## **CURRICULUM VITAE HELENE INTRAUB**

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## Education

State University of New York at Stony Brook, B.A., Psychology (1973) Brandeis University, Ph.D., Psychology (1978) Massachusetts Institute of Technology, Postdoctoral Associate, Psychology (1977-1979)

# **Professional Experience**

1981-current	Department of Psychological and Brain Sciences, University of Delaware Full Professor 9/1995 Associate Professor 9/1985 Assistant Professor 9/1981
April 2003	Visiting Professor, Vanderbilt University, (Sabbatical)
1998-1999	Program Director, Human Cognition and Perception Program National Science Foundation (NSF)
Jan-July 1995	Visiting Professor, Department of Cognitive Science, Johns Hopkins University (Sabbatical)
1987-1988.	NSF Visiting Professor, Department of Psychology, Columbia University, New York
June-Aug 1981	Visiting Scientist, Medical Research Council Applied Psychology Unit, Cambridge, England
1979-1981	Assistant Professor, Department of Psychology, Bucknell University, Lewisburg, Pennsylvania.
1977-1979	Postdoctoral Associate and Sponsor of Undergraduate Research Opportunities Program, Department of Psychology, Massachusetts Institute of Technology, Cambridge, MA.

#### **Professional Activities**

### **Professional Organizations**

Fellow, American Psychological Society Fellow, Psychonomic Society Member, Visual Sciences Society

## **Professional Activity**

Chair, Psychonomic Society International Presence Evaluation Committee, 2018-current.

Assessment of the impact and financial consideration of a key strategic Initiative of the Psychonomic Society: Developing Assessment tools, collecting data from stakeholders, developing proposals, and submitted a final report to the Society June 2020

Chair, 2019 Women in Cognitive Science (WICS) Leadership Awards and Honorary Enduring Leadership Award. Awardees: Drs. Barbara A. Spellman (U Virgina) and Celeste Kidd (UC Berkeley); Dr. Sian L. Beilock (President, Barnard College)

Appointed 2016-current, Committee of Science and the Arts, The Franklin Institute. Cognitive Science and Computer Science Cluster: Franklin Awards.

2018-2019 Sponsor of 2019 Franklin Laureate Marcia K. Johnson (Yale).

Organizer, Laureates Address, "Memory and Reality" with MindCore at University of Pennsylvania, April 10, 2019 and Sponsor in Awards Week Events, April 8-12, 2019.

2013 Chair Psychonomic Society Governing Board Chair-Elect 2012 Past-Chair 2014

Psychonomic Governing Board Member, 2009 – 2014

Chair, Psychonomic Society Strategic Planning Initiative Committee 2012 Executive Committee 2012-2014

2014 Inaugural Chair, Nominations Committee; *Ex Officio* member, 1/2015-6/2015; Chair 7/2015-12/2015

2012-2014 Executive Committee (Chair-Elect, Chair, Past-Chair) 2009 Chair, Audit Committee.
2009 Member, Transition HR Committee

Representative, *Council of Science Society Presidents* (CSSP), on behalf of Psychonomic Society, Washington DC, December 7-10, 2013.

Representative, FABBS Council of Representatives, on behalf of Psychonomic Society, 2014.

Advisory Board, Women in Cognitive Science 2015-current

Advisory Council, *International Association for the Study of Attention and Performance* Term: June 2003 – 2009

#### **Editorial Boards**

Journal of Experiment Psychology: Human Perception and Performance 1990-1993; 2002 – current

Journal of Experimental Psychology: Learning, Memory, and Cognition 1984-1989, 2011-current;

Encyclopedia of Perception, Advisory Board, Sage Publications, Bruce Goldstein (Ed.), Term: 2006-2009

Attention, Perception and Psychophysics (previously Perception & Psychophysics 2003 – 2009

