Paul Thomas Young: 1892-1978

The death of Professor Paul Thomas Young on June 15, 1978, may fairly be said to mark the end of the direct academic tradition of Titchenerian structuralism. There are few scholars remaining who received their doctorates under Titchener, and few who pursued so constantly and productively the line of inquiry initiated by their doctoral studies as did P. T. Young. His dissertation was an experimental attempt to determine whether pleasantness and unpleasantness can be experienced simultaneously. He concluded that reports of "mixed feelings" were ambiguous because they confused the cognitive and affective, or the "meaning" and "feeling" aspects of experience.

Young said, "My doctoral thesis established two principles that I believe are valid. First, there is a genuine difference between meaning (cognitive) and feeling (affective). Second, when gut feelings of definite sign (positive or negative) intensity and duration are experienced they are not felt simultaneously. P (pleasantness) and U (unpleasantness) are incompatible and dynamically opposed." The interest stimulated by his thesis research determined the course of Young's investigative efforts for his entire career.

P. T. Young was born May 20, 1892. He did his undergraduate work at Occidental College, took an M.A. at Princeton, and received his Ph.D. at Cornell in 1918. After a brief stay at the University of Minnesota, he went to the University of Illinois, where he stayed until his retirement in 1960.

Young's early research was a continuation of his thesis project, using introspective procedures with human subjects. In 1926 he spent a sabbatical year in Berlin with Kohler, Wertheimer, and Lewin. Some of his time was spent on auditory problems, leading to his invention of the "pseudophone," a device for transposing the auditory stimuli between the ears. His major attention was focused on a project for attacking the problem of pleasantness and unpleasantness by physiological means. As he tells it in the retrospective note included in his last journal article:

"I was familiar with the so-called expressive methods that correlated 'introspective' reports of feeling and attention with bodily changes at the periphery of the body. But I decided to make a fresh start with an out-and-out behavioral approach.

"I decided to study the likes, dislikes and preferences of rats for different kinds of food. The subjects were three male rats. The apparatus was an

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open table covered with wrapping paper. The food objects were grains of wheat, corn and barley purchased on the local market. Several kinds of enclosures were tried for presenting pairs of grain simultaneously.

"These early experiments showed that rats are uniform in the preferences they develop. Test foods arrange themselves into hierarchies or transitive series from low to high acceptability. The study demonstrated that preferential behavior can be studied objectively with animals."

This was the first of a series of animal experiments on food preference that continued in a steady flow from his Illinois laboratory for the next 42 years. These studies made many solid contributions to our knowledge of palatability and preference behavior as well as to the apparatus and methodology of investigation in this field.

Along with his empirical studies Young rather early settled on a theoretical position with respect to the role of hedonic variables in behavior: "Subsequent experiments on the preferential behavior of rats demonstrate that although affective arousals depend on sensory stimulation, they are integrated at a higher level according to a nonsensory principle. Positive and negative affective arousals are incompatible but they combine according to precise laws of algebraic summation. These findings confirmed my conclusions from work in Titchener's laboratory: (1) P (positive) and U (negative) are incompatible and dynamically opposed, and (2) there is a genuine distinction between cognitive and affective processes." And further: "Affective arousals are both activating and regulating. They are basic factors in reinforcement and the organization of goal-oriented behavior. Therefore, two dimensions of energy mobilization are required to give an account of motivation and development: activation and the hedonic dimension. The distinction between cognitive and affective processes has an objective neurophysiological basis."

In theoretical papers and books Young attempted a synthesis of motivational and emotional processes under the hedonic principle. It is hard to assess the influence of his persistent insistence on the independent status of affective determinants of behavior. Much of what he argued for had, in one way or another, been implicitly accepted in formal psychological theory at least since Wundt's installation of feeling as an elementary component of psychological phenomena. Empirically the work of Osgood and his students on affective dimensions of meaning and the Olds-Milner elaboration of "pleasure-centers" were regarded by Young as strong confirmations of his hedonic theory.

Although Young, in his writing over the years, sought to integrate the growing knowledge of regulatory physiology with the intervening variable of hedonic process, it is my impression that most investigators in this field have neglected, ignored, or denied its relevancy. This is perhaps inevitably a consequence of the "mentalistic" aura of dead structuralism that the "hedonic dimension" invokes. Still, none the less, the behavioral evidence of orderly and reliable preferences, so much of which Young himself provided, remains a problem for the mechanistic and physiological analyst.

P. T. Young was an unusual individual. He was gentle, courteous, and helpful to colleagues and students, with a delightful sense of humor made all the more effective because of his dignified Titchenarian professorial mien. He was also ruthlessly single-minded in devotion to his work, overcoming problems of uncertain health and less than adequate facilities. He never

stopped working. After his retirement in 1960 he revised one book, wrote another, contributed a chapter to the *Handbook of Physiology*, published two papers in the *Psychological Review*, and wrote at least four experimental studies. The standard he set will not be forgotten by those who worked with him. His place in our science is secure.

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