs.

Embroidery: The handling or using of drugs.

Engine: Outfit for smoking opium.

Eye-opener: The first injection of the day, sometimes taken before getting out of bed. The effects of this injection are particularly marked because the drug has worn off during the night and the addict often wakes up sick.

Figure eight: A feigned spasm or illness which is designed to induce a doctor to administer an injection. Also, *wing-ding*.

Finger-of-stuff: A finger stall filled with drugs to protect them from dampness and to facilitate smuggling. A condom may also be used. An addict may swallow a quantity of drugs before entering prison and recover it later with the use of these containers.

Fix, to: The act of taking drugs. Example—"Let's stop in the hotel and *fix*." Also means to take enough drugs to relieve abstinence symptoms as in "I drank enough paregoric to halfway *fix* me." Also, *to get one's yen off*, or *to get the habit off*.
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Flipped, or to flip: To knock unconscious with a dose of drugs—narcotics or others. A *hot shot* kills the victim, it does not *flip* him.

Fold up, to: To stop using drugs. Also, *to be washed up*, *to be caught up*, *to be on the up-and-up*.

Fun (or foon): A ration or a pill of opium.

Gazer: Federal narcotic agent. Also *whiskers*.

Gee-fat: The lining of an opium pipe.

Gee rags: Used to make the bowl of an opium pipe fit snugly into the saddle.

Geezer: A small shot.

God's medicine; God's own medicine; "G"; "O"; "M": Opiates. It is curious that these terms are also frequently used by the medical profession.

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Gonger: Opiate derivative. A term used in the West.

Goods: Drugs. A term used by big dealers. Also, *merchandise*.

Gowster: An addict. Was at first used only to apply to opium smokers but was later extended to all addicts.

Green ashes or green mud: Ashes left from incompletely burned opium.

Grocery boy: A hungry addict not particularly in need of drugs.

Gun: A hypodermic outfit or joint. In general underworld argot a gun is a pick-pocket.

Gutter: An addict who uses drugs intravenously.

"H": Heroin. Example—"Jake is putting out a lot of "H" and some "C."

Habit: Addiction to drugs or abstinence symptoms. Example—"My habit is coming on and I lost my joint."

Harpoon: The hypodermic needle. Also, *spike, point, Bay State, nail, luer*.

High: To be excessively full of drugs. Examples—"He is higher than a Georgia pine," or "Chet is as high as a steeple." Also, *lit up, geed up, polluted, full of poison, steppin' high, leaping, leapin' and stinkin', purring, purrin' like a cat*.

High-hat: A large pill or smoking opium. Also, *fire-plug*.

Hip, to be on the: To be smoking opium.

Hit the gow or hit the stuff: To be addicted.

Hit, to be: The effects of a shot as they are first noticed. Example—"That shot was dynamite; it hit me like a ton of bricks."

Hitch up the reindeers: To be preparing to use cocaine. Also *to go for a sleigh ride*.

Hocus: The drug in solution.

Holding, to be: To have drugs to sell on one's person.

Hooked, to be: To be addicted or to have used drugs long enough so that when one stops the withdrawal symptoms will appear. A person who fails to recognize withdrawal distress when he first experiences it is said to be hooked without knowing it.

Hoosier fiend: An inexperienced or ignorant addict or an ex-workingman who has become addicted.

Hop: Smoking opium. Also, *grease, skamas, gow, tar*. It may also mean opiates in general.

Hop-head: Originally used to designate opium smokers only but is now used for addicts in general.

Hop joint: A place where opium is smoked. Also *lay-down joint*.

Hop toy: An opium container.

Hot shot: An injection of poison in place of the drug. Example—"The son-of-a-bitch is a stool. Give him a hot shot. Give him some strychnine."

Hype or Hypo: An addict who uses a hypodermic needle. Also, *jabber, or hypo smecker*. A hypo is also a hypodermic injection.

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Ice-tong doctor: An illegal medical practitioner who sells drugs.

