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Drug addiction in two groups of British addicts: A critical empirical analysis of classical sociological theories of deviance

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ABSTRACT

The main objective of this study is to test whether drug addicts - those addicted to heroin, morphine or methadone - rejected the goals of society and the means of achieving these goals, as suggested by Robert Merton. Other objectives include an examination of the process of addiction and the criminality of addicts. Perspectives are suggested by looking at drug taking in different societies at different times, and by examining the growth of addiction in Britain and America, while terms are defined in the light of the pharmacology of addiction.

Mertonian theory is described and criticised with reference to other theories of deviance and of addiction. A critical review is made of the studies of addiction, and the contribution made by other studies to the knowledge of the attributes and characteristics of drug addicts.

The hypotheses were operationalised using the semantic differential attitude scales, a paired comparisons attitude questionnaire, and an interview schedule. Sample selection and field work is described, followed by a presentation of a model of the interaction process from which can be derived sources of role conflict and role strain, and conflict resolution.

The Mertonian hypothesis is not confirmed, but a pattern of criminality is found which closely resembles a pattern of drug taking

which was established earlier in the study. The relationship between preceeding and addictive drugs is also discussed. Finally, data is interpreted in the light of the interaction model, and the sources of role strain and techniques for reduction of this strain are amended to encompass a theoretical framework which appears to account for the anomalies in the data that are not accounted for in other theories. A discussion on the relationship between addiction and society ends the study.

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PART I

Introduction - The Drug Perspective

"Deviance is not a property inherent in certain forms of behaviour; it is a property conferred upon these forms by the audience which directly or indirectly witness them". (Erikson 1964). So it is with drug taking, and even drug addiction.

A study of drug addition is one society at one particular point in time offers only a very narrow view of addiction. A broader perspective can be obtained by looking, however briefly, at drug use in different societies at different times in their history - and particularly at the use of opium. This is what the first chapter attempts to do. It is followed by definitions of the term "drug" and "addiction", and then by an examination of the effect of addictive drugs on human and animal behaviour. Finally, in this section, a closer look is taken at the development of addiction in Great Britain and the United States of America, from the turn of the century to the present day, so that a study of addicts in this country can be related to, and understood in terms of, historical and functional perspectives.

1. Some Historical Aspects of Drug Use

There are many hundreds of plants - leaves, roots, berries - which contain drugs. The plants from which drugs are extracted precede the existence of man, and of society, and the use of drugs by man almost certainly precedes the oldest extant records.

"Undoubtedly one of the oldest known and certainly to-day the most widely spread hallucinogenic plant is Cannabis sativa." (Schultes 1969 b). It is said that cannabis was known at least 3,000 years B.C. (Ausubel 1958) and is mentioned in the pharmacy book of the Chinese Emperor Shen Nung, about 2737 B.C. (Taylor 1963). The Assyrians used the plant in the ninth century B.C. in the form of an incense, and the Sanscrit Zend-Avesta first mentioned its intoxicating resin in 600 B.C., while Herodotus write that the Scythians burned its seeds to produce a narcotic smoke, (Schultes 1969 b). A native of Central Asia, Cannabis is now practically world wide, whether grown for its hemp, oil, or drug content, and although the quality of these three may vary with different cultivars, there is only one species of cannabis, and that is cannabis sativa. Despite the fact that almost everyone who has contact with this drug, from the youngest cannabis smoker to the pharmacologists and analysts, keep claiming that botanical varieties exist such as cannabis indica, or cannabis americana, they are, according to Schultes, (1969 b) mistaken.

A plant of equally long history is the mandrake (Mandragora Officinalum). It is mentioned in Genesis, and was valued by surgeons during the Middle Ages for its pain killing properties. "It was known to the ancient Greeks as a pain reliever and soporific, and in the first century A.D. Dioscorides claimed it to be a cure for tumours and snake bite. Its anti-depressent effects lead to mental aberration in high doses in a similar way to hellebore (an extract of the roots of the Christmas rose, Helleborus niger)." (Bergel and Davies, 1970). Mandrake also became associated, together with aconite, a drug of equally long history, with the practice of witchcraft. Indeed, these were not the only drugs associated with witchcraft, for as Barnett (1965) points out "Apart from horrifying ingredients, human fats etc., and disgusting contents, from animal parts to soot, they (witches' potions) contained solanaceae".

Perhaps, after mandrake, the three most renowned of the Solanacea family are the plants belladonna, or deadly nightshade (Atropa Belladonna), henbane (Hyoscyamus niger) and thorn-apple (Datura) which were all used in witches brews and salves to produce immunity to pain as well as vivid hallucinations. Henbane had for a long time been used as a sedative, but "the history of the narcotic use of Datura goes back beyond written records. It is thought for example, that the priestesses at the Oracle of Delphi foretold the future under the influence of Datura. In the classical literature of Mediterranean

and Near Eastern lands, references to the use of Datura abound. The early Sanskrit and Chinese literature likewise richly extols the medicinal and narcotic properties of these plants." (Schultes 1970)

Atropine and scopolamine, found in the Solanacea, can produce states of hallucination, which could account for the form, if not the content, of some of the witches' confessions, particularly when hysteria and torture were absent, and which have otherwise been found inexplicable. (For example by Trevor-Roper, 1967, 1969).

Dioscorides also warns of the unpleasant fantasies produced by datura (De Ropp 1957), but it is just these fantasies which are sought by many Indian tribes in Mexico and South America. In Equador, for example, the Jivaro combine fasting with a drink containing datura while they wait for several days the arrival of their arutam, or acquired soul. (Harmer 1967, Karsten 1967).

Many substances which contain drugs are eaten and drunk quite freely in one society, while condemned in another, or substances once praised are now decried and vice versa. Alcohol is both religiously prescribed and socially accepted in Western society, but religiously proscribed and socially condemned in strict Moslim societies. Catherine de Medici's enthusiasm for tobacco snuff as a cure for headaches has not been sustained, but neither has Chocolatl retained its reputation as an aphrodisiac since the death of Montezuma, nor is it still condemned as vigourously by the clergy as it was on its

introduction to Europe. (Taylor 1963).

Some hundreds of years before the discovery by Hofman in 1943 of the hallucinogenic properties of LSD-25, this drug was responsible for many hallucinogenic experiences from the Middle Ages to the present day. Its source is the fungus ergot which periodically infects rye, and its effect is to produce vivid hallucinations. Fuller (1969) describes the effect when a whole village, that of Pont Saint Esprit, suffered in 1951 from "Saint Anthony's Fire", through eating bread baked with infected flour.

A wide variety of different drugs may become associated with the same practices, but also different practices may be associated with the same drug. The latter case may be illustrated by the deadly crimson spotted mushroom, the fly agaric Amanita Muscaria. To many generations of German housewives, the mushroom was an effective fly killer, but to the Koryak nomads of north eastern Asia who ate the mushroom, it provided a brilliant world of fantasy, while Scandinavian warriors seem to have eaten the mushroom to achieve "flawless strength and superhuman courage" immediately prior to battle. (S. Cohen 1965) It has been described as "probably the oldest and once most widespread in use of the hallucinogenic mushrooms". (Schultes 1969a). "The precious agarics are expensive and the winters are long, so there is every inducement to prolong the orgy" (De Ropp 1957) which is possible because the active principle of the mushroom is excreted unchanged in

urine, and so the thrifty Koryaks make use of this phenomenon, though more frequently it is the rich who get the mushrooms and the poor who get the urine. (Kennan 1910 quoted in Taylor 1963). De Ropp goes on to suggest that an excess of the drug leads to raving madness ending in acts of violence or self-mutilation, and which in fact explains the actions of the Scandinavian "Berserkers". It is also possible that this mushroom was, according to some authorities, the plant "soma" brought to India by Aryan invasion 3,500 years ago and deified and enshrined by the hymns of the RigVeda (Wasson 1969).

One type of activity, on the other hand, may be associated with many different drugs, according to the society, the place, and the period in their history. For example, initiation ceremonies are common to many peoples and cultures, but are also often associated with a wide variety of different drugs. In the North-West Amazon the Indians drink caapi, (Banisteriopsis Caapi) "for prophetic and divinatory purposes and also to fortify the bravery of male adolescents about to undergo the severely painful Yurupari ceremony for initiation into manhood". (Schultes, 1970).

A different hallucinogenic drug, which is used in West Africa, and particularly in Gabon and the Congo for initiation rites into secret cults is derived from the leaves and rootes of the plant Tabernanthe iboga, and contains ibogaine (De Ropp 1957, S. Cohen 1965, Schultes 1970).

Nor does any use seem to be restricted to any particular area, country or indeed, continent. It is in fact world wide.

In many Arabian and East African countries, particularly Yemen and Ethiopia, Kat or Khat (Catha edulis) is consumed. This plant contains amphetamine like stimulants which banish hunger and fatigue and induce talkativeness, being used in much the same way that alcohol, nicotine, caffeine and cannabis are used in other countries. The Kola nut is also chewed, or made into a beverage in Africa and the United States where it provides the flavouring for a famous soft drink, each nut containing 3% caffeine.

In India, the plant Rauwolfia (Rauwolfia serpentina) has probably been used for the past 2,500 years as a "cure for madness, snakebite and a whole host of tropical diseases" (De Ropp 1957) but it was not until 1952 that Western scientists discovered that it contained a powerful tranquilliser which they called Resperine, and which was widely used in the treatment of mental illness.

In frescoes from central Mexico dating back to 300 A.D. there are designs of mushroom worship and "mushroom stones", icons connected with mushroom worship have been found in highland Mayan sites in Guatemala dating from 1,000 B.C. (Granier-Doyeux 1968). Teonanacatl, the flesh of the gods, was the name given by the Aztecs to many intoxicating mushrooms, particularly Psilocybe Mexicana. This mushroom was used in magical and religious rituals, and contains a powerful

hallucinogenic drug - psilocybin. Another hallucinogenic drug - mescaline - is found in the cactus peyote (Lophophora Williamsii), which was used up to the sixteenth century by the Chichimeca of Mexico, but became more widely known after it was introduced to the America Indians between 1880 and 1885 where initially it became established among the Comanche and Kiowa. From its first introduction to the Indians at the end of the nineteenth century, its use spread rapidly throughout many Indian tribes, mainly because there developed a religious around its consumption "aimed to achieve Indian emancipation from the white man without violence". (Lanternari 1963).

Another hallucinogenic drug found in South America is present in two varieties of ololiuqui seeds, or morning glory, which are eaten by the Zapotecs of Mitla to forsee the future, "and were so revered by the ancient Aztecs that they called them the divine food". (De Ropp 1957). Indeed South America seems to boast a considerable variety of hallucinogenic drugs, or maybe the inhabitants have simply bothered to experiment with hundreds of plants in order to find those with mind-distorting properties. Certainly "cappi" falls into this category for those who take this drug attack others under the influence of delusions, an effect found a little disquieting by the Peruvian Indians, but utilised by the Indians of Columbia during a whipping ceremony. (De Ropp 1957). Of more widespread and various use, however, is the snuff cohoba (Piptadenia peregrina) whose active

constituent is bufotenin. "Long before the arrival of Colombus, from the foothills of the Andes to the Caribbean, cohoba snuff ... was inhaled to promote communal friendliness, convulsive dance rhythms, or a state of intense religious conviction. In larger doses witch doctors used the snuff to induce trances during which the gods and the spirits of the dead were contacted". (S. Cohen 1965).

A drug more associated with the Peruvian Indians, is cocaine. Before the coming of Pizarro and the Spanish Conquistadors, coca, from which cocaine is derived by chewing the leaves with lime, was one of the privileges of the royal family and priests of the Incas. The Incas ruled a vast empire and perhaps were not able to enforce the exclusivity of the use of the coca plant. There seems evidence to suggest that coca was consumed by the inhabitants at least 1,500 B.C. (Bushnell 1963). However, after the Spanish Conquest coca leaves were chewed by more and more Inca workers and slaves to deaden the hunger and fatigue caused by their compulsory working in the silver and mercury mines, (Hemming 1970). The chewing of coca leaves is still regarded by WHO as a problem in South America, but elsewhere cocaine is usually only used in combination with heroin, a derivative of opium.

The widespread use of drugs made by different societies does not make drug use for reasons of pleasure, or to gain special insight, unique, or even unusual in itself, especially if the drug alcohol is included. Even if only one drug, opium (including its derivatives and

synthetic equivalents) is specified, the above statement is still true. A brief look at the history of opium will illustrate this, and also put into a wider context the subject of this study - heroin addiction.

The source of opium is the opium poppy, a herbaceous annual belonging to the somniferum species of the Papaver family, and the method of obtaining opium is roughly the same today as that described seven centuries B.C. After the mass-flowering of the poppies the seed capsules are left to reach a stage called technical ripeness. This occurs when their opium content is at a peak, before true biological ripeness of the seed is reached, and takes place according to seed type and climate but at about 16-18 days after mass flowering in July or August. (Shuljgin 1969).

The grey-green seed capsules are then scored with a many bladed knife, and from the parallel scratches white milky substance oozes, which dries to a brown gum on the surface of the capsule. This gum, which is scraped from the capsule twenty four hours later, is raw opium. It contains about 8-10% morphine, which in turn is processed into heroin: one pound of morphine producing one pound of heroin.

To-day opium is still grown in many parts of the world, usually under government monopoly, for sale for medicinal use, under the aegis of the U.N. Commission on Narcotic Drugs. Turkey supplies much of the legal opium, and also the bulk of the black market opium,

the other main source of black market opium being the area known as "the poppy rhombus". This area stretches from Shan state in Burma to Yunnan province in China and from Muong Sing in Laos to Chiang Mai in Thailand, and here tribesmen grow opium for their own use, and for export. The exported amount has been estimated at 1,000 tons per year (U.N. Commission on Narcotic Drugs 1963). The opium travels south and east, in some places protected by armed irregulars - at least two thousand soldiers who are the remnants of Chiang Kai Shek's army. From Bangkok and Rangoon, sometimes in the form of heroin, or later to be turned into heroin, the drug is taken to Hong Kong and Macao, and from there to Taiwan, Japan and the U.S.A. (West coast). Opium from Yunnan province tends to be sent out via Singapore, though much is kept for home consumption. Singapore is estimated to have at least 10,000 opium smokers, Malasia probably more, and Hong Kong between 80,000 and 100,000 heroin addicts. (Nepote 1968).

The majority of the world black market supply, particularly that available in Europe and North America (East coast) comes from Turkey. It is also reputably the best opium because of its high morphine content with ranges from 10-18%. (Green 1969). The Turks grow opium in Corum in the north, Usak on the high central plateau - also known as Afyon, or opium province, - and at Adana, in the south ostensibly for the legal medicinal market, but, as the U.N. International Narcotics Control Board (1969) point out "In blunt fact it only becomes

lucrative for the farmer if he sells part of his crop on the illicit market". (Reported from the 1966 U.N. Permanent Central Narcotics Board Report).

Recently the U.S.A. has put pressure on the Turkish Government, by threatening to withdraw aid, to cut down the amount of acerage under poppy cultivation. Consequently, the Turkish Government are to restrict opium growing to the central provinces. In 1967 opium was grown in 21 provinces, but by 1970 only in 9. (Commission on Narcotic Drugs, 1969). The U.S.A. has also pressured the French to find and close the processing laboratories in Marseille - where there are at least two - and outside Paris, though with less conspicuous success. It is interesting that the smuggling routes and processing laboratories are well known, yet are still used with profit. (O'Callaghan, 1967, Nepote, 1968, Green 1969). However, Iran, which stopped opium production in 1955 announced its intention of resuming opium production, so it is possible that despite the efforts of the American Government, total world production of opium will stay the same.

According to Neligan (1927, quoted in Terry and Pellens 1928) "The earliest known mention of the poppy is in the language of the Sumerians ... (who flourished) some five or six thousand years before the birth of Christ." Using the same reference, Terry and Pellens (1928) suggest that opium was probably known as far back as 4,000 B.C. and that the original home of the poppy was certainly Mesopotamia.

The actual earliest reference on which they both base their calculations, is in seventh century B.C. Assyrian Medical tablets, where a Sumerian ideograph is used. From this it is deduced that opium was known to the Sumerians, whose civilisation, on more recent evidence does not seem to extend back beyond about 3,000 B.C. This is the same date attributed to some finds in Europe. "The poppy (paparver somniferum) was already domesticated for its seeds during Neolithic times in Switzerland ... (and) the find at Murcie Lagos shows that it was also being grown in Spain at the time metal was coming into use". (Clark 1952). It seems possible that the origin of opium was not Mesopotamia, nor the Sumerians, but merely that they provide us with the earliest extant reference, and from whom a more or less direct line of knowledge passes to the present day.

One interesting point about the Assyrian Medical tablets is the name given to the opium poppy, which is poppy or plant of joy, and which reflects even in this first extant reference the double edged quality of opium. Throughout the history of the use of opium the ideas of using opium for medicinal purposes and using opium for pleasure have co-existed, merged into one, or vied with each other to the exclusion of one and dominance of the other.

From the Sumerians to the Assyrians to the Babylonians and then to the Egyptians - this is the possible route that knowledge of opium preparation travelled, and then Arab troops and traders carried opium to

Europe and East Asia (Guggenheim 1967). Opium was certainly used extensively by Arab physicians, and according to Macht (1915), carried by them first to the Persians and then later to India and China. He suggests that "the earliest mention of opium as a product of India is by the traveller Barbosa ... in 1511" and that "opium is supposed to have been brought to China first by the Arabs, who are known to have traded with the Southern parts of the Empire as early as the ninth century. Later the Chinese began to import the drug in their junks from India. At that time it was used by them exclusively as a remedy for dysentery. It was not before the second half of the eighteenth century that the importation of opium began to increase rapidly through the hands of the Portugese and a little later through the famous East India company". (quoted from Terry and Pellens, 1928).

Before the knowledge of opium passed to the East however, trade routes brought it to other mediterranean shores. Many authors believe (Guggenheim 1967, Terry and Pellens 1928) that Nepenthe, the "cup of Helen" described by Homer in the Iliad refers to a drink containing opium, and Virgil certainly mentions "the sleep bringing poppy" in both the Georgics and Aeneid. Opium was supposed to have been used by initiates of the cult of Demeter (Hayter 1968) and the mysteries of Ceres (De Ropp 1957).

From Greece knowledge of opium passed to the Roman Empire, and the medicinal use of opium is described by Pliny and Celsus. Terry and Pellens quoted Macht (1915) who claims that "the drug was soon so popular in Rome that it fell into the hands of shop-keepers and itinerant quacks". He continues that "according to Galen, the virtues of this panacea (a concoction containing opium) were the following: 'It resists poison and venomous bites, cures inveterate headache, vertigo, deafness, epilepsy, apoplexy, dimness of sight, loss of voice, asthma, coughs of all kinds,' and so the list continues, ending with 'melancholy and all pestilences'.

It is also probable that opium use spread throughout the Roman Empire. The earliest firm record of the opium poppy in Britain is during Roman times, where evidence is found at Gilchester and Caerwent (Godwin 1956 Dimbleby 1967).

Having been established as a universal panacea, opium use seems to have declined with the Roman Empire, to be reintroduced by the returning crusaders, who learned of it from the Arabs. (Hayter 1968). Opium appears to have re-established itself very quickly, and many physicians throughout the Middle Ages owe their reputation to its liberal use, for example de la Boe, Van Helmont and particularly Phillipus Bombast von Hohenheim, otherwise known as Paracelsus. (Terry and Pellens 1928). Paracelsus called opium "The stone of immortality, and has been accredited with the first use of "Laudanum", tincture of

opium, which was usually taken in a draught of wine, and prescribed for almost every known disease and all unknown.

Little direct reference seems to have been made at this time concerning addiction to opium. Rather however than inferring from this an absence of addiction, it seems more likely that such a wide use must have given rise to the addiction of some people to the drug, but also that does not mean that it was recognised as such. It seems possible, since the object of medicine was concerned with symptoms and not causes, that the addiction syndrome was interpreted as a re-occurence of symptoms when medication ceased, and not in any way caused by the drug itself. This situation did in fact occur in the United States during the 1920's.

Not only did the crusaders return with opium, but with a multitude of myths and legends associated with it. "And here first rises that great stream of poetic myths and images, which began with the Old Man of the Mountains and the hashish he is supposed to have given to his followers, and which so linked together the ideas of drug addiction and of hidden raptures that this forbidden garden, joining itself to older and holier myths, became an image lurking below the consciousness of European literature, till Baudelaire brought it out into the light by naming it the Artificial Paradise". (Hayter 1968).

Again according to Hayter, by the end of the seventeenth century opium addiction had become known in England, and by the eighteenth century "the opium addict could be met in most walks of life".

The most famous addict of the nineteenth century was perhaps De Quincey, whose Confessions (1821) may have influenced many to try the drug, but other well-known addicts included Clive of India, William Wilberforce, George Crabbe, Francis Thompson, Samuel Coleridge, Wilkie Collins and Edgar Allan Poe, who, if not actually an addict, certainly took opium regularly. (Hayter 1968).

Addiction to opium, however, was not confined to a literary elite. In the eighteenth and nineteenth centuries it was still held by many physicians to be the most efficacious drug known to man. "There is scarcely a disease", claimed Smith (1832, quoted by Terry and Pellens, 1928) in which opium may not, during some of its states, be brought to bear by the judicious physician with advantage". Apart from being prescribed for a wide variety of ailments, usually in the form of laudanum or paregoric (camphorated tincture of opium), opium formed the basis of many of the proprietory brands of medicines especially for children, such as Godfrey's Cordial and Mother Bailey's Quieting Syrup. These medicines tended to be given to children to keep them quiet rather than as an attempt to cure illness. Their excessive use for this purpose was noted by a few people (such as Smith, 1832) but in an era of high infant mortality many deaths due to opium must have gone unnoticed. It took court cases, such as that of the notorious baby farmers Margaret Waters and Sarah Ellis, to highlight the practice and effects of giving large quantities of opiates to children.

Opium was also being consumed in vast quantities by adults, for reasons other than strictly medical ones. De Quincey (1821) writes that he was told by several cotton manufacturers of Manchester that "their work people were rapidly getting into the practice of opium eating; so much so, that on a Saturday afternoon the counters of the druggists were strewed with pills of one two or three grains, in preparation of the known demand of evening. The immediate occasion of this practice was the lowness of wages, which, at the time would not allow them to indulge in ale or spirits". One Lancashire chemist sold over 200lb of opium in one year, and yet said that this was half the demand, and indeed Lancashire seems to have been the worst area in terms of the consumption of opium, but many of the big industrial towns such as Birmingham, Sheffield and Nottingham, and the whole counties of Yorkshire, Cambridgeshire and Lincolnshire, together with London were well known for their opium takers (Hayter 1968).

Opium taking was then certainly not confined to a few literati. It is highly probable that the numbers regularly taking opium, and the quantities taken by far exceed the present number of people taking opium derivatives, and possibly even the equivalent quantities. A direct comparison of opium taking in the nineteenth century and heroin taking in the middle of the twentieth is hampered by the lack of records of the numbers involved in the previous century, and developments in the drug and its administration.

There had always been, throughout the history of the drug, controversy about the action of opium. Many contradictory effects were the result of different alkaloids, but it was not until somewhere between 1803 and 1806 that the principal narcotic of opium was isolated by the German pharmacist Serturner, who named it morphine. Later another a natural alkaloid of opium was identified and named codeine. Wright reported by 1874 the conversion of morphine to diacetylmorphine, the hydrochloride of which, together with its industrial preparation was patented by the Bayer Pharmaceutical Company under the name Heroin. (Guggenheim 1967). Heroin was introduced in 1898 for the relief of pain, and hailed as a cure for morphine addiction, which had earlier been used to treat opium addiction.

The development of the hypodermic syringe meant that the more powerful derivitives of opium could be more rapidly absorbed into the body, and the effects of these drugs more immediate and consequently even more noticable by the taker. The invention of the syringe has variously been attributed to Rynd of Dublin, Kurzak of Vienna, Wood of Edinburgh and Taylor of Washington, though most authors seem to judge Wood as the winner in 1843 by a short head. (such as Maurer and Vogel 1962).

A combination of these two developments, heroin and the syringe, form the main drug and means of administration among notified addicts in this country at present. These developments, it is suggested, are not

sufficient to make the present crop of addicts unique. Indeed, it will be argued later, that they have much in common with the Lancashire cotton workers of the late eighteenth and early nineteenth centuries.

Before going on to look in detail at the recent history of heroin and morphine in this country, and at the growth of legislation dealing with this form of drug taking, perhaps a clarification of terms would be worthwhile and also to aid this clarification and for future reference a description of the pharmacological action of the drugs involved will be included.

2. Towards a Definition of "Drug" and "Addiction"

A drug can be defined simply as a chemical substance, which when introduced into a living organism, changes its functioning. (See below and WHO Expert Committee on Drug Dependence 1969). This study is concerned with only one type of drug - opium, its derivatives and synthetic equivalents - and one type of living organism, man.

Recently there seems to have been a proliferation of terminology to describe drug taking, which appears to have clouded rather than clarified the issues concerned. Mainly to avoid further confusion it is intended to use the terminology suggested by the WHO Expert Committee on Addiction-Producing Drugs (1964) though with certain reservations. Originally the Committee tried to formulate a definition of addiction and habituation (1952) which they later revised (1957) but eventually rejected (1964) the terms altogether. Their 1957 definition of addiction and habituation states:

"Drug Addition is a state of periodic or chronic intoxication produced by the repeated consumption of a drug (natural or synthetic); its characteristics include:

(1) an overpowering desire or need (compulsion) to continue taking the drug and to obtain it by any means,

(2) a tendency to increase the dose, though some patients may remain indefinitely on a stationary dose,

(3) a psychological and physical dependence on the effects of the drug,

(4) the appearance of a characteristic abstinence syndrome in a subject from whom the drug is withdrawn,

(5) an effect detrimental to the individual and society. Drug Habituation (habit) is a condition resulting from the repeated consumption of a drug. Its characteristics include:

(1) a desire (but not a compulsion) to continue taking the drug for the sense of improved well-being that it engenders,

(2) little or no tendency to increase the dose,

(3) some degree of psychological dependence on the effect of the drug, but absence of physical dependence and hence of an abstinence syndrome,

(4) detrimental effects, if any, primarily on the individual".

The above definitions illustrate the somewhat confused thinking of the WHO Expert Committee. In their definition of addition they include pharmacological effects and moral attitudes, causes and consequences, and present them all as though they were separate facts which explained the state of addition. Partly because of confusion inherent in these definitions, and partly because of the indiscriminate use of the term addition instead of habituation, it was decided to replace the terms 'drug addiction' and 'drug habituation' with the one term 'drug dependence' (1964) "'Drug dependence' is defined

as a state arising from repeated administration of a drug on a periodic or continuous basis. Its characteristics will vary with the agent involved and this must be made clear by designating the particular type of drug dependence in each ppecific case - for example, drug dependence of the morphine type, of the cocaine type, of the cannabis type ... etc." This definition was explained by another group (The WHO Scientific Group on the Evaluation of Dependence-Producing Drugs 1964) and further clarified by the Expert Committee in 1965, while they added "The Committee would point out again that the recommendation for the use of terms drug abuse and drug dependence of this or that type must not be regarded as a re-definition; rather, these terms are intended as descriptive expressions for clarification in scientific reference, interdisciplinary discussions, and national and international procedures". In 1969 during the course of their sixteenth report, having by now become the WHO Expert Committee on Drug Dependence, stated:- "The Committee adopted the following definitions for use in the present context:

Drug. Any substance that, when taken into the living organism, may modify one or more of its functions.

Drug abuse. Persistent or sporadic excessive drug use inconsistent with or unrelated to acceptable medical practice.

Drug dependence. A state, psychic and sometimes physical, resulting from the interaction between a living organism and a drug, characterised

by behavioural and other responses that always include a compulsion to take the drug on a continuous or periodic basis in order to experience its psychic effects, and sometimes to avoid the discomfort of its absence. Tolerance may or may not be present. A person may be dependent on more than one drug.

Physical dependence capacity (PDC). The ability of a drug to act as a substitute for another upon which an organism has been made physically dependent, i.e., to suppress abstinence phenomena that would otherwise develop after abrupt withdrawal of the original dependence-producing drug".

Although the Committee have decided to do without the term addition, it is still widely used, and has the advantage of distinguishing between physical and psychological dependence. One of the main problems which has led to confusion in the use of the term addiction, is whether certain categories of drug, such as the barbiturates, should be labelled as addictive. There has never been any problem, however, concerning drugs of the opiate group - these have always been regarded as addictive. Using the Committee's latest set of definitions, one may say that drug dependence of the morphine type, and addiction represent a specific and generic term respectively, and will be used interchangeably.

Before leaving the subject of definitions, perhaps it would be helpful to describe morphine dependence, and to look at its pharmacological base.

The WHO Scientific Group (1964) produced the following description: "The outstanding and distinctive characterstics on morphine are that the three main elements - psychic and physical dependence, and tolerance - can be initiated by the repeated administration even of small doses and that it increases in intensity in direct relationship to an increase in dosage...

"The characteristics of dependence of the morphine type include: (a) Strong psychic dependnnce, which manifests itself as an overpowering drive (compulsion) to continue taking the drug and to obtain it by means for pleasure or to avoid discomfort; (b) development of tolerance, which requires an increase in the dose to maintain the initial pharmacodynamic effect; (c) an early development of physical dependence, which increases in intensity, paralleling the increase in dosage. This requires a continuation of drug administration in order to prevent the appearance of the symptoms and signs of withdrawal; withdrawal of the drug, or the administration of a specific antagonist, precipitates a definite, characteristic, and self-limiting abstinence syndrome.

"With morphine, the abstinence syndrome appears within a few hours of the last dose, reaches peak intensity in 24-48 hours, and subsides spontaneously most often within ten days...

"The unique feature of the abstinence syndrome is that it represents changes in all major areas of nervous activity, including alterations in behaviour, excitation of both divisions of the autonomic nervous system simultaneously, and somatic dysfunction".

The continued insistence on the inclusion of psychological dependence as part of a definition of "drug dependence of the morphine type" seems misplaced. As I hope to illustrate later, all that is necessary for the continued taking of the drug is the association of the alleviation of withdrawl syndrome with the particular drug. It may be that the majority of people who are physically dependent on a drug are also psychologically dependent on it, indeed it is certainly possible that prolonged physical dependence on anything will produce a psychological dependence, but psychological dependence is not a prerequisite of addiction.

Perhaps this will be better illustrated by reference to the pharmacological action of the addictive drugs, and a pharmacological definition of dependence.

3. The Pharmacology of Addiction

In order to understand the pharmacology of addiction, that is drug dependence of a particular type, it is necessary first to define some of the terms used, for example tolerance. "When a living system is exposed to a chemical substance continuously or repeatedly, its response to the chemical substance may change with time". (Collier 1966). The change may be in the direction of increased sensitivity, or in decreased sensitivity. When decreased sensitivity to a drug occurs within the life time of a cell it is called "acquired tolerance". Seevers and Woods (1953) define it as "cellular adaptation to an alien chemical environment characterised by diminished biological response". In the same way physical dependence may be defined as follows: "The state of latent hyper-excitability which develops in the cells of the central nervous system of higher mammals following frequent and prolonged administration of the morphine-like analgesics, alcohol, barbiturates and other depressants is termed physical dependence and becomes manifest subjectively and objectively as specific symptoms and signs, the abstinence syndrome or the withdrawal illness, upon abrupt termination of drug administration" (Seevers and Deneau 1953). As Collier (1966) points out, it is only possible to demonstrate dependence by provoking the abstinence syndrome, which can be relieved by restoring the drug or administering one of its pharmacological relatives. "The pattern of the abstinence syndrome to a particular

drug arises by a combination of various effects. Observation of the abstinence syndrome produced by various drugs and studies on cross dependence ... suggest that there are three main forms of physical dependence - one due to morphine-like drugs, a second to morphine antagonists and a third to ethanol or barbiturates... The relationship between tolerance and physical dependence may be summarised by the statement that, whereas tolerance is adaptive, physical dependence is the price paid for such adaptation to certain actions of certain drugs."

The actual mechanism of addiction is still obscure, but theories put forward to explain the phenomena centre on the action of the drug at receptor sites. Receptors, which are a basic postulate in most theories of any drug action (Ehrlich 1900) are the receptive loci with which drug molecules interact (Langley 1905). A theory based on a change in the number of receptors for a drug may explain tolerance, but is inadequate as an explanation of addiction because dependence does not always accompany tolerance and because the effects on a cell of withdrawing a particular drug tend to be the opposite of the effects of repeated administration of it. "These difficulties" maintains Collier (1966) "are met by supposing that dependence arises by similar mechanisms to tolerance only when a drug interacts appropriately with some endogenous substance routinely produced by the body. Since dependence is typically associated with the actions of drugs on neurones of the central nervous system, the endogenous substances involved seem likely to be central

nervous transmitters of excitation or inhibition." "There is some indirect evidence to suggest that an increase in the number of receptors for 5-hydroxytryptamine, as a result of its antagonism by morphine, and/or a decrease in the number of receptors for noradrenaline may be involved in the genesis of physical dependence on morphine".

Bergel and Davies (1970) quote work by Vogt (1954) which suggests that morphine diminishes the excretion from the brain and the adrenal glands of adrenaline and nor-adrenaline, whereas Goldtein and Goldstein (1968) suggest that it is the increase in the amount of receptor protein which is "a key biochemical event in tolerance and drug dependence".

Seevers and Deneau (1968) criticise their earlier theory that morphine acts both as a stimulant and depressant and conclude "the phenomenon of physical dependence may be created only by reasonably prolonged occupation by morphine-like analgesics of those receptor sites which induce depression".

Jaffe and Sharpless (1968) suggest that there might be several forms of tolerance, such as "'pharmacodynamic tolerance'" which involves a diminished response to the relevant tissue to the drug" which is "in contradistinction to 'drug disposition' tolerance which involves diversion of the drug from its normal site of action as a consequence of the activation of drug metabolising enzymes or an increase in available binding sites ('silent receptors') in plasma tissue".

Martin (1968) puts forward the idea that morphine lowers the temperature and changes the "thermoregulatory homeostat" of the dependent animal. Excitatory effects which occur during withdrawal can be understood as an over compensation of the homeostatic mechanism.

Seevers and Deneau (1968) maintain that "the appearance and intensity of the reaction involving the important mechanism which is responsible for the specific signs of abstinence parallels exactly the rate of disappearance of morphine, the crescendo coinciding with the time when only a small amount of tissue morphine remains at 48 to 72 hours. After this morphine is no longer present in adequate concentration to engender adaptive responses, these mechanisms decay slowly". One of the main problems in the genesis of relapse seems to be that there is no firm evidence on how slowly these mechanisms might decay, or how quickly they might be reactivated.

Wikler (1968) cites evidence from a 1941 study that addicts took 4-6 months to recover body weight, blood pressure, basal metabolic rate, and claims that it was not until twenty years later that this was followed up, when experiments with rats indicated that the primary abstinence syndrome lasts 3-5 days, but that a secondary abstinence syndrome lasts up to six months. It therefore becomes extremely difficult to evaluate the research by Weeks and Collins (1968) and Nichols (1968).

Weeks and Collins (1968) developed a saddle for their experimental rats, so that the rats could give themselves intravenous injections of morphine when they pressed a lever. They say that other studies had found that after 1-3 months off morphine, when returned to their cage, the rats began to establish readdiction, and that their experimental rats, when returned to their cage, promptly relapsed. From this they concluded that "Prior exposure to morphine is only a minor factor in etiology of relapse; a more important factor seems to be conditioning, established during active addiction by repeated incipient abstinence, and its relief by lever pressing for morphine. Then when returned to the experimental cage with access to morphine, a powerful drive to press the lever is activated and this is reduced by morphine".

Nichols (1968) favours operant conditioning as the cause of relapse. He writes "The conclusion is clear; those actions which precede an opiate intake become established in the behavioural repertoire of both man and lower animals. Their opiate-directed behaviour seems to be generated by the process of operant conditioning".

It is interesting that Lindesmith (1947, 1952) should come to the same conclusion after interviewing some fifty addicts. Nevertheless it can be strongly argued that neither Weeks and Collins, nor Nichols satisfactorily established that their experimental animals were completely free from the secondary abstinence syndrome - if such a thing

conclusively be proved to exist. The relationship between the physiology of addiction and operant conditioning as generators of relapse will be discussed later during an analysis of Lindesmith's theory of addiction.

According to Bergel and Davies (1970) there are nearly one hundred natural, semi-synthetic, fully synthetic, and intermediate opiate compounds specified as drugs under International Narcotics Control. This study was concerned with people who took drugs of the opiate group, and three drugs from this category were taken by subjects; the natural alkaloid of opium, morphine; a derivative of morphine, heroin (or diacetylmorphine hydrochloride); and the synthetic opiate, methadone or physeptone. These drugs could be taken orally or injected. Three methods of injection can be employed although only the first and last usually are. The methods consist of injection under the skin - clinically called subcutaneous injection, or just s.c., but skin popping by the addicts; injection into a large muscle, clinically intramuscular injection and without a slang equivalent perhaps because they do not want to or cannot inject themselves that way; and lastly injection into a vein - clinically called intravenous injection, or i.v., and mainlining by the addicts.

The effects on an individual of heroin or morphine, is that it interferes with perception at the somatic sensory (e.g. pain) cortex of the post central gyrus, pupillary constriction, and suppresses

autonomic regulatory centres like those of respiration, temperature and cough, and activates the medullary centre for vomiting. (Guggenheim 1967). However, as Ausubel says "Perhaps the most important (effect), the analgesia induced by opiates seems to be intimately identified with the psychological experience of euphoria", (1958). An initial tingling up and down the limbs is followed by extreme muscule relaxation, relief from anxiety, and a sense of well being.

It seems to be widely accepted that in general an addict, after becoming completely addicted, does not experience the intense pleasure which he felt when first taking heroin, and that he continues to take the drug to avoid the extremely unpleasant effects of withdrawal, and in fact to remain "normal". It does not seem to have been established, however, what "normal" to an addict is, so it seems reasonable to suggest that being in an anxiety free state might be "normal" for an addict, but pleasurable for a novitiate.

The effect of a given dose may vary according to the individual, and to any other drugs he happens to be taking at the time, but in general "20 to 30 milligrams ($^1/_3$ to $\frac{1}{2}$ grain) will produce mild symptoms; 100 milligrams ($1^2/_3$ grains) cause serious symptoms", (Bergel and Davies 1970). With the development of tolerance, more of the drug is needed to achieve the same effect. Addicts have been known to take 20 grains of heroin a day, however, in Britain at present one grain is regarded as low and seven as a high dose. The very high doses claimed to be taken

by addicts in Canada and the United States (20 to 40 grains a day) are almost certainly totally unfounded. Holmes (1968) claims that 25 years ago in Canada the average dose was 4 to 8 grains of heroin a day, but it is doubtful whether they are able to get 1 to 1½ grains. Helpern (1968) found that in New York the $5 packets of heroin sold on the street contained on average between 3 and 5 grains - but only 18% was heroin. In fact he found that 10% contained no heroin - some contained pure quinnine and one pure baking soda, the range of per cent heroin per packet being from 0 to 77. However, in Chicago, a police officer testified to a U.S. Senate Subcommittee (1956) that "When we test the stuff in our crime laboratory, the quality is over 2%, what they are getting is all milk sugar". Later in the report another witness testified that in Michigan the drugs are "terrifically adulterated", and noted that since the average heroin capsule only contains 1½ to 3% pure heroin, "a lot of addicts take voluntary cures in our city". It is therefore possible that many so called addicts are barely physiologically addicted. This would seem to support the view that the withdrawal syndrome can be a conditioned response.

These then are the drugs taken by the subjects in this study. The development of the use of these particular drugs in Great Britain and the United States will be discussed in the next chapter.

4. The Growth of Addiction in Great Britain and the United States

While continuing to look at the growth of addiction in this country, it is also necessary to look at the development of addiction in the United States of America. This is partly in order to compare and contrast the development of addiction here with that of another country so that the effect of certain national policies may be evaluated, and partly because the majority of writers who put forward a theory to account for addiction are American, and do so on the basis of American data, which may not always be consistent with that obtained from this country. Alfred Lindesmith, for example, bases much of his argument for his theory of addiction on the interpretation of available figures for the number of addicts before and after the Harrison Narcotic Act of 1914, (Lindesmith and Gagnon 1964).

To begin, then, with a look at the development of addiction in the United States. The spread of the use of opium and its dervatives can be seen to have been stimulated by four major trends.

The first was the effect of De Quincey's "Confessions". "Since the publication of 'The Confessions of an English Opium Eater', opium had become as much a standard accessory of the Romantic hero as a ruined castle in the Apennines had been a generation earlier", (Hayter 1968). Edgar Allan Poe certainly took laudanum, as did many of his contemporaries.

The second major trend was the spread of opium smoking from San Francisco. Opium smoking was established in San Francisco by the very large Chinese population that lived there. The peak for the importation of smoking opium was reached in 1883, when 298,153 lbs were imported, but another peak also occurred in 1903, and declined again until the importation of smoking opium ceased in 1909. The habit of opium smoking in San Francisco spread East, "involving practically every town and city in the country in its progress from the West to the East coast" (Terry and Pellens 1928).

Perhaps the third trend contributing to the spread of addiction was the indiscriminate use of the syringe during the American Civil War. Many soldiers became addicted and continued their addiction after the war, drug addition being called "The soldiers disease".

Lastly the fourth major trend can be seen to be a result of the patent medicine industry. Opium formed the base of many of the cures offered for a variety of complaints, including addiction to morphine. Most of the home cures and treatments for chronic opium intoxication contained either morphine or heroin, while those for heroin addiction contained morphine, and those for morphine addiction contained heroin. A large number of private hospitals and sanatoria sprang up to treat addiction, or to put it more accurately, to take advantage of the number of addicts who wanted, or said that they wanted to cease taking the drug.

The net result of these four trends was that "addiction spread with the speed and thoroughness of an influenza epidemic. By 1863, twenty years after Alexander Wood had invented the hypodermic needle, estimates of addiction in the United States ran as high as 4 per cent of the population". (Nyswander 1956 based on Collins 1887). According to Terry and Pellens (1928) the medical profession was "neither interested nor informed" and the general attitude seemed to be that addiction was neither "crimical 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". (Lindesmith 1947).

If neither the general public nor the medical profession were greatly concerned with the spread of opium smoking and addiction to heroin and morphine, one or two campaigning individuals and eventually some governments were. The Boylan Act was passed by New York in 1904 in an attempt to limit over the counter sales of opiates by putting distribution of these drugs in the hands of physicians. Shortly after, on the initiative of the U.S. Government, the International Opium Commission was set up, and held the first International Opium Conference in Shangai in 1909, to be followed by the second International Conference at the Hague in 1912, and the third, also at the Hague, in 1914. From the point of view of the U.S.A., it is the second conference which was the most important, for drug legislation in the States claims to be

based on the final Protocol of this second International Opium Conference at the Hague (1913). The signatories of the Protocol agreed to control domestic production sale, use and transfer of opiates and cocaine, and in compliance with this the U.S.A., or rather Congress, passed an act in 1914 which came to be known as The Harrison Act. This Act required the registration of all legitimate drug handlers, and the payment of a special tax in connection with drug transactions. "These provisions, in essence, have established a lisensing system for the control of all legitimate drug distribution", (Schur 1963). With the passing of the Harrison Act, doctors were "appealed to by hosts of patients who previously had bought directly from the retail druggist or by mail order from the wholesaler", (Terry and Pellens 1928). Clinics were opened to cope with the drug addicts, first in Louisiana and California, and later in a number of other states. They were soon however closed down. "Thus was an illegal substitute for the legal channels of supply created by the law, because the law was so interpreted and administered as to render the registered distributors uncertain of their status... The illicit traffic thus in part stimulated was not to be satisfied with already existing demand, but sought through initiating new individuals to extend its operations - sound business if otherwise disastrous", (Terry and Pellens 1928).

"This well intentioned law was misinterpreted from the beginning and made a tool for the persecution of suffering patients and

of the physicians who tried to help them", (Kolb 1961).

One interesting point about the Harrison Narcotic Act is that nothing is specifically mentioned about addicts, and bona-fide doctor-patient relationships were specifically exempted from prosecution, hence, theoretically at least, doctors could prescribe heroin and morphine as part of the treatment of drug addicts. This did in fact occur, and clinics were also opened. The act was originally intended as a regulatory tax measured and as an attempt to stop illegally imported and distributed drugs. The Narcotics Division of the Treasury Department, with a certain Mr. Harry J. Anslinger to the fore, however, was determined to make the possession of heroin, morphine, opium, and even cannabis, in itself illegal, and the addict removed from the category of patient. To this end, they sought out evidence of violations of the Act, and sought, and received during these cases, rulings that the prescription of narcotics to addicts in good faith was itself improper.

It has been noted by one authority (King 1953) that one of the pivitol cases which the Treasury Department cites as authority for its interpretation of the law, U.S. vs Behrman, 1922, was repudiated by a later supreme court decision in the case of the U.S. vs Linder, 1924. Therefore, technically a physician can treat an addict patient, but "his good faith and adherence to medical standards can only be determined after trial.... If the judge or jury decide against the physician,

the latter may be sent to prison or deprived of his license to practice medicine. The physician has no way of knowing before he attempts to treat and/or prescribe drugs to an addict, whether his activities will be condemned or condoned", (Ploscowe, 1961).

Clinics which had opened to treat addicts were closed down, and doctors refused to prescribe for addicts after some well publicised prosecutions. In effect, the Narcotics Division of the Treasury Department, which became the Federal Bureau of Narcotics in 1930, "succeeded in creating a very large criminal class for itself to police (i.e., the whole doctor-patient-addict-peddler community) instead of a very small one that Congress had intended (the smuggler and the peddler)". (King 1953) Opiate use became illegal and addicts were outlawed, as a tax measure was "sweepingly invoked as a prohibition enactment", (King 1957).

Estimates of the number of addicts at the time of the Harrison Act vary considerably, but according to Terry and Pellens (1928) "even conservative estimates for the country exceed 700,000". Maurer and Vogel (1954) are not as definite in their estimates, for they put the U.S. number of opiate addicts at the turn of the century between 100,000 and one million, while Kolb and DuMez (1924) suggest that by 1924 the number had dropped to between 100 and 150 thousand.

Although the Harrison Act is still in force, it has been supplemented by both federal and state legislation. This drug

legislation has consistently moved in the direction of harsher penalties for drug addicts. For example, as a result of the 1951 Kefauver Committee's investigation of organised crime, the Boggs Act was passed, providing severe mandatory minimum sentences for drug offences. Four years later these minimum sentences were raised, and the death penalty permitted in cases involving the sale of heroin to a person under eighteen.

To summarise then, "The basic Federal Control Law, the Harrison Narcotic Act of 1914, is a tax structure. It is administered by the Bureau of Narcotics, an agency of the Treasury Department. The statute imposes a tax upon the manufacture or importation of all narcotic drugs. Unauthorised possession under the statute is a criminal offence. Unauthorised importation is punishable by a separate Federal Statute. Unauthorised possession and sale are also criminal acts under the Uniform Narcotic Drug Act, the control statute effective in most states. Heroin occupies a special place in the narcotic laws. It is an illegal drug in the sense that it may not be lawfully imported or manufactured under any circumstances, and it is not available for use in medical practice.... All heroin transactions, and any possession of heroin, are therefore criminal", (U.S. Task Force Report 1967).

It is clear that the interpretation of 1914 tax statute created another criminal class by defining all addicts as criminals. The agency primarily responsible for this definition has since been very

energetic in trying to eradicate this class. Unfortunately the legislation is aimed at "the addict in the street" and is totally punitive. As Lindesmith (1947) points out "The notion that punishing these victims will deter the lords of the dope traffic is as naive as supposing that the bootlegging enterprises of the late Al Capone could have been destroyed by arresting drunks on West Madison Street or Times Square". Perhaps it would be appropriate to point out that nor were the bootlegging enterprises destroyed by an attack on the gangs supplying the drink, but only a change in the law which moved alcohol back to being a legally obtainable beverage, eradicated bootlegging.

The estimation of the numbers of drug addicts in the United States is extremely difficult precisely because of the illegal status of the addict. Estimates vary widely, and those produced by the Bureau of Narcotics are some of the most suspect for like some of the official figures in Britain, are more concerned to protect reputations than reflect the actual situation which exists. The Commissioner of the Federal Bureau, Harry Anslinger claims "we're achieving a major breakthrough in our all-out war with the peddlers of living death... Our stronger law and strict enforcement have enabled us to make real progress in beating the traffic in dope". (1961) The figures he quotes are in 1955, 60,000 addicts, and in 1961, 45,000 addicts. But as Schur says "Without doubt there was much truth in Commissioner Anslinger's oft-quoted statement that the combined efforts of the Army, the Navy,

the Narcotics Bureau, and the Federal Bureau of Investigation could not eradicate the smuggling of narcotics". This less optimistic view is reflected in the Bureau's own figures, for as of December 31st 1965, they had 57,199 opiate addicts listed, of which 52,793 were heroin addicts. "Most of the names in the file are of persons arrested by the State and local police agencies and reported to the Bureau on a form the Bureau provides for this purpose. Thus the inclusion of a person's name in the file depends in large measure in his coming to the attention of the police, being recognised and classified as an addict, and being reported. There is some uncertainty at each step. Moreover, some police agencies and many health and medical agencies do not participate in the voluntary reporting system..... It should also be noted that other estimates of the present addict population, some of which cite figures as high as 200,000, are without a solid statistical foundation". (Task Force Report 1967). Therefore all that can be said about the addict population of the United States is that the figure of 57,199 is known to be a hopeless underestimation, while that of 200,000 is regarded as a hopeless overestimation of the numbers currently addicted, but it should be borne in mind that there is no agreement among estimators on what they mean by addiction. Ploscowe (1961) reports that a study of heroin use by street gangs revealed that only 43% of heroin users took some every day. If this

information is allied to that concerning the degree of adulteration of black market heroin which is said to range from 0 to 77% pure in New York (Helpern, 1968), 2% in Chicago and 1½ to 3% in Michigan, (U.S. Senate subcommittee report, 1956) then of the heroin takers, maybe ten percent would be an over estimation of the numbers really physically addicted. Estimates of the extent of addiction are sometimes based on the numbers taking heroin, the numbers taking heroin intravenously, on those caught taking heroin intravenously, or any one taking certain proscribed drugs. It would seem that those who are defined as addicted, and those who think of themselves as addicted, may not be, and in fact are quite likely not to be, physically addicted. However, they behave as though they were addicted and are treated as though they were addicted, so there exists a certain colusion between the addict and the police and treating agencies to define people as being addicted when in fact they are not.

It is, incidentally, interesting that the figures for Canada for 1969 are only 4,000, and that although the total number of addicts has increased, the addict population has declined as a proportion of the population. (Canadian Government Commission of Inquiry, 1970).

The estimation of the numbers of addicts in Britain is almost as chaotic as that described for the United States, but because the numbers involved are so much smaller, the variations are far less, and official figures are not challenged so widely. While the official

figures may not be dead accurate they have tended to provide acceptable estimates, and are anyway the only ones available.

Drug legislation in this country can be said to date from the 1868 Pharmacy Act which put some controls over opium and preparations of opium, but the first major act to control opium and its derivatives was the Dangerous Drugs Act of 1920. This act was passed mainly in an effort, as with American legislation, to comply with the final Protocol of the Second International Opium Conference (1913).

Cocaine had been controlled from 1916 under Defence of the real regulations when it was reported that a number of London prostitutes had been using this drug, but was included, together with heroin, morphine and other manufactured drugs, in the 1920 Act. (Spear 1969). The Act aimed at controlling the supply, sale and distribution of certain drugs specified as dangerous, and limited legitimate access to the medical and allied professions.

In 1924 the government appointed a committee under Humphrey Rolleston to look at the general question of drug addiction, particularly in relation to the operation of the new Act. Their report in 1926 expressed what has been the policy of successive governments towards addicts and addiction, and sharply distinguishes this country from North American practice as stated above, when they said "With few exceptions addiction to morphine and heroin should be regarded as a

manifestation of a morbid state, and not as a mere form of vicious indulgence". Also, in defining the circumstances in which heroin and morphine can legitimately be given to addicts, they accept the idea of the "stabilised addict". That is an addict who is not going to be cured of his addiction, and who is able to lead a fairly normal life while taking a constant, non-progressive amount of an addictive drug.

