## **ON BEING WERTHEIMER'S STUDENT**

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I consider it an unusual honor to have my name added to the list of eminent psychologists who are honorary members of the Society for Gestalt Theory and its Applications, as well as to be invited to make some remarks about my experiences when I was WERTHEIMER's student in the Graduate Faculty of the New School for Social Research.

Last year, while teaching at the U. S. Military Academy at West Point, I met a retired general who was visiting there. He reminisced about the curriculum and discipline at West Point before World War II, when he was a cadet. They were so stressful that on some nights he would open the window of his room, stick out his head, and yell "I hate this place! I hate this place!" He went on to say that in retrospect "things were not at all so bad." The trials and tribulations, the torments and the tormentors have faded, and only the pleasant aspects of his cadet days stand out.

My experiences as WERTHEIMER's student were unlike the general's cadet experiences. I never felt like crying out that I hated being under WERTHEIMER's tutelage. Perhaps due to my upbringing, the severest criticism never offended, but goaded me to reformulate my ideas and to redesign my experiments to meet his objections. Sometime what I resubmitted was again criticized, which resulted in changes that led to further questions, and in turn to new answers, that made me see the problem or the phenomenon in a new light and to experience the joy of discovering a solution to a problem or developing a deeper understanding of what was being studied. Just as he challenged my assertions, he urged me to challenge his assertions. At times he even helped me formulate criticisms of his statements.

I did not regard him as an adversary but considered myself fortunate to have an expert guide my research. He seemed never to be satisfied with a conclusion and thus taught me the importance of asking a good question and not readily believing that I found the answer. There may have been stressful aspects to all this, but unlike the pre-World War II cadet, I never thought or said that I hated the work. The liberating and joyous aspects of the work stand out and eclipse the stresses and strains.

All was not sweetness and light in this pedagogical paradise. A dark cloud entered when WERTHEIMER tried to get a position for me in Brooklyn College. Most of the members of its psychology department regularly came to his seminars. They invited him to speak at Brooklyn College. The senior members of the Brook-

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lyn College psychology department even planned to have WERTHEIMER appointed to the chairmanship of their department. This may partly explain why he sought to place me in that department. He was told by one or more members of that department that the New School's Doctor of Social Science degree did not meet the requirements for appointment to the faculty. Only a Ph.D. degree was acceptable. Therefore, WERTHEIMER suggested that I matriculate for a Ph.D. at New York University (NYU), where I was taking a course, and submit for a thesis some of the work I had done at the New School on the Einstellung Effect in learning by repetition. After over a year of trying to write a thesis proposal for my NYU thesis reading committee that WERTHEIMER would approve, my thesis advisor at NYU, Professor Paul R. Radosavljevich, told me to present the proposal orally to the University's Graduate Committee. This was done and the proposal was accepted. This enabled me to submit the thesis, but each chapter had to be presented to the committee and to WERTHEIMER for approval. The committee insisted that a detailed history be written relating the thesis to work in psychophysics, e.g., studies on judgment scales; and also relating it to work in the fields of learning and teaching, e.g., transfer of training, and the use of isolated drill in teaching arithmetic. It took over a year to get WERTHEIMER to agree to such a detailed history. After this, the committee demanded a certain kind of statistical analysis, e.g., obtaining the critical ratios for each difference. It took some time to get WERTHEIMER's approval for this. When it was done, a committee member said that it was impossible to obtain such large critical ratios and concluded, "There must be something wrong with the research." Prof. Radosavljevich was outraged by the implications of the remark and told the committee member to allow me to conduct the experiment in his presence in any class that he selected, and he could score and tabulate the responses. A few months later I conducted the experiment in one of his large classes. After the last problem was solved, I requested a show of hands by the students who had used the roundabout method. Most of the students had used it. The professor was amazed, but still insisted that there must be an uncontrolled variable. He reluctanty allowed the thesis advisor to arrange for the defense of the thesis. During the defense he argued that the large critical ratios indicate an uncontrolled variable. He proceeded to read contradictory results that he said were obtained in a 3rd grade class. I pointed out that his procedure differed from mine and that most children in certain 4th grade classes could not solve the problems. When he persisted in arguing about the large critical ratios, one of the members of the examination committee, an eminent statistician, remarked that one gets large numbers when one weighs an elephant with gram weights. The thesis was accepted. WERTHEIMER enjoyed my account of the examination. My NYU thesis advisor thought that now I would be able to write up the results for publication.

