2.1. Constitutional/Personal Factors

Discoveries in neurobiology have shown that the human brain releases substances similar to psychoactive substances: for example, *exogenous* opiates (those produced outside the body) such as heroin correspond to *endogenous* opiates (produced inside the body) known as endorphins. Endogenous receptor systems have been discovered for opiates, stimulants, hallucinogens and cannabis. Research into the anatomic pathways of primary drug reinforcement, or reward – namely how and where addictive drugs act on the brain – has led to speculation over a possible link between drug dependency and genetic predisposition. This theory suggests that in the same way as the diabetic is deficient in insulin, there may exist biological or genetic weaknesses which may be compensated for by the administration of specific psychoactive drugs. Goldstein\(^3\) has noted that the state of *anhedonia* – the inability to experience life’s normal pleasures and satisfactions – is one commonly associated with opiate addiction, but was unable to establish whether this was antecedent to or a result of the dependency. Gerra\(^4\) endorses the theory that certain individuals may lack neurotransmitters (chemicals) such as serotonin or dopamine, and sees similarities between psychoactive drug dependency and other forms of compulsive behaviour such as gambling, alcoholism and eating disorders such as anorexia and bulimia.

The impact of heredity is considered to be a possible risk factor that may predispose an individual to problematic drug use. Genetic predisposition
does seem to have been proved for alcoholism, such that a child born of alcoholic parentage adopted from birth by a normal family has a much greater chance of becoming an alcoholic than his or her stepbrothers and, conversely, a child of normal parentage raised by alcoholics is much less likely to become alcoholic than his stepbrothers.5

Just as physical and psychological drug dependence are now viewed as lying along a continuum, the disease model and moral weakness model – or the relative influence of biological functioning and personality variables – cannot properly be separated. In psychoanalytical terms, the elaboration of drug dependency theories raises questions of an addiction-prone personality and of defective or dysfunctional character formation. It has been argued that because of their rapid action on the brain, psychoactive drugs attract those who seek or need instant reward and gratification; a 'short circuiting of the pleasure-pain principle'. In Freudian terms this 'deficient ego functioning' permits the user to revert to a state of instant infantile gratification and thus to delay or avoid the challenges of a mature adult role. Such a theory allows that dependence in itself can be a character trait in certain individuals who feel the need to be protected from life in general. Other attributes with which drug abuse has been associated include low self-esteem and confidence, low satisfaction, high anxiety, low assertiveness, impulsivity, rebelliousness, low personal control and a tendency towards hypochondria. It should be stressed, however, that the relationship between these attributes and psychoactive drug use is far from clear.

Several researchers have made an association between different types of drug use and the personality or emotional needs of the consumer. This type of theory can be explained in psychoanalytical terms: "... the drug of choice of a user is not arbitrary but dependent on the developmental state to which the user wishes to regress. When an individual finds an agent that chemically facilitates his pre-existing preferential mode of conflict solution it becomes the drug of choice."6

Other research suggests that the principal difference between stimulants and narcotics users consists in the more passive qualities of the latter: "Both groups have ego-weaknesses, but the specific drug of choice reflects specific ego needs: persons who respond to stress passively and through avoidance use opiates because their effects reinforce withdrawal, while those who seek to reinforce their ability to confront, compete and accomplish will tend to use stimulants."7

O'Connor et al.8 examined the personalities and drug preferences of 125 recovering drug users, divided according to drug preference, but found no significant distinctions between users, either in psychopathological terms or in non-pathological character traits, although opiate users showed a higher susceptibility to boredom. They concluded that drug research based on psychopathology may be compromised by the social and economic forces which impinge on illicit drug use.

The idea of the heroin addict as someone who is weak, passive and 'can't cope' is firmly rejected in a classic 1969 study of heroin users in New York City by Preble and Casey.9 The authors conclude that the heroin addict is attempting to escape – not from life, but from the monotony of existence – through an aggressively-pursued career which is "exactng, challenging, adventurous and rewarding".

The human brain produces opiates similar to those derived from the opium poppy.
The particular significance of the heroin user's life is derived less from the actual effects of the drug on body and mind than from the activities involved in "taking care of business" – the daily hustling involved in obtaining supplies of the drug, staying out of the hands of the police and from the "gratification of accomplishing a series of challenging, exciting tasks every day of the week".

