Min-Suk Kang, PhD

Curriculum Vitae

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AREA OF SPECIALIZATION: Cognitive Psychology, Cognitive Neuroscience

CURRENT APPOINTMENTS

2017.03-Present	Associate Professor, Department of Psychology, Sungkyunkwan University

EDUCATION

2009.05	Vanderbilt University Ph.D. in Psychology (Advisor, Randolph Blake)
2001.02	Seoul National University B.S. in Astronomy (Advisor, Bon-Chul Koo)

PROFESSIONAL EXPERIENCE

2013.03-2017.02	Assistant Professor, Department of Psychology, Sungkyunkwan University
2009.05-2012.12	Postdoctoral Fellow, Department of Psychology, Vanderbilt University (Advisor, Geoffrey F. Woodman)
2009.01~2009.04	Postdoctoral Fellow, Department of Psychology, Vanderbilt University (Advisor, Randolph Blake)

PUBLICATIONS

Statistical Summary

Citation = 852; h-index = 14; i10-index = 19; citation > 50 = 7 (Google Scholar)

Manuscripts in Progress (manuscripts are available)

(* means corresponding author)

1) Lee, W.-T., & Kang, M.-S., (in review) Electrophysiological evidence for distinct proactive control mechanisms in a stop-signal task:an individual differences approach
2) Kang, M.-S.* Kwon, O.-S.* & Logan, G. (in preparation). Unraveling inhibitory processes with aborted movements of a stop-signal task.

3) Sone, H., Li, A., Kang, M.-S., & Fukuda, K. (in preparation) A simultaneous estimation procedure reveals integrated representations in visual working memory.

Journal Articles

1) Son, G.E., Oh, B.-I., Kang, M.-S., & Chong, S.C*. (2020). Similarity-based clusters are representational units of visual working memory. *Journal of Experimental Psychology: Learning, Memory & Cognition, 46(1),* 46-59.
2) Oh, B.-I. Kim, Y.-J., & Kang, M.-S.* (2019). Ensemble representations reveal distinct neural coding of visual working memory. *Nature Communications, 10:5665.*
3) Hong, S.-W.*, & Kang, M.-S. (2019) Slow temporal dynamics of motion-induced brightness shift reveals impact of adaptation. *Perception, 48(5),* 402-411
4) Yi, W.-J., Kang, M.-S.*, & Lee, K.-M.* (2018). Visual attribute modulates the decay rate of iconic memory. *Visual Cognition, 26(4),* 223-230. (IF: 1.147)
5) Kim, J.-Y., Kang, M.-S., Cho, Y.-S., & Lee, S.-H.* (2017) Prolonged interruption of cognitive control of conflict processing over human faces by task-irrelevant emotion expression. *Frontiers in Psychology, 8:1024.* (IF: 2.089)
6) Kang, M.-S*., Kim, S., & Lee, K.-M. (2017). Peripheral target identification performance modulated eye movements. *Vision Research, 133,* 81-86. (IF: 2.069)
7) Hong, S.-W.*, & Kang, M.-S. (2016). Motion alters color appearance. *Scientific Reports. 6,* 36272. (IF: 4.259)
8) Fukuda, K.*, Kang, M.-S., & Woodman, G.F. (2016). Electrophysiology reveals distinct neural mechanisms for lateralized and spatially global visual working memory representations. *Journal of Neurophysiology, 116(4),* 1715-1727. (IF: 2.396)
9) Kang, M.-S*. (2016). Robust repulsion in perceived motion direction induced by visual working memory despite the demand characteristics. *The Korean Journal of Cognitive and Biological Psychology, 28(3),* 585-592.
10) Eo, K., Cha, O., Chong, S.C., & Kang, M.-S*. (2016). Less is more: semantic information survives interocular suppression when attention is diverted. *Journal of Neuroscience.36(20),* 5489-5497. (IF: 5.988)
11) Kang, M.-S.*, & Oh, B-I. (2016). Grouping influences output interference in short-term memory: a mixture modeling study. *Frontiers in Psychology, 7:585,* 1-6. (IF: 2.321)
12) Jung, Y., Kang, M.-S.*, & Chong, S.C.* (2016). Effect of attention on the initiation of binocular rivalry. *Perception, 45(5),* 492-504. (IF:1.087)
13) Kang, M.-S.*, & Choi, J. (2015) Retrieval-induced inhibition in short-term memory. *Psychological Science. 26(7),* 1014-1025. (IF: 5.476)
14) Yang, E.*, Brascamp, J., Kang, M.-S., & Blake, R., (2014). On the use of continuous flash suppression for the study of visual processing outside of awareness. *Frontiers in Psychology, 5:724,* 1-17. (IF: 2.560)

