

"WITCH HUNT" AGAINST LSD

BUT FOOD PRESERVATIVES ARE A MORE WIDESPREAD DANGER
BY STEPHEN BROWN

Contrary to certain "biased" U.S. studies, LSD does not cause genetic damage that can be passed on to offspring, says Dr. James Miller, head of UBC's division of medical genetics.

But there is evidence that other much more widely used substances, such as caffeine (in coffee, colas, tea and pain-killers), cyclamates and sodium nitrite (both in foods), may cause genetic mutations in future generations.

Dr. Miller charged that scientists are withholding publication of a UBC study and other similar studies which indicate LSD does no genetic harm.

He accused these scientists and the established press of conducting a "witch-hunt" against LSD, while largely ignoring the greater genetic dangers posed by food preservatives and other substances.

"LSD is not nearly as important a danger as the other agents, because nearly everyone is taking them and very few people take LSD."

EVIDENCE AGAINST CAFFEINE

He was speaking at a UBC extension department program on environmental hazards to health. Neither the Sun nor the Province sent reporters.

"The evidence against caffeine is just as strong as against cyclamates," he said. "Practically everyone uses caffeine (in coffee, tea, colas and many pain-killers) so it is more important still."

"Yet only two media here published the results of the study which showed caffeine breaks down chromosomes -- the GEORGIA STRAIGHT and CTV network."

"Six common pain-killing prescription drugs could be causing far more damage to people than LSD. To use LSD in an uncontrolled way is stupid but so is the housewife who takes more than the prescribed dose of pain-killing pills."

He said caffeine is "of intense biological importance" because it permeates every cell in the body in its original state. The body metabolism cannot break it down.

So it could reach the gonads, the genetic "heart" of the human cell structure.

Secondly, caffeine is a purine, an element

which also occurs in INA, the "life force" compound which determines genetic change. Purines are mutagens; that is, they set off changes in cell structure.

NO PROPER TESTS

It is even possible, though highly unlikely, that caffeine could enter into the vital INA compound, he said.

The only studies of caffeine's genetic effect have been on mice. These show no genetic change but it may affect more sophisticated organisms, like human beings, very differently.

"So caffeine could be producing recessive genetic changes which will show up much later, several generations later."

Dr. Miller said caffeine should be tested on primates (monkeys) which are closest to humans in metabolism.

Why has this not been done?

Because it costs more to experiment with monkeys than mice or rats, he said, and because there's no public demand for such research.

"If people don't accept the dangers of pollution and cigarette-smoking, which can be shown, what hope is there to arouse concern about genetic mutations, which won't show up for generations?"

"No studies have proved that any chemical induces mutations but such experiments are so difficult that this may be impossible to prove."

But, the middle-aged geneticist says, since there are indications that some of the chemicals in foods and such could cause mutations, we should give ourselves the benefit of the doubt and not use them.

"To wait for valid statistical proof (of mutation) is foolish because by the time all the figures were in, generations from now, we would already have a general disaster."

He said caffeine is capable of producing both germinal changes (ones which don't show up in the person consuming the caffeine but show up generations later in his descendants) and somatic changes, whereby the cells in the body could reproduce abnormally creating cancer-like growth -- "cell division gone wild".

The geneticist said he is not calling for a total ban on caffeine and food preservatives chemicals but simply for them to be used "judiciously, not indiscriminately."

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And where a substitute can be created, such as non-caffeine coffee, it should be.

LSD STUDY FALSE

A widely-published report by geneticists in Buffalo, N.Y., in 1967 purported to show that LSD could bring about somatic changes, in the form of chromosome breakage, when applied directly to cultures of human cells.

The study also purported to show that some pregnant women who had been given LSD not only showed a change in their own cells but the change was transmitted to their babies.

But the Buffalo scientists, says Dr. Miller, neglected to account for the fact that some chromosome breakage is occurring all the time, especially if a person has a virus infection. In fact, most of the subjects, being street hippies, probably were suffering from hepatitis and generally poor health.

No checks were made to determine if the subjects were ill or if they were "taking other drugs."

Even more importantly, the persons studied had obtained their LSD from black market sources, so there was no way of knowing what dose they took or if they actually had pure LSD or LSD at all. "The mutagen (mutation-producer) may have been another chemical cut into the so-called LSD," says Dr. Miller.

There was no way of determining if the subjects' chromosomes were breaking down before they took LSD as well as after.

UNPUBLISHED UBC STUDY

The UBC study, supervised by Dr. Margaret Cory, was done -- in contrast -- under carefully controlled conditions.

Pure LSD was administered, in correct dosages. Chromosome breakage was checked before and after the subjects, psychiatric patients, were given LSD.

The slides of people's chromosomes were "blinded" so that analysts did not know which were "before LSD" and which were after -- thus eliminating the strong possibility of a researcher's personal bias against LSD affecting his analysis of the amount of chromosome breakage.