Psychological Bulletin; 2005 - 2008

Memory and Cognition; 1997-2001

### **Journal Editor Search Committees**

Search Committee for Editor of *Memory and Cognition*, 2008 Search Committee for Editor of *Perception and Psychophysics*, 2007

#### **Guest Action Editor**

Journal of Experimental Psychology: Human Perception and Performance, 2017-2018

## Ad-Hoc Reviewer (Journals) and Conference Review

American Journal of Psychology; Applied Cognitive Psychology, Attention, Perception & Psychophysics; Cognition; Cognitive Psychology; Cerebral Cortex; Cortex; Emotion; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Human Perception and Performance; Journal of Experimental Psychology: Learning, Memory and Cognition; Journal of Memory and Language; Memory and Cognition; Psychological Bulletin; Psychonomic Bulletin

and Review; Psychological Review; Psychological Science, Trends in the Cognitive Sciences Vision Science Society, Review Board, December 2008

### **Study Panels:**

NIH Perception and Cognition Panel, Member. 9/1/2007 – 6/30/2011
NIH Perception and Cognition Panel, Ad Hoc 10/26/06-10/27/06
NSF Science of Learning Centers Competition, Advisory Panel, April 18-19, 2005
NSF Science of Learning Centers, Site Visit Panel, April 17-20, 2008
NIMH Psychobiology and Behavior Research Review Committee 5/31/90 - 6/1/90
NSF Panel, Research Experiences for Undergraduates (REU), Biological, Behavioral, and Social Sciences, 1/7/91 - 1/9/91

### **National Science Foundation (NSF):**

Program Director, Human Cognition & Perception (HCP) 1998-1999

HCP Study Panel, Program Director (Fall 1998, Spring 1999) IGERT Panel, Co-Director (Spring 1999) Committee for the Development of Cognitive Science Initiative

#### Grants

- NIMH Grant, MH54688-01A1, "Anticipatory Processes in Spatial Cognition," 7/11/03 5/31/07 (\$739,000).
- NIMH Subcontract (Intraub, Director) in "Post-Attentive Vision" (PI: Jeremy Wolfe, Brigham and Women's Hospital), 5/03- 5/08. (\$150,000)
- NIMH Grant, MH54688-01A1, "Perceiving and Remembering Scenes," 2/1/97-1/31/02 (\$220,000).
- National Science Foundation Grant, BNS 9011015, "The role of general scene structure in perceiving and remembering pictures, 9/1/90 8/31/92 (\$65,000).
- National Science Foundation Grant, BNS 8519417, "Scene Comprehension: The perceptual integration of objects and scenes", 2/86-7/89 (\$120,000).
- National Science Foundation VPW Grant, "Application of computer graphics technology to research on visual scene perception", Visiting Professorship at Columbia University, 9/87-5/88 (\$45,000).
- National Science Foundation Grant, BNS 8217390, "Visual scene processing," 9/83-2/85 (\$35,000).

Advanced Research Projects Agency Contract MDA 903-76-C-044l to M.I.T. (PIs, M.C, Potter & J. Kroll). "Picture-word interaction: Implications for speeded on-line processing and delayed memory retrieval", Section C: Postdoctoral Associate; 9/77-9/79.

