

CURRICULUM VITAE

Stephen Lehmkuhle

Senior Vice President for Academic Affairs
University of Missouri System

Summary

Education

- Undergraduate degree (B.S. in Psychology): Wright State University, Dayton, Ohio, 1973.
- Higher degree (Ph.D. in Experimental Psychology): Vanderbilt University, Nashville, TN, 1977.

Academic Appointments

- Professor, University of Missouri-St. Louis, 1994-present.
- Associate Professor, University of Missouri-St. Louis, 1985-1994
- Assistant Professor of Psychology, Brown University, 1979-1985
- Postdoctoral fellowship, Department of Anatomy, University of Virginia, 1977-1979

Administrative Appointments

- Senior Vice President for Academic Affairs, Office of the Vice President for Academic Affairs, University of Missouri System, 2004-present
- Interim Chancellor, University of Missouri – Kansas City, 2005
- Vice President for Academic Affairs, Office of the Vice President for Academic Affairs, University of Missouri System, 1998-2004
- Acting Vice President for Academic Affairs, Office of the Vice President for Academic Affairs, University of Missouri System, 1996-1998
- Faculty Fellow, Office of the Vice President for Academic Affairs, University of Missouri System, 1996

Administrative History

Prior to 1993, my career focused on teaching, research and service at Brown University and at the University of Missouri-St. Louis. My administrative experience consisted of serving as a chair for several committees of the University Senate, the Institutional Review Board, and the Institutional Animal Care and Use Committee. I served a two-year term as chair of the University Senate beginning in the fall, 1993. These experiences as senate chair and as faculty representative on several committees of the University system served as the origins of my interest in the changing landscape of higher education.

To pursue these new interests, I sought an opportunity to work in an administrative internship as a Faculty Fellow in the Office of Vice President for Academic Affairs for the University of Missouri System. This position started in January 1996. I worked in this capacity for about six months when the current Vice President for Academic Affairs was appointed interim Chancellor at the University of Missouri-Columbia. I assumed the duties of the office with his appointment as interim Chancellor and continued in this role during a subsequent Presidential transition in leadership until being appointed Vice President for Academic Affairs in April 1998.

My administrative duties expanded with my appointment as Senior Vice President for Academic Affairs. In May 2005, I accepted the position as Interim Chancellor at the University of Missouri – Kansas City (UMKC). I have detailed these two experiences below.

Responsibilities and Accomplishments as UMKC Interim Chancellor

When I came to UMKC in May 2005, I assumed the position of Chief Executive Officer for the 14,300 student, two-campus urban based research university. UMKC is situated in the heart of Kansas City, MO. The University has four professional schools: Medicine, Pharmacy, Dentistry and Law; a renowned Conservatory of Music, a respected Business School, a new Engineering program, an expansive College of Arts and Sciences, and other Schools of Education and Biological Sciences. UMKC has a mission focus on life and health sciences, visual and performing arts, and urban issues. In December 2004, the UMKC Chancellor resigned following votes of no confidence in five academic units. The resignation resulted in a situation where relationships, both internally and externally, were fragmented, strained and at times even volatile. During my tenure at UMKC, I would point to the following accomplishments as evidence of my leadership capacity.

- Reestablished rapport and institutional trust among key stakeholders, including the local Board of Trustees. I also reengaged key stakeholders and potential donors and partners in conversations and actions toward supporting the institution.
- Reaffirmed campus priorities and direction. Under my leadership, the Executive Cabinet

- developed 5 priority areas with action plans and timelines to be accomplished by year end.
- Forwarded the development of the Institute for Urban Education. The program began in Fall 2005 and is designed to specifically train educators who will work in schools in the urban core.
 - Forwarded the development of the Institute for Entrepreneurship and Innovation. The program will be in partnership with the Kaufman Foundation and the UMKC Bloch School of Business and Public Administration.
 - Handled difficult personnel decisions while protecting the dignity of the individuals and preserving the integrity of the institution. Issues included tenure and promotion decisions, potential high profile plagiarism allegations, negotiating resignations and retirements, and other day-to-day personnel concerns.
 - Reinvigorated the \$200M Campaign.
 - Reorganized the administrative structure to ensure diversity awareness and inclusion at the highest levels of the University. I consolidated and upgraded the vacant Directors of Affirmative Action and Diversity in Action into a single executive level as Special Assistant to the Chancellor for Diversity and Equity.
 - Assembled a high functioning interim leadership team to move the institution through the transition period and in preparation for the new chancellor.

