D.3 AMPHETAMINES AND AMPHETAMINE-LIKE DRUGS

This category of drugs principally includes amphetamine, methamphetamine and amphetamine-like drugs such as phenmetrazine and methyphenidate. Those who use these drugs non-medically tend to fall into three categories. First, those who use these drugs orally, on a rather regular basis, in small to moderate doses, without prescription or as a result of 'prescription shopping', and usually to elevate mood or relieve fatigue or depression. Second, those who use these drugs orally in moderate to relatively high doses, on an occasional to regular basis, typically for recreational purposes. The first category tends to be drawn from the adult middle classes and is not usually associated with illicit drug experiences—most often amphetamine use will have begun for a medically authorized purpose. The second category is largely composed of younger people, many of whom will have had experience with other illicit drugs. The third category contains a population who take amphetamine or methamphetamine (known in this context as 'speed') by intravenous injection, at high-dose levels and usually on a chronic basis (see Appendix C.2 Extent of Use, "Amphetamines and Amphetamine-Like Drugs"). It is this latter category which has received the greatest amount of attention in the psychiatric, psychological and sociological literature and in the popular press, although numerically it is by far the smallest of the three categories. To a considerable extent, the motivational patterns and factors associated with the use of amphetamines and amphetamine-like drugs (hereafter referred to as `amphetamines') are similar for members of all of these categories, although some important differences will be noted.

Without doubt the widespread use of these drugs has been facilitated by their ready availability. While both Canada and the United States have recently introduced tighter controls on the legal distribution of these drugs, during the 1950s and '60s legitimately manufactured amphetamines were easily available to almost anyone who expressed an interest in obtaining them. Overproduction and overprescribing characterized the licit market and, for many oral users, the transition from medical to non-medical use was a function of both their introduction to the drug in a therapeutic context and their easy access to additional amphetamine supplies (either through 'prescription shopping' or diversionary channels) once an appreciation of the drug's stimulating effects or a compulsive habit had evolved. Similarly, the development of the first intravenous speed-using communities was abetted by both the overproduction and lax prescribing of injectable methamphetamine, and the relative ease with which methamphetamine could be illicitly produced. These matters are discussed in Appendix B.3 Amphetamines and Amphetamine-Like Drugs, "Legal Sources and Illegal Distribution".

The motivations for initial use of amphetamines are significantly different from those factors that affect the continued use of these drugs. First oral use of amphetamines most often occurs within a medical context, the amphetamines having been obtained on prescription. Alternatively, amphetamines may be used initially without benefit of prescription, on the advice or at the
suggestion of friends. In most cases this use will be of an instrumental or functional nature, such as facilitating the completion of arduous tasks, providing needed energy, curbing appetite, or counteracting fatigue or depression. In other instances the motivation for first non-medical use of amphetamines is similar to the motivation for first non-medical use of most psychotropic substances: simple curiosity precipitated by the favourable comments of friends and acquaintances, and the desire for a new and euphoric experience.144, 145, 156, 220

The initial intravenous amphetamine experience is usually engendered by a more complex set of factors than those affecting first oral use. Robbins has suggested four possible avenues to the regular intravenous injection of these drugs.316 The first of these begins with the moderate oral consumption of stimulants to combat depression, fatigue or obesity. As tolerance and psychological dependence develop, the user steadily increases his dosage until he shifts to intravenous administration. Although almost all 'speeders' have previously used amphetamines orally, it appears highly unlikely that this progression would occur in the absence of some involvement with intravenous users. As Robbins himself notes, "housewives habituated to amphetamine pills ... do not graduate to injection because they have no contact with a deviant drug culture." 316

A second, and more plausible, avenue suggested by Robbins involves the merging of oral amphetamine consumption and hallucinogenic drug use. As he puts it:

A habituated user of [pep] pills [may] progress to intravenous usage if he has contacts within an underground drug scene (often dominated by psychedelics) .... College students abusing amphetamines are more likely [than most oral amphetamine users] to progress from oral to intravenous abuse by virtue of their greater proximity to an underground drug scene."'

