A telephone call seems so much easier, quicker, and cheaper than a letter; but we should not be fooled. Most doctors are impossible to reach. How often are we told "You called him and then he called back and you were out." And it doesn't take long to exceed the 16p of a first class letter when a London caller is left in the void between the switchboard and the department of radiology in the Widdicombe Royal Infirmary. By the time the call has been put through to the department of radiotherapy it would have been cheaper to send a telegram (if they had not been abolished).

In reality phones are always more annoying and frustrating and expensive and often slower than letters. They are also much more likely to lead to mistakes and misunderstandings; and they are a dreadful intrusion. After a few years as an editor you can gut the contents of a letter and have it in the bin within seconds if it is libellous, obscene, boring, or scientifically invalid: phone calls take so much longer and in the end anything that is meant for publication has to be confirmed in writing. So please don't call us, and we won't call you—unless it's essential, which is not often. You write to us, and we'll write to you—first class if necessary, but most things can wait. Indeed, many letters are best left unposted for 24 hours, read again in the cool light of the morning, and then scrapped. And you can't do that with a phone call.

Honesty after death

Doctors nowadays are not always comfortable in the presence of death. In hospital too often the dying patient is passed by on the ward round with no more than a token greeting; in general practice too often the emphasis is on the control of symptoms rather than answering the patient's questions and responding to his fears. Some advances have been made; we have learned to deal with stillbirth rather more compassionately, and the hospice movement has helped doctors and nurses to understand the needs of patients dying of cancer. These, however, are predictable, acceptable deaths in which the health professionals can reassure themselves that everything possible had been done and that the patient's dying implied no criticism of their competence.

Unexpected death is much more threatening for the doctor. He may know (or suspect) that the death may have been due to a drug side effect, a diagnostic oversight, a technical failure on the operating table, or slowness in calling for help from a more experienced colleague. His anxieties will be made worse if the patient's relatives seem to sense that something was wrong and are asking awkward questions. Frozen in embarrassment and uncertainty, the doctor's response is likely to be silent withdrawal.

Recently the *BMJ* was sent by a woman an account of the death of her baby. She had had an uneventful pregnancy and had gone into labour spontaneously. On her arrival at hospital the labour ward was extremely busy and she was seen by a succession of doctors and midwives, given an oxytocin drip, and left in the care of a pupil midwife. Her epidural anaesthetic gave only partial analgesia; progress was slow; the pupil midwife eventually went in search of a doctor and returned with one the patient had never seen before. He delivered the baby with forceps, but she did not breath spontaneously and was found to have brain damage. A few days later she died.

Clearly something had gone wrong—but none of the obstetric staff approached the mother with any explanation. Eventually she asked for an interview with the consultant, who responded angrily to the parents' criticism of his failure to talk to them while the mother was in the hospital. The area health authority arranged a meeting at which everyone was very guarded in what they said, and many questions were left unanswered.

Surely incidents of this kind—which are by no means rare—should not be allowed to continue. The apparently heartless behaviour of the doctors is explicable: in part it is due to a belief that when something has gone wrong the lawyers will insist on rigid adherence to the rule "never apologise, never explain," and in part to the difficulty clinicians experience in coming to terms with their own failures.

Yet the first concern ought to be the relatives—who have to face the psychological blow of an unexpected, unbelievable death. The doctor's prime duty in these circumstances must be to offer compassion and support. How can attitudes be changed?

Firstly, and as a matter or urgency, medical students and young doctors must be taught how to give help and comfort to the relatives of patients who have died. The skills of bereavement counselling do not come naturally; they need to be taught just as much as techniques such as lumbar puncture or taking a psychiatric history; and interviewing skills are best learned by observation and by practice under supervision (making use of videorecordings and role playing).

Secondly, consultants and general practitioners should recognise and accept an obligation to talk to the relatives whenever there is unexpected death—after an operation, during an investigatory procedure, in a patient awaiting discharge from the ward—or one who has just returned home. An interview should be offered—not every relative has the courage or the social skills required to ask for one—and its prime purpose should be to give comfort and answer questions.

Finally, we must not let lawyers set our priorities. The medical defence societies provide compensation for patients and their relatives where doctors have made mistakes. They are not meant to shield doctors behind legal barriers. They are run by doctors for doctors and that should mean that the patient's welfare is paramount. Most relatives simply want to know what happened; in Britain they are rarely vindictive and an honest explanation, given by a doctor who is clearly upset by the death, is far preferable to what is seen as guilty silence or a medical cover up.