#### **Publications**

- Intraub (2020). Searching for boundary extension. *Current Biology*, 30(24), R1463-R1464. https://doi.org/10.1016/j.cub.2020.10.031
- Intraub, H. (2020). 2019 Benjamin Franklin Medal in Computer and Cognitive Science presented to Marcia K. Johnson, Ph.D. *Journal of the Franklin Institute*, 357(5), 2641-2644. https://doi.org/10.1016/j.jfranklin.2020.01.043
- Yildirim, I. & Intraub, H. (2020) Yildirim, I., & Intraub, H. (2020). Anticipatory memory for regular and random patterns. *Journal of Experimental Psychology: Human Perception and Performance*, 46(9), 965-978. doi:http://dx.doi.org/10.1037/xhp0000768
- Beighley, S., Sacco, G. R., Bauer, L., Hayes, A. M., & Intraub, H. (2019). Remembering: Does the Emotional Content of a Photograph Affect Boundary Extension? *Emotion*, 19, 699-714. http://dx.doi.org/10.1037/emo0000477
- Intraub, H., & Gagnier, K. M. (2018). Expanding space: Does imagination affect boundary extension for visual scenes? In T. L. Hubbard (Ed.). *Spatial Biases in Perception and Cognition*. Cambridge, UK: Cambridge University Press.
- De Luca, F., McCormick, C., Mullally, S.L., Intraub, H., Maguire, E.A., Ciaramelli, E. (2018). Boundary extension is attenuated in patients with ventromedial prefrontal cortex damage. *Cortex*, *108*, 1-12. https://doi.org/10.1016/j.cortex.2018.07.002
- Spanò, G., Intraub, H., & Edgin, J. O. (2017). Testing the "boundaries" of boundary extension: Anticipatory scene representation across development and disorder. *Hippocampus*, 27(6), 726-739. doi: 10.1002/hipo.22728
- Kreindel, E., & Intraub, H. (2017). Anticipatory scene representation in preschool children's recall and recognition memory. *Developmental Science*, 20(5), e12444-n/a. doi: 10.1111/desc.12444
- Beighley, S., & Intraub, H. (2016). Does inversion affect boundary extension for brieflypresented views? *Visual Cognition*, 24(3), 252-259. doi: 10.1080/13506285.2016.1229369
- Liu, Z., Yang, X. & Intraub, H. (2016). Boundary extension: Insights from signal detection theory. *Journal of Vision*, 16: 7. doi:10.1167/16.8.7

- Maguire, E. A., Intraub, H., & Mullally, S. L. (2016). Scenes, spaces, and memory traces: What does the hippocampus do? *The Neuroscientist*, 22(5), 432-439. http://dx.doi.org.udel.idm.oclc.org/10.1177/1073858415600389
- Intraub, H., Morelli, F., & Gagnier, K. M. (2015). Visual, Haptic and Bimodal Scene Perception: Evidence for a Unitary Representation. *Cognition*, *138*, 132-137.
- Intraub, H. (2014). Visual scene representation: A spatial-cognitive perspective. In K. Kveraga & M. Bar (Eds.), *Scene vision: Making sense of what we see* (pp. 5-26). Cambridge, MA: The MIT Press.
- Czigler I., Intraub H., & Stefanics G. (2013) Prediction beyond the borders: ERP indices of boundary extension-related error. *PLoS ONE* 8(9): e74245. doi:10.1371/journal.pone.0074245
- Gagnier, K.M., Dickinson, C. A., & Intraub, H. (2013). Fixating picture boundaries does not eliminate boundary extension: Implications for scene representation. *The Quarterly Journal of Experimental Psychology*, 66:11, 2161-2186.

  DOI: 10.1080/17470218.2013.775595
- Gagnier, K.M., & Intraub, H. (2012). When less is more: Line-drawings lead to greater boundary extension than do colour photographs, *Visual Cognition*, 20, 815-824. DOI:10.1080/13506285.2012.703705
- Mullally, S.L., Intraub, H. & Maguire, E.A. (2012). Attenuated boundary extension produces a paradoxical memory advantage in amnesic patients, *Current Biology*, 22, 261-268. First published online 19 January 2012. doi: 10.1016/j.cub.2012.01.001
- Intraub, H. (2012). Rethinking visual scene perception. *Wiley Interdisciplinary Reviews: Cognitive Science*, 3: 117–127. doi: 10.1002/wcs.149
- Gagnier, K.M., Intraub, H., Oliva, A., & Wolfe, J.M. (2011). Why does Vantage Point Affect Boundary Extension? *Visual Cognition*, 19, 234 257, First published on: 30 November 2010 (iFirst)
- Intraub (2010). Rethinking Scene Perception: A Multisource Model. In B. Ross (Ed), *Psychology of Learning and Motivation*, vol. 52 (pp. 231-264), *Burlington: Academic Press*.
- Dickinson, C. A., & Intraub, H. (2009). Spatial Asymmetries in Viewing and Remembering Scenes: Consequences of an Attentional Bias? *Attention, Perception & Psychophysics*, 71, 1251-1262.
- Michod, K. & Intraub, H. (2009). Boundary extension. Scholarpedia, 4(2):3324.

