

# Ant Gestures Have Chemical Cause

*Animal Psychology*

## Communication System Not "Antennal Language"

WHEN two ants meet and tell each other all about it, with excited gesturing and touching of forelegs and antennae, they are not talking in some precocious sign language. Their system of communication, which has puzzled and attracted psychologists, is traced to a chemical cause by T. C. Schneirla, of New York University.

Speaking before the New York Chapter of the American Psychological Association, he explained that he linked up ants' nests and tubes so that one ant would be released into a chamber containing honey or meat or else containing some ants of an enemy tribe. When the ant returned from his pleasant encounter with food or from a less pleasant adventure into enemy country, he was brought face to face with an ant of his own community.

From the behavior of the two ants on these occasions, Mr. Schneirla concluded that chemical substances given off from food or from other ants cling to the body of an ant. When the ant meets a friend, they gesture and touch and the second ant senses the chemical substances. The more powerful and exciting the situation that has occurred, the more rapid are the motions of the communicating ants. But no differences could be detected in the timing or the sort of gestures, used in communicating good news or bad. Hence, Mr. Schneirla found no evidence to support the theory that ants have an "antennal language."

In other tests, he found no evidence that an ant which had returned to the nest after a great food discovery gave the other ants any reliable directions as to where to go, though the ants in the nest became excited on the scout's return and set out hastily toward the place where they were accustomed to be fed.

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### Health and Safety

THE happy, healthy motorman is more likely to keep his street car out of traffic accidents than is the man who is physically ill or who runs his car while balancing a chip on his shoulder.

How medical and psychological examinations have been given to motor-

men with good and bad traffic records to test this point was reported by Dr. O. M. Hall, of the Personnel Research Federation.

Among the men who had high accident records, 39 per cent. were found to have personality defects, the psychologist reported. That is, these men did not get along smoothly with other people. Among the men with superior records for keeping out of trouble only five per cent. were found to be "un-cooperative."

Forty-nine per cent. of the high-accident motormen were found to have health defects, chiefly abnormal blood pressure and hernia. This was contrasted with only nine per cent. of the low-accident motormen having such health defects.

Aptitude for the work of running a car was also tested, and it was found that 40 per cent. of the drivers who ran into trouble made poor records on this test, whereas only 12 per cent. of the safe drivers showed lack of aptitude for the job.

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### Understanding People

THE active, social individual, who does not bother his head much with heavy thinking, is better at understanding the behavior of his neighbors than is the quiet thinker. This paradoxical sounding suggestion was advanced by Dr. Herbert S. Langfeld, of Princeton University.

Human beings are able to understand more or less what is going on in the minds and the emotions of other people by observing their gestures, facial expressions, and other clues in their behavior, Dr. Langfeld explained. In our efforts to interpret behavior foreign to our own personal experience we are aided by the fact that gestures and facial expressions have become conventionalized. We know how to interpret the raising of an eyebrow. We do not need to think deeply into human motives and mental processes to understand the other person's point of view when he gives standardized clues. People who are of the social minded or extrovert type of personality become adept at reading the shorthand language of behavior, Dr. Langfeld showed.

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### For Those Over 40

THE "unplumbed resources of the man and woman over forty"—a growing problem of industry and a growing personal problem throughout American homes—were brought strongly to the attention of psychologists as a field where their services are urgently needed, in an address by Dr. Lorine Pruette, of New York.

Education is constantly lengthening the period of preparation before turning the boy and girl into productive work, and, at the same time, industry is tending to discard workers at a lower age limit, Dr. Pruette pointed out.

"It becomes more and more a question whether we can, in the short productive period of maturity, do enough to provide for the long stretches of non-productive existence," it was stated.

There should be a psychologist employed in every business organization of any size, Dr. Pruette continued, and he should be doing a great deal more than discriminating between salesclerks and typists. The worker who is considered by employers as "too old" is often senescent in his attitude rather than in his glands.

"The sense of being at a dead-end, of growing futility of effort, and a frightened conviction of being without value is apt to come to every worker at some time," the speaker stated. "As we grow older, we are more liable to disappointments, while our capacity to reconstruct our interests declines."

### Cats' Hearing

A CAT can hear tones far higher in pitch than any mouse's squeak or any coloratura singing of back fence feline serenades. In fact, a cat's ability to detect high tones is just about as great as that of human beings, Dr. Ernest G. Wever, of Princeton University, told the meeting.

Dr. Wever has settled this point by experiments with cats along the same line as the conditioned reflex experiments devised by the famous Russian physiologist, I. Pavlov.

"Three of the cats tested heard tones as high as 10,000 to 20,000 cycles per second," Dr. Wever reported.

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