Many of the Rolleston Committee's proposals were put into effect by ammendments that were made to the Dangerous Drugs Regulations in 1926. Part of these new regulations contained the following constraint on prescribing, which might perhaps have been used to cope with the over prescribing doctor. They produced the following effect:

(i) Provision was made for the constitution of a tribunal to which the Secretary of State could refer cases in which, in his opinion, there was reason to think that a duly qualified practitioner might be supplying, administering or prescribing drugs either for himself or other persons otherwise than as required for the purposes of medical treatment.

(ii) The Secretary of State was empowered, on the recommendation of a tribunal, to withdraw a doctor's authority to possess and supply dangerous drugs and to direct that such a

doctor or a doctor convicted of such an offence under the Act, should not issue prescriptions for dangerous drugs". (Brain 1961).

The main effect of the Rolleston Committee's recommendations was, however, to clearly define the drug addict as someone who was ill, and needed treatment, and not as a criminal.

The legislation which followed was in response to commitments as a result of international agreements, rather than the result of any changes or pressure for legislation which occurred at home. For example the Dangerous Drugs Act of 1925 (which did not come into force until 1928) was passed in response to a requirement of the 1925 Geneva Convention relating to dangerous drugs, to which Britain was a party. The Act extended the amount of control over coca leaves, Indian hemp and resins. Similarly following the International Convention for Limiting the manufacture and Regulating the Distribution of Narcotic Drugs (Limitation Convention) of 1931, the (1932) Dangerous Drugs Act was passed extending the range of drugs controlled. Any adjustments that needed to be made to the operation of the Acts was achieved via Dangerous Drugs Regulations. The Dangerous Drugs Act of 1951 consolidated previous acts, but pressure from the medical profession deferred indefinitely the re-introduction of provisions for setting up a tribunal which could investigate under certain conditions a doctor's prescribing, supplying or administering of dangerous drugs. The 1953 Dangerous Drugs Regulations therefore contained no means of dealing

with the over prescribing doctor, nor in fact did any of the subsequent regulations, a position strongly supported by the Brain Committee.

In 1958 the Interdepartmental Committee on Drug Addiction was set up under the chairmanship of Russell Brain, and reported two and a half years later, (Brain 1961). The terms of reference of the committee were "to review, in the light of more recent developments, the advice given by the Departmental Committee on Morphine and Heroin Addictions in 1926".

The "more recent developments" were in fact a rise in the number of persons known to be addicted to opiate drugs. The lowest figure for the number of known addicts was for 1953, when the total number was 290. By 1957 the number had risen to 359, and took an even steeper rise by 1959, the last year for which figures were available to the Brain Committee, to 454.

There had also been a change in type of people addicted, and the social context within which they became addicted. There are no figures at all for the number of people addicted to opiates before 1936. Up to the passing of the 1920 Dangerous Drugs Act, opium and morphine were present in many proprietary remedies, and could be obtained from a pharmacist with little difficulty. It would appear from contemporary reports already cited that the use of opium was widespread throughout the community, and not restricted to any particular class or

age group. With the definition of the addict as someone who was ill and in need of treatment, and the restriction of the availability of supplies, it seems likely that the number addicted would have dropped. By 1935, when the first official guess is put on record, the number of addicts is estimated at around 700. From 1936 to 1944 the number fluctuated from 503 to 620 (see Table 1) but the index kept by the Home Office was built up from notifications of medical officers, police, G.P.'s and pharmacists. Since notification was not compulsory there is no guarantee that all addicts were notified, while those that were notified, officially at least except in the case of death, stayed on the files for ten years after the last information was received. It is hard to believe that this official practice was carried out, for, the figures for 1937 and 1938 show a drop in 1938 of 111 addicts. In that case assuming that no new addicts were treated, one hundred and eleven existing addicts died, but if there were any new addicts, then the number dying in one year would be 111 plus the same number of new addicts!

After 1945 the ten year rule was officially discontinued, and the number of names in the index fell from 559 to 367, which means that there were 367 persons known to the Home Office to have received treatment on the basis of being addicted to drugs. It seems very strange indeed that the number did not increase after the war as a result of medication received for painful injuries. It could be possible

Table 1

Number of Addicts Known to the Home Office, 1936-1969

Year	No. of known addicts	Sex		Origin			Drugs Used					Professional Addicts
		Male	Female	Theraputic	Non-Theraputic	Unknown	Morphine	Heroin	Cocaine	Pethidine	Methadone	
1936	616	313	300									147
1937	620	300	320									140
1938	519	246	273									143
1939	534	269	265									131
1940	505	251	254									90
1941	503	252	251									91
1942	524	275	249									98
1943	541	280	261									94
1944	559	285	274									93
1945	367	144	223									80
1946	369	164	219									79
1947	383	164	219									89
1948	395	198	197									119
1949	326	164	162									100
1950	306	158	148									95
1951	301	153	148									77
1952	297	153	144									75
1953	290	149	141									71
1954	317	148	169					57				72
1955	335	159	176				179	54	6	64	21	86
1956	333	163	170				176	53	6	64	20	99
1957	359	174	185				178	66	16	92	31	88
1958	442	197	245	349	68	25	205	62	25	117	47	74
1959	454	196	258	344	98	12	204	68	30	116	60	68

Continued .....

Table 1 continued

Year	No. of known addicts	Sex		Origin			Drugs Used					Pro-fessional Addicts
		Male	Female	Theraputic	Non-Theraputic	Unknown	Morphine	Heroin	Cocaine	Pethidine	Methadone	
1960	407	195	242	309	122	6	177	94	52	98	68	63
1961	470	223	247	293	159	18	168	132	84	105	59	61
1962	532	262	270	312	212	8	157	175	112	112	54	57
1963	635	339	296	355	270	10	172	237	171	128	59	56
1964	753	409	344	368	372	13	171	342	211	128	62	58
1965	927	558	369	344	580	3	160	521	311	102	72	45
1966	1349	886	463	351	982	16	157	899	441	123	156	54
1967	1729	1262	467	313	1385	31	158	1299	462	112	243	56
1968	2782	2161	621	306	2420	56	198	2240	564	120	486	43
1969	2881											

From Spear 1969.

Figures from 1958 include only those persons known to have been taking drugs in the year in question.

Figures from 1969 refer to the number of addicts on 31st December 1969.

however that the doctors treating such patients did not notify them as addicts but considered the regular use of morphine or heroin over a prolonged period as part of the treatment for the injuries from which the patient suffered.

Even allowing for a change in the length of time that names were kept in the index, it seems rather extraordinary that in 1944 there should be slightly more males (285) than females (274) while the next year there should be nearly double the female number of addicts than males, (144 to 223). Thus a change in the method of recording the number of addicts brought about a change not only in the gross number, but in the ratio of males to females. Further, since 1968 the index of addicts has been compiled only through notification of addicts from treatment centres. The police for example no longer inform the Home Office when they have reason to believe that someone whom they have arrested is an addict. The number of sources of information in fact has been cut down. However, unless the doctors concerned are especially conscientious there is no reason to suppose that the estimates of drug addiction are any more reliable than they have been in say the years 1963-1967. Indeed, yet another change in the organisation of the figures which are published, combined with a change in medical practice would make them less accurate.

Also, in at least two ways it is possible that official figures are an underestimate of the total number of addicts today.

Given that some medical practitioners view the object of the setting up of treatment centres as that of reducing the number of heroin addicts, underestimates can occur because of (a) the drug of addiction is changed from heroin to methadone, or (b) an addict is taken off heroin but continues to procure the drug unofficially off the black market, or when supplies are short takes barbiturates intravenously. In both cases, ostensibly, the number of heroin addicts is reduced.

To return however to the growth in the number of addicts. A known increase in the total number of addicts can be seen to have begun around 1954. Between 1920 and 1936 the number of addicts is unknown, but it is likely that the number was decreasing because the availability of opium (and its derivatives) was decreasing. Although the actual figures available for the period from 1936 to 1953 are suspect, it is probable that they reflect the actual trend.

It seems that about one quarter to one third of the addicts during this time were of "professional" origin. Professional here refers mainly to members of the medical and dental professions, who by virtue of their work had access to drugs. Up to 1955 nurses were not included in this category, but under the heading of "other", - a reflection perhaps of the changing status of the nursing profession particularly in relation to that of medicine. From the meagre evidence available, and more especially from the lack of evidence to the contrary, it would seem that addicts at this time were not socially

visible - that is they could not be readily and easily identified as a separate group, and apart from their immediate families and possibly their colleagues it is doubtful if their social contacts knew of their addiction.

The taking of drugs of the opiate group, from being widespread in Victorian times appears to have been limited to comparatively few people who did not know each other, and probably tried to hide their addiction in order to continue working. In the years up to 1939 several small groups of addicts were noted from time to time, but there did not appear to be any inter-connection between the groups, nor did these groups appear to recruit new members, (Spear 1969).

After the war there was no noticable change in the number of addicts - only in the figures. As stated earlier, the numbers of those addicted did not begin to rise until the mid fifties, but even then the rise was a slow one. In an analysis of cases during the mid-fifties Spear (1969) suggests that a scarcity of cannabis coincided with a sudden availability of heroin, morphine and cocaine stolen from a hospital dispensary and sold around the West End of London, particularly around the jazz clubs. Twenty six cases of addiction are cited which came to the notice of the Home Office by the end of 1954, and whom it is thought were connected with the pusher, or were members of his original group. Of the twenty six, twelve have their occupations listed as musicians. A further thirty seven addicts came

to the notice of the Home Office after 1954 who were believed to have connections with the original twenty six, ten of whom are listed as being musicians. The fact that there is such a high proportion of musicians among the addict group is not mere coincidence. During the late forties and early and middle fifties especially, many American jazz musicians came on tour in Britain, and a few English musicians played in the States. The importance of smoking cannabis among the jazz musicians has been demonstrated by Becker (1951) among others. The conflict between free self expression in line with the beliefs of the musicians group, and the outside pressures which often force a musician to play in a style or manner that he regards as inferior, is to some extent resolved by a process of self segregation and isolation. This is helped by an occupational slang, and also by drugs, (see Becker 1953 and 1955). Smoking marijuana (Becker 1953) was at this time one of many forms of behaviour which helped to distinguish the jazz musicians from other people. (Mezzrow and Wolfe 1946). There was also considerable pressure on many young muscians to smoke cannabis in order to be accepted as part of a clique, which was essential for the career of the musician "A network of informal, interlocking cliques allocates the jobs available at a given time. In securing work at any one level, or in moving up to jobs at a new level, one's position in the network is of great importance". (Becker 1955).

It is not surprising therefore, that an ideology, or at least a justification should not only exist under these conditions in the

States, but should be so readily acceptable in a country with a similar occupational structure and admiring public. Smoking marijuana thus became one form of behaviour which emphasised the distinctiveness of this group. A supply was already coming into the United Kingdom mainly for the West Indian and African communities. It appears however that there was little or no attempt to interest people outside this community in the drug. "It is known that the traffic in Indian Hemp is practically confined to two Negro groups in London and those attempting to import the drug have generally been found to be coloured seamen" (U.K. Annual Report to the United Nations 1946 quoted by Spear 1969). As in the United States, many jazz musicians in the United Kingdom came from the West Indian and African communities and could therefore either take on the role of supplier of cannabis or indicate where it might be obtained.

A number of prominent musicians were also addicted to heroin and morphine. The drug habit seemed to be justified and rationalised among some of the musicians by the belief that their playing was improved whilst under the influence of this drug. Winick (1960) noted that "Some respondents observed that a few of the undisputed genuises of modern jazz were widely known as heroin addicts, and there is reason to believe that some younger musicians may have begun using the drug on the basis of some kind of magical identification with their heroes and the assumption that they would play better if they, too, were drug

users". The idea of the addict as a creative person was generally emphasised, and reference made to writers who took drugs in the past, such as De Quincey and Coleridge, or who took drugs then, such as William Burroughs.

In America, because the goals of the poor urban negro were severely limited by the social structure the aspirations of many, during the late forties and fifties, tended to revolve around dreams of being a successful jazz musician, since this was one of the very few means of escaping from the slums. "Almost every cat" writes Finestone (1957a) "is a frustrated musician who hopes some day to get his 'horn' out of pawn, take lessons, and earn fame and fortune in the field of 'progressive music'". He goes on to describe from interviews conducted between 1951 and 1953 with young negro drug users of Chicago how heroin was regarded by them as the ultimate "kick". "No substance is more profoundly tabooed by conventional middle-class society. Regular heroin use provides a sense of maximal social differentiation from the 'square'. The cat was at last engaged, he felt, in an activity completely beyond the comprehension of the 'square'. No other 'kick' offered such an instantaneous intensification of the immediate moment of experience and set it apart from everyday experience in such spectacular fashion".

In Britain within the circle of musicians, smoking cannabis was almost a confession of faith, while heroin or morphine addiction was certainly tolerated, even a little admired. It is suggested that

these conditions brought about a willingness to try at least, heroin and morphine by the musicians and also by people who went to the clubs, particularly those fans who identified with the musicians. This coincided with the availability of heroin and morphine in London.

The number of addicts during the late fifties did not seem to rise significantly. Because jazz musicians formed a separate sub-culture and because this did not appear to have any widespread appeal, it is certainly possible that non-theraputic addicts would have been restricted to this group. It is only from 1958 onwards that figures for theraputic and non-theraputic addicts are available. Theraputic addicts are those who become addicted as a result of treatment, or as a result of professional access to drugs. In 1958 for example, the number of non-theraputic addicts is put at 68. (see table 1). By 1961 this figure had risen to 159.

The reason for the second increase it is believed, will be found in a very different set of circumstances. From about 1959 to 1962, a number of Canadians came to this country in order to continue with their drug habit, which had been acquired in North America. Since Canada has very similar attitudes and legal provision regarding addiction as the United States, legal supplies of the drug could not be obtained. Although the exact reasons for the exodus are beyond the scope of this study, it is perhaps no coincidence that Canada introduced a new penal drug code in 1958, and that it became known in some parts of

Canada and America that heroin and morphine were in Britain obtainable on prescription, and that addicts were not treated as criminals. The actual number of persons involved is difficult to obtain, but it is estimated that there were no more than seventy, only half of whom remained by the end of 1965 (Laurie 1967). Initially most of these addicts were registered as patients with one particular doctor. This was a lady whose concern seemed to be more for financial gain than the welfare of her patients. Her patients in fact seemed to be able to obtain as much as they wanted of the drugs, and some, though not all, were selling part of their supply in order to finance themselves. People who had been used to surviving in a community which labelled them and their activities as criminal could apply the skills that they had learnt to the relationships in the society to which they had moved. Their behaviour pattern associated with addiction was inappropriate in this country. "Hustling" and selling drugs would be part of the role of addict in North America, but not, at that time, part of the role of addict in Britain.

It would not be inappropriate to cite here the work of Festinger (1956) and his study of religious groups. Briefly, he argues that when doubts afflict members of small religious sects, one response is a drive towards getting new members. The larger the number of people believe, the more confident are the members in the rightness of the doctrine. Similarly, the more people are seen to be

addicted to drugs, the more "normal" the behaviour.

This is not to suggest that jazz musicians and Canadian addicts were responsible for the later considerable increase in addiction to heroin and morphine, and later methadone, but that they formed contributory factors. Also at this time pill taking, particularly of amphetamines but also of barbiturates, was rapidly increasing. Within the context of drug experimentation, a growing clique of addicts ready to sell the drugs and doctors willing to prescribe extraordinary amounts of the drugs at one time, it is not altogether surprising that the number of those addicted to these drugs increased rapidly.

It is this last point which must be emphasised, for without the availability of heroin and morphine on the black market, there could be no great increase in the numbers of those addicted. The source of this heroin was undoubtedly over prescribing by some of the doctors who had addict patients. Initially, most of the doctors approached by people who claimed to be addicted to heroin, had no experience, or means of obtaining it, in how to establish whether someone was really addicted, and whether his claim concerning the amount he was taking was genuine or not. This was not helped by the belief among some addicts that they had to claim to be taking more than they actually were because the doctors would automatically reduce the amount and prescribe less, nor was it helped by the fact that some doctors did automatically reduce

the amount that a patient said that he needed, and prescribed less.

The relationship which existed between many doctors and their addict patients was a very interesting one because it was based on a face saving colusion. If say an addict needed three grains of heroin he would ask for five grains so that the doctor could prescribe three. The face - "the positive social value a person effectively claims for himself by the line others assume he has taken during a particular contact" (Goffman 1967) - of both doctor and addict each believed was not only saved but enhanced. The addict could feel that he had got what he wanted and had therefore "conned" the doctor whom he believed to be always trying to deprive him. (This feeling by the addict was often re-inforced by ritual degradation ceremonies (Garfinkel 1956) in a waiting room at the hands of receptionists or nurses, which occurred with the tacit agreement of the doctor in the belief that the addict would be less demanding and more amendable to accepting less than he asked for). The doctor also had a feeling of satisfaction in "seeing through" the stories of the addict, and in demonstrating his power over the addict. He also was smart, because he had not been "conned".

Perhaps initially it could be argued that over prescription occurred as a result of the inexperience of the G.P.'s, but apart from this there also existed a number of doctors who consistently gave their patients, over a considerable period of time, whatever they asked for

without trying to establish whether the amount prescribed bore any relation to the amount taken. At best, this approach displayed a remarkable naivety on the part of the G.P.'s concerning their patients. In one case at least, it is alleged that the doctor concerned actively encouraged experimentation and increased the dosage of drugs to his patient for reasons other than medical ones.

The persistence of a black market supply must be attributed to the negligence on the part of some G.P.'s in prescribing drugs to addicts, to the naivety of others, and the genuine mistakes made by yet another group. The fact that this situation continued for so long must be attributed to the narrow-minded, ultra-conservative and over-protective attitude of the G.M.C. Its refusal for a long time to take disciplinary proceedings against some doctors is the main factor in the rapid spread of drug addiction in the early and mid sixties. The B.M.A. must also be held culpable for not exerting its considerable influence to bring the activities of certain G.P.'s to the notice of the disciplinary committee of the G.M.C., and for not urging a policy of responsibility towards the individual and the society at the expense of G.P. omnipotence. Whatever the cause of black market heroin, its source was certainly through legally obtained prescriptions. From about October 1968 "Chinese heroin" made its appearance, and this coincided with a reduction in the amount of legally prescribed heroin obtainable on the black market. Whether there is a causal relationship between these two facts it is

difficult to establish, but it would seem likely. In an effort to counteract the excesses of some G.P.'s many doctors at treatment centres cut down on the amount of drugs which they would prescribe for addicts. It would seem that they were a little over zealous in their task at first, because for the first time imported heroin was available fairly openly in London. The tendency to inject barbiturates intravenously seems also to have begun increasing from around this time. It is used, apparently, as a substitute for heroin when that is unobtainable.

To return to the development of legal provisions. Up to 1965 legislation had largely been a result of compliance with international agreements, but because of the rapid increase in the number of addicts there followed a spate of legislation, which was given some impetus by the recommendations of the Second Report of the Interdepartmental Committee on Drug Addiction (1965). A second report was called for in 1964, largely because the first had proved to be so inaccurate concerning the practices of some G.P.'s and as an indication of likely trends.

The first Interdepartmental Committee took two and a half years to come to the conclusion, among others, that "Despite the generally satisfactory state of affairs we have been informed that from time to time there have been doctors who were prepared to issue prescriptions to addicts without providing adequate medical supervision, without making any determined effort of withdrawal and, notably, without

seeking another medical opinion. Only two such habitual offenders during the past twenty years have been brought to our notice and it is satisfactory to note that, in spite of widespread enquiry, no doctor is known to be following this practice at present".

This is a most extraordinary statement, not only in the light of future developments, but also because the Drugs Department at the Home Office seemed to hold the opposite view. According to the Chief Inspector, Jeffrey, the Drugs Branch warned the Home Office in 1955 that "Unless something was done to curb the unfettered right of the doctor to prescribe drugs of addiction to addicts the situation would get completely out of control". (1967).

The Brain Committee was reconvened in July 1964, and reported a year later. "From the evidence before us we have been led to the conclusion that the major source of supply has been the activity of a very few doctors who have prescribed excessively for addicts. Thus we were informed that in 1962 one doctor alone prescribed almost 6000,000 tablets of heroin (i.e. 6 kilogrammes) for addicts.... The evidence further shows that not more than six doctors have prescribed these very large amounts of dangerous drugs for individual patients and these doctors have acted within the law and according to their professional judgement".

It is not altogether surprising, since the Brain Committee comprised only members of the medical or pharmacological professions that they should interpret their terms of reference in such a narrow

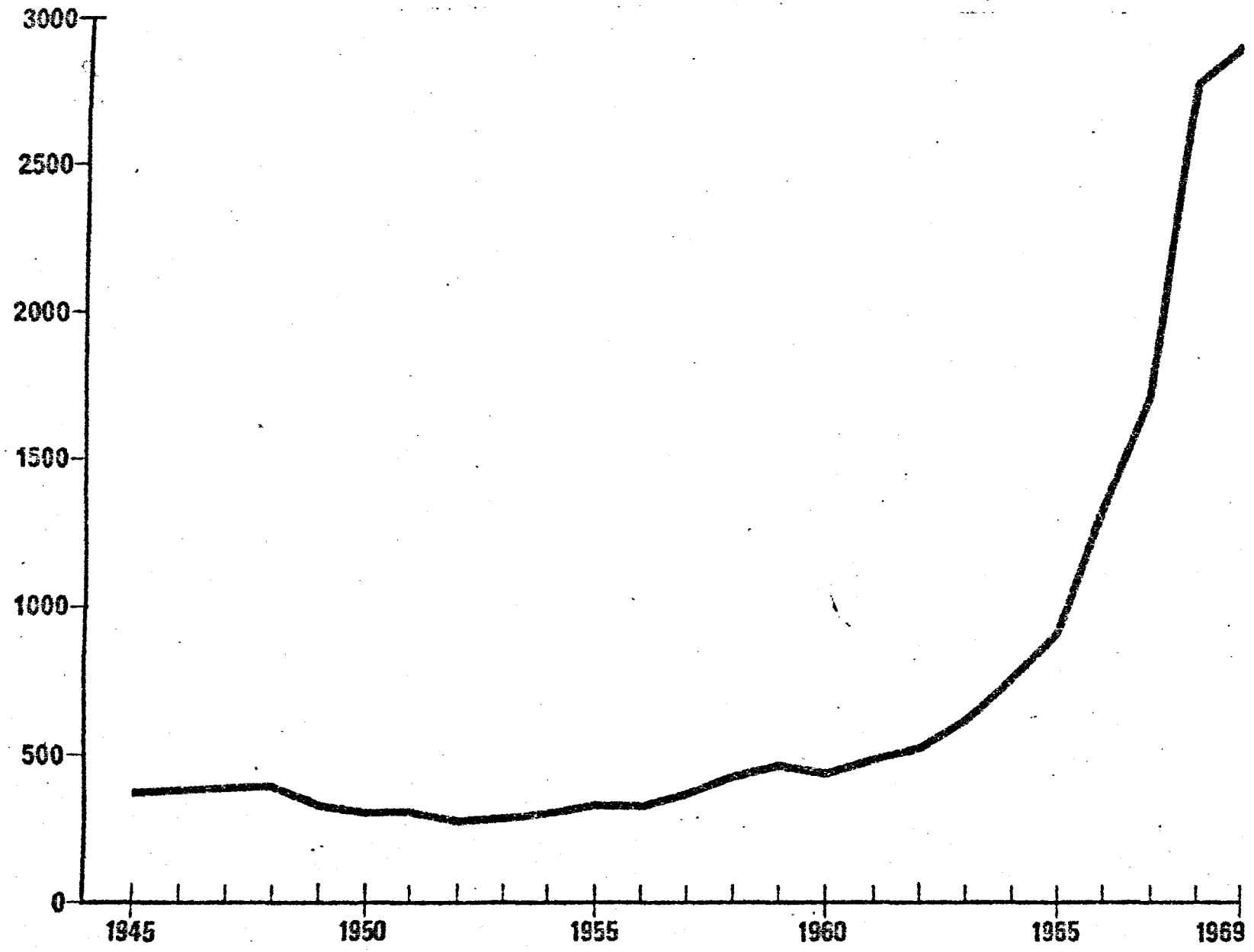
manner so as to preclude investigation or discussion of any aspects of drug addiction which reached beyond the strictly medical ones, or that should fail to criticise the medical profession in any way. However they did recommend that addicts should only receive supplies of certain dangerous drugs, specifically heroin and cocaine, from doctors at treatment centres. This was obviously an attempt to deal with the over prescribing doctor while maintaining the fiction that the drug addict is at fault by demanding more than he needs and thus abusing the system. One result of this has been an over-reaction by some doctors at treatment centres, who have cut down, and withdrawn addicts from certain drugs against their will, or have merely substituted one drug of addiction for another. Conservative prescribing is in fact reflected in the increased price of heroin on the black market (Times September 1970).

Between the appearance of the first and second Brain reports, two more drug acts were passed. The Drugs (Prevention of Misuse) Act of 1964 was passed as a result of the Single Convention on Narcotic Drugs, 1961. This was followed by the Dangerous Drugs Act of 1965, which consolodated the legislation of 1951 and 1964. After the second Brain report, the Dangerous Drugs Act 1967 was passed which limited the right of doctors to prescribe certain drugs to addicts unless they had obtained a licence to do so. In effect licences are only granted to doctors at certain hospitals so that the prescribing

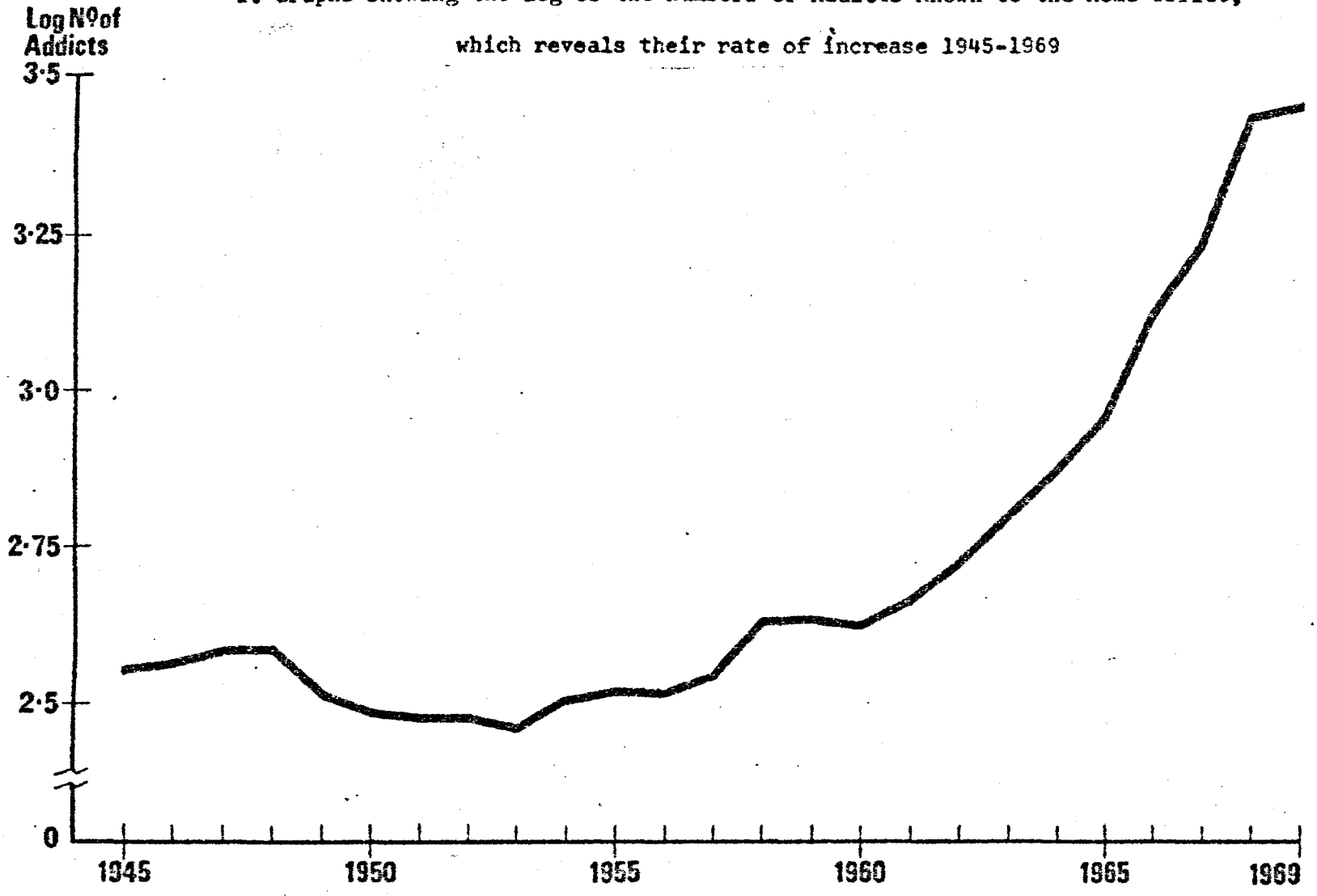
of certain drugs to addicts has been taken out of the hands of the G.P. Under Regulations issued in 1968 doctors are required to notify the Home Office of any addict patients that they may treat, but it is not altogether certain that they do this, or that the Home Office present the figures that they do have in a meaningful way. The figures for 1969, for example, relate to the number of addicts known on 31st December 1969. The figure for the total number known throughout the year is still available though not given a great deal of emphasis.

Finally, as far as the figures available are concerned, they are as significant as, say, the figures for the total number of convictions would be, without even the broadest breakdown into indictable and non-indictable crimes. In the total number of addicts, it is not known how many have been addicted for the whole year, or merely for one week of that year. This may not be significant for head counting, but it is relevant for any anlysis of the addict population. For 1969 the total number of addicts known was 2881. In 1960 the figure was 437 (see table 1). This is graphically represented by figure 1. Although an increase in the numbers of those addicted has been continuous since 1954, there have been considerable changes in the rates of increase (see figure 2). The number of addicts, 442, for the year 1958 represents an increase of only 83 in actual numbers over the previous year, but an increase of nearly 25 per cent. By 1963 the numbers of addicts was rapidly increasing, and is noticable on the graph

1. Graph showing the Number of Addicts Known to the Home Office, 1945-1969



2. Graphs showing the log of the Numbers of Addicts Known to the Home Office, which reveals their rate of increase 1945-1969



of figure 1. The rate of increase in 1963 over 1962 was in fact 20 per cent, and of 1964 over 1963, 18 per cent. By examining the rates of increase rather than the gross figures it is evident that a sharp increase in the rate of addiction closely follows the contours of the spread of addiction outlined above. Also it indicates a rise in the rates of addiction before such a movement is clearly visible from the graph of actual numbers, and recently a sharp fall in the rate of increase which will, I feel, eventually emerge as a plateau or slight fall in actual numbers.

Finally, table 2 shows the relationship of the rates of addiction in Britain and the United States to countries with high addiction rates.

While considering, in the next section, literature which bears on the subject of drug addiction, it would seem worthwhile to refer to the above account of the development of addiction in the U.S.A. and the United Kingdom, in order to provide a factual framework with which to temper them.

Table 2

Number and Rates per Million of Known Narcotic Addicts, in those Countries with a Substantially Higher Rate of Addiction than Great Britain.

Country	No. of addicts (approx)	Rate per Million Population	Comments
GB (1966)	1,300	25	Mainly heroin
Canada (1965)	3,600	180	Mainly heroin Includes cannabis
Germany (1964)	4,350	80	Mainly synthetics and morphine. Includes amphetamines
Japan (1964)	9,400	100	Mainly opium, morphine and heroin
Hong Kong (1965)	10,900	2,900	Mainly heroin
Korea (1964)	15,000	540	Mainly heroin
USA (1964)	55,900	290	Mainly heroin
Iran (1965)	100,000-200,000 (est.)	6,550	Est. 95 per cent opium, 5 per cent heroin.
India (1964)	136,000 - opium 200,000 - cannabis	290 420	

Source: Summary of Annual Reports of Governments relating to opium and other Narcotic Drugs 1964. Commission on Narcotic Drugs 1966.

Taken from: Drug Addiction. Office of Health Economics. 1967.

PART II

Introduction - The Research Model

"The model for the proper way of performing this function (research) is as familiar as it is clear. The investigator begins with a hunch or hypothesis, from this he draws various inferences and these, in turn, are subjected to empirical test which confirms or refutes the hypothesis. But this is a logical model, and so fails, of course, to describe much of what actually occurs in fruitful investigation. For research is not merely logic tempered with observation. It has its psychological as well as its logical dimensions". (Merton 1968).

The following account of a research project does not follow the "proper model", that is, the logical model, for research. As Merton (1968) has said "in purifying the experience, the logical model may also distort it. Like other models it abstracts from the temporal sequence of events". Not only does it abstract from the temporal sequence of events, it specifically denies the concomitants of the temporal nature of research, for by stating that theory should preceed hypotheses, and fieldwork merely be employed to confirm or refute them, it assumes that after the initial statement of theory no other contribution is made to the field by anyone else, or that the researcher stands forever firm on his first analysis. Either that, or part of the model should include the stricture that the researcher must not read anything which bears in any way on the research being undertaken.

In the case of the research being described at present, the fieldwork alone took two years, during which time new material was published or came to my attention, and the theory on which the research was originally based crumbled when subjected to continuous refinement in the light of more searching criticism and fieldwork experience.

It would be neither fruitful nor honest rigidly to adhere to the logical model of research since changes in the theoretical model are so great. Nor would it be profitable, or indeed possible since a diary of the research was not kept, to present a strictly historical account of this research. Even the apprentices have more in common with Koestler's sleepwalkers than either the logical or Archimedean models would suggest. Indeed, perhaps inexperience of the process of research will lead to even greater confusion and the exploration of more tangential concepts and ideas, than the research warrants.

It is therefore proposed to grace the remembered reality with some form, but at the same time to try to avoid too great a distortion.

The theory is therefore presented in two sections, one comprising the theory with which this research commenced, the other with the theory which was a product of it. As far as possible the transition between the two has been explained, if not always adequately. In this section, therefore, is presented the theory on which this research was based, together with a review of most of the relevant literature.

This is followed in the next section, by a description of some of the problems caused by trying to operationalise this theory, a statement of hypotheses and a description of the design of the attitude questionnaires and interview schedule, which were intended to test the hypotheses. A description of the sample and sampling procedure is followed by a report on the fieldwork and data-collection and this is followed by further criticism of the theoretical framework in the light of the fieldwork and the reformulation of the theory and presentation of new hypotheses.

5. A Critical Review of the Literature relevant to the Understanding of the process of Addiction, and the presentation of a Conceptual framework for the study of Addiction

Inevitably, as any study has to make what are ultimately arbitrary decisions concerning its limitations, so with a review of the literature arbitrary decisions concerning the relevancy of certain material must be made. Because this is a sociological study, it is rooted firmly in sociological theory, and approaches drug addiction through the sociology of deviance.

Emphasis will therefore be placed on the theories and explanations which look at deviance in terms of properties of the cultural and social structures, rather than theories which emphasise the deviant motivation or deviant personality of the actor. However, as Cohen (1966) has pointed out "We do not oppose sociological explanations to psychological explanations; they are not rival answers to the same questions, but answer different questions about the same sort of behaviour. However, they are obviously closely related, and not any theory on one level is compatible with any theory on the other. Psychological theories have implications on the sociological level, and every sociological theory makes assumptions, explicitly or implicitly, about the psychological level".

Theories and findings from studies with a psychological approach will be considered later in relation to the classical sociological theories of deviance to see to what extent if at all they offer support for this analysis or if in fact there is any evidence to suggest that the explanation is inadequate.

The form of the following chapter might be thought to be a little unusual. It has been decided to present the theory on which this research was based, and to relate other theories to it, mainly because of the paucity of other relevant literature.

It soon became evident, even from a cursory examination of the literature that most theories of deviance are not in fact really concerned with deviance per se - and consequently with conformity - but with specific actions which are labelled as deviant, and even more specifically with actions which are labelled as criminal. Much of the literature is not concerned with developing a theory, as Cohen (1955) did in "Delinquent Boys" or Goffman (1963) in "Stigma", or even with relating a description of behaviour to some existing theory such as that provided by Lemert (1958) in his "The systematic cheque forger". The concern of many authors seems to be to provide basically straightforward descriptions of events, such as those which occur in "The Social Integration of Peers and Queers" (Reiss, 1961) "Booster and Snitch" (Cameron, 1964) "The Short Con Man (Roebuck and Johnson, 1964) and "The Electrical Conspiracy" (Smith, 1961).

Also, very little of the theory of delinquency is directly relevant to an explanation of addiction, and many studies of addicts are no more than descriptions of certain traits, characteristics or attributes of a very few hospital patients or prison inmates.

The sociological theory on which this research was based is derived from Robert Merton. Merton's theory itself is based on the concept of anomie, which was used originally by Durkheim (1897) and developed by Merton (1938) and further extended by him (1949, 1957, 1968) to account for deviant behaviour, of which drug addiction is one form.

Briefly, Merton states that the goals of society are predominantly those of the middle classes, which comprise such goals as status and economic wealth. The means of achieving these goals are, however, unevenly available in society. The result of this mismatch between goals and means, is a strain towards anomie or breakdown of values and beliefs.

His analysis rests on a distinction between the cultural and social structures. "Cultural structure" he states "may be defined as that organised set of normative values governing behaviour which is common to members of a designated society or group". An essential part of the cultural structure he sees as "culturally defined goals, purposes and interests, held out as legitimate objectives for all or for diversely located members of society". The main goals in American society he sees as those associated with gaining economic wealth.

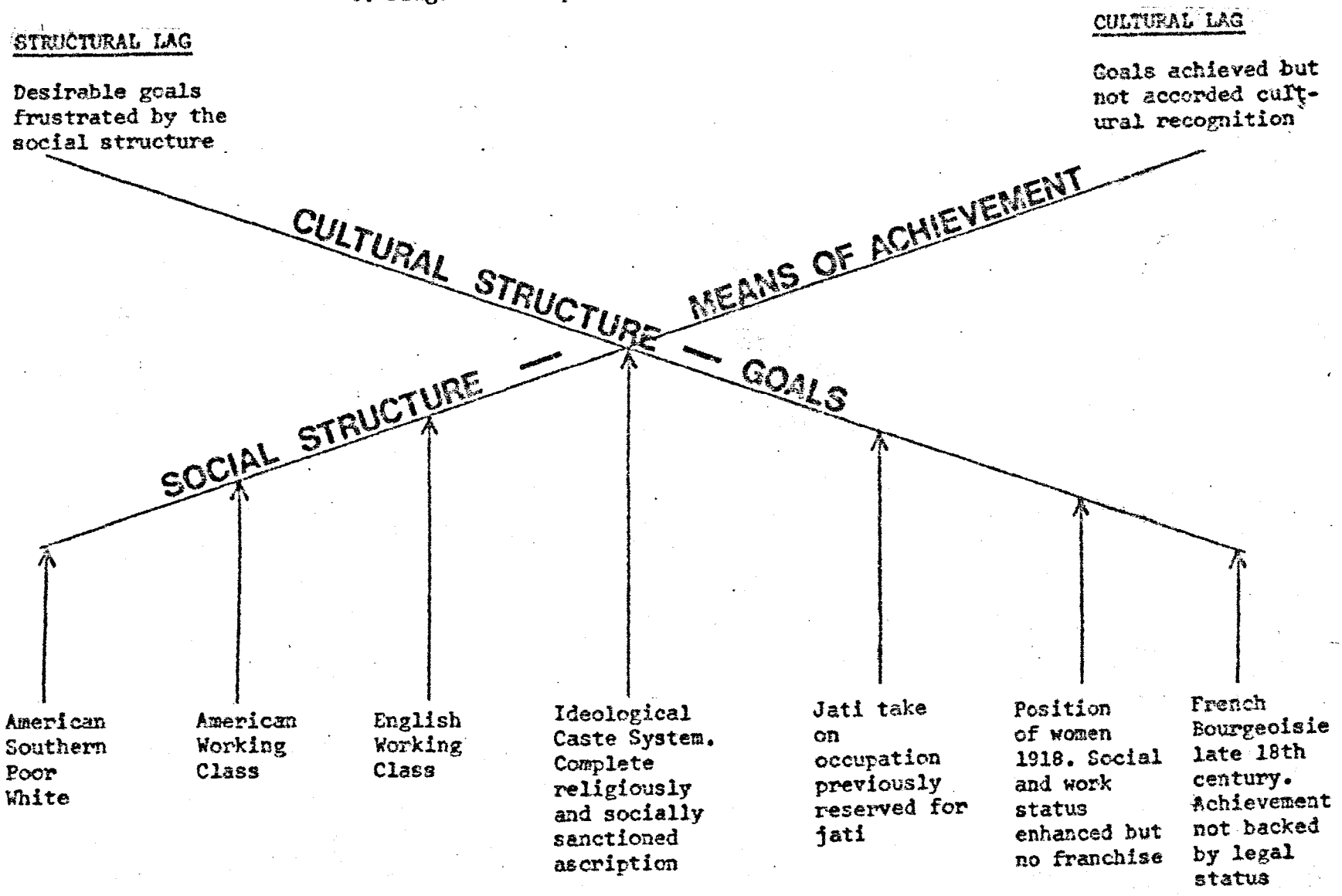
By "social structure is meant that organised set or social relationships in which members of the society or group are variously implicated. Anomie is then conceived as a breakdown in the cultural structure, occurring particularly when there is an acute disjunction between the cultural norms and goals and the socially structured capacities of members of the group to act in accord with them". He continues, "Emphasis on dominant success goals has become increasingly separated from an equivalent emphasis on institutional procedures for seeking these goals".

Although never presented by Merton in this way, it seems possible to represent the above theory diagrammatically (see figure 3) and in doing so to emphasise the level of generality of his theory.

Merton did however present the following typology of modes of individual adaptation to the strain towards anomie. There are five possibilities, he claims, which he represents as follows, in terms of the acceptance (+) or rejection (-) of cultural goals or institutionalised means.

MODE	OF ADAPTATION	CULTURAL GCALS	INSTITUTIONALISED MEANS
I	Conformity	+	+
II	Innovation	+	-
III	Ritualism	-	+
IV	Retreatism	-	-
V	Rebellion	±	±

3. Diagramatic Representation of Mertonian Theory



It should be noted here that Merton's types of adaptation refer to role behaviour in specific types of situation, not to personality and that people may shift to different forms of adaptation in different spheres of social activities.

Dubin's (1959) development of Merton's typology by distinguishing between institutional norms and institutional means, does not affect the category of retreatism. He does however point out that the typology is "not of how deviant behaviour occurs, nor why it occurs. It is simply a descriptive typology on the range of mutually exclusive types of non-conforming behaviour".

The fourth type of adaptation, retreatism, Merton describes as that of the "socially disinherited". In this category he puts artists, psychotics, outcasts, vagrants, chronic drunkards, and drug addicts. "They are in society but not of it... Their adaptations are largely privatised and isolated rather than unified under the aegis of a new cultural code", (1957). Retreatism occurs, he maintains, when there is continued failure to near the goal by legitimate means and there is an inability to use the illegitimate route because of internalised prohibitions. "This process occurring while the supreme value of the success goal has not yet been renounced". The conflict is resolved by abandoning both precipitating elements, the goals and the means. "The escape is complete, the conflict is eliminated and the individual asocialised", (1957).

Merton's theory was amended by Richard Cloward (1959) and further developed by Cloward and Ohlin (1960). They develop, amend and expand Mertonian theory particularly in regard to differential access to the opportunity structures. Merton in fact talked only of the opportunity structure, meaning the legitimate opportunity structure. Cloward and Ohlin developed this by including the ideas of the "Chicago School" as represented by Sutherland, Shaw and McKay.

The cultural transmission theory of Shaw and McKay (1931 and 1942) was developed in order to account for the phenomenon that certain areas of the city of Chicago had very high rates of delinquency when compared with the rest of the city, and that these areas persisted as high delinquency rate areas despite a complete change in the ethnic group composition of that area. They found that crime and delinquency had become "more or less traditional aspects of the social life" and that "these traditions of delinquency are transmitted through personal and group contacts", (1931). In fact a distinctive delinquent culture was passed on from one member of a group to another, and from older delinquents to the younger ones.

Edwin Sutherland also took the view that delinquency was learned behaviour. "Criminal behaviour is learned in interaction with other persons in a process of communication... The learning includes (a) techniques of committing the crime... (b) the specific direction of motives, drives, rationalisations, and attitudes... The specific direction of motives and drives is learned from definitions of the legal

codes as favourable or unfavourable... A person becomes delinquent because of an excess of definitions favourable to violation of law over definitions unfavourable to violation of law", (1955). A theory still supported by many, such as Cressey (1952) and Glaser (1962).

Implicit in cultural-transmission and differential association theories is that access to the illegitimate opportunity structure itself is a variable. "In this sense, then, we can think of individuals as being located in two opportunity structures - one legitimate, the other illegitimate. Given limited access to success-goals by legitimate means, the nature of delinquent response that may result will vary according to the availability of various illegitimate means", (Cloward and Ohlin (1960, p.152)).

These illegitimate means, in turn, are determined, they argue, by the social milieu. "The social milieu affects the nature of the deviant response whatever the motivation and social position (i.e., age, sex, socio-economic level) of the participants in the delinquent subculture... We should expect the content of delinquent subcultures to vary predictably with certain features of the milieu in which these cultures emerge". p.160. They then go on to discuss the specific social conditions which account for the emergence of three basic type subcultures, which they call the criminal, the conflict, and the retreatist subcultures. It is the retreatist subculture which will be examined here.

While discussing the definitions of retreatism of Merton they develop a point implicit in Mertonian theory, although not expressed as such by him, which seems to be important. The point that they make is that if the legitimacy of existing institutional arrangements are not called into question then their own adequacy is called into question, and failure is interpreted as a result of personal deficiences. This in turn will produce intense anxiety and guilt which can be resolved by withdrawing, retreating, abandoning the struggle. However, they maintain that most drug addicts had a history of delinquency prior to addiction, and do not have favourable attitudes towards conventional norms. They therefore suggested that these addicts might have tried an illegitimate route to success, but failed "for prestige is by definition - scarce". They are therefore "double failures". Merton's original statement then becomes amended to read "Retreatism arises from continued failure to near the goal by legitimate measures (sic) and from an inability to use the illegitimate route because of internalised prohibitions or socially structured barriers, this process occurring while the supreme value of the success goal has not yet been renouned", p.181.

Arising from this they claim that two general classes, each containing two types, of retreatist can be identified. These are displayed below.

RETREATIST ADAPTATIONS

Basis of illegitimate Opportunity Structure	Restrictions on use of illegitimate means: Internalised Prohibitions	Socially Structured Barriers
Violence	I	III
Criminal means	II	IV

These two general classes of retreatists therefore comprise: "those who are subject to internalised prohibitions on the use of illegitimate means, and those who seek success-goals by prohibited routes but do not succeed". By also introducing a distinction within the illegitimate opportunity structure between the means employed - use of violence or criminal means - in fact four classes of retreatist are identified.

This is not to say that all "double failures" will become drug addicts, but simply that they will be more vulnerable.

The process of becoming an addict suggested by Cloward and Ohlin is that an adolescent failure will turn to drugs as a solution to his status dilemma, and his relationship with his peers consequently becomes more attenuated. Since drug use is not generally a valued activity by gang members, "once disassociated he may develop an even greater reliance upon drugs as a solution to status deprivations".

From this theory then, there emerges a description of an addict as someone who has rejected the goals of society, and the means of achieving these goals, either because after finding the legitimate route to success blocked he was unable or unwilling to try the illegitimate route, or because despite trying an illegitimate route - whether criminal or violent - to achieve success, he failed.

The Mertonian concept of retreatism seems similar to Parson's concept of withdrawal, but Parson describes another interesting category which he calls evasion, (Parsons 1951). In his revised typology, withdrawal is the passive form of rejection, and evasion the passive form of compulsive avoidance responsibility. Although similar to Merton's theory in being based on a confirmity/alienation axis, Parsonian theory is different because of its concern with personality and "need-dispositions" of individuals. Merton does in fact use the term anomie, and Parsons alienation, but Parsons' definition of alienation as "the negative component of such an ambivalent motivational structure relative to a system of complementary expectations". In another sense, it can be said that Parsons has extended the ideas of Merton. The need for security in the motivational sense is, he claims, the need to preserve stable cathexes of social objects including collectivities, and the need for a feeling of adequacy is the need "to feel able to live up to normative standards of the expectation system, to conform in that sense". Alienation becomes a reaction to

disillusionment, the feeling that there just "isn't any use in ego trying to do his part, because 'what do I get for it?'" Parsons therefore asserts that alienation is the problem of adequacy, but does not restrict this to achievement orientations but includes ascriptive patterns, and consequently the obligations of a given status.

Mainly because of Parsons' concern with the individual and with individual motivation, most of his theory is or can be expressed in terms of roles. Alienation is for example "the attitudinal manifestation of role ambivalence" and this ambivalence can be caused by role conflict or inconsistent roles. It seems that Parsons' theory must be examined because of its bearing on Merton's, for in order to test Merton's theory it must be brought to the level of roles and role conflict.

However, no more than a few ideas are taken from Parsons, because unfortunately his theory rests four square on an equilibrium theory of society, with man viewed in Hobbesian terms - as a pathological deviant who needs to be kept in place by controls of society.

To return however to the category of evasion. This seemed an interesting category because conflict could be solved by avoidance. Applying this to Merton's theory, it would have to be subsumed under conformity, since no rejection of goals or means was involved, and yet does not seem to be what Merton meant by conformity. Another concept of Parsons would seem to be of use here - that of the sick role.

He pointed out, (Parsons 1951) that "being sick" is in fact a social role, and not just a "condition". He maintains that there are four aspects of the institutionalised expectation system which are relevant to the sick role. These are, firstly, the exemption from normal social responsibilities, according to the nature and severity of the illness. Secondly, the sick person cannot get well by "pulling himself together" by an act of decision or will. Thirdly, there is the definition of sickness as something undesirable and consequently the sick person has an obligation to get well. Finally, part of the role definition contains the obligation to seek technically competent help. "Illness" says Parsons "may be treated as one mode of response to social pressures, among other things, as one way of evading social responsibilities. We may say that illness is partly biologically and partly socially defined. Participation in the social system is always potentially relevant to the state of illness, to its etiology and to the conditions of successful therapy, as well as to other things".

There can, of course, be many criticisms made of Parsons' rather rigid definitions, and also of the use of the concept of sickness at all when dealing with the subject of addiction. The disease concept of alcoholism, drug addiction and even delinquency can be very misleading. Definitions of sickness vary greatly not only from one society to another - as drug addiction is regarded in this country as an illness, but in North America as a willful wrong act - but within

a society as well. The class differences that Margot Jefferies (1965) noted in the use made of the National Health Service, for example, might also reflect class differences in the definitions of sickness, and also perhaps in the definitions of "technically competent" persons. A technically competent person is always assumed by Parsons to be a member of the medical profession, but for many illnesses, self-treatment would be the norm.

The definition of someone as sick ultimately relies for its legitimisation on the opinion of a second person, but initially a claim is often made by the subject that he is ill. In the case of drug addicts, alcoholics and many delinquents and criminals, they might find the concept of sickness useful for diminishing the culpability of their actions. Being sick, removes some of the responsibility, stigma and blame from the subject, and is useful for the medical profession since they have a vested interest in defining people as sick. It is also useful for other people and institutions in society because responsibility for an individuals action is abrogated in favour of the idea of disease, arising from "badness" or "the luck of the draw".

Nettler (1961) questions the conception of evil action as sickness. "Having 'advanced'" he says "beyond blaming the bad man for his moral depravity the middle class investigator proposes to treat him for his sickness. The proposal is emboldened by the optimistic assumption that goodness and health... are reciprocally related.

With faith so set, it follows that evil may be cured, like other infirmities and that an important part of the cure lies in the bad, sick man's taking psychotheraputic exercises in correct perception - of what he has done, and why, and how people 'really' are as opposed to what he thought they were".

In the United States there still seems very little legitimisation for the drug addict to regard himself as sick, but since 1926 in the U.K. addicts have been defined by the medical profession as sick. It is therefore probable that some addicts see themselves in these terms. In order to tap this dimension of addict identification the concept of the sick role was added to Mertonian theory, while at the same time the usefulness of labelling any deviant as sick, is questioned.

Many studies of addiction tends to support - or at least do not contradict - the theory outlined above, although they do not usually express it in the same terms, nor do they present such a complete theory. The similarity however, could be a result of the tautological nature of the definition of retreatism, or because of the high level of generality of the theory, or because it is correct. The tautology in the definition of retreatism occurs because most drug addicts are in a position where they cannot achieve the goals of economic wealth or prestige, but according to Merton they become addicts because of this inability, and the following rejection of goals and means. Merton in fact describes retreatism in terms of something which is its cause.