Responsibilities and Accomplishments as Senior Vice President for Academic Affairs

The mission of the Office of the Vice President for Academic Affairs is to serve as a catalyst for change that promotes quality of and provides access to academic programs in an effective and efficient manner. This mission can be achieved by providing leadership in the improvement of teaching and learning, supporting research and scholarship, and promoting cooperative initiatives that enable the campuses to accomplish their mutual goals.

The Vice President for Academic Affairs has responsibility for the University Press, Western Historical Manuscript Collection, the Office of Technology and Special Projects, Research Board, and other specific responsibilities assigned by the President. You can learn more about the units at <http://www.umssystem.edu/ums/departments/aa/> .

The Vice President for Academic Affairs provides support and advice to the President related to academic programs, faculty, academic planning and budgeting, and research. The Vice President for Academic Affairs serves as the liaison officer for matters coming before the Coordinating Board for Higher Education. The Office is responsible for making recommendations to the President and the Board of Curators regarding the approval of new degree programs and the review of existing units and programs.

I have been engaged with other Vice Presidents, Chancellors, administrators, faculty, and

students, on many different projects and initiatives during my nine years in the Office of the Vice President for Academic Affairs. Some activities and projects include:

- A statewide program referred to as “mission enhancement” that was budgeted to allocate \$60 million recurring dollars to the University over four years. It was my responsibility to develop the proposal with the Coordinating Board for Higher Education and manage the program. This plan is designed to fund targeted initiatives that will enhance the missions of our campuses. One direct outcome is an increase in federal funding for our research programs. Our increase in market share continues to be one of the highest among AAU institutions.
- Developed a number of cooperative academic programs involving partnerships, both among campuses of the University of Missouri and with other public and private campuses to provide programmatic access to placebound citizens across the state. We have developed and are currently managing cooperative programs in social work, nursing, education, and engineering (see www.umsystem.edu/ums/departments/aa/degrees/coopdegrees.shtml).
- Served as the UM System liaison for the Heartland Alliance for Minority Participation (HAMP), which is a NSF program designed to increase participation of minorities in fields of science, engineering and mathematics (see <http://gradschool.missouri.edu/MoAMP/index.htm>).
- Worked with community colleges to improve transfer and articulation programs. We have annual conferences with the advisors from the community colleges to discuss specific transfer and articulation issues. I also was appointed to the state committee on transfer and articulation.
- Managed an endowed chair program that will bring 120 new positions to the University (see www.umsystem.edu/ums/departments/aa/faculty/chair.shtml).
- Expanded and reorganized the technology transfer activities by forming a partnership among our campuses to support a new Office of Technology and Special Projects (see <http://otsp.missouri.edu/>).
- Participated in the development and in the implementation of a strategic plan for the University System. The plan can be viewed at www.umsystem.edu/ums/about/strategic/ .
- Developed a campus mediation service to provide an alternative way to handle grievances through using faculty volunteers trained with dispute resolution techniques.
- Worked in collaboration with the Vice President for Human Resources to develop a President’s Academic Leadership Institute (PALI). For more information, see www.umsystem.edu/ums/departments/aa/leadership/index.shtml).
- Developed with the Vice President for Human Resources a faculty shares program that will recognize exemplary performance by faculty for strategic activities and achievements on an annual basis with one-time funds through shares in a mutual fund (e.g., stock options).
- Served in a number of statewide positions, including membership on the statewide committee on transfer and articulation, co-developed a statewide policy on advanced and dual credit in high school, and served as an academic advisor for Missouri’s Learning Network. I am currently serving in my fourth year as co-chair of a statewide committee of chief academic officers.