- Intraub, H. & Dickinson, C. A. (2008). False memory 1/20th of a second later: What the early onset of boundary extension reveals about perception. *Psychological Science*, 19, 10071014.
- Intraub, H., Daniels, K. K., Horowitz, T.S., & Wolfe, J.M. (2008). Looking at scenes while searching for numbers: Dividing attention multiplies space, *Perception & Psychophysics*, 70, 1337-1349.
- Dickinson, C. A., & Intraub, H. (2008). Transsaccadic representation of layout: What is the time course of boundary extension? *Journal of Experimental Psychology: Human Perception and Performance*. 34, 543-555.
- Park, S., Intraub, H., Yi, D-J., Widders, D., & Chun, M. M. (2007). Beyond the Edges of a View: Boundary Extension in Human Scene-Selective Visual Cortex, *Neuron*, *54*, 335342.
- Intraub (2007). Scene perception: The world through a window. In Peterson, M. A., Gillam, B., Sedgwick, H. A. (Eds), *In the Mind's Eye: Julian Hochberg on the Perception of Pictures, Films, and the World* (pp.454-466). NY: Oxford University Press
- Quinn, P. C., & Intraub, H. (2007). Perceiving "outside the box" occurs early in development: Evidence for boundary extension in 3- to 7-month-old infants. *Child Development*, 78, 324-334.
- Intraub, H., Hoffman, J.E., Wetherhold, C. J., Stoehs S. (2006). More than meets the eye: The effect of planned fixations on scene representation. *Perception and Psychophysics*, *5*, 759-769.
- Daniels, K.K. & Intraub, H. (2006). The shape of a view: Are rectilinear views necessary to elicit boundary extension? *Visual Cognition*, *14*, 129-149.
- Intraub, H. (2004). Anticipatory spatial representation in a deaf and blind observer, *Cognition*. *94*, 19-37.
- Gottesman, C.V. & Intraub, H. (2003). Constraints on spatial extrapolation in the mental representation of scenes: View-boundaries versus object-boundaries, *Visual Cognition*, 10, 875 893.
- Gottesman, C.V. & Intraub, H. (2002). Surface construal and the mental representation of scenes. *Journal of Experimental Psychology: Human Perception and Performance*, 28, 1-11.
- Intraub, H. (2002). Visual scene perception. In Nadel, L. (Ed.) *Encyclopedia of Cognitive Science*, 4, pp. 524 527. London: Nature Publishing Group.