WERTHEIMER did not allow me to publish the thesis. He wanted a report modeled after "research reports in the physical sciences." Moreover, he proposed that the thesis as well as all related experiments that I had done be presented in one monograph. It took nearly three years to do this, partly because he was often too busy with other tasks to read what I had written. The delay was a pleasurable experience during which I visited him at his home in New Rochelle at least one weekend of each month. When I suggested that the monograph should contain a list of possible explanations of the results, he at first was reluctant, referring to Newton's assertion, "Hypotheses non fingo", but surprised me on my next visit with a number of hypotheses that reflected the qualitative and quantitative data. We spent several weeks reformulating what he had written and formulating new "preliminary" working hypotheses - toward an understanding of the Einstellung phenomenon." It became clear that he wanted the hypotheses to be directly or indirectly verified by the experimental data and eschewed speculative hypotheses. I had never encountered such a degree of intellectual asceticism and the painstaking care to let the data speak for itself rather than speaking for the data. It resulted in a change in my style of writing.

While waiting for WERTHEIMER to read and to approve what I wrote, I conducted many experiments to test what he had said in class and in our discussions. During this time, I finished under his general supervision, experiments on social influences on judgments of line segments, and on the perception of complex drawings, as well as experiments on social learning. These experiments were conducted to defend the work of my former teacher (Hadley Cantril) and my acquaintance (Muzafer Sherif) that WERTHEIMER had severely criticized in one of the seminars.

In retrospect, these were the most glorious years of my life despite the failure then to obtain a full time teaching position. I have never again had the opportunity to work with such a person as WERTHEIMER who demanded much from me but at the same time did not spare himself or slacken in helping me.

The penultimate time I saw WERTHEIMER at his home was when we met to discuss the results of new experiments and to finalize a report on social learning. He suggested one experimental variation that would lead to a crucial decision about the nature of social learning. I told him that it will have to wait until the war was over, because I was joining the Army. He told me that he will hold the report and the data for safekeeping. He also told me that my research reports on the teaching of the parallelogram will be included in one of the books he planned to write.

Some time later he invited me to his home when I was leaving for an Army assignment. He was alone when I came and was exceptionally gracious to me. He told me that "things will be different" for me after the war. He was optimistic about the outcome of the war and the future of the Graduate Faculty at the New School.

A few months later, when I was at Camp Lee in Virginia, my wife wrote that WERTHEIMER had died and that she had attended his funeral. I was saddened by

his unexpected death and by the thought that I would never see him again.

In 1946 I visited the New School's psychology department in order to get the data and reports that I had left with WERTHEIMER for safekeeping. The new chairman told me (while blocking my entrance) that there was nothing in the office that belonged to me. It was a new order, with a new chairman who seemed to want to have nothing to do with me for reasons I could not understand.

I turned to clinical psychology to which I had been introduced in the Army. My work attracted the attention of Robert B. MacLeod, Head of McGill University's psychology department, which needed a clinical psychologist who was also an experimental psychologist. Thus was accomplished what WERTHEIMER had planned for me - an appointment to a respectable university. Indirectly, WERTHEIMER was the cause of the appointment. Professor MacLeod had been impressed by WERTHEIMER and by Gestalt psychology when he studied in the 1920's in Berlin. Before I arrived at McGill University, MacLeod had left for Cornell University and D. O. Hebb replaced him as Head of the department.

At McGill University, I was regarded as WERTHEIMER's student and was often placed in a position to defend Gestalt psychology, particularly WERTHEIMER's work. Although it was six years after WERTHEIMER's death his ideas were fresh in my mind. I could still hear his voice, as I talked about him and his work. It would have been better, of course, had he spoken for himself. Those were exciting years in McGill; everybody was working at the frontiers of both applied and academic psychology. But to me, they were pale reflections of the years when WERTHEIMER taught in the New School. Those of us who knew him will always cherish the memory of the years which ended with his death fifty years ago. Unlike the retired general who could return to West Point, I cannot visit the classrooms at the New School. They no longer exist. Only the memory of them exists.

Thank you for letting me share with you some of my memories of my student days with WERTHEIMER.

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