When the drug is applied directly to cell cultures, in a lab, which could never happen in real life, it does do some damage to the cells but the amount of damage is related closely to the degree of spontaneous breakage already present.

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The Band

THE BAND. The promise of "Music from Big Pink" is more than fulfilled in this, The Band's second album. The Band presents: Up on Cripple Creek; Rag Mama Rag; Rockin' Chair; Look Out Cleveland; and more.



ing on, due to virus infection in the cells. So it appears that when you "drop" LSD, your body metabolism changes in such a way that it is genetically harmless by the time it reaches your cells.

This is one of the studies that has not yet been published.

"Probably no chemical has received so much alarmist attention as LSD," says Dr. Miller.

WITCH-HUNTING

Some scientists are out to get proof that it damages the genes.

"One U.S. scientist said publicly that LSD is such a social evil that any research results showing harmlessness should be suppressed."

"A colleague of mine responded that this was the same argument they used for hanging witches in New England."

"It's exactly the same attitude. No one bothered to ask anything about the witches. They were just evil and must be burned."

Asked about the youth who "threw himself out a 21st floor window while supposedly on LSD," Dr. Miller said: "Undoubtedly there are dangerous impurities in the so-called LSD you read about in the papers. They are put in to make the pure LSD, which is very expensive, go further when batches are being made." (The word is that the youth's "LSD" may well have been mainly LMI, a drug which often causes violent reactions.)

A woman asked about reports that some kids become mental vegetables after taking LSD. "I doubt very much that LSD would make anyone a mental vegetable. These kids were probably pretty close to being vegetables to start with."

He criticized the establishment press for the way it treats drugs.

"If a study showing possible harmful effects comes out, it appears on page one of The Sun, but if a more careful study later discredits the first one, the story is buried on a back page."

Dr. Miller agreed with a suggestion that the daily papers' scanty coverage of studies on dangers of caffeine and food preservatives is due in part to the fact that the dailies depend on food manufacturers for a large proportion of their advertising revenue.

A woman asked about police warnings to school children and parents that glue-sniffing damages the liver and brain cells.

Miller: I know of no pharmacological studies which would back this up.

Woman: But, where would the police get this from?

Miller: They could manufacture their own evidence.

Woman: But why would they bother if it does not harm the brain and liver?

Miller: For sociological reasons.

Woman: You mean the police could just pick a couple of organs to name?

Miller: Right. I don't know what harm glue-sniffing does. It should be studied more.

Earlier, Dr. Miller listed the things which may cause genetic mutation. They are: X-rays and radiation, caffeine, sodium nitrite, cyclamates, pesticides, anti-cancer drugs, anti-depressants and LSD.

CYCLAMATES

"The reason given for their recent withdrawal from diet foods was that they caused cancer in rats, because we are scared to hell of cancer."

"But the other, unpublicized reason is that they produced genetic changes in the rats' germ cells. This reason is of potentially greater significance than the first."

SODIUM NITRITES

Are used as food preservatives, in frankfurters, etc. They produce nitrous acid in the stomach, which harms the intestine and could be a mutagen and could cause cancer.

"We could get rid of them, because there is doubt as to their safety and we could use other compounds as preservatives."

X-RAYS AND RADIATION

"Only after the A-bomb explosions was their concern about radiation. As a result, the old X-ray machines in shoe stores were banned --- where kids could see their foot bones while getting a tremendous whump of radiation."

"Somatic (immediate) genetic changes have shown up. And there is no doubt that if radiation gets to the gonads, the mutation goes on to the next generation."

"20 years after Hiroshima and Nagasaki, changes in those people's chromosomes are still being detected. Any level of X-rays, even the lowest, getting into the cells can produce genetic change."

ANTI-CANCER DRUGS

This is not a critical problem, because only a small population is exposed to them and because most cancer victims are beyond the age of having children. But they should be used only with extreme care among younger people because they may well have a mutagenic effect.

Why are genetic changes so serious?

"It's true that the DNA is always changing," says Dr. Miller. "It's the source of the raw material of evolution. But man is introducing strange compounds into nature now and at such a rate that there could be disaster, because nature needs time to adapt to spontaneous changes. Evolution is a slow change, but the new mutagens are being introduced rapidly. The system has no chance to adjust to them."

"An ecologist can point to pollution, but a geneticist has nothing tangible to point to, because most are recessive changes. So we have no worries but we may be condemning mankind to sudden death 10 generations from now, assuming we make it that far."

There is also concern that many of these substances the DNA is being exposed to are synthetic, the first time in evolution that this has happened.

"The fact is that any of these new agents especially chemicals, are potentially mutagenic. Yet we cannot do without some of them. The world is crying for food, so we must use preservatives and spray crops with DDT."

"But we must be careful and avoid stupidity, like planes spraying whole valleys in New York state with DDT when it wasn't even needed."