Clearly the drug of choice may not necessarily be the drug always used – there are other important variables such as availability and price, and the fact that some individuals use the contrasting effects of one drug to offset the extreme highs or lows of another.

Howard Becker, an influential theorist of social behaviour, rejects the notion of pre-disposing character traits, and sees drug use as a socially learned process by which consumption – in his example, of cannabis – is a function of the individual's conception of the drug and of its social usefulness. From interviews with 50 cannabis smokers Becker concludes that the desirable effects of this substance do not occur spontaneously, but have to be learned and appreciated through group interaction; acquiring the habit is simultaneously learning to be part of a group. The user, he suggests, goes through three stages: first he has to be taught how to get 'high', then how to enjoy the experience, and finally to regulate the habit to maximize the effect and enjoyment.

2.2. INTERPERSONAL FACTORS: FAMILY, PEERS AND SIGNIFICANT OTHERS

In his book "Outsiders: Studies in the Sociology of Deviance", Becker introduces the concept of 'deviance' as "... publicly labelled wrongdoing ... the failure to obey the rules that society creates ...", but stresses that deviance "... is not a quality of the act committed but a consequence of the application by others of the rules and sanctions to an 'offender'". His concept of the "deviant career" has some of the characteristics of the conventional career, including chance influential factors or "career contingencies". This might determine for example how and when an individual comes into contact with an illicit-drug using circle and which drugs may be available. As the deviant career progresses, a perceptual shift takes place, whereby the individual comes to view the non-deviants as outsiders, and "... comes to regard conventional conceptions of it (cannabis) as the uninformed views of outsiders and replaces those conceptions with the 'inside' view he has acquired through his experience of the drug in the company of other users".

On this basis, behaviour which is illegal, such as cannabis smoking, can be perceived as perfectly normal when it becomes adopted on a regular basis by a specific social group or, alternatively, if it is perceived as being particularly widespread.

Becker's theories have found particular favour with the group of social scientists of the 'rational choice' school, which assumes that individuals rationally select those actions which will maximize their expected utility. The individual who perceives utility in drug-taking activities can be said to have an 'optimistic bias' with regard to his/her actions. This may be the result of misinformation, self-delusion, or the denial or postponement of negative perceptions in the presence of an immediately gratifying sensory experience.

Powerfully reinforcing effects and denial of negative consequences by the user appear to be particularly associated with the use of stimulants, which, according to Lazzari:

"... act like a neurochemical magnifying glass, magnifying the pleasure derived from most activities; for instance they produce a state of increased alertness and a sense of wellbeing, diminish anxiety and social inhibitions, raise energy, self-esteem, sexuality and enhance the emotions aroused by interpersonal contacts. ... In the subject's early experiments with low doses of stimulant, other people respond positively to his display of energy,
enthusiasm and productivity, which acts as a reinforcement and adds a further effect to the euphoria produced by the stimulant.

Research shows that the onset of drug use often occurs during adolescence or young adulthood, a period of transition commonly characterized by stress and anxiety. Interviewed, adolescents sometimes say their drug use began as a way of 'managing emotions': coping with stress, depression, anxiety and isolation, and with the sense of living in a chaotic and disorganized world. At a more banal level, 'curiosity', 'my friends were doing it' and, 'there didn't seem to be any particular reason not to', are among the most common reasons offered for experimenting with illicit drug use.

The Dutch National Institute on Alcohol and Drugs (NIAD) noted that cocaine users were most frequently motivated to initiate use through curiosity and through a desire to experience anticipated effects such as euphoria, stimulation and enhanced sexual motivation. Some users report that stimulants enhance the experience of listening to music, that they elevate mood and improve a sense of communication with their peers. An Indian government study carried out over 33 cities in 1989 indicated that the most common contributing factors for illicit drug use were peer group pressures and curiosity, followed by unemployment, poverty, the family environment, stresses and strains of modern life. A survey carried out in Pakistan suggested illicit drug use was primarily the result of social and personal factors (acceptance by others: 33.2%; in order to be social: 14.3%; relief from social stress: 13.4%; to enhance sexual performance: 8.3%; curiosity: 8.3%; relief from physical stress: 6.5%; to improve work performance: 5.4%; treatment of health problems: 4.4%).

