# Walter S. Hunter: Pioneer Objectivist in Psychology

IN the death of Walter S. Hunter, psychology lost one of its most distinguished and useful men. Although his contributions were many and varied, they had one thing in common: an effort to develop psychology as a natural science. This attitude toward his chosen field dates back to his own undergraduate days when he saw to it that he was adequately prepared in the basic sciences. It persisted throughout his life, for his most recent graduate students were still required to make up any deficiencies in mathematics, chemistry, physics, and biology before they got very far toward the doctorate in psychology.

Hunter early realized that if psychology were to be a natural science, it had to use objective methods. Hence, he was one of the first scholars to turn away from the study of subjective mental processes to the observation of animal behavior; his doctoral dissertation at the University of Chicago was a study of the delayed reaction, a technique that furnished objective evidence of symbolic processes in the lower animals. His later work with double alternation was aimed in the same direction. But he did not confine his research to animals, for he saw that human, as well as animal, learning could be studied objectively. Indeed, there are few topics in psychology in which he has not done some research—and all of it is characterized by the ability to see an important problem and to tackle it by an efficient and objective method. The net result was a steady stream of substantial contributions, with none of the extreme views that were so likely to appear in the writings of the other early behaviorists; for example, Hunter never fell in with the extreme position of attributing all development of behavior to learning and denying the existence of instincts.

This wariness of extreme positions may be attributed to his "common sense," one of his outstanding attributes; it is probably one of the reasons he never established a "school" or system of psychology. But the sensible and direct way in which he always tackled problems made him a very effective representative of psychology as a science.

One of his most important services to psychology was a pioneer effort in documentation. In 1927 he established the *Psychological Abstracts* and carried on this service until 1947. It was a great success from the start, perhaps because he made an extensive trip abroad to set up an international board of editors before he started work on the first number. It is difficult to imagine how we would get along without this publication, for from the start it has abstracted every paper related to psychology, regardless of the language in which it was written. He stayed on as editor until the *Abstracts* was thoroughly established and then let it pass on to younger hands.

In the 1930's he became a national figure, serving as president of the American Psychological Association and as a member of the National Academy of Sciences and was active in the National Research Council.* After his experience with the Army testing program in World War I, it was natural for him to take the lead in turning psychology to use as World War II approached. At first these efforts were largely on a committee and consultative basis, but in 1943 he was unofficially "drafted" to direct and coordinate much of the extramural research for the services. As chief, Applied Psychology Panel, National Defense Research Committee, he performed invaluable service in keeping psychologists working as teams and in explaining their efforts, abilities, and results to other scientists and to the armed forces. Perhaps nobody will ever know all he did during these years, but it was obvious that he earned the President's Medal of Merit, which was presented in 1948.

After the war, his services were still in great demand on the national scene. He had the rare ability to sit back at a conference, quietly take in opposing views, and then present a clear and logical synthesis of the problem at hand. This very useful trait seems to have functioned as effectively in high-level conferences as it did in local meetings at Brown University. But after he turned 60, Dr. Hunter gradually gave up the activities that demanded extensive traveling, largely on the theory that they should be in the hands of younger men, anyway. He did continue to be active in AAAS and the American Philosophical Society to the end of his life. As he dropped outside responsibilities, he had more time to enjoy his university functions, his home, and his painting—he was an enthusiastic and able amateur painter. It was particularly fortunate that his students and associates presented him with funds to have his portrait painted last spring, for he had a very interesting time sitting for it, and he was able to see and approve the finished project before his death.

No account of Dr. Hunter would be complete without telling of his relations with his students and junior associates. His laboratories at Clark (1925–36) and at Brown (1936–54) were always active in research and graduate instruction, but the number of people involved was kept small, so the group was always an intimate one. He avoided conflict and tension by making each person compete with "par" rather than with his associates. That is, Dr. Hunter sized up the abilities of each person and assigned him tasks of appropriate difficulty. Furthermore, once the task was as-

* For further details, see his autobiography in *A History of Psychology in Autobiography*, Langfeld *et al.*, Eds. (Clark Univ. Press, Worcester, Mass., 1952), vol. IV, pp. 163–187.

signed, Dr. Hunter let the person carry it out on his own. It must have been hard at times to watch people bungle, but it certainly promoted their growth and independence to be forced to find their own way through the problems of research, teaching or administration. As a result, Hunter's students and associates have a deep admiration and fondness for him, yet all have developed along the lines of their own interests rather than following a path he laid down.

