

Drugs Put Spider In

RALEIGH, N. C. (AP) Spinning busily, the spider produced a web that was a tangled, patternless wisp.

The reason: The spider was drugged.

Dr. Peters N. Witt, director of research at the North Carolina Department of Mental Health gives spiders doses of LSD, amphetamines, tranquilizers and other drugs.

HIS GOAL: To observe in the spiders' web-spinning the effects of drugs, separating innate behavior from behavior which is learned.

"At the nonhuman level, it is one of the more sensitive and reliable methods to differentiate drug effects," Witt said in an interview.

Witt said a normal web, which spiders build by instinct rather than learnings, is regular and predictable.

BUT WHEN a spider is on drugs, Witt said, his web "is disturbed in a systematic fashion, depending on the type of drug."

Taking LSD leads to webs in which the threads are more regularly spaced than normal, with little trace of minor irregularities found in a normal web.

Amphetamines produce very irregular webs, tranquilizers small webs, and barbiturates in high doses severely irregular webs.

WITT SAID the reasons for the differences "can only be guessed at."

But, he said, his guess is that the near-perfect webs produced under the influence of LSD are the result of the spider paying less attention to outside influences such as wind, light and noise.

In the same way, he said, spiders on amphetamines don't seem to be able to use the information they have gathered on just where their next thread should go.

A "LACK of drive" seems to produce the small webs spun by spiders on tranquilizers, Witt said.

Witt said the effects of drugs on humans are more



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... Scientist observes

complicated because mood, situations and expectations enter into the picture.

But in spiders, he said, the effects can be seen in an easily measurable way.

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