Soma and psyche

Over 3000 years ago the Aryan people moved south across the central Asian mountains to occupy the fertile Indus valley of India. They brought with them the sacred plant soma; they worshipped it in complex ceremonies and drank its juices. They composed over 1000 hymns, many extolling the virtues of this mystic plant. In the Rigvedic hymns soma was welcomed as a friend to men, bringing joy and gladness. It instilled courage, power, and strength, clarified the mind, inspired speech, cured sickness, and struck down the wicked; with it men could commune with the gods.[1]

As the Aryans moved south, however, supplies became precarious. Ultimately they abandoned the use of soma without

leaving any clear description of the plant itself, although the juices had a strong sweet odour and a pleasant, very sweet flavour. Many suggestions have been made concerning the identity of soma including an ephedra plant, millet, cannabis, and even rhubarb. R G Wasson, an amateur ethnomycologist of great scholarship, interested himself in this problem and, based on the flimsy descriptions in the hymns, concluded that the best candidate was the fly agaric fungus *Amanita muscaria*.[2 3] Brilliant red with white spots, this mushroom is commonly found in forests in northern Eurasia. Although dissentient voices were raised,[4] and some sceptics remained, many historians agreed with this identification.[5] This mushroom is the one dubbed the "sacred mushroom" by Allegro in his assertion of the importance of intoxicants in early Christian ritual.[6]

The use of intoxicating substances was not confined to the Aryans. Everywhere except the Arctic man has discovered plants that, appropriately prepared and consumed, have altered consciousness in some desired way. The list is long, especially if wide criteria are used, and includes alcohol, cannabis, cocaine, opioids, mescaline, lysergide (LSD), and tobacco. Synthesised chemicals have now joined the list with the increase in the incidence of glue sniffing.

But why do people resort to intoxicants? This question interested Tolstoy, who wrote an essay entitled "Why do men stupefy themselves?"[7] He concluded that "life does not accord with conscience, so conscience is made to bend to life," implying that intoxicants increased the pliability of man's conscience.

But the question is more complicated than that. Andrew Weil stated that people take drugs as a means of satisfying an inner need for experiencing other modes of consciousness.[8] But what inner need, for these will vary?

One specialised use is that restricted to shamans or witchdoctors. Ingestion of the intoxicant is followed by a trance, from which the shaman awakens with particular information such as prophecies or the best hunting grounds. The parallel to the use of intoxicants to induce psychedelic experiences in this century is close. Malcolm, of the Addiction Research Foundation in Toronto, has suggested several usages.[9] The first is religious. Examples are kava in Polynesia, which is prepared from the root of the pepper plant,[8] *Piper methysticum*, whose use in religious ceremonies underpinned a remarkably stable culture for thousands of years. Captain Cook's seamen and later the missionaries destroyed both the rituals and the influence of traditional practices and beliefs. Alcohol was then used as a substitute, but sadly decreased rather than increased the society's cohesiveness. A second example comes from central America, where peyotl (an intoxicating cactus), teonanacatl (a sacred mushroom), and ololiuqui (the Mexican morning glory) were widely used by the Aztecs but were subsequently extirpated by the missionaries.

These plants, and others in the New World such as cohoba snuff, caapi, epena, and datura became an intrinsic part of the culture of the society. Their administration was controlled and their effects tolerated within the rules of the society. Nor was the religious use of intoxicants confined to America. Alcohol was, and still is, an important item of Jewish and, to a less extent, Christian religious observance. The Greeks at Eleusis, the north European sects, and the Teutons all originally used alcohol in a quasireligious context. Other substances used in this way include betel nuts and some spices in the Far East, pituri in Australia, khat in the Yemen, channa in South Africa, harmine and harmaline-containing drugs in several areas, ibogaine in west Africa, cannabis by the West Indian Rastafarians, and the *A muscaria* mushroom in high temperate regions such as Siberia and the central Asian mountains.

But as societies lost internal support and cohesion the religious use of soma and the worldwide range of intoxicants changed to the recreational pursuit (if the more extreme and uncontrolled forms of intoxication can be dignified by the term "recreation"). Over the past century, partly as a reaction to early Victorian puritanism, people have held the view that pleasure is not intrinsically sinful and indeed is desirable in itself. Drugs used in this context tend to be taken by small groups who gather together for conversation and mutual support. The use of a drug confirms membership in the group, promotes social interactions, and reduces inhibitions. But the need for care in the use of powerful agents has resulted in controls on their use, with the introduction of some ritual. The more closely one looks at the development of rituals of psychedelic drug use and its subcultures the more one can find parallels to the religious use of such drugs. This leads to the speculation that previous religious use represented a ritualisation of even earlier casual recreational use.

Some drugs may provide a useful safety valve, especially in an ordered achievement oriented society. The almost ritual evening drinking of the Japanese executive is a case in point. In fact alcohol is the prime recreational intoxicant in many countries (Islamic states being the most notable exception). The number of judicious users is greater than those damaged by alcohol, although that damage may be devastating. But no one now expects alcohol to provide quasireligious experiences.

