



Drug trips for science: Web weavers perform in the laboratory of the North Carolina Department of Mental Health at Raleigh. Research Director Dr. Peter N. Witt and his associates permit a spider to construct her normal orb web (**left**). Then they apply a drop of "speed"—the stimulant dexedrine sulphate—to the creature's mouth (**right**). Allowed to build another web (**center**), she spins an erratic, irregular copy. Taking information from photographs of normal and dexedrine-influenced webs (**bottom**),



ARANEUS DIADEMATUS, NORTHERN HEMISPHERE; BY VICTOR R. BOSWELL, JR. © N.G.S.

Dr. Witt and his assistant, Mrs. Mabel Scarboro, feed the data into a computer that compares 600 selected points.

Such research reveals that each drug tested produces consistent, characteristic changes in a spider's web-weaving activity. Amphetamines and barbiturates cause irregular webs; tranquilizers and marijuana, small webs; and LSD, more symmetrical webs—apparently because the drugged spider is less distracted by outside influences.

By observing the effects of drugs on spiders, scientists hope to learn more about human biochemistry.