It could also be argued that the level of generality is so great that the theory is only applicable when discussing whole societies and in comparing one with another.

Mertonian theory, has however, in relation to behaviour other than addiction, come in for some severe criticism. The criticism seems to be focussed at more than one level, and can be characterised as follows: firstly that directed against functional theory per se; secondly, criticism aimed at the basic propositions about the nature of society which underlie his theory; thirdly criticism based on the application of the modes of adaptation to non-conforming behaviour in general, such as crime; and fourthly, application of the theory to specific types of behaviour, such as delinquency or drug addiction.

There have been many criticisms made of functional theory per se, of which Merton's theory is one example - notably from Dore (1961) Jarvie et al (1965) and Sorokin (1966). Most of the criticisms here are based on the argument that functionalism relies on teleological reasoning as a substitute for explanation. This certainly seems to apply when trying to establish goals and means, and also, as argued above, in trying to define retreatism. While admitting specific areas of vulnerability to this argument in Merton's theory, it does not seem to be as conclusive as its proponents would argue.

The second type of criticism is exemplified by criticisms of his concept of the structure of society. These criticisms are specifically aimed at Merton's theory, and are mainly concerned with

the definitions and prevalence of certain goals and values.

The first criticism inevitably revolves around his conception of society. He sees certain values and goals held in common by most members of society, and a society so middle class dominated that their goals become the goals of the rest of society. If this is supposed to be an accurate representation of society, then it can only be thought so on the most general level. Lemert (1966) puts this point forward when he describes the difficulties of identifying a set of values or cultural goals which could be considered universal in most modern complex industrial societies. He believes that "ends sought" grow out of the nature of associations, "the multivalue claims made on individuals and the influence of modern technology".

The traditional English working class values and goals are quite different from say the professional middle class, (Willmott 1966, Young and Willmott 1957, Klein 1965 Firth et al. 1970). In American society perhaps status and money are the only goals which can be seen to apply in any general way to most of the population, if only because the population is so large and so diverse. This does not mean, however, that these goals are of equal importance to everyone, or even that the same criteria for the evaluation of goals are used by the people. The differences between groups might be greater than their similarities, and consequently an emphasis on similarities will lead to an inaccurate picture being presented. In the Italian or Jewish communities for example, status might be sought within that community, or only by that

community standards. Therefore a pharmacist might choose to own his own shop rather than to work for more money with a large company, or a chemist prefer to stay at a University rather than to go into Industry.

This leads inevitably to the second criticism of Merton, namely what are really goals. Turner (1954) explains. "Thus in American Society the pursuit of money (an end) without respect to the approved means can be called an excessive emphasis on goals. But it is equally logical to insist that money can be regarded as a means toward more ultimate goals such as happiness and that the excessive pursuit of money is a concentration on the means at the expense of the ends".

Clinard (1964) summarises many of the criticisms of Merton, two of which are mentioned above, but he outlines many more. He says for example that many claim that Merton's theory "conceives of an atomistic and individualistic actor who selects adaptations to the social system", particularly in fact Cohen (A. Cohen 1965). The results of this conception of individual action, is that there is a lack of stress placed on the interactions with others who serve as a reference group for the actor. As a result also, the deviant act is "seen as an abrupt change from the strain of anomie to deviance". Besides, as Clinard points out, "many deviant acts can be explained as part of role expectations rather than disjunctions between goals

and means". Cloward and Ohlin's version of Merton's theory has been particularly criticised, he maintains, for being largely culture-bound. Nor does it state clearly the success-goal aspiration of slum boys, and it barely recognises, he says "the extensive violation of ethical and legal norms in the general adult society among all social classes". He cites his own work on the black market (1952) and Sutherland's on white collar crime (1949) to illustrate his latter point.

Cohen (1955) claims that Merton's theory fails to take account of the "destructiveness, the versatility, the zest and the wholesale negativism which characterises the delinquent subculture". The delinquent, reaction-formation against middle-class values. "The member of the delinquent subculture plays truant because 'good' middle-class (and working-class) children do not play truant". The gang in fact legitimises this reaction, and also serves the function of legitimising aggression.

The argument is continued by a reply from Merton (1964) but rather on the basis of who said what, that a discussion of explanatory systems.

Cohen's explanation of delinquency itself receives severe criticism, especially from Kitsuse and Dietrick (1959). They maintain that the working class boy's ambivalence towards the middle class system does not provide the psychological conditions which would

warrant the use of the concept reaction-formation. Also they claim that he presents a misleading view of the activities of a delinquent gang. Gangs are not, they state, wholly concerned with non-utilitarian, negativistic activities. They suggest that the motivations for participation in a gang are extremely varied, but the behaviour learned through the gang is met by rejection and the limitation of access to the prestigeful status of the middle class. Gang members' response to this hostile rejection of the standards of respectable society and an emphasis upon status within the delinquent gang.

Further, Cohen's position is not supported by research findings from Reiss and Rhodes (1963) Gordon et al. (1963), Short (1964) or Short and Strodbeck (1965).

Short, (1964) for example, reports that "contrary to expectations drawn from Cohen, Cloward and Ohlin and Miller, our gang boys gave evidence of recognising both the moral validity and legitimacy of middle class values. Short and Strodbeck's findings stress the immediate nature of status needs within the gang, rather than status needs in relation to the rest of society. "The behaviour of gang boys may be understood as an attempt by these boys to seek and create alternative status systems in the form of a gang".

The above studies are concerned with delinquency, and usually only mention drug addiction in passing. Although they criticise Merton's theory in its application to delinquency, this criticism is still important, because not only does it question the

validity of specific applications of Mertonian theory, but the whole basis on which the theory is based.

Specific and detailed criticism of the application of Merton's theory to drug addiction seems limited to one main paper by Lindesmith and Gagnon (1964).

In this paper they point out that addiction to drugs has not always been deviant. "Since the theory of anomie" they continue "is proposed as a theory of deviance, and since some drug use is not deviant, the theory can hardly be relevant to the nondeviant portion". This nondeviant addiction they in effect, claim to have two sources. One is in the normative structure of society, where, as in Jamaica, smoking marijuana is "normal". They fail, however, to distinguish between drug use and addiction, and between what is socially acceptable and socially desirable. Also, as with many authors, they make a distinction between the street addict and those who become addicted through medical prescription. In this instance, as will be argued later, the distinction is totally false.

"If anomie accounts for the present pattern of rates", write Lindesmith and Gagnon "what accounted for the very different patterns of the previous century and why did the change occur? Can we assume that middle-aged urban and rural women of the middle-classes during the past centuries were especially influenced by anomie, as the young, delinquent, urban male is now said to be?" But as they pointed out

earlier, attitudes toward drug taking are not static, and also the knowledge of drugs and recognition of addiction might not be present.

They argue that the incidence of drug addiction is explicable more in terms of access to drugs rather than changes in the level of anomie. They point out that a change of policy - the banning of heroin in fact increased its use. This increase they claimed, followed directly on the banning of the drug, rather than on any detectable major shift in the amount of anomie in the social structure.

The fact that heroin addiction in America tends to be associated with the socially depressed and particularly negro ghetto areas he explains by suggesting that poor policing of negro areas combined with the fact that negroes would be under a greater pressure than whites to find a source of income, whether legitimate or not, would lead to their retailing of drugs. From this situation they argue there follows increased availability, leading to increased experimentation and subsequent addiction. Apart from their incredible interpretation of the development of addiction in America, and in effect suggesting differential association as a cause of drug addiction, they also manage to misrepresent Merton. Merton himself says that the strain towards anomie is differentially distributed throughout the social system, and that access to different means of adaptation are also differentially distributed. A change in the law would, as Lindesmith and Gagnon point out, change the access to heroin, but this does not mean to say that access is a sufficient causal explanation.

It could be argued, for example, that addicts were, before they had access to heroin, adapting in some other way to the strain toward anomie. The increase in the supply of heroin merely provided another and perhaps even more successful form of adaptation. This is not to suggest that this is believed to have been the case, but this example was used to demonstrate the extremely narrow interpretation of Merton's theory provided by Lindesmith and Gagnon, and their complete disregard of the functional alternatives.

They further argue that "the assumption that addiction is precipitated by failure in the criminal or delinquent world is dubious, because if they were unsuccessful before addiction they would be equally unsuccessful after addiction. Since it has been estimated that addicts stole goods to the value of $45 million in Chicago in one year, they claim that this proves that addicts are successful. Even if such an estimate could be accepted as accurate, the argument is still totally irrelevant since success, whether for a delinquent or drug addict is not solely determined by the amount of money he can steal, nor should failure as a delinquent mean failure as an addict, since it is more than possible that the same criteria are not employed for the evaluation of success, nor the same skills needed for each role.

"It is still necessary to distinguish" they write "between those who are failures because they are addicts, and those who are addicts because they are failures. Addiction may generate and intensify anomie rather than be caused by it, so also it may be argued that

addiction is more potent as a cause of failure, than failure as a cause of addiction". They argue that anomie will follow addiction, since rather than resolve inner conflict, it creates such conflict by widening the gap between aspiration and means of achievement.

It has been pointed out earlier that the difficulty in distinguishing between the cause and effect in Merton's definition of retreatism lay in the definition itself. While the point is valid, the conclusion that Lindesmith and Gagnon come to is not. Merton states in his theory that both cultural goals and the means of achieving these goals are abandoned in a retreatist form of adaptation. Therefore, if the gap between these two did widen there still could be no increase in the level of conflict as a result, since the discrepancy between goals and means is only relevant to someone for whom these are significant. By definition, the retreatist no longer holds these to be relevant.

Further criticism comes from Lindesmith and Gagnon on the basis that not all addicts have abandoned the goals of society, but many are "responsible, productive members of society, who share the common frame of values, who have not abandoned the quest for success and are not immune to the frustrations in seeking it". They cite the cases of Thomas De Quincey and Herman Goering in support of this argument. These do not seem to be the most appropriate examples of drug addicts striving for success in achieving socially acceptable goals by socially acceptable means. They continue this line of

argument by claiming that the theory does not take account of doctor addicts. Such addicts, they claim, often use drugs for instrumental rather than retreatistreasons, such as to relieve chronic pain or to reduce fatigue. They say that Winick (1961) failed to confirm that doctor addicts were less successful than their non-addict peers. However, instrumental reasons that were given for taking drugs could equally be rationalisations, and it seems irrelevant if doctors were no less successful than their peers, if the gap between aspirations and achievement still exists. According to even Winick, such a gap existed in 24% of the cases which he studied. A similar criticism was also made by O'Donnell (1964, 1968) in regard to a sample of "caucasian Anglo-Saxon Protestants from families long established in Kentucky". He found that both the families of addicts and the addicts themselves had higher social statuses than among the Kentucky population as a whole, and concluded that "the blocked opportunity theory received no support from the findings". Achievement is, however, not absolute and must be related to aspiration. O'Donnell completely ignores the concept which would in fact explain most of his findings, that of relative deprivation.

The use of drugs to achieve any form of escape from reality is also challenged by Lindesmith and Gagnon (1964) on the grounds that for regular users euphoria does not occur, "The paradox anomie theory faces is that while opiates can be used for retreatist motives, they are used in this way primarily by those who are not addicted to them".

In fact, the reverse of this statement would seem to be the case. Although drug addiction does not produce euphoria, it does produce a numbing effect, both of the emotions and physical stimulii. Heroin is, in fact, the most powerful analgesic known so far. Only those who use opiates occasionally, achieve a state of euphoria, but they appear to use opiates for this purpose, and not for any retreatist reasons. Those who are addicted find that opiate use cuts them off from unpleasant experiences, and indeed with constact with reality. A use of opiates in keeping with the concept of retreatism.

Many of the criticisms of the concept of retreatism as applied to drug addicts unfortunately rest, it seems, on a misunderstanding of functional theory in general, and Mertonian theory in particular. This is not, however, to say that all the criticism is unfounded. They do pose some genuine problems, particularly regarding the universality of the theory's applicability to drug addicts, and in illustrating the culture-bound nature of the theory itself.

Also, the problems still remain as to whether anomie is a consequence of the strain between goals and means of achievement in the social system; whether addiction is a form of retreatism; and whether retreatism is a reaction of the strain towards anomie. One could also perhaps add the question of whether anomie was a meaningful concept to use in the first place.

Other Theories of Drug Addiction

The majority of studies on the subject of addiction are concerned with the personality of the addict, and in particular with measuring specific personality traits, rather than presenting a theory of addiction. These studies often consist of stating a set of necessary and sufficient preconditions for addiction - without any distinction being made between these two, and yet with the implication that these statements consitute a theory. There is usually displayed the conspicuous absence of a debt to Hume, since there seems to exist the assumption that frequent conjunction of two observations represents cause and effect.

The literature can be roughly divided into five categories, each based on the main theoretical approach used by the authors in their explanation of addiction.

Firstly, there are those explanations which associate particular personality types with addiction. These are mainly psychoanalytically based approaches.

Secondly, there are those theories which suggest a physiological basis for addiction.

Thirdly, there are those theories which offer a psychological basis for explanation of addiction - such as operant conditioning.

Fourthly, there are the sociological theories which explain addiction in terms of forces in society itself acting upon the individual to determine modes and rates of action. So far only

Merton can be found as a representative of this type of explanation, and

Fifthly, those theories which move away from the simple cause/effect type of explanation towards one suggesting a process dependent on the interaction of certain variables.

Theories Based on the Personality of the Addict

"The major emphasis to date on research on narcotic addiction has supported the addiction-prone personality theory". (Gendreau and Gendreau 1970). However, as they also point out the sampling procedure employed and the selection of control groups leaves much to be desired, and after a re-examination of data, they come to the conclusion that there can be no support for such theories.

To grace many of these studies with the label of theory, stretches the meaning of theory beyond any accepted limit. Personality based studies are at the same time most numerous and least rewarding - full of data but no theory. They are not theories of addiction but descriptions of measured characteristics of addicts. Most of these studies start with unwritten assumptions about the nature of deviance in general and drug addiction in particular, and therefore do not look beyond personality traits as a means of explanation. Therefore most of the studies of the personality of addicts will not be dealt with here, but included in the next section dealing with the findings from various studies on certain variables attributed to the addict population.

Most studies of the personalities of addicts suggest or imply that there is a direct relationship between a particular type of personality - or cluster of certain attributes - and being an addict. The exact nature of the relationship between addiction and personality type is not always, or even usually specified, but the majority, if not all are psycho-analytically based. By drawing on material in the general field of criminology it is possible to outline the types of explanation which may be implied or assumed in many studies.

These appear to be three main types of psycho-analytic explanation. The first two types are what Walker (1968) has termed behaviour-specific and personality-specific. The third type is represented by frustration-aggression theories of behaviour.

Behaviour-specific theories seek to explain the nature of the act itself, whilst personality-specific theories try to account for the development of a particular type of personality which is likely to commit particular kinds of acts.

In the general field of the theory of deviance, Friedlander (1944) and Glover (1960) follow the tradition of Aichhorn (1935) and of course Freud in offering behaviour-specific types of explanation. These usually attribute deviant behaviour to the repression of a traumatic incident in childhood, the unconscious desire for punishment arising from unconscious guilt, a displaced form of otherwise natural activity, the symbolic expression of some suppressed desire or in effect the utilisation of any of the mechanisms of ego defense.

Personality-specific theories, or as Cohen (1966) calls them, control theories, seek to explain deviant behaviour in terms of a defective development of the personality. Superego weakness or defect may occur according to Cohen (1966) in any of the five following ways "(a) the failure of the superego to develop at all, resulting in a person devoid of moral sense or, as he is sometimes called a 'psychopathic personality'; (b) a weak,sporadically functioning, easily neutralised superego; (c) a superego that forbids the expression of antisocial impulses against members of one's in-group, but permits their free discharge against outsiders as in Jenkins' typology" (1947) ..." (d) a superego that is otherwise more or less intact, but contains gaps or 'superego lacunae', that interpose no effective barrier to certain kinds of deviant impulses;" and finally "(e) a superego that is itself delinquent".

A defective or weak ego is generally assumed to be the result of an inability to temper "the pleasure principle" with the "reality principle". Again according to Cohen (1966) "a 'weak' ego signifies, among other things, an inability to subordinate impulses, to defer gratification, and to adhere tenaciously to a rationally planned course of action.... What this ego is, however, and how this versatile organ does all the things that are attributed to it, is a fairly obscure subject". This ego defective type of explanation has been even more vaguely termed "impulse disorder" (cf. Nyswander 1956).

The third group of theories also stem from the work of Freud, but received their fullest exposition in the work of Dollard and others (1939) before being applied by Henry and Short (1954) as the explanation for a pattern of behaviour - that of suicide and murder. They are the frustration-aggression theories, and state that frustration usually, or, in the case of some versions, always, produces aggression, and that aggression usually or always is the result of frustration. Indeed, Dollard et al. (1939) go so far as to claim "All the factors which have been found to be casually related to criminality derive this connection because of implying directly or indirectly, on the part of the offending individual either higher-than-average frustration or lower-that-average anticipation of punishment". Maier and Ellen (1959) have refined the theory by characterising certain types of response as being generated under either conditions of frustration or motivation. Apathy, stubborness and immaturity in behaviour being generated they believe by frustration. The authors do not, however, overcome the problem of the cyclical nature of this type of explanation. "If 'frusgration' and 'aggression' are interpreted broadely enough", writes Cohen (1966) "these theories can be (they have been) used to explain almost every kind of deviant behaviour". Drug addiction is no exception and could be interpreted as a form of displaced aggression against the self.

One theory of addiction which manages to incorporate all three types of explanation - moving from one to another and back again

without any noticable difficulty - is that supplied by Menninger (1938).

Menninger maintains that addiction to drugs is psychologically similar to addiction to alcohol, and that this latter addiction "can be considered a form of self-destruction used to avert greater self-destruction deriving from elements of aggressiveness excited by thwarting ungratified eroticism, and the feeling of a need for punishment from a sense of guilt related to the aggressiveness". Drug addiction for Menninger is a form of chronic suicide and while it cannot be denied that particularly the death rate and probably the suicide rate amongst present day English and perhaps American addicts is higher than for comparative age and social groups in the rest of the population (James, 1967, Helpern, 1968, O'Donnell, 1964) there seems little justification for labelling all addicts as chronic suicides without including all smokers, car drivers, pedestrians, astronauts, and all services personnel. Further, from what is known of the opium addicts of the nineteenth century, many lived a very long life indeed, (for example De Quincey till he was 74 and Coleridge till 62), and the high suicide rate associated with addiction seems to be fairly recent phenomenon.

As stated previously, most "theories" which suggest an addiction-prone personality fail to state the relationship between addiction and personality. "The major emphasis to date on research on narcotic addiction" say Gendreau and Gendreau (1970) "has supported the

addiction-prone personality theory - i.e., that persons who have taken narcotics had specified psychological weaknesses, which were satisfied by heroin (other substitutes are codein and Demerol)". This argument still does not suggest how and why some people should be more susceptible to drug taking. The particular aspects of personality which are held to be so deterministic of this one particular form of behaviour have been variously labelled and described.

Gendreau and Gendreau (1970) summarise them as follows: "The 'addiction-prone personality' has been variously described as being (a) inadequate and passive, with associated neurotic traits (Ausubel 1958; Eveson 1963; Gerard and Kornetsky, 1955; Gilbert and Lombardi 1967; Hill, Haertzen, and Davis, 1962; Nyswander, 1956; Savitt, 1963; Scott, 1963; Wikler, 1952; Wikler and Rasor, 1953; Yahraes, 1963; Zimmering, 1952); (b) psychopatic (Felix 1944; Gilbert and Lombardi, 1967; Hill, Haertzen, and Glaser, 1960; Olson, 1964, Stanton, 1956); (c) less psychopathic than non-addict control groups (Gerard and Kornetsky, 1955; Hill et al., 1962; Zimmering 1952); (d) sexually maladjusted (Hoffman, 1964; Letendresse, 1968; Nyswander, 1956; Wikler, 1952; Zimmering, 1952); and (e) prone to anxiety and depressive traits (Ausubel, 1958; Eveson, 1963; Gilbert and Lombardi, 1967; Hill et al., 1962; Van Kaam, 1968; Wikler and Rasor, 1953)."

Most of the above mentioned studies are, however, merely descriptions of addict personality traits, and not theories. Such

an approach, though of a more sophisticated kind than is usual, is that exemplified by Kolb (1962). Starting with his 1925(b) typology, he pares it down until there is nothing left except meaningless phrases.

The original typology he describes as comparising the following:-

1. Mentally healthy persons who had been addicted accidentally or necessarily through the use of narcotic drugs in the treatment of illness.

2. Hedonistic individuals who before and after addiction spent their lives devoted to pleasure, new excitements and sensations. Their instability was expressed in mild infractions of social codes.

3. Psychoneurotics who exhibited mild hysterical symptoms, various phobias and compulsions, and other neurotic pathology.

4. Habitual criminals with severe psychopathology which was expressed in extreme anti-social behaviour.

5. Addictive personalities who had an ungovernable need for intoxicants.

These five categories of addicts, Kolb believed, were true in 1925, but not later, for he lists .1. Psychoneurosis, 2. Character disorder. 3. Personality disorder and 4. Inadequate or sociopatic personality, which also become abbreviated to three (by omitting personality disorder).

The usefulness of such terms as "inadequate" and "Character disorder" are discussed later. Kolb does, however, make an interesting comment on the people who become addicted through medical treatment. (As opposed to self-treatment). He claims that "nervous instability" was "an important causative factor" in their addiction, and that 67.2 of those who were medically induced addicts were psychoneurotic or psychopathic before addiction. It is interesting that this category of addicts so often called "normal" in the literature, may not be quite so normal, or their addiction quite so accidental as has been heretofore supposed.

Two studies which might more justly be labelled theories, and bear a closer examination, are those of Ausubel (1958) and of Chien and his colleagues (1964).

Ausubel (1958) maintains that he can "classify drug addicts on the basis of personality predispositions". He develops a typology of addiction "in which opiates have specific adjustive value for particular personality defects; symptomatic addiction... in which the use of opiates has no particular adjustive value and is only an incidental symptom of behaviour disorder; and reactive addiction in which drug use is a transitory developmental phenomenon in essentially normal individuals influenced by distorted peer group norms". Primary addiction Ausubel feels is divided into two sub-groups - that of the inadequate personality, what he terms "motivational immaturity" and the

anxiety and reactive depressive states. Those who comprise the first group, he argues, are people who fail "to conceive of himself as an independent adult and fails to identify with such normal adult goals as financial independence, stable employment and the establishment of his own home and family". The second group, he believes, are the product of unsatisfactory parent-child relationships resulting from either parental rejection or acceptance for extrinsic considerations producing in the child high ambitions to compensate for intrinsic lack of self-esteem.

The term "inadequate" occurs in the literature with remarkable regularity, but unfortunately its meaning is neither clear nor constant. I would like to suggest that an inability to cope with situations - the way the existence of an inadequate personality is usually demonstrated would owe more to the learning process and the situation itself, rather than any general trait of inadequacy. Further, it would seem that the more complex the society, and the more complex the roles, jobs, and situations with which people have to cope, pari passus, the greater will be the number of people who cannot cope with everything all of the time. It would seem a more significant contribution towards the understanding of certain forms of deviant behaviour to explain why, specifically, such inadequacy arises, and why the result should be a particular form of behaviour, for most studies seem to ignore the question why drug addiction and not some other form of deviant behaviour, or why deviant

behaviour at all. Inadequate also seems to mean to Ausubel, anyone who does not develop a "normal" superego, and who fails to accept all "normal" social goals. A most unusual interpretation of this term.

It is also interesting to note that Ausubel's emphasis on unfilled or unrealistic high ambitions could be re-interpreted in Merton's terms, and it could be argued that Ausubel has mistaken an effect of the social structure for an effect of personality. Briefly, he assumes that it is the individual with too high a set of ambitions rather than the social structurepreventing their fulfilment. It can be argued that whatever the cause, the result is the same, but this seems only true in the case of retreatism, for someone with equally high ambitions as the potential drug addict might choose innovation as the means of achieving his goal. To say that he will not, but will become an addict means that something is being said about the opportunities of action available and the individual's willingness to use them, which means, in turn, that something must be said about the individuals interpersonal response traits. To embrace all this with the term inadequate, seems to me to be an inadequate explanation.

Symptomatic addiction occurs, he says, as a non-specific symptom in aggressive anti-social psychopaths. He is someone who fails to internalise any obligations whatsoever. "He is remorseless, predatory, and incorrigible delinquent full of contempt for others and driven by hostile, aggressive impulses and deep-seated resentment". Again he is describing in the same terms what has been previously labelled as

behaviour resulting from a defective superego. Symptomatic addiction does not seem to be a different type of addiction to primary addiction, but merely a matter of degree.

Reactive addiction he describes as essentially an adolescent phenomenon, and a response to transitory developmental pressures. Like truancy and delinquency, he says, "it is expressive of a general anti-adult orientation characterised by defiance of traditional norms and conventions, and flouting of adult-imposed rules and authority". Again he describes people who do not accept the norms and values of society, but maintains that it is a temporary adolescent phenomenon, and are only taking heroin, not really addicted to it. If they are not addicts then I do not understand what they are doing in a typology of addiction, or how they can be meaningfully distinguished from the other categories except on the grounds of youth. The age differences, if they exist, could equally be a product of an earlier state in the cycle of addiction, such as that suggested by Scher (1966), than a different type. It is interesting that Ausubel should recognise the social aspects of addiction only in the last type and in none of the former ones.

Chien et al (1964) also emphasised personality characteristics in their typology of addiction, but not to the exclusion of all other variables. They describe what they call "the major varieties of adolescent opiate addicts in terms of the following schema".

1. Overt schizophrenia

2. Incipient schizophrenia, or "borderline", status.

3. Delinquency-dominated character disorders

    a. pseudopsychopathic delinquents

    b. oral characters

4. Inadequate personalities

While they claim that the above schema is only a general description of a clinical population and does not "do justice to the individual differences among the cases", they nevertheless reached the conclusion that "the addiction of the adolescents we have studied was an extension of, or a development out of, long-lasting, severe, personality disturbance and maladjustment". The reservations about their schema are in fact not those concerned with the importance played by the personality but based on the emphasis of the uniqueness of individuals. A not unexpected approach from people who choose a psychoanalytic framework of explanation, but of little significance to those interested in the patterns of human behaviour.

These suffering from "overt schizophrenia" Chien et al describe as displaying "flattened affect, severe thinking disorders, delusions of reference and grandeur and withdrawn social behaviour", while those diagnosed as "incipient schizophrenics" were "struggling against an actively disorganising and disruptive process in which they experience extreme anxiety related to feelings of inadequacy and

lowered self-esteem... Through moralistic struggling toward conventional goals in work, marriage and education, they were unable to carry out the required role relationships". Although the terminology is different the ideas are not unlike other theories already described.

The third personality they describe consists of those who they think are trying to repress and deny wishes for passivity by taking on roles in which they define themselves as dangerous criminals. It is as difficult to disprove as it is to prove such statements because the interpretation of motive is independent of the individual's own explanation and almost independent of action. For example, someone could claim to be a dangerous criminal because

(a) he was trying to deny a desire for passivity and dependence

(b) he thought that he would gain status from significant peers or others

(c) he wanted to amaze/frighten/kid the investigator

(d) he was a dangerous criminal.

They do not provide any satisfactory reasons why one explanation should be accepted in preference to any other.

"Oral characters", the second type of delinquency-dominated characters, are described as those who wanted to be "nurtured and cared for" and who react with rage and frustration when refused nurturance, using petty delinquencies to punish and control significant figures.

The "inadequate personalities" were those who showed a "paucity of interests and goals and an impoverishment of thinking and emotional expression". Such characterisation perhaps reflects more on the attitudes of the authors than the personality characteristics of addicts.

They also, however, seem to acknowledge the effect of society on the individual, for they state "both drug use and juvenile delinquency are socially deviant forms of behaviour. Their very existence indicates that the standards which society seeks to impose on all have failed to take sufficient hold". This statement seems to suggest a defective-superego-type of explanation, where elsewhere a defective-ego-type of explanation is offered. It also seems a modification of the position held earlier by Chien and Rosenfeld (1957) where they describe "the addiction-prone adolescent" as someone who "suffers from a weak ego, and inadequately functioning superego, and inadequate masculine identification", and state that "the causes of personality disturbance in juvenile addicts can be traced to their family experiences".

In common with many authors, they mention most of the psychological and sociological variables which could influence drug taking, without presenting any paradigm of the relative importance of each, or the interaction which might occur between them.

Most personality-prone theories rely on the implicit assumption that to reject the predominant goals or values of society is "abnormal" and can only be explained by reference to "abnormal" personality. Both these assumptions I believe to be totally false on the basis that both deviant and non-deviant goals are culturally defined, and that there is little if any evidence to support either the assumptions made about the nature of man and his personality. This is not to say that personality characteristics are unimportant, but that they alone cannot account for any pattern of behaviour, simply because behaviour is patterned, and takes place within a social context, which in turn influences the formation of personality traits.

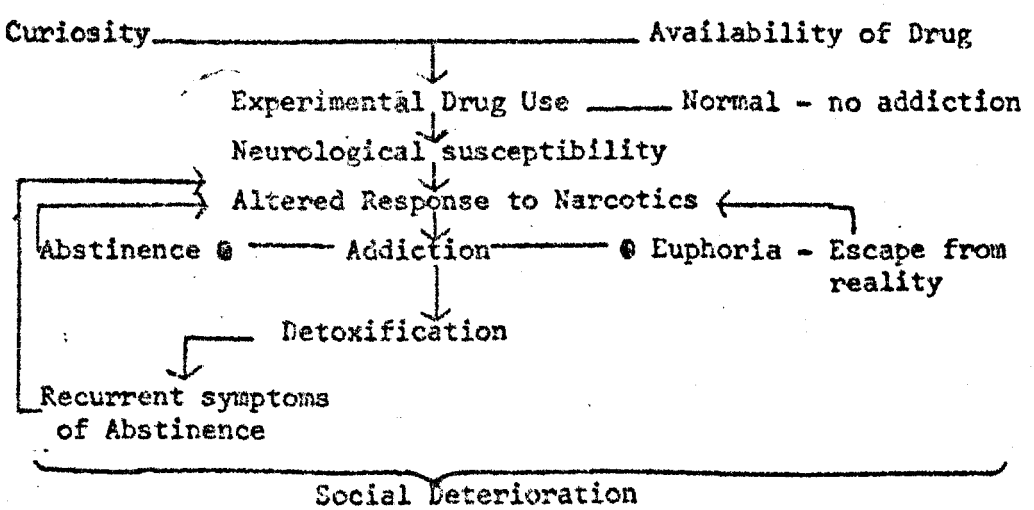
One of Chein's co-authors, Donald Gerard seems later to have changed his mind on the importance of personality factors in addiction, for he wrote "First, addicts are not intrinsically psychiatrically or psychologically discriminable from many other psychiatric patients. Second, there is no specific psychodynamic determination of addiction. Third, there are no psychological traits (test-measured attributes) which can be uniformly applied to addicts. Some are more sociopathic, more inadequate, more anxious, more exploitative, more sado-masochistic and more infantile than other addicts, or than comparison or control groups" (Gerard 1968).

Finally, on personality prone theories, it can be argued that a "non-prone to drugs personality" must also be demonstrated.

However, the conclusions reached by Nyswander (1956) concerning experiments on staff at Lexington, were that anyone could at least enjoy heroin, for "no matter how well he is functioning in society, there is probably no one so free of tension, so immune to anxiety, that morphine will not in time have a pleasant effect on him".

Theories based on the physiology of the addict

I am not aware of any evidence which suggests that the addict is responding to a physiological need, nor does their seem any evidence to support the idea of physiologically based greater susceptibility to certain drugs, sufficient to cause addiction. Dole and Nyswander (1968) suggest what they call a metabolic the..., which they say can be represented as follows:-



They suggest that "addictive traits are a consequence, not a cause of addiction". They emphasise the "metabolic aspects of addiction" because they claim that when addicts are maintained on methadone, and do not have to obtain heroin, criminal behaviour virtually ceased. They believe that the success of their methadone maintenance programme indicates that it is not the pleasant effects of heroin which an addict craves. Because they see deviant personality traits and criminality to be a result of addiction and not a cause of it, they must search for an explanation independent of all these factors. Their solution to this problem was to suggest "neurological susceptibility", whereas Lindesmith's response to virtually the same problem was to suggest operant conditioning.

Theories based on the psychological processes of the addict

One approach to addiction is to regard it as a form of operant conditioning. This is the approach of Lindesmith (1947, 1952, 1966 1968) and more recently by Wikler (1968).

Lindesmith put forward the theory that addiction is due to "negative reinforcement" ... "Persons become addicts when they recognise or perceive the significance of withdrawal distress which they are experiencing and use the drug to alleviate the distress after this insight has occurred....addiction is established in the learning process over a period of time". This idea of addiction is based on his belief that it consists of "a given action rewarded by the elimination of

something unpleasant" and not on the achieving of a pleasurable experience. He argues that the craving associated with addiction can only occur when there is an association learnt by the addict between the distress of withdrawal syndrome and being without the drug, and the relief of this distress by taking the drug.

This seems perfectly reasonable, and it has already been demonstrated in the case of people who used to take patent medicines with a high opium, morphine or heroin content. If a medicine is taken repeatedly to cure some ailment that is painful, and this medicine contains morphine, then the symptoms would be suppressed. If for any reason the subject ceased to take the medicine and withdrawal symptoms appeared, it is more likely that the person would interpret the withdrawal effect to the appearance of the original illness. What is far more difficult to accept is that addiction is solely, or even mainly due to the learning process which associates alleviating the unpleasant effects of the withdrawal syndrome with taking more of the drug concerned. It might be argued that once addiction is established this mechanism reinforces that addiction, but it is difficult to account for why the addict became addicted in the first place, and why, after being free from drugs, they should again become addicted. Lindesmith (1966) claims that this is because "the addict's craving is not a rational assessment or choice of any sort, but basically an irrational compulsion arising from the repetition of a sequence of experiences in a process

like those that lead to the psychologist's conditioned response. In human beings...the craving is symbolically elaborated and response arising from it are directed or controlled by higher cortical processesP. He maintains that Hebb (1949) suggests that human hunger for food is comparable to the hunger for opium, and that both can be controlled by conceptual processes. He also quotes the work of Wikler (1952) and particularly Nichols (1956, 1959, 1962) who found in his experiments with rats that once addicted and withdrawn from the drug, if morphine were presented, they would become re-addicted. However, as pointed out earlier, there may be long term derangement of the homeostasis, and re-addiction be the result of the drive of the secondary abstinence syndrome. Further, it would not be difficult to argue that only a small percentage of those in the United States who claim to be addicts, are in fact physically addicted, in view of the previously quoted opinions on the extent of adulteration of black market heroin. The basic assumption of lindesmith's theory that addicts really are addicted, is, I believe untenable.

Wikler (1968) suggests that there is an interaction between physical dependence and classical operant conditioning in the genesis of relapse. He suggests that relapse may occur after a long period of abstinence because of the "reactivation of neural mechanisms that mediate the morphine abstinence syndrome by environmental contingencies that were frequently associated in time with episodes of acute

abstinence during previous periods of physical dependence. Thus a cured addict, returning to his home environment and encountering or expecting to encounter suppliers of opioids or other "bad" associates, might experience a type of distress that he may not recognise as an abstinence syndrome (conditioned) but which would nonetheless impel him to seek relief by the same means that proved efficacious during episodes of acute abstinence (unconditioned) in the past - self-administration of an opioid". He notes that the natural morphine syndrome itself may be conditionable. The effect of this then is that certain stimuli may produce the conditioned response - the abstinence syndrome.

It is not even necessary for there to be a causal relationship between one event and another, for the belief that such a relationship in fact exists, to occur, as demonstrated by Skinner (1948, 1957). The mistake of assuming temporal conjunction implies a causal relationship is not confined to psychiatrists. They share this mistake with those who indulge in behaviour based on superstition, which in itself varies from not walking under ladders to many forms of religious ceremony. Skinner found that a pigeon in a cage would continuously repeat whatever movement it happened to be doing when food was presented. "The bird behaves as if there were a casual relation between its behaviour and the presentation of food although such a relation is lacking. There are many analogies in human behaviour.

Rituals for changing one's luck at cards are a good example. A few accidental connections between ritual and favourable consequences suffice to set up and maintain the behaviour in spite of many unreinforced instances. Just as in the present case food would appear as often as the pigeon did nothing - or, more strictly speaking, did something else".

There are of course many examples of "superstitious behaviour" ranging from the making of landing strips by members of a cargo cult, the rainmaking ceremony of the Hopi Indians to the near ritual of the "fix" for a junkie. In all three cases, failure to achieve the desired effect is interpreted as a failure accurately to perform the ritual, and does not cast doubts on the efficiency of the ritual itself. One might add that the above explanation seems to apply to the "success" of psycho-analytic techniques particularly in the light of Eysenck's findings, as well as the rain making ceremonies of the Hopi Indians.

While the evidence in favour of operant conditioning is persuasive, it seems difficult to use this theory completely to account for the genesis, continuation and relapse for all addicts. Marsh B. Ray (1961) for example, in effect suggests that an addict relapses because he cannot change his self and total role set of being an addict. Being an addict, he says, "commits the participant in this activity to a status and identity that has complex secondary characteristics". He goes on to suggest that expectations of abstainers may

not be met, and so they question the identity of being a non-addict. "The abstainers' re-alignment of his values with those of the world of addiction results in the redefinition of self as an addict and has as a consequence the actions necessary to relapse". Lindesmith maintains that any theory of addiction should be able to be applied to any addicts, at any time, in any country. He seems concerned to establish a theory of addiction which fulfils these criteria, and claims that his theory based on operant conditioning does just this. However, firstly as Turner (1953) points out "Lindesmith provides us with a causal complex which is empirically verified in retrospect, but which does not in itself permit prediction that a specific person will become an addict nor that a specific situation will produce addiction", and secondly, from the earlier discussion on the growth of addiction in Britain and America, it seems evident that norms must be included as important variables in any theory of addiction, and not simply ignored. Both time and place, the values attitudes, roles and beliefs associated with drug taking - the cultural milieu within which this activity takes place - I believe must be taken into account in any theory of addiction. This is not to invalidate the theory of operant conditioning in its application to drug addiction, but merely to limit the area of action for which it can usefully account.

Also included under psychological theories might be that proposed by Winick (1962) although to call his statements a theory is

perhaps stretching the definition of theory too far. After studying the files of the Bureau of Narcotics Winick noted that first notification of addicts took place in late teens and early twenties, and that their names disappeared in their thirties. Those addicts not reported to the Bureau in the space of five years were presumed to be off drugs. From this "Evidence" he concluded that addiction begins when "problems of sex, aggressiveness and vocation have to be faced", (1957), and ends when the addicts are able to face up to the stresses and strains of growing up. The step from a statement of temporal conjunction to one of causation does not seem too big a one for him to take, since he then goes on to assume that addiction must be the result of adolescent pressures, and hence is caused by them. Ball and Snarr (1969) claim that about one-third "mature out" by the age of 40, but this seems a little late to be overcoming the strains of growing up . In an earlier study (1961) of physicians Winick seems to have come to an equally vague conclusion "These physicians appear to have been addiction-prone through some combination of role strain, passivity, omnipotence, and effects of the drug".

Apart from the dubious accuracy of the figures of the Bureau of Narcotics this theory, as presented by Winick, fails totally even to abide by the canons of logical argument, and must be regarded as an article of faith rather than a meaningful statement aimed at the greater understanding of the process of addiction.

Theories based on an interactionist approach and/or the conception of addiction as a process

Although apparently diverse, the theories in this final section have an important common factor - which is that they get away from the simple cause/effect type of explanation which has so far predominated.

Gerard (1968) suggests an explanatory schema which he describes as "a paradigm in four layers". These are

I Psychic Malaise

II For which relief is sought

III Through ingestion or incorporation

IV Achieving Relief

Of psychic malaise he says "there are persons who cannot tolerate awareness of psychic distres...they fear that the conscious perception of their own distress may arouse aggressive impulses beyond their capacity to control them". He also maintains that pain from emotional problems can arise through an attempt to extract out of a relationship satisfactions which are irrelevant or excessive for the reality.

He explains the second part of his schema as follows:- "in order for the person to initiate the use of opiods, the balance between distress and the forces inhibiting opiod use (law, moral structures and environmental constraints, e.g. time, money and availability) is that distress overweighs inhibition". In a paradigm

presented by Short and Strodbeck (1965) they suggest that many actions within the context of gang delinquency can be understood as the result of balancing the desire for status within the gang, and the punishments offered by society. In both cases, action is the result of the individual weighing the balance of opposing courses of action, and being pressed into, or choosing one.

In the third part of the paradigm he suggests that the individual will take something to relieve distress "alocohol, sweets, eating, vitamins, tonics, etc", and by so doing achieving relief from the pain.

Most of the criticisms levelled at the psycho-analytic theories can be applied to this one. It is interesting in so far that it attempts to delineate the mechanisms of addiction, but I believe that it is only an attempt, and fails to achieve this goal. He does not account, for instance, for why someone should choose heroin in preference to sweets, tonics, vitamins or any of the other substances which he mentioned would relieve "psychic malaise", nor does he define this "malaise" in any but the most general manner.

Alksne et al (1967) suggest a four phase addiction process based on their idea that "just as the non-user builds a tolerance for the use of drugs while adapting to the addiction system, so must he build a tolerance for abstinence in order to adapt to the abstinence system". Rather than seeing many theories in conflict, they suggest

that they are complimentary, and apply to different stages of the addict life-cycle. They set out the life-cycle of an addict as follows:-

The Life Cycle of Addiction

		Addiction Set: Predisposing Social and Psychological Factors	
Pre-drug condition		Initiation to Drug use	Drop-out Variations
PHASE 1	Tolerance for Potential Addiction	Experimentation stage: Irregular drug use Adaptation stage: Regular use Physiological stage: addicted	1. Cessation of Drug Use 2. Long Term Irregular Use 1. Cessation of Regular use 2. Cessation of all use 3. Week-ender
		TRANSITIONAL PHASE 1	
PHASE 11	Tolerance of the Addiction System	Individual and Socio-Cultural Interaction System of Addiction	
		TRANSITIONAL PHASE 11	
PHASE 111	Tolerance for Potential Abstinence	Experimentation Stage: Recidivism Adaptation stage: Chemotherapy or drug substitution Physiological stage: Drug free with with supports	
PHASE 1V	Tolerance of Abstinence	Non-drug use with no need of supports	

People who became addicted, they say, are likely to be those who are socially inadequate with weak egos and difficulty in coping with reality. (Personality-type theory). The addict may also be "imbedded in a family constellation where a dominating, seductive mother increases her control through the pathological manipulation of her son in the face of a weak father or the absence of a father". (Family influences). "Further, there is evidence that inter-generational factors may play a role in the transfer of forms of illness from parents to children (Ehrenwald 1963)". (Learning theory). "It is contended that such delinquency-prone children may be acting out the unconscious wishes of their parents (Kaufman and Reiner 1959)" (Psychoanalytic theory) "This orientation may be re-inforced through the delinquent orientation present in some community groups to which the individual relates (Johnson and Szurek 1952)" (Sub-culture theory).

One could continue in the same vein through much of their article, for they also include the work of Merton, and suggest that addiction might be a form of status achievement within a particular group. They go on to describe in detail their conception of the life cycle of addiction which emphasises the sub-cultural aspects of addiction. Their theory is interesting because it imposes some, albeit strained, overall conceptual framework to the different approaches to addiction. Unfortunately, what it does not manage to do is integrate them, so one is constantly changing from one level and one

type of explanation to another, and in so doing constantly swopping one set of basic assumptions about personality, motivation and action, for another.

Winick (1964) suggested a life cycle of addiction based on his ideas of an addict maturing out of addiction, and Scher (1961, 1967) suggested "patterns and profiles" of addiction, based on in effect, addict life styles.

Scher (1961) argues that the group is the primary inducer of an individual to narcotics. "Addiction often begins innocently as part of the social experience", (1967). He suggests that there are five stages of addiction:-

1. Introduction - acceptance of available narcotic, usually not alone.
2. Continuity - may be periodic, intermittent or continuous, again usually in the presence of one other, but more often in a group.
3. Narrowing - reduction in the number of friends, contacts, etc., getting progressively isolated.
4. Isolation - Narrowing has become maximum and a position of anomie is approximated which may be brief or protracted.
5. Realignment - reorganisation of goals, relationships, and way of life - a re-entry into group experience.

Scher sees involvement in crime as largely irrelevant to addiction and involvement with drugs as arising from part of social experience. This approach is exemplified in delinquency theory with the work of Matza (1957, 1964, 1969). Such an approach I think can only be developed by someone who has studied addiction in an area where there is a very high incidence. Without suggesting that all people who become addicts are motivated to becoming addicts before they do so, narcotics are not always easily available to everyone and therefore the people with the knowledge of obtaining them have to be sought out. Therefore, there must in some cases be prior motivation to addiction. The sub-culture within which addiction is accepted, condoned or highly regarded is liable to change both in composition and in the content of the norms held according to the time and place - the country, previous and present experience with and attitudes towards drugs, etc. Scher's view of addiction therefore seems to be an oversimplification of the variety of addicts, and in fact probably only applies to certain areas in about three American cities, those of New York, Chicago and San Francisco, where most of the American addicts live. Scher also maintains that anomie does not preceed addiction, but that if it occurs at all it is in the isolation stage of an individual's addiction. . It is extremely difficult on a practical level to establish the existence of anomie prior to addiction because one is dealing with

retrospective evidence. On a theoretical level I do not think that Merton has been able to cope with this point adequately, as discussed above, but neither does Scher nor does the latter provide any theoretical backing for his point. He seems in fact to have confused two things; firstly, anomie with isolation, which according to Seeman (1959) is one way of viewing alienation; and secondly, the acceptance of goals of a particular sub-culture with the acceptance of goals of society at large. When Merton wrote of the rejection of goals he stated that it was the goals of society in general with which he was concerned, whereas Scher seems more concerned with the goals of a particular sub-culture.

Freedman's typology (1968) developed from his studies of New York addicts and based on "types of social functioning", that is the efforts of addicts to adapt to their environment, displays a more sophisticated approach, but is limited because it only uses two dimensions, that of criminality and conventionality. It is nevertheless interesting for trying to relate the actions of an addict to his environment rather than treating him as an isolated individual. The typology is reproduced below.

		Conventionality: high	Conventionality: low
Criminality	low	Conformist	Uninvolved
	high	Two-worlder	Hustlers

Theories of addiction now give way to studies of addicts. Whereas some theories of addiction seem to be developed without recourse to the study of addicts, many studies of addicts never concern themselves with explanatory schema or conceptual frameworks. The latter type of studies seem almost exclusively concerned with the discovery and labeling of attributes of addicts according to some standard test or with demographic details of one specific prison or hospital population.

The next chapter is concerned with a description and critical analysis of these studies.

6. A Summary of descriptions of Addicts - their attributes or properties, their families and their background characteristics or variables

A cautionary note must preface the following summary of a number of studies. The problems of sample selection where no adequate sampling frame exists are discussed later on, but it is nevertheless appropriate to point out at this stage the gross biases which can and do occur, of which authors seem only to take perfunctory note, and which may invalidate totally the conclusions reached about addicts in general.

Gendreau and Gendreau (1970) cast considerable doubt on many of the conclusions reached in certain American studies because of inadequate control group samples. Zimmering (1952) for example, using projective tests had a sample of 22 addict subjects and 12 hospitalised non-addict controls, while Hill et al. (1962) selected their controls from a U.S. maximum security prison. As will be argued later, a sample need not be a proportional representation of the total population if content is the main concern. However, particularly in the case of many of the discussions on the criminality of addicts, discrepancies in results can be accounted for in terms of purposive sample selection from different populations.

There is likely to be, and in many cases there is, a considerable difference in results from tests obtained in the United States and in Great Britain. This is not altogether surprising since, as shown above, the cultural and legal context of heroin addiction vary between the two countries, and consequently the significance and cultural interpretation of addiction may vary. For example, because heroin addiction is illegal in the United States, one would expect more addicts to have a criminal record than in countries where addiction and possession of heroin is not necessarily illegal.

Therefore it is with strong reservations about some of the tests and most of the conclusions that the following "findings" are presented.

The Personality of Addicts

In terms of measured personality traits there seems an inability to distinguish between drug addicts, neurotics, mental hospital patients, prisoners or delinquents. Nevertheless claims are made concerning "typical or usual" personality characteristics of addicts, which, it is asserted, can be seen (retrospectively) to cause, or be a necessary precondition of addiction. Schur (1965) for example claims "that the personality type typically exhibited by addicts involves strong dependency needs and pronounced feelings of inadequency". This approach has been discussed above, but the "findings" were not reported in detail. These are now set out below.

The most frequently reported personality test used on drug addicts is the Minnesota Multiphasic Personality Inventory, the MMPI. Hill et al. (1962) and Gilbert and Lombardi (1967) reported significant differences between addicts and non-addicts on the D (Depression) H (Hysteria) Pd (Psychopathic deviate) Mf (Masculinity-femininity) Pt (Psychosthenia) and Ma (Hypomania) scales, whereas Gendreau and Gendreau (1970) found no evidence of any difference whatsoever. They noted that the addict profile, which had elevated Pd and Ma scales was similar to the MMPI profiles of criminals found by Dahlstrom and Welsh (1960). Hill et al. (1960), Olson (1964) and Stanton (1956) also found similar MMPI profiles on narcotic addicts, but as Hill et al. (1960) point out "The fact remains that elevated scores on the Pd scale indicate responses which are deviant from those of the 'normal', middle class group on which the test was standardised". They claim that it is really irrelevant what high scores on the Pd scale are called - psychopatic, character disorder or conduct disorder - for "no matter how closely the behaviour of the addict resembles that of various sub-cultures, in terms of the general population of the U.S., such behaviour represents non-neurotic, non-psychotic deviations in morals, mores, and attitudes toward authority". This I think well illustrates the culture and class bound nature of this test and the abundant confusion as to its interpretation. When this is combined with obviously biassed sampling procedures it is surprising that these

results have been given any credence whatsoever. It must also be pointed out that factor analysis has been used in some studies to identify specific traints, a technique whose use is criticised in this context by Shure and Rogers (1965) on the grounds that it can lead to spurious combinations of results or factors.

The conclusions reached by Gendreau and Gendreau (1970) seem to offer the most accurate assessment of the value of the search for distinct addict personality traints. "The importance of psychological factors in the addiction process are not denied. However to ascribe distinct traits to addicts is discouraged. Although the MMPI in itself is a restricted test of personality, other tests, whether they may be projective, self-concept, or personal construct tests, have distinct restrictions in themselves and the principle of an appropriate control sample still adheres."

Other studies of addict personalities have been even less scientific. Some authors argue that in effect, only people with certain characteristics can become addicts, therefore addicts have these characterisitcs. Rado (1933) for example characterises addicts as people who are socially inadequate individuals with weak egos and difficulties in coping with reality, partly one suspects because he has defined addiction as an escape for people who cannot cope with reality.

Retterstol and Sund (1965), in their study of Norwegian addicts claim that 27 out of 122 had psychopatic personalities, which they seem to regard as an "inclination to an immature attempt to satisfy immediately cravings".

Inability to postpone immediate gratification is not the usual definition of psychopathy, but the description of a trait which has received considerable attention in the literature. There are many theories put forward to account for this particular trait, and suggestions frequently occur in the literature that difficulty in deferring immediate gratification is a precipitating or predisposing factor in the genesis of addiction. Unfortunately this is usually not substantiated in any way. Inability to defer gratification is always assumed to be a result of some personality trait, but this has not been demonstrated to be the case, for it could equally be the result of cultural or social values and goals. Also, there is the assumption, supposing immediacy of gratification is a personality trait, that it preceeds addiction. It could be suggested that the availability of immediate gratification through drugs, and the use of them, might encourage their use, so that drug use would encourage more drug use by demonstrating the immediacy of the gratification.

Laskowitz (1965) reports a study by Gold (1960) which used the Rosenzweig Picture Frustration Test to compare the reactions to frustration of adolescent addicts, and delinquent and non-delinquent

controls. Addicts tended to be impunative, that is avoiding blame and conflict as a result of the frustrating situations, but each of the controls groups tended to be extrapunative, that is blaming other persons or objects for the cause of frustration rather than oneself. When however subjects had to choose between a set of predetermined responses, there was no difference between the addicts and the delinquent controls - both groups preferring impunative solutions. Unless however, such research is linked to the presentation of a theory, it hardly seems worthwhile.