- Intraub, H. (2002). Anticipatory spatial representation of natural scenes: momentum without movement? *Visual Cognition*, 9, 93-119. (Special Issue: Representational momentum: New findings, new directions).
- Intraub, H. (2001). Internalized constraints in the representation of spatial layout. *Behavioral and Brain Sciences*, 24:4, 677-678.
- Intraub, H. (1999). Understanding and remembering briefly glimpsed pictures: Implications for visual scanning and memory. In *Fleeting Memories: Cognition of Brief Visual Stimuli*, Veronika Coltheart (Ed.), MIT Press/Massachusetts (pgs.47-70)
- Gottesman, C.V. & Intraub, H (1999). Wide-angle memory of close-up scenes: A demonstration of boundary extension. *Behavioral Research Methods, Instruments and Computers*, 31, 86-93.
- Intraub, H., Gottesman, C.V., & Bills, A.J. (1998). Effects of perceiving and imagining scenes on memory for pictures. *Journal of Experimental Psychology: Learning, Memory, & Cognition, 24*, 186-201.
- Previc, F. H., & Intraub, H. (1997). Vertical biases in scene memory, *Neuropsychologia*, 35,1513-1517.
- Intraub, H. (1997). The representation of Visual Scenes. *Trends in the Cognitive Sciences*, 1, 217-221.
- Bishop, P. J., and Intraub, H. (1996). Visual dissociation of digitized photographs. *Behavior Research Methods, Instruments, & Computers*, 28, 365-371.
- Intraub, H., Gottesman, C.V., Willey, E. V., & Zuk, I.J. (1996). Boundary extension for briefly glimpsed pictures: Do common perceptual processes result in unexpected memory distortions? *Journal of Memory and Language*, *35*, 118-134. (Special Edition, entitled,"Memory Illusions")
- Intraub, H, & Berkowits, D. (1996). Beyond the edges of a picture. *American Journal of Psychology*, 109, 581-598.
- Intraub H., & Bodamer, J.L. (1993). Boundary extension: Fundamental aspect of pictorial representation or encoding artifact? *Journal of Experimental Psychology: Learning, Memory and Cognition, 19*, 1387-1397.
- Intraub, H., Bender, R.S., & Mangels, J.A. (1992). Looking at pictures but remembering scenes. *Journal of Experimental Psychology: Learning, Memory and Cognition, 18*, 180-191.
- Intraub, H., and Hoffman, J.E. (1992). Remembering scenes that were never seen: Reading and visual memory. *American Journal of Psychology*, 105, 101-114.

- Intraub, H. (1992). Contextual factors in scene perception. In Chekaluk, E. & Llewellyn, K.R. (Eds.), *The Role of Eye Movements in Perceptual Processes*. Elsevier Science Publishers B.V.: Holland. (Pgs. 45-72).
- Intraub, H., and Richardson, M. (1989). Wide-angle memories of close-up scenes. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 15, 179-187.
- Intraub, H. (1989). Illusory Conjunctions of forms, objects and scenes during rapid serial visual search. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 15, 98109.
- Intraub, H. (1986). Visual dissociation of objects and forms: Integration errors in a very shortterm store. In *The Eighth Annual Conference of the Cognitive Science Society* (pgs. 676683), Erlbaum: NJ.
- Intraub, H. (1985). Visual dissociation: An illusory conjunction of pictures and forms. *Journal of Experimental Psychology: Human Perception and Performance*, 11, 431-442.
- Intraub, H., & Nicklos, S. (1985). Levels of processing and picture memory: The physical superiority effect. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 11*, 284-298.
- Intraub, H. (1985). Conceptual masking of briefly glimpsed photographs. In R. Groner, G.W. McConkie & C. Menz (Eds.), *Eye Movements and Psychological Processes*. North Holland Publishing Co.
- Intraub, H. (1984). Conceptual masking: The effects of subsequent visual events on memory for pictures. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 10,* 115-125.
- Intraub, H. (1981). Identification and processing of briefly glimpsed visual scenes. In D.F. Fisher, R.A. Monty, & J.W. Senders (Eds.), *Eye Movements: Cognition and Visual Perception*. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Intraub, H. (1981). Rapid conceptual identification of sequentially presented pictures. *Journal of Experimental Psychology: Human Perception and Performance*, 7, 604-610. (Special edition entitled, "Reading and Related Processes").
- Intraub, H. (1980). Presentation rate and the representation of briefly glimpsed pictures in memory. *Journal of Experimental Psychology: Human Learning and Memory*, 6, 1-12.
- Intraub, H. (1979). The role of implicit naming in pictorial encoding. *Journal of Experimental Psychology: Human Learning and Memory*, *5*, 78-87.

### **Technical Report**

Intraub, H. (1996). The Spatial Representation of Natural Scenes. *American Association for Artificial Intelligence (AAAI) Technical Report SS-96-03. Compilation copyright* © 1996, AAAI (www.aaai.org).