Both of these initiation routes include the notion of graduation through oral to intravenous use of amphetamines. While both are theoretically possible, only the latter has been encountered by Commission investigators144, 145 and has been well documented by other sources.94. 198

Robbins' third avenue of entry is through the prior intravenous use of heroin.316 Several American studies have noted that heroin users will occasionally inject amphetamines when opiates are unobtainable, too costly or "too likely to invite prosecution".126, 198, 308 Heroin users may also use amphetamines to facilitate their criminal 'hustles' or to avoid the risk of opiate dependence through the rotation of heroin and methamphetamine, or by switching to the
exclusive use of speed.70, 126, 308 Commission researchers and other Canadian investigators have discovered only a few speeders with a prior history of heroin use or dependence, and these were mainly Americans who could not secure opiate supplies in Canada. Involvement with opiates, when it does occur, has generally been found to follow rather than precede the intravenous use of amphetamines 94, 241, 287, 288

Robbins' final intravenous amphetamine initiation route is through the prior use of hallucinogenic drugs.316 This is the pattern that has been most often observed in Canada. Robbins, Pittel and Hofer, and several other researchers, suggest that compulsive methamphetamine users are primarily recruited from among those persons who have been depressed, disillusioned, or disoriented by their use of hallucinogens.231, 295, 316, 346 Speed use, then, since it provides sensations of enhanced self-assurance and competence, is seen as a reaction to repeatedly unpleasant hallucinogen experiences. As Pittel and Hofer describe this transition:

... psychedelic drugs [are used] ... to compensate for certain long-standing impairments in ego functioning ... [These] psychedelic drug experiences lead to further impairment of ego functions and to an even greater inability to resolve psychological problems .... It is at this point that the transition to amphetamines may occur.

The typical rationalization for this transition is that amphetamines provide needed energy and motivation for constructive problem-solving .... Other desired effects of amphetamines are their ability to counteract increasing anxiety and depression and the sense of pervasive emptiness that results from continued failure to deal with persisting or exacerbated personal problems.'

Nearly all Canadian intravenous amphetamine users studied by the Commission had a history of previous hallucinogen consumption and many of them claim to have been depressed when they initially injected amphetamine.145 A psychiatric study of seven female speeders in Toronto concluded that "the compulsive use of speed in all cases was preceded by a depressive state . ..".2n Another Toronto study described these drug users as "usually chronically depressed",376 and the authors of a third Toronto study state that "there is no doubt that a very high percentage (perhaps 75 per cent) of the amphetamine users were depressed'.220

Depression has often been cited as a precipitating factor in both the initial and continued non-medical oral—and intravenous—use of amphetamines. However, the sources of the depression have not yet been ascertained. Housewives, particularly, have often been reported
to have used amphetamines, sometimes to the point of habituation, in order to counteract feelings of depression. Depression also plays an important intervening role in the 'speed cycle' which typifies patterns of intravenous methamphetamine use.

There have been several important studies of the relationship between psychological problems and the use of amphetamines. As with alcohol and the opiate narcotics, it has been suggested that there is a particular type of personality that is predisposed to the use of these drugs. However, before reviewing the information pertaining to this hypothesis, it is crucial to note, once again, that the relevant data are primarily based on clinical studies (involving unrepresentative samples and without control groups or objective measures) and surveys of volunteer respondents whose social and psychological characteristics may or may not resemble those of the total amphetamine-using population. Furthermore, these studies are often based on populations institutionalized in hospitals or jails and, consequently, are likely to reflect the more extreme elements of whatever using group is being considered. Finally, in almost all cases, it is uncertain whether diagnosed psychological disorders have preceded the use of amphetamines (and, therefore, may be causally linked to their use), or follow the use of these drugs (thus indicating the possibility of a psychopharmacological effect or the influence of life in a speed-using community).