Finally, one small pilot study by Halstead and Neal (1968) indicated that addicts tend to score themselves as neurotic introverts on the Eysenick Personality Inventory.

The Intelligence of Addicts

Criticisms already mentioned of the methods of various studies are particularly pertinent to studies of the intelligence of addicts. This is because of the tendency of authors to extrapolate from their sample to the whole addict population, while at the same time ignoring the effect of narcotic drugs on performance. Macht and Macht (1939) reported that heroin and morphine greatly prolonged reaction time on arithmetic tests, while Christie et al. (1958) found that morphine greatly depressed performance on the Minnesota Rate of Manipulation Test and a research speed and accuracy test, though not to a great extent.

Smith et al. (1962) found significant impairment in the capacity for sustained attention, associative learning, simple computational skills, and speed of shifting from one symbolic task to another. They concluded "Heroin and morphine can produce statistically significant impairment of certain aspects of mental performance, and the overall effect of each drug is definitely one of mental impairment". They also add that the impairment is mainly one of speed rather than accuracy, but since many intelligence tests are timed any slowing down in response rate will effect the results.

For most of the intelligence test carried out in the United States, the above reservations do not apply, because tests are carried out in hospitals or in prisons, by which time the subjects are ex-addicts. Most of the American studies then are on drug free subjects, but in some cases methadone is being given as part of treatment. This however does not apply to studies conducted in Britain where addicts tested in hospital conditions are likely to be still receiving drugs, while those tested in prison are likely to be drug free. Because of the effects of opiates on performance there seems little value in testing addicts while still addicted, unless it is proposed to test them again when or if they are drug free.

One of the earliest studies of the intelligence of drug addicts was that of Kolb (1925a), who obtained the following results using the Stanford-Binet test.

Score Range	Frequency Total
Below 70	10
70 - 75	10
76 - 85	14
86 - 95	38
96 - 105	20
106 - 110	7
above - 110	1
	n = 100

The hundred subjects tested by Kolb were from one hundred and fifty examined by him. In this 150 total, there were 20 professional men, but only two were given intelligence tests. The sample of 100 did not even represent the 150 addicts seen by Kolb, let alone the whole population of addicts. The Wechsler-Bellevue Intelligence scales have been used in many studies of addicts. Brown and Partington (1942) used the scales when they came to the conclusion that the intelligence of addicts was average when compared to the general population, but unfortunately their sample can hardly be said to represent the addict population since the cohort with the highest sample frequency was 40-49 years. Gerard and Kornetsky (1955) using the same test on adolescent addicts and controls found that whereas controls scored higher that addicts, the median score difference was

not great.

	Median	Range
Addicts	101	82-133
Controls	108	88-127

Hill et al. (1960) however report that Belleville using the same test on Lexington inmates yielded a mean of 97, while Lascowitz (1965) reports that from his studies at Riverside "The functioning of white male and female addict groups is consistent with expectations based on Wechsler's norms for Verbal, Performance and Full Scales". For non-Caucasion addict groups there is also "no significant difference on the Performance Scale, i.e. when the penalising influence of poor verbal skills is minimised (Laskowitz, 1962)".

Laskowitz also points out that a comparison of mean scores for white female addicts with a comparable group of white female delinquents studied by Vane and Eisen (1954) reveals no significant difference between the two groups.

Gendreau and Gendreau (1970) used the Beta I.Q. test on Canadian addicts, and found that they ranged from "dull normal to very superior" with a mean of 104. Finally two British studies, one on subjects who were taking drugs at the time of testing (Halstead and Neal 1968) found a mean of 66.7 and standard deviation of 29.3 for Raven's matrices and a mean of 59.2 with a standard deviation of 26.2

for a verbal ability test. The scores being recorded in percentiles with 50 being the median score for the standardised group. The other on 14 boys in a London remand home (Noble 1970) yielded a mean of 104.6 with a S.D. of 7.74.

Further doubts must be expressed on the usefulness of the above results in addition to those already mentioned. Firstly, it is difficult to draw any overall conclusions concerning the intelligence of addicts when the tests themselves vary and the data is presented in different forms. Secondly, over time, as already demonstrated, the composition of addict groups changes considerably, and thirdly, it is certainly possible that the most appropriate statistics have not always been used in analysing the results of the tests. If, for example, a distribution were bi-modal, neither the mean nor median would provide a meaningful average, because a measure of central tendency would not be appropriate. Unfortunately most studies do not mention the distribution of scores, something which in itself might profit from investigation, for the assumption of a normal distribution might not necessarily hold.

The Family Background of Addicts

"All juvenile addicts are severely disturbed individuals... The causes of personality disturbances in juvenile addicts can be traced to their family experiences. The family life of the addict is

conductive to the malformation of the growing personality", (Chein and Rosenfeld 1957). This typifies the approach by those who maintain the existence of an addiction-prone personality of addicts. The exact nature of the family experiences which lead to the development of a particular type of personality and from there to addiction are not often specified, nor is any attempt usually made to explain why from apparently similar backgrounds people should develop in different ways, or of people with apparently similar personality traits, some become addicted while others do not.

Much of the evidence for the conclusions drawn by many authors is from interview material and case notes, many of which are written up in case study form, (Gerard and Kornetsky 1954b, Macdonald 1965). The disadvantage of this approach is that many authors maintain a fictional concept of "normal", and it could be argued that no family would be described as normal in every respect, and many which appear so, are revealed after lengthy investigation to present an image gravely at odds with reality. (As for example shown by Laing and Esterson in "Sanity, Madness and the Family (1964)).

It is extremely difficult to evaluate research findings which rest on an undefined and unsupported base line. However, there is a similarity in many of the descriptions of the family life of addicts, though the proportion of addicts who are claimed to come from such homes varies from author to author.

A weak father and over-protective mother are the two main characteristics of an addict's family which are commonly described by various authors. O'Donnell (1968) claims that many addicts never achieve independence from their parents, while Gerard and Kornetsky (1955) maintain that the "ambivalent mutually destructive, excessively close and dependent relationship between (the patient) and his mother (is)... a major dynamic factor in his opiate use". Alksne (1967) describes a "dominating seductive mother" who "increases her control through the pathological manipulation of a son in the face of a weak father or the absence of a father". The same type of family situation is also described by Fort (1954) in the following terms; "The mothers... were as significant by their ubiquitous and all-embracing presence as the fathers were by their absence. In most cases they were over-protective, controlling, and indulgent".

The lack of adequate masculine identification by male addicts reported by Zimmering et al. (1951, 1952) Gerard and Kornetsky (1954a, 1955) Chien and Rosenfeld (1957) is generally attributed by the authors to the lack of an adequate male figure with which to identify.

However, Retterstöl and Sund (1965) found that in Norway there was no high frequency of children of divorced parents among his sample, only 14% "lacked parental images". He found that 55% came from a relatively normal home, which is similar to Pescor's finding of 54% (1938). Knight and Prout (1951) claim unstable home conditions

in two generations among 44 out of 75 addicts, and Kolb (1925c) maintained that 14% of the addicts whom he studied were "normal", while McLaughlen and Haines (1959) say that the majority of hospitalised addict patients whom they studied came from broken homes.

Finally, a twelve year follow-up study by Vaillant (1966) and Vaillant and Brill (1966) of New York drug addicts revealed that whereas prior ability to hold down a job and an intact home before six, together with late age of onset of addiction were positively correlated with eventual abstinence from drugs, family pathology, amount of drug used and previous criminal behaviour were not related at all.

The importance and extent of abnormal family relationships apparently varies according to the approach of the investigators, and the time and place of sample selection. It is by no means certain that the people who became addicted in 1925 had any common personality characteristics with those who were addicted in 1970, nor addicts in Britain with addicts in the United States. In the light of the earlier description of the development of addiction in Britain and the United States, and the different role that even the same drugs may play in different societies, the assumption of comparability which is implicit in the majority of studies must be challenged, and I believe, rejected.

The Demographic and Social Background of Addicts

The changing demographic and social composition of addict groups and the differences between the United States and Britain

illustrate the dangers of direct comparison. For reasons already discussed it is difficult to obtain reliable figures for even the total number of addicts in the United States, so that a demographic breakdown is even more elusive. Rasor (1968) quotes figures compiled by the Federal Bureau of Narcotics showing the supposed racial and age breakdown, but not the social class of the addicts. The racial and age composition of the estimated 57,000 addicts in 1965 is as follows:-

Negro	51.5%	Under 21	3.4%
Mexican	5.6%	21 - 30	46.5%
Puerto Rican	13.1%	31 - 40	37.7%
Other White	29.1%	Over 40	12.4%
Other	0.7%		

The age groupings for "criminal addicts" (that is in this case any addict who is not defined as medical or professional) in Canada for 1969 were as follows:-

Under 20	1.5%
20 - 24	9.8%
25 - 29	17.9%
30 - 34	16.5%
35 - 39	13.8%
40 and over	29.1%
Unknown	11.4%

There are no racial breakdowns of the British figures, and the age categories are different, with no percentage calculations, but the latter defect can be rectified. Taking also the year 1965, and the year 1968, the last for which figures were available, the following table is the result:-

	1965	1968
Under 20	15%	28%
20 - 34	36%	55%
35 - 49	14%	5%
50 - and over	35%	10%
Age unknown		2%

The sex distribution of addicts has changed, and is changing over time, and as a reflection of changing attitudes towards addicts and the changing composition of the addict groups.

According to Kolb (1962) in the United States, women exceeded men by about 2 to 1 prior to 1915. Since the passing of the Harrison Act the ratio of females to males changed to about 1 to 5. Ellinwood, Smith and Vaillant (1966) found in their study at Lexington a ratio of 1 to 4, and in Britain the figure is roughly 1 to 3.5, based on the 1968 figures for total known addicts. Using the same figures (see Table 1) it can be seen that in Britain in 1936 the ratio was 1 to 1, and although the total number fluctuated, the ratio showed only slight fluctuations, sometimes in favour of males, at other times in favour

of females. It is only in 1963 and the following years that the ratio of females to males shows a proportionately increasing ratio as total numbers increased, so that whereas for 1963 the ratio is 1.to 1.1, for 1964 it is 1 to 1.2, 1965 1 to 1.5, 1966 1 to 1.9, 1967 1 to 2.7 and 1968 1 to 3.5. The figure for Canada for 1969 is 1 to 2.3.

It is even more difficult, however, to discover the social class of drug addicts, but from the nature of the sampling procedures usually employed, it seems reasonable to assume that most of the information available scales down the social class levels of addicts. This occurs for two reasons. Firstly, because many researchers seem reluctant to regard medical or professional addicts as "real" addicts. When referring to addicts, it is "the addict in the street" who is regarded as forming and symbolising the "addict problem", and therefore the group who receive the most attention. Secondly, assessment of an addict after establishment in an addict group is not always the best indicator of the social class from which he came, or towards which he was working prior to addiction.

A study of patients at Lexington by Ellinwood, Smith and Vaillant (1966) shows the following class distribution. (As measured by their father's occupation)

	Percent	
	Male	Female
Professional	5	10
Clerical	29	13
Semi-skilled	31	37

	Male	Female
Unskilled	17	20
Mostly Unemployed	5	13
Unknown	13	7

However, all one can be sure of is that this represents the class distribution at Lexington 1964-1965, and although it seems to indicate a concentration of addicts coming from the upper working class and lower middle class section of the population, the trend is not so clear when the proportions are compared to those in the general population. In Canada, for example, the official figures from the Division of Narcotic Control reveal a strong combination of class and occupational groupings, 23% of the criminal addicts are listed as labourers and unskilled, and 7% as skilled workers. However, the occupational groups of "housewife", "transportation and service industries", give no indication at all as to the class of the people with occupations in these groups. There is also a very large "unknown" percentage (33.3), which unless this can be shown to be random, the figure must be assumed to be biassed.

Another way of skewing the class distribution is to only include addicts in a restricted geographical or class area.

Ball (1965) for example claims that there was, and still to a lesser extent is, two distinct patterns of addiction: the first is that of the addict who buys heroin on the black market and lives in the slum district of a large city which is characterised by high population

density, and mobility, and by high crime and disease rates. The second is that of the medical or self treatment addict, who obtained drugs from largely legitimate sources and is restricted mainly to "Caucasians, much of it in small towns". In Lexington, he says that it was known as the Southern White Pattern. In a follow up study of addicts in Kentucky, O'Donnel (1964, 1968) claims that the "Education of parents, occupation of fathers and educational and occupational status of the subjects themselves were higher than among the Kentucky population as a whole". Any studies of addicts in New York reveal exactly the opposite picture, for only together can they provide a comprehensive picture. The trend, however, according to Glaser and O'Leary (1966) is the concentration of drug use among minority groups, especially Negroes in the worst slums of New York and Chicago, by Puerto Ricans in New York's slums, and by Negroes, Mexican Americans and lower-income whites in the Southwest and in California. It seems probable that the social composition of the addict population will change according to changing social attitudes, and the social position and opportunities of the groups most involved in drug taking. Because in the norther United States drug addiction is at present associated with depressed minorities in urban slums, this does not mean that these conditions are essential for addiction to occur.

In Britain, all that can be gained from the figures supplied by the Home Office is that in 1968 43 out of 2782 addicts came from

the medical or allied professions. Below is shown the social class distribution of addicts as presented in three studies, two of which used very small numbers, perhaps not enough to be representative of the total population. The classes are those defined by the Registrar General.

	Study i	Study ii	Study iii
Class I	2	0	1
Class II	23	2	3
Class III	52	9	4
Class IV	)	)	8
	) 23	) 5	
Class V	)	)	2
n =	100	16	18

Study (i) was by Hewetson and Ollendorf (1964), study (ii) was by Glatt et al. (1967) and study (iii) by Noble (1970).

On very slender evidence it would seem that the American social pattern of addiction is not mirrored in Britain.

The Criminality of Addicts

The question of the criminality of addicts has drawn many opposing views, both on the question of whether addicts are criminals apart from drug law violations, and whether they were criminals prior to addiction.

Most often differences in findings on the degree of addict criminality can be accounted for in terms of differences in sampling

procedure, and in the different legal basis of the addict in Britain and America.

In America, for example "the illegality of purchase and possession of opiates and similar drugs makes the drug user a delinquent ipso facto. The high cost of heroin... also forces specific delinquency against property, for cash returns.... One may say that the specific symptom of habituation to opiates necessarily leads the youthful user, because of the legal and financial implications, to a syndrome of activities which establish him firmly outside of the legitimate pursuits of his peers". (Chein and Rosenfeld 1957). This in fact confirms Pescor's (1938) findings from his 1936-37 study at Lexington, and is a view shared by Schur (1962).

According to Chein and Rosenfeld, then, addicts must be delinquents in order to maintain their addiction. One might argue however, that this only applies to addicts whose access to drugs is through delinquency. If for example access to drugs is through work, such as in the cases of nurses, pharmacists, doctors or dentists, then the "delinquencies" would consist of stealing drugs or falsifying records. If the drugs cannot be obtained legally, then by definition all addicts are criminals, since they commit a crime. If involvement in a criminal sub-culture is to be part of the definition of a criminal, then addicts are not necessarily criminals, nor are road traffic offenders or embezzlers. Although the distinction is not always

possible, it would seem more worthwhile to distinguish between those crimes directly associated with addiction, and those not so associated.

According to Cloward and Ohlin (1960) delinquency is not merely a necessary concomitant of addiction but in many cases, a necessary precondition. If their "double failure" hypothesis is correct, then addiction may be the result of failed delinquency, and therefore preceeds addiction. They cite Kobrin (1953) in support of their point, who is quoted as follows "Persons who become heroin users were found to have engaged in delinquency in a group supported and habitual form either prior to their use of drugs or simultaneously with their developing interests in drugs". Ausubel (1958) however, believes that reports of addict criminality are exagerated. The Federal Bureau of Narcotics claims that over three quarters of the addicts known to them have criminals records, but Ausubel suggests that the Bureau itself may be biassed, and often over stringent in its definition of criminality, including "minor violations implicating most slum-dwelling adolescents" under the umberella of criminality. He cites Dai (1937) and Pescor (1938) as examples of studies which have found that three quarters of their subjects were not criminally involved prior to addiction, and concludes "The figure of 25 per cent who do have preaddiction criminal records is not excessively high for a population that is largely slum-urban". While the Bureau of Narcotics certainly overestimate the proportion of addicts with criminal records prior to addiction,

Ausubel probably underestimates the amount of criminal involvement by looking at studies which only took into account the criminal records of addicts.

The Bureau of Narcotics in 1938 claimed that "it can definitely be concluded that drug addiction is one of the later phases of the criminal career of the addict rather than a predisposing factor". This belief is developed by the Bureau's head, Harry Anslinger, who also specifies the type of crime committed by the addict. "The great majority of drug addicts are parasitic. This parasitic drug addict is a tremendous burden on the community... He is a thief, a burglar, a robber: if a woman, a prostitute or a shoplifer", (Anslinger and Tompkins 1953). Finestone (1957b) however, gained the impression that addicts were "petty thieves and petty 'operators' who, status-wise, were at the bottom of the criminal population or underworld... The typical young junkie spent so much of his time in a harried quest for narcotics, dodging the police, and in lockups, that he was hardly in a position to plan major crimes". From a study of police records he also concluded that addicts tended to commit, when compared with the total criminal population, proportionately more non-violent property crimes and proportionately fewer violent offenses against the person. Lawrence Kolb (1925b) claimed that the physical effects of heroin were such as to "change drunken, fighting psychopaths into sober, cowardly, non-aggressive idlers". This is not supported

by O'Donnell (1966) who found no evidence to support the hypothesis that there was a decrease in crimes of violence after addiction.

Many of the discrepancies of earlier studies are shown by O'Donnell to probably be the result of a changing pattern of addiction. Although, for example, 63 per cent of the men had no arrests before they became addicted, crimes before addiction were found to be inversely related to the age at which addiction began and year of addiction. Those addicted before 1920 comprised 95 per cent of persons without criminal record prior to addiction, whereas those addicted between 1950 and 1959 comprised only 53 per cent non criminal pre-addiction. The conclusion reached by O'Donnell was that the more recent the addiction, the more likely the subject was to have a criminal record, and also "the younger a man was at the onset of addiction the more likely he was to have committed criminal acts before addiction". He also concluded not only that there was an increase in the criminal activities of addicts after addiction but that this increase was greater than could be predicted from previous criminal records.

The studies of Dai and Pescor were conducted on samples collected in 1930 and 1936 respectively, and their conclusions concerning the low pre-addictive criminality of addicts is in keeping with O'Donnell's findings for people addicted at about the same time.

His findings are equally consistent with Finestone, Vaillant, Chein and Cloward and Ohlin who all found a high degree of pre-addictive criminality, because all these studies were concerned with urban adolescent addicts. The differences which do occur can be attributed to the fact that in O'Donnell's study the sample came from Kentucky and in the other studies from large cities, where, in the latter case one would expect to encounter a higher crime rate.

The conclusion then must be that criminality is neither a necessary nor sufficient condition for addiction, nor a necessary concomitant of addiction. The varying rates of criminality of addicts seems to reflect changes in attitudes and values, and perhaps addiction becoming desirable to a group of people who previously would not have become addicts. Changing attitudes to addiction might push many into a life of crime who could have avoided it under previous conditions, and the groups with traditionally high crime rates, the young, urban, poor, found drugs more available and desirable.

Addicts in the Medical Professions

Most of the studies already discussed have chosen their subjects from the young delinquent urban poor. Members of the medical professions who become addicts are usually not included in these samples, often because it is claimed they are not "real" or "street" addicts, that they are a different type of addict and should therefore be dealt with separately. The main reason, I believe, for the treatment of the

medical profession addicts as a different type of addict has more to do with the fact that many of the investigators are members of the medical profession themselves, rather than any important intrinsic differences between these addicts and the "street" addicts.

Members of the medical profession, - pharmacists, doctors, dentists and nurses - who become addicts tend to differ from other addicts in many ways, but it is suggested that the similarities are more significant and important than the differences, although it is the differences between professional addicts and others which have received the closest attention.

Pescor (1942) for example lists seventeen points of difference between physician drug addicts and "typical ordinary" addicts, which have in general been supported by other studies, in part or whole. (Winick 1961, Ehrhardt, 1959, Modlin and Montes, 1964, Putnam and Ellinwood, 1966 and Hill et al. 1968). Pescor claims that physician addicts are usually older, began using drugs at a later age and for a longer time than other addicts. Also they tend not to have criminal convictions or to be involved in the criminal underworld, coming from, and gaining through their career significantly higher social status than most addicts. Further, inevitably, educational attainment of physician addicts was much greater than the general addict population, but also they tend to come from rural rather than areas, and begin using drugs for the relief of "a painful or distressing

physical condition in contrast to simple curiosity and association".

Physician addicts in fact fit what Ball (1965) has called the "Southern White Pattern". The social, age, occupational and educational differences are marked, but so are the differences between eighteenth and nineteenth century addicts and present young New York addicts, but this is not to say that they should not be compared. Both Lindesmith and Gagnon (1964) and Winick (1961) suggest that because the doctors reported that they used drugs initially for instrumental reasons - such as to relieve pain - that Merton's theory does not apply to this group. However, if a musician says that he takes drugs to improve his playing, or a street addict that he takes heroin because he likes it, these explanations are regarded as too facile, and represent often a post facto justification of addiction. It seems equally plausible that the physicians are indulging in, be it more sophisticated rationalisation, a rationalisation just the same. Also, by using the concept of relative deprivation it is possible to focus on an individual's definition of his own failure, rather than on his objective standing in the social hierarchy. Thus, although doctors have a high social standing relative to the rest of the population and particularly in relation to the delinquent poor addicts, nevertheless they could feel themselves failures if they remained as country G.P.'s with aspirations to become hospital administrators or specialists. Sherlock (1967) for example relates

drug addiction in the health professions to career problems via the concepts of role strain and role deprivation. Indeed, as Winick (1961) comments "The physician's illness may thus have been a socially approved form of deviant behaviour through which he could express the conflict between his passivity and the demanding and active role of the physician, until his use of narcotics provided him with another avenue for the expression of the conflict". Using Parson's concept of the sick role, one could also interpret their addiction as an extension of the sick role, and not another form of behaviour.

A study by Hill et al. (1968) using the MMPI, of physician addicts described them as "individuals who have difficulty in profiting from penalising experience, who have a low tolerance for frustrating circumstances and who lack the ability to postpone temporary gratification". They in fact found that the physicians scored high on the Pd scale, psychopathic deviate scale, and onhypochondriasis, depression and hysteria scales. They also displayed specific and general neuroticism and anxiety, yet Hill came to the surprising conclusion that physicians resembled physicians more than they resembled addicts. A study on the cultural biass of the test would be interesting and also a replication of the above tests. If a personality-prone theory is to be adopted, or if personality is held to be the crucial variable, then the Hill results would indicate that the physician narcotic addicts are different from, other addicts. Since personality-prone theories have no apparent

validity the above mentioned differences are interesting but neither highly significant nor crucial.

Addicts and Alcoholism

Pescor (1938) claimed that one third of the 1,036 patients whom he studied "gave a history of chronic alcoholism ante dating addiction and recurring during periods of abstinence from drugs". Kolb (1962) reports that in the twenties he found in a study of 230 addicts that 20.5% cured alcoholism by drug addiction and that 39.2% were chronic alcoholics before they became opiate addicts. In a later study he found that 21.5% of the addicts could be classed as inebriates.

The relationship of alcohol to other drugs of dependence seems to depend more on social attitudes to the respective drugs, than on any similarity of effect of the human body. In certain circumstances, and for particular types of alcoholism, drugs may be a functional alternative, and vice versa for certain types of drug dependence. However, in some cultures where sharp distinctions are made between the use of certain drugs for pleasure, an addict might view alcohol use with horror, and again, vice versa for an alcoholic might view heroin addiction with horror and yet accept barbiturate dependence as normal. As Pittman (1967) points out, one cannot assume theoretical unity in studies of alcoholism and drug abuse, and that in emphasising communality of attributes vast difference can be ignored. Unfortunately, either total identification or total dissimilarity is often assumed to exist,

but the nature of the relationship between these two, or more properly, between different types of drug abuse, has not been satisfactorily examined.

Addicts on Themselves: Views from the Other Side

Trocchi (1963) on being an addict: "Junkies in New York are often desperate. To be a junkie is to live in a madhouse. Laws, police forces, armies, mobs of indignant citizenry crying mad dog . We are perhaps the weakest minority which ever existed; forced into poverty, filth, squalor, without even the protection of a legitimate ghetto. There was never a wandering Jew who wandered farther than a junkie, without hope. Always moving. Eventually one must go where the junk is and one is never certain where the junk is, never sure that where the junk is is not the anteroom of the penitentiary....Such hardy hope as is held out to junkies is that one day they will be regarded not as criminals but as 'sick'."

Trocchi (1963) on the drug subculture: "Thus there is a confederacy amongst users, loose, hysterical, traiterous, unstable, a tolerance that comes from the knowledge that it is very possible to arrive at the point where it is necessary to lie and cheat and steal, even from the friend who gave one one's last fix".

Burroughs on becoming a junkie (1953): "The addict himself has a special blind spot as far as the progress of his habit is concerned. He generally does not realise that he is getting a habit at all. He

says there is no need to get a habit if you observe a few rules, like shooting every other day. Actually, he does not observe these rules, but every extra shot is regarded as exceptional".

Burroughs on the doctor/addict relationship (1953): "Doctors are so exclusively nurtured on exaggereted ideas of their position that, generally speaking, a factual approach is the worst possible. Even though they do not believe your story. Nonetheless they want to hear one. It is like some Oriental face-saving ritual. One man plays the high-minded doctor who wouldn't write an unethical script for a thousand dollars, the other does his best to act like a legitimate patient....You need a good bedside manner with doctors or you will get nowhere".

Burroughs on methadone treatment (1968): "To say that addicts have been cured of heroin by the use of methadone is like saying an alcoholic has been cured of whisky by the use of gin. If the addicts lose their desire for heroin it is because the methadone dosage is stronger than the diluted heroin they receive from pushers".

And Burroughs on the personalities of addicts (1964): "According to my experience most addicts are not neurotic and do not need psychotherapy....Morphine addiction is a metabolic illness brought about by the use of morphine. In my opinion psychological treatment is not only useless it is contraindicated. Statistically

the people who become addicted to morphine are those who have access to it: doctors, nurses, anyone in contact with black market sources. In Persia where opium is sold without control in opium shops, 70 per cent of the adult population is addicted. So we should psycho-analyse several million Persians to find out what deep conflicts and anxieties have driven them to the use of opium?"

Finally, De Quincey (1950) on the pleasures of opium: "Oh! just, subtle, and mighty opium! that to the hearts of poor and rich alike, for the wounds that will never heal, and for 'the pangs that tempt the spirit to rebel,' bringest an assuaging balm; eloquent opium! that with thy potent rhetoric stealest away the purposes of wrath; and to the guilty man, for one night givest back the hopes of youth, and hands washed pure of blood; and to the proud man, a brief oblivion for 'wrongs unredress'd, and insults unavenged'".

The perception of addiction by addicts themselves is conditioned by the time and place in which they live. Selby's "Last Exit" (1966) tells of the agony that is life for Brooklyn, New York and Brooklyn anywhere, but Tunbridge Wells is not Brooklyn. The addicts view of his own condition may have limitations, but these are certainly no greater than those of the authority figures who pass judgement upon them or "deal with them" as patients. In fact I believe that their insight has more to offer sociology and the understanding of their behaviour within the context of society as a whole

than has hitherto been acknowledged.

From the description of the theory on which this research was based, and a review of what appears to be the most relevant literature, I now turn to a description of the operationalisation of the theory, a description of the fieldwork and a re-formulation of the theory.

PART III

Introduction - metamorphosis

This section starts and finishes with a set of hypotheses. The first set derived from Mertonian theory, the second from a theory designed to overcome some of the shortcomings of the former theory. The second theory was only developed after the fieldwork was completed, and therefore remains to a great extent untested and, within the limitations of this piece of research, untestable. However, because the first theory seemed so inadequate as an explanation of the behaviour of the addicts encountered in the field, and because also on a theoretical level it seemed to be lacking, the second theory was developed and is presented.

7. Operationalisation of the Theory - the Development of Hypotheses

The term "operationalisation" is usually reserved for the process of trying to turn hypothesis into testable postulates, and for the problems of selecting or creating techniques to test them. This is generally achieved by measuring some of many central variables and adducing evidence to confirm or refute the hypotheses. However, before this state is reached even more difficulties arise in trying to derive meaningful and testable hypotheses in the first place.

Merton's theory is not what Zetterberg (1954) would call axiomatic or deductive-type theory, where a definition of basic concepts is followed by derived concepts, hypotheses, and postulates, which are chosen "so that all other hypotheses, the theorems, should be capable of derivation from these postulates". He comments "This kind of theory construction is unfortunately rather unknown in Sociology". While this last observation is probably accurate, this information is not widely dissemminated either to those who seek to derive hypotheses from already existing theories, or to those who construct the theoreis to begin with.

There seem to be three main problems associated with Merton's theory. The first one concerns the somewhat dubious assumptions which

have to be made about the nature of society, and the universality of certain goals and values; the second problem concerns the level of generality at which the theory is expressed; and the third arises from the impossibility of adequately testing certain conditions prior to addiction.

The first problem has been discussed earlier, although not resolved. The hypotheses which will be set out below rest on certain assumptions inherent in Mertonian theory. These assumptions are open to question, both on a theoretical and empirical level. However, by taking one aspect of the theory, and for practical purposes accepting the assumptions, it should be possible to test hypotheses which disaprove, or fail to disaprove, (but do not prove) the theory. It is not possible to test hypotheses as to whether they prove the theory.

The basic assumptions are obviously mainly those about the structure of society and the existence and distribution of goals, and means to achieve these goals, and also that a discrepancy between the two should lead to anomie. Indeed the meaningfulness of the concept of anomie can be questioned.

This leads inevitably to the second problem of the level of generality of Merton's theory, and of bridging the gap between statements about the relationship between the goals and institutionalised means of achieving these goals, and a typology of non-conformity, of

which retreatism is one type, and drug addiction a specific example. The linking concept for Merton is anomie. Anomie, as stated before, he defines in terms of the breakdown of the cultural structure of society, and not in terms of the state of mind of an individual. However, rather than relating the amount of retreatism found in a particular group to the disjunction between goals and means, and seeing if the two co-vary, it seems necessary to establish the fact of retreatism and the validity of the typology itself. This can be done by taking a group of people whom he specified as displaying retreatist adaptation, and seeing if they have the values and attitudes ascribed to them. However, since neither the values nor attitudes are absolute it is difficult to measure them without reference to the expectations of the family and significant others, which focusses on the individual, and initially on individual situations. Merton's theory is broadly deductive, going from the general to the specific, whereas it seems only possible to test some aspects inductively, from the specific to the general. Only by discovering the motivation of addicts and looking at the process of addiction does it seem possible to discover if addiction is a retreatist form of behaviour, or whether it can be meaningfully allocated to some other mode of adaptation, or whether it fits into the typology at all. The focus of this study, then, must inevitably be at the individual level of investigation and explanation initially, before statements about addiction as a type of behaviour can be made.

The third problem associated with this theory concerns the nature of the data which should be collected. If it were established that drug addicts rejected the goals and means of society this would not be enough, for it should also be demonstrated that these attitudes arose as a result of a strain towards anomie, and anomie as a result of a disjunction between the social and cultural structures. However, even if a measure of anomie could be obtained, like Srole's measure, it is more likely to be a measure of a state of mind than a measure of a cultural condition, and besides, there is still no way of knowing whether anomie is a result of, or a necessary precondition of, retreatism. The retrospective nature of much of the information makes such data suspect. Many of the problems have been resolved on the basis of what it was possible to do, rather than what one theoretically should do to investigate the theory on Merton's terms, and this means dealing with the theory in terms of role theory. Only in this way did it seem possible to translate a very general theory into terms applicable to individuals.

In view of the above discussion there appear to be three distinct parts to Merton's theory - the first will be assumed, the second ignored and the third tested. The first part about the nature of society will, for practical reasons, be accepted as basic assumptions. The second part about anomie will be ignored for several reasons not least because of the apparent impossibility meaningfully to define, to

measure or to test post facto the degree and/or existence of anomie. As a practical definition "normlessness" is far too vague. Parson's (1951) definition of anomie in terms of role theory seems a little more useful "The institutionalisation of a set of role-expectations and of the corresponding sanctions is clearly a matter of degree. The polar antithesis of full institutionalisation is anomie, or the absence of structured complementarity of the interaction process, or what is the same thing, the complete breakdown of normative order in both senses". This definition by Parsons, however, seems to mean that anomie is a lack of reciprocity in role relations. The concept is already in existence in role theory, and to apply different words for the same thing seems to complicate the situation unnecessarily.

Indeed, doubt has been cast on Merton's conception of anomie by Simpson and Miller (1959). Using Srole's scale of anomie (1956), they tested the status inconsistency and social failure hypotheses with reference to variations of anomie within status levels. They rejected their original hypotheses in favour of an "attitudinal exposure hypothesis" which states that "within a given social status level the greatest degree of anomie will be found among people who have had the most exposure to life in lower status groups, where the prevailing attitudes are more anomic". They also found that the upwardly mobile were more anomic than the occupationally stationary, which could be argued is the opposite effect that would be expected according to

Merton, since the upwardly mobile are likely to be fulfilling high aspirations, and the occupationally static barred from doing so. The net result, I believe, is to show that anomie is not only an unwieldy but also an unnecessary concept.

The only part of the theory that then remains is the definition of drug addiction as a retreatist adaptation involving the rejection of the cultural goals and the institutionalised means of achieving these goals, and it is this which will be tested. Parson's concept of the sick role will also be integrated into the theory (Parsons 1951, 1958).

As stated before, in order to test even this small part of the theory certain basic assumptions have to be made, and the theory expressed in role terms in order to make it applicable to individuals.

Basic Assumptions

i. The cultural structure and social structure of society can be analytically separable.

ii. One aspect of the cultural structure defines goals, purposes and interests - defining the "things worth striving for" and providing "a frame of aspirational reference".

iii. The other aspect of the cultural structure "defines, regulates and controls the acceptable modes of reaching out for these goals".

iv. The social structure includes the institutionalised means for achieving the goals.

v. Cultural goals are transmitted to individuals principally by their families, but also via their schools and significant others with whom they interact.

vi. There exists a multiplicity of goals in society which tend to vary according to class and sub-culture to which an individual belongs, and to his perception of opportunities to achieve certain goals.

vii. These goals may be altered by the needs and personalities of the family group, and may not be a mere reflection of the class or sub-group to which the individual belongs.

viii. The means to achieve the goals are differentially distributed throughout society, therefore availability of some means to achieve certain goals varies according to an individual's place in society.

ix. The mesh between goals and means is not perfect. This results in strain to change the goals and/or the means, or the relationship of the individual to both.

x. One result of the disjunction between goals and means is a retreat from society and a rejection of both.

xi. The sick role is a socially institutionalised legitimate role which permits the role occupant to suspend most of his role obligations, without denying their legitimacy.

Hypotheses

A. Most drug addicts reject the cultural goals of society.

B. Drug addicts who reject the cultural goals also reject the institutionalised means of achieving these goals.

C. Drug addicts who do not reject the goals or means, take on the sick role.

These then formed the main hypotheses, and formed the main reason for and part of, this research. However, because of the unsatisfactory nature of the original theory, it was decided to collect more data in order to

a. define the parameters and nature of the drug addict population

b. examine the nature of the process of addiction, and

c. to look at the relationship between crime and addiction.

According to Merton, serendipity is the research component which generates new hypotheses while testing old ones. However, according to him this is unanticipated since one's research design should be geared to testing particular hypotheses. Fortunately the discovery by Glaser and Strauss (1968) of grounded theory provided the academic justification for extending the study to include the collection of data designed to answer specific non-theoretically founded questions. Many studies have thrown into prominence certain aspects of addiction, such as the addict's pre-addiction drug experience and his criminality before and after addition. This study therefore was not only designed to test specific hypotheses, but to provide answers for what I though were interesting or significant questions.

8. Operationalisation of the Hypotheses - the Development of the means of testing the Hypotheses

The first task is to define exactly the terms used in the statement of hypotheses. For practical purposes a drug addict was simply defined as someone who was physically dependent on heroin, morphine or methadone. However, since the only satisfactory way to establish dependence is to precipitate the withdrawal syndrome, and since anyway (as already suggested by some authors) the withdrawal syndrome might be a response which can be conditioned, an absolutely certain measure of dependence was not merely difficult, but under the conditions of this research, impossible. In effect, an addict was taken to be anyone accepted by the clinics which were treating them as such. This is not very satisfactory from a scientific point of view, because it merely shifts responsibility for definition on to someone else. The only usefulness of this ploy was to remove the possibility of interviewer bias in sample selection from this source. A check was also kept on the amount of a drug which was prescribed to each of the addicts, but this was not a reliable guide in every case since some of the addicts gave away or sold their prescribed drugs, while others bought from the black market, and sometimes information rested on uncorroborated statements from the addicts.

The most difficult definition proved to be that of "cultural goals". Merton suggested prestige and economic wealth, and used these goals as examples, but they are clearly on the one hand too vague as goals, and on the other, too limited to be used meaningfully to test rejection of all cultural goals. Although the problem of the variety of cultural goals, particularly with reference to class and sub-group variations, was discussed earlier, it was not resolved. Clearly, all possible goals which are acceptable, cannot be itemised, nor can "getting on" or "earning more money" be the only goals presented. It was therefore necessary to look for some classification of type of goals, and this was found in a study by Rosenberg (1957).

Rosenberg was not interested in people's life goals, but in the values or wants which operated in an individuals choice of career. It is interesting that he found such values as security and self-fulfilment were rated higher than earning a good deal of money. This could either indicate that earning a lot of money was not the universalistic goal of American society that Merton believed it to be, or that the normative climate from which the respondents came negatively reinforced expression of such goals while at the same time holding such goals, or their products, as desirable. No matter how interesting theoretical speculation may be about the interpretation of particular results, the reality of having to define the goals, must limit the discussion, for within the limits of this research expressed approval or disapproval of

particular goals must be taken at face value. By face value I do not mean that every statement is completely automatically believed all of the time, but that there will be no tests to attempt to discover the norms governing the expression of life goals.

Rosenberg also characterised job values in terms of Karen Horney's (1945) tripartite typology of interpersonal response traits, which classified people as a. moving toward people (compliant) b. moving against people (aggressive) or c. moving away from people (detached). The relevance of this is that when applied to job values three different types of want do seem to emerge, and comprised those job values which stressed working with people and helping them; values which emphasised money status and prestige; and finally job values which emphasised freedom and opportunity for self-fulfilment. It seemed that if these three approaches were included in an itemisation of goals, it would add greatly to any attempted measurement.

Having established the kind of cultural goals which could be presented to the subjects, the next problem was to find some way by which they could express acceptance or rejection of these goals. Obviously, simply to present a list of goals with the question "Is this what you would like out of life"? would be a decided waste of time. Two things were immediately necessary, these were that some alternative goals could be checked by people rejecting one set, and the other was some measure of the reliability of the answers.

The first problem was solved by taking two items from Chein's (1964) fifty question teenage opinion survey which he found distinguished between addicts and non-addicts, and two other items which seemed to represent short term hedonistic and manipulative goals. These items were re-phrased to make them applicable to British addicts, and one other item was added as the antithesis of the people-orientated goals. Since there were two items to represent each of the three types of socially acceptable goals, and five to represent if not completely socially unacceptable goals, ones which are not socially approved, this made eleven in all.

The second problem was solved by using a measuring technique known as paired comparisons. This is a ranking technique, which means that the subjects ranked the goals in order of preference, and since every item was paired with every other item and a choice between the two or an equal rating of both had to be made, there was a built-in measure of the consistency of the subjects' judgement.

The second hypothesis, which stated that addicts reject the means of achieving the goals of society, was a little easier to cope with, since the means of society must necessarily be the institutions of that society. The main means for occupational advancement is the educational system, but industry, political parties or trade unions could all provide means of advancement. If, however, emphasis was placed on inter-personal goals, then the family and kinship systems are

likely to provide the means of achievement. Therefore in order to test this hypothesis, the attitude of the addict to a wide variety of social institutions must be elicited.

In measuring attitudes several techniques are available, but the best in terms of reliability and validity is the Guttman scaling technique. Unfortunately, not only would a separate attitude scale have to be constructed to measure the attitude of addicts to each institution, but each of the scales would have to be validated on at least one hundred respondents. Since, at the time, the total number of addicts was fairly small, to use one hundred respondents in a pilot study would have exhausted all the available subjects from the sample area.

The need was, therefore, for a more generalised attitude scale which would be comparable across attitude universes and would also be an indirect measure. These conditions are fulfilled by the semantic differential attitude measuring instrument. According to Osgood, Suci and Tannenbaum (1957) there exists a high correlation between semantic differential ratings and Thurstone and Guttman scales, but since the semantic differential is a measure of meaning, and no independent measure of meaning is possible, there can be no absolute validity established. However, face validity seems certainly established by the high correlations with other attitude scales and in the light of Osgood's et al. (1957) comments; "Throughout our work

with the semantic differential we have found no reasons to question the validity of the instrument on the basis of its correspondence with the results to be expected from common sense".

Reliability for the test has also been established by test, re-test data, and reliability of the subjects on this test was also obtained by test re-test data.

As well as establishing the attitutde of addicts towards certain institutions it was also thought desirable to compare their attitudes, particularly those toward the educational system, with their educational achievement. Information on all their secondary and further education was collected via an interview schedule. It would have been interesting to compare the intelligence of the addicts as measured by the Weschler test, with their academic achievements, to see how far one was related to the other. Although I could have conducted these tests I do not think that they could have been conducted under conditions which I would find acceptable. The problem of testing people while still on drugs has already been discussed, but to reiterate, as long as the exact effects of drugs on the performance of these tests have not been established - if in fact there is an effect - then only results obtained from drug free subjects are valid. Since most of the subjects who formed the sample were constantly taking drugs, there was no opportunity to test them under the only conditions which I could find acceptable.

The third hypothesis to be tested, that addicts who do not reject the goals and means of society will take on the sick role could also be tested by the use of the semantic differential. This technique, by comparing how addicts think of themselves with how they think of someone who is ill, permits a measure of the extent to which they regard themselves as being sick.

The demographic information, together with information on the process of addiction and on criminality was collected via an interview schedule, and cross checked with hospital case note, Home Office records and the Criminal Records Office.

The construction of the attitude scales and of the interview schedule is explained below. The information which pertains to the testing of each hypothesis is pointed out, but also there are the extra attitude scale and interview schedule questions which were part of the attempt to build in an heuristic device.

The Technique of Paired Comparisons

The items in this test have been described, but not stated. Firstly the items which were meant to represent the three different approaches to goals. (Each statement being prefaced by the words I would like to) The aggressive approach and economic goals were represented by the statements "earn a good deal of money" (10) and "be looked up to and respected by other people" (11). The compliant approach was represented by "have a stable and secure future" (8) and

"be able to help other people" (6) and "be happily married" (7). The detached approach was represented by the statement ending in "have an opportunity to be creactive and original" (9). The other five items representing alternative goals were as follows:-

Have a good time now and not worry about the future (1)

Not have to work too hard and be able to take things easy (2)

Be free to do what you want without other people interferring (3)

Not get committed or tied down to anyone (4)

Be able to get other people to do what you want them to (5)

The number in brackets after the items represent the numbers given to the aims during coding, and consequently the numbers which represent the items during analysis, (see Appendix A). The hypotheses have therefore, for convenience, been expressed in terms of these numbers.

The instructions with this test said that there was a list of things which they might like to do or be, and that these were arranged in pairs of alternatives. They were then asked to choose one alternative in each pair, unless they found the choice impossible because they rated both equally. Under these conditions they were allowed to mark both the alternatives. Examples of alternatives not in the test were also given. (See Appendix A)

With eleven items, if each is paired with every other item, then there are fifty five pairs of alternatives. Both the order in

which the items occurred in each alternative, and the order of the alternatives in the list were randomised.

The conditions for accepting the hypothesis would ideally be the rank order where the first five preferred items would be those numbered 1 to 5, irrespective of order. Conversely, the hypothesis would be totally rejected if items numbered 6-11 were the most preferred items. However, knowing that results are rarely that neat because usually people do not oblige with such conveniently stereotyped positions, I would think it in order to accept the hypothesis if any items from 1 to 5 occupied the first three positions in an order of preference, and conversely, the hypothesis would be rejected if any items from 6 to 11 formed the first three preferences.

The Semantic Differential

Briefly, the semantic differential is a way of measuring the meaning of a concept - that is anything which one wants to measure, whether that is a role, and institution, a person or an object. The concept is measured in terms of sets of opposite (bi-polar) adjectives, like tall-short, hot-cold, or black-white. Between each pair of terms a scale is inserted so that the direction and intensity of each judgement can be measured. A subject then indicates on each of these scales what the concept means to him. Therefore this is not only a measurement of meaning per se, but a measurement of how the subject evaluates the concept. It is at once an attitude test, but also provides a map of

the attitudes of a subject so that each attitude can be seen in relation to many others.

The concepts which were to be scaled were initially, in order to establish the subjects' attitudes towards social institutions, the following:-

Parliament

The Church

Schools

Industry

The Civil and Criminal Law

The somewhat cumbersome wording for the last concept was necessary because "the law" might just mean the police to many addicts, and I wished to find their attitude towards a system. While establishing attitudes toward various aspects of society, it seemed that the concept "society" should also be put in. It is possibly too vague and all embracing a concept to be of much use, but it should also be possible to establish if this is in fact true. Response to the concept "society" could be compared with responses to other concepts in order to establish if there is any relationship between them, and if one can be used as a predictor of the others.

It could be argued that by using institutions as concepts there would be a bias towards unfavourable attitudes, since often anonymous institutions are rated more unfavourably then their

representatives, or the people who work for them. However, it also seemed that an argument could be made for the opposite case, particularly with respect to policemen and politicians, for it seemed more likely that people who had broken the law might have a more unfavourable attitude towards the people who had caught them - the police - than to the system of laws. It also seemed that this problem could only be solved at the empirical level, therefore personalised representatives of the institutions were added to the list of concepts for attitude scaling. These were:-

Politicians

Policemen

School Teachers

Clergymen

Businessmen

Shop stewards

Since the semantic differential is such an adaptable measuring instrument, it also appeared worthwhile to use it as a cross check on information gained by the paired comparisons test. This could be done by seeing how the addicts evaluated conventional life styles. In order to do this the subjects were given the descriptions of five fictitious people who were meant to represent life styles in five socio-economic groups, and to express what their impressions of these people were in terms of the scales used to measure the other concepts.

The five descriptions were created in such a way as to incorporate the following information which is presented below in table form. The age range of the people described was made deliberately narrow so that it was nearest to that of most of the addicts, and to make sure that any variation in judgement could not be merely a function of the age of the person described.

Name	Mary	Harry	George	Jane	John
Age	19	20	23	22	19
Sex	F	M	M	F	M
Social Class of Origin	V	IV	III	II	I
Education	Sec. Mod. Left 15	Sec. Mod. Left 15	Grammar Left 16	Grammar Left 18 T.T.C.	Public School University
Occupation	Factory wkr.	Skilled	Bus Cond.	Teacher	Student vet.
Siblings & Family Position	2nd of 6	3rd of 4	1st of 2	Only child	1st of 3
Marital Status	Married	Engaged	Single	Engaged	Single
Social Mobility	Stable	Upward	Downward	Stable	Stable

The actual descriptions were as follows:-

MARY, who is 19, is the second of six children. She went to a secondary modern school and left at 15 to work in a local facotry doing assembly work. She was married two years ago to a docker, like her father, and

has just left work because she is expecting a baby soon. Mary and her husband live with Mary's parents, until they can get a place of their own, which they hope will be in the same area.

HARRY is 20 and the third of four children. He went to the local secondary modern school and left at 15 to take an apprenticeship in engineering. His father is a ticket collector for British Railways. He has been engaged for two years and is planning to get married in about six months, when he has qualified, and he and his fiancee have saved enough to put a deposit on a new house. When he qualifies, he intends to go to night school and take a course in Time and Motion Study, in the hope that he will be able to transfer to the management side of industry.

GEORGE left school at 16 after he had taken his 'O' levels at the local grammar school. He has one younger brother, and his father works in local government as a Clerk of Works. George started work in a bank, then moved into local government, but did not like either of these jobs, and now, at 23 he works as a bus conductor. He likes the work and earns more money than he did in either of the other jobs. He is single but dating a conductress from the same garage.

JANE, whose father is a Personnel Manager, is an only child. She went to grammar school and left at 18 to go to teachers training college. She is now 22 and has been teaching at a primary school for one year. She has just become engaged to a teacher at a nearby comprehensive, they plan to marry in about five months time.

JOHN is the eldest of three and is 19 years old. He went to public school till he was 18 and is now in his first year at university studying to be a vet, taking up the same career as his father. He is actively involved in work for the students' union, and plays rugby for the 2nd XV team. He is friendly with several girls, but is not serious about anyone, and does not intend to get married until after he has qualified, which will not be for another five years.

In line with Merton's idea of socially approved goals, the concept "ambition" was also added.

In order to test the third hypothesis it was necessary to find out if the addicts though of themselves as being ill. First, then, I had to find out how they think of themselves, and then how they think of someone who is ill, after which the two concepts can be compared. Therefore another two concepts were included in the list for scaling, which were,

Myself and

Someone who is ill

The amount of information to be collected on how an addict saw himself at this time was rather sparce. It had not even been established that drug addicts in fact saw themselves as such. For this reason the following concepts were included:-

A Drug Addict
A Criminal
An Artist

and also the concept

My ideal self

was included in order to measure how the subjects would like to be. Also, if for example the concepts "my ideal self" and "a drug addict" were the same for a subject, one could conclude that the identity of a drug addict was a desired one. Similarly if the evaluation of this same concept were identical with an evaluation of one of the people-descriptions, then it would be possible to say that that was a desired life-style.

Finally, in order to gain information on how the addicts evaluated their family, and to see if they identified with either parent or their doctor, the following concepts were also included:-

My Mother

My Father

My Family

My Doctor

and in order to establish a baseline for these judgements, the corresponding more general concepts were also added:-

Most Mothers

Most Fathers

Most Families

Most Doctors

Death, was the last concept included, and was done so because it was

thought that the high suicide rate among addicts might be reflected by a favourable evaluation of this concept.

The total number of concepts was then thirty three, but thirty six were administered because three concepts were repeated in order to obtain a measure in reliability. (A full list of all the concepts used in this study appears in Appendix B).

The selection of the bi-polar adjectives which formed the scales was based on their applicability to all the concepts, and on the highest pure factor loadings from three different analytic studies conducted by Osgood, Suci and Tannenbaum (1957). Since one of the main reasons for using this attitude scaling technique was the ability to compare across concepts, then obviously the scales had to be the same for each of the concepts. This meant that concept specific adjectives could not be used. It was not therefore possible for example to test whether receiving medical help, or being in hospital, formed an unvarying part of addicts definition of being ill. Also, certain words had to be avoided because of connotations arising from the slang of the drug world. In this context, words like sick, and high could not be used, for their polar antitheses are not healthy and low. Unlike Friedman and Gladden (1964) who studied university students, it was possible neither to use such terms as altruistic-egotistic, nor dynamic-static. The adjectives had to be then both applicable to the concepts and suitable to the subjects.

In all of Osgood's studies where he factor analysed the results, the same three factors kept re-appearing, and these do in fact seem to represent three dimensions of meaning. These factors he labelled evaluative, activity and potency. "To test the generality of the factor structure obtained, we in our several studies (a) varied the subject populations (b) varied the concepts judged (c) varied the type of judgmental situation and (d) varied the factoring method used in treating the data. Since the same primary factors keep reappearing despite these modifications, we conclude that the factor structure operating in meaningful judgments is not dependent on these variables at least". (Osgood, Suci and Tannenbaum 1957). Therefore, the adjectives chosen should reflect this factorial structure already established.

Since Osgood et al. had done numerous factorial studies, it was possible to select adjectives which had consistently high and pure loadings on the respective factors, and which did not appear to greatly change their loadings according to different concepts which were rated.