15) Kang, M.-S.*, & Woodman, G.F. (2014). The neurophysiological index of visual working memory maintenance is not due to load dependent eye movements. *Neuropsychologia, 56,* 63-72. (IF: 3.302)
16) Kang, M.-S.*, DiRaddo, A., Logan, G.D., & Woodman, G.F.* (2014). Electrophysiological evidence for preparatory reconfiguration before voluntary-task switches but not cue-task switches. *Psychonomic Bulletin & Review, 21,* 454-461. (IF: 3.369)
17) Hong, S.-W.,* & Kang, M.-S.* (2013). Perceptual consequence of normalization revealed by a novel brightness illusion induced by stimulus motion. *Vision Research, 91,* 78-83. (IF: 2.381)
18) Williams, M, Hong, S.-W., Kang, M.-S., Carlisle, N., & Woodman, G.F.* (2013). The benefit of forgetting. *Psychonomic Bulletin & Review, 20,* 348-355. (IF: 2.986)
19) Hong, S.-W.*, Xu, L., Kang, M.-S., & Tong, F. (2012). The hand-reversal illusion revisited. *Frontiers in Integrative Neuroscience. 6:83,* 1-6.
20) Reinhart, M.G., Carlisle, N.B., & Kang, M.-S., & Woodman, G.F.* (2012). Event-related potentials elicited by errors during the stop-signal task. II: Human effector specific error responses. *Journal of Neurophysiology. 32,* 7711-7722. (IF: 3.301)
21) Kang, M.-S.*, Hong, S. W., Blake, R.*, & Woodman, G.F. (2011). Visual working memory contaminates perception. *Psychonomic Bulletin & Review. 18,* 860-869. (IF: 2.606)
22) Kang, M.-S.*, Blake, R., & Woodman, G.F. (2011). Semantic analysis does not occur in the absence of awareness induced by interocular suppression. *Journal of Neuroscience, 31,* 13535-13545. (IF: 7.115)
23) Kang, M.-S.*, & Blake, R. (2011). An integrated framework for spatiotemporal dynamics of binocular rivalry. *Frontiers in Human Neuroscience. 5:88,* 1-9. (IF: 2.339)
24) Kang, M.-S.*, Lee, S.-H, Kim, J., Heeger, D., & Blake, R. (2010) Modulation of spatiotemporal dynamics of binocular rivalry by collinear facilitation and pattern dependent adaptation. *Journal of Vision. 10(11):3,* 1-15. (IF: 2.826)
25) Kang, M.-S.*, & Blake, R. (2010). What causes alternations in dominance during binocular rivalry? *Attention, Perception & Psychophysics. 72(1),* 179-186. (IF: 1.333)
26) Kang, M.-S.*, Heeger, D. & Blake, R. (2009). Periodic perturbations producing phase-locked fluctuations in visual perception. *Journal of Vision. 9(2):8,* 1-12. (IF: 3.022)
27) Kang, M.-S.* (2009). Size matters: A study of the binocular rivalry dynamics. *Journal of Vision*. 9(1):17, 1-17. (IF: 3.022)
28) Kang, M.-S.*, & Blake, R. (2008). Enhancement of bistable perception associated with visual stimulus rivalry. *Psychonomic Bulletin & Review. 15,* 586-591. (IF: 2.159)

29) Woodman, G.*, Kang, M.-S., Thompson, K., & Schall, J.D. (2008). The effect of visual search efficiency on response preparation: Neurophysiological evidence for discrete flow. *Psychological Science. 19,* 128-136. (IF: 4.812)

30) Woodman, G.*, Kang, M.-S., Rossi, A.F., & Schall, J.D. (2007). Nonhuman primate event-related potentials indexing covert shifts of attention. *Proceedings of the National Academy of Sciences, USA. 104,* 15111-15116. (IF: 9.598)

31) Kang, M.-S., & Blake, R.* (2005). Perceptual synergy between seeing and hearing revealed during binocular rivalry. *Psichologija. 32,* 7-15.