#### **Invited Presentations**

#### Addresses

- Thirteenth Annual Fred Attneave Memorial Lecture
  - "Anticipatory Representation of Natural Scenes: Integrating Past and Future in Vision, Touch and Imagination," Sponsored by the Department of Psychology and the Institute for Cognitive and Decision Sciences, University of Oregon, April 30, 2001.
- Plenary Address, "Anticipatory Spatial Representation of Natural Scenes: Momentum without Movement?" *The First International Workshop on Representational Momentum*, Max-Planck-Institute for Biological Cybernetics, Tübingen, Germany, September 1-3, 2000.

### Symposia & Workshop Presentations

- "Anticipatory Scene Representation in Young Children's Drawings and Recognition Memory" (Intraub & Kreindel). In "The interface of memory and perception in development:

  Boundary extension in infants, preschoolers, and atypical development" (co-organizers Jamie Edgin & Helene Intraub). 2015 Biennial Meeting of the Society for Research on Child Development (SRCD), Philadelphia, PA March, 2015.
- "A Multi-Source Model of Visual Scene Perception". In "Visual Knowledge: Emergence of a New Discipline that Synthesizes Vision and Memory Theory", 50<sup>th</sup> Meeting of the Psychonomic Society, Boston, MA November, 21, 2009
- "Boundary extension: Layout projection in perception or memory? *Scene Understanding Symposium: SUNS 07*, MIT, February 1-2, 2007.
- Symposium Organizer and Speaker in "Perspectives on Spatial Representation: What can be Learned from Special Populations," 42nd Annual Meeting of the Psychonomic Society, Orlando, Florida, November 2001. Paper presented: "Anticipatory Spatial Representation in a Deaf and Blind Observer."
- "Remembering things that weren't there" Symposium Presentation, Eastern Psychological Association, Washington, DC, April, 1997.
- "The Spatial Representation of Natural Scenes." American Association for Artificial Intelligence (AAAI) Spring Symposium on Cognitive and Computational Models of Spatial Representation. Stanford University, March 25-27, 1996.

- "Using Pictures to Make the Point," Symposium on Teaching Introductory Psychology, Eastern Psychological Association, Philadelphia, PA, March 1996.
- "Looking at pictures, but remembering scenes," and "Temporal Migration of Pictures during RSVP: A Demonstration". Cambridge Basic Research (CBR) Scene Perception Workshop, Cambridge, MA, June 1995.
- "Differences in the mental representation of objects and scenes." Object Perception and Memory (OPAM), St. Louis, MO, November, 1994
- "Visual dissociation: Illusory conjunctions of objects and scenes," New York Consortium, Cognitive Colloquium Series (CAVIL) Barnard College, New York, NY November, 1987.
- "Conceptual masking of briefly glimpsed photographs", *Symposium on Eye Movements and Psychological Processes*, at the 23rd International Congress of Psychology, Mexico, September, 1984.
- "Identifying and remembering successively presented pictures," *Seventh Annual Interdisciplinary Conference Jackson Hole*, Wyoming, January 1981.
- "Identification and processing of briefly glimpsed visual scenes". *Conference on Eye Movements: Cognition and Visual Perception*. Sponsored by the Behavioral Research Directorate, U.S. Army Human Engineering Laboratory, Aberdeen Proving Ground, M.D., St. Petersburg, Florida, February 12, 1980.