The activity factor was represented by the items

Active-Passive

Hot-Cold

Fast-Slow

The potency factor by the items

Strong-Weak

Large-Small

Dominant-Submissive

and the evaluative factor by

Good-Bad

Fair-Unfair

Clean-Dirty

Valuable-Worthless

Sweet-Sour

Successful-Unsuccessful

In most of their studies, Osgood found that the evaluative factor accounted for fifty per cent of the variance. In their opinion it also measured a dimension of judgement which was the same as that usually measured by other attitude tests. Since it had not been established that the three factors appeared also in all British studies, it was decided to represent the evaluative factor by more items, in case it was decided to use only this factor. However, as will be explained later, I decided to do my own factor analysis and not rely on those established by Osgood, for reasons of increasing the accuracy of the measuring instrument.

The final decision on the semantic differential was concerned with the length of the scale between the bi-polar terms, and whether this should be of the forced choice type or not. The length of the scale would determine the amount of discrimination permitted the subjects in making their judgements. For example, a three point scale for the terms hot-cold would mean that the subject could only mark a judgement as hot, cold or equally/neither. A five point scale would permit an intermediate judgement and a seven point scale two intermediate judgements between the central position and the extremes of totally one side or totally the other. It was decided to use a seven point scale because this allowed discrimination to be made in judgements without offering too fine a set of gradations between which the subjects could not distinguish. Also, in order to aid the subjects, under the first set of bi-polar terms for each concept was written "extremely, very, fairly, equally or neither, fairly, very, extremely".

If an even number of points were presented in a scale, then the subject would have to choose between the terms, and could not judge a concept as equally or neither in relation to the bi-polar adjectives. A forced choice would eliminate the ambiguity associated with the median position, but perhaps at a cost of distorted judgements. The ambiguity associated with the median position arises because it could mean any of the following three things; either that the concept being judged was half way between the two terms; that the concept could not

be described by the terms - that they were inappropriate; or that the subject did not want to make a judgement, because this produced conflict. One response to this conflict is to "go out of the field" by checking the median position. Osgood et al. (1957) quote many studies into scale checking styles, such as the tendency to use the extreme positions in preference to the more discriminatory ones, by people with lower I.Q. scores (Kerrick 1954) schizophrenics (Bopp 1955) and possibly authoritarian personalities, (Stagner and Osgood 1946).

It seemed therefore that the scale checking style of the subjects in itself might provide interesting data, but the main reason for not using a forced choice scale being that certain assumptions had to be made about the nature of the subjects' judgement, and the relevancy to every subject of all the items presented to all the concepts. Assumptions which I did not think could be validly made.

Finally, the order of the items was randomised, both in respect to which of the pair of bi-polar terms came first, and the actual order of the sets of adjectives. (See Appendix B).

The Interview Schedule

The third main technique for collecting data was by way of an interview schedule. This could not provide a means for directly testing the hypotheses, but could provide information which had an indirect bearing on the attitude tests which were used. The main purpose of the interview schedule was however, to provide answers to the three questions which supplemented the hypotheses. These were, what

(a) are the parameters of the drug addict population (b) is the nature of the process of addiction and (c) is the relationship between crime and addiction.

Information which was indirectly relevant to the testing of the hypotheses was mainly concerned with the educational and occupational records of the addicts. A poor education would be a barrier to achievement, though not an insuperable one, and only a barrier to certain achievement wants. Also, if an addict were to reject the means of achieving certain goals one would expect him to reject the educational means, and therefore be an early school leaver or drop out from further or higher education. However, as Lynn McDonald (1969) points out, in Britain, failure is defined "as the normal course of events for the majority of the population....Most children are not in A streams or grammar schools. The median child in the state sector of secondary education is in the B stream of a secondary modern. Yet curiously the secondary modern school is defined by most of the population as a place for failures, for the 'dim', for the ineducable". These problems are discussed more fully later on, for their implications were not fully appreciated at the time the questionnaire was constructed.

The interview schedule consisted of 62 questions which, apart from the questions on the subjects' educational and occupational background included questions on the following:-

1. General Background of the subject

Age, sex, place and date of birth, marital status, number of children, and religion.

2. Family Background

Marital status and occupations of parents. Number of siblings and position in family, and total number in household. Religion and place of birth of subjects' parents.

3. The Process of Addiction

First contact with anyone who took drugs, first experiences of any drug to first contact with heroin taker, first taking the drug to becoming accepted for treatment as a drug addict.

4. Criminal Record of the Subject

A detailed account of the subjects criminal record - before drug taking, before heroin taking and before addiction, together with post-addiction offences, and a breakdown of the type of crime committed.

(A copy of the interview schedule appears in Appendix C).

Verification of the information obtained was accomplised by a comparison of the data with case notes, Home Office drug department records, and Criminal Records.

The Control Group

It was originally intended to include a control group as part of this study, matching the group with the sample on age, sex,

education and occupation. The control group could not therefore be selected until the data from the main sample had been analysed. To use a control group selected on the basis of less rigid criteria, would, I believe, make the results from such a sample, totally useless. To compare, for example, people who are relatively successful in the educational sphere, such as university students, with people who are not, with regard to their respective attitudes towards the educational system, makes a nonsense of the purpose of a control group. There is no point whatever in controlling insignificant variables and leaving highly significant ones operating, and then claiming that one is using a control group. In fact, if there is thought to be more than one significant variable, then there should be more than one control group. In this case, access to heroin should also form one of the criteria for control group selection, with at least a delinquent and non-delinquent group.

Although the cannons of research might demand the use of a control group, and for some of the data collected it would be highly desirable, there seemed little point in wasting time merely to comply with form, when content could only be less than trivial and the results more than insignificant. However, the final decision on the use of a control group need not, and indeed was not, made at this time. Until some at least of the data was analysed, the control group could

not be selected, and therefore a decision was postponed.

All that remained was a selection of the main sample before the fieldwork could begin.

9. The Sample - A Description of the type of sample used and of the method of its selection followed by a description of the fieldwork

It might have been more appropriate to preface this study by a description of the sample, because it was the unique opportunity to obtain an unbiassed sample which provided the means of testing certain aspects of Merton's theory, which in itself formed the initial reason behind this study.

Many different aspects of Merton's theory could have been tested, and even many different groups could have been used to test the particular aspect chosen - that of retreatism. Besides drug addicts, Merton described as retreatist vagrants, psychotics and alcoholics. Unfortunately there is no adequate sampling frame for either of the three groups, no list of all vagrants for example from which a sample could be selected. Salvation Army hostels would provide perhaps the best chance of getting anywhere near to a true sample, but mental hospitals have not the monopoly of psychotics - even if an agreement could be reached on the meaning of the term - and hospitalised alcoholics certainly cannot be said to be a representative sample of the alcoholic population.

Since drug addicts used to be treated by their G.P.'s, and were scattered about the country, even if their names could have been

obtained from the Home Office, there was considerable doubt that the Home Office records were accurate. However, at the start of this project in the Summer of 1966 I became aware of a unique clinic for the treatment of drug addicts, which offered for the first time, either in Britain or the United States, the opportunity to obtain the total population of addicts in a specific area.

It can be seen from the earlier description of drug legislation in the United States, that addicts who formed the samples could only be those who had been arrested or those who sought treatment. Occasionally, as in Lindesmith's study, some investigators made an effort to contact addicts who were neither in hospital or prison, but this was rare, and the investigator had no idea what proportion or to what degree they could be said to represent the addicts in that town or city, let alone the total addict population of the country. Most of the studies, however, used only small numbers of addicts from hospital or prison, so that their findings were extremely limited in their applicability. In Britain, studies of drug addiction were scarce indeed, and usually limited to the presentation of case material with a few remarks at the beginning and end of the study.

This unique clinic which formed part of a Midland mental hospital provided the opportunity to include the total addict population over a given area. This was possible because of the co-operation which existed between the clinic, local police, pharmacists

and G.P.'s. Although at the time of this study G.P.'s were legally permitted to prescribe heroin and morphine, they were encouraged not to do so, and to refer their patients to the clinic. This also meant that only a few chemist shops had any supplies of heroin and therefore decreased the likelihood of a black market supply of the drugs from break-ins. This is not to say that no black market existed, for one certainly did in the beginning. It was supplied from three main sources. The first being from London, for many addicts would travel up to London, buy, procure or steal a quantity of heroin, and return to sell it at a profit. The main purpose of these entreprenures seemed to be to obtain a supply for themselves at minimum cost, but also to have enough to give to friends who wanted to try the drug. Also, however, the exuse of buying drugs on a London black market provided a reasonable and unconfirmable cover for drugs obtained from a break-in at a chemist shop, and formed the second source of black market supply, while the third was provided by the clinic itself. The clinic, which was originally set up to treat alcoholics, had staff inexperienced in the treatment of heroin addiction, and inevitably overprescribed for some and even underprescribed for others. Since there is no test that can be made to determine the amount of a drug which an addict may be taking, the staff have to rely on the information they are given by the addict. However, as relationships were built up between staff and addicts, so it was possible to relate need to amount prescribed.

With only one clinic for a large conurbation, it was impossible for an addict to "double-script", that is to obtain double or treble the quantity of drugs which he needed by registering with more than one G.P. or later, with more than one treatment centre. Also, because of the relatively small number of addicts it was possible for the clinic staff and the local police to know and be known among the addict population. The result was that the probable source of supply for any new addict coming forward could be traced and dealt with. Accurate prescribing soon reduced the black market supply, as evidenced by the two hundred per cent increase in the cost of black market heroin, going from £1 a grain to £3 a grain. The small amount of heroin which was able to filter on to the black market came from London, where at least a half dozen G.P.'s were flooding the city with heroin, and against whom at this time the G.M.C. refused to act on the grounds that they would be interferring between the doctor and his patients, and this they could not do.

The extent of the black market and cost of heroin is important in relation to sample selection, because this establishes the possibility of addicts obtaining drugs from the black market and remaining unknown to the clinic. If someone became addicted to say two grains of heroin a day, at £1 a grain, his habit would cost him £14 per week, but at £3 a grain it would cost him £42 per week. For the cost alone, then, it would be unlikely that anyone could for long depend only on the black

market for his drug supply. If someone did become addicted he could obtain drugs from the clinic, or move to another part of the country, either registering as a patient with a G.P. or obtaining drugs again from another black market. It is possible that people who were addicted and did not want to go to the clinic would move out of the area, but this seems the only way in which the sample could be biassed. The clinic did not only deal with a self selecting group who wanted treatment, but with many who wished to remain addicted, and who were given a regular and stable amount of heroin. Therefore, unlike the position at some later London treatment centres, addicts were not unwillingly withdrawn from the drugs to which they were addicted, and forced to move elsewhere in order to maintain their supply. Some addicts inevitably moved to other parts of the country just as addicts from elsewhere moved into the Midlands. It is possible that some of the addicts on the move, particularly those who moved away from the clinic did so because they were not receiving as much of a particular drug as they wanted, and believed they they could obtain more elsewhere, but it is equally feasible to suggest that addicts moving into the area were motivated by the same reasons.

The Home Office figures for the number of addicts for 1965 was 927, therefore a ten per cent sample which was the initial target for the sample would involve 100 subjects. It was therefore intended to form the sample by taking all addicts registered at the clinic on a

certain date, and subsequent new patients until 100 was reached. At the commencement of this study the number of addicts - both in-patients and out-patients - at the clinic was 60. By the time the field work began this had dropped to around 30, and by the end of the study had dropped even more dramatically to 11. All addicts who attended the clinic over a period of one year were included in this sample, which therefore according to Galtung (1967) was a sub-universe in space and time. It is a sub-universe in space because one unit which was a collectivity was selected (that is the clinic) and all individuals in that unit were to be sampled, and so generalising to all collectivities of the same kind. In fact it is a two stage sample where the first contains one unit only. The assumption necessary for valid extrapolation of the results is the homogeneity of universes. As a result of the earlier description of the type of addicts who attended the clinic this is what is maintained.

This sample is also a sub-universe in time, since units (subjects who were addicts) were only included between specific dates. Again the effect is the same as a two stage sample, in the sense that only one unit or one time chunk is selected at the first stage. In this case I do not think that the assumption of homogeneity over time can be accepted, since legal and social conditions change, and therefore a change in the number and type of units in the total universe must be expected.

By the time data collection had been completed in the Midlands, treatment centres had been set up in London. Since the total sample was only 40, it was decided to select another treatment centre for partial replication of the midland study. The problem was that compared with the then total heroin population of over two and a half thousand, 40 was a very small number indeed. However, care had originally been taken to establish the unbiassed nature of the sample, and therefore it should accurately represent the total addict population. Obviously since it took over one year to collect the data from the Midlands, total replication could not occur. However the opportunity to study a treatment orientated group of addicts arose, and so part of the study was replicated using these subjects. All of them were officially of heroin but most were taking methadone. It cannot be suggested that they are representative of the total addict population in any way except that they are likely to be representative of treatment orientated addicts. It was therefore possible to compare and contrast the two groups on a number of points - such as type of drug of addiction, and treatment versus non-treatment groups with reference to certain attitudes and roles, for example identification as drug addicts and being ill.

Since the midlands sample ended with such small numbers in relation to the total addict population, extrapolation from the sample to the whole population must be limited. However, even if the

proportions in various categories might not be reflected in the total population, it is argued that the categories themselves, the typologies and analysis of the process of addiction will be valid for all addicts at that time. Although the sample is small, it is large enough to represent the attitudinal range among addicts.

Both samples were therefore sub-universes in space and time, where homogeneity with other universes is only claimed for one sub-universe in space. The total sample from the Midlands was 41 - but one subject died and one left the area before data was collected from them, and so data was collected from 39. In London, the total sample size was 28, but one refused to co-operate, and another disappeared, so data was collected on 26. Total sample size was then 67, data being collected on 65 subjects.

Having operationalised the theory and selected the sample, I then went into the field to start data collection.

I originally thought that data collection would take about six months, but in fact it took over two years. This was because I overestimated the speed with which the tests and questions could be completed, and underestimated the difficulties in seeing the subjects, particularly when I needed to see them on more than one occasion.

The initial reaction of the addicts to yet another person asking questions about them was one of hostility. However, since I had an office at the clinic, and was there for several months designing the

tests and interview schedule before data collection began, much of the hostility was dissipated. Nevertheless it took about two months before interviewing began. This was because although I had given an undertaking to the addicts that information which they gave me in the course of this study was in confidence, they wanted to be sure that this was so. Therefore, in the course of conversation with them they might make some comments to the effect that X was bringing drugs into the hospital for particular in-patients, or that Y was not really addicted but selling his prescribed drugs to other addicts or more often to people at parties. Some of the stories I am sure were true, but equally I am convinced that the vast majority were pure fiction, and all designed to see if I were feeding back information either to the hospital authorities or the police. When they found that no action was being taken in accordance with their stories, so these type of stories gradually disappeared and replaced by a greater openness by the addicts.

There were also games of other kinds in which the addicts indulged. The first was to try to shock me. However, by pointing out that in other societies the same behaviour - according to whichever tale they were telling was legally and socially acceptable, and by developing this point to include behaviour which they regarded as even more daring or shocking than that which they described, this game was soon discontinued. Nonetheless, I do not think that this was merely

an idle ploy, but another means of asking the question "How much of the truth can I tell"? It became obvious in the course of getting to know the addicts that they had often been at the receiving end of moral and social condemnation, and that people who were shocked, whether by their length of hair or their addiction, or the fact that they received social security payments, had not infrequently taken opportunities to express their opinion. The result was that the addicts tended to be wary of people until they knew whether they would be accepted.

The least frequent game but most annoying one because of the time which it consumed, was of telling tall stories. Sometimes this took the form of exaggeration of events in order to make the teller's part more daring or cunning but essentially to improve his part in events. Deliberate lying was rarely indulged in, but the motivation seemed to be that anyone who was not an addict should be "conned" particularly people who kept asking a lot of questions. This was dealt with in two ways. Firstly by talking with the addict about the "con", and secondly by encouraging the stories to a point at which they were demonstrably false, and then beginning the interview all over again, starting with a new interview schedule. Also, since only one or two interviews were completed at one go, if an addict was deliberately lying, he had to be persistent and consistent over several interviews.

I do not believe that this was achieved by any of the subjects. Answers to questions were compared with case notes, and one version of events was often compared with another addict's knowledge of the same group and events.

The reliability of the addicts answers I believe to be high. Any unreliability I believe comes from an unintentional embroidering of the facts by the addicts. Some of the addicts had had to tell their story many times to many different people - for example, police, probation officers, psychiatrists, social workers - and as a result had developed a story of their lives which was not entirely true, but which was not immediately demonstrably untrue either, and which they themselves thought was the truth. If an addict was what I thought of as too glib with his answers and explanations, then I would suspect that he had told his story too many times, and in the process smoothed down some of the rough edges. It became possible to find another version of the truth by getting a very detailed life history from the subject, but the disadvantage of this approach was that for more than one addict the total interviewing time was in excess of ten hours. The shortest time taken to complete the interview schedule was a little over two hours, the longest was about eleven and a half.

Many studies of addicts comment on and complain about the unreliability of addicts, and regard them as pathological liars. I do not think that addicts tell all the truth all of the time, but according

to the circumstances can and do tell the truth most of the time, (as Ball, 1967 found). If they do not trust their doctor, or they want more of a drug than he is prepared to let them have, the only means at their disposal to manipulate the situation is to lie. Given that they want something that other people will not let them have, lying in order to obtain what they want does not seem to be an inappropriate form of behaviour. Also, if by lying they think that they can kid a probation officer, or child care officer, so that their report to a court of law would mean the difference between prison and probation, again it is not surprising if they do not always tell the truth. With most of the authority figures that are encountered by an addict, lying might enhance their situation, and they do not usually see that they can lose anything by doing so. Since many studies are conducted by members of the medical profession, it is not then surprising that they conclude that addicts are unreliable. Since I was neither an authority figure, nor of any benefit to the addict, there was immediately removed any reason why the addicts should lie, and for the reasons already described, for the most part, I do not think that they did.

The only other comments which I think should be made on the fieldwork concerned the time taken to complete the attitude tests. The paired comparisons test could be completed in 10 minutes, but usually took the subjects 15 minutes to complete. One subject did however take 55 minutes. The completion of the semantic differential

material proved much more of a problem than originally anticipated. Thirty six concepts proved far too many for the subjects to cope with. Most managed to complete the instrument at two sessions, but a few needed three or four sessions before they were able to complete it, and some just did not complete it at all. Boredom and inability to concentrate for any length of time proved to be the main reasons for not being able to complete the attitude tests, but an inability to read was found to be the basis for one subject's attempted non-participation. Owing to the fact that I was at the clinic for nearly two years, and was more persistent in finding addicts who were not very keen to participate than they were in maintaining their non-participation, there were no addicts from whom I did not gain any information at all, except one who died, and one who moved away to live in the South of England.

During the two years field work, time not spent in collecting data, was spent in reading around the general field of the sociology of deviance, and reading material which had a bearing on Merton's theory. This reading, combined with my impressions of the addiction process from the hours of interviewing, convinced me that not only did Merton's theory not apply to drug addicts, but that as a means of explanation of behaviour it was inadequate. In the next chapter I try to show how I came to this conclusion, and how I think drug addiction can be understood

within a wider context of deviant behaviour. A theoretical framework for the interpretation of drug addiction as a form of behaviour is therefore presented, together with hypotheses which can be derived from this theory which can in part be test by the data already collected.

10. A Re-evaluation and Reformulation of the Theory

More than two years spent in the field collecting data, and therefore two years interviewing addicts, meant that I gained certain impressions about the values and attitudes of the drug addicts, and about the reasons for them becoming addicted, but these impressions did not entirely fit in with Merton's theory. Without even analysing the data it seemed obvious that Merton's definitions were far too naive, and his typology of the modes of adaptation to the strain towards anomie was not exhaustive. Also, a closer look at the literature on delinquency and the sociology of deviance raised more questions, not just about the validity of his assumptions, but about the nature of his explanation.

In a later paper, "Social Structure and Anomie: Continuities" (1949) Merton refers to behaviour as "types of role performance", and cites problem families and the response of some widows to widowhood as examples of retreatist behaviour, but if one is using role theory, the concept of role loss would appear more appropriate in the latter case, and over-demanding roles for the former example. While implying an interpretation of behaviour at the level of role theory, its use is limited by Merton's typology.

Cloward and Ohlin (1960) tried to explain failure via an illegitimate route to success in terms of socially structured barriers.

They point out that "prestige...is just as scarce among adolescents who seek to acquire it by violence as it is elsewhere in society", and they quote from Wilmer (1957) in support of their argument. He maintains that as the gang grows older, two things happen. First, gang fights and "hell-raising" become kids' stuff, and secondly, these activities are replaced by more individual pursuits and concerns such as work, future, and a steady girl. The gang in fact breaks up and access is closed to previously useful means of overcoming status deprivations.

It is difficult, however, to see how the break-up of the gang can be seen as a socially structured barrier to status achievement. In this case, the process which seems to take place is a loss of role through the disintegration of the role giving structure. In his study of addiction in the medical profession Sherlock (1967) found that in some cases addiction followed on the loss of a highly cathectic role, and in the same way, Cloward and Ohlin's example could be regarded as an illustration of the way in which role loss might occur.

It seems that Cloward and Ohlin's argument can only begin to make sense if gang break-up is seen as a failure of the criminal world to recruit new members from the gang. It would therefore be possible to interpret this failure as being due to a socially structured barrier in the sense that there are more applications for entry than there are

places available in the criminal world. However, as Cloward and Ohlin themselves point out "as adolescents near adulthood, excellence in the manipulation of violence no longer brings high status. Quite the contrary, it generally evokes extreme negative sanctions...Powerful community expectations emerge which have the consequence of closing off access to previously useful means of overcoming status deprivations".

If the gang member has overcome status deprivations through the gang, then he must have status in the gang, and is therefore not a double failure. If he is a failure in the gang, then even if he had access to the criminal world there is no reason to suppose why he should succeed, since he is already a double failure. Therefore gang break-up cannot be interpreted as a socially structured barrier to achievement of goals.

Further, status has always meant in Mertonian theory status in relation to middle class goals. When illegitimate means are used to gain status, the status gained is still the same as that venerated by the middle classes. So if money is gained by dubious means, it is "purified" by giving some to a socially recognised charity, so that the owner will be accepted by those who have gained their money by legitimate means. An exercise in this direction was at least partially successful when attempted by the Kray twins.

Cloward and Ohlin claim that they are using Merton's theory, yet write about status within the gang. Gang status is not the same

as that of the middle class nor is it accepted by them. This search for status is then concerned with status outside the limits of Mertonian theory. Furthermore they ignore the position of the "stable criminal". Only a minority of those engaged permanently in law breaking activities ever attempt to enter the middle classes, or aspire to their goals, except in the most perfuntory way so as to disguise the real nature of their activities. Only the Mafia, has, according to tradition, been actively concerned with respectability.

As maturing out of a gang occurs, the importance of the gang diminishes and importance is invested in other activities such as job and family. An explanation of drug addiction does not find a place here unless the concept of role loss is used. It is not, therefore, primarily the existence of socially structured barriers which leads to addiction, but a failure on the part of the individual to invest anything else, or any other activity with meaning, and a failure to find a role with the collapse of the role giving structure, that could lead to addiction. Recruitment into the criminal world would not necessarily solve the problem. Conversely, non-recruitment into the criminal world does not necessarily cause it. Again as Cloward and Ohlin point out, after the gang breaks up, a stable corner boy role can be taken on. Those who take on this role are not necessarily aspiring towards the goals of the middle classes of money and mortgaged property, because they are seen as being beyond their reach. Status within the

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group - family, work group, friends - might be allocated on the basis of personal worth, and so it is possible for a person with middle class goals not to have them satisfied either by the stable corner boy response or by recruitment into the criminal world. Cloward and Ohlin however would think of both of these responses as successful.

These problems arise, I believe, because it is the theory itself which is at fault, not merely aspects of its application. Merton's, and indeed Parsons' conceptual framework seem essentially to be ideal types, both in the Weberian sense, and one suspects at times in the value sense also, with all the associated advantages and disadvantages.

An itemisation of elements of any system is simply a description of what is or could be the elements of that system at any given point in time. When examining a highly formalised, hierarchical organisation structure, such an approach may be useful, although there is a tendency to emphasise the formal structure at the expense of the informal structure. In fact, a tendency to look for what theoretically should exist, at the expense of what does. However, where structure is less clearly and formally defined as in the wider society itself, such attempts to itemise the more formal elements does not provide an explanatory system, because it makes no allowances for society being an ongoing system. This overstructuring leads to a theory such as Merton's, where cause and effect are both derived and manifested in

structural terms, with each individual member of society acting as an isolated being. The individual becomes the battle ground for structural forces, mediated in Parsons' theory by interpersonal response traits. Merton does not seem to allow for either multiplicity or manipulation of goals, or for the pluralistic status systems which exist, and where addiction could be a form of behaviour which brought status rather than a rejection of means for achieving it.

This means inevitably that it is impossible to accept Merton's basic assumptions about the nature of society and merely re-jig the typology. His conception of society is essential to the typology and the inapplicability of the typology must be traced to this source. Therefore before any theory can be supported, the assumptions, often made but rarely expressed, upon which any theory of behaviour rests, about the nature of society and the nature of man and the relationship between these two, must be made explicit.

The first set of assumptions which need to be examined before any typology addiction can be established are those concerned with the nature of society. Merton for example, assumed the universality of middle class goals, without regard to the nature or origin of these goals, which seem crucial to the degree of committment that they will engender. Although Short and Strodbeck (1965) found that in their gang lower class and middle class samples evaluated middle class images

equally highly, "middle class proscriptive norms (the deviant images) either decline in force or are rejected more strongly as social level goes down". Middle class goals might be accepted in principle by the working class, but apparently without any great sense of commitment. This is not altogether surprising since most would not have the slightest chance of achieving these goals, and no evidence has been put forward to suggest that they cling to totally unrealistic aspirations, although there is evidence to suggest that aspirations among school children and their parents are higher than they could reasonable expect to achieve. (Himmleweit 1952, Martin 1954, Veness 1962). Other work in this field by Clark and Wenninger (1962, 1963) is inconclusive, apparently supporting both Merton and Miller (who maintains an extreme cultural explanation for delinquency).

Since delinquency and crime are primarily a working class activity, many theories which are termed theories of deviance, are in fact theories of working class delinquency. They seek to explain delinquency only in terms of the values and attitudes of the working class, without reference to the rest of society. This approach seems to be the opposite to that of Merton who did not allow enough for the sub-cultural variation in values and attitudes, or the possibility of alternative goals to those of the middle class. Miller (1958) for example sees working class culture as "the generating milieu" for delinquency, Mays (1963, 1967) claims that "sub-cultural juvenile

delinquency is more historical in origin due to class differences which have thrown up traditionally variant ways of living, "and Morris (1957) argues that the culture of the working class both perpetuates social delinquency and increases the pressures towards psychiatric delinquency. While there is an enormous wealth of evidence testifying to class differences in language (Bernstein 1959, 1960) up-bringing (Newson 1963) educational opportunities (Floud, Martin and Halsey 1956) sexual practices (Kinsey 1948, Schofield 1965) and ways of life (Klein 1965), theories which only relate class differences to delinquency I think are explaining delinquency at a superficial level. Although delinquency, and in the United States drug addiction, are largely limited to the working class, explanations only on terms of working class attitudes, values or ways of life I do not think are sufficient, for attention must be given to the relationship of deviance in one class to the rest of the social structure, since membership of a particular class most often determines the whole life style of that person. Although delinquent activities are unlikely to help scholastic achievement or economic status, according to Toby and Toby (1957) it is low economic status which preceeds low intellectual status, and low intellectual status which preceeds delinquent activities.

I believe that attitudes and values are largely determined by an individual's position in the economic hierarchy, which is practically

synonymous with the power hierarchy. Within this highly stratified society there is probably a nett downward mobility (Havighurst 1963) which is a reflection of the redistribution of income in favour of those with the greatest wealth and power (Titmuss 1962, Lundberg 1969). There are, as Merton pointed out, structural barriers to advancement - there are for example not enough places in higher or further education for those "who are capable of benifiting from such education", - but there are also cultural barriers. Short and Strodbeck (1965) state that "When resources of the lower-lower class family are too meagre to go around no matter what is done, the children of such families miss an important opportunity for development of verbal skills which come from participating in discussions of resource allocation". Later they add "Those at the bottom of the social class have short-term orientation-concern with problems of the moment, because they are so pressing and omnipresent, and with such opportunities as may be found for temporary relief from these problems".

Although the hierarchy of status and prestige closely reflects the power hierarchy, it does not do so completely. There also exists a multiplicity of status hierarchies, almost as many as there are groups of people - whether the group is a gang or a profession. Occupational status rankings - for which there seems to be general national agreement - are for the majority of people the main determinant of status, but within each strata or each occupation there exists

finely graded hierarchies of prestige, which may be local or national in basis, general or specialist in interest.

A failure in one prestige hierarchy can be compensated by status in another. In this sense goals change according to the ability of the individual to fulfil them. Rather than seeing goals and means as finite entities, it seems more reasonable to view both as part of a process, in so far as aspiration will tend to be limited by what it is possible to achieve, and as one set of goals are fulfilled so new possibilities are created and new goals are formulated. Therefore failure, or even potential failure, can be overcome by movement into or greater emphasis on another status hierarchy. Therefore addiction may not only be a retreat from society, but an effort to gain status among a group of drug takers.

Although the terms goals and means have been used above, they are not perhaps the most useful means of expressing the discrepancy between aspiration and achievement. Merton in fact by using these terms moves from one level of explanation (structural characteristics of society) to another (types of role performance) with only anomie as the intervening variable, although it can only achieve this status by being interpreted at two different levels of explanation simultaneously, and only succeeds in masking the basic failure of the theory. As a concept, anomie resembles mercury for the ease with which it can be

grasped, and should have been left in the nineteenth century with Durkheim, since it serves no useful purpose.

By using the concepts of aspiration and achievement many of the criticisms of Mertonian theory are obviated. For example, if aspiration is equated with power, then Turner's (1954) criticism that it was often impossible to distinguish goals from means, as in the case of money, cease to be relevant, because money is a means of obtaining power, whether directly through the purchase of goods or services, or indirectly through education or position.

The second main set of assumptions revolves around what is termed in sociological literature "the conception of man". In effect the assumptions are concerned with not so much the nature of man per se, but his relationship to society - why he conforms and his relationship to the mechanisms of social control. It is extremely difficult, if not impossible, to study deviance or non-conformity unless one has some conception of why people conform. This is especially true of course with theories which explain deviance in terms of the malfunctioning of mechanisms of conformity.

Wrong (1961) has argued that many sociologists have what he calls "an oversocialised conception of man". He maintains that the word "internalisation" has become equated with conformity, "Thus when a norm is said to have been internalised by the individual, what is frequently meant is that he habitually both affirms it and conforms to

it in his conduct...Deviant behaviour is accounted for by special circumstances, ambiguous norms, anomie, role conflict, or greater cultural stress on valued goals than on the approved means for attaining them. Tendencies to deviant behaviour are not seen as dialectically related to conformity...Nor does the assumption that internalisation of norms and roles is the essence of socialisation allow for sufficient range of motives underlying conformity". In effect he says that conformity may sometimes simply be expediancy. He also argue that the Parsonian model of the "complementarity of expectations", the view that in social interaction men mutually seek approval from one another by conformity to shared norms, is a formalised version of what has tended to become a distinctive sociological perspective of motivation. With this view, conformity is taken for granted, and no separate explanation is necessary since norms are part of, they are constitutive of, the mind of man through the process of socialisation, and deviant behaviour is explained in terms of the malfunctioning of this conformity process.

It is this type of "oversocialised conception of man" that I wish to avoid without taking up the position many of the control theorists who postulate the regulation of action derives from outside the individual, and consists of sanctions which society imposes on those who do not conform. It seems that these theorists see man as a pathological deviant who needs controls imposed on him to make him conform.

Wrong (1961) points out that Parsons (1937), in his interpretation of Durkheim concludes in effect that "constraint is more than an environmental obstacle which the actor must take into account in pursuit of his goals in the same way that he takes into account physical laws: it becomes internal, psychological, and self-imposed as well". As Wrong says, before Parsons was influenced by psychoanalytic theory he held the view that norms were constituative rather than merely regulative of human behaviour. Although Parsons moved away from this view it seems the most valid approach so far encountered. Therefore one of the main assumptions of this thesis is that norms are constituative as well as regulative of human behaviour. However, which norms are regulative and which constituative for particular groups or individuals, and how and why they are so, is outside the scope of this research. Conformity to social norms may be the result of internalisation, and/or the desire to fulfil expectations, and both may be correct at different times for different people, but do not exhaust the possible reasons for conformity. Conversely, deviant behaviour may be promoted because of lack of internalisation of social norms, and/or the desire to reject certain expectations, while at the same time often simultaneously fulfilling others, but again these are not the only reasons for non-conformity.

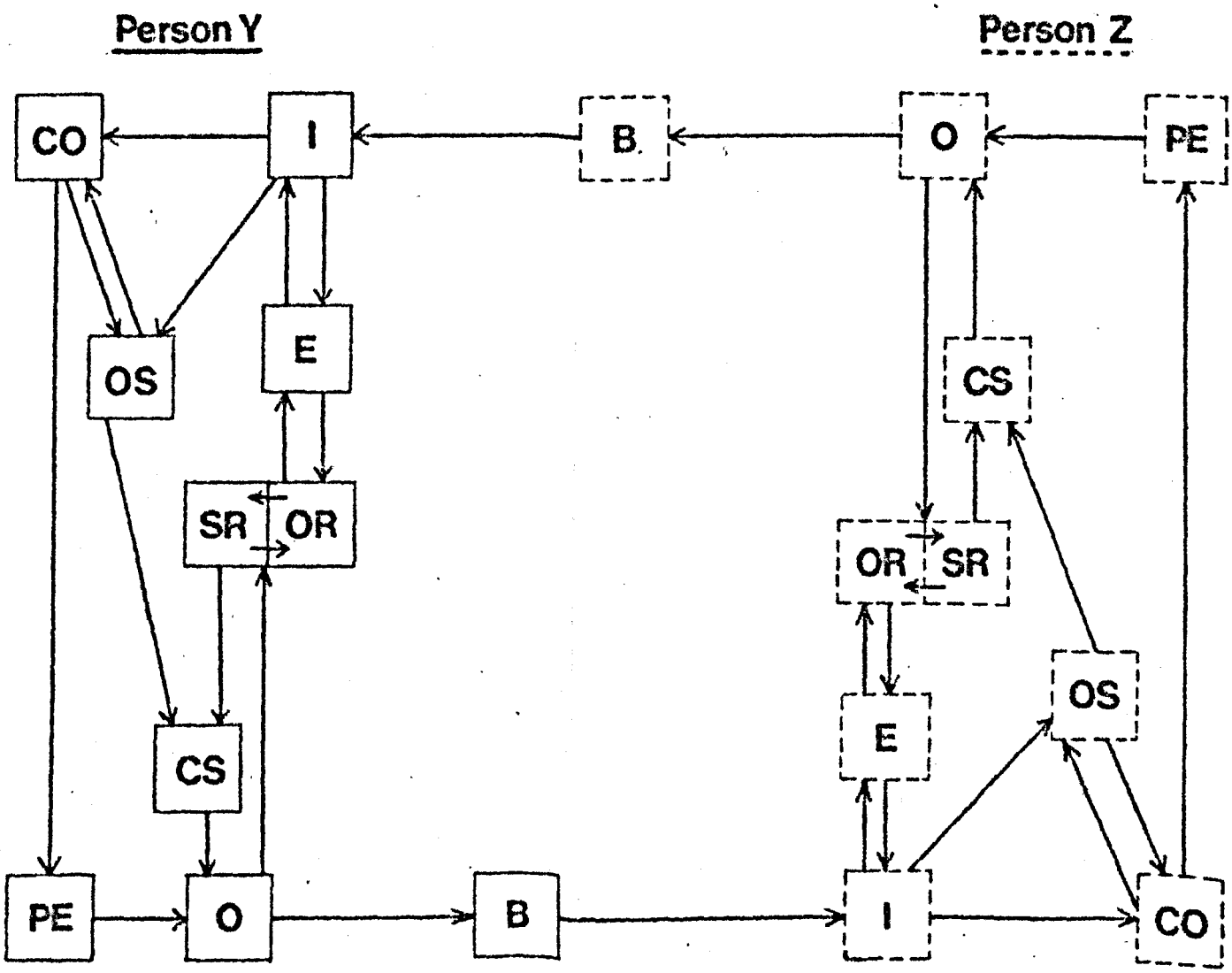
The third set of assumptions concerns basically the relationship between individuals - the interaction process - though it

is based on the two previous assumption about the nature of society, and of man, and arises out of them. The interaction process is diagramatically represented below and is expressed in terms of role theory, mapping out the relationship between different roles and different processes such as role taking. The diagram below (Fig. 4) also provides the model from which the sources of role strain are derived, and ultimately the explanatory framework for a typology of drug addiction.

The diagram of the interaction process shows the role systems of two people. There are two assumptions associated with this diagram which are firstly that interaction can only occur between two people, or two categories of people, and any one point in time, and secondly that change is part of the system. Therefore one does not have to account for change per se, but for differing rates of change, and for no change, since the basic state of the system is one of motion or change.

Before, however, the addiction typology is presented, the basic concepts of role theory must be elaborated, but first of all, the meaning and dynamics of the interaction diagram must be explained. In the diagram letters stand for words which are defined and explained below.

4. The Interaction Process



In the diagram

B stands for Behaviour, but behaviour in its widest sense, which includes dress, gesture, word or act. Information might be a more accurate, though less readily appreciate word to use.

I stands for Input. This represents the information processing part of the interaction equation. The mechanics are those of the cognitive system, and the main processes which occur being those of registering, relevancy and interpretation. Here, of course, I am simply naming processes, not saying how or why they occur. Each process however, is dependent on the preceding one, and initially involves a yes/no type decision, as follows:-

(a) registering - information is either registered or not. If it is then the information is checked for

(b) relevancy - information is either found to be relevant or not.

(by checking OR, others role). If relevant, then it is subject to

(c) interpretation - where by checking with E, expectations, it is found to be consistent or not. If the information is totally new, then O, output, will be a request for more information.

E stands for Expectations. These are the expectations that Y has of Z in a particular role, and are derived from OR, Others Role.

OR stands for Other's Role. The knowledge of Other's Role is built up through past experience of interaction, and through role taking, the mechanism by which prediction of another's actions becomes possible. To use Kelly's (1955) terminology, "A person's processes are psychologically channelized by ways in which he anticipates events. He anticipates by constructing their replications". Turner (1962) adds "A role cannot exist without one or more relevant other-roles towards which it is orientated. The role of 'father' makes no sense without the role of 'child'...The idea of role-making shifts emphasis away from the simple process of enacting a prescribed role to devising a performance on the basis of an imputed other-role".

CO stands for Concept of Other. As with concept of self, the concept of other is differentiated from the phenomenological field in the course of interaction. In the diagram CO is Y's idea of Z - Y's evaluation of Z. If for example, Z's behaviour is not consistent with Y's expectations, then Y's idea of
(a) the general role of which Z is one occupant changes (and therefore derived expectations will also change) or
(b) Y's idea of Z's performance in the role changes, so that either Z becomes a special case, or Y tries to make Z conform.

PE stands for Perceived Expectations, which are in this case the expectations which Y believes that Z has of him. If concept of other changes, then perceived expectations also change since they are derived from it. These expectations may be seen by Y as legitimate or illegitimate, positive or negative. (That is how not to act as well as how to act).

O stands for Output. Under Output is subsumed the decision making process. If the expectations are held to be legitimate, then perhaps the decision making process serves two important functions, which are:

(a) consideration of total role commitment, and evaluation of these specific expectations in relation to others which might exist, and

(b) by a process of role taking, evaluating the sanctions which Y may suffer as a result of non-fulfilment of Z's expectations.

SR stands for Role repetoire of self, that is the sum total of roles that any individual has, together with the value he places on each and his degree of commitment to each. Another process which must also occur here is one of choosing the appropriate role, either in line with PE, the perceived expectations, or in order to display rejection of these expectations.

Although I say choosing a role, perhaps choosing behaviour

associated with a role might be more accurate. If Y has no clear idea of what behaviour is appropriate he might experiment with certain actions, which if re-inforced, will form part of that role, but if treated in an unfavourable manner will be rejected as part of behaviour appropriate to that particular role. In this way role making can occur.

SR - OR The reciprocal arrows between SR and OR indicate that one's own role repettoire (SR) is built up largely from knowledge of other people's behaviour and therefore other people's roles (OR). Some roles are however developed through the role making process and the results affect the individual's ideas about other people's roles.

CS stands for Concept of self. Using Rogers' (1951) definition, though not his theory of self, "A portion of the total perceptual field gradually becomes differentiated as the self. As a result of interaction with the environment, and particularly as a result of evaluative interaction with others, the structure of the self is formed, an organised fluid but consistent conceptual pattern of perceptions of characteristics and relationships of the 'I' of 'me' type together with values attached to these concepts". I see the concept of self in terms of both a sieve and as a mainspring for action

through the process of what Glaser (1956) calls differential identification. Concept of self is built up by playing roles, and finding other people's reaction to this behaviour. "Conceptions of self...are confirmed, revised or elaborated partly by instruction from significant others and partly through direct experience" (Foote 1951). The input is through the other's, in this case Z's, concept of Y, which is what Z thinks of Y as Y understands it. This I have called Other's concept of self (OS).

OS stands for Others concept of self, or simply, "what he thinks of me". According to how highly the other is evaluated, and how many others reinforce this opinion, so OS will form an important component in behaviour, since it can largely determine the concept of self, and hence the appropriate behaviour for particular circumstances.

Relationship of CO to OS to CS. What Z thinks of Y, or anyone else thinks of Y contributes significantly to concept of self (CS). Whether Y is going to accept Z's view of him will be determined in turn by what Y thinks of Z (CO), and whether the information offered by Z is a legitimate part of his role (as derived from OR through E). For example, a child might say to a teacher who comments on his clothes that "you're not my father". The same statement might be held to be legitimate

from one source, a father, but not from another, such as a teacher.

This model of interaction whose elements have been described above is a functional analytic model of interaction, not a model of the cognitive system, nor of personality. It does not deny the importance of interpersonal response traits, personality traits, sets, motivation or even the unconscious, but this is not concerned with all the determinants of behaviour. It merely represents a model which attempts to separate and show the relationship between the concepts which I have been using in the analysis. It is not concerned with content, or the determinants of each of the concepts, or indeed the mechanisms which are subsumed under each of them, but with the process of interaction, and not the total mechanics. I find it useful to distinguish analytically certain components, or aspects of the process, in order to clarify the sources of role strain, and to establish an explanation of behaviour which confines itself to one level, that of role, and does not slide unwittingly from one level and type of explanation to another.

Before, however, establishing the sources of role strain, the concepts or role and role strain, and in fact related concepts, should be defined and explained.

A role, for example can be described as "a set of norms and expectations applied to the incumbent of a particular position" (Banton 1965). It is associated with that certain position. A role encompasses the duties, obligations and rights of that position. The role associated with any given position in a group is necessarily defined in relation to the roles of the other related positions. Positions may be ascribed or achieved. Associated with each role is a role set, which is "that complement of role relationships in which persons are involved by virtue of occupying a particular social status" (Merton 1957). Each person has many positions and therefore possess multiple roles, though the value he attaches to each will vary, and the degree of commitment with which each role is invested changes from one role to another, and within one role over time (Goffman 1961).

We can, I believe, analyse all behaviour in terms of roles, though it may not always meaningful to the role occupant, or always unequivocally useful to the sociologist to do so. To express behaviour in terms of roles is to slot acts, words, gestures into categories which may not be recognised by the role occupier. Role I think is a useful tool of analysis because it can illuminate the basic structure of meaning underlying certain acts, beliefs, or expectations, but the danger lies in the fact that the concept of a

particular role may take on a form, permanence, order and reality which does not in fact exist. Roles therefore vary in their degree of specification, which, according to Turner (1962) allows for the process of role making. "An initial distinction" he writes, "must be made between taking the existence of distinct and identifiable roles as a starting point for theory and postulating a tendency to create and modify conceptions of self and other roles as the orienting process of interactive behaviour". Roles 'exist' in varying degree of concreteness and consistency. While the individual confidently frames his behaviour as if they had uniquivocal exitence and clarity. The result is that in attempting from time to time to make aspects of role explicit, he is creating and modifying roles as well as merely bringing them to light; the process is not only role-taking but role-making".

Each individual certainly possesses a large number of roles, but Goode (1960) goes further and suggests that "in general the individual's total role obligations are over demanding.....the individual's problem is how to make his whole role system manageable... how to allocate his energies and skills so as to reduce role strain to some bearable proportions". This role strain he defined as "the felt difficulty in fulfilling role obligations".

The relationship of role strain to role conflict seems to be one of degree and not of kind, but whereas conflict is not necessarily inherent in any role relationships, role strain certainly is. As change is the basic state ofthe interaction systems, so I think strain is to the role system.

One advantage of using Goode's approach is, as he points out, that one can avoid the view of society which sees the continuity of social roles and thus the maintenance of the society as mainly a function of two major variables: the normative, consensual commitment of the individuals to the society; and the integration among the norms held by those individuals. Goode maintains, I think correctly, that the role pattern can be held in place even if the actor does not have a strong normative commitment to the role, by role pressures from other people - other third parties. Therefore it is possible to regard some role performance as a matter of expediency rather than belief. This follows from the view of the nature of man in relation to social controls, because only if the mechanisms of social control are seen as being both a part of the individual, internalised, and external to him, as sanctions, can this sort of model be appropriate.

There are some further concepts which Goode employs and develops which seem particularly useful in the analysis of the process of role relations. The first term is that of the role bargaining. He states "role relations are seen as a sequence of 'role bargains' and as a continuing process of selection among alternative role behaviours in which each individual seeks to reduce his role strain". As in economics, the concept of optimisation is useful, for an individual is out to get the best bargain in the interaction process. His side of the bargain, is what Goode calls the "role price". "The role price", Goode claims "is the level of role performance an individual finally decides on and is the resultant of the interaction between

(a) his pre-existing or autonomous norm conmitment, i.e. his desire to carry out his performance,

(b) his judgement as to how much his role partner will punish or reward him for his performance, and

(c) the esteem or disesteem which the peripheral social networks or important reference groups will respond to ego's performance and attempts to make ego perform adequately".

By using the above concepts, and abstracting ideas both from Turner (1962) and Goode (1960), roles become dynamic processes and not static sets of expectations. They can be augmented and manipulated by the individual, who in fact is probably constantly readjusting his total

role relations, or a particular role within a role set, because it is taken as axiomatic that his total role commitment is too great for complete fulfilment, that resources are over-stretched, and that role strain is intrinsic to the role relations.

Following from his analysis of role strain, Goode suggested ways in which this strain could occur, which were

(1) because we have to perform roles at different times in different places, conformity is not always automatic.

(2) because different role relationships might demand contradictory performances.

(3) because each role relationship typically demands several activities or responses, which may contain inconsistences. There may be different but not quite contradictory norms which may be applied to the various behavioural demands of the same role, such as quality and quantity, universalism and particularism.

(4) because each role comprises a role set, and conflicts can occur in different aspects of the same role.

Although I would not disagree with the above on the basis of content, I do on the basis of exhaustiveness. Goode simply does not seem to cover all the sources of role strain which can occur, and which I hope are covered by the following analysis.

Sources of Role Strain

The sources of role strain can be defined as:-

(1) Inability to achieve or maintain expectations of role senders.

(2) Inconsistency in expectations

(a) Inter-role inconsistency

(b) Intra-role inconsistency

(c) Role-set inconsistency

(3) Actor's expectations of other's role obligations not fulfilled.

(4) Role Loss

(5) Role ill defined.

(a) under defined

(b) over defined

1.a. Inability to achieve expectations of the role senders

If a role occupant cannot fulfil the expectations of the role senders, then role strain will inevitably be increased. In these circumstances, the actor can either question the legitimacy of the expectations or his own adequacy in fulfilling the role bargain. If the role senders' expectations are regarded by the role occupant as legitimate, then the actors concept of self is threatened since he has implicitly accepted the role bargain of which the role senders' expectations are a part. It is of course assumed that the role bargain would not have been made unless it cohered with the actors concept of self. There are cases where this might appear not to be true in the sense that the role bargain

has been imposed on the actor by virtue of some authority recognised by the actor, but in fact it still holds. For example, the role relationship between father and son recognises the legitimacy of the father to certain expectations, including those which not all sons can fulfil. The son might be expected to excel at school in either academic or sporting pursuits and yet is not capable of doing either. This sort of conflict could arise because the father's expectations were unrealistically high, or because, as Parsons points out, the actor perceives the expectations to be greater than they in fact are. Nevertheless, the choice in this case is still whether to question the father's legitimacy to these expectations, or for the son to accept his inadequacy. Even if the legitimacy of the expectations was denied, fear of severe sanctions could still result in a desire to fulfil expectations, and hence avoid the sanctions.

1.b. Inability to maintain the expectations of the role senders

In this instance, role strain may arise when the actor finds himself in a situation where, often by mismanagement of roles, he faces the loss of one or more cathectic roles. It is not a situation of actual role loss but of threatened role loss, so that the actor is faced with not being able to maintain his part of several role bargains. For example, a man who is in debt through gambling and cannot pay his debts is threatened because he might have to sell his car or his house and move from a neighbourhood where his social activities and friendships

he rates very highly. This would therefore entail a threat to his self concept as say a provider for his family.

2. Inconsistent role expectations

Inconsistency in role expectations may arise in three ways.

(a) Intra-role inconsistency. This can arise because the expectations of one role sender are inconsistent. Using again the example of father and son, a father might expect his son to do well at school and at the same time exhorts his son not to become a bookworm, but to spend time playing and fighting with his peers.

(b) Inter-role inconsistency. This is the type of role strain usually called role-conflict, and consists of conflict between, or rather inconsistent expectations associated with, two or more roles. The literature on role conflict is full of examples ranging from army chaplains (Burchard 1954) to prison officers (Grusky 1959).

(c) Role-set inconsistency. Since the same role usually involves many role relations, there are many role senders, and sets of expectations coming from them. Each set of expectations may be consistent for each role sender, but not consistent with each other. Not all role senders will agree on the definition of a role, so strain is inevitable to some extent. Strain however is greatly increased if the role senders are both

highly regarded and their demands held to be legitimate despite their inconsistencies. Such a case could exist when a father and mother have different expectations as to how their children should behave, and has been demonstrated by Wilson (1959) in the case of Pentecostal ministers and by Gross, Mason and McEchern (1958) in the case of school superintendents.

3. Actor's expectations of other's role obligations not fulfilled

In this case the role occupant finds himself at the end of a bad role bargain, where in fact his own expectations of how the other person should act are not fulfilled. This includes situations where the role occupant is denied a role which he believes to be rightfully his. A much cited example of this is the case of a black doctor particularly in the Southern States where he might expect to be accorded the status of a medical practionioner but in fact is treated as black and therefore lower class. In Hughes' (1945) terms, the master status is that of being black, and the subordinate one that of being a doctor, whereas he believes it to be the other way around.

4. Role loss

Role strain can occur because of role loss, particularly if the loss role is a cathectic or central one, because this will necessarily lead to the re-adjusting of the role pattern. Role loss can of course occur in many ways such as through loss of role sender and reciprocal role position (e.g. death of spouse) or loss of ability to perform the

role (e.g. blindness or old age). It can also be caused by a restructuring of the situation by forces outside the role bargain, for example a change in the law or in public demand. A change in the abortion law put many amateur abortionists who regarded their role as a social service out of a role more than out of pocket, and a decline in music halls has severely limited the number of "entertainers".

5. Roles ill defined

(a) Under defined roles. This occurs when norms of adequacy are lacking and the actor does not know whether or not he has fulfilled his side of the role bargain.

(b) Over defined roles. Over defined roles may lead to a strain between the conception of self and the role bargains of the individual. As Erickson (1950) explains: "What the regressing and growing rebelling and maturing youths are now primarily concerned with who and what they are in the eyes of a wider circle of significant people, as compared with what they themselves have come to feel they are". If the role patterns of the actor are structured in such a way as to permit only minimal or no role bargaining, the significant others' concept of what the actor is, and his own, might be very different. This discrepancy between what the actor feels his real self to be and the way he is regarded by other people will threaten the actors conception of self or even prevent one from emerging.

It should be emphasised, however, that the presence of one source of role strain does not preclude the simultaneous existence of other sources. Inconsistent expectations, for example, may occur at many levels, both within a role, between roles, and in a role set. A disagreement on role definition can occur between the role occupant and different members of complementary roles in the role set, because all see the role in a different manner.

Having described how role strain can occur, there follows a description of how this strain can be diminished.

Techniques for Reducing Role Strain

The techniques for reducing role strain are shown in figure 5.

