

INSTITUTE OF CURRENT WORLD AFFAIRS

ATW-4

Coffee Break

Panajachel, Sololá
Guatemala, C.A.

March 13, 1972

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Institute of Current World Affairs
535 Fifth Avenue
New York, New York 10017
U.S.A.

Dear Mr. Nolte:

Latin America is truly the land of caffeine. Three of the major caffeine-containing plants -- coffee, cacao, and cola -- are consumed here in vast quantities. Cola is native to Africa and is grown there; it comes to Latin Americans in the form of the same brands of bottled cola beverages we are all familiar with in the United States. Coffee is also an Old World native, believed to have originated in Abyssinia, but the American tropics are now its adopted home. Countries like Guatemala are as much coffee republics as banana republics: a great human effort here goes to growing, processing,^o exporting, and consuming the precious bean. And cacao -- source of chocolate, cocoa, and cocoa butter -- has been here all along. It was one of the New World's most treasured gifts to the Old.

Tea, whose home is China, is not much in evidence in Central America. But further south people drink two other caffeine beverages that are virtually unknown in the rest of the world. Maté (or yerba maté) is the national drink of Argentina; it is occasionally (and erroneously) sold in the United States as a

^o Coffee (and cacao) beans are odorless and tasteless when fresh. They must be fermented for several days, then dried and roasted before they develop their characteristic flavor. Black (as opposed to green) tea is also fermented before drying.

variety of tea. Guaraná, obtained from a jungle vine, is the base of the carbonated caffeine drink of Brazil, a beverage more popular than cola in that country.

But it is coffee that is always most visible. In the larger open markets of the Guatemalan highlands every other woman seems to be selling the gray-green unroasted beans, and the scent of finished coffee comes wafting out of many homes. It is café that has lent its name to a place where caffeine beverages of all sorts are sold, and café that has named the stimulating alkaloid common to all of these important plants of commerce. Traveling through the coffee-producing regions of the Americas has made me more conscious of the place of this substance in our world. I would like to use this newsletter as an opportunity to set down some of my thoughts about coffee and its relatives with reference to the more general questions I am interested in.

Except for cacao, which contains a high proportion of fat, none of these plants is nutritive; the drinks prepared from them supply nourishment only by virtue of added sugar or milk. It is worth thinking about how much energy has always gone into their cultivation, often in regions where nutrition is poor to begin with. The reason, of course, is that the products of these plants are drugs, not simple beverages or flavors, and the attention devoted to them is another example of the involvement with drugs that is so characteristic of human beings.

Caffeine, itself, is one member of a family of related compounds (the xanthines) that occur in various combinations in the different plants. All are stimulants and diuretics (that is, they promote the flow of urine). Theophylline, the principal xanthine in tea, is sometimes added to asthma medications because of its relaxant effect on bronchial smooth muscle, and caffeine is often included in proprietary compounds (like "cold tablets") to offset the drowsiness induced

by antihistamines or other components. But, in general, these drugs have little specific clinical use today. We need not pay attention to the pharmacological distinctions within the family. For our purposes, caffeine can be considered the prototype of the xanthines. In fact, in their final forms of preparation, the beverages that come from the different plants are roughly equivalent in caffeine content, so that a cup of coffee is about as stimulating as a cup of tea or chocolate or a bottle of cola.

Caffeine affects different parts of the body. The feeling of wakefulness and well-being that many persons associate with it is correlated with stimulation of the central nervous system. In addition, caffeine activates voluntary muscle fibers, sometimes producing restlessness and jitteriness ("coffee nerves").^o It may increase the flow of acid in the stomach (making it taboo for ulcer patients) and may stimulate intestinal mobility (sometimes causing diarrhea in sensitive persons who consume too much).

A great problem in trying to describe these effects is that individuals differ markedly in their susceptibility to them, particularly to the central stimulation. Some persons appear to be caffeine-resistant. For example, I have never been able to derive the slightest degree of alertness or wakefulness from coffee and can fall asleep after drinking any amount if I am tired to begin with. On the other hand, some people I know cannot sleep at all during the night if they have so much as half a cup of coffee before retiring.

^oThis is different from the stimulation of amphetamines, which activate functional groups of muscles rather than individual muscle fibers. Both types of stimulants cause wakefulness, but amphetamines are more useful if one needs a chemical aid for functional motor acts like running or typing.

Pharmacologists have nothing to say about the reasons for these idiosyncratic variations -- whether they represent physiological differences (for instance, in the body's ability to metabolize caffeine) or whether they are more results of differing expectations, possibly unconscious, of what the drug will do. In my own studies of drugs, I have seen again and again the power of expectation (what psychologists call "set") and environment (setting) to modify or overrule pharmacology. Therefore, I am inclined to think that with caffeine, as with all other drugs that affect mental function, individual variations in response are better correlated with psychological differences than with physiological ones. The same is true, I think, of differences in patterns of use that form around psychoactive drugs: the same drug that one person can take or leave may become the object of extreme dependence of another.

In other words, the "addictive potential" of drugs is impossible to discuss because the real variation is in the addictive potential of people, and for any drug -- from heroin to marihuana -- there will exist a whole spectrum of types of human relationships to the drug, from casual and occasional use to outright addiction.