- Launched K-16 efforts in the state. Currently serve on the K-16 liaison committee that coordinates activities of the Missouri K-16 coalition, which is a partnership among three Boards: the State Board of Education; the Coordinating Board for Higher Education; and the University of Missouri Board of Curators. The two products of the Missouri K-16 coalition are task force reports on mathematics education and on the elimination of the achievement gap.
- Developed a post-tenure review policy (see www.umsystem.edu/ums/departments/gc/rules/bylaws/310/015.shtml).
- Developed a systemwide policy addressing learning issues related to the English language proficiency and communication skills of faculty (see www.umsystem.edu/ums/departments/gc/rules/personnel/330/090.shtml).
- Developed guidelines for University of Missouri sponsored study abroad programs (see www.umsystem.edu/ums/departments/gc/rules/programs/210/070.shtml).
- Developed a parental notification policy to reduce the negative consequences of high risk drinking by students (see www.umsystem.edu/ums/departments/gc/rules/information/180/025.shtml).
- Developed an early-career development program (New Faculty Teaching Scholars Program) for new faculty hires across the four campuses that will promote the development of learner-centered environments enabled by technology (see www.system.missouri.edu/nfts/).
- Appointed by Governor to the Missouri Seed Capital Board. The charge is to oversee a venture capital fund using state tax credits and advises the Governor on other opportunities to attract venture capital to the state.
- Appointed by Governor to the Research Alliance of Missouri (RAM). RAM is charged to develop coordinated research policy for the state.
- Revised policy on intellectual property rights for instructional materials (see www.umsystem.edu/ums/departments/gc/rules/business/100/030.shtml).
- Chaired a Presidential task force on reducing academic costs that examined instructional productivity, the program review process, and the costs recovered by program discontinuance and merger (see www.umsystem.edu/ums/departments/aa/RedACTaskForceReport.pdf).
- Developed a new Faculty Workload Policy that includes a Faculty Accomplishment System that standardizes the annual reporting of a full complement of faculty activities in research, teaching, and service (see <http://www.umsystem.edu/ums/departments/gc/rules/bylaws/310/080.shtml>).

Teaching and Research History

My graduate and postdoctoral work was in the area of visual neuroscience, and more specifically on the issue of early visual processing (between the retina and the primary visual cortical areas). I studied early visual processing employing anatomical and physiological methods, using psychophysical techniques in humans, and behavioral paradigms in animals. My research teams, including collaborators, postdoctoral fellows, graduate and undergraduate students, have further demonstrated that visual information flows from the eye to the brain

along at least two parallel visual pathways. Our experiments were designed to better understand the functional significance of parallel visual processing. As a result of our research, we better understand the relatively common clinical condition of amblyopia, reading disability and dyslexia, visual losses in the elderly, and visual attention processes.

I have taught both undergraduate and graduate courses in physiological psychology, perception, neuroscience, and vision-related courses. I have incorporated technology into my classroom exercises and demonstrations ever since I started as an assistant professor at Brown University in 1979. Dr. John Baro and I have developed software packages entitled *InSight* and *InSight 2* that are used by faculty teaching vision and perception in over a hundred different colleges and universities. Several references to this instructional software can be found in the section below on publications related to teaching.

Publications Related to Research

Chakraborty, S., Tumosa, N., & Lehmkuhle, S. (1998). Visually evoked cortical potentials in awake cats during saccadic eye movements. *Experimental Brain Research*, 122, 203-213.

Steinman, B. A., Steinman, S. B., & Lehmkuhle, S. (1997). Transient visual attention is dominated by the magnocellular stream. *Vision Research*, 37(1), 17-23.

Steinman, B. A., Steinman, S. B., Garzia, R. P., & Lehmkuhle, S. (1996). Vision and Reading III Visual Attention. *Journal of Optometric Vision Development*, 27, 1-25.

Patterson, R., Bowd, C., Phinney, T., Fox, R., & Lehmkuhle, S. (1996). Disparity tuning of the stereoscopic (cyclopean) motion aftereffect. *Vision Research*, 36(7), 975-983.

Steinman, B. A., Steinman, S. B., Trick, G. L., & Lehmkuhle, S. (1995). A visual explanation for attentional deficits in the elderly. *Optometry and Vision Science*, 71(12), 743-749.

Steinman, B. A., Steinman, S. B., & Lehmkuhle, S. (1995). Line motion illusion reveals that visual attention mechanisms have a center-surround organization. *Vision Research*, 35 (13), 1859-1869.

Lehmkuhle, S., & Garzia, R. P. (1993). Defective visual pathway in children with reading disability: The authors' reply. *New England Journal of Medicine*, 329(8), 579.

Lehmkuhle, S., Garzia, R. P., Turner, L., Hash, T. & Baro, J. A. (1993). A defective visual pathway in children with reading disability. *New England Journal of Medicine*, 328(14), 989-996.

Baro, J. A., Brzezicki, L. J., Lehmkuhle, S., & Hughes, H. C. (1992). The perceived duration

of gratings. *Perception*, 21, 161-166.

Bassi, C. J. & Lehmkuhle, S. (1991). Clinical implications of parallel visual pathways: The importance of chromatic studies-Author's Response. *Journal of the American Optometric Association*, 62(4), 281.

Sestokas, A. K., Lehmkuhle, S., & Kratz, K. E. (1991). Relationship between response latency and amplitude for ganglion and geniculate X- and Y-cells in the cat. *International Journal of Neuroscience*, 60, 59-64.

