Ecstasy

Introduction

Ecstasy is the popular name for MDMA or *methylenedioxymethamphetamine*, a chemical belonging to the amphetamine family. Though numerous classifications exist, it is usually classified as an 'empathogen' i.e. a drug which produces marked feelings of empathy or emotional understanding in and between individuals. For this reason, one of Ecstasy's early uses was as a tool in psychotherapy.

Something of a cross between a stimulant and a psychedelic, the drug became well known in the 1980s and 90s as an element of the rave or dance culture, where its use alongside music and dancing led to claims for its life-changing potentials; these were linked to experiences in which users felt that ego-boundaries separating them were dissolved allowing intense interpersonal closeness, a condition known as being 'loved-up'. The drug has also been associated with increased self-understanding. Critics claim that the long-term health effects- particularly its effects on the brain- are unknown, and urge caution. It also raises blood pressure and causes dry mouth. Its effect in the club environment of long spells of dancing and diuretic-use may lead to dehydration and dangerously high body temperature.

The drug appears in a wide variety of tablets and capsules, and increasingly as a powder (known only as MDMA), and is usually used orally or intra nasally (as a powder). It is known by its street names E, pills, XTC, doves and many others depending on the 'brand'.

Chemistry

The mechanism of MDMA's unusual effects has yet to be fully understood, although it is generally thought that the primary relevant pharmacological characteristic of the drug is its affinity for SERTs. SERTs are the part of the serotonergic neuron which remove serotonin from the synapse to be recycled or stored for later use. Not only does MDMA inhibit the reuptake of serotonin into this pump, but it reverses the action of the transporter so that it begins pumping serotonin into the synapse from inside the cell. In addition, MDMA induces the release of norepinephrine and dopamine.

MDMA's unusual empathic and entactogenic effects have been hypothesised to derive at least partly from the result of the release of oxytocin, a hormone usually released following such events as orgasm and childbirth, which is thought to facilitate bonding and the establishment of trust. MDMA is thought to cause this release by indirectly stimulating 5-HT1A receptors. However, the evidence that oxytocin is involved in the effects of MDMA is derived from studies conducted on rats where the emotional effects can only be indirectly measured, in this case by the time animals spend in close proximity to one another. Controlled human studies have not yet been carried out, and it is not known conclusively if MDMA has oxytocinergic action in humans. The question of why other serotonergic drugs do not produce a similarly profound emotional state like MDMA also remains unanswered.

History

MDMA was first synthesized in 1912; as with many other psychoactive chemicals, the German pharmaceutical company Merck was the context for its appearance. During the

1950s, the US military experimented with the drug, listing it simply as 'Experimental Agent 1475'. The narrative of its contemporary use begins in the mid-1960s when Alexander Shulgin made the drug in his home laboratory and experimented with it by taking it himself. He liked what he found. During the 70s the drug's employment spread amongst a group of psychotherapists convinced of its benefits as a therapeutic adjunct. From this context Ecstasy quickly moved into popular and recreational use in the US, arriving in Britain shortly thereafter by way of the Ibiza rave scene and, allegedly, the "Orange People", followers of Indian guru Bhagwan Shree Rajneesh. In the UK it quickly displaced LSD as the drug of choice at the large-scale festivals and open-air parties that were taking place in the mid-1980s. The gradual migration of this early rave scene into clubs in the more contained urban environment cemented the drug's use as the party-drug *par excellence*, being taken by hundreds of thousands of Britons every weekend.

Use and culture

Ecstasy's primary effects include a sense of energy and well-being, euphoria, empathy, greater openness toward and intimacy with others, intensification of sensory experience, insight, self-understanding and acceptance. Negative effects can include tooth-grinding, elevated blood pressure, uncontrolled eye movements, and a period of depression or malaise upon comedown (for long term effects see section on 'health' below).

Ecstasy is an unusual drug, being more consistent in its effects than most psychedelics yet more contextually variable and empathic than most stimulants. Its early use in psychotherapeutic settings has been reflected in the strongly social nature of its continued illicit use, with many users referring to the more open and intimate social spaces enabled by its distinctive effects. Many women in particular have found that the drug's diffusion of the erotic throughout the body and across the entire range of experience, resulted in social settings in which the search for sexual partners or objects was no longer the dominant and aggressive force it was in the alcohol-fuelled venues of the conventional leisure industry. It appears that the drug *does* enhance the erotic, but *does not* centre it on genital sexuality (i.e. the desire to shag).

The use of Ecstasy permits a form of group awareness and interaction, which is difficult to achieve in our otherwise highly, individualised (and arguably alienated) society. The rave is in some sense parallel to those gatherings involving dance, music and spirituality, which have been a perennial feature of human cultures throughout history. Some users of the drug articulate the experience in avowedly spiritual terms, while others prefer to use the terminology of pleasure and recreation—of 'having a good time.'

Health

In the short term, the primary risks associated with the use of E are hyperthermia and hyponatremia. The former refers to high body temperature, the latter essentially to excess water in the body. Continuous dancing without attention to rest and rehydration can cause dangerously high temperatures. Drinking too much water, at rates faster than the body can excrete it, can cause the brain to swell (this was tragically the case with Leah Betts). Symptoms of these types of conditions may go unnoticed due to the intense effects of the drug and the party environment. The use of chill out zones in clubs has helped to mitigate these kinds of risks.

The long-term effects of Ecstasy on the body and brain are a matter of some dispute, and remain unknown at the time of writing. The major issue of concern relates to the effect that long term continued use might have on the brain's production of the neurotransmitter serotonin. The excessive release of serotonin, which can be especially acute when ecstasy is taken in combination with other serotonergic drugs, is thought to produce a long term, possibly permanent neurological syndrome that results in low moods and impaired neural function. Research has so far been inconclusive regarding these questions.