Iron cure: To *kick the habit cold turkey* in a jail or prison cell. Also, the *steel and concrete cure*. In the Chicago Bridewell where addicts were supposed to work in the quarry during the withdrawal period it was often called the *quarry cure*.

Jab, to: To use drugs hypodermically. Example—"I've smoked and I've *jabbed*."

Jaboff: The feeling of exhilaration immediately following a *vein-shot*.

Jam: An overdose of narcotics.

Joint: A hypodermic outfit usually improvised by fitting a medicine or eye dropper into a hypodermic needle. A receptacle such as a spoon or the top of a tobacco can in which the drug is heated and dissolved is also included. Also, *lay-out, factory, machinery, gun, artillery, the works, the business, the bizz*. A *joint* may also be an opium den or an opium smoking outfit.

Jolt: An injection of drugs or the effects of an injection.

Joy pop: A shot taken for "the fun of it" by a non-addict or by an addict who is off drugs and intends to take only one or two shots and quit. See *pleasure user*.

Junk: The usual term for opiates. Also, *stuff, dope, smeck, hocus, gee, gow, cotics, mo-jo*.

Junker: The most commonly used term for drug addicts. Also, *gowster, dope fiend, hop-head, smecker, user, gow-head, cookie, dope-hop, yensheequay*.

Keyster plant: A finger stall with drugs in it concealed in the rectum.

Kick-back: Relapse into the habit after a period of abstinence.

Kicking the gong around: Smoking opium. Also, *laying on the hip*.

Kick the habit: To stop using drugs. "They threw me into a cell in the clink and I *kicked her cold turkey*."

Knocker: A person who is opposed to the use of drugs.

Lamp habit: One who likes to see the lamp used in smoking opium lit constantly is said to have a *lamp habit*.

Laugh and Scratch: To use drugs. Refers to the itching sensation often produced by opiates, especially when taken intravenously in large amounts. Example—"Doc and I picked up a piece of stuff and *laughed and scratched* most of the night."

Lay-down joint: A place where one can go to smoke opium. Also, *hop-joint* or *lay-down*.

Laying on the hip: The act of smoking opium. Also, *kicking the gong around, kicking it around, puffing, rolling the log*.

Lemon bowl, Orange bowl. The bowl of an opium pipe the lower part of which is made of a scraped out lemon or orange.

Lent: Japanese fibrous opium introduced on the West coast.

Li-Yuen: A high quality smoking opium.

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Lipping the dropper: To test the medicine dropper by sucking the air out of it and causing it to stick to one's lips.

Loaded: Full of drugs.

Lobby-gow or lobb: One who hangs around and runs errands.

"M": Morphine. An addict will say "I'm waiting for Martha (or Mary, Matthew, etc.)" and any other addict will understand that he is waiting for morphine.

Main-line: A vein. Also used as a verb, meaning to inject intravenously. Example—"If you can *main line* a cube of the stuff I put out, you can have it. It will be on the house."

Margin men: Dealers or runners who have no money invested in the goods but use some other persons bank roll. They risk their liberty rather than their money.

Mark a connection, to: To take note for future reference of an individual who is selling drugs.

McCoy: Chemically pure drugs. Example—"This stuff costs a lot but it is the real McCoy."

Medicine: The drug.

Meet. An appointment. Example—"I have a *meet* with a connection to score."

Mezonny. To have one's money working so that one feels he is about to obtain drugs or to *score*.

Miss Emma: Morphine.

Monkey: A habit. Example—"I have a *monkey* on my back." This usually means that the person is sick from lack of drugs. Also, "*to have a Chinaman on one's back*."

Mount Shasta, to be from: To be addicted to drugs.

Mouth habit: An oral habit.

Mr. Fish: An addict who voluntarily give himself up to the authorities in an effort to quit his habit.

Narcotic bulls or narcotic coppers: Narcotic officers.

Needle fiend One who has a hypodermic drug habit. Also, *hype*. Also refers to the addict who likes to play with the needle, to prick himself with it, or to receive sterile injections after he is off the drug. This desire is referred to as a *needle yen*.

