

LOTHAR SPILLMANN ON HIS 70th BIRTHDAY



(Taken by Baingio Pinna)

We heartily congratulate Lothar Spillmann, on the occasion of his 70th birthday, 11 April 2008. Lothar was Professor and head of the Visual Psychophysics Laboratory, Brain Research Unit at the University of Freiburg, until 2005. It is a rewarding, though not a simple, task to pay proper tribute to such a maverick researcher, scientist, teacher, and organizer. Readers of this journal got to know him as an author only recently (*GT* 27, 125-154, 2005; 28, 318-320, 2006; 29, 13-39, 2007) and, although he has done more than most others to revive the Gestalt approach, he would probably hesitate to consider himself a Gestalt psychologist. Original phenomena, ideas, and decisive experimental tests were of greater importance to him than lengthy scientific treatises or historical recapitulations.

Lothar Spillmann's major contribution to Gestalt psychology has been to bring it into the age of modern neuroscience (which makes up a substantial part in the final "legacy" chapter of *Max Wertheimer and Gestalt Theory*, 2005; review in *GT* 27, 80-81). Spillmann was one of only a handful of vision scientists who were well trained in both Gestalt psychology and neuroscience. Born in Münsterberg, Silesia, then part of Germany, his family found a new home in West Germany after World War II. He attended Gymnasium in Hannover, and then studied Psychology and Philosophy at the University of Würzburg (1958-1959). His career as a vision scientist began to be shaped at Münster (1959-1962) under the Gestalt psychologist Wolfgang Metzger. He then moved to Freiburg (1962-1964) for studies under Richard Jung, where pioneering electrophysiological research was being conducted. After completing his

Ph.D. thesis, *Zur Feldorganisation der visuellen Wahrnehmung beim Menschen*, he spent two years as a post-doctoral fellow under Hans-Lukas Teuber at MIT and five years with Ernst Wolf at the Retina Foundation in Boston. His training thus included Gestalt psychology, psychophysics and neurophysiology from international leaders of the time.

From the beginning of his career, Spillmann identified putative neural mechanisms that could explain illusory phenomena such as the Hermann grid and the Ehrenstein pattern. He painstakingly measured the spacing of Hermann grids yielding the maximum brightness or darkness induction at their intersections, and correlated these values with published values of receptive fields to establish “perceptive fields” as their psychophysical counterpart. Together with collaborators in Freiburg, he later made comparisons between human psychophysics, psychophysics with trained monkeys and direct measurements of the same monkeys’ receptive fields. In this way, the underpinnings of human visual perception could be firmly understood in terms of specific neural mechanisms. He also conducted seminal investigations of the neon color effect, the watercolor effect, fading in a Ganzfeld, and filling-in.

In addition to his experimental science, Spillmann continues to serve on the editorial boards for *Perception* and *Gestalt Theory*. He edited two books, one with Wooten (*Sensory Experience, Adaptation, and Perception. Festschrift for Ivo Kohler*, 1984) and the other with Werner (*Visual Perception. The Neurophysiological Foundations*, 1990). His seminal reviews on the neurophysiological bases of Gestalt phenomenology include peer-reviewed papers (e.g., *Trends in Neurosciences* with Werner, 1996) as well as book chapters (e.g., *Visual Neurosciences* with Ehrenstein, 2004). Finally he translated Metzger’s book *Gesetze des Sehens* (with Lehar, Stromeyer, and Wertheimer, MIT Press, 2006).

From 1971 until its closure in 2005, Spillmann’s laboratory was one of the premier centers for vision science in Europe. Numerous luminaries sharing an interest in the rapprochement of neuroscience and Gestalt psychology visited Freiburg, usually for several days to combine seminars with trips to the Schwarzwald. These included (in approximate chronological order) Giles Brindley, Lorrin Riggs, Hans-Lukas Teuber, Ivo Kohler, Donald MacKay, Russell DeValois, Gerald Westheimer, Keith Ruddock, Günter Baumgartner, Esther Peterhans, Rüdiger von der Heydt, Richard Held, Herschel Leibowitz, Bela Julesz, and Giovanni Vicario.

Many others stayed for more extensive research collaborations as Spillmann’s lab became an international center for vision science. These visiting scientists were often funded by the *DAAD*, *German Research Foundation* (SFB) and *Alexander von Humboldt Foundation*, and included Kenneth Fuld, Bill Wooten, Charles Stromeyer III, Christa Neumeyer, Bruno Breitmeyer, Arne Valberg, Svein Magnussen, Knut Nordby, John S. Werner, Munehira Akita, Lindsay T. Sharpe, James Thomas, Vicki Volbrecht, Lewis O. Harvey Jr., Rick Van Sluyters, Birgitta Dresch, Nicholas Wade, Keizo Shinomori, Allison Sekuler, Patrick Bennett, William H. Uttal, Stuart Anstis, Osvaldo da Pos, Larry Maloney, Baingio Pinna and Wim van de Grind to name only some.

Lothar Spillmann’s laboratory provided a rich environment for vision science

training. His students and *Mitarbeiter* came from Biology, Psychology, Neurology and Ophthalmology, and included Wolfgang Kurtenbach, Regina Oehler, Anne Ransom-Hogg, Christoph Redies, Walter Ehrenstein, Mark Greenlee, Doris Braun, Holger Knau, Frank Stürzel, Kai Hamburger, and Tobias Otte. Many of these former laboratory members continue to make significant contributions to vision science.

In 1978, he founded (with Richard Cavonius, John Mollon, and Ingo Rentschler) the European Conference on Visual Perception (ECVP), a meeting first held as a workshop in Marburg, Germany. Spillmann set a precedent for how this meeting should be organized, which included holding the meeting in a small, attractive city, with low-costs, minimal bureaucracy, and encouragement of student participation. At the 28th ECVP meeting in La Coruna (2005), Spillmann was honored by a Special Symposium “From Perceptive Fields to Gestalt.” In 2006 he was a visiting professor in the Department of Ophthalmology & Vision Science at the University of California, Davis. Last November, he presented the 15th Kanizsa lecture in Trieste, where he emphasized the need for research guided by a synthesis of phenomenology, psychophysics and neurophysiology of vision.

Lothar Spillmann has succeeded in taking bold, decisive and positive steps to advance international vision science from various directions. He has always been earnestly devoted to quality, for which he sometimes could be mordantly critical. We are delighted to see that his retiring from professorship has not weakened his rare passion for vision science. We therefore look forward to many new endeavors to be shared: Happy Birthday, dear Lothar!

John S. Werner, Walter H. Ehrenstein