I. By renegotiation of the role bargain

This is a continuous process which is intensified as role strain increases, and enables a readjustment of the role bargain by role sender and actor so as to diminish perceived strain or conflict.

II. By re-structuring the role patterns or situations

This re-structuring can take place by changing any one of the main elements of the situation, which are:

A. The actor's relationship to the role pattern

B. The actor's relationship to other.

C. The actor's perception of role strain.

D. The role pattern which causes the strain.

Fig. 5 Summary of Techniques for Reducing Role Strain

I Re-Negotiation of Role Bargain

II Re-structuring Role Patterns

A. ACTOR'S RELATIONSHIP TO ROLE PATTERN

1. Change self concept
2. Role detachment

B. ACTOR'S PRECEPTION OF ROLE STRAIN

1. Rejection
2. Distortion
3. Rationalisation

C. ACTOR'S RELATIONSHIP TO OTHER

1. Challenge personal worth of other
2. Other's entitlement to the role
3. Change others conception of the actor

D. THE ROLE PATTERN

1. Rejection and substitution
2. Role substitution
3. Selection of one role
4. Re-definition of role
5. Change in role allocation
   a. intensification
   b. comparmentalisation
   c. delegation
   d. evasion
   e. displacement
   f. expansion
6. Withdrawal

A The actor's relationship to the role pattern

Role strain can be diminished if the actor changes his relationship to the role pattern. This can be achieved in two main ways - by changing the concept of self, or by detaching the concept of self from the role to be performed.

1. Change of self concept. If expectations are regarded as legitimate, and the actor cannot change his role pattern in any way, the concept of self must change. Obviously this will have reprecussions in other aspects of the role system, for if an individual attributes say failure to achieve expectations of significant others to his own inadequacy, then he will probably feel unable to use other roles from his role repertoire, and thus become inadequate at fulfilling certain roles because of lack of practice. Change in self concept need not necessarily be in the direction of admitted incapability, or perhaps in the terms of which it is more often voiced"not the sort of person to do that", but it seems likely that a belief in an actor's increased ability to fulfil more roles would be the result of successful role management, and would therefore be the result of successful reduction of role strain.

2. Role detachment. An actor can also change his relationship to the role pattern without greatly affecting it, by detaching his self concept from the role which he has to perform. The actor therefore dissociates himself from particular actions, and says things like

"Its not really me" or "I was only doing my job/duty/what I was told". It is in fact what Goffman (1959) calls communication out of character.

B The actor's relationship to other

By changing the concept of other, the actor can re-define expectations as illegitimate, or at least not as binding as before. This can be done by

1. changing the personal evaluation of other, so that he is not "a fit person" to occupy a particular role, or
2. by challenging the other's entitlement to the role he is playing. Both in fact deny not the legitimacy of the expectations associated with a particular role, but other's right to the role.
3. The actor can also attempt to get other to change his conception of the actor, so that the actor is seen as no longer either the right or fit person to fulfil the demands. This can be done by deliberately upsetting the expectations that other has of the actor's behaviour.

C The actor's perception of role strain

Role strain can be reduced by the actor changing his perception of the information which he receives concerning the strain. This can be achieved by

1. Rejection of information. This was a technique which Burchard (1954) claimed was used by chaplains who were also

army officers. The denial of information which may conflict with opinions and concepts dearly held is a very commonly employed technique, particularly noticeable among the religious such as the fundamentalists and the Dutch Reform Church.

2. Distortion of Information. Sometimes information is rejected outright, sometimes it is merely distorted. It is not uncommon for statistics to be presented in a distorted fashion to prove a point, for a case to be exaggerated, or for extrapolation from one case to a general population to be made, not merely by accident or through ignorance, but because the undoctored information would have caused a strain in the role or interaction system.

3. Rationalisation. Role strain may be reduced by simply re-defining the situation so as to eliminate conflict.

D The Role Pattern

Perhaps the most obvious way of reducing role strain is to alter the role pattern which causes the strain. This can be done in a great variety of ways, the most extreme of which would be

1. Rejection and substitution. This is what Merton called rebellion, and involves a total rejection of one pattern of roles, together with associated values and attitudes, and substitution by a different set of roles. The roles which could not be changed, usually those which are

ascribed such as son or mother would be re-interpreted so that different values and expectations were attached to them. Rejection and substitution could also occur, for example, by joining a closed religious sect or a political group or party which re-interprets the world, relationships, rights and duties in a different way. This is not to suggest that every member of the Exclusive Bretheren or the Anarchist Party join either in an attempt to reduce role strain, but that for some members this is likely. Indeed most "conversions", whatever it is that the actor may be converting to, usually involve a total change in the role pattern in a way described above. It involves moving from one total environment or institution to another, which is often a closed one. The American Hippie/Yippie/Family communities are another example. A less extreme way of reducing role strain is by role substitution and role selection.

2. Role Substitution. This is a reaction to strain most likely to follow upon role loss. If a role sender or role senders drop out of the role bargain, then the actor might be able to substitute other role senders so that he can continue with the same role. In the case of one role sender, say, death of spouse, the actor can re-marry to re-establish the role pattern. However, in the case of numerous role senders this can still be used as a technique. Where for example, the actor is excluded from or in some way deprived of a status giving structure, substitution of another structure often occurs.

Organisations set up to achieve specific goals, often on fulfilment of these goals find others to achieve rather than dismantle the organisation. The people in the organisation provide in effect themselves with other tasks so that they will not be out of a job, and also have to break up a whole role giving structure. In a similar way exclusion from a particular group or the disintegration of that group, might lead to a search for a similar status giving group. The disintegration of a role giving structure might not only entail the loss of job and therefore role of provider, but the loss of many other roles from friend, and colleague, subordinate and superior, to the loss of a whole set of people who provided an evaluation of self, and from whom a sense of identity might have been largely derived.

3. Role Selection. Role selection often takes place where two or more roles are in direct conflict. Resolution of the conflict can occur by embracing one role and rejecting the other. The identity crisis of second generation immigrants is often solved in this way. For example, second generation Italian-Americans who perhaps worked in American factories with native-born Americans but returned to an Italian-type homes. The values and demands of the two communities might be quite different and even conflict. Solution is possible by becoming fully one nationality or the other, and emphasising one identity while at the same time implicitly rejecting the other. In the same way that this

technique can be used for conflicting roles, so it can be used in the case of conflicting expectations concerning one role. If roles senders are inconsistent one role sender's demands can be given priority over the other. This may also involve

4. Re-defining other's role. If expectations cannot be achieved, then they can be denied. One way of doing this is to re-define the role of other so that the expectations are not legitimate, and it is often achieved by reference to some higher authority, or at least, common practice. For example, a pupil might reject the legitimacy of a teacher's expectations on how he should dress or the length of his hair on the basis that it is not part of the role of the teacher to have concern for these things, but his father's. He might also reject his father's expectations of the same thing on the basis that "Other kids father's don't complain/create a fuss/interfere like you do". Obviously if autonomy in dress and hair style is the aim, then such "double-thinking" is the most rational course. Alternatively, role strain can be diminished by

5. Changing the Role Allocation Pattern. This means re-jigging the role complex, so that a more favourable pattern emerges. This can be done in a great many ways, of which I think the main ones are:

(i) by the actor intensifying his efforts to achieve his goals, or to fulfil expectations or to meet all his commitments. This would

mean a re-allocation, at least, of time and effort from some other roles. The role price which the actor is prepared to pay in order to keep the role bargain has in fact increased. Under this category would also be what Merton called innovation, since finding new means to attain a valued goal is another part of the increased role price. Roles can also be manipulated in a number of ways, by

(ii) Compartmentalisation. Buchard (1954) illustrated this technique for reducing role strain, and in the case of the army chaplains consisted of splitting their roles as officers in an army at war, with their roles as upholders of a religion which preeches a non-retaliatory approach to violence, by emphasising the philosophy "render to Caesar the things that are Caesar's and to God the things that are God's".

(iii) Delegation, as Goode points out, could be regarded as a special case of compartmentalisation. Here, one role which conflicts with others is delegated, so that all the requirements of the role senders are met, without the actor having to fulfil them himself.

(iv) Evasion. This consists of evasion by the actor of the source of strain by dropping out of the role bargain. This does not involve the denial of legitimacy of the role sender's expectations, but consists of an avoidance of situations where expectations and sanctions can be applied. The example suggested by Goode is that in the work situation this would involve the actor in seeking a new job. It is

perhaps only in a matter of degree that this can be said to be different from withdrawal, though this nevertheless is described below. Within the role pattern,

(v) Displacement might occur. Roles can be displaced within the role pattern by the compulsive or obsessional performance of one role at the expense of others. This is in many ways similar to what Merton called ritualism, and Parsons (1951) called perfectionist observance. By nicely fulfilling one role, other more irksome or conflicting roles can be avoided, without denying the legitimacy of the expectations of the role senders in those roles. A very similar technique, though with slightly different means is effected by

(vi) Role expansion. This involves the extension or expansion of the role network by taking on another role which has precedence over all others, and fulfilling the new role at the expense of others. This can happen when there exists conflicts between roles, or there are inconsistent expectations, or even when norms of adequacy are lacking. In the latter case taking on a new role can serve two functions. Either a role where the norms of adequacy are known is chosen so that the ones where no norms exist can be shelved, or the new role can be used as an excuse in case the actor's performance in other roles is questioned. Therefore the actor does not have to define himself as inadequate but the demands as too great. In a sense this is denying the legitimacy of expectations, but they are the expectations defined

by the actor by taking on the extra role. Role expansion can also be said to occur when anyone becomes ill because they take on a new role which has precedence over all others, sometimes to such an extent that all other role performances are suspended. Also in this category are the roles which an actor may take on as a diversionary measure. Attention may be diverted from the lack of satisfactory performances in other roles by diversionary tactics such as crisis creation. Various forms of illness are perhaps the techniques most often used to achieve this effect, but some forms of delinquency and drug use also fall into this category. The delinquent who tells a teacher of his actions, or an addict who leaves a needle where his parents will find it, both seem to use deviant behaviour in order to involve parents, significant others, and outsiders in their problems. After such action, the actor is forcing other to change his conception of actor's self. (OS in terms of the interaction diagram). Finally, the actor may simply

6. Withdraw from the Role Pattern. This may be called an extreme form of evasion or role selection since it can be both, but may be neither. Unlike Merton I do not see that it is necessary to specify that the legitimacy of expectations is denied, as also in role selection. Like an extreme form of role avoidance, an actor can simply move on, but instead of changing jobs the actor could become a "missing person", and leaving everything behind, go to another town or another country

and start again. If there is great normative commitment to his roles, then the actor is very unlikely to pursue this course of action, but if his role pattern was held in place largely by sanctions for non adequate performance, and if the actor were able to devise a way of avoiding the sanctions, then this is a very likely course of action. Apart from physically withdrawing from a situation an actor can withdraw by withdrawing his normative and emotional commitment to a role, and can outwardly be seen as a condition of apathy. Such a response is likely to occur if there are competing contradictory demands which can neither be dealt with nor fulfilled. People who use withdrawal as a mechanism of dealing with strain may reject the expectations of the role senders, but usually rejection is followed by substitution of some sort which justifies the rejection in the first place. As in the case of role selection, rejection of one whole role set may take place by implication, but this is not even necessary. An Italian/American for example who decided that he was American first and Italian second, would perhaps also change his concept of self, so that Italian roles would be inappropriate for him as an American. He would not challenge the legitimacy of the expectations associated with a particular role as his right to fill that role. The implications of this being that people can withdraw from a situation without challenging it, or the legitimacy of any of the expectations associated with it. This may account for the conflicting results from various research reports

on the attitudes of delinquents towards the middle class value system. People may know its tenets, and because of the educational system and the attitudes of their parents, associate it with the word "right" - but this does not mean that there is any meaningful commitment to this "right" way of behaving. The stereotype of the alcoholic may be of someone who drinks to drown his troubles, but as Howard Jones (1963) points out this is only true of a tiny proportion of alcoholics, but true for some nevertheless. Jones describes the main reason for this retreat as "the confronting of an individual with situations that, for him at any rate, are insoluble", so that "alcoholically-induced delusions...(make him see) the world other than it really is". This form of withdrawal does not even necessarily seem to entail the lessening of normative commitment to the roles, but alcohol is used to change the actor's perception of the conflict. It should still be labelled withdrawal however, because the actor withdraws from reality into a delusional world.

Although the ways of dealing with role strain which have been outlined above, appear to be discrete forms, this is simply for purposes of analysis. In the last example given under the heading of withdrawal, it could be claimed that a withdrawal into a delusional world is in fact a manipulation of information. This is true, and information is distorted so as to eliminate conflict, but was categorised as withdrawal because the actor's concept of other did not necessarily change or the

new perceptions of the situation have re-precussions on other parts of the role system. It could also be said that the perception of reality under alcohol lasted only as long as the effects of the alcohol on the subject's system. I do not think in fact that any of these categories have rigid boundaries, so that one reaction to strain might be equally placed in one category or another if it combined two approaches or straddled the boundary between two categories.

The above model does not classify behaviour but modes of response to role strain. It is, I believe, important to emphasise this, because it then becomes possible to classify what appears to be the same behaviour in different ways. Just because behaviour might appear the same to an investigator does not mean that it is. An account must be taken of the function such behaviour has for the actor. Such function specific explanations are not altogether uncommon, but they are rarely taken to any logical conclusion. Thus, although stealing is against the law, the penalty varies according to the nature of the crime, the amount stolen and the reason for the theft. Therefore if someone stole food because he was hungry he would not generally be as severely dealt with as someone who stole for profit. In the above model, the function of certain behaviours is to reduce role strain, but for different people the method may be different, and the function that certain behaviours have for the individual for the different categories of the model. For example, drug addiction can be said to

perform different functions for different people, for some a form of withdrawal, for others a means of taking on the sick role, which in this case is a form of role extension. Before, however, drug addiction is interpreted in terms of the above model, an explanation is needed about the relationship of the sources of role strain and the mechanisms of reduction.

The Relationship of the Sources of Role Strain to the Mechanisms of Strain Reduction

Most of the sources of role strain can be coped with by most of the mechanisms of strain reduction. How and why particular mechanisms are used rather than others, depends, I think, on the following factors:

1. The actor's conception of self

Since it is part of the definition of the interaction process that behaviour will be consistent with the self concept, it follows that the self concept will limit the range of possible behaviour. The conditioned reflex termed conscience is what most people would recognise as a limiting factor, and this forms part of the concept of self, because it defines a range of behaviour which is not permitted and to which the self would not subscribe.

2. Interpersonal response traits

"Social behaviour of the individual is channeled by his interpersonal response traits - relatively consistent and stable

dispositions to respond in distinctive ways to other persons". (Krech, Crutchfield and Ballachey 1962).

3. The actor's level of tolerance of strain and ambiguity

The individual variation in the ability to tolerate ambiguity will mean that some people seek ways of reducing a strain that others can cope with easily. Therefore two people in apparently identical circumstances can not only use different mechanisms to reduce role strain, but that one might be impelled to act under pressures which do not affect another.

4. Ability to manipulate roles

Not everyone is able to manipulate their roles, in the sense that a. not everyone can strike a good role bargain. Some people might be consistently better at negotiating good role bargains, while others almost invariably come off worst in any bargain. b. Not everyone has the ability in the sense of competence, to manipulate their roles. They might be totally unable to compartmentalise two conflicting roles for example. c. Ability in the sense of opportunity might be lacking. It is not always acceptable or possible for the actor to delegate his roles, or to fulfill one at the expense of others.

The implication of this is that in order to find out why any individual, say, becomes a drug addict, the individual will have to be studied. I do not think that it is possible to extrapolate from one level of explanation to another, nor a valid test of any theory that it

should be able to predict how any individual will behave if it is concerned with types of response. What a theory should be able to do is predict changes in the rates of behaviour, and indicate which sections of the population are most exposed and susceptible to certain pressures, and which responses to these pressures are likely to occur where. Obviously in order to achieve this there must be a comprehensive theory of why the behaviour occurs and what its function is. Despite the fact that only a case study in depth could yield answers to why any individual acted the way he did at any particular point in time, the frame of reference within which he acts is independent of any one individual. The structure of society, the differences associated with different strara, and the immediate environment of the individual all channel his behaviour in a particular direction, and are outside his immediate control. The sorts of decisions usually taken by an individual which are not predictable from the knowledge of the social structure are often short-term personal decisions which have little or no effect on the long-term shape of a person's life, or affect his position in society, or those types of decisions which occur within a broadly pre-determined framework. For example, within certain probability limits, given a persons exact job and education it is usually possible to predict not only the sort of house and neighbourhood where he is likely to live, but the sort of holidays he takes, the type of school his children go to, his political affiliation and even some

of his attitudes and values. This does not mean that one can say which house he will live in or where exactly he will go for his holidays, but if there is a high degree of homogeneity within certain categories, then exact location within one is not only irrelevant but a waste of time since it does not contribute greatly to any broader understanding, merely to the finer tunings of the status and power operations within one group.

When the above model is applied to the study of a specific form of behaviour such as drug addiction, it seems possible that addiction could represent very different forms of response to role strain. These responses could be characterised as follows:

1. Withdrawal
2. Role expansion via a. taking on the sick role
   b. crisis creation
3. Role selection
4. Role substitution

It is not suggested that someone necessarily consciously recognises strain in his role relationships and consciously decides on a course of action to reduce his role strain. Between the existence of unsupportable role strain and the discovery of a method for its reduction will be a whole process of learning and trying out of new behaviours in the role relationship, and seeing the reaction of others to these behaviours. For example, the discovery by parents that their child is taking drugs, and even that he is injecting himself, might

result in the parents treating the child as someone who is sick because they do not want to accept that either he is the same as those terrible people about whom they read or that they do not want to define him as a criminal. As a result the child might find that being regarded as sick makes life much easier for he does not have to perform irksome roles or duties, and so in order to maintain this sick role he continues to be, or becomes addicted.

One role process which has not so far been described and which it would perhaps be appropriate to enlarge on now is that of role development. Role development is probably a continuous process which is heightened at particular times. Roles develop in many ways, and can arise from defining a previously undefined role, as with Turner's "role making", or by deliberately taking on new roles, as with marriage or adoption of a child, unintentionally taking on a new role, as with widowhood or becoming a grand parent, or perhaps more commonly a new role develops as a result of those already held, or at least new commitments and others enlarge an already existing role set. A new role can slowly develop by the actor gradually taking on more and more behaviours associated with a particular role. The total role complex of an individual - that is the totality of his roles - is always in flux. New roles are being added, others exchanged, and old ones shed, while many more are modified.

Also relevant to an explanation of present day drug addiction is a model to explain the emergence and development of gangs. A study of nineteenth century addicts would not necessitate this since addiction did not appear to begin among teenagers, or even for the same immediate reasons that they appear to do so to-day.

Because of proximity and inevitable interaction, school friends and/or neighbours of similar age form play groups, and from these grow the teenage groups or gangs. Unless the group is orientated toward some common task, status hierarchies will develop within the group based almost solely on group criteria for status, but will probably be based on items which distinguish the group from certain others and at the same time identify it with yet other groups, and also on those skills which help to maintain the group. Hence in an area where groups might be physically threatened by other groups, manipulation of violence and prowess in a fight might be highly regarded, whereas in other areas an equivalent display of aggression might yield sanctions from the group. Short and Strodbeck (1965) found that "In the absence of any intervention by an outside agency, the natural gang leadership will direct the energies of the gang to the heightening of affective feelings and stress on matters such as distinction of dress, dance style, prowess in fights etc., which have virtually no relevance for the job world or other long-term goals".

It also follows that if an actor has little or no status outside the group, then that obtained in the group becomes all the more important. Young school leavers would be particularly susceptible if they came from a low economic status since achievement at school was likely to be very low and consequently careers would be limited. In the mid-teens most would be too young to gain any work status, or status among the people with whom they work, orany interpersonal emotional or sexual involvement or in fact marriage or a stable sexual relationship. The group is in some cases the only status giving structure available. Also, as Short and Strodbeck (1965) again point out, "what has previously been described as short run hedonism may, under closer scrutiny, be revealed to be a rational balancing, from the actor's perspective, of the near certainty of immediate loss of status in the group against the remote possibility of punishment by the larger society, if the most serious outcome eventuates". So drugs may be tried by members of a group either because everyone else is tryingthem and they do not want to be left out and thought of as cowards, or introduced to a group by people low in the status hierarchy who want to gain status and make an impression, and this is the most daring thing of which they are physically capable.

It is suggested that drug addiction could be the result of the loss of the status giving structure and an attempt to find another in the drug addict sub-culture through the technique of substitution.

However, rather than speculate further, I think that it would be more fruitful to await the result of the data analysis. Many hypotheses could be derived from the above theory for which some of the data could be used to test, but this seems somewhat of a hollow exercise. The main model of techniques of role strain reduction, of which, part, I believe, can account for why people become addicted. They are again set out with a summary of the data that should be available to test them.

1. Withdrawal. Withdrawal not in the Mertonian sense but as a form of blotting out unpleasant experiences with which the actor cannot cope. Data from interview schedule and case history.

2. Role expansion via a. taking on the sick role. This is already being tested.

   b. Crisis creation. Data from interview schedule. Mainly qualatative, but early involvement of parents with their child's "problem of addiction" will be looked for.

3. Role selection. Selection of a role in a drug taking group and actual or implicit rejection of other roles which are unpleasant. Perhaps the most difficult to test, but preferences should find a reflection in the attitude tests.

4. Role substitution. Substitution of addict status group with peer group gang dissolution. It is doubtful if this is testable from the data collected at other than an impressionistic level.

Therefore Merton's theory has been discussed and criticised in the context of a critical review of the literature. A theory of addiction was presented, and the literature analysed in terms of theories of addiction and information on addicts. Hypotheses were presented and operationalised, and the fieldwork was described. There then followed further criticism of Merton's theory and the presentation of another conceptual framework which sought to account for patterns of addiction encountered in the field but not accounted for by the original theory.

There now follows an analysis of the data in terms of the original hypotheses and also the lately developed theory.

PART IV

Introduction - On the Art of Analysis

The analysis of data seems to rely as much on the art of management of people and resources as on the scientific techniques of analysis. The availability or not of computer programmes and computer time to a large extent determined the type of analysis which can be undertaken, and the amount of data which can be analysed. Unfortunately, the analysis here does not do justice to the material in the sense that it by no means exhausts the possibilities for meaningful analysis, even though the data is examined in detail with reference to the hypotheses, supplementary questions and later theory. However, within the limitations of time, money, and resources, the analysis is as exhaustive as possible.

The analysis is presented initially according to the type of measuring instrument used, because of the necessity of using different types of analysis for each. First, the data gathered by using the paired comparisons technique is analysed and interpreted. This is followed by the analysis and interpretation of the semantic differential data, and then similarly by the interview schedule data. Finally, the results of these analyses are collated, summarised and presented, together with interpretations and conclusions.

11. The Analysis of the Paired Comparisons Data

The data gathered by the paired comparisons technique is first analysed to establish the consistency of the subjects' judgements, and then to find the degree of similarity of the rankings among the subjects.

Data was collected from two samples which yielded 39 and 26 subjects, of whom 36 and 23 respectively completed the attitude questionnaire which was based on a rank order technique known as paired comparisons. This provided a total of 59 sets of rankings of eleven wants, which represented different attitudes to various types of goals.

Since every item was paired with every other item, a measure of the consistency of each subject was possible, by calculating the number of circular triads. When item A is preferred to item B, and item B to item C, but item C to item A, this is called a circular triad. It is possible to calculate a coefficient of consistence, zeta, based on the number of circular triads which occur in each set of judgements, and to establish the significance of zeta from a table calculated by Whitfield. (Kendall 1948, Chambers 1952). Zeta was calculated for the 59 subjects, and the results compared with the table of significance. Eight subjects were found to be inconsistent in their judgements, and therefore were eliminated from further

analysis. One interesting point, however, was noted concerning the inconsistent judgements which were made, which was that most of the inconsistency arose because of an inability to distinguish between items and rank the data at all. The result was that most of the items were judged to be equally desired or rejected, so that a distinction was made between what was liked or not liked, but no ranking was possible by the subject of the items in either category.

The remaining 51 ranked preferences were re-numbered, and analysed by McQuitty's elementary factor analysis and hierarchical linkage analysis. (McQuitty 1960, 1961). Since the data was rank order, Spearman's coeffcient of correlation (rho) was used to calculate the correlation matrix. The technique of hierarchical linkage analysis requires that both sides of the correlation matrix are filled out, and the two columns with the highest correlation are collapsed to form a new matrix. Each new matrix is collapsed to form another one until no items remain. The result of applying this technique to the correlation matrix of ranked values is shown below, and takes the form of a number of homogeneous clusters. According to Chambers (1952) and Moroney (1956) the significance of rho can be established by using the Students' test, since the number of items ranked is not less than 10. Even with the probability $p = 0.05$, the lowest significant correlation is .61. In the following figures it

6. Showing the Result of Applying McQuitty's Hierarchical Linkage Analysis to Spearman's Rank Order Correlation (rho) data obtained from a Paired Comparisons Attitude Measurement Technique

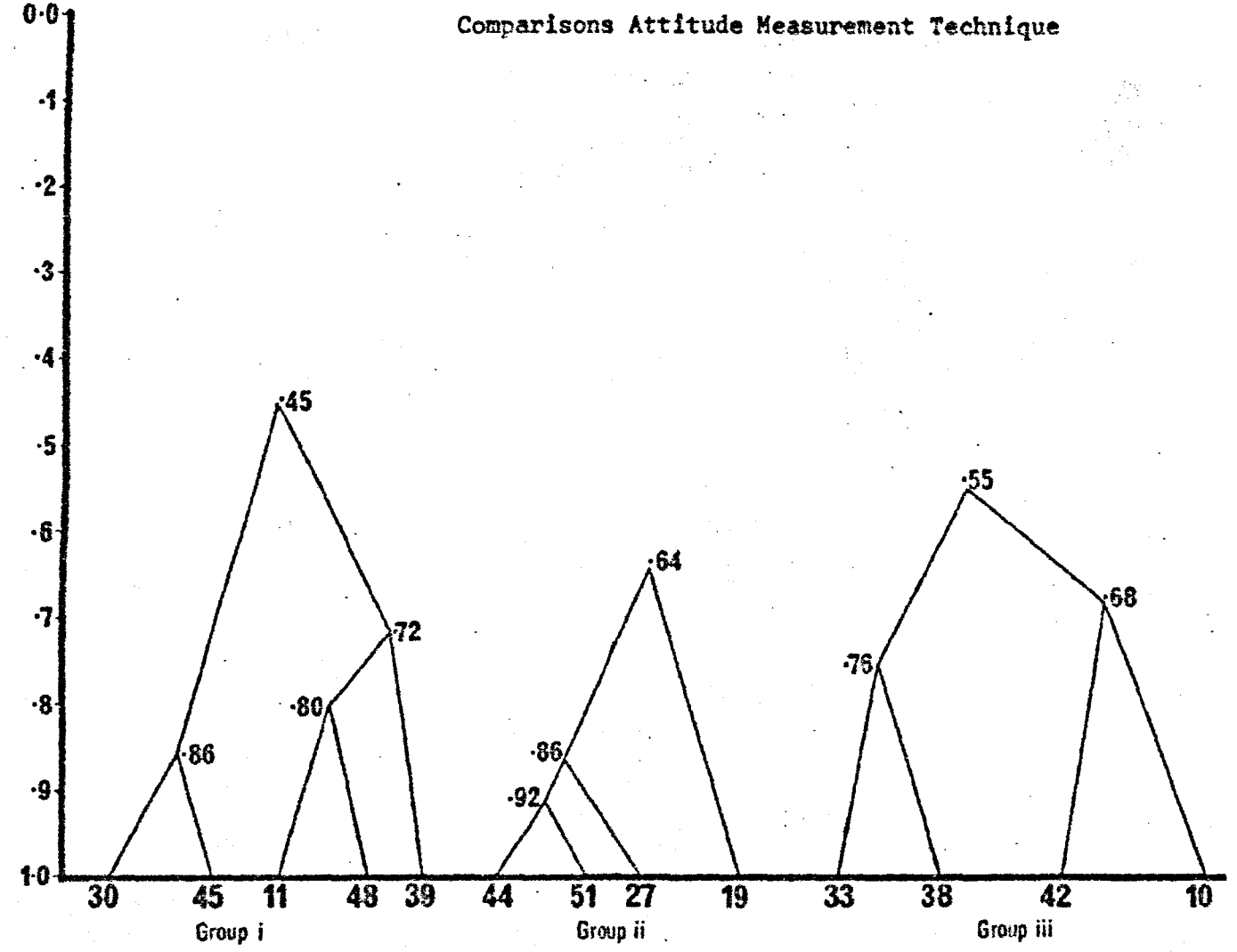
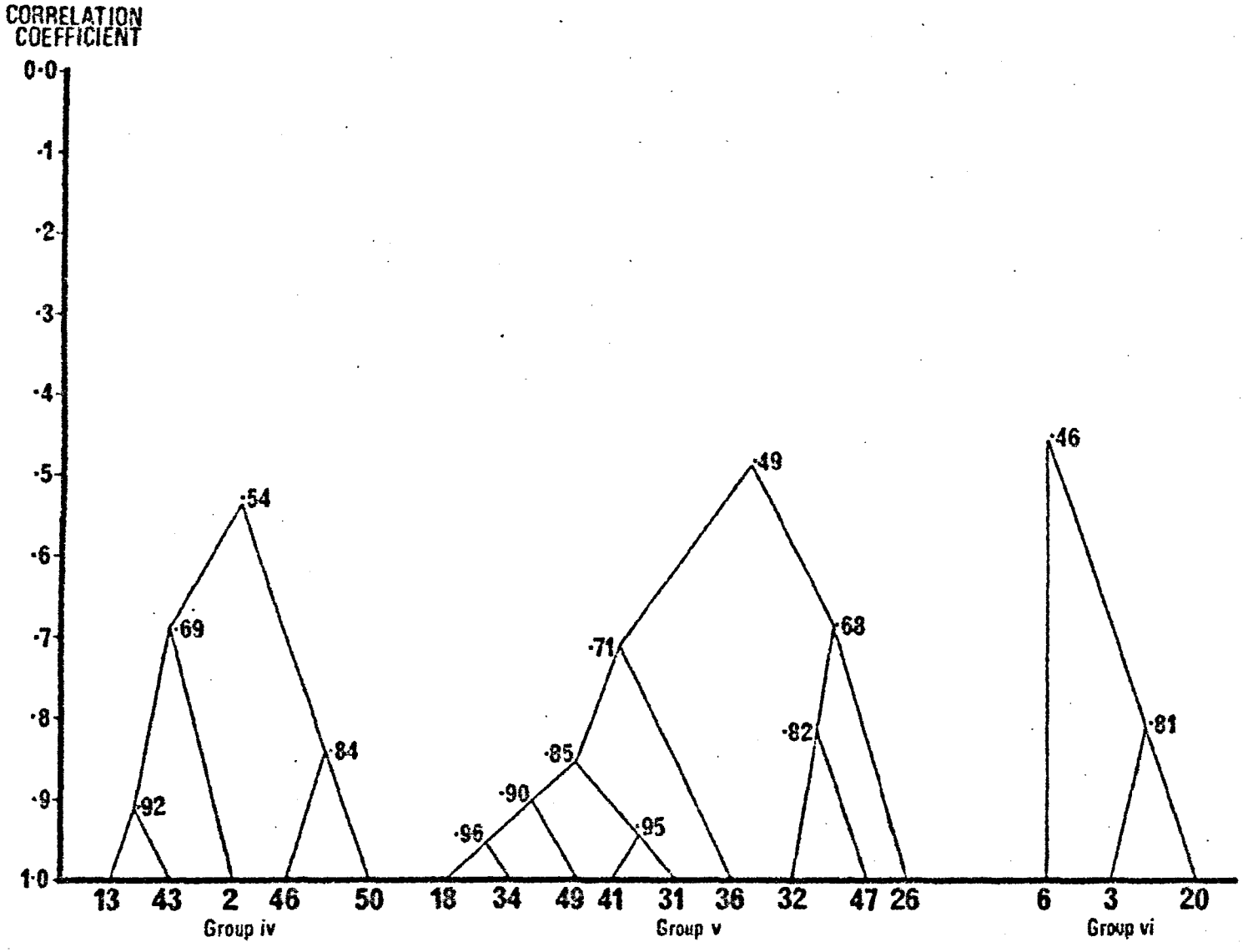


Fig.6 (contd.)


CORRELATION COEFFICIENT
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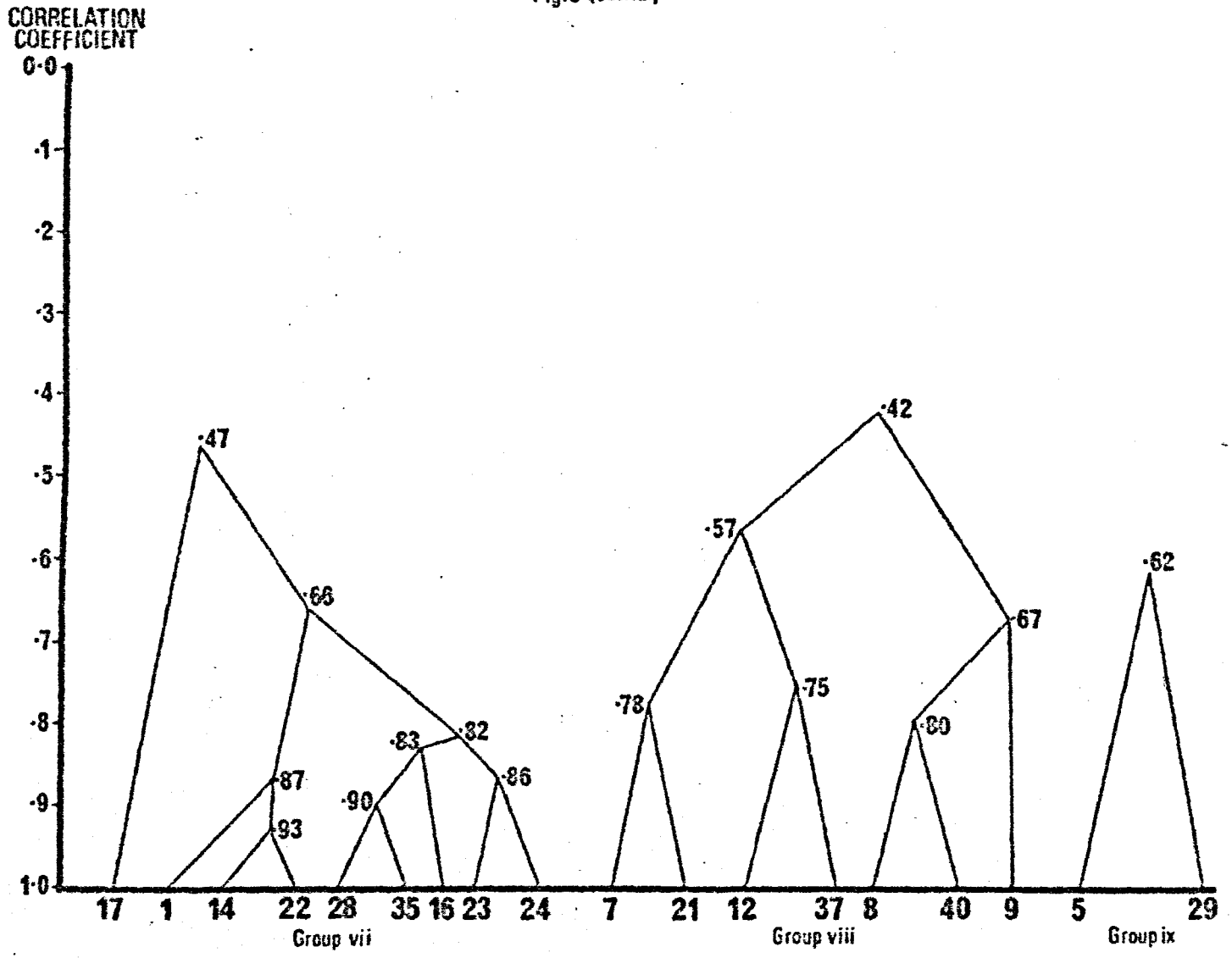
18 34 49 41 31 36 32 47 26
6 3 20
Group iv
Group v
Group vi

Fig.6 (contd.)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·9
1·0
·47
·66
·87
·93
·90
·83
·82
·86
·42
·57
·78
·75
·67
·80
·62
17 1 14 22 28 35 16 23 24 7 21 12 37 8 40 9 5 29
Group vii
Group viii
Group ix

can be seen that several groups include a number of subjects whose correlation coefficient with the total group is lower than .61, but this is because the correlation of that subject with other individual subjects is much higher, and because the aim of the figure is to demonstrate the relationships and similarities between rankings. Nevertheless, three subjects remain unattached to groups, since the level of correlation for their inclusion in the groupings was so low. These were number 15, who could join group III at .30, number 4, which could join group IV at .23, and number 25 which could join group V at .18. The numbers, as previously stated, refer to subjects. Other low correlations which have been included are mainly those which link two different groups, and have only been included to show the possible relationships between groups, not to allocate new subjects.

Having established groups which were similar to each other according to McQuitty's technique, it was decided to establish the degree of similarity between groups by calculating the coefficient of concordance, W, for each of the groups. Like the coefficient of correlation, the coefficient of concordance varies between 0 and 1 and is unity only when all the rankings are identical. For each of the groups I to IX the coefficient of concordance is given below, to three significant figures

Group I W = .843

Group II W = .834

Group III W = .686

Group IV W = .773

Group V W = .736

Group VI W = .741

Group VII W = .748

Group VIII W = .815

Group IX W = .855

The rankings in each group were then combined into a single ranking as a representation of the consensus of each group. According to Chambers, the simplest and best way of doing this is to sum the n rankings for each item, and then to re-rank the n totals thus obtained. This was done, the result appearing in Table 4 below. The rankings I to IX are the consensus rankings for groups I to IX, respectively, but three unattached subjects have been included, and for convenience have been called groups X, XI, and XII.

Interpretation

The most notable pattern to emerge is the pre-eminence of item nine. This is the item which reads "Have an opportunity to be creative and original". It would appear that rather than reflecting the detached approach to social goals, this merely indicates that addicts are as concerned with self-fulfilment as anyone else. In groups I to IX, which are the real groups in the sense that they comprise more than 1 member, item 9 is rated first choice for six of

Table 3

The Consensus Rankings of Eleven Items According to the Twelve Groups Established by McQuitty's HLA technique Showing the Rank given to each item

Items	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	8	11	1	11	6	4.5	5	9	5.5	1.5	9	6
2	10	7	6	5	5	7	4	10	5.5	5	7.5	6
3	7	4	2	8	4	2	3	3	10	4	1	8
4	11	9.5	8	10	10	3	6	6	6.5	11	5	6
5	9	8	5	9	11	6	11	7	9	8	4	9.5
6	3	3	9	3	2	4.5	2	4	2.5	6.5	11	3
7	2	5	7	2	3	8.5	7	2	1	1.5	6	11
8	4	2	10	1	7.5	8.5	10	8	11	3	7.5	1
9	1	1	3	6	1	1	1	1	2.5	10	3	9.5
10.	5	9.5	4	4	7.5	11	8	5	6.5	6.5	2	2
11.	6	6	11	7	9	10	9	11	4	9	10	4
n =	5	4	4	5	9	3	9	7	2	1	1	1

n = the number of subjects in each group

Table 4

The Consensus Rankings of Eleven Items According to the Twelve Groups Established by McQuitty's HLA technique Showing the Ranked Items in Order of Choice

Order of Choice	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1st	9	9	1	8	9	9	9	9	7	1	3	8
2nd	7	8	3	7	6	3	6	7	9	7	10	10
3rd	6	6	9	6	7	4	3	3	6	8	9	6
4th	8	3	10	10	3	6	2	6	11	3	5	11
5th	10	7	5	2	2	1	1	10	1	2	4	1
6th	11	11	2	9	1	5	4	4	2	10	7	2
7th	3	2	7	11	8	2	7	5	4	6	8	4
8th	1	5	4	3	10	7	10	8	10	5	2	3
9th	5	4	6	5	11	8	11	1	5	11	1	9
10th	2	10	8	4	4	11	8	2	3	9	11	5
11th	4	1	11	1	5	10	5	11	8	4	6	7

the groups, second, third and sixth respectively in the other three groups. It is evident that this item is probably responsible for a bias in the results, for it would tend to increase the degree of similarity between rankings. Ideally, the whole set of calculations should be repeated, with item nine absent and all rankings consequently re-ranked. However since the number of correlation coefficients which would have to be worked out would be factorial 51, and then the HLA calculated on the resultant matrix, all by hand, I decided not to do this. The amount of similarity caused by item nine could be seen by re-ranking all the subjects scores after omitting item nine, and then calculating the coefficient of concordance for each of the groups which had been established on the first set of calculations.

However, a closer examination of the results shows that item nine, in nine of the groups out of the twelve, co-varies with item three, and they occupy roughly similar ranks. It therefore seems that items three and nine are subject to different interpretations, which is reflected by the other items with which they are found. Together, they were meant to represent the detached approach, and therefore one would not expect to find them mixed with items representing the compliant approach. Item nine on its own seems to represent self fulfilment, and item three on its own a detachment from other people, while together they appear to modify each other, and seem to represent the view that

the subjects wants "to do his own thing". As such, these items cannot really be said to be supporting or rejecting goals of society, since they do not indicate on their own what "his own thing" might be. The expression of the desire to be free from interference to fulfil oneself should not, I believe, be given too much emphasis. Since addicts are stopped to some extent from doing as they wish by people who control their drug supplies it does not seem unusual, in retrospect, that they should have expressed a desire to be free from interference. It could therefore be argued that it would be desirable to carry out a re-ranking with not only item nine omitted, but item three as well.

However, to continue with observations on the first set of results, it can be seen from Table 4 that the items which co-vary are not always those which were expected to do so, and vice versa. For example, items nine and three did co-vary, whereas items ten and eleven did not, but other items did follow the expected pattern and varied together. These were items one and two, four and five, and six and seven.

Looking at the rankings for each group, only in the first group is there the ideal data for testing the hypothesis. Items six to eleven occupy the first six positions, and items one to five occupy the last five places in the order of preference. In this case the conditions are exactly fulfilled for rejecting the hypotheses that

addicts reject the goals of society. However, when operationalising the hypotheses it was suggested that such a case might not even occur, (and in fact the reverse order of items confirming the hypothesis has not) but it was suggested that the first three places should be taken as criteria for accepting or rejecting the hypothesis. However, because of the doubt concerning the significance of items 3 and 9, I decided to look at the content of the top four and last three places in the order of preference for all the groups. This way the most desired and the least desired goals could be seen, and the groups brought together into larger groups which reflected broad similarities of the types of goals.

The items were summarised, and are presented in Table 5 under the headings of "wanted" and "not wanted". It can be seen from this that three groups emerge. The largest group, group A comprising those rankings which tend to support the goals of society and reject the short-term manipulative ones; group B whose rankings tended towards the opposite response in that hedonistic goals are favoured to the socially accepted ones. The third group, group C, present a somewhat confusing picture, wanting at the same time to help others and not to get tied down to anyone. Respect and security are among the "not wanted" items, and the general approach is nearer that of group B than group A.

Table 5

Showing the First Four and Last Three Rank order Choices for each of Twelve Groups, Arranged by Degree of Similarity

Group Number	Choices 1 to 4 Wanted	Choices 9 to 11 Not Wanted
A.		
I	Self fulfilment, marriage, security, help others.	Easy life, manipulate others not get tied down.
II	Self fulfilment, security, help others, freedom.	Money, hedonism, not get tied down.
IV	Money, Security, marriage, help others	Hedonism, not get tied down, manipulate others.
V	Self fulfilment, marriage, help others, freedom.	Manipulate others, Respect, not get tied down
VIII	Self fulfilment, marriage, help others, freedom.	Hedonism, easy life, respect.
IX	Self fulfilment, marriage, help others, respect.	Manipulate others, security, freedom.
X	Hedonism, marriage, security, freedom.	Respect, self fulfilment, not get tied down.
XII	Security, money, help others, respect.	Self fulfilment, marriage, manipulate others.
B.		
III	Hedonism, freedom, self fulfilment, money.	Security, respect, help other people.
XI	Manipulate others, Self fulfilment, freedom, money	Respect, hedonism, help others.
C.		
VI	Self fulfilment, freedom, not get tied down, help others	Respect, money, security.
VII	Self fulfilment, freedom, help others, easy life.	Respect, security, manipulate others.

However, these three groups, particularly group A are only very broad groups within which there is much variation.

Here, general approval of the goals of society is also combined with unrealistic aspirations, or contradictory ones, such as "have a good time now and not worry about the future" with "have a stable secure future".

It would seem from the groups which have been established that the hypothesis concerning the goals of addicts is both confirmed and rejected. Some, it would appear are more concerned with short term, hedonistic and manipulative goals rather than long-term socially accepted goals, while others seem to accept the goals of society and reject the others. A third group was identified which combined both types of goals in a confused and often contradictory or unrealistic manner.

This analysis must rest here, until data from other tests and from the interview schedule can be used to establish more about the nature of these groups and the nature of their identification.

12. The Analysis of the Semantic Differential Data

The data obtained by using the semantic differential technique is firstly analysed in terms of subject reliability, and then to establish comparability across concepts. Only then is it possible to analyse and interpret individual scores on the attitude scales.

The two samples of 39 and 26 yielded 37 and 26 sets of data respectively. Not all the subjects, however, completed all the attitude scales. The distribution of the completed attitude scales is given below.

Number of completed scales	Number of subjects
32 and under	10
33	1
34	2
35	6
36	18
	n = 37

Owing to the difficulty in collecting data on thirty six attitude scales, only ten were used in the second sample. Of the twenty six subjects who provided data, twenty three did so on all ten scales, the remaining three on nine scales.

Reliability

Reliability data was obtained from 32 of the 37 subjects. Although changes in the ratings of the three concepts which were used for the test re-test occurred, only in two cases did these changes seem unusual, and in both cases the changes occurred where re-testing was delayed by at least one month. Although initially an attempt was made to control the time between the test and re-test, this was soon abandoned in favour of getting as much of the data when and where possible. However, from the limited information on reliability of the addicts, their judgements seem to be far more consistent than has been suggested in the literature, and apart from two subjects whose reliability is a little suspect, and whose replies will be carefully interpreted, the remainder appear to be fairly consistent.

Comparability

Many studies, either by Osgood, Suci and Tannenbaum (1957) or reported by them, indicate that there can be reliable comparability across subjects, but not always across concepts. They point out that in a wide variety of studies concerned with very different types of people, the same judgemental characteristic attributes appear to hold, and this indicates "an encouraging degree of comparability across subjects".

However, with regard to concepts, for ideal or perfect comparability, "individual scales (should) maintain the same meaning, and hence the same intercorrelations with other scales, regardless of the concepts being judged. This condition can be shown definitely not to hold. A less stringent condition would be that the same factors keep reappearing despite changes in the concept being judged, even though the particular scales contributing to these factors may vary". (Csgood, Suci and Tannenbaum 1957). In order to check that the factors which operated in the American studies were the same as those operating in the judgements of addicts in this country, and in order to establish which scales contributed to which factors for which concepts, each concept was factor analysed across all subjects. The method of factor analysis used was that of Principal components, with Varimax rotation. There were therefore thirty three Principal Components Analyses. The number of factors extracted, that is the number of latent roots greater than one, varied from two to five according to the concepts. The distribution of the concepts on the number of factors extracted is shown below.

Number of Factors	Number of Concepts
5	2
4	12
3	15
2	14

The total amount of variance accounted for by these factors ranged from 57.2% to 82.7%, most accounting for about 70%.

Table 6

Showing the Highest Scale Loadings for each Factor for each Concept, and the Proportion of the Total Variance Accounted for by Each Factor or Component

Concept	Factor I		Factor II		Factor III		Factor IV	
MYSELF:	Good	.80	Dominant	.75	Active	.83	Sweet	.70
	Clean	.61	Strong	.67	Hot	.66	Fair	.68
	Fair	.54	Successful	.65	Valuable	.45	Fast	.60
	Valuable	.48	Fast	.55				
			Large	.50				
% V =	14.50		18.27		14.06		13.57	
SOCIETY:	Good	.87	Dominant	.83				
	Fair	.83	Active	.70				
	Sweet	.83	Large	.67				
	Clean	.77						
	Valuable	.75						
	Successful	.71						
	Hot	.69						
% V =	40.73		16.52					
SOMEONE WHO IS ILL:	Good	.85	Strong	.72	Active	.84	Dominant	.77
	Fair	.78	Large	.69	Successful	.81	Fast	.69
	Valuable	.58	Clean	.48	Clean	.47	Hot	.46
	Hot	.54	Fast	.48				
% V =	18.8		16.11		14.68		13.93	

Table 6 Continued

MY IDEAL SELF:	Good	.82	Active	.82	Large	.67		
	Sweet	.82	Strong	.80	Successful	.58		
	Hot	.71	Clean	.78	Valuable	.48		
	Fair	.69	Dominant	.66				
	Fast	.59	Successful	.48				
% V =	23.75		25.90		11.49			
A CRIMINAL:	Good	.83	Dominant	.82	Clean	.80		
	Sweet	.80	Fast	.74	Hot	.72		
	Fair	.85	Successful	.69	Large	.50		
	Valuable	.66	Active	.65				
			Large	.58				
			Strong	.59				
% V =	23.27		24.78		15.44			
A POLICEMAN:	Valuable	.76	Active	.71	Hot	.87		
	Good	.73	Large	.78	Sweet	.70		
	Successful	.75	Dominant	.70	Clean	.53		
	Fast	.72	Strong	.57	Fair	.49		
	Fair	.62			Good	.47		
	Clean	.64						
% V =	27.75		20.06		18.28			
AN ARTIST:	Successful	.84	Clean	.87	Hot	.85	Dominant	.89
	Sweet	.74	Large	.78	Active	.73	Fair	.46
	Good	.71	Strong	.50	Valuable	.65	Valuable	.44
	Fast	.63			Fair	.65		
q	Fair	.51			Strong	.47		
% V =	23.18		18.16		18.47		11.33	
A DRUG ADDICT:	Hot	.80	Successful	.79	Large	.83	Dominant	.87
	Good	.78	Sweet	.76	Fair	.54	Strong	.76
	Clean	.59	Active	.66	Fast	.49		
	Valuable	.39	Fast	.59	Valuable	.42		
% V =	16.51		20.61		13.62		12.98	

Where four or five factors were extracted often a factor would have a high weighting on only one item. For example, with the concept politicians which yielded five factors, one factor has a loading of .9 on dominant/submissive but no other weighting above .41, while another factor has a loading of .95 on large small with the next highest loading of .48. The concept Shop Stewards also provides an example of one item, again dominant/submissive being the only heavily loaded item for one factor.

Although three factors tend to emerge from the analyses, they do not appear to be exactly the same as those described by Osgood et al (1957). Using the same terms as Osgood, instead of three factors emerging which could be labelled evaluative, potency and activity, often the items which would have comprised the potency and activity factors occur in the same factor, for example, concept two, society. (See Table 6). In the example just given the evaluative factor is the same as that described by Osgood, but often the items which had the highest loadings on this concept, for other concepts were spread over three different factors. Particularly with the masculine concepts, my doctor and my father, the items which elsewhere were heavily loaded on the potency factor or on the activity factor were combined with items whose loading is normally greatest on the evaluative factor. For the concept My Doctor, active/passive becomes evaluative, and the concept My Father, strong/weak becomes evaluative. Where the evaluative factor

splits into three, there are often sizable - about ·5 - subsidiary loadings on the other evaluative factors, which does in fact support the Osgood idea of a general evaluative factor, with certain items tapping different aspects of the evaluation.

One observation by Osgood et al. (1957) is that "In the process of human judgement, all scales tend to shift in meaning towards parallelism with the dominant (characteristic) attribute of the concept being judged", and this has certainly been illustrated by this analysis. It seems that assumptions which have been made in other studies about comparability across concepts in a number of studies might not be justified. Not only do items change their factor loadings across concepts, but the factors themselves change. It is therefore impossible to compare totally across concepts using all the factors, or even using only three. Where three factors are extracted, these are not necessarily those of evaluation, potency and activity, but may consist of two evaluative factors and the third a combination of items which are normally distributed in their high loadings across all three factors. For example large/small fast/slow and clean/dirty are the items with the highest loadings on one factor for the concept businessman.