Lovegrove, W. S., Lehmkuhle, S., Baro, J. A., & Garzia, R. (1991). The effects of uniform field flicker and blurring on the global precedence effect. *Journal of the Psychonomic Society*, 29(4), 289-291.

Baro, J. A., Lehmkuhle, S., & Kratz, K. E. (1990). Electroretinograms and visual evoked potentials in long-term monocularly deprived cats. *Investigative Ophthalmology and Visual Science*, 31(7), 1405-1409.

Bassi, C. J., & Lehmkuhle, S. (1990). Clinical implications of parallel visual pathways. *Journal of the American Optometric Association*, 61(2), 98-110.

Baro, J. A., & Lehmkuhle, S. (1990). The effects of a luminance-modulated background on human grating-evoked cortical potentials. *Clinical Vision Sciences*, 5(3), 265-270.

Baro, J. A., & Lehmkuhle, S. (1988). The effects of a flickering background on grating-evoked cortical potentials in the cat. *Visual Neuroscience*, 3, 563-572.

Walker, J. M., Bowen, W. D., Thompson, L. A., Frascella, J., Lehmkuhle, S., & Hughes, H. C. (1988). Distribution of opiate receptors within visual structures of the cat brain. *Experimental Brain Research*, 73, 523-532.

Baro, J. A. & Lehmkuhle, S. (1988). A software system for recording and analyzing transient evoked potential data with an Apple II computer. *Behavior Research Methods Instruments and Computers*, 20(5), 515-516.

Baro, J. A., Lehmkuhle, S., & Applegate, R. A. (1988). Contrast-increment thresholds are related to variability in the apparent contrast function. *Perception & Psychophysics*, 44(5), 463-472.

Sestokas, A. K., & Lehmkuhle, S. (1988). Response amplitude and variability of X- and Y-cells in the dorsal geniculate nucleus in the cat. *Journal of Neurophysiology*, 59(2), 317-325.

Sestokas, A. K., & Lehmkuhle, S. (1987). Visual latency of ganglion X- and Y-cells: A comparison with geniculate X- and Y-cells. *Vision Research*, 27(a), 1399-1408.

Sestokas, A. K., & Lehmkuhle, S. (1986). The effects of monocular deprivation on the visual latency of geniculate X- and Y-cells in the cat. *Developmental Brain Research*, 30, 94-95.

Sestokas, A. K., & Lehmkuhle, S. (1986). Visual latency of X- and Y- cells in the dorsal lateral geniculate nucleus of the cat. *Vision Research*, 26(7), 1041-1054.

Moss, C. F., and Lehmkuhle, S. (1986). Spatial displacement sensitivity of X- and Y- cells in the dorsal lateral geniculate nucleus (dLGN) of the cat. *Vision Research*, 26(7), 1027-1040.

Essock, E. A., Lehmkuhle, S., Frascella, J., and Enoch, J. M. (1985). Temporal modulation of background affects the sensitization response of X- and Y-cells in the dLGN of cat. *Vision Research*, 25(8), 1007-1020.

Quinn, P. C., Moss, C. F., & Lehmkuhle, S. (1984). Meridional anisotropy of spatial displacement detection. *Perception & Psychophysics*, 36(5), 466-472.

Frascella, J., & Lehmkuhle, S. (1984). A comparison between Y- cells in the A-laminae and lamina C of the cat dorsal lateral geniculate nucleus. *Journal of Neurophysiology*, 52(5), 922.

Lehmkuhle, S., Sherman, S.M., & Kratz, K.E. (1984). Spatial contrast sensitivity of dark reared cats with striate lesions. *Journal of Neuroscience*, 4(10), 2419-2424.

Frascella, J., & Lehmkuhle, S. (1984). An electrophysiological assessment of X and Y cells as pattern and flicker detectors. *Experimental Brain Research*, 55, 117-126.

Quinn, P., & Lehmkuhle, S. (1983). An oblique effect of spatial summation. *Vision Research*, 23(6), 655-658.

Kratz, K. E., & Lehmkuhle, S. (1983). Spatial contrast sensitivity of monocularly-deprived-enucleated cats. *Behavioral Brain Research*, 7, 261-266.

Essock, E. A., & Lehmkuhle, S. (1982). The oblique effects of pattern and flicker sensitivity: Implications for mixed physiological input. *Perception*, 11, 441-455.

Lehmkuhle, S., Kratz, K. E., & Sherman, S. M. (1982). Spatial and temporal sensitivity of normal and amblyopic cats. *Journal of Neurophysiology*, 48(2), 372-387.

