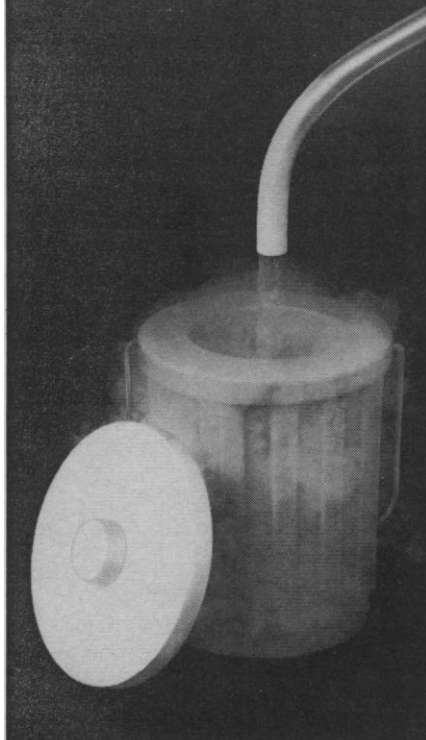


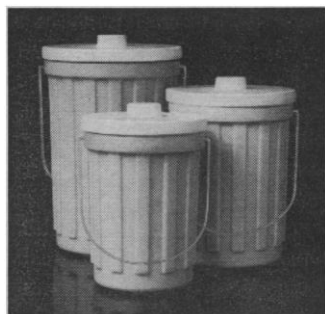
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its leaves made sounds for 3 minutes. In March, with all leaves gone, red oak produced sounds of from 4- to 7-second duration in five different holes. The chestnut oak, more typical of drier sites, produced much more feeble sounds that rarely lasted for more than 15 seconds. The chestnut oak, like the red oak, sweet gum, and shag bark hickory, produced inspirational sounds in the absence of leaves in March, when air temperatures were in the 50's. The white ash, on the other hand, a noisy tree in the fall, was fully inactive in March.

At low temperatures, trees with few leaves produced less (or no) sound. In some cases, trees had both noisy and quiet sectors. We disturbed the tissue sufficiently to ensure that vessels were broken. This suggests a multiplicity of moisture supply routes within a single tree. It also indicates that a single woodpecker or population of boring insects will not "short-circuit" an entire forest.

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### Methadone Treatment and Drug Experimentation

At least one aspect of methadone treatment has not been discussed widely, although it warrants further investigation; that is, when a chemical solution is tried as a remedy for a chemical problem [to paraphrase H. L. Lennard, L. J. Epstein, M. S. Rosenthal, and A. Bernstein, (Letters, 16 Mar., p. 1079)] the chemical strategy as a solution for all sorts of problems may generalize and several drugs may be explored.

This concept is illustrated by our observation that long-term heroin users, supposedly inflexible in their choice of a drug, suddenly experience a rebirth of drug experimentation when they attempt the shift from illegal narcotic use to methadone maintenance.

The first stage in the addict's pattern usually begins with a sporadic, inconsistent use of methadone, with heroin at times used interchangeably with methadone. This stage subsides within several months, after an optimal methadone dosage level is found. This is followed

by a second stage—shooting heroin "over" methadone, that is, using both drugs simultaneously to achieve a euphoric effect. Then a third stage occurs, characterized by greater experimentation and considerably more curiosity-seeking and risk-taking—that is, "backing up" methadone with barbiturates and ethanol, apparently to support the effects of methadone by adding the impact of barbiturates and alcohol. Reportedly, the synergism of these chemicals in combination produces a qualitatively different "high" than that experienced from other drugs alone or combined—an effect especially euphoric for heroin addicts. This stage generally diminishes when such non-chemical strategies as psychosocial rehabilitation take hold. The fourth stage is marked by the heavy use of marihuana (for some addicts, the first time it has been heavily used); as in an earlier time, when "cured" addicts shifted to alcohol abuse, the use of marihuana frequently becomes a well-integrated part of daily living, persisting for a long time. These stages are not necessarily fixed in the order cited nor are they delineated only by the combinations noted above.

Such stages in drug use after an addict enrolls in a methadone maintenance program have all the appearances of phases in experimentation or testing. But perhaps such periods of assessing drug effects should not be too surprising, since the act of voluntarily seeking admission to a methadone maintenance program itself already may be indicative of a decision to experiment with different types of chemicals—a cognitive choice to explore further dimensions in the chemical strategy as a means of handling everyday problems.

It would appear that, for a long-term user of narcotic drugs, the introduction of a methadone program is a manifestation of a direct challenge to cognitively fixed behavior and that subsequent behavior is characterized by a cycle of experimentation with new drugs in new combinations. Any future debate about treatment should include documentation of frequency and types of drugs chosen throughout the therapeutic course.

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