Beamish and Kiloh described a series of oral amphetamine-using adult patients who showed evidence of psychopathic personality and had a high incidence of use of other drugs. Furthermore, these patients had displayed symptoms of abnormal personality prior to their use of amphetamines. Studies by Bell and Trehowan and Hampton also report the existence of underlying personality disorders among oral users of amphetamines, ranging from neurotic or prepsychotic traits to paranoid schizophrenia, psychopathic personality and manic-depression. However, in Hampton's study no specific psychological disorder or complex of disorders seemed to consistently characterize amphetamine users. Cockett and Marks found that among a group of young English offenders, the amphetamine users scored significantly higher on personality tests measuring hostility, guilt and self-punitive attitudes than non-amphetamine users from similar backgrounds.

Hekimian and Gershon studied the psychiatric characteristics of 112 randomly selected non-medical drug users admitted to New York's Bellevue Hospital in 1967. Of the 22 oral or intravenous amphetamine users, nine were diagnosed prior to their initial use of amphetamines as suffering from schizophrenia, six displayed neurotic patterns and four were described as sociopathic. These patients, however, likely represent only the more extreme types of amphetamine users as their mean duration of use was 3.4 years, their mean daily dose was 780 milligrams, and all "were psychotic, in a toxic condition, or came for drug withdrawal" when admitted to the hospital. Levine, et al. interviewed a non-random, volunteer sample of 218 speed users in Toronto in 1971. Only 19 per cent were found to be free of psychiatric
disturbance. Eleven per cent displayed psychotic symptoms and between one-third and one-half of the sample showed evidence of personality disorders. The authors identified four basic themes in the lives of their subjects: unhappiness, as manifested in feelings of depression, existential dissatisfaction and anxiety; escapism (via drugs) from the unpleasant reality of their lives; communality, an ethos of sharing and antimaternalism which appeared to be related to their need for company, and social disintegration, as evidenced by their disproportionately high rates of broken or unstable homes, parental drug use and crimino-legal involvement as well as poor academic and occupational records. As with most other studies of the psychological characteristics of drug users, however, it is impossible to determine whether the diagnosed psychiatric disorders were either a cause or effect of the use of amphetamines.

Connell, based on his clinical investigations of English amphetamine users and extensive reviews of other studies, has stated that, "persons likely to become amphetamine addicts cannot easily be distinguished from those who are nor," and,

although both adult and adolescent drug addicts are likely to be unstable personalities before taking the drug it is by no means certain that individuals with normal previous personalities are free from the risk of becoming addicted to amphetamines or other drugs.

However, Levine and his associates, on the basis of their study of Toronto speeders, conclude that "it appears that those youngsters who are attracted to these dangerous chemicals [i.e., amphetamines], as opposed to a drug such as cannabis, are emotionally vulnerable a priori." 220 It seems then, as is the case with alcohol and the opiate narcotics, that there is conflicting evidence regarding the hypothesis that a particular personality structure predisposes certain individuals to either occasional or compulsive use of amphetamines. The possibility, however, remains, and warrants further investigation.

Social and social-psychological factors have also been considered as contributing causes to the use of amphetamines, particularly intravenous speed use. One theory holds that amphetamines are chosen over other drugs (notably the hallucinogens) in accordance with the broad values and goals of the user's social class in. 357' 421 Briefly, it is argued that the typical speed user is of working-class origin and prefers amphetamines to other drugs for their immediately pleasurable physical effects. The middle-class young person, by contrast, seeks greater self-understanding and other insights over idle pleasure. His drug use, then, is motivated by and consistent with the values with which he has been brought up—self-improvement and the pursuit of knowledge. Unfortunately, however, this working-class choice hypothesis appears never to have been empirically substantiated. Where class differences between amphetamine and hallucinogen users have been referred to, no data have been reported, and the assertion
appears to have been based only on casual observations.'01, 357 Data collected subsequent to these assertions, in the same area (San Francisco), showed no class differences among multiple drug users, between those who used amphetamines and those who did not.295 These data, however, were of volunteer subjects, and did not include very heavy users. Heavy users may differ in social class background from more moderate users, although Canadian evidence would suggest that this is not the case.94 Data from two Toronto studies further contradict the class-values hypothesis, with findings that about 80 per cent of speed users come from middle- or upper-class homes.94. 225 Similarly, a British study found young people from upper-class homes (as indicated by the type of school they attended) over-represented in its samples of methamphetamine users drawn from four different settings in London." Indeed, the only available hard evidence which indicates that working-class people are more likely to use amphetamines is in Swedish studies of incarcerated populations."