Uhlrich, D., Essock, E., & Lehmkuhle, S. (1981). Cross-species correspondence of spatial contrast sensitivity functions. *Behavioral Brain Research*, 2, 291-299.

Lehmkuhle, S., & Fox, R. (1980). The effect of stereoscopic depth separation on metacontrast masking. *Journal of Experimental Psychology: Human Perception and Performance*, 6(4), 605-621.

Lehmkuhle, S., Kratz, K. E., Mangel, S. C., & Sherman, S. M. (1980). The effects of early monocular lid suture on spatial and temporal sensitivity of neurons in the dorsal lateral geniculate nucleus of the cat. *Journal of Neurophysiology*, 43(2), 542-550.

Lehmkuhle, S., Kratz, K. E., Mangel, S. C., & Sherman, S. M. (1980). Spatial and temporal sensitivity of X- and Y- cells in the dorsal lateral geniculate nucleus of the cat. *Journal of Neurophysiology*, 43(2), 520-541.

Kratz, K. E., Mangel, S. C., Lehmkuhle, S., & Sherman, S. M. (1978). Retinal X-cells in monocularly lid-sutured cat: Normality of spatial and temporal properties. *Brain Research*, 172, 545-551.

Lehmkuhle, S., Kratz, D. E., Mangel, S. C., & Sherman, S. M. (1978). An effect of early monocular lid suture upon the development of X- cells in the cats lateral geniculate nucleus. *Brain Research*, 157, 346-350.

Fox, R., Lehmkuhle, S., & Leguire, L. (1978). Stereoscopic contours induce optokinetic nystagmus. *Vision Research*, 18, 1189-1192.

Pantle, A., Lehmkuhle, S., & Caudill, M. O. (1979). On the capacity of directionally sensitive mechanisms to encode different dimensions of dynamic stimuli. *Perception*, 7, 261-267.

Fox, R., Lehmkuhle, S., & Bush, R. (1977). Stereopsis in the falcon. *Science*, 197, 79-81.

Bell, H., Lehmkuhle, S., & Westendorf, D. (1976). On the relation between visual surround and motion aftereffect velocity. *Perception & Psychophysics*, 20, 13-16.

Carr, T., Lehmkuhle, S., Kottas, B., Astor-Stetson, E., & Arnold, D. (1976). Target position and practice in the identification of letters in varying contexts: A word superiority effect. *Perception & Psychophysics*, 19, 412-416.

Blake, R., & Lehmkuhle, S. (1976). On the site of strabismic suppression. *Investigative Ophthalmology*, 15, 661-663.

Fox, R., Lehmkuhle, S., & Westendorf, D. (1976). Falcon visual acuity. *Science*, 192, 263-265.

Lehmkuhle, S., & Fox, R. (1976). On measuring interocular transfer. Vision Research, 16, 428-430.

Lehmkuhle, S., & Fox, R. (1975). The effect of rivalry suppression on the motion after effect. Vision Research, 15, 855-859.

Papers and Posters Presented at Scientific Meetings

Steinman, B. A., Steinman, S. B., Garzia, R. P., & *Lehmkuhle, S. (1995). Abnormal transient visual attention in reading disabled adults.* Poster presented to the Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL.

Ma, Y. & *Lehmkuhle, S. (1995). The effects of local flicker on the incidence of express saccades.* Poster presented to the Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL.

Chakraborty, S. & *Lehmkuhle, S. (1995). VEPs in awake cats reveal corollary discharge as an early mechanism of saccadic suppression.* Poster presented to the Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL.

Chakraborty, S. & *Lehmkuhle, S. (1994). Spatial displacement sensitivity of the awake cat measured with visually evoked cortical potentials.* Poster presented to the Society of Neuroscience, Miami, FL.

Steinman, B. A., Steinman, S. B., Garzia, R. P., & *Lehmkuhle, S. (1994). Transient visual attention deficit in reading disabled adult.* Poster presented to the American Academy of Optometry, San Diego, CA.

Steinman, B. A., *Lehmkuhle, S., & Steinman, S. B. (1994). Line motion illusion reveals that focal visual attention is dominated by the M-stream.* Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Steinman, B. A., *Lehmkuhle, S., & Steinman, S. B. (1993). Attentionally induced changes in visual processing speed reveal the spatial organization of visual attention mechanisms.* Poster presented to the American Academy of Optometry, Boston.