Fortunately, Dr. Hunter was in excellent health until the end. On 22 March, his 65th birthday, he resigned the chairmanship of the Brown department of psychology but he looked forward to another 5 years of teaching and research. In July he took an extensive motor trip with Mrs. Hunter. A few days after his return to Providence he had what appeared to be a slight coronary occlusion and went to the hospital as a precautionary measure. Two days later, on 3 August, he had another attack, and died that evening.

We all feel keenly the loss of this wise leader and kind friend. There is consolation in the knowledge that his life was full and satisfying. And we must remember that he always taught us to devote our full energies to the job ahead; the greatest tribute we can pay him is to continue building on the solid foundations he laid.

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# *News and Notes*

## Soviet Astronomy

This report attempts to convey our impressions of some of the scientific institutions in Leningrad and Moscow gathered during a recent, but unfortunately very brief, visit [*Science* **119**, 794 (4 June 1954)]. We traveled to Russia in order to participate in an international astronomical meeting in connection with the dedication of the rebuilt Pulkovo Observatory, which is located on the outskirts of the city of Leningrad. The invitation to attend this meeting came from the president of the Academy of Sciences of the Soviet Union. From western Europe, 10 astronomers attended, from Canada and Mexico, one each, while the representation from countries behind the iron curtain, not including Soviet Russia, numbered about 40, not all of whom were astronomers. During our 16-day stay in Russia, we were given the opportunity to visit various scientific institutions.

Dedication ceremonies of the observatory were held from 20 to 22 May and included addresses dealing with its history and current work in several fields of research. These were followed by 3 days of symposiums, one on "Astrometry" and the other on "Variable stars," during which we were invited to present papers.

Pulkovo Observatory has a distinguished history, particularly in the field of astrometry. It was established in 1839 and in 1885 possessed the largest telescope in the world, a 30-in. refractor. During World War II its buildings were completely destroyed. However, most of the instruments and the greater part of the library were saved. The Kepler manuscripts and other historical papers, which were in the library, are now in the Academy Building in Leningrad. The mounting of the large refractor was destroyed, but the lens was saved. In its place a 26-in. refractor is to be mounted in a building that is now approaching completion. This instrument was constructed in Germany.

The present telescopic equipment of the observatory consists principally of the carefully reconditioned old instruments and a few new, but small, instruments made in Leningrad. These latter are a fixed-tube polar telescope to study the motion of the celestial pole among the stars, a beam-type interferometer for measuring the angular separation of double stars, a Maksutov-Schmidt telescope to be used for photoelectric spectrophotometry, and a number of still smaller instruments. The objectives of these telescopes have diameters of less than 24 in. The horizontal solar telescope is well equipped with interference filters, gratings, and photoelectric registrations.

The auxiliary equipment of the observatory—such as crystal clocks, stellar photometers, microphotometers, and comparators—is new and was constructed in Leningrad. We understand that a 19-stage multiplier is used in connection with the photoelectric equipment. The observatory is staffed with 75 scientific workers and has a total personnel of 200. Housing is now being made available for the staff on the grounds of the observatory.

The Institute for Theoretical Astronomy at Leningrad performs functions that correspond to those of the Nautical Almanac Office in Washington and similar offices in other countries. This institute concentrates much of its effort on the computation of ephemerides of minor planets and publishes an annual volume of these emphemerides. This work is facilitated by the use of an elaborate set of punched-card machines, which includes four or five tabulators and five multipliers. The latter are not of the most modern type now in use in the United States, and we did not see an electronic computing machine.

The University of Moscow, which without doubt is the leading institution of higher education in the Soviet Union, is undergoing a phenomenal growth. The present building activities are concentrated outside the city limits. More than 30 buildings have been completed and a number of others are under construction. Some of these buildings are large skyscrapers. The old university buildings near the Kremlin continue to house the humanities, law, and medicine. The new buildings house the departments of science,