Cannabis is rather different. Even though its general use is illegal, it is becoming increasingly used and even partly accepted by some Western societies. It has been used for hundreds of years in the East (although at times condemned) and yet was unpopular in Europe and North America until this century. The drug has not changed, so presumably Western society has changed its attitudes sufficiently to begin to incorporate cannabis into routine recreational use in some parts of society. The recreational use remains the subject of intense debate.

The religious use of intoxicants was surrounded with social conventions concerning the amount, frequency, context, and choice of subject. The recreational use of drugs has to establish its own mores and restraints. But the prohibition of use by law makes it difficult to establish recreational norms. Any relaxing of legal restraints will be followed by a period of instability while a drug finds its own "level" in society. Any such relaxation, if agreed by society, must be gradual.

Several drugs are used recreationally but do not merit inclusion under soma like intoxicants. Tea, coffee, chocolate, and tobacco are the main examples. Many people have great difficulty giving up coffee drinking or cigarette smoking, so that long term usage might conceivably reflect dependence, both physical and psychological.

Another reason for taking intoxicants is to enhance endurance. For example, cocaine was used as an "energiser" by the Incan army, and amphetamine sulphate was widely used in the second world war to improve subjective state and psychomotor performance in combatants and support troops. Athletes find that their performance improves by taking stimulants, and folklore suggests that these can make horses run faster.

Intoxicants may also be used in "brainwashing."[10] The victim is denied rest, food, comfort, and his normal environment. He is made to review his past, confess his errors, dissociate himself from previous confrères and activities, and rebuild his sense of reality, value judgments, and standards.

Hopeless, helpless, fatigued, hungry, anxious, and distraught, he suspends rational thought and becomes extraordinarily suggestible. Hope is offered to him by his instructor and instant conversion may result. Repeated sessions are then needed to reinforce the new ideas. In time, the beliefs become deeply ingrained and the instructed may become the instructor. Alcohol, barbiturates, ether, nitrous oxide, and lysergide have all been used to expedite this process by inducing an altered state of consciousness. The immature are particularly susceptible to indoctrination by sects, and "reprogramming" them back to normal life may then be a lengthy business.

Intoxicants have a limited place in treatment. Over the past few decades medications have become increasingly selective—witness the second generation antidepressants and the newer antipsychotic agents. Intoxicants tend to have multiple and usually complex actions, and their mode of action is often not clear. Even so, a new indication for an old intoxicant may emerge—for example, the antiemetic properties of cannabis may be useful in patients with postirradiation sickness.[11]

And what of the future? Fifty years ago Aldous Huxley promised us a new "soma," a drug "with three different effects: euphoric, hallucinant, or sedative—an impossible combination . . . with all the advantages of Christianity and alcohol . . . none of their defects."[12] Psychopharmacology has not yet provided this "neosoma" but psychopharmacologists have not given up hope. In their crystal gazing, medical scientists predicted the advent of more powerful chemical aphrodisiacs[13] replacing mandrake, oysters, lysergide,[14] and amylnitrite,[15] perhaps even in time to save the white rhinoceros. The late Nathan Kline, with his inimitable inventiveness, listed 15 ways in which drugs would alter our life patterns, including controlling affect and aggression, provoking or relieving guilt, and deepening our awareness of beauty and our sense of awe.[16] Could some new drug lessen our aggressiveness to the point where the threat of nuclear annihilation hanging over our planet might be removed?

But, to return to the Aryans in the Indus valley in the second millenium BC, if soma was an extract of *A muscaria*, can modern pharmacology throw light on the active principles concerned? Muscarine is the obvious component—a compound with direct cholinergic agonist effects—but it is a quarternary ammonium compound and does not penetrate readily to the brain. Another component is muscimol, being present to the extent of 0·3-1·0 g/kg of undried carpophores.[17] Muscimol can induce a toxic psychosis with confusion, dysarthria, visual illusions, and disorientation in time and place.[18] Its mechanism of action includes a potentiating effect on γ-aminobutyric acid, a property shared by the benzodiazepines, which in therapeutic doses avoid the toxic central effects of muscimol.

Can man transcend his boundaries by the use of soma? The philosopher Martin Buber has stated his certainties and doubts: "Now from my own unforgettable experience I know well that there is a state in which the bonds of the personal nature of life seem to have fallen away from us and we experience an undivided unity. But I do not know—what the soul willingly imagines and indeed is bound to imagine—that in this I had attained to a union with the primal being or the godhead. . . ."[19] Perhaps the greatest challenge of the late twentieth century is to persuade man to live within the limitations of his personal experience. Neuropharmacology and the drugs it produces may lessen abnormalities; they show no promise of providing us with the supernormal. The Aryans knew what they were doing when they stopped using soma.

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