Needle shy: To be squeamish about inserting the needle or about watching the process.

Needle trouble: To have trouble with the needle, as for example, to have it stopped up or broken off. The use of the cotton prevents needle trouble.

Oil burning habit: A big habit.

On, to be: To be using drugs.

Paid off in gold: When an undercover narcotic agent has purchased some drugs from a peddler and then flashes his badge and arrests him he is said to have *paid him off in gold*.

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Panic: A scarcity of drugs, usually, produced by the arrest of big peddlers.

Example—"The heat's on. Connection blowed up. There's a panic on."

Panic man: An addict in desperate need of drugs and suffering abstinence symptoms.

Peter: Knock out drops which are given a person when he is flipped or taken.

"P" "G": Paregoric. A preparation containing 1.9 grains of opium to the fluid ounce and used by addicts in case of a shortage of heroin or morphine. It can be drunk straight or boiled down and injected hypodermically.

Picked up: Under the immediate influence of narcotics.

Pick up: An injection of narcotics. Example—"He didn't feel right because he missed his morning pick up."

Piddle: A hospital. Also, *poggy*.

Piece, a: An ounce of drugs. A *piece man* is a dealer who handles nothing smaller than an ounce. Also, "O" "Z", or "O".

Pill: Opium as it is consumed in the bowl of the pipe. Also, *yen-pok*.

Pin shot: An injection made by using a pin or other sharp instrument to make a wound into which the end of the medicine dropper is inserted directly. Also, *penitentiary shot*.

Pinyen: Opium.

Plant: A concealed supply of drugs or equipment for using them.

Playing around: When an addict who has not been using drugs for a time takes a shot now and then with the intention of not allowing himself to become readdicted, he is *playing around*. Example—"I know a man who works in the City Hall who used to be hooked on the pipe and has *played around* for ten years." Also, *dabble*.

Playing the nod: To doze or go to sleep from over-indulgence.

Pleasure user; pleasure smoker: Persons who have never been addicted, who use the drug occasionally only. Most of these persons become addicted. The occasional use of drugs in this manner is referred to as *three-day habit*, *week-end habit*, *chicken-shot habit*, *ice cream habit*, *Saturday-night habit*, *chippy habit*.

Point shot: An injection of drugs made with the broken point of a hypodermic needle or a sewing machine needle. The point is inserted into the vein or skin, the medicine dropper is slipped over it and held against the skin while the injection is made.

Poison Act: The Harrison Narcotic Act passed in 1914.

Push, to or to push shorts: To peddle small quantities of drugs. Also, to *shove* or to *pitch*. Example—"Go and score from Jim, he's pushing for me."

Ration: The addict's regular dose, the size of which depends upon how long he has been using drugs and how high he has built up his habit.

Register, to: Allowing the blood to appear in the lower portion of the medicine dropper as an injection is being made to indicate that the needle is in a vein.