There seems to be only one constant factor, the evaluative one. Although for some concepts it appears to separate into different types of evaluation, one type can be seen to be present throughout, although

it is often augmented by other items, and that is a factor which might be called "worth". While Osgood et al (1957) recognise that there are different "modes" of evaluation, which comprise clusters of scales that are predominantly evaluative, but which share sizeable loadings on some subsidiary factors, this analysis indicates that the "modes" of evaluation are in fact different factors, rather than different aspects of the same factor, but that these factors form a related cluster. It is perhaps, therefore, more meaningful to refer to the evaluative dimension rather than the evaluative factor, with this dimension comprising a number of factors. It also appears that different results could be obtained by using different concepts, or different scales, and that the interaction between the concepts and scales is considerable.

The conclusion reached here concerning the Semantic Differential are practically the same as those from an ealier study (Cooney 1969) where the author states that "It may be simpler to think of individual concepts generating their own evaluative dimensions, than to try to establish a general evaluative dimension which is common to all concepts but sometimes aligns with other factors and acts in an exceptional manner. Many sets of concepts may be found to have similar judgemental frames of reference, giving comparability across concepts".

The one stable factor also has relatively stable items. For example, out of the thirty three concepts, in all but four good/bad and valuable/worthless share high loadings on the same factor. One or

other of these two scales are joined by fair/unfair for twenty six concepts, clean/dirty for nineteen, successful/unsuccessful for eighteen, and sweet/sour for seventeen. These scales were the original scales for the evaluative factor, and although one or other seems to change to a high loading on another factor for particular concepts, and two or three form a separate factor for other concepts, they provide the basis for a comparison of subjects across concepts, and of concepts across subjects. Therefore a score for each subject for each concept will be computed, based on the evaluative factor, or that aspect of the evaluative factor which has high loadings on good, valuable and fair. Since there is a certain amount of item variation across concepts, the four items with the highest factor loadings for each concept which have high loadings on two of the three scales mentioned, will be used. From these four scales, the subjects score will be taken as the mean of the most consistent three scales.

Another dimension of judgement seems to be related to the scales active/passive, large/small, strong/weak, and particularly to the scale dominant/submissive. Although according to Osgood these items should be part of two different factors, they frequently occur together. An inspection of the data in fact reveals that over a number of subjects it is possible to compare concepts, and several concepts for each subject on these two dimensions. The unusual factor analysis results can be accounted for largely by an interaction not only between

scales and concepts, but between individuals as well.

In order to establish any variation in the use of scales among individuals, it would have been necessary to factor analyse the data for each individual. However, because there had already been established that there was neither stability of items or specific factors across concepts by the first factor analyses, it is difficult to see how individual analysis across all concepts could yield any meaningful results. A close examination of the data did account for some of the results, for example, whereas large/small often goes with dominant/submissive for people concepts many subjects seem to use the scale literally, and it is therefore often unrelated to the other scales, whereas some subjects seem to use the scale in a figurative way. It is incidently only possible to establish the way in which the scale have been used by knowing the people concerned, or through information gained elsewhere about the people being judged . Similarly, clean/dirty might be evaluative for most concepts, but when applied to industry seems to be used literally, so that industry might be rated as valuable, good and fair, but dirty. Finally, unlike Osgood's analyses, active/passive seems to be related to the dominant/submissive scale more often than being a highly loaded item on another factor.

In the same way that the items good/fair and valuable seem to tap a "worth" dimension, so dominant, active, strong and large seem to tap a "power" dimension. By only choosing concepts where at least

two of the four items are highly loaded, and the mean of the most consistent three scales, a power dimension score can be obtained. Unlike the "worth" dimension, which seem to be present for all subject across all concepts, the "power" dimension for some subjects on some concepts is not distinguishable as a separate dimension, but the scales which usually comprise it are distributed across three factors. However, a two dimensional analysis is still possible for most of the subjects across most of the concepts.

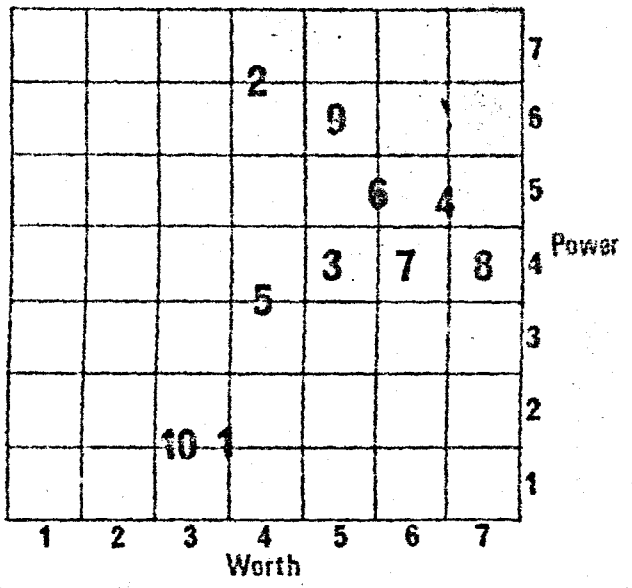
All the concepts for each subject were analysed, so that "maps" of each of the sixty-three subjects' attitudes were established (for examples see figure 7) and then the concepts were analysed across subjects.

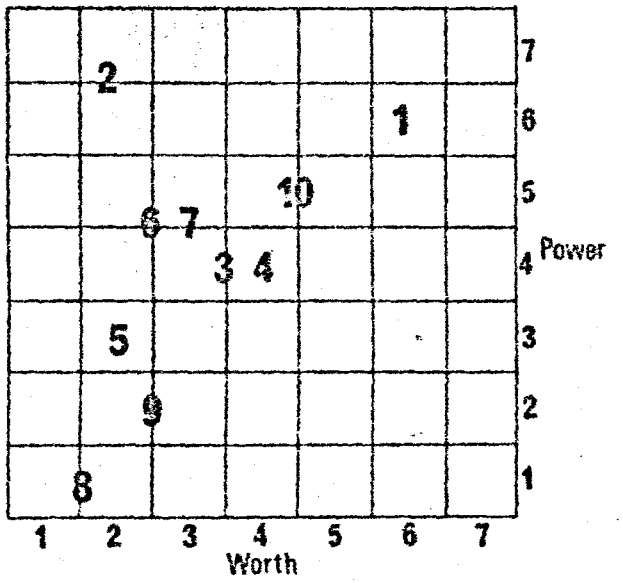
Analysis and Interpretation

The analysis of subjects' scores was initially focussed on the following four concepts:- myself; my ideal self; a drug addict; and society. For this analysis, similarity was accepted if the scores for two concepts were within one and a half points of each other.

In sample one, where there was data on thirty seven subjects, only thirty six were used. A close look at the individual scores revealed one set of data which did not fit into any understandable pattern, and so was excluded from further analysis. In the second sample, data was obtained from twenty six subjects, both samples being analysed separately before the results were combined.

7. Two Examples of Attitude "Maps", Showing the Scores of Two Subjects for Ten Concepts on Two Dimensions





KEY

1. MYSELF	6. A POLICEMAN
2. SOCIETY	7. AN ARTIST
3. SOMEONE ILL	8. MY MOTHER
4. MY IDEAL SELF	9. MY FATHER
5. A CRIMINAL	10. A DRUG ADDICT

Comparing the concept "myself" with other concepts, eleven subjects from the first group and six from the second seemed to think of themselves as both addicted and ill. In the first group, a further ten seemed to think of themselves as addicts, and six as being ill, while in the second group these figures were one and five respectively. Six subjects in the first group and thirteen in the second thought that they were neither ill nor addicted. Therefore only twelve subjects in the second group, which was assumed to be a treatment group, thought of themselves as ill. Looking at the concepts which were rated as similar to that of "a drug addict", eighteen from the thirty six of the first group and fourteen of the twenty six in the second, rated "Someone who is ill" in this way. In neither group did the addict as artist appear a popular conception, since only two in the first group and five in the second rated a drug addict and an artist as similar concepts.

Fourteen and twelve subjects from the two groups respectively, showed a close relationship between the meaning of the concepts myself and my ideal self, eight and ten of whom also identified with one parent. This parental identification is even more marked when the concepts myself, my mother and my father, are compared. Six subjects from group one and eight from group two seem to identify with both parents, eight and three with only "my mother", six and four with "my father". "My ideal self" was similar in ten and seven cases to

both parents, while seven and eight rated "my mother" and five and four "my father" in a similar manner to "my ideal self". Only five and three subjects rated "a drug addict" and "my ideal self" the same, whereas sixteen and fourteen in fact do rate "an artist" as close to "my ideal self".

An analysis of the concept society in terms of high, low or median rating on the two dimensions, revealed that of the eight possible combinations, three quarters of the subjects were clustered in three groups. Seventeen and thirteen subjects from the two groups rated "society" low on the "worth" dimension and high on the "power" dimension, while eight and six rated society high both on "worth" and "power", and five and three rated society low on both. It seems that perhaps "society" means in this context "the establishment" rather than the more neutral concept intended.

The comparison of the subjects' ratings for role and institution concepts followed the predicted pattern in so far as there was little or no difference between the two scores, though there was one exception. Comparison was only possible in a relatively few cases because of failure to complete some of the concepts by the subjects, or because of the tendency of most of the subjects once or twice to opt out of the field, through conflict or boredom, by marking the central position for each item on the concept.

A comparison of the concepts "The Church" and "clergymen" reveals a similar evaluation in seventeen out of twenty six cases. Of the nine cases where evaluations were different, three rated the church as more powerful than the clergymen, and four rated the clergymen more worthy than the church. A similar pattern of evaluation was revealed in relation to the concepts "schools" and "school teachers", and "Parliament" and "politicians". In the former case only four of the twenty four showed any differences between the two concepts, and in the latter case six out of twenty three rated the two concepts differently. The rating pattern for schools and school teachers followed that described for the church and clergymen, in so far that institutions are rated as more powerful than people and people more worthy than institutions. This pattern was, however, reversed in the case of politicians and parliament. Here, the institution tended to be rated more favourably by the deviant cases than the role occupants.

The one case where agreement only accounted thirteen of the twenty one cases was in relation to the concepts "industry", "businessmen" and "shop stewards". However, for six of the deviant eight cases there was agreement in the rating of two of the three concepts, so that either industry and businessmen, or industry and shop stewards were rated the same. This seemed to indicate that for some industry was represented by the management, while for others it was represented by the union. In this case the concept industry is

obviously much too broad to retain a consistent meaning with the subjects, and will therefore be dropped from further analysis.

It is interesting that despite the social and economic position of the subjects, "ambition" was highly evaluated in twenty six of twenty nine cases. This underlines the somewhat surprising finding of the extent to which socially acceptable goals were endorsed. The concept "death" was also highly evaluated, but only in fifteen out of twenty nine cases, but this also nevertheless emphasises the individual rather than social nature of the retreat.

If conflict and strain are interpreted as arising from individual failure or inadequacy, rather than arising from an unjust or unfair social structure, then it follows that individual solutions, one of which is death, will be sought, rather than solutions which involve changes in the structure of society.

The general pattern of evaluation by the subjects showed that very few rated concepts other than criminal, addict, someone who is ill, death and policemen, as low on both dimensions. In fact, only six out of thirty in the first sample who completed more than ten ratings, evaluated other concepts low on both dimensions.

The extent to which evaluations of concepts using the semantic differential are reflected or indicated by information from the paired comparisons test and the interview schedule will be discussed after the analysis of the data from the interview schedule, which is presented

in the next chapter.

It should be noted, however, that it was at this point in the research that the notion of a control group was finally abandoned. Not only did the patterns of addiction appear more complex than originally anticipated, but owing to the unavailability of certain computer programmes, the analysis of some of the data took far longer than anticipated, and therefore precluded any extension whatsoever of the present study.

13. The Analysis of the Interview Schedule Data

The reliability of data obtained from the interview schedule has been described earlier, (see Chapter 9). The analysis which follows consists mainly of a demographic description of the subjects in the sample, their drug careers, and their criminality.

The interview schedule provided data on sixty six subjects, thirty nine of whom came from the first sample and twenty seven from the second sample. More detailed information, particularly on the process of addiction, was gained from the sample of thirty nine, than was obtained from the smaller sample. Some of the data is qualitative, but most of it can be quantified, and is perhaps best presented, where possible, in the form of tables.

From the first two tables, 7 and 8, it can be seen that the second sample has a slightly higher proportion of female to male addicts, and certainly a younger addict population.

Table 7

The Sex Distribution of both Samples

	Male	Female	Total
Sample 1	33	6	39
Sample 2	22	5	27
Total	55	11	66

Table 8

The Age Distribution of both Samples

	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Not known
Sample 1	1	25	7	3	2	0	1	0
Sample 2	8	11	3	2	0	0	0	3
Total	9	36	10	5	2	0	1	

There appear to be no other differences in the two samples in regard to other demographic, occupational, educational or criminal record backgrounds, and therefore both samples are combined in the following tables. If an unobserved difference did exist, it should come to light in the next chapter when data from the three sources is brought together.

With regard to the marital status of the subjects, most were single - thirty four came in this category. Seven were still married, eight separated and three divorced while six cohabited with someone of the opposite sex. Twelve subjects were brought up by a step parent, and at the time of interview both parents of three subjects were dead, another eight subjects were without a mother and nine without a father living. Of the fifty eight couples who were the parents of addicts, on which information was available, in thirty cases the marriage was incomplete due to death, divorce or separation.

The sibling position of the subjects showed an interesting bias in favour of the only and eldest child. The sibling position of the subjects can be summarised as follows:-

Only	Eldest	Second	(other than youngest)	Youngest	Other	Not Known
8	24	12		10	3	9

Also, in the case of four of the twelve second born, the subject was the eldest son, as was the case in one of the three who formed the "other" category. Further, when the backgrounds of those who occupy the category of "youngest" were examined more closely, it was found that the members could be allocated to other categories, so that the set was almost emptied. Five of the ten are the eldest sons, and of the remaining five, one was brought up as an only child by grandparents, and three were virtually only children of a second family, there being seven, eleven and twelve years between the subject and the next young sibling.

A study by Rosenbloom (1959) of 32 Jewish drug addicts found that 15% were the eldest, 22% the only child, and 48% the youngest child. He emphasises the number who were only the youngest children, a position in the family which he claims is "most frequently over-indulged and over-protected". However, it is Schachter's (1959) belief that the first born and only children are overprotected and liable to be inconsistently treated, which together leads to increased dependency,

which encompasses the need to affiliate. Those subjects, Schachter believes, who are a product of parental anxiety and over responsibility over-react to given symptoms of discomfort. Over protection and frustration of child dependency leads to an increasing dependency need.

Whereas it is certainly probable that some addicts maintain very dependent relations with their mother, and addiction itself could be a way of both expressing and maintaining this dependence, it is also certainly the case that not all addicts can be so described, nor can it be argued that all such people become addicts. Any relationship between birth order and addiction can only be described as a tenuous one which might apply to some cases, and is of a pre-disposing rather than pre-determining nature.

Finally in considering the social and family background of the subjects, Table 9 shows the socio-economic background of the subjects, according to their father's occupation.

The secondary educational background of the subjects is one predominantly of the secondary modern school. Twenty four subjects went to secondary modern school, seventeen to grammar school, nine to comprehensive schools, five to secondary technical school and five to other types of school with eight unknown.

Table 9

The Social Class Distribution of the Families of Addicts, according to a) the Hall-Jones Scale of Occupational Prestige and b) the Registrar-General's Classification of Occupations, both being Compared with the social class distribution of males in England and Wales for 1961

(a) The Hall-Jones Scale

Social Class	Raw Score	Approx Per Cent	Census 1961 Per Cent in Pop.
1: Professional and high admin.	2	4	3
2: Managerial and Executive	8	16	4½
3: Inspectional and Supervisory (higher)	2	6	10
4: Inspectional and Supervisory (lower)	7	14	12½
5 (a): Routine Nonmanual	7	14	
5 (b): Skilled Manual	13	26	41
6: Semi-skilled Manual	5	10	16½
7: Routine Manual	8	16	16½
Not known	13	16	12½

(b) The Registrar-General's Scale

I: Professional	2	4	4
II: Intermediate	13	26	15
III: Skilled	18	36	51
IV: Partly Skilled	12	24	21
V: Unskilled	6	12	9

The school leaving ages of the subjects showed the following distribution

Under 15	15 under 16	16 under 17	17 under 18	18 under 19	19 and over	N.K.
3	30	10	4	3	7	9

Thirteen subjects after leaving school continued with further full time education, and twelve subjects with further part-time education. Only two of the subjects in part time education were studying for the City and Guilds exams, although fifteen said that they had started apprenticeships. Out of the thirty five subjects who were eligible for apprenticeship (male and leaving school before seventeen) and the fifteen who said that they started an apprenticeship, none finished. (In all but the two cases, the subjects were not indentured apprentices but learners). A high failure rate in fact goes through most of the academic and occupational careers of the subjects, from a high truancy rate at school to failure to complete apprenticeships, further educational courses and higher degrees.

Reports of truancy were exceptionally high. Seventeen subjects said that they never played truant, five only rarely (once or twice) six occasionally, (three to ten times) and thirty often (more than 10). This latter figure represents more than fifty per cent of the subjects on whom this information is available. It has been estimated (Magnay 1959) that truants amount to $\frac{1}{2}$ - $\frac{3}{4}$ per cent of the

school population. There appears to be a strong relationship, according to many authors, between truancy, delinquency and poor social background, and according to Toby and Toby (1957) it is a low social economic status which preceded and to some extent predetermined low intellectual status which in turn preceded delinquent activity. Truancy seems often to be an expression of a mutual rejection between pupil and teachers following low intellectual status and preceding or concurrent with delinquency.

Relatively poor home background and schooling is followed not unsurprisingly, by an unstable work record. As already mentioned, no subject completed their apprenticeship, and most of these took labouring jobs. Out of fifty eight subjects where information is available, twenty three worked as unskilled manual labour, and five only had jobs of even a semi-skilled nature, while sixteen worked in unskilled routine non-manual jobs, such as shop assistant, and eleven had never worked at all. Only three subjects were both qualified in any way and had worked using their qualifications. It seems that for most of the subjects any qualifications they had from school or opportunities for gaining academic, trade or professional qualifications, were not taken up, and although drug taking did not in general signify a downward occupational trend, heroin addiction did. After addiction the work record of the subjects worsened considerably, in so far as the majority, forty in number, were unemployed for longer periods than they were

employed, and eleven had never worked at all after completing their education. It should however, also be pointed out that since most of the subjects had dead end or boring jobs they had little incentive to continue working once addicted and defined as ill. The very nature of the uninteresting work which many subjects had done almost seemed in itself an incentive to accept a sick role definition of themselves and their actions in order to avoid both the stresses and monotony of work.

Looking both at the educational and occupational record of the subjects, it is evident that most of them were under achievers. Some intelligence tests for some of the subjects were also available and the disparity between the intelligence rating and achievement was very marked. Conversely it was found that a number of subjects were pressed to achieve more than they could, but these were comparatively few in number, and their cases will be examined later.

The drug history of the subjects revealed patterns often initially masked by apparent similarities, and conversely similarities not at first apparent. In the sixty cases where information is available, two subjects mention heroin and one morphine as the first drug used (other than alcohol), while one claims that barbiturates, another inhalers and a third cough mixtures were the first drugs which they used. All the other subjects mention either marijuana or amphetamines in this connection, with amphatamines slightly in the

majority.

It seems futile, however, to draw conclusions from the fact that marijuana or amphetamines were the particular drugs preceding addiction, especially when the total pre-addiction drug experience is taken into account. The knowledge of how and where to obtain certain drugs and the opportunity to do so, seems to be the only determinants of the preceding drugs. Most of the subjects had tried a bewildering variety of drugs at least once and seemed prepared to try anything once. The function of knowledge and opportunity in the use of certain drugs can be seen by the use of particular drugs in particular areas at particular times. For example, the use of certain patent medicines might be mentioned by most drug takers who went to a particular school or a particular club. Sometimes the first drug taken would depend on what was taken when a local chemist was broken into, or what someone's mother had been prescribed by her G.P. The relationship between preceding drugs and addiction will be discussed more fully in the next chapter, in the context of other evidence on the subject.

The modal age for first drug taking was 15, and the mean age 17, with a range of 12 to 33. The modal age for first taking heroin was 19, the mean 18.5 and the range 14 to 33. Very different patterns of drug taking became apparent when the ages, both between first drug taking and addiction and first heroin taking and addiction were considered. Those subjects with the shortest time between first taking

drugs and taking heroin, tended to be in the older age groups, which in this case can be established at seventeen. Out of twenty one subjects who tried heroin within one year of trying other drugs, only four were under seventeen, of which two were sixteen. It could be argued that this difference was due to the availability of heroin, and that after being on amphetamines and smoking marijuana for some time, heroin became available, for reasons already discussed, to many groups of pill takers.

However, this argument cannot be supported when one looks at the time which elapsed between the subjects first taking heroin and becoming addicted. Of the fifty subjects who answered the relevant questions, sixteen, or almost one third, said that at least one year elapsed between first taking heroin and becoming addicted, nine of whom said that between two and three years elapsed. Of the remaining number, six said that between six months and one year went by between first trying heroin and becoming addicted, fifteen put the period of time between one and six months and ten under one month. Those subjects who became addicted in less than one month after first taking heroin also expressed some feelings about wanting to become addicted and deliberately doing so. For example, one said that "I just took as much H as I could get, and as soon as I'd got the tracks I came in to be registered", while another said "I had made up my mind. I wanted to be a junkie". ("Tracks" being the addict expression for marks in

and under the skin at the injection sites. Repeated injections into a vein, especially if the needle is blunt, leads to marks at the sites of the injections, and often varicosed and collapsed veins, producing the characteristic and noticeable marking both of the skin and the veins). Those addicts who deliberately became addicted, will be described later, together with those whom I do not think were ever really addicted, although they received treatment as such and were notified as such. Three of the fifty came under this category, and some others of the remaining sample.

It is interesting to note that, including time spent in prison and hospital, some addicts were if not entirely drug free, certainly off heroin at least five times during the course of their addiction career, and one has been off heroin at least fifteen times, and re-addicted just as often. Theories which stress that it is the fear or at least dislike of the withdrawal syndrome which keeps people addicted do not find much support if any, and although reliable information on this point could only be gathered from forty four subjects, only eight of those had never been off heroin during the period of their addiction.

One attribute of the two groups has not been described until now, namely the drugs they were taking at the time of being interviewed. This is because although all the subjects were addicted to heroin at some time, not all were at the time of interview. In view of the

number of times that some addicts cease to take heroin for certain periods, and then become addicted again, it is not surprising that during the time this study was being carried out a number ceased to take heroin. If however they fulfilled the original conditions for the sample they were still included. In the first sample only twenty two out of thirty nine subjects were addicted at the time of interview, although a further four were taking heroin illegally. In fact only one subject from this group claimed to be drug free. Three subjects were taking physeptone, another two, tranquillisers and one, barbiturates, while three were prescribed amphetamines and two confined themselves only to marijuana. In the second group nineteen were prescribed physeptone, and two claimed to be drug free, with information missing in five cases. All sixty six had at some time regularly taken heroin and claimed to be addicted to it, or were accepted as addicted by members of the medical profession.

Details of the criminal records of sixty four of the subjects were obtained, all of which were cross checked with official criminal records. These criminal records have been analysed in terms of the offences and numbers of court appearances (which involved one or more convictions) made by the subjects, and these in turn analysed in relation to their respective drug careers. It was decided to analyse the criminal records in terms of court appearances rather than the number of charges, or cases on which sentence was passed because of the

considerable variation in both police practice and the number of admitted offences. For example, taking a car could involve for some four offences or for others only one. The charge of taking and driving away occurs in one case without any other charge, although in most cases separate charges of driving without insurance and driving without a licence and where appropriate driving whilst under age are also included. Similarly, in one instance thesubject asked for fourteen similar cases to be taken into consideration, but others who perhaps had committed the same number of offences might not ask for any to be taken into consideration if they feel that the police will not be able to convict them at a later date. It can be argued that court appearances are no guide to criminality, but to addict visibility, bad luck, or just lack of criminal ability. However, while no systematic data was collected from all the subjects on their actual criminality, it is the impression of the investigator that those who consistently indulged in criminal activity were also the ones with the most court appearances. Those subjects with one or two court appearances, especially when on drug charges seemed to owe their presence as much to their visibility as addicts, as to any law breaking activity.

Only thirteen of the sixty four subjects in the two samples had not court appearances, therefore fifty one of the subjects had been before the courts. The distribution of court appearances is in fact

as follows:-

None	one	two	three	four	five	six	seven	eight	nine	ten and over
13	13	5	8	7	3	4	3	2	1	5

Those with only one court appearance were divided fairly evenly between those who were there on account of stealing and simple larceny, and drug offences. In fact these are the two largest categories of offence for which the subjects made court appearances, followed by taking and driving away and associated motor offences. The one overwhelming impression of the criminal records of these subjects is that of the essentially trivial nature of the offences for which they were convicted. Although the cost of the stolen articles is not always available there are many cases where the cost if unlikely to be great, as in the case of a bottle of milk (twice), a pair of jeans, some cartons of yogurt, a book, a pair of sun glasses, tins of steak, and numerous prosecutions for stealing money from gas meters. (Usually the meter in their own room). This is not to suggest that all the addicts who had criminal records were guilty of only trivial offences, but that two thirds were.

When examining the criminal records of the subjects in relation to their drug careers, it was found that there were seven patterns of behaviour. These are represented in Table 10.

Table 10

Patterns of Behaviour in Relation to Drug Taking, Drug Addiction and Convictions

Temporal Sequence of Events	1	2	3	4	5	6	7
Convictions	X	X	X	X			
Drug Taking	X	X	X	X	X	X	X
Convictions			X	X		X	X
Addiction	X	X	X	X	X	X	X
Convictions	X			X	X		X
Total	9	3	2	7	18	4	7

From the above table it can be seen that nine subjects came before the courts only prior to their addiction and not subsequent to it, while eighteen came before the courts only subsequent to their addiction and not at all before it. Of these eighteen, six subjects had been before the courts for drug offences only, and four for simple larceny, stealing (of items under £2 in value) or a driving offence. Another four subjects had convictions both for drug offences and for simple larcenies. Of the remaining four subjects the most serious charge was for breaking and entering.

Therefore, twenty three subjects had been before the courts both before and after addiction to heroin, seven of whom only came before the courts after they had begun drug taking, leaving sixteen subjects who had convictions both before and after drug taking and heroin addiction.

However, since one subject in the sample had begun drug taking as early as twelve and several were taking drugs by fourteen, it is important to interpret the above information in relation to the age at which the subjects began drug taking and heroin addiction. The age distributions are set out below.

Ages at which Subjects became Addicted who were Addicted Prior to Court Appearances

14	15	16	17	18	19	20	21	22	23	24	33	Total
2	0	2	1	2	3	2	1	2	0	1	2	18

Ages at which Subjects began Drug Taking who took Drugs Prior to their First Court Appearance

14	15	16	17	18	19	20	21	22	23	24	Total
2	0	4	4	0	0	0	0	0	1	0	11

It can be seen, therefore, that drug taking prior to court appearances is not simply because the subjects began drug taking at a very early age. Only four out of eighteen subjects were addicted before seventeen, and six others taking drugs before that age. From the qualitative data that is available it seems that drug taking was associated with a particular life style which made the drug takers

separate as a group and visible to the police, in the sense of being easily identifiable. This seems particularly applicable to heroin addicts, but is nevertheless true, though to a lesser extent, of other groups of drug takers. Whether these groups are identifiable in terms of other variables, such as their attitudes towards certain social institutions and goals will be examined in the next chapter, when data from the three main sources is collated, and analysed as a whole.

14. Results and Conclusions

This study was set up to test one specific set of hypotheses, but because additional data was collected to examine several secondary aspects of addiction, it is possible to test in part, the reformulated theory which offered an alternative explanation of addiction to that suggested by Merton.

The first hypothesis stated that most drug addicts reject the cultural goals of society. This was tested by asking the subjects to rank certain goals in order of preference, and by their rating of the concept ambition. The analysis of the paired comparison data which has already been described, did not tend to support this hypothesis. If the term "most" is retained, then the hypothesis is rejected, if the term "some" is substituted, then the hypothesis can be accepted. The important point is that whereas some addicts appeared to reject socially accepted goals in favour of short term hedonistic or manipulative ones, these were a minority of the subjects. Although twelve groups were identified using McQuitty's cluster analysis, a detailed examination of the content and ranking of the groups revealed three broader categories. These consisted of those subjects who had ranked the goals in such a way so that they tended to accept socially acceptable goals and reject the hedonistic and manipulative goals. The second group showed a pattern of rankings the complete opposite of the first group, while the third

group emphasised individual self-fulfilment and freedome while rejecting the more conventional goals. The numbers in each of the three groups are thirty four, five and twelve respectively. Even combining the last two categories only seventeen out of fifty one, exactly one third, could be said to not accept the socially accepted goals of society. This is reflected by the evaluation of the term "ambition" which is highly evaluated in twenty-six of twenty-nine cases. Ratings for the term "ambition" were only obtained from the first sample, but because subjects did not always complete the scales, and also because of inconsistent rankings on the paired comparison test, there were not enough subjects who completed both for a comparison to be made.

The second hypothesis concerned the subjects' attitudes towards the means of achieving certain goals, and therefore was concerned with their attitudes towards certain social institutions. It stated that drug addicts who reject the cultural goals also reject the institutionalised means of achieving these goals. This was tested by twelve concepts rated by using the semantic differential technique. The concepts were "society", and concepts representing industry, the church, parliament, the law and schools together with the representatives of these institutions.

The number of subjects who rejected outright the socially acceptable goals of society was very small indeed - five in fact. By

broadening the interpretation of rejection this category could even then be said only to include seventeen subjects. Of those for whom data on their attitude towards institutions is available, all evaluate the institutions low on the worth dimension, some evaluating the institutions low also on the power dimension, while others rate the institutions as high on power. The concept "society" is also evaluated as low on the worth dimension, but all except one evaluate it as high on the power dimension. However, another ten subjects in groups which apparently accept the cultural goals also reject the institutionalised means to attain these goals, and twenty one evaluate society low on the worth dimension. Seven of the ten subjects mentioned above evaluate a criminal highly on both dimensions but only two have followed a criminal career. It is possible that criminal means have been accepted to achieve legitimate ends, but these have either not been used, or used so successfully so as to remain undetected by the police. If this is the case, then the Ohlin and Cloward adaptation of Merton's theory seems to receive some support.

While the first hypothesis is rejected and the second accepted the data available indicates that the type of retreatist adaptation described by Merton does exist, but only in a small proportion of the total numbers of addicts in this sample. Mertonian ideas in fact can only account for the attitude pattern of a few addicts, and so an alternative explanation must be sought.

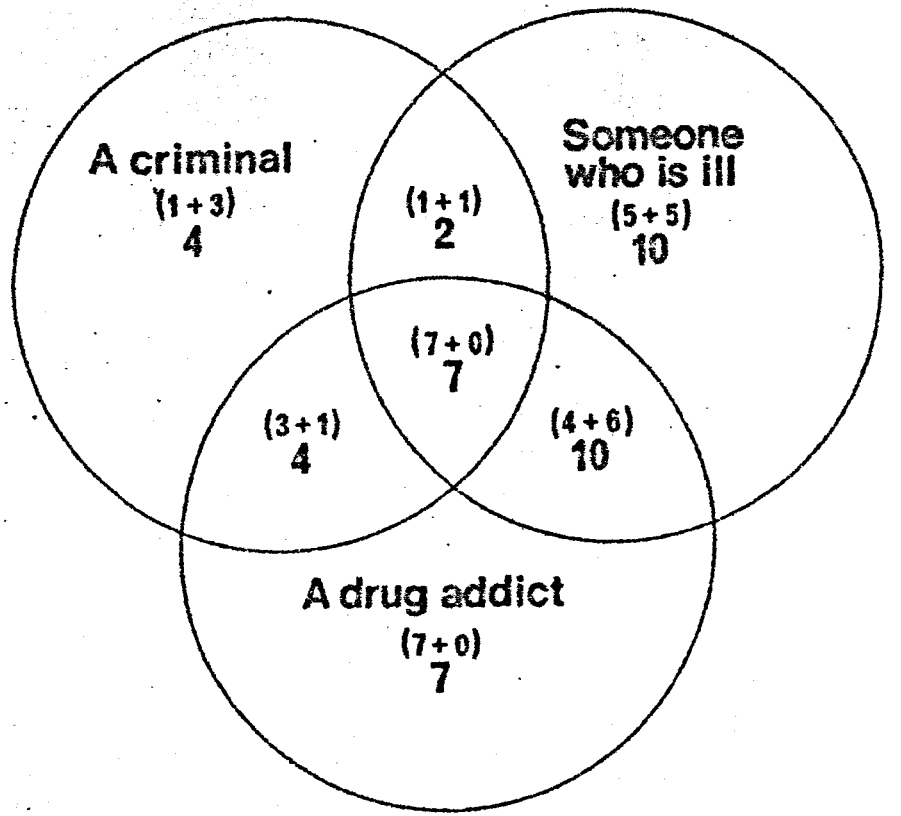
The third hypothesis stated that drug addicts who do not reject the goals and means, take on the sick role. This also was rejected, not because some addicts did not take on the sick role but because not all those who did not reject the goals and means, did so. The sick role was measured by the degree of similarity in the ratings for the concepts "myself" and "someone who is ill". Twenty eight subjects from the total sample rated these two in a similar manner. The five subjects who rejected the socially acceptable goals did not identify with someone who was ill and only four of the twelve who emphasised goals of personal fulfilment rather than hedonistic ones while implicitly rejecting some of society's goals, saw themselves as ill. However, rather than a clear distinction emerging between those who thought of themselves as ill and those who thought of themselves as criminal, many seemed to identify with both. Even more confusing is the fact that seven subjects reject the social institutions and think of themselves as ill.

Although a number of subjects obviously think of themselves as ill, and in fact even more define a drug addict as someone who is ill rather than a criminal, those who do so and those who do not cannot be distinctly described in terms of their different attitudes towards the goals of society. Some other explanation must be sought, if a coherent pattern to the data is to be found. Although not directly relevant to the testing of this hypothesis, it is worth noting that eighteen from

the first sample and fifteen from the second sample rate a drug addict and someone who is ill as similar. The relationship between the concepts "a drug addict", "someone who is ill" and "a criminal" can be shown in terms of three intersecting sets. This is illustrated below (Figure 8). The first figure in brackets refers to the first sample, and the second figure to the numbers in the second sample. The third figure which is outside the brackets is the total.

Perhaps the most surprising result is the lack of identification with a drug addict. Although twenty eight think of themselves as addicted, this is not many from the total of sixty three who completed this attitude scale. This result is not dependent on the drug being taken by the subject at the time of interview, since eight from the first sample were not being prescribed heroin although one subject was receiving physeptone and three reported that they were obtaining heroin illegally and using it whenever they could get some, which in fact was about twice a week. There were nine subjects from the first sample who were being prescribed heroin and yet failed to identify with being an addict. Of the seven subjects from the second sample who made this identification, two were not receving any drugs at all, whereas seventeen subjects were being prescribed physeptone and yet did not appear to think of themselves as addicts. Perhaps identification with addicts does not depend entirely on the drug taken, or even on taking any drug at all, but on whether the subject wishes to be seen as an

8. Showing the Similarity of the Concepts "A Criminal", "Someone who is Ill" and "A Drug Addict" to the Concept "Myself"



addict and to take on the role of an addict or ex-addict.

Associated with the three hypotheses were three questions to which answers were sought, or rather three areas of interest and confusion which it was hoped could be clarified, and, whether through serendipity or grounded theory, might generate new ideas. The ideas which were generated from the qualitative data have been described and translated into a reformulation of the theory which will be examined in relation to a more detailed examination of the data. First, however, an attempt will be made to answer the questions, which were

1. What are the parameters and nature of the drug addict population?
2. What is the process of addiction?
3. What is the relationship between crime and addiction?

A description of the parameters of the drug addict sample was given in chapter thirteen, but can be summarised as follows.

The sixty six subjects consisted of fifty five male and eleven female subjects, coming from social class backgrounds in roughly the same proportions as the general population. Thirty six of the subjects were in the 20 - 24 age category, with nine in the 15-19 group and ten in the 25-29 group. Most of the subjects (34) were single, seven were married, six co-habited while eight were separated and three divorced.

The marriages of the parents of addicts were imcomplete due to death, divorce or separation in thirty of the fifty eight where information was available. The birth order of the addicts revealed a bias towards them being the eldest. Out of the fifty seven where information is available, twenty four were the eldest children. If, however, the eldest of a second family is included, and the eldest son, then the figure becomes thirty three. There were also eight who were only children.

The educational background of fifty eight of the subjects was one predominantly of the secondary modern school (24) followed in decending order of frequency by grammar (17) and comprehensive (9) schools, Most of the subjects (33), left school at fifteen or under, and ten left at sixteen, with only seven continuing their education past nineteen. These figures for school leaving and terminal educational age are roughly the same as those obtaining nationally acoording to the 1961 census (Marsh 1965). However, as Marsh noted there was an increase over the previous ten years of "student in educational establishments" in the 15-19 age group, and if that trend has continued, then it is possible that the subjects are under represented in the categories of terminal age of education above fifteen.

It has been estimated (Magnay 1959) that truants amount to $\frac{1}{2}$-$\frac{3}{4}$ per cent of the school population, yet more than fifty per cent of the sample claim to have been persistent truants. The truancy is

reflected in poor school records, which in turn find a reflection in poor work records.

The work records of most of the addicts is very poor indeed, and in fact the majority were unemployed for longer periods than they were employed. The poor school and work record of the subjects does not always reflect ability or opportunity, but rather perhaps the ability to take advantage of opportunities. Of the fifteen subjects who started apprenticeships, none finished, most they maintain, because the end result was not worth the effort involved, when labouring could provide more money and could be undertaken for short periods of time anywhere in the country. If the goals of the addicts seemed to be short term hedonistic ones, this was perhaps not the result of any rejection of the cultural goals and means of achieving these goals, but because the subjects had neither the background, education or training to appreciate them and had not gained the necessary skills to use them.

The second area of concern was that of the process of addiction and the relationship between the addictive and non-addictive drugs. The process of addiction differed considerably within the sample, but dealing first of all with preceding drugs, fifty five of a known sixty subjects mentioned either marijuana or amphetamines as the first drug which they tried, with a slight numerical advantage in favour of amphetamines. However, as explained in chapter thirteen, which of the two drugs was first taken is generally irrelevant, since both are usually

taken, and the actual first one most often depends on the availability of a particular drug at a particular time.

The relationship between marijuana or amphetamines and later addiction could be of three different kinds. It could be

A. A chemical relationship

B. A situational relationship, or

C. An attitudinal relationship

For there to exist a chemical relationship between marijuana or amphetamines and heroin, the drugs concerned must be cross tolerant. They are not. If it is hypothesised that marijuana creates a craving for more of the drug, and that a tolerance develops so that more and more of the drug has to be taken in order to achieve the same effect, and that ultimately this can only be done through heroin, is the same as suggesting that cigarette smoking leads to alcoholism.

The second type of relationship is that which might be termed a situational one, and deals with the market situation of the legal and illegal supplies of drugs. It has been argued that the source of supply for marijuana and amphetamines is the same as that for heroin, and so either (a) a shortage of one drug might lead to the use of another drug, or that (b) the opportunity will be created for the marijuana user or pill taker to meet heroin addicts and thereby learn the skills necessary to mainline heroin.

Only three subjects said that they first tried heroin because they could not get other drugs. In all the three cases they were in search of amphetamines and were "coming down" after taking a great deal of this drug. Three others said that they deliberately started on heroin because in the words of one "I was so messed up with....that I needed straightening out". For the subject the missing word was meth (methylamphetamine), but for the other two it was L.S.D.

In the second case, escalation through meeting addicts, contacts could occur in both a legal and illegal setting. In the legal setting contacts could be made through waiting rooms at treatment centres, and in an illegal setting, at any cafe, pub, party or park bench. Although meetings take place if the source of supply is the same, because addicts have been made and make themselves an identifiable group, such meetings could take place anywhere. If there is one source of supply, whether legal or illegal, the chances of different drug users meeting must surely be increased, but undue emphasis on this would be inappropriate since such meetings could easily occur whether it is people or places which different drug users have in common.

This relationship, although apparently one only of the market situation of the drugs concerned, is also dependent on the social and perhaps school or work activities of the drug users. When asked to describe the situations in which they first had an opportunity to use heroin, and also first in fact did so, although this information is from

a limited number, the recurring theme was one of obtaining heroin through a friend or friendship group, often known from school days, but occasionally through the same place of work.

The image of "the pusher" who is the sole distributor of all drug supplies for one area is not held up at all by the data. Some subjects have made a living at selling drugs, and many others sold from time to time, but there was certainly no enduring area monopoly. In fact there was only one case of near monopoly, and this was solely for marijuana, and this was organised almost exclusively for a West Indian community.

Certainly as far as heroin was concerned, apart from "Chinese heroin", and some which came on the market via break-ins of chemists' shops, illegal supplies originated through legal channels, and was sold by the addicts who could get more than they needed. The distribution network for the drugs was non-existant. A pusher was only a pusher as long as a doctor would give him more than he needed.

Ten subjects seemed to put some effort into obtaining and selling drugs. These ten subjects had broken into chemist shops, and eight of these had convictions for this. When they had the drugs, they used to sell them directly to the addicts, who were also, for the most part, known to them for some time. The illegel market in amphetamines and marijuana is almost certainly better organised than that for heroin distribution, and there are probably sources outside

the user group, but since most of the addicts are not renowned for their business ability, it seems unlikely that they would initiate or maintain a distribution network with any degree of consistency unless their own supply of drugs was dependent on it. As long as they can obtain a legal supply of heroin, this necessity does not arise.

Finally, it has been argued that taking drugs leads to the subject being exposed to certain attitudes and values which favour drug taking in general, and heroin taking in particular. This attitudinal relationship depends entirely on the attitude of society towards the drugs. Alcohol does not lead to marijuana nor amphetamines to codeine or red spotted mushrooms. If marijuana and heroin are regarded as equally dangerous, then drug takers finding that they have survived the experiences of one drug might lead them to think that all the admonitions against drug taking are equally exaggerated, and therefore to try other drugs such as heroin. The impression, and it is only an impression since there was no direct evidence on this point, is that many of those who became addicted five or six years ago were encouraged to do so by the image of addiction as being a very dangerous and daring activity. If heroin is treated as a forbidden fruit, to many it becomes even more desirable, and many addicts say that they were not approached to take heroin but sought out any one who had any spare because they had heard so much about it that they wanted to try it.

The relationship between any one drug and another, if not of a chemical nature must then be determined by the attitudes and values of the society in which the drug taking occurs. It is also a relationship which not only changes from one society to another, but from one time to another within the same society and of course is greatly influenced by availability, as many studies have pointed out, such as Glaser 1969 and Wiener, 1970. The Lancashire cotton workers described by De Quincey were addicted to opium, but their counterparts today would almost certainly condemn the present day addicts, and would not regard addiction as part of "the working man's way of life", which it certainly was at one time for some groups of workers.

It was often emphasised in the first chapter, the variety of sources from which drugs were obtained, and the variety of purposes for which they were used. If two drugs are associated, and the taking of one said to lead to the taking of another, then it probably will, because the situation had been defined in this way.

Further, it must be emphasised that one shot of heroin does not make an addict, or even lead irrevocably to addiction. The length of time between first taking heroin and becoming addicted ranged from over three years to two weeks. In fact sixteen out of fifty who answered the relevant questions said that at least one year elapsed between first taking heroin and becoming addicted and nine of whom said that between two and three years intervened between the two events.

If the market situation provides both the opportunity and knowledge to take heroin this is not enough to make that person an addict. There must be a certain degree of persistence in taking the drug which in turn is often aided by definitions of addiction rather than the effect of the drug. Essentially, both the market situation and attitudes towards drugs are manipulable and manipulated from outside the addict situation, and are to a great extent independent of him, although the behaviour of identifiable addicts in turn effects attitudes.

The third question concerned the relationship between crime and addiction. This is a relationship largely determined by the legal status of the drugs concerned, but also by public attitudes towards drugs and drug offerces. Therefore again it is a changing relationship, and comparisons made between samples taken in different legal and social environments, such as England and the United States, are meaningless.

Criminal records were known in sixty four cases. The distribution of court appearances had been given previously in chapter thirteen. Thirteen of the subjects had no criminal records, and six had only one court appearance which was for a drug offence and after addiction, while a further nine had either one or two convictions after heroin addiction. In all cases the convictions were for minor offences, usually simple larceny.

Twenty eight of the sixty four subjects could therefore be described as non-criminal, since those who appeared before the courts did

so only for minor drug offences such as possession, or for one or two minor larcenies after addiction.

Eight subjects had two or three court appearances usually for larceny and possession, three of whom had convictions for taking and driving away. Another six had more court appearances, but essentially for the same sort of offences. There were a further five subjects who had one court appearance each (excluding one for breach of probation) prior to addiction, of which only one could be described as a delinquent.

This left seventeen subjects, fourteen of whom had convictions before and after both drug using and heroin addiction, another two began their criminal careers after addiction and one ceased on addiction. On the basis of court appearances, then, the sample could be divided into three groups of non-criminal, petty criminal, and criminal, with the following distribution:-

Non-criminal	Petty Criminal	Criminal	Other
28	14	16	5

Even taking into account those court appearances which might be due to the visibility of the addict rather than his criminality, those who seem to follow a criminal career are certainly over represented in the sample. Therefore, despite the fact that an addict does not need to resort to crime in order to maintain his addiction, fourteen could be

described as petty criminals and sixteen as criminals out of sixty four, which meant that nearly one quarter of the subjects were criminals prior to their addiction and remained so afterwards.

An examination of the nature of all the offences committed by addicts reveals that offences against property are the most frequent, followed by drug offences with offences against the person rare. Only four subjects in fact showed any predisposition towards the use of violence. Table 11 shows the main categories of offences for which the subjects made court appearances, and the distribution of the main offence for which all those who had court appearances, fifty one in number, came before the courts.

The relationships between crime and addiction can be of a direct or indirect nature, but a relationship there certainly appears to be. An indirect relationship could occur when the factors which operate to encourage criminality as a pattern of behaviour also operate to foster drug addiction, and a direct one through opportunity, identification or influence. The relationship which could exist through access rests on the assumption that criminals are more likely to know where to obtain drugs than those outside the drug and criminal communities. The illegal nature of drug trafficking is likely to make a criminal more trusted than a non-criminal, and even if many people following criminal careers do not become addicted they know how and where to obtain drugs.

Table 11

The Types of Offences for which Addicts were brought before the Courts and the Distribution of Offences from all Addicts with Criminal records of the main offences for which they made Court Appearances

OFFENCES AGAINST PROPERTY		
Larceny/theft/stealing/shoplifting	69	
Receiving	5	
Shop breaking	11	
House breaking	7	
Factory/Office/Pavilion breaking	10	
Burglary	1	
Found on enclosed premises	2	
Damage to property	4	109 (51.9%)
DRUG OFFENCES		
Possession	35	
Attempting to procure dangerous drugs	3	
Supplying dangerous drugs.	2	
Fraud, Forging prescriptions	4	
Obtaining drugs by false pretentions/representations	2	
Permitting premises to be used for smoking of cannabis	2	48 (22.8%)
DRIVING		
Taking and driving away/no insurance etc.	28	28 (13.4%)
OFFENCES AGAINST THE PERSON		
Assault on Police	3	
Assault	1	
Uttering threats	1	5 (2.4%)

Table 11 - continued

OTHER		
Possession of offensive weapon	3	
Drunk and disorderly/Disorderly Act	4	
Buying liquor under age	2	
Breach of probation	9	
Suspicion of loitering with intent	2	20 (9.5%)
		210 (100%)

The over-representation of criminals in the sample might in fact reflect the greater opportunities available to the subjects.

As some criminals become addicts, so some addicts become criminals. This may be encouraged by identification on the part of the addict with some powerful figure in a group who is also a criminal, or actually because of his criminal expertise, which allows him to supply many people from time to time as a result of break-ins. This leads to the third type of relationship, that of influence. In some groups criminality is taught, often via the recounting of amusing stories or daring escapades. It matters little that the stories have nearly always been embroidered upon, for actually or vicariously criminality is often "sold" as a way of getting back at the people who "bug" them.

None of the relationships outlined above are exclusive. All may occur together or not at all, for another factor on which most depend is the cohesiveness of the group. Although "the group" is

referred to, in fact several loosely knit friendship and area friendship groups exist. Often a group consists of people who were at school together or become addicted at the same time or met at a chemist, a cafe, a hospital waiting room, or prison, but will also be bound by locality, because they all live in the same area. Other groups exist which comprise mainly travellers, that is people who go from one place to the next, some not part of any group but knowing most, others flitting from one group to the next after a couple of months, and for ever travelling around the country. These are often known to each other and provide a news and gossip service which often makes the drug community appear more cohesive than it in fact is. While there does not appear to be any interaction with the criminal sub-culture, some criminals, more than one would expect, become addicts, and in turn influence other addicts, by bringing their attitudes, values and knowledge to the attention of others.

Having examined the data with reference to the hypotheses and questions which were posed at the start of this study, I now turn to an examination of the data with reference to the reformulated theory.

Addiction, it was suggested, could be characterised by four responses, which were (1) withdrawal, (2) role expansion either by taking on the sick role or by crisis creaction, (3) role selection and (4) role substitution.

The manner by which the subjects were characterised as representing one response rather than another obviously depends to some extent on the interpretation of qualitative and quantitative data on the addicts' drug careers. For example, information was gained from most subjects on the first drug which they ever took, their first opportunity to use heroin, first use of heroin, and length of time between first use and addiction. It was noticed, as described earlier, that in some cases not only months but years elapsed between the subject first taking heroin and subsequently becoming addicted to it. This suggested that escalation from one drug to another was not inevitable, and that perhaps some other factors intervened to change occasional use into addiction. Since information was also collected on the life history of each subject, gradual changes in the life styles of the addicts or significant events which might have precipitated addiction could be discovered.

There was also considerable variation in the drug taking patterns of the addicts. One of the most surprising findings was the extent to which many addicts manipulated their addiction, or were not in fact genuinely addicted. Those who were not really addicted often wished to be thought of as addicts, sometimes by their parents, or sometimes by the group to which they belonged. They might have one intravenous injection, and take a small amount of heroin orally, and then leave the syringe where their parents were bound to find it, or

commit a crime in such a manner so as to be caught, for example like putting a brick through a shop window when a policeman was not far away.

Those who manipulated their addiction did so by stopping heroin for one month or so, then going back on heroin for six months, then off again for a few months, and so on. This was in contrast to those who, once they had become addicted, stayed addicted on a comparatively high dose.

When the distribution of the drug taking pattern was established, it was noticed that there was considerable similarity between this and the pattern of criminality, and so a table was constructed based on these two variables (each containing three classes). (See Table 12). Unfortunately, no statistical test of significance was possible since the table did not fulfil the χ^2 test requirements.

It must be emphasised that none of the three classes which characterise the addiction pattern, are permanent. A pseudo-addict may, if his ploy does not work, intentionally or unintentionally become addicted, either becoming a constant addict, or a temporary one. Similarly, someone who keeps getting re-addicted after abstinence might begin to escalate his drug taking, so that he stays addicted for longer and longer periods of time, and stays off for a shorter and shorter time, so that eventually he no longer withdraws from the drug at all.

Table 12

The Relationship of the Pattern of Criminality to the Pattern of Drug taking

Pattern of Drug Taking	Pattern of Criminality: Criminal	Petty Criminal	Non Criminal	Total	Not Known
Constant Addict 5 grs +	11	3	6	20	
Temporary Addict ½-2½ grs	5	9	8	22	
Pseudo-Addict	0	0	12	12	
Total	16	12	26	54	6
Not known				6	
TOTAL					66

It was also found that two or three addicts who had been taking heroin continuously for a number of years, either came off the drug entirely, or changed their drug taking pattern to a temporary addict one. In some cases this was probably due to a complete change in the circumstances of the addict, or the removal of the main cause of the original addiction.

The degree to which the addiction patterns and drug taking patterns of the addicts can be described in terms of the categories outlined in the theory, is now examined.

The description by Merton of retreatists as "in society but not of it" seems accurately to describe those addicts who withdraw from the role pattern. The important differences between the two concepts is that whereas the former postulates societal reasons for opting out of society, the second concept includes individual reasons, such as coping with a dying parent or in response to a spouse who leaves, for dropping out of the role pattern and using the drug to blot out unpleasant experiences with which the individual cannot cope. About one third of those in the sample came into or had been in this category, for as explained above, they did not necessarily remain there.