Baro, J. A. & *Lehmkuhle, S. (1993). The perception of structure from motion at isoluminance.* Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Lehmkuhle, S., Baro, J. A., & Guido, W. (1992). Relay and burst modes in the LGN vary with the alertness of the cat. Poster presented to the Society of Neuroscience, Anaheim, CA.

Lehmkuhle, S., Garzia, R. P., Turner, L., & Baro, J. A. (1992). The effects of uniform field flicker on visual evoked potentials in children with reading disability. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Baro, J. A. & Lehmkuhle, S. (1992). Alertness affects responsivity of X cells in the dorsal lateral geniculate nucleus of the cat. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Baro, J. A. & Lehmkuhle, S. (1991). The InSight series of interactive software for the Macintosh computer: Laboratory exercises in vision science. Poster presented to the American Academy of Optometry, Anaheim, CA.

Baro, J. A. & Lehmkuhle, S. (1991). The effect of eye position on amplitude and latency of the visual evoked potential in the awake, behaving cat. Poster presented to the American Academy of Optometry.

Baro, J. A. & Lehmkuhle, S. (1991) Insight 2 - A series of full-color, interactive demonstrations in vision science for the Macintosh computer. Poster presented to the Society of Neuroscience, New Orleans, LA.

Lehmkuhle, S. & Baro, J. A. (1991). The influences of eye position on the responses of X and Y cells in the dorsal lateral geniculate nucleus of the awake, behaving cat. Poster presented to the Society of Neuroscience, New Orleans, LA.

Lehmkuhle, S., Baro, J. A., & Hughes, H. C. (1990). Responses to stimulus offset of ganglion and geniculate X and Y cells in the cat. Poster presented to the Society of Neuroscience, St. Louis, MO.

Baro, J. A., Brzezicki, L., Lehmkuhle, S., & Hughes, H. C. (1990). Visible persistence of sine wave gratings assessed with onset and offset reaction times. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Lehmkuhle, S., Baro, J. A., & Hughes, H. C. (1990). Response persistence of X and Y retinal ganglion cells in the cat. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Baro, J. A., Lehmkuhle, S., & Kratz, K.E. (1989). Flash and pattern electroretinograms in long term deprived cats. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

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in the cat lateral geniculate nucleus. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Lehmkuhle, S., & Baro, J. A. (1988). The effect of background flicker on evoked potential amplitude and latency in the cat. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Baro, J. A., *Lehmkuhle, S., & Applegate, R. A. (1988).* Contrast increment thresholds are correlated with variability in magnitude estimates of contrast. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Sestokas, A. K., *Lehmkuhle, S., & Kratz, K. E. (1987).* The relationship between response latency and amplitude for ganglion and geniculate X- and Y-cells in the cat. Paper presented to the Society of Neuroscience, New Orleans, LA.

Lehmkuhle, S., & Sestokas, A. K. (1987). The effects of long term monocular lid suture deprivation on the responses of ganglion cells in the cat. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

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Lehmkuhle, S., & Uhlrich, D. J. (1986). The relation between spatial frequency and visual latency in the cat. Paper presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Sestokas, A. K., *Lehmkuhle, S., & Kratz, K. E. (1985).* Response amplitude and variability of ganglion and LGN X- and Y- cells in the cat. Poster presented to the Society of Neuroscience, Dallas, TX.

Lehmkuhle, S., Sestokas, A.K., & Kratz, K.E. (1985, October). Temporal flow of visual information from ganglion through geniculate cells. Poster presented to the Society for Neuroscience, Dallas, TX.

Frascella, J., Sestokas, A. K., & *Lehmkuhle, S. (1985).* A response analysis of W- cell sluggishness in the cat LGN. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Sestokas, A. K., *Lehmkuhle, S., & Kratz, K. E. (1984).* Comparison of response properties of ganglion and geniculate X- and Y- cells. Poster presented to the Society for Neuroscience, Anaheim.

Sestokas, A. K., & *Lehmkuhle, S.* (1984). Visual response latencies of X- and Y-cells in the cat dLGN. Poster presented to the Association for Research in Vision and Ophthalmology.

Lehmkuhle, S., & Sestokas, A. K. (1984). Effects of deprivation on X-cell development in cat. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

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Frascella, J., & *Lehmkuhle, S.* (1983). A comparison of A-Laminae and C-Lamina Y-cells in the dorsal lateral geniculate nucleus of the cat. Poster presented to Society for Neuroscience, Boston.

Quinn, P., & *Lehmkuhle, S.* (1983). An oblique effect of localization sensitivity. Poster presented to Association for Research in Vision and Ophthalmology, Sarasota, FL.