A major problem is that it may not be feasible to test every new drug and chemical coming onto the market for its genetic effects.

"Despite thalidomide babies, most drug houses still don't have adequate biological testing."

What tests are done, are usually with rats. Many scientists say they should be done on non-human primates but it costs more to keep one pregnant monkey than 100 rats. It also takes far more time to test on primates and society is in a big hurry for the new drugs and products.

Yet the inadequacy of rat tests is crucial. "Even if thalidomide had been tested this way, it still would have gone on the market," says Dr. Miller, "because it had no effect on rats."

KEEP YOUR WARS AMONG FRIENDS

by Stephen Brown

"Aggression as therapy" -- it sounds weird, but it works.

Instead of keeping quiet about the things other people do that annoy, frustrate or hurt you, let it all out -- but in a ritualized manner, asking the other person to repeat what you have just said about them so they'll have to think it over and can't just react (using emotion instead of reason) to your criticism. That way the conflict is slowed down, replayed and won't escalate into a tooth-and-nail verbal battle.

If you don't let out your beefs in this aggressive (but reasoned) way, they simmer inside you and will come out in indirect ways against the person, which he or she won't understand and will thus feel are unwarranted, or you will displace your aggression onto political leaders who you will in effect ask to fight your battles for you -- only they will be ritualized wars, with hundreds of thousands of innocent people being slaughtered.

That's the theory of Dr. George Bach, psychologist and author of *The Intimate Drama*. One of the originators of marathon group therapy sessions, he was visiting here from University of California, Los Angeles.

He is a shaggy-looking little guy with a square brown face topped by wisps of startlingly white hair and sideburns.

He turned on an audience at UBC the other night by asking -- after he had made sure most people were sitting beside someone they knew -- friend, and tell them what was the first thing the other person ever did that made them feel hostile. The second person was supposed to repeat the criticism (instant replay to make him think about it and to slow down the confrontation) and then reply, whether by attempting to justify himself or by bringing out something about the first person that humiliated him.

Ten minutes later, people in the audience -- until then pretty sedate and well-mannered -- were still jabbering like crazy to each other, and learning more about themselves and the person with them by the minute.

Dr. Bach had to call out repeatedly to get their attention again. He had proved his point. Aggression, when kept verbal and slowed down and "ritualized", had definitely been therapeutic. It had brought people closer together. It

had enabled them to open up to one another.

If we do this in our own lives, he suggested, we won't need to aggress against whole groupings of people ("Communies" or "Whities" or "Straights" or "Hippies"). This is displaced aggression. "We have been taught, in the Christian ethic, that it is wrong to be angry at those close to us who we are always supposed to love, but who frequently hurt or disappoint us. So instead of clearing the air with the person close to us, we all too often transfer the aggression still simmering inside us to people we don't even know. They naturally react hostilely, because the aggression is unwarranted, and then we have riot or war. At least, so goes Bach's theory."

This is a dangerous type of aggression, he says, because it is impersonal. He has created a category of people to vent our aggression against. Because these are not people we are close to in a personal way, we are able to carry our aggression to evil extremes, like killing. But no healthy-minded person could ever go much beyond the verbal (safe) form of aggression with a person they knew and thus recognized as a fellow human being with the same kind of foibles and weaknesses as himself. -- "like getting to the post office to mail your package after it has closed."

The implications of what he says for the so-called love generation are enormous. I wrote last spring about the disturbing amount of real hatred shown by many hippies towards "straights" -- "nigs", "the Establishment" and so on. If Bach is pretty close to the truth in his theory -- and from what I saw that night and from practicing "ritual aggression" with friends since, he is -- then it is precisely because we "groovers" are insisting that we love everyone all the time, repressing our natural hostilities towards those close to us when they do something thoughtless or stupid or unfeeling, that we have to take out our aggression on dangerously stereotyped groups of people (straights, etc.) who we can really hate because we are dealing with impersonal "things" rather than human individuals.

I asked him after his speech: "What about people who say they don't feel hostility toward anybody?"

"They are usually loners," he said. "They avoid intimate involvement with anyone because they know that this will mean being angry with that person at times and they don't like being

angry."

"You mean they are afraid of being angry?" I asked.

"That's right. They are afraid of anger and most of their other emotions too."

Bach had couples fighting it out in front of the whole crowd, and he had people telling him off for manipulating people.

Which he did, to a degree. He is a brilliant man, and like many brilliant men has tremendous power over people, because he has figured out the way they tick.

He was able almost immediately to find out the weak spot of total strangers who came up after to question him.

It's a lucky thing that he's using his powers for good ends.

Here's Bach's tips for fair fighting, or ritual aggression:

Gain consent of the other person to fight; make a clear statement of your complaint; get the other person to repeat the complaint; demand a change; then let the other person counter-attack and defend how much he is willing to change.

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