Only about ten percent of the sample were classed as becoming addicted or making out that they were addicted, in order to create a crisis which would have to be dealt with by other people, and in so doing focus attention on other problems of the subject. The subjects who came into this category tended to describe their addiction in terms of being victims of pushers rather than them deliberately seeking out drug takers and asking to be given drugs. However, if they were victims, it is my impression that they were willing victims.

Another aspect of role expansion, that of taking the sick role, was the least favoured of the categories. While many defined an addict in similar terms to someone who is ill, this seemed often to be the result of a desire to avoid blame, and as in the case of the crisis makers, to appear to be the victim. Obviously since addiction was treated by doctors and legally accepted as a medical rather than a criminal problem, this influenced many people's perception of addiction. However, it did not necessarily determine it, rather perhaps the reverse, in the sense that those who wished to be thought of as ill, or avoid the consequences of their actions would seek a form of behaviour where such a plea would be accepted.

The sick role as a semi-permanent role seemed to be taken by men who were extremely mother dependent. Unlike the sick role described by Parsons (1954) that of the addict was semi-permanent, because he could claim that it was virtually an incurable disease because of the high rate of relapse. These subjects also could be described as hypochondriacs, for some were constantly taking pills and concerned about their general health as well as the effects of the drugs on themselves and their general condition.

Some categories possess a logical clarity not echoed in an empirical reality. This may be demonstrated in two ways: either through addicts moving from one category to another, or displaying patterns of behaviour which would put them in more than one category simultaneously.

Some addicts might start off trying to create a crisis, but find that as soon as they come off drugs the situation and pressures with which they wanted someone else to deal, still remains. This may lead to re-addiction and then another cure, but each time the addiction is likely to be for a longer time since it is difficult to cry wolf more than once and still get the same reaction.

Others who seem to withdraw entirely from the world, and blot out everything through drugs sometimes seem to re-emerge after months or even years, deciding either to give up drugs entirely, or cut down the amount of heroin which they are taking and establish themselves in a drug taking circle, from where they can explore different aspects of the drug culture.

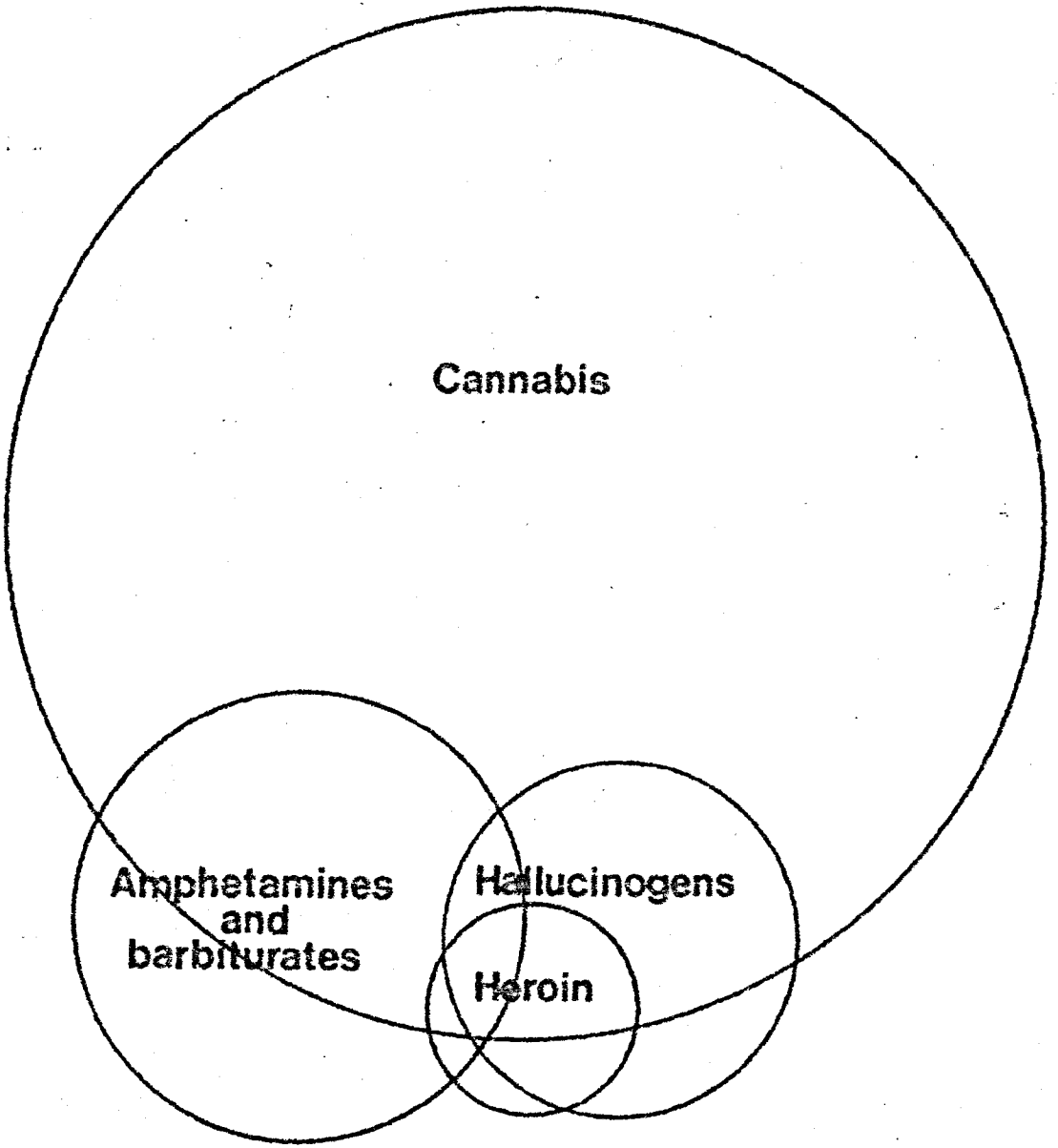
The drug culture in fact was not an aspect of addiction which was directly and deliberately studied, yet it exerts a powerful influence over the actions of many addicts, and it seems more realistic to regard the process of addiction in terms of a push and pull situation, where role conflict and strain are the "push" and the addict culture the "pull". In fact, the two remaining types of adaptation to role strain, selection and substitution, became a little confused unless the power of the drug culture was taken into account.

To be addicted is not only, or occasionally even, to be physically dependent on a drug. It is for the majority of present day

addicts to be identified with a small population within society, and identifiable as a member of this minority. This small population consists of those who take certain specific drugs for pleasure, whether they do so legally or illegally. These specific drugs do not include nicotine or alcohol. When cannabis smoking was confined to relatively few people, the cannabis and heroin populations were probably one, or at least overlapped to a considerable extent, but a personal impression is that the two populations are becoming more distinct. Rather than one cohesive drug culture, there probably are many groups who take drugs, and in the past would have been members of the drug culture, but who are now at best fringe members since they do not take on the total role of addict or are not committed to drug taking as a way of life.

If a drug culture can be said to exist at all it is that centred on two groups of drugs: the opiates and the hallucinogens. In some areas there is a division of membership between two groups who use the different drugs, in other areas this is not so. The concern here is with the culture which surrounds the taking of opiates, whether other drugs are taken as well, or there are other drug takers accepted in the opiate taking group. The total drug taking population can be represented as (Fig. 9) shown below. The figure is not drawn exactly to scale since accurate figures of each drug taking population do not exist.

9. The Drug Taking Population



Membership requirements of the opiate drug sub-culture are that a person can be accepted as someone who is or was addicted, or who at least is prepared to take heroin occasionally, preferably intravenously. Usually non-addict friends of addicts are accorded a marginal status only, since all those who have not taken the drug are defined as not understanding the mystique of addiction.

The ritual of the fix perhaps has more in common with initiation rites of secret societies than with a means of taking a drug. It combines learning the quickest technique with getting heroin into the body's blood stream with a degree of ritualism perhaps more appropriate to the canoe building of Trobrianders, (see Malinowski 1948) and perhaps serving essentially the same function.

The addict culture defines relationships and situations, providing both an interpretation of events and a status giving structure. The actual or supposed uncertainty as to where the next fix might be coming from in fact masks a greater certainty and security which the culture provides. The addict role has in fact become, though it is not necessarily, a total role. Even unpalatable total roles offer security because of the very nature of their totality. The addict role becomes the master role and determines the nature of an addicts relationships and offers security in so far as the individual does not have to cope with conflicting roles, so it is a security of knowledge of how to act in different situations and also a security of being accepted totally by

a group of people, even as, though really because of, being an addict.

Prestige is mainly allocated on the basis of length of addiction, amount taken, knowledge of ritual techniques, sources of drugs and language. Since the argot has local variations and changes rapidly, it soon becomes apparent when someone joins a group if he is either new to the culture or has been absent for some time.

Obviously an analysis of a culture heightens aspects which are not always explicit or even recognised by the participants, and are presented in a more formal guise than their occurance. Nevertheless, what appears to be an informal arrangement is in fact a highly structured culture, with myths, legends and literature to perpetuate it.

It is this culture as much as addiction itself which provides the impulse towards addiction, and it is an identification with this culture which is often sought through pseudo-addiction, perhaps because it appears more attractive from the outside than those who form part of it, think of it.

The data did not fit the categories which it was expected to, mainly because the strength and structure of the drug culture had been underestimated. The category of rejection and substitution which was not originally considered was found closely to describe certain patterns of addiction, while role selection did not do this at all. While some patterns of addiction fell into the substitution category, the majority of the cases possessed equally elements both of withdrawal and of

substitution.

Rejection and substitution occurred in several cases where addicts rejected the demands of parents who often had unrealistic aspirations for their sons, or merely refused to let their children develop any attitudes, beliefs, tastes or actions which the parent had not predetermined. The rigid conception which some parents apparently have of their children is often found unsupportable by the children at a stage of development where a crisis of identity is concerned. Addiction is also sometimes an attempt to shatter what the subject feels is a false conception of himself by his parents. In effect he is saying "I am not what you think I am, and this is what I am really like".

This response, in terms of the total role pattern is an attempt to change other's conception of the actor so that demands are no longer legitimate or the actor is no longer a fit person to fulfil certain obligations.

Since an action may have more than one purpose, or, whether intentionally or unintentionally, have more than one result, an attempt to break out of an over-defined role situation and to change other's conception of oneself, through addiction might have many consequences. It could be described as crisis creation, and lead to the subject permanently taking on the sick role because the parents may not stop over-defining the subject's role structure, only altering it to cope with new information. Rather than consider their child as criminal or

evil, the parents might define addiction as illness, and their son as someone who is easily led, so that they again define the situation for the subject as addict.

Another reaction both to over-definition of role structures and expectations which cannot be fulfilled, it to reject totally the whole role pattern, and to substitute it with another - in this case with an addict sub-culture, but political or religious conversions would fulfil a similar function. Conversely, addicts who were prevented from following a career which they wanted to, also reacted in this way. There often seemed to be an element of punishment of parents in their behaviour by the addicts, and involved the attitude of "If I can't have what I want, I won't have anything".

A number of addicts could be said to be using the status structure of the subculture as a substitute for a delinquent structure. Gang break up often leaves some members deprived of a status because of the disintegration of the status giving structure, and a status which they could not achieve in the legitimate world of their jobs. The attraction of the drug culture is that while predominantly a teenage one, it can have forty year old members, and membership is relatively easy to achieve. Those who had convictions prior to addiction but none after were found mostly to belong to this category of substitution.

A category not considered originally since it in fact comprised two separate categories, was that of withdrawal and substitution. Drug patterns were characterised as representing withdrawal rather than rejection because rather than challenging or changing the role pattern, or even rejecting it, the subjects merely dropped out, and substituted the total role of addict. It could also be described as substitution followed by rejection in so far as the subject becomes an addict and then finds the justification for rejecting his original role pattern. Involvement in a drug sub-culture often follows the pattern described by Matza, in his description of the drift to delinquency, but as Matza (1964) points out: "The periodic breaking of the moral bind to law arising from neutralisation and resulting in drift does not assure the commission of a delinquent act. Drift makes delinquency possible or permissible by temporarily removing the restraints that ordinarily control members of society, but of itself it supplies no irreversible commitment or compulsion that would suffice to thrust the person into the act". So it is with the drug culture, for on its own it does not force anyone to take drugs. It provides the means of trying out various behaviours, but its attractiveness to some people must be understood in terms of their total situation, which means their total role commitment, and through this their backgrounds.

Finally, one other category emerged which was not previously considered, and this was temporary withdrawal and substitution. In this case addicts, often justifying their actions in terms of being ill or with an intellectual hippie approach, would simply drop out for a while until unpleasant situations had been sorted out. They were often temporary or pseudo-addicts, and after being with the drug culture for some time would give up drugs and move out. They would gain knowledge of, but not necessarily any commitment to the values of the sub-culture. Some people use VSO or some other organisation for the same purpose, the difference being that one is socially approved, while the other is socially condemned.

Many of the patterns of behaviour which are apparent, also seem to be related, such as that of drug taking and role conflict resolution.

All the subjects in these two samples had taken heroin, but not all were or even had been physically addicted. In fact, three patterns of drug taking were established, and were characterised by (1) the constant addict who was continuously physically addicted to heroin, (2) the temporary addict who frequently alternates between physical addiction and abstinence, and (3) the pseudo-addict who had taken heroin but never become physically addicted, but takes on the identity of an addict.

Addiction seemed to be essentially problem solving behaviour serving different functions according to the type of problem to be solved. The functions of addiction in relation to the role pattern can be summarised as follows:-

1. Withdrawal from the role pattern. Here the effect of the drug is crucial, for it is used to blot out unpleasant information of which the individual does not wish to be aware. All addicts in this category were constant addicts most often on a high drug dose.

2. Substitution of one role pattern for another. The drug culture as a status giving structure is perhaps the most important element in this function of addiction. The status which it provides is a substitute following role loss and consequent status loss through the disintegration of the status giving structure, most often through the break-up of the delinquent gang.

3. Rejection or withdrawal and substitution. Withdrawal from a role pattern signifies a simple opting out of the role pattern without challenging it, whereas rejection entails a positive denial of demands, duties, obligations, or values associated with certain roles. The whole role pattern is then rejected and substituted by one total role, that of addict. MRA or conversion to any religion or political creed would here serve as functional alternatives. One variation of this response is that chatacterised

as temporary withdrawal and substitution. This occurs when the individual withdraws from his role pattern after a short time, when strain or conflict have been resolved by another or simply changed over time. One functional alternative of this approach would be to join VSO.

4. Role expansion. Role exapnsion can occur through crisis creation or by taking on the sick role. Crisis creation is, in effect, an attempt to include a third party probably as arbiter, between the family of the subject and the subject. Any delinquent activity for which the subject was caught would serve just as well. This response does not require that the subject be addicted, merely that his parents should believe that he is or about to become so, nor does it entail any commitment to the drug culture, only involvement in it to the extent of obtaining some drugs and knowing the correct response to make to certain questions concerning drugs and their effect. If a subject takes on the sick role usually he not only fails to display any commitment to the drug culture, but he also positively avoids it, since he wishes to avoid the definition of an addict as a pleasure seeking or criminal individual, and desires the definition of an addict as someone who is ill. Any form of illness would be a functional alternative, and possibly any form of behaviour which maintained a dependent role with the

subject's mother or mother substitute, as in some cases of alcoholism.

5. Changing other's conception of self. This function of addiction does not change the role pattern but attempts to change the image which the reciprocal role occupant has of the subject. In this way "other" will change his behaviour, demands or expectations in relation to the subject. Addiction is a rather drastic form of a continuing process in role relations, that of adjusting the image that other has of self, in the direction that self wishes. It was suggested that addiction is likely to occur when the subject is trying to break out of an over defined role structure, and so any behaviour which other thought was out of character would be a functional alternative. Again, neither physical addiction nor membership of the drug sub-culture is necessary for this response to achieve its purpose.

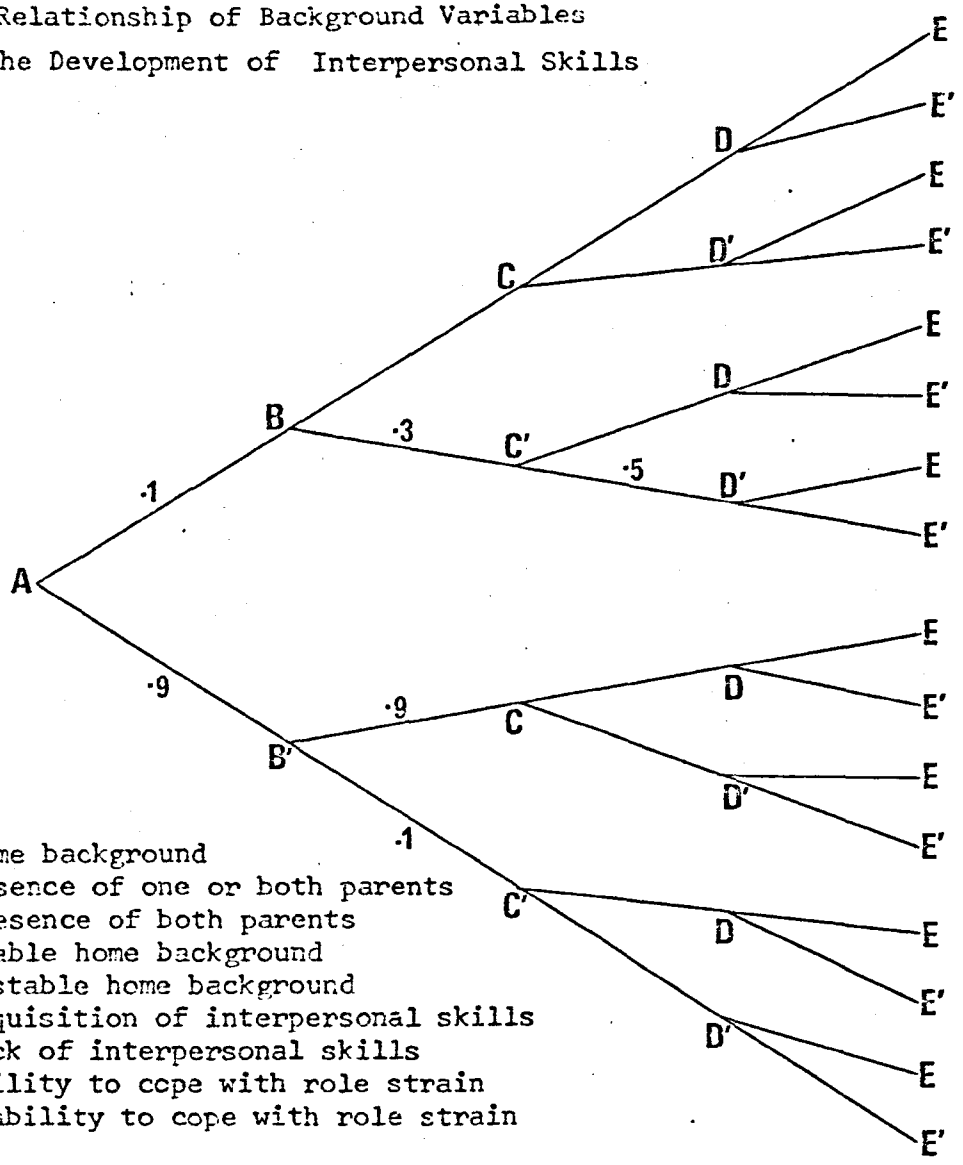
The inter-relationship of the role pattern and drug taking pattern can be represented diagramatically as in Table 13.

The relationship of certain background factors is indirect rather than direct, one of influence rather than predetermination. Some child rearing practices and some characteristics of family backgrounds probably make the individual's adjustment to society and ability to cope with role strain and conflict more difficult. It is therefore

to be expected that in the case of drug addicts, what have been called pathological family characteristics should occur with greater frequency than is supposed to exist in the general population. This is not to say, however, that any of these characteristics are either necessary or sufficient conditions for any form of deviance in general, or drug addiction in particular A disadvantaged background might promote drive ambition and determination, but these are value laden words, and the same characteristics in another situation might be termed aggression, arrogance and stubborness. Similarly, a watchmaker using his skills for other work might be described as a compulsive perfectionist. A determined investigator can find pathological characteristics in most deviant groups, and many supposedly non-deviant ones as well, for the very definition of some traits as pathological depends on the investigator alone, and his conception of normal.

If an association exists between addiction and the presence or absence of either parent, or of a stable home background it is suggested that the association is a learning one, in so far that a poor home background is less likely to be able to teach interpersonal skills which can be used to manage role strain and role conflict, than a stable and complete home background. The relationship of background variables to the development of interpersonal skills can be demonstrated diagramatically, (see figure 9) in the same way that the relationship of background variables to delinquency and access to the addict culture can be shown. (See figure 10).

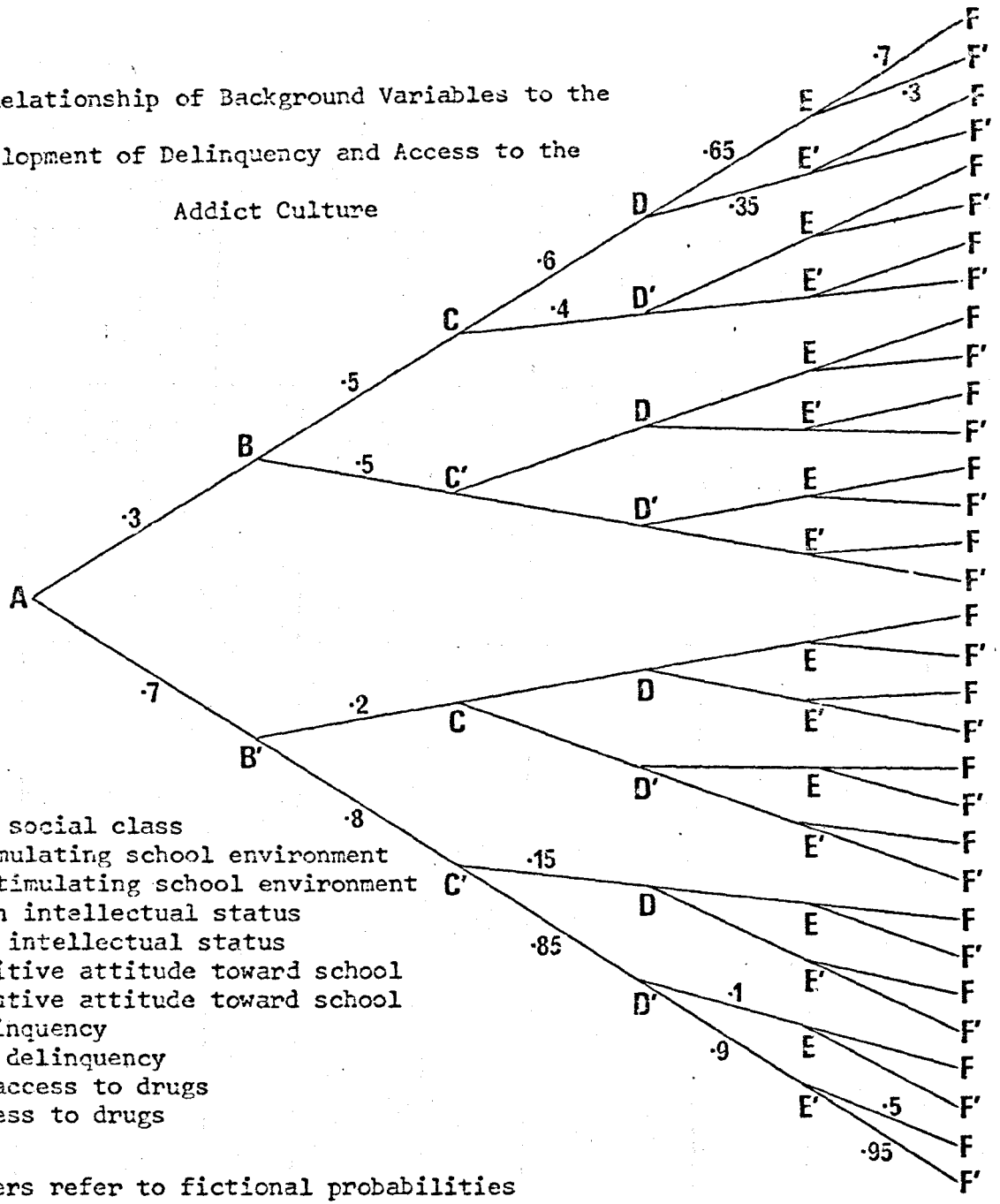
10. The Relationship of Background Variables
to the Development of Interpersonal Skills



A = Home background
B = Absence of one or both parents
B' = Presence of both parents
C = Stable home background
C' = Unstable home background
D = Acquisition of interpersonal skills
D' = Lack of interpersonal skills
E = Ability to ccpe with role strain
E' = Inability to cope with role strain

The numbers refer to fictional probabilities
which are used to illustrate a process

11. The Relationship of Background Variables to the Development of Delinquency and Access to the Addict Culture



A = Low social class
B = Stimulating school environment
B' = Unstimulating school environment
C = High intellectual status
C' = Low intellectual status
D' = Positive attitude toward school
D' = Negative attitude toward school
E = Delinquency
E' = Non delinquency
F = No access to drugs
F' = Access to drugs

The numbers refer to fictional probabilities which are used to illustrate a process

Table 13

The Relationship of Drug Taking Pattern to the Function of Addiction in terms of role pattern

Emphasis on		Pattern of Drug Taking: Constant Addict	Temporary Addict	Pseudo-Addict
DRUG EFFECT	Withdrawal	X		
	Withdrawal/ Rejection & Substitution	X	X	
DRUG CULTURE	Substitution		X	X
	Expansion Illness		X	X
	Crisis			X
RELATIONSHIP WITH FAMILY	Changing Other's Concept of self			X

It must be added that addiction for many subjects does not help the development of interpersonal skills, but in fact hinders any such development by surplanting the necessity to display any. Other subjects, however, do learn interpersonal skills, but these are often manipulative skills for which they find little use when not addicted.

To summarize, then, Merton's hypothesis of retreatism was not upheld, because not all the addicts rejected the goals and means of achieving these goals. Further, it was not possible to tell whether the minority who did reject the goals and means did so prior to their addiction, or after they had become addicted because they could not now achieve the goals anyway. Many of those who seemed, in fact, to become addicted in an effort to solve the conflict of the inability to attain their desired goals, were not among those who rejected the goals of society. The somewhat surprising finding was the degree to which addicts accepted the more conventional goals of society. This could not be explained within the framework of Mertonian theory, and in fact even prior to the data analysis, Mertonian theory was abandoned in favour of a theory based on role conflict and conflict resolution. Within this framework several patterns of addiction emerged, and in fact it might be more meaningful to talk in terms of "addictions" rather than "addiction".

Three main patterns of drug taking emerged, and these were characterised as pseudo-addict, temporary addict, and constant addict.

The pseudo-addict was someone who was not, and usually never had been, addicted, but who wished for various reasons to be identified as an addict. The temporary addict was characterised as someone who was addicted to a comparatively small amount of heroin, and who kept withdrawing, or being withdrawn, from heroin, staying off the drug for a short while and then becoming re-addicted. The third pattern of addiction was characterised by the constant addict. This was the label given to those addicts who were constantly taking a relatively high dose of heroin, and made no effort, or showed any desire to withdraw from drug use. Those in this category often isolated themselves from the drug culture, and would remain isolated as long as their lives were undisturbed. The temporary addicts, however, tended to form the main drug culture, with some pseudo-addicts desperately trying to identify with the sub-culture, and others not only ignoring it, but emphasising their differences with its members.

It was also found that these three patterns of addiction closely resembled three patterns of criminality, which comprised a criminal group, petty criminal group, and non-criminal group. The two patterns were not identical, but as Table 12 demonstrates, there are very close similarities. The constant addicts were mainly criminals, the temporary addicts the petty criminals, and the pseudo-addicts the non-criminals.

The inter-relationship of these drug taking patterns, and the function which they may serve for the individual is displayed in Table 13.

Drawing on the role conflict theory which was developed earlier, it was suggested that role conflict and strain could arise in many ways, and that in fact, as Goode suggests, role strain is inherent in all role patterns. Methods of reducing this strain and of conflict resolution were discussed with particular reference to addiction. It was eventually suggested, for the data modified even the later theory, that addicts use addiction to deal with their role conflicts for a variety of reasons, so that apparently the same behaviour, i.e. addiction serves very different functions for different individuals according to the nature of the problem which they are trying to solve and their, and significant others', attitudes towards addiction.

The functions which it is thought that addiction serves for certain individuals is: (1) withdrawal from the role pattern by blotting out unpleasant information. (2) Substitution of one role pattern for another, such as a drug taking group, a delinquent gang. (3) Rejection or withdrawal from a role pattern and the substitution of another, such as that provided by the drug sub-culture. (4) Role expansion, by taking on another role such as the sick role or becoming a "problem", so that a legitimate, though temporary, withdrawal from part of the role pattern is possible without the necessity of rejecting

any part of it, and finally (5) Changing other's conception of self, so that the individual redefines himself for other, in order to change the expectations which other has of the individual concerned.

In conclusion, a brief word must be said with reference to the implications of this study with regard to the position of addicts in society. Essentially addiction has little or no effect on society since it comprises individual adaptation to strain or conflict, with solutions sought in individual terms. The culture poses no threat because if offers no alternative to the structure of society, but merely a resting place from some of its demands.

Also, as long as many addicts take on the sick role, then they accept not only that it is they who are at odds with society, but that they have an obligation to "get well". The irony remains that whereas the addicts are patently not suffering from a disease, the disease concept of addiction is useful in controlling their behaviour. "A less simple but much more common view of deviance", writes Becker, (1963) "identifies it as something essentially pathological revealing the presence of a 'disease'... The behaviour of a homosexual or drug addict is regarded as the symptom of a mental disease just as a diabetic's difficulty in getting bruises to heal is regarded as a symptom of his disease". Szasz (1960), makes the point even more forcefully when he states that "with increasing zeal, physicians and especially

psychiatrists began to call 'illness' (that is, of course, 'mental illness') anything and everything in which they could detect any sign of malfunctioning, based on no matter what norm".

As Becker (1963) has pointed out, the judgement of something as deviant is itself part of the phenomenon. It seems that the labelling of certain behaviour as mental illness was originally part of an effort to change both society's view of insanity and so to treat the patient in a more humane way, and also to change the patient's view of himself. For similar reasons it seems that social pathology developed to disperse the shades of Lomboroso from delinquents and criminals. While undoubtably the definition of addiction per se as an illness is inaccurate, it has nevertheless proved useful. Such a definition of addicts permits them to receive legal supplies of heroin which they might otherwise seek via a black market, while at the same time emphasising a somewhat undesirable image. (It is here assumed that to be a mentally ill person is a less desirable role than that of criminal or artist, but emphasis on the physical aspect of addiction would tend to undermine this position).

While the relationship between addicting and non-addicting drugs is defined by society, the extent of addiction can be manipulated at will. A control on the mobility of addicts, together with an isolation of addict groups and an increased emphasis on the definition of addiction as illness and the addict as someone who is mentally ill,

will, almost certainly, lead to a breakdown in the extent of the drug culture and a reduction in the total number of addicts. That is, if that is what is desired.

APPENDIX A

The Ranking of Goals by Paired Comparisons

On the following page appears a list of eleven statements which were used to represent six socially acceptable goals and five socially unapproved, if not entirely socially unacceptable, goals. This is followed by the paired comparisons attitude questionnaire, which pairs every statement with every other statement to form fifty five sets of statements between which a choice should be made. The content of the questionnaire is as it was presented to the subjects, including the written instructions, but it should be added that these were usually supplemented by verbal instructions to make sure that each subject understood how the questionnaire was to be used. Also included is the coding sheet which was used for the initial analysis of this data.

The paired comparisons attitude questionnaire was compiled from the following statements:-

I would like to

1. Have a good time now and not worry about the future.
2. Not have to work too hard and be able to take things easy.
3. Be free to do what I want without other people interferring.
4. Not get committed or tied down to anyone.
5. Be able to get other people to do what you want them to.
6. Be able to help other people.
7. Be happily married.
8. Have a stable and secure future.
9. Have an opportunity to be creative and original.
10. Earn a good deal of money.
11. Be looked up to and respected by other people.

NAME_____

On the following pages you will find a list of things you might like to do or want to be. These are arranged in alternative pairs, and I would like you to choose one alternative in each pair. In each pair of alternatives, will you UNDERLINE the alternative you prefer, or will you ring the letter, either A or B, which is next to your choice. For example, WOULD YOU RATHER

A. Go to a dance OR
B. Go to the pictures

If you prefer going to a dance rather than going to the pictures, you should underline or ring alternative A.

A. Go to a dance OR
B. Go to the pictures

If you prefer going to the pictures rather than going to a dance, you should underline or ring alternative B.

A. Go to a dance OR
B. Go to the pictures

Sometimes you may find that the choice is easy, other times you may find the choice hard. DO MAKE A CHOICE out of every pair, thinking that if you HAD to choose between these two, and only these two, which one would you choose. Only when you find it ABSOLUTELY impossible to make a choice should you rate the alternatives as equal, by underlining both alternatives.

No two pairs of alternatives are the same, so don't check back to see if you have answered the question before, or look back to see which alternatives you have already chosen. Work as quickly through the booklet as you can, but make sure that you read each alternative carefully. Be sure to answer every question. Do not miss any out.

THIS IS NOT A TEST. There are no right or wrong answers. I just want to know which alternatives you prefer.

WHICH WOULD YOU RATHER DO OR BE?

A. Not have to work too hard and be able to take things easy OR
B. Have a good time now and not worry about the future

A. Be free to do what you want without other people interferring OR
B. Not get committed or tied down to anyone

A. Be looked up to and respected by other people OR
B. Be free to do what you want without other people interferring

A. Be able to get other people to do what you want them to OR
B. Have a good time now and not worry about the future

A. Not have to work too hard and be able to take things easy OR
B. Have a stable and secure future

A. Have a good time now and not worry about the future OR
B. Have a stable and secure future

A. Have an opportunity to be creative and original OR
B. Not have to work too hard and be able to take things easy

A. Be looked up to and respected by other people OR
B. Be happily married

A. Be free to do what you want without other people interferring OR
B. Have an opportunity to be creative and original

A. Not have to work too hard and be able to take things easy OR
B. Be able to help other people

A. Be able to get other people to do what you want them to OR
B. Have a stable and secure future

A. Be able to get other people to do what you want themto OR
B. Be looked up to and respected by other people

A. Be happily married OR
B. Not to get commited or tied down to anyone

A. Be able to help other people OR
B. Be looked up to and respected by other people

A. Be free to do what you want without other people interferring OR
B. Earn a good deal of money

A. Have a stable and secure future OR
B. Be happily married

A. Not have to work too hard and be able to take things easy OR
B. Be free to do what you want without other people interferring

A. Have a stable and secure future OR
B. Be looked up to and respected by other people

A. Earn a good deal of money OR
B. Not to get committed or tied down to anyone

A. Be happily married OR
B. Be free to do what you want without other people interferring

A. Have a good time now and not worry about the future OR
B. Be looked up to and respected by other people

A. Be happily married OR
B. Have a good time now and not worry about the future

A. Not have to work too hard and be able to take things easy OR
B. Not to get committed or tied down to anyone

A. Have an opportunity to be creative and original OR
B. Earn a good deal of money

A. Be able to help other people OR
B. Be able to get other people to do what you want them to

A. Have an opportunity to be creative and original OR
B. Be happily married

A. Earn a good deal of money OR
B. Be able to get other people to do what you want them to

A. Have an opportunity to be creative and original OR
B. Not to get committed or tied down to anyone

A. Not have to work too hard and be able to take things easy OR
B. Earn a good deal of money

A. Be able to help other people OR
B. Have a good time now and not worry about the future

A. Be free to do what you want without other people interferring OR
B. Have a stable and secure future

A. Have an opportunity to be creative and original OR
B. Have a stable and secure future

A. Earn a good deal of money OR
B. Be looked up to and respected by other pepple

A. Have an opportunity to be creative and original OR
B. Be able to get other people to do what you want them to

A. Not to get committed or tied down to anyone OR
B. Have a good time now and not worry about the future

A. Not to get committed or tied down to anyone OR
B. Be looked up to and respected by other people

A. Earn a good deal of money OR
B. Be happily married

A. Be able to get other people to do what you want them to OR
B. Not have to work too hard and be able to take things easy

A. Be able to get other people to do what you want them to OR
B. Be able to do what you want without other people interferring

A. Be able to help other people OR
B. Be happily married

A. Earn a good deal of money OR
B. Have a good time now and not worry about the future

A. Have a stable and secure future OR
B. Have an opportunity to help other people

A. Be able to get other people to do what you want them to OR
B. Be happily married

A. Have a good time now and not worry about the future OR
B. Be able to do what you want without other people interferring

A. Be able to do what you want without other people interferring OR
B. Be able to help other people

A. Have a stable and secure future OR
B. Not to get committed or tied down to anyone

A. Be able to get other people to do what you want them to OR
B. Not to get committed or tied down to anyone

A. Be happily married OR
B. Not have to work too hard and be able to take things easy

A. Be able to help other people OR
B. Have an opportunity to be creative and original

A. Be looked up to and respected by other people OR
B. Have an opportunity to be creative and original

A. Not have to work too hard and be able to take things easy OR
B. Be looked up to and respected by other people

A. Be able to help other people OR
B. Earn a good deal of money

A. Have a good time now and not worry about the future OR
B. Have an opportunity to be creative and original

A. Earn a good deal of money OR
B. Have a stable and secure future

A. Not to get committed or tied down to anyone OR
B. Be able to help other people

PAIRED COMPARISONS - CODING SHEET 1

NAME. _____

RING ALTERNATIVE PREFERRED

SHEET 1 1-2		
No.	A.	B.
1 =	2	1
2 =	3	4

SHEET 2 3-20		
3 =	11	3
4 =	5	1
5 =	2	8
6 =	1	8
7 =	9	2
8 =	11	7
9 =	3	9
10 =	2	6
11 =	5	8
12 =	5	11
13 =	7	4
14 =	6	11
15 =	3	10
16 =	8	7
17 =	2	3
18 =	8	11
19 =	10	14
20 =	7	3

SHEET 3 21-38		
No.	A.	B.
21 =	1	11
22 =	7	1
23 =	2	4
24 =	9	10
25 =	6	5
26 =	9	7
27 =	10	5
28 =	9	4
29 =	2	10
30 =	6	1
31 =	3	8
32 =	9	8
33 =	10	11
34 =	9	5
35 =	4	1
36 =	4	11
37 =	10	7
38 =	5	2

SHEET 4 39-55		
No.	A.	B.
39 =	5	3
40 =	6	7
41 =	10	1
42 =	8	6
43 =	5	7
44 =	1	3
45 =	3	6
46 =	8	4
47 =	5	4
48 =	7	2
49 =	6	9
50 =	11	9
51 =	2	11
52 =	6	10
53 =	1	9
54 =	10	8
55 =	4	6

COLUMN PREFERRED TO ROW

	1	2	3	4	5	6	7	8	9	10	11
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
TOTAL											

$d = 192.5 - \frac{1}{2}E(Tx^2)$

No. of Triads =
Significant?
Triads =

$\text{Zeta} = 1 - \frac{24d}{1320}$

RANKING =

Consistent/Inconsistent

APPENDIX B

The Semantic Differential Attitude Scales

The Semantic Differential consists of a number of concepts and the scales against which these concepts were judged. Each concept was rotated against all the scales, rather than each scale being rotated against each concept in turn. Over the page is a list of the thirty six concepts used, and this is followed by a list of scales as they were presented to the subjects.

A List of the Concepts as Rated by the Semantic Differential Scales

Myself (twice)

A Drug Addict (twice)

Society (twice)

Someone who is Ill

My Ideal Self

A Criminal

An Artist

A Policeman

My Mother

My Father

My Doctor

My Family

Most Mothers

Most Doctors

Most Fathers

Most Families

Mary - a description

George - a description

Harry - a description

Jane - a description

John - a description

Ambition

Death

Clergymen

The Church

Politicians

Parliament

Industry

Businessmen

Shop Stewards

The Civil and Criminal Law

School Teachers

Schools

CONCEPTS

STRONG_____:_____:_____:_____:_____:_____:_____WEAK
extremely very fairly equally/fairly very extremely
neither

CLEAN_____:_____:_____:_____:_____:_____:_____DIRTY

HOT_____:_____:_____:_____:_____:_____:_____COLD

UNFAIR_____:_____:_____:_____:_____:_____:_____FAIR

VALUABLE_____:_____:_____:_____:_____:_____:_____WORTHLESS

BAD_____:_____:_____:_____:_____:_____:_____GOOD

ACTIVE_____:_____:_____:_____:_____:_____:_____PASSIVE

LARGE_____:_____:_____:_____:_____:_____:_____SMALL

DOMINANT_____:_____:_____:_____:_____:_____:_____SUBMISSIVE

UNSUCCESSFUL_____:_____:_____:_____:_____:_____:_____SUCCESSFUL

SLOW_____:_____:_____:_____:_____:_____:_____FAST

SOUR_____:_____:_____:_____:_____:_____:_____SWEET

APPENDIX C

The Interview Schedule

The Interview Schedule is reproduced below. The content is exactly as administered to the subjects, but the form is not, since the space allowed for answers has been omitted. The Schedule consists of a number of questions - those typed in capital letters - which were used as the first questions on a general topic, and these were followed up by supplementary questions - those typed in upper and lower case - which were asked if the information did not emerge from the original question. · All the subjects in the first sample were administered the entire interview schedule, while those in the second sample received only a shortened version.

INTERVIEW SCHEDULE

Date of interview..... Serial number | | | | |

Name..... Sex.....

Present address..... Time of last fix.....

..... Amount.....

1.Q. HOW OLD ARE YOU, AND WHAT IS YOUR DATE OF BIRTH?

D.O.B. ...../...../..... Age.....

2.Q. ARE YOU, OR HAVE YOU EVER BEEN MARRIED OR ENGAGED?

From..... To.....

Single
Engaged
Married
Divorced
Widowed
Non-judicially separated
Judicially separated
Single living as married

3.Q. HAVE YOU ANY CHILDREN? YES/NO

WHAT ARE THEIR AGES?

	D.O.B.	Sex	Age
1	.....	.....	.....
2	.....	.....	.....
3	.....	.....	.....

4.Q. WHERE DO THEY LIVE?

With both parents
With father
With mother
Other (who)

Secondary Education

5.Q. WHAT SECONDARY SCHOOLS DID YOU GO TO?

Type

HOW LONG WERE YOU THERE?

From

To

6.Q. DID YOU TAKE ANY EXAMS WHILE AT SCHOOL?

If YES, which. Results.

7.Q. DID YOU CONTINUE YOUR EDUCATION OR TRAINING AFTER YOU LEFT SCHOOL?

If YES,

How - full-time, part-time, day release etc.

When

Where

8.Q. DID YOU TAKE ANY EXAMS?

What were these?

9.Q. DID YOU COMPLETE THE COURSE?

10.Q.a WHEN YOU WERE AT SCHOOL, WHAT SORT OF THINGS DID YOU DO IN YOUR SPARE TIME? DID YOU HAVE ANY HOBBIES, OR DID YOU GO AROUND WITH A GROUP OR GANG?

Where are they now?

b DID YOU EVER PLAY TRUANT? HOW OFTEN?

11.Q. WHAT WORK DID YOU WANT TO DO WHEN YOU LEFT SCHOOL OR COLLEGE?

12.Q. WHAT WAS YOUR FIRST JOB?

WHEN DID YOU START THIS?

HOW LONG DID YOU STAY?

DID YOU LIKE THE WORK?

WHY DID YOU LEAVE?

WHAT WAS YOUR NEXT JOB?

Work	Place	Evaluation	From	To	Reason for Leaving
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....

13.Q. HOW DID YOU LIVE WHEN YOU WERE NOT WORKING?

14.Q. WHILE YOU WERE LIVING AT HOME DID YOUR PARENTS MOVE HOUSE AT ALL?

WHEN DID YOU LEAVE HOME? WHERE DID YOU GO? WHERE ELSE HAVE YOU LIVED?

Place	From	To	With whom
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

15.Q. WHO BROUGHT YOU UP?

16.Q. TELL ME ABOUT YOUR PARENTS?

ARE THEY STILL ALIVE

WHERE DO THEY LIVE

Marital status of father

Marital status of mother

17.Q. WHAT DOES/DID YOUR FATHER DO FOR A LIVING?

(Father substitute)

Background - ethnic, cultural, religious

DOES YOUR MOTHER GO OUT TO WORK? WHAT DOES SHE DO?

Background - ethnic, cultural, religious

18.Q. HAVE YOU ANY BROTHERS AND SISTERS?

Name	Sex	Age	Residence
.....	.....	.....	.....

19.Q. SO HOW MANY OF YOU WERE AT HOME?

Size of family unit

20.Q. DO ANY OF YOUR BROTHERS AND SISTERS TAKE DRUGS?

WHO

WHAT DO THEY TAKE?

How long

Amount

21.Q. HOW WOULD YOU DESCRIBE YOUR HOME LIFE? WERE YOU PARTICULARLY HAPPY OR UNHAPPY AT HOME?

HOW DID YOU GET ALONG WITH YOUR PARENTS?

Father

Mother

22.Q. DID EITHER OF YOUR PARENTS SUGGEST A CAREER THAT THEY WOULD HAVE LIKE YOU TO TAKE UP?

WHAT DID YOU FEEL ABOUT THIS

23.Q. HAVE YOU HAD ANY SERIOUS ILLNESSES?

WHAT

WHEN

WHAT HAPPENED IF YOU WERE AT HOME AND YOU WERE ILL? WERE YOU PACKED OFF TO BED OR ALLOWED TO STAY UP? DID THE DOCTOR COME VERY OFTEN?

Attitude of father

Attitude of mother

Interruption of schooling

24.Q. WHAT DRUGS ARE YOU ON NOW? HOW MUCH DO YOU TAKE? HOW DO YOU TAKE IT?

Drug	Amount	Method
.....	.....	.....
.....	.....	.....

25.Q. WHEN DID YOU FIRST MEET ANYONE WHO TOOK DRUGS?

Where was this

How did you meet him/her

Who was it

What was he taking

How did you know that he was taking drugs?

26.Q. WHEN DID YOU FIRST HAVE THE OPPORTUNITY OF TAKING DRUGS YOURSELF? (other than heroin)

When were you first offered some?

Who offered you the drug?

How did you meet them?

What did they offer you?

Were they taking this drug or any other drug?

27.Q. DID YOU TRY THIS DRUG? YES/NO

If YES

How much did you take

How did you take it

What was it like? Do you remember how you felt?

What did you know about this drug before you took it?

Was it what you expected?

If NO

WHY DIDN'T YOU TRY IT?

27.Q. Continued,

WHEN DID YOU FIRST TAKE ANY DRUGS?

Where was this

What drug was it

Who offered you the drug

How did you meet them

Were they taking this drug or any other

How much did you take

How did you take it

What was it like? Do you remember how you felt

Was it different from what you expected? What did you know about this drug before you took it?

28.Q. WHEN DID YOU NEXT USE THIS DRUG?

Where was this

How did you get hold of it

What effect did it have

29.Q. WHAT HAPPENED AFTER THAT? DID YOU BECOME A REGULAR USER?

HOW DID THIS COME ABOUT?

Frequency of use

Method of obtaining drug

Cost

WHERE DID YOU TAKE THIS DRUG?

WHO WERE YOU USUALLY WITH

30.Q. HOW MANY OF YOUR FRIENDS WERE USING THIS DRUG?

31.Q. WERE ANY OF YOUR FRIENDS USING ANY OTHER DRUG?

32.Q. HOW DID YOU COME TO MEET THESE FRIENDS?

WHAT HAPPENED TO THE PEOPLE YOU USED TO KNOW AT SCHOOL?

33.Q. DID YOU GO AROUND WITH ANYONE WHO DIDN'T TAKE DRUGS?

34.Q. AROUND THIS TIME, WERE YOU WORKING OR AT SCHOOL?

35.Q. HOW DID YOU COME TO USE THE NEXT DRUG? (if Heroin Q.38)

Where

When

How did you get it

How much did you take

How did you take it

Whatwas it like, what effect did it have?

36.Q. WHEN DID YOU NEXT USE THIS DRUG?

Where was this
How did you get it
What did it cost you
How much did you take
How did you take it
What effect did it have this time
How many of your friends were using this drug
When did you use it again
Pattern of usage

37.Q. WHAT WERE YOU DOING AT THIS TIME? WERE YOU AT SCHOOL, WORKING, UNEMPLOYED?

38.Q. DID EITHER OF YOUR PARENTS KNOW THAT YOU WERE TAKING DRUGS?

Father

Mother

If NO

Don't you think that they had any idea?

Were you ever high at home?

If YES

How did they find out

What did they say

What did they do

Do you think that they wanted you to stop taking drugs?

39.Q. DID ANY OF YOUR BROTHERS OR SISTERS KNOW THAT YOU WERE TAKING DRUGS?

What did they say

How did they find out

What did they do

40.Q. WHEN DID YOU FIRST MEET ANYONE WHO TOOK HEROIN?

How did you meet them

How well did you know them

What method did they use

How much do you think they were taking

Who was it

41.Q. WHEN DID YOU FIRST HAVE AN OPPORTUNITY OF TAKING HEROIN?

How did this come about

Where were you

Who were you with at the time

DID YOU IN FACT TAKE ANY HEROIN THEN?

If NO

Why not

If YES

WHY?

42.Q. WHEN DID YOU FIRST TAKE ANY HEROIN?

Where was this

Who were you with at the time

How much did you take

How did you take it

Do you remember what sort of effect it had

43.Q. HOW MANY OF YOUR FRIENDS TOOK HEROIN?

44.Q. WHEN DID YOU NEXT TRY HEROIN?

Where was this
How did you obtain it
Who were you with
How much did you take
How did you take it
What was it like

45.Q. HOW DID YOU BECOME A REGULAR USER. HOW LONG WAS IT BEFORE YOU TOOK SOME EVERY DAY?

46.Q. HOW DID YOU NORMALLY GET YOUR SUPPLY?

47.Q. HOW MUCH WAS IT COSTING YOU?

48.Q. DID THIS HAVE ANY EFFECT ON YOUR WORK OR SCHOOL WORK?

49.Q. DID YOUR PARENTS KNOW THAT YOU WERE TAKING HEROIN?

If NO

Didn't they have any idea

Do they know now

If YES

How did they find out

What did they say

What did they do

Do you think that they treated you any differently?

In what way

50.Q. DID YOUR BROTHERS AND SISTERS KNOW THAT YOU TOOK HEROIN?

How did they find out

What did they say

What did they do

Do you think they treated you any differently.

In what way

51.Q. WHEN DID YOU FIRST APPROACH A DOCTOR ABOUT GETTING A SUPPLY OR COMING OFF?

Why did you

52.Q. HAVE YOU HAD TO, OR TRIED TO, COME OFF HEROIN SINCE BECOMING A REGULAR USER?

How many times

What were your reasons for coming off

Why did you start again (each time)

53.Q. WHILE TAKING HEROIN, WHAT CONTACT DID YOU HAVE WITH YOUR PARENTS. DID YOU LIVE AT HOME, OR SEE THEM OFTEN?

54.Q. WHAT DO YOU THINK IS THEIR ATTITUDE TOWARDS YOU NOW?

55.Q. HAVE THEY EVER GIVEN YOU ANY HELP TO COME OFF?

If YES

How

If NO

Why do you think this was?

Could they have helped?

56.Q. WHAT IS THE ATTITUDE OF YOUR BROTHERS AND SISTERS NOW?

57.Q. WOULD YOU DESCRIBE EITHER OF YOUR PARENTS AS HEAVY DRINKERS?

58.Q. HOW MANY PEOPLE DO YOU KNOW WHO ARE ON, OR WHO HAVE BEEN ON, HEROIN?

Who

How many do you see regularly

59.Q. SINCE TAKING DRUGS, HOW MANY TIMES HAVE YOU BEEN UP BEFORE THE COURTS?

	Reason	Date of Committing Offence	Sentence
Why was this			
What happened			

60.Q. AND BEFORE YOU TOOK DRUGS, HOW MANY TIMES WERE YOU BEFORE THE COURTS?

Why was this

What happened

61.Q. WHAT ARE ALL THE DRUGS YOU HAVE EVER TAKEN, IN ORDER OF TAKING THEM.

DRUG	AMOUNT	METHOD	FROM	TO	HOW OFTEN
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....
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62.Q. WHAT DO YOU THINK ARE YOUR REASONS FOR TAKING DRUGS?

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