### Colloquia

Villa Nova University, December 7, 2018

University of Virginia, April 13, 2016

University of Arizona, Tucson, April 24, 2009

University of Delaware, School of Education, December 9, 2004

Massachusetts Institute of Technology, October 3, 2003

Vanderbilt University, April 3, 2003

Johns Hopkins University, March, 2003

University of California at Berkeley, Cognitive and Brain Institute, February 14, 2003

State University of New York at Stony Brook, October 9, 2002

Pennsylvania State University, April, 2002

Ohio State, Columbus Ohio, March, 2001

Rutgers University, Newark, NJ, March 2000

N.S.F. Division of Social, Behavioral, & Economic Research, March, 1998

Johns Hopkins University, Cognitive Science, March, 1995

University of Delaware, Department of Educational Studies, December, 1994

Rowan College, October, 1993

University of California at Berkeley, November, 1991

West Chester College, March, 1990

Rutgers University, Camden, NJ October, 1988

State University of New York at Stony Brook, December, 1987

Columbia University, New York, October, 1987.

University of Washington, Seattle, November, 1987.

Rutgers University, New Brunswick, NJ, February, 1987.

New York University, February, 1987.

Princeton University, February, 1987.

Mount Holyoak College, Amherst, MA, October, 1986.

Johns Hopkins University, October, 1985.

Brandeis University, October, 1984.

University of Delaware, Educational Studies, October, 1981 MRC

Applied Psychology Unit, Cambridge, England, July, 1981.

University of Durham, Durham, England, July, 1981.

Pennsylvania State University, November 13, 1980.

Massachusetts Institute of Technology, March 21, 1978.

#### **Exhibits**

"Wide-Angle Memory for Close-up Scenes," A demonstration of boundary extension (Intraub & Richardson, 1989) in "Human Memory," Exploratorium Science Museum Exhibit, San Francisco, May 1998-1999, supported by NSF and Bank of America.

"Wide-Angle Memory for Close-up Scenes," A demonstration of boundary extension and associated materials for educators. Selected for the Exploratorium's traveling "Human Memory" International Science Museum Tour, 2000-2006.

#### **Conference Presentations**

Marsh, H. & Intraub, H. (2019, June). Physical photos vs. digital photos: Children's scene memory is affected by the medium of presentation. Paper presented at the Society for Applied Research in Memory and Cognition (SARMAC), Cape Cod, MA

Adler, H. & Intraub, H. (2019, November). Color-Me Matched: Temporal Migration of Visual Components. Poster presented at the 59<sup>th</sup> Annual Meeting of the Psychonomic Society, Montreal, Canada

Intraub, H. & Du. R. (2019, November). Framing Space: A Cross-Cultural Assessment of Scene Cognition. Paper presented at the 59<sup>th</sup> Annual Meeting of the Psychonomic Society, Montreal, Canada

Beighley, S. & Intraub, H. (2018, November). Space-Evoking Properties of Objects affect Scene Imagination. Paper presented at the 58<sup>th</sup> Annual Meeting of the Psychonomic Society, New Orleans, LA.

- Serva, C., Yildirim, I., & Intraub, H. (2017, November). Spatial Plasticity: Extending and Reshaping the View of a Scene. Paper presented at the 57<sup>th</sup> Annual Meeting of the Psychonomic Society, Vancouver, Canada,
- Beighley, S. & Intraub, H. (2016, November). Space in Context: Object-to-Context Associations affect the Ease of Scene Imagination. Poster presented at the 56<sup>th</sup> Annual Meeting of the Psychonomic Society, Boston, MA.
- Intraub, H., Ly, A., Vlachos, E. & Beighley, S. (2016, November). Preschoolers' Spatial Memory for Briefly-Presented Photographs. Paper presented at the 56<sup>th</sup> Annual Meeting of the Psychonomic Society, Boston, MA.
- Beighley, S., & Intraub, H. (2015, November). Object knowledge influences how quickly and easily we imagine a scene. Poster session presented at the annual meeting on Object Perception, Attention, and Memory, Chicago, IL.
- Intraub, H., Beighley & Gaitan H. (2014, November). Spatial Story Telling: The Role of Imagination in Scene Perception and Memory. Paper presented at the 55th Annual Meeting of the Psychonomic Society, Long Beach CA. November, 2014
- Beighley, S., & Intraub, H. (2014, November). Space in Context: Object-to-Context Associations Affect the Ease of Scene Imagination. Poster presented at the 55th Annual Meeting of the Psychonomic Society, Long Beach, CA.
- Beighley, S., Tornetta, S. & Intraub, H. (2013, November). Visual and Linguistic Measures of Spatial Coherence in Memory for Scenes. Poster presentation at the 54<sup>th</sup> Annual Meeting of the Psychonomic Society, Toronto, Canada.
- Beighley, S., & Intraub, H. (2012, November). A new "twist" on boundary extension: We falsely remember more surrounding space when the world is upside-down. Poster presentation at the Annual Meeting on Object Perception, Attention, and Memory, Minneapolis, MN.
- Kreindel, E., & Intraub, H. (2012, November). Boundary extension in children vs. adults: What developmental differences may tell us about scene representation? Poster presented at the Annual meeting on Object, Perception and Memory, Minneapolis, MN.
- Beighley, S., & Intraub, H. (2012, May). What's "up" in boundary extension? Brief rotated views are remembered as more expansive. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL
- Kreindel, E., & Intraub, H. (2012, May). Boundary extension in children vs. adults: What developmental differences may tell us about scene representation? Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.

