other tones, even in the traditional musical scale, it is most unlikely that we remember musical sequences by storing the absolute pitches of the component tones. Rather, it appears that we must rapidly discard absolute pitch information and store musical sequences in a recoded form. How this might be achieved is discussed in detail elsewhere (*6*).

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Cyclamate Acceptance

Recent letters have been written on the relative wisdom of the government ban on the use of cyclamates in foods (*1*). Many references have also been made to published (*2*) and unpublished research which seems to show that cyclamate, cyclohexylamine, and even saccharin may have carcinogenic effects.

In the majority of these studies either the chemical was surgically implanted in body tissue or else it was placed in the only available source of food or water. In both situations, the animal didn't have much of a choice about whether or not it ingested the substance under investigation.

Humans have voluntarily chosen to accept cyclamate-sweetened foods (projected consumption for 1970 was 21 million pounds prior to the ban), although one national magazine did suggest that "most cyclamates end up in the stomachs of Americans because of advertising campaigns," not because of preference per se (*3*). It would, therefore, seem logical to give experimental animals such a choice since it has been pointed out that rats and mice behave toward sweets somewhat as humans do (*4*).

Two groups of investigators found that rats avoid cyclamate solutions for water and that C 57 black mice preferred a 1 percent cyclamate solution to water (*5*). Four species of deer mice preferred glucose to either calcium or sodium cyclamate, regardless of sweetness, but chose the sweeter solution when the choice was glucose or saccharin (*6*). More recent work in my group (*7*) has shown that various strains of laboratory rats as well as wild rats avoid cyclamates in favor of water, glucose, or saccharin. These same rats also tend to avoid a 10:1 cyclamate-saccharin mixture. The evidence seems to show that rodents do not choose cyclamate if a more palatable choice is available (even if that happens to be only plain tap water).

In light of the physiological evidence mentioned above, which suggests that cyclamates produce toxic effects, it might be proposed that aversions for sweet cyclamates are somehow related to this toxicity. Indeed, taste preferences and aversions have elsewhere been reported to be intimately related to experienced ill-effects. Exposure to x-radiation has been used to condition saccharin aversions (*8*) and rats avoid toxic lithium chloride (*9*).

How, then, can one reconcile the reported similarities in human and rodent sweet preferences on the one side, with the rodent aversions and the massive human acceptance of cyclamate-flavored foods on the other side? Do humans really prefer cyclamates? Most anecdotal evidence indicates that people find cyclamate-flavored foods have an undesirable off-taste, characterized as "thin" or "metallic." Therefore, it seems more plausible to account for human acceptance by two alternatives such as: (i) the advertising campaigns that have stressed the dietary and healthful aspects of cyclamates, thereby motivating human consumption in spite of the undesirable taste, and/or (ii) cyclamates have found their greatest use in foods and beverages that are already highly flavored, such as chocolates, coffee, colas, and citrus drinks, which partially obscure the off-taste.

If one accepts the foregoing account of the basis for human consumption of potentially toxic substances (like cyclamates), but if one opposes an arbitrary and perhaps hasty ban on a sweetener which has proved helpful to diabetics and others in our society, what are the possible alternatives? How can we capitalize on the sensory dislike people may have for cyclamates to induce a decreased consumption without the correlated arbitrary government action?

If people are being motivated to buy cyclamate-flavored foods primarily by advertising campaigns, it seems more logical to impose existing legal apparatus to prevent misleading or outright fraudulent claims or appeals to the dieting and weight-watching public by marketing agencies. The promises of weight control and sex appeal should be somehow discouraged. At the same time, the public could become the target of an educational campaign stressing proper weight control as well as the potential dangers of excessive cyclamate ingestion.

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Antarctic Ice and Interglacial High Sea Levels

Emiliani (*1*) suggests that high interglacial sea levels were the result of significant melting of the Greenland Ice Sheet, caused by the coincidence of perihelion with northern summer solstice. Presumably, therefore, Emiliani must refer to occasions when the mass