There is no doubt that true addictions do develop to the caffeine beverages. Indeed, I have seen many persons have as much difficulty disengaging themselves from regular use of (particularly) coffee as from tobacco, alcohol, or heroin. I have also known many people (especially hospital personnel, office workers, and writers) who could actually not begin to function in the morning until they had a sizable fix of caffeine. To me, it is purely a semantic question whether this sort of dependent behavior is called "habit" or "addiction."

I have said that many persons are unaware of any psychic effects of caffeine. Many others -- those who are most dependent on it -- are conscious only of relief of negative symptoms -- for example, the dissipation of mental cloudiness in the morning. In the same way, many opiate users come to enjoy relief of the unpleasant symptoms of early withdrawal once they are regular users, although they may have experienced no pleasurable effects on first starting to use narcotics. Heavy drinkers of caffeine beverages often show a kind of restlessness and inability to maintain one position for more than a few seconds that may be a true pharmacological effect; it can be seen in animals given caffeine. Such restlessness is also a prominent symptom of what I would call the caffeine-nicotine syndrome -- a common pattern of drug dependence in which heavy use of coffee and heavy use of cigarettes go together as expressions of neurotic anxiety.

What is most curious about caffeine habits is that users are so often blind to the true nature of their dependence on the drug -- a blindness that seems to result from a widely-held social definition of caffeine preparations as beverages not drugs. We have all grown up in a society that accepts completely and even encourages the regular use of caffeine. And since that society also defines drug use as bad, caffeine cannot be a drug. I have attended numerous conferences on The Drug Problem at which prodigious amounts of coffee were served and drunk without anyone even noticing the incongruity. And groups like the Mormons who do not accept these dominant values are distinctly in the minority.

I do not mean to imply that the United States has a monopoly on this strange way of perceiving (or, rather, not-perceiving). Before leaving Mexico I stayed for a while with an

Indian family in the Sierra Mazateca of northeast Oaxaca, a center of coffee production. The coffee pot was started up early in the morning and was kept going until late at night. All members of the family, from a two-year-old on up, drank the brew -- strong, black, and very sweet -- throughout the day. Yet these people were outspoken in their criticism of what they called "drug users."^o

This process of social definition is a true form of magic, for it determines what we see and what we do not see. For example, in objective terms there is little difference between coffee and marihuana. Both are natural drugs that can be used to promote desired states of consciousness. The physiological effects of both are relatively unspectacular. Ordinary use of either is fully consistent with health and social productivity. Yet both can become objects of dependent behavior (though, frankly, I have seen far more cases of full-blown coffee addiction than I have of marihuana addiction -- possibly simply as a consequence of the far greater prevalence of coffee). The main difference is that one enjoys full social support to the extent that its true identity as a drug is defined out of existence, while the other is thought of as something alien, dangerous, and menacing -- a drug. Thus when I stay at motels, attend drug conferences, or make morning rounds in hospitals, I am plied with free coffee. And when I worked briefly at the National Institute of Mental Health I was allowed to leave my desk periodically to have coffee (a legitimate excuse in the eyes of the Federal government). But if I smoke a joint publicly, I can be thrown in jail as a threat to society -- in

^oMy refusal to take more than an occasional sip was put down to my general strangeness and caused little fuss. Certainly, I was subjected to less social pressure than I had been as a medical student in many hospitals where declining coffee on morning rounds was a sign of not joining in, especially if one also refused the tea that was offered as an alternative.

Latin America just as in the United States.

When coffee was a relatively new thing in the Middle East, Arab mystics used it ritually, reverently, and occasionally to facilitate states of concentration and meditation. Were coffee thought of as a drug in our society and treated with the respect that drugs demand, we might be able to use it that way, too, and our health as a nation would be better for the change. Similarly, marihuana, if used ritually, reverently, and occasionally, can be a temporary aid to the experience of altered states of consciousness of potential benefit. (It has been used this way by some Hindu mystics over the centuries.) But as marihuana becomes a commonplace -- as its use increases and people begin to think of it more as an herb for smoking than as a drug -- in short, as it becomes as ordinary in the lives of Americans as coffee, it will gradually lose its power to transport its users to interesting realms of experience.

It is perhaps hard to imagine that coffee, too, was once a magic plant. Our ways of thinking about it have changed its nature. And this is why pharmacology seems so much less interesting than psychology: the "effects" of psychoactive drugs are relative to a particular time, place, and culture. They change as people's and societies' views of them change. If we can begin to understand the nature of this process -- how "objective reality" can be changed by changing our conceptions of it, we might have a key for unlocking ourselves from many of the seemingly impossible social jams we are now in, including those with drugs.

I intend to reflect on the problem over a rare (for me) cup of hot chocolate. My friends who pursue macrobiotic diets tell me it is all right to eat any food in its own native

area, and the chocolate here is very good, indeed. Besides, its botanical name, Theobroma cacao, is most alluring. (Theobroma is Greek for Food of the Gods). I promise to drink it reverently.

Sincerely yours,

A handwritten signature in cursive script that reads "Andrew T. Weil". The signature is fluid and elegant, with a large initial 'A' and a long, sweeping tail on the 'l'.

Andrew T. Weil

Received in New York on March 17, 1972