Stevenson, S., & *Lehmkuhle, S.* (1983). The effect of stereoscopic depth on masking of a sinusoidal grating. Poster presented to Association for Research in Vision and Ophthalmology, Sarasota, FL.

Frascella, J., *Lehmkuhle, S.*, Essock, E., & Enoch, J. M. (1983). Background temporal modulation affects the sensitization-like response of X- and Y-cells in the dLGN of cat. Poster presented to Association for Research in Vision and Ophthalmology, Sarasota, FL.

Moss, C., & *Lehmkuhle, S.* (1983). Vernier acuity of cells in cat geniculate. Poster presented to Association for Research in Vision and Ophthalmology, Sarasota, FL.

Uhlrich, D., Blough, D., Blough, P., & *Lehmkuhle, S.* (1983). Inhibition of the human blink reflex by visual form stimuli. Poster presented to Association for Research in Vision and Ophthalmology, Sarasota, FL.

Fox, R., Patterson, R., & *Lehmkuhle, S.* (1982). Depth separation and the motion aftereffect. Poster presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

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Lehmkuhle, S., Kratz, K., Mangel, S., & Sherman, S. (1978). Spatial and temporal contrast sensitivity functions of dorsal lateral geniculate cells in rats raised with monocular lid suture. Neuroscience Abstracts, 2028, 63.

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Fox, R., *Lehmkuhle, S., & Shea, S. (1977). Seeing without storing: Iconic memory and random element stereograms. Paper presented to the Psychonomic Society, Washington.*

Lehmkuhle, S., & Fox, R. (1977). Stereoscopic motion aftereffects. Paper presented to the Midwestern Psychological Association, Chicago.

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Lehmkuhle, S., Fox, R., & Bush, R. (1977). Global stereopsis in the cat. Paper presented to the Association for Research in Vision and Ophthalmology, Sarasota, FL.

Lehmkuhle, S., & Fox, R. (1976). Viewing conditions control tilt aftereffect magnitude. Paper presented to the Midwestern Psychological Association, Chicago.

Carr, T., *Lehmkuhle, S.*, Kottas, R., Astor, E., & Arnold, D. (1976). The perceptual dynamics of letter detection with advance knowledge of embedding context. Paper presented to the Midwestern Psychological Association, Chicago.

Fox, R., *Lehmkuhle, S.* & Bush, R. (1975). Stereoscopic vision in the falcon (*falco sparverius*). *Neuroscience Abstracts*, 11.

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Bell, H., *Lehmkuhle, S.*, & Westendorf, D. (1975). On the reappearance of the motion after effect: Evidence for orientation and spatial frequency specificity. Paper presented to the Midwestern Psychological Association, Chicago.

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Books and Chapters

Essock, E. A., McCarley, J. S., Sinai, M. J., Khang, B. G., *Lehmkuhle, S.*, Krebs, W. K., and Yu, C. (1997). Extensions of the sustained-like and transient-like effects. In V. Lakshminarayanan (Ed.), *Basic and Clinical Applications of Vision Science*. Dordrecht, The Netherlands.

Baro, J. A., Garzia, R. P., and *Lehmkuhle, S.* (1995). Visual evoked potentials in reading disability. In Garzia (Ed.), *Vision and Reading* (pp. 193-207). St. Louis, MO: Mosby-Yearbook.

Lehmkuhle, S. (1995). Deficits in parallel visual processing in children with reading disability and in the elderly. In DiLalla & Clancy (Eds.), *Assessment of biological mechanisms across the life span* (pp. 1-27). Mahwah, NJ: L. Erlbaum.

Lehmkuhle, S. (1994). Neurological Basis of Visual Processes in Reading. In Willows, Corcos, and Kruk (Eds.), *Visual Processes in Reading and Spelling* (pp. 77-94). Mahwah, NJ: L. Erlbaum.

Levy, W., Anderson, J., & *Lehmkuhle, S.* (Eds.)(1985). *Synaptic Modification, Neuron Selectivity, and Nervous System Organization*. Mahwah, NJ: L. Erlbaum.

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cats. In R. Aslin (Ed.), *Advances in Neural and Behavioral Development* (Vol. 1, pp. 107-129). Ablex, NJ.

Spoehr, K. T., & Lehmkuhle, S. (1982). *Human Visual Information Processing*. San Francisco: W.A. Freeman Company.

Publications Related to Teaching

Baro, J. A., and Lehmkuhle, S. (1993). Design and pedagogical issues in the development of the InSight Series of Instructional Software. *Journal of Optometric Education*, 18(4), 107-110.

