

Release

Drugs, The Law & Human Rights

Mushrooms

Introduction

‘Magic mushrooms’ is the popular term for mushrooms or toadstools containing psychoactive drugs. There are numerous such species; in the UK, the Liberty Cap mushroom or *psilocybe semilanceata* is the plant to which the name usually refers. It contains the compound *psilocybin*, a hallucinogen.

The Liberty Cap grows in many parts of the UK, preferring south-facing grasslands. This species of mushroom does not grow on dung, though some do. It is small cream to brown toadstool with a nipple at the peak of the cap. Psilocybin content varies greatly, and thus so does the dose - typical dose being about 30-40 mushrooms. Liberty Caps can be eaten raw. They also can be dried out and stored. When dried, they can be smoked in a joint or a pipe. They are often ingested by brewing them in a tea.

The effect usually begins in about an hour, and can last from 4 to 6 (maximum 8) hours. As with all psychedelics, the kind of experience is mediated by the individual, their state of mind and the setting. ‘Trips’ can be ecstatic experiences of oneness with the cosmos, or paranoid nightmares.

Often known as ‘magic mushrooms’ or just ‘shroomz’, these plants are not addictive.

Chemistry

Psilocybin is rapidly dephosphorylated in the body to psilocin, which then acts as a partial agonist at the 5-HT_{2A} serotonin receptor in the brain where it mimics the effects of serotonin (5-HT). Psilocin is an 5-HT_{1A} and 5-HT_{2A/2C} agonist. In more straightforward language, upon ingestion of the mushrooms, the psilocybin is metabolized into psilocin, which is the chemical that acts on the brain’s neurotransmitters to produce the characteristic psychedelic effects.

History

The use of these plants is extremely ancient, going back into prehistory. Use of various kinds of psychedelic mushrooms is attested to in traditional cultures ranging from South America to China, Russia to Australia and New Guinea. According to anthropologist Richard Rudgley, there are estimated to be some eighty species of mushroom containing psilocybin and psilocin, and there are in addition numerous others containing various psychoactive chemicals. Famous amongst the latter is *amanita muscaria* or Fly Agaric, the red capped and white spotted toadstool familiar to readers of fairy tales. It has been theorized (by Jonathon Ott) that the myth of Santa Claus, with his red robes trimmed with white fur and his sledge that flies through the heavens delivering gifts to all derives from the use of *amanita muscaria*. The use of the fungus was certainly widespread in the far north of Europe, and it was sometime ingested by drinking the urine of reindeer (cf. Santa) that had consumed the toadstool, thus metabolizing some of the more poisonous alkaloids. Other scholars have dismissed Ott's suggestion; however, Ott is correct that these type of fungi are deeply imprinted in many cultures, and this is suggestive of the shamanic use of drug plants which we know has been a feature of human civilisation for thousands of years. The use of psilocybin mushrooms is better attested in the Americas, where abundant evidence demonstrates shamanic or spiritual ingestion from ancient times continuing to the present. With Liberty Caps (the name derived from the shape of the mushroom carapace, which resembles an item of headgear worn in revolutionary France) and other psilocybe native to much of Europe, it seems unlikely that they were not put to shamanic use; it has been suggested that the hallucinogenic-type imagery found on certain Irish megaliths may have been inspired by psilocybe use, but the scholarship remains contested at the time of writing.

Timothy Leary and his colleague Richard Alpert used psilocybin mushrooms in their early experiments with psychedelics, and there has been limited further research into the therapeutic use of the alkaloids in their pure, extracted form, treating psychological conditions like Obsessive Compulsive Disorder—and with considerable success. The legal status of the drugs has, to date, tended to restrict this potentially rewarding avenue of research.

Use and culture

The use of Liberty Caps and other psychedelic fungi has been a feature of the UK illegal/legal 'herbal highs' drug scene for some decades now. The effects vary with dose, the strength of the plants, their freshness and so on; when eaten dry, 1 to 1.5 grams of mushrooms provide a small 'trip' that can last up to 3 hours. The effects then are relatively mild, depending on the tolerance of the subject. With 3 to 3.5 grams one experiences a strong effect which can last more than 5 hours. Typically the user experiences a sense of tingling anticipation and nervousness during the onset followed by a heightened sense of awareness, vivid patterns behind the eyes and, if the dose is of sufficient strength, flowing patterns with open eyes and a transformed sense of self, reality and meaning. This can be ecstatic, precipitating a sense of oneness and belonging and an enhanced emotional

awareness of, and closeness to, others. Like all psychedelics, the effects are somewhat unpredictable, depending on set and setting (the taker's perceptual framework and mood, plus the physical and social context in which the drug is taken). So the experience also has the potential to be frightening and confusing, and those with pre-existing mental health difficulties are best advised to steer clear of these type of drugs.

Health

Liberty Cap mushrooms are not toxic, nor are they addictive, though a tolerance does build up quickly if they are used repeatedly over a short period; this tolerance passes once a decent break is taken from consumption. The onset of the drug can often be accompanied by nausea, and occasionally by vomiting. Side-effects such as dizziness and feeling faint are also not uncommon, and people do on occasion experience blackouts, usually when the dose taken is a large one.

Perhaps the greatest risk for users of the mushrooms, however, is ingestion of some poisonous species by mistake; therefore the greatest care should be taken to ensure that, if one intends to gather the mushrooms oneself, the correct type is gathered. Such a project should ideally involve the participation of someone with expertise in the identification of fungi, either through training or by previous experience. If this is not practicable, at the very least one should use a reliable guidebook with good quality colour photographs; it is also advisable to have the picked specimens looked at by one familiar with their appearance.