In the industrialized countries, first use of illicit drugs rarely seems to occur as a result of compulsion or encouragement on the part of drug dealers, but in some countries in Asia and in Africa the development of new trafficking routes has been linked to increasing abuse problems, suggesting that traffickers and local entrepreneurs have been engaging in aggressive marketing.

Several researchers have pointed to shifts in the variables which modify drug taking patterns as a 'drug career' develops. Curiosity alone is unlikely to maintain a habit of several years' duration. The value attributed to a sense of shared identity, which may be a strong reinforcing element in the first stages of drug use, appears to diminish with continuing use. Likewise the shift from taking illicit drugs in a social context to a mixed social/solitary pattern signals the transition from a casual to a more dependent pattern of use. Lazzari notes: "Later on, the discovery is made that a greater quantity of the substance intensifies the pharmacological euphoria and, provided there is no restriction imposed by the subject himself or by the environment, the dose is increased. This state of intoxication becomes more and more concentrated on the intense inner sensations of euphoria and the subject gradually loses touch with what had begun as a social experience. The craving for this euphoria can become so overpowering that the signs of imminent personal disaster can be ignored."

In their longitudinal (long-term) study of 'problem-behaviour proneness' of individuals between the

![Nepalese youth involved in local prevention programme. Photo: UNDCP.](image-url)
ages of 13 and 30, Jessors and Jessors\(^\text{17}\) found that the single most 'defining variable' for distinguishing adolescent drug use was the extent of conventionality or unconventionality, and that the

> Craving for euphoria can make people oblivious to imminent personal disaster.

more independence was valued above academic achievement, the more likely was an adolescent to indulge in problem behaviour. Overall, their results suggested the adolescent most prone to illicit drug taking is one who is:

(a) Concerned with personal autonomy;
(b) Has a lack of interest in the goals of conventional society as embodied by conventional institutions like church and school;
(c) Has a jaundiced view of society at large;
(d) Has a more tolerant view of transgression (Becker's deviance); and
(e) Perceives less parental support, less compatibility between friends' and parents' expectations, a greater influence of friends over parents and greater support by friends for the behaviour.

The findings revealed no significant differences between male and female interviewees, and personality characteristics played a modest, though significant role. For the age group studied, 'perceived environment' is an extremely dynamic concept such that the transition from adolescence to young adulthood tends to be accompanied by increasing tolerance of transgression, and this in turn may be associated with behavioural changes. This "developmental move away from conventionality", depending on how young it begins, is seen as a predictor of a willingness to engage in problem behaviour.

Particularly relevant were tolerance or intolerance of deviance, perceptions of the positive or negative functions of drinking, sex and illicit drug use, and religiosity, which was negatively associated with problem behaviour. This last characteristic is substantiated by a study carried out in Jamaica, where regular churchgoing, regardless of denomination, seems to be a strong protective factor against the use of all addictive substances, including tobacco.\(^\text{18}\)

A study carried out by Andrados\(^\text{19}\) to compare family-related variables on drug use in Spain with those surveyed in the United States of America highlights the importance of the quality and quantity of parent-child interaction, reactions to parental control, age at onset of use, frequency of use, style of parenting and monitoring, and parental and siblings' use of legal and illegal drugs.
Andrados reports that cannabis use amongst young people is *not* affected by parents' drug *behaviour*, but that parental influence stems primarily from their *attitudes* and from their closeness to their children. The findings show adolescent drug use to be negatively associated with parent-child communication about drugs and that, conversely, “… the quality of the adolescent’s relationship with his parents seems to be the best protective factor against the use of drugs”. Of the two parents, the quality of the child’s relationship to the mother was more relevant than that of the father (at least for cannabis, amphetamines and prescription drugs).

Although he feels no single theory is broad enough to explain adolescent responses to different socializing stimuli, Andrados reaches three conclusions: “… peers’ use of the substance is a primary influence; age at onset is clearly related to further use; earlier use of a substance is associated with more intense use and wider use of other drugs at a later time”.