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- R.F.D. dopehead:** A drug addict who travels about in the country and in small towns and obtains his supplies from the local doctors.
- Right croaker:** A physician who will sell or give an addict drugs. Also, known as a croaker who will sail, turn, write scrip, or give one a reader.
- Rizolin:** Peddler argot meaning "the stuff is rolling," i.e., "Your order is filled."
- Rolling stuff, to be:** To be transporting narcotics.
- Rooster brand:** Cheap bootleg opium refined from yenshee or green ashes.
- San-Lo:** The lowest grade of bootleg opium refined from yenshee.
- Satch, to:** To saturate any absorbent material with a drug solution. Drugs may be smuggled into prison by saturating a piece of paper, drying it out and writing a note on it. Some addicts make it a practice to saturate a portion of their clothing so that in case they are arrested they will have an emergency supply. A quantity of drugs so concealed is a satch.
- Scoffing:** Taking the drug orally. Also, mouth habit.
- Score, to:** To buy drugs. Also, to connect, or make a connection. Example—"I scored in the loop yesterday."
- Score dough:** Money with which to buy drugs. Example—"I had a nigger on the send for me and he ran off with my score dough."
- Scrip:** A prescription for narcotics. Also, reader. Example—"I wrote scrip so long that I actually began to think I was a doctor."
- Self-starter:** An addict who voluntarily goes to an institution to quit his habit. See, Mr. Fish.
- Send, to be on the, or to have someone on the:** To make a purchase for someone else or to have someone make a purchase of drugs.
- Shoot, to:** To inject hypodermically. Also, to fire, to jab, to put poison in one's arm. Example—"The boys are beginning to shoot sodium amytal on the coast."
- Short go:** A small amount of drugs for the money.
- Shot:** An injection of drugs. Also, jolt, pop, pick-up, fix, prod, bang, bing, bingo, jabpop, prop, geezer.
- Skin shooter:** One who uses the drug intramuscularly rather than intravenously.
- Smokers:** Opium smokers. Also, pipies, pipe fiends, gowsters, hop-heads, yenshee boys.
- Sniffer or snifter:** One who sniffs powdered drugs into the nostrils. Also, blowing. Because penalties are now being imposed for the possession of a hypodermic needle some addicts are resorting to this technique which used to be a popular method of taking heroin.
- Speed ball:** A combination of cocaine and morphine in a single injection.
- Spread the joint:** To get a hypodermic outfit ready for use.
- Square, or Square John:** A non-addict.
- "S" "S":** A shot into the skin.

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Stem: Of an opium pipe. Example—"My good old pipe and stem, Good God! How I love them."

Stick: The pipe used in smoking opium. Also, *Gonger, log, bamboo, dream stick, saxophone.*

Stool pigeon: An addict or peddler who gives information to narcotic agents to assist them in making arrests, or who provides evidence against other peddlers or addicts by making purchases from a peddler with marked money supplied to him by the narcotic agent. An undercover narcotic agent is not a stool pigeon.

Student: One who has difficulty establishing a habit. It is usually quite easy.

Suey-pow: A wet sponge used to cool off the bowl of the opium pipe.

Thin-hips: An old time opium addict who has smoked so long that his hips are of unequal size. See, *laying on the hip.*

Tomcat: An improvised needle made from a power sewing machine needle.

Torture chamber: An institution in which drugs are not available to the addict.

Trained nurse: Narcotic smuggled into prison or jail to "take care of the addict."

Turkey: A capsule or package supposed to contain drugs but actually containing chalk or some other substance.

Turn, to: To consent to do business with someone. Example—"A big peddler won't turn for a bird cage hype."

Twister: Used either as the equivalent of *wing-ding, speed ball*, or to refer to the physical spasms accompanying withdrawal.

"V" "S": A vein shot.

Vein shooter: One who takes the drug intravenously. Also, *main-liner, main line shooter, gutter.* The act of intravenous injection is known as going into *the sewer, in the line, or taking it main.*

Whiskers: Law enforcement agents.

White, Dr.: A camouflaged reference to drugs. Example—"I'm sick and only Dr. White can help me."

White nurse: Drugs.

Wing-ding: A simulated set of symptoms or a deliberately induced poisoning or injury which is supposed to cause a physician to prescribe or administer an injection of morphine. Also, *twister, or meter.*

Witch hazel: Heroin.

Writing: A letter or note on paper saturated with drugs.

Yen: The desire for narcotics or the abstinence symptoms. The term is used mainly for the desire for the drug during abstinence distress. It would be incorrect for a non-addict to say that he had a yen for a shot.

Yen-hock: A large needle used to prepare opium for smoking.

Yenshee: The ash residue which forms inside the bowl of an opium pipe. It can be re-cooked and smoked again, although it is usually mixed with fresh drugs because it is bitter by itself.

APPENDIX I

Yenshee baby: A difficult bowel movement after a period of constipation induced by the use of opiates.

Yenshee boy: An opium smoker.

Yenshee gow: An instrument used to clean the bowl of an opium pipe.

Yenshee quay: An opiate addict. Formerly referred only to opium smokers.

APPENDIX II



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