Intraub, H. & Delaney, S. (2010, Nov). A multisource approach to scene representation: evidence from haptic exploration. Paper presented at the 51<sup>st</sup> Annual Meeting of the Psychonomic Society, St. Louis, MO.

Czigler, I., Stefanics, G., Sulykos, I. & Intraub, H. (2010, May). Boundary Extension as Reflected by Event-related Potentials Poster presented at APS Annual Convention, Boston.

Michod K.O., & Intraub, H. (2009, May). Don't look! Fixating occluded objects distorts scene memory. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.

Dickinson, C., & Intraub, H. (2008, May). Spatial biases in scanning and remembering scenes. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.

Michod K.O., Dickinson, C.A., & Intraub, H. (2008, May). Multiple fixations do not lead to better spatial memory. Poster presented at the annual meeting of the Vision Sciences Society, Naples, FL.

Dickinson, C. A., & Intraub, H. (2007, May). Boundary extension in the transsaccadic representation of layout. Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.

Michod K.O., & Intraub, H. (2007, May). Conceptual Masking: Is it really all about the concept or does layout matter? Poster presented at the annual meeting of the Vision Sciences Society, Sarasota, FL.

Dickinson, C.A. & Intraub, H. Exploring Spatial and Temporal Aspects of Boundary Extension. Paper presented at the 47th annual meeting of the Psychonomic Society, Houston, TX. November, 2006.

Intraub, H. & Dickinson, C.A. Boundary extension at a glance and across an eye movement. Paper presented at the 47th annual meeting of the Psychonomic Society, Houston, TX. November, 2006.

Dickinson, C. A., Bensonoff, D., & Intraub, H. Representing Layout: What is the time course of Boundary Extension? Poster presented at the Annual Meeting of the Vision Sciences Society, Sarasota, FL, May, 2006.

Intraub, H., Daniels, K.K., Horowitz, T.S., & Wolfe, J.M. Looking at scenes while searching for numbers: Dividing attention multiplies space. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, FL, May, 2006.

Park, S.J., Intraub, H., Widders, D., Do-Joon, Y., & Chun, M. M. Boundary Extension: Fillingout scene layout information in human parahippocampal cortex. Paper presented at the Annual Meeting of the Vision Sciences Society, Sarasota, FL, May, 2006.

Daniels, K.K. & Intraub, H. The Shape of a View: Are Rectilinear Views Necessary to Elicit BE? Poster presented at the Object Perception, Attention & Memory (OPAM) Meeting. Psychonomics Pre-Conference Workshop, Nov, 2005.

Intraub, H. & Daniels, K. K. Tunnel Vision during Visual Scanning: Do Smaller Views yield Smaller Representations? Paper presented at the Annual Meeting of the Psychonomic Society, Toronto, Canada, Nov, 2005.

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