Parents and siblings clearly constitute the primary influence on the behaviour of a growing child, but as adolescence approaches these are felt to recede in favour of the peer group. Some research suggests that the family influence can remain predominant, but only if the family unit is strong and united; the weaker the family, the greater the peer group influence. Kandel’s study of the relative impact of parents and peers on adolescent drug use (including alcohol and tobacco) tends to support this, and notes that only 17% of students used a drug when their parents did and their best friends did not; the highest levels (67%) came when both parents and peers did. Amongst family-related variables, Plant and Plant stress rules of conduct and the consistency with which these are applied, the extent of physical affection, parental trust and understanding, and the time spent by a family in shared activities. Studies of solvent abuse have shown that users tend to have marked feelings of aggression manifested by the rejection of all forms of authority, and come from incomplete family surroundings with rejecting figures within them.

It has been suggested that peer group influences may have been over-emphasized. Adolescents may overestimate the extent to which their peers indulge in certain forms of unconventional behaviour such as drug taking, when in fact they are projecting desires (and possibly concerns) about their own behaviour onto a wider circle. Since more adolescents do not take illicit drugs than do so, the dominant peer group ought logically to be the non-drug-taking group, and the prevailing peer pressure working against drug use. Alternatively, it might be the case that adolescents select their friendship circle partly on the basis of existing drug behaviour rather than the other way around. If the process of selection predates the friendship, and thus selection rather than influence produces the association, then the association would merely serve to reinforce the common behaviour.

Links are sometimes made between drug use and children who have grown up in homes affected by divorce, separation or bereavement. On the whole research does not substantiate a causal effect unless the family unit is qualitatively dysfunctional. A Brazilian survey of drug use amongst high school...
students\textsuperscript{23} reports that violence in the home is the factor most frequently associated with drug use behaviour. Divorce and separation make no difference if the family environment is one in which there is no violence, where problems are habitually discussed and parents are concerned about their offspring. In this study, the incidence of drug use was more than five times greater among adolescents living with much domestic violence, in homes where dialogue did not take place and parental interest was lacking, than among adolescents living without violence, in homes where dialogue was frequent and parents expressed their interest. Individuals’ subjective perceptions of their own family environment were shown to have a stronger impact on drug use than objective factors such as the conjugal status of parents.

A study of drug use in Peru\textsuperscript{24} came to similar conclusions:

“The existence of a cohesive social structure at family and at community level, together with clear expectations surrounding its members, their rights and the needs of the group was the best guarantee against any kind of abuse or transgression”.

Prevailing family attitudes in matters of health care and health consciousness may influence both licit and illicit drug use – for example, where even trivial illnesses create an atmosphere of anxiety, immediate recourse to the doctor’s surgery, to over-the-counter remedies, or to traditional family cures. It has been mooted that the practice of family members giving each other injections, common in Italy, may have contributed to the high incidence of injecting drug use in that country, where syringes are perceived as a normal component of domestic medical equipment. The impression that drugs can provide a ready solution to a wide array of problems – whether through prescribed medicines, alcohol or illicit drug use – is thought to provide a ‘pro-drug socialization model’ for young people\textsuperscript{25} and encourages the growth of a ‘pill-taking society’. This seems to be the case in the USA, with the liberal and widespread prescription of drugs such as Ritalin and Prozac. The easy recourse to, and availability of, psychoactive substances through lax prescribing practice or through inadequately controlled pharmaceuticals may pave the way for future abuse. This has occurred in Central and West Africa where the increasing abuse of amphetamines and barbiturates is attributed to the proliferation of street pharmacies, supplied by production facilities set up in various countries of the region.\textsuperscript{26}

\begin{quote}
\textit{“Which is it today?”}, I asked [Sherlock Holmes]. \textit{“Morphine or cocaine?”}

\textit{“It is cocaine”}, he said, \textit{“a seven percent solution. Would you care to try it?...”}

\textit{“My mind”}, he said, \textit{“rebels at stagnation. Give me problems, give me work, give me the most abstruse cryptogram or the most intricate analysis and I am in my own proper atmosphere. I can dispense then with artificial stimulants. But I abhor the dull routine of existence. I crave for mental exaltation. That is why I have chosen my own particular profession, or rather have created it, for I am the only one in the world!”}

\textit{(Arthur Conan Doyle, The Sign of Four)}
\end{quote}