Trick, L., Lehmkuhle, S., Meyer, R., Gram, J., and Davis, S. (1993). Do grades affect teaching evaluations? *Journal of Optometric Education*, 18(3), 88-92.

Baro, J. A. & Lehmkuhle, S. (1992). **InSight 2- InColor** [computer program]. Santa Barbara, CA: *Intellimation*.

Baro, J. A., Lehmkuhle, S., and Sesma, M. A. (1991). **InSight**: A series of interactive experiments and demonstrations in vision science for the Macintosh computer. *Journal of Optometric Education*, 16(3), 82-87.

Baro, J. A., Lehmkuhle, S., & Sesma, M. A. (1991). **InSight** [computer program]. Santa Barbara, CA: *Intellimation*.

Invited Talks

"The functional significance of parallel visual processing in humans." Neuroscience Club, University of Missouri-Columbia, June, 1996.

"Visual problems and reading disabled." Distinguished speaker series, The Classroom of the Future, Wheeling Jesuit College, April, 1996.

"Incidental learning." Commencement Address, Graduation, University of Missouri-St. Louis, August, 1995.

"Parallel visual processing and specific reading disorders, and deficits in parallel visual processing in the aged." Visiting Clinical Scholar Program, University of Alabama at Birmingham, May, 1994.

"Parallel visual pathways: Implications for reading disability and visual attention." Psychology lecture series, University of Louisville, November, 1993.

“Parallel visual pathways and reading.” Symposium on New Links Between Vision and Dyslexia, American Academy of Optometry, Boston, 1993.

“Perceptual consequences of lifespan changes in parallel visual pathways: What can be learned from reading disabilities.” Conference on The Assessment of Biological Mechanisms across the Life Span, Southern Illinois University-Carbondale, March, 1993.

“We see the forest before the trees.” Psychology Colloquium Series, Dartmouth College, April, 1989.

“Global-to-local visual processing.” Psychology Colloquium Series, University of Arkansas, March, 1988.

“Visual encoding in the retino-geniculate pathways, and visual significance of parallel retino-geniculate pathways.” Visiting Scholar Program, Department of Physiological Optics, University of Alabama at Birmingham, March, 1987.

“A global-to-local model of early visual processing: We see the forest before the trees.” Behavioral Biology Colloquium Series, SUNY at Stony Brook, April, 1986.

Grants Received

Center for Neurodynamics; Department of Defense (Office of Naval Research); Sept. 1, 1996-August 31, 1999; direct costs - \$1,950,000; Principal investigator - Frank Moss; Co-principal investigators, Lon Wilkens and Stephen Lehmkuhle.

The Role of the Dorsal Lateral Geniculate Nucleus in Saccadic Suppression; Research Board; Oct. 1, 1993-Sept. 30, 1994; direct costs - \$28,000.

Visual processing in the dorsal lateral geniculate nucleus of the cat; NSF; Sept. 1, 1992-January 31, 1993; direct costs - \$10,500.

Visual deficits in patients with Alzheimers disease with C. Bassi and D. Young; Missouri Alzheimers Disease and Related Disorder Program; August 1, 1990 -July 30, 1991; direct costs - \$16,000.

An electrophysiological and visual acuity investigation of a transient pathway deficit in children with specific reading disorders with R. Garzia and S. Nicholson; American Foundation for Vision Awareness; July 1, 1990-June 30, 1990; direct costs - \$6000.

Visual processing in the dorsal lateral geniculate nucleus of the cat; NSF; March 1, 1989-

August 31, 1992; direct costs - \$111,484.

The effects of eye position and eye movement on the responses of cells in the dorsal lateral geniculate nucleus of the cat; Weldon Springs; February 5, 1988-February 4, 1989; direct costs - \$15,000.

A neurophysiological study of the temporal flow of visual information from retina to cortex; Weldon Springs; March 1, 1985-February 28, 1986; direct costs - \$19,080.

Different cell populations; NIH; September 30, 1984-September 29, 1987; direct costs - \$133,854.

Laboratory in physiological psychology; NIH; February 1, 1983 - January 30, 1984; direct costs - \$15,000.

Different cell populations; NIH; August 1, 1981 - July 30, 1984; direct costs - \$164,495.

The role of perceived depth on the formation of contours; NIH; May 1, 1980 - April 30, 1981; direct costs - \$10,000.

Awards

Galileo Award, for research excellence in children vision and learning. Awarded by the American Foundation of Vision Awareness, June, 1994; co-recipient, Ralph Garzia.