

Drug, set and setting

In his latest background briefing, Professor David Clark looks at the influence of personality and physical setting on an individual's reaction to drugs

Contrary to what is commonly assumed, psychoactive drugs do not produce fixed and predictable psychological effects that are dependent purely on their chemical properties.

In fact, the way that a drug affects a person depends on two additional factors to the biochemical actions of the substance. Firstly, the 'set', a variety of individual characteristics such as a person's personality, their expectancies of how the drug will affect them, and their emotional state. Secondly, the 'setting', the influence of the physical and social setting within which drug use occurs.

Few people have difficulty in understanding that different individuals in the same setting react in different ways to alcohol. However, the same level of understanding is not evident in relation to other drugs. Yet, research studies have shown that in subjects in the same environment, only a proportion of people receiving a fixed dose of amphetamine for the first time experience pleasurable effects of the drug: a significant remainder experience anxiety. Moreover, only some people who try heroin and crack, periodically go on to develop a problem with these drugs.

The effects of a drug are partly dependant on the personality of the person. For example, extraverts succumb much more readily than introverts to the intoxicating effects of alcohol. The user's beliefs (or expectancies) about drugs are also an important determinant of the drug effect. In one research study, a group of subjects was given a sleeping tablet and told by the experimenter that it would make them sleepy. Another group was given the drug and told that they did not know what effect it would have, whilst a third group was given an inert substance and told it would make them feel sleepy. Those subjects who were given the active drug and told that it would make them sleepy showed the greatest drowsiness. The other

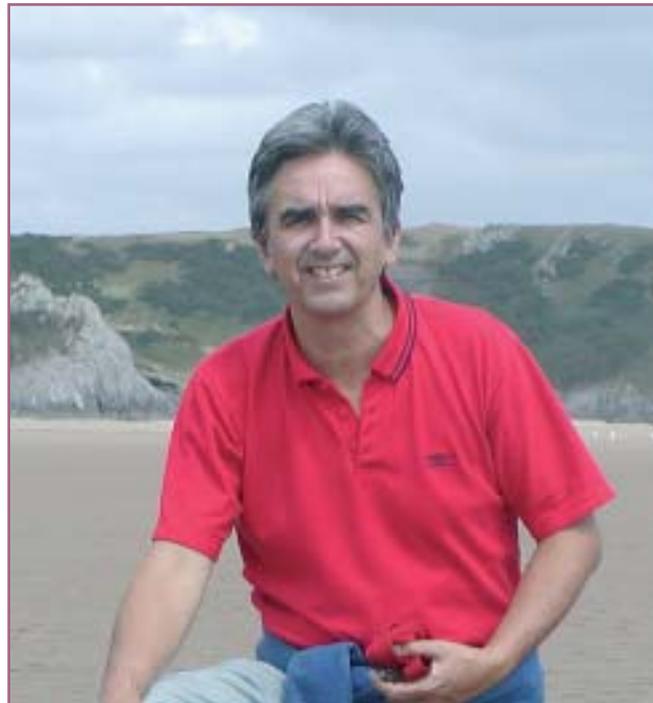
two groups showed the same level of drowsiness. Thus, the experimenter's suggestions were as effective as the drug.

The most dramatic illustration of the role of setting centres on the Vietnam War. In 1971, two US Congressmen returning from a fact-finding mission claimed that 10-15 per cent of servicemen in Vietnam had become addicted to heroin. There was an immediate concern in America that large numbers of returning opiate addicted soldiers, well-versed in the use of guns, would trigger a massive increase in heroin use, and a surge of crime to support their addiction. As a result, the American Government commissioned a large-scale research study, led by Dr Lee Robins, which tried to identify and detoxify addicted soldiers before their return to America and then follow them up for a period after their return.

This study revealed that 34 per cent of soldiers of non-commissioned rank had tried heroin, and 45 per cent had tried heroin, opium or both. The vast majority of soldiers smoked the drugs in rolled up cigarettes; only 10 per cent had injected an opiate. About 20 per cent of these subjects said they had been addicted to opiates in Vietnam, and most of these had experienced opiate withdrawal symptoms.

A scheme was put in place whereby all soldiers of non-commissioned rank were urine tested before boarding their plane home. If they tested positive for opiates, they were not allowed to catch the plane and had to spend the next two weeks in a detoxification centre to come off opiates.

The researchers found that one year after return from Vietnam, half of the previously opiate dependent veterans had at some time experimented with heroin since their return home. However, only 6 per cent of this population became re-addicted to heroin during their first 12 months back home. This 6 per cent figure



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was considered very surprising, because researchers had come to assume that relapse rates for heroin dependence were very high. The usual expectation was that two-thirds of hospital treated heroin addicts would relapse within 12 months of discharge.

This research contradicted the commonly held belief that heroin dependence is an inevitable consequence of using the drug, and that once it has taken hold it is virtually impossible for the user to give up the habit. It provides a good example of the ways in which changes in social circumstances can have a powerful effect on the way people use drugs.

Various influences were at play in this situation and these combined to provide conditions that were conducive to high levels of drug taking in Vietnam. Firstly, the strange and highly threatening environment was likely to facilitate drug taking as a coping mechanism. Secondly, some of the normal moral and social restraints were removed in Vietnam, and many other soldiers were using these drugs. Thirdly, there was a high availability of a range of drugs. Importantly, the effectiveness of these three influences was reduced following the soldiers' return to America – the vet was in a completely different social context.

This episode in drug taking history emphasises the need to look beyond the immediate intoxicating effects of drugs, and consider drug taking within the wider social context.