Most investigations of social and social-psychological characteristics that may be associated with speed use have concentrated on the social class origins of the users. However, Anderson, in a clinical investigation of Hamilton speeders, has observed that many of his subjects had experienced personal, family or legal trouble prior to their use of drugs, felt socially or personally inadequate, had an alcoholic parent, and had few close friends during their formative years.12 These observations suggest important hypotheses that should be empirically tested in a methodologically sophisticated fashion. However, from a review of the current literature, it appears that social characteristics, generally, have little predictive value as regards the likelihood of an individual eventually beginning speed use. As Roger Smith, in his analysis of the San Francisco methamphetamine-using subculture, has noted:

It appears that the many individual variables which predate involvement in the drug scene are less important in determining the direction which drug use will take than such factors as the prevailing community attitudes, peer sanctions imposed on certain kinds of behavior, drug availability, subjective interpretations of the drug experience, the quality of social interaction, and the structure of the illicit drug marketplace.‘

Some of those factors and conditions which affect the continued and chronic intravenous use of speed are sufficiently complex to warrant special discussion.

While a very few individuals have an unpleasant first experience with speed, most report that their initial amphetamine injection was a highly exhilarating if not an ecstatic experience.359 It is this immediate physical gratification that distinguishes the initial intravenous use of amphetamine from that of heroin, and may prompt the repeated use of the drug. Those who conceive of their first intravenous amphetamine experience as pleasurable, particularly those
who remain in close physical proximity to veteran speeders, are likely to engage in further experimental use of the drug. At this stage a user's consumption pattern can be described as intermittent. Abstinent periods of days or weeks may intervene between brief `sprees' during which relatively small doses of amphetamine are injected a few times over one to two days. Speeders usually report that this occasional use elicits feelings of confidence, optimism, verbal facility, insight, increased ability to communicate with others, improved self-image, relief of fatigue, and general physical and mental well-being--all which serve to reinforce the pattern of continued use of the drug.94 358 359

Some speed users stabilize their consumption at this level, becoming `weekenders' who indulge in episodic amphetamine use. This pattern, however, is difficult to maintain as the user is likely to be noticeably depressed and fatigued the day after use and may try to alleviate this condition through an additional administration of amphetamine. While this procedure will temporarily mask the physical exhaustion, it aggravates the unpleasantness of the 'come-down' when the spree is eventually terminated.

Some persons maintain their episodic use of speed or permanently discontinue use at this level of involvement. However, others—particularly those who do not have or cannot perceive of any viable life-alternatives—may advance from occasional to regular and compulsive use of amphetamines. As this process occurs, the duration of the intervals between sprees declines and there is an increase in the frequency of injections, the length of the 'runs', and the amount of speed consumed. This progression is usually justified by the pleasure gained from use of the drug and the perceived enhancement of the user's ability to both cope with personal problems and relate to others.

A social ambiance which condones or encourages such use, estrangement from meaningful relationships outside of the speed-using community, and persistent feelings of depression or despair further contribute to this process.358

Throughout the course of this progression the speed user typically becomes increasingly involved in the 'speed scene' and increasingly divorced from those persons and institutions that made up his pre-speed social milieu. Eventually he may find that he is no longer able to meaningfully communicate with his earlier acquaintances and comes to identify himself as a 'speeder' or 'speed freak', and is so perceived by others. At this point, which may take anywhere from a few weeks to several months to reach, an individual is likely to be injecting very large doses of speed several times a day.

At this juncture the speeder, if he has not already done so, will usually physically join a
community of 'speed freaks' who live together in 'speed houses', and adopt the life style of this group. This membership provides him with understanding and acceptance from others, a sense of belonging, and group support in times of need. However, it also serves to almost totally isolate the intravenous amphetamine user from persons in conventional society and even from non-speeding members of other drug-using subcultures.

By this stage, the continued injection of speed must be explained in terms of social as well as pharmacological factors. The lives of speeders are totally organized about the use of amphetamine; speed becomes the focus of their existence and its subjective meaning is a function of both the drug's physical and psychological effects and the speeder's almost exclusive involvement with other amphetamine users. This subcultural involvement provides the speeder with a distinct social identity and 'something to do'. For chronic speeders, there is little recreational aspect to their amphetamine use; the drug is not a 'stone' but, as in the case of heroin dependents, a way of life. The compulsive use of speed necessitates a constant schedule of collecting money (usually small amounts obtained through petty drug trafficking or other criminal 'hustles') finding and purchasing speed (i.e., 'scoring'), using the drug, and then repeating the sequence again and again until the speeder is forced to 'crash' and sleep. Upon awakening this pattern is resumed.

In almost all cases, to be a speeder is to be a member of a speed-using community. Apart from such persons as landlords, grocers, waiters, the police and non-speed-using motorcycle gang members, confirmed intravenous methamphetamine users rarely interact with anyone but other speeders. The continual use of speed is the primary condition of acceptance into and maintenance of membership in a speed-using group. Individuals who attempt to terminate, or even severely curtail, their amphetamine consumption are likely to be initially coaxed back, then ridiculed, and eventually ostracized from their group of peers. To discontinue speed use, then, is extremely difficult. This is not only because of the dependence that develops such that further injections of amphetamine are required to ward off the unpleasant effects of withdrawal, but, even more importantly, because termination of use necessarily entails leaving one's only community of friends. While the continuance of amphetamine use during any particular 'run' is usually rationalized in terms of a desire to avoid the eventual 'crash' or 'come-down', the chronic use of speed is more a function of group involvement, subcultural pressures and the lack of any viable alternatives.

The injection of amphetamines is the primary activity engaged in by speeders. This consumption is ordinarily patterned in 'runs', periods lasting from a few days to more than a week during which the speeder rarely eats or sleeps and administers increasingly large doses of the drug, finally terminating in the 'crash'. Each injection provides a brief (five to fifteen minutes), highly pleasurable sensation, known as a 'rush' or 'flash', which is sometimes described as orgastic. While the perceptible effects of such injections are likely to last from eight
to twelve hours, additional large doses of amphetamine must be injected within three to five hours (the duration of the more positively interpreted effects) in order to forestall the unpleasantness of the inevitable come-down. Since a regular speed user rapidly develops tolerance to the drug, the dose must be increased with each injection, if at all possible, to insure continued pleasurable sensations and to avoid any feeling of physical or psychological strain. This process is likely to continue, in a relatively uninterrupted fashion, for up to two weeks. Eventually, as paranoia and hallucinations begin to escalate, the speeder terminates his run because of his desire to end the confusion, anxiety about his own sanity or physical health, the unavailability of additional amphetamine, or the lack of funds or sufficient physical mobility to purchase more of the drug.

As the final 'hit' (dose) of speed starts to lose effect the inevitable crash begins. The severity of this withdrawal is "directly related to the length of the run, the dose level, and the physical and psychological condition of the user". This phase is characterized by physical exhaustion, and extreme irritability and depression which is sometimes counteracted by the use of opiates or barbiturates. A period of sleep lasting from 12 to 36 hours ordinarily follows the termination of the drug's stimulating effects but, upon awakening, the speeder is physically weak, ravenously hungry, and may suffer from intolerable depression for several days. If available, minor tranquilizers, barbiturates, other sedative-hypnotics or heroin are often employed for self-medication at this juncture. But the most common remedy is the renewed injection of methamphetamine. As one Halifax dealer put it,

"It's a vicious circle. You do speed because you're depressed and you're even more depressed after. So then you have to do more speed to overcome that depression. And so on.'

Thus everyday life, for many intravenous amphetamine users, is a 'speed cycle' composed of a series of amphetamine runs interrupted by periods of profound sleep and depression.