Commentaries

1) Kang, M.-S., Blake, R., & Woodman, G.F. (2012) Defining characteristics of visual awareness and event-related potentials indexing semantic processing. Author Response to Heyman and Moore. *Journal of Neuroscience*. Online only.

RESEARCH SUPPORTS

1) 2019.03~2021.02. Individual Research Grant from National Research Foundation of Korea (100,000,000KRW/yr) — Impact of long-term memory to cognitive control (P.I.)
2) 2017.05~2021.04. Brain Initiative Research Grant from National Research Foundation of Korea — Categorical perception and recognition (co P.I.)
3) 2016.11~2019.10. Individual Research Grant from National Research Foundation of Korea (50,000,000KRW/yr) — Inhibitory control mechanisms of visual working memory (P.I.)
4) 2014.11~2015.10. Sungkyun Research Fund from Sungkyunkwan University. (10,000,000KRW) – A study on iconic memory retrieval based on eye movements (P.I.)
5) 2013.05~2016.04. Individual Research Grant from National Research Foundation of Korea. (20,000,000KRW/yr) — Characterizing visual working memory representation based on perceptual representation (P.I.)

CONFERENCE PRESENTATIONS

1) Kang, M.-S., Jeong, E.-J., Leem, K., & Park, Y. (2019) The impact of choice and its outcome on memory. Psychonomic Society. Montreal, QC, Canada.
2) Leem, K., Park, Y.-J., & Kang, M.-S. (2019) Electrophysiological evidence that distraction reduces reliance on working memory. Psychonomic Society. Montreal, QC, Canada.
3) Jeong, E.-J., & Kang, M.-S. (2019) The impact of choice and its outcome on memory. IBRO. Daegu, Korea
4) Kang, M.-S., Oh, B.-I., & Kim, Y.-J. (2018). Distinct neural coding schemes of anterior and posterior brain regions in forming cluster representations in visual working memory. The Society for Neuroscience. San Diego. CA.

5) Lee, W.-T., Jeong, E., & Kang, M.-S. (2018) Alpha band phase coherence modulation at right fronts-central region reflects a sustained proactive control mechanisms involved in a stop-signal task. The Society for Neuroscience. San Diego. CA. USA.
6) Yoon, H.-D., Kang, M.-S., & Jeon, H.-A. (2018) The critical role of interference control during novel metaphor comprehension. Society for the Neurobiology of Language, Québec City, Canada.
7) Eo, K., Oliver J., Son, S., Kang, M.-S., Chong S.C., Kim, Y.-J. (2018) Representational dynamics of ensemble average of simultaneously presented objects. Meeting of the Vision Science Society, St. Pete Beach, FL.
8) Son, G., Oh, B.-I., Kang, M.-S., & Chong, S.C. (2018). Similarity-based clusters are the representational units of visual working memory. Meeting of the Vision Science Society, St. Pete Beach, FL.
9) Hong, S.-W., & Kang, M.-S. (2018). Contrast dependent brightness shift induced by contextual motion. Meeting of the Vision Science Society, St. Pete Beach, FL.
10) Kim, Y.-e. & Kang, M.-S. (2017). What happens if there is no test-phase in change detection tasks? Psychonomic Society. Vancouver, BC, Canada.
11) Kang, M.-S. (2017). Countermanding an executed action: an analysis of partial movements obtained from a stop-signal task. Psychonomic Society. Vancouver, BC, Canada.
12) Tark, K.-J., Kang, M.-S., Chong, S.C., & Shim, W.M. (2017). Neural representations of ensemble encoding for visual features in the early visual and frontoparietal cortex. The Society for Neuroscience. Washington, DC.
13) Kang, M.-S., & Song, H. (2017). Successful movement inhibition boosts the inhibition of distractors in visual working memory. Meeting of the Vision Science Society, St. Pete Beach, FL.
14) Kim, S., & Kang, M.-S., (2017). Target recognition is impaired by spatial attention deployed to its location during the retention interval. Meeting of the Vision Science Society, St. Pete Beach, FL.
15) Oh, B.-I., & Kang, M.-S. (2017). Time is needed for memory to be biased toward an ensemble average. Meeting of the Vision Science Society, St. Pete Beach, FL.
16) Hong, S.-W., & Kang, M.-S. (2017). Motion-induced orientation shift depending on orientation. Meeting of the Vision Science Society, St. Pete Beach, FL.
17) Kim, J., Kang, M.-S., & Lee, S.-H. (2016). The effects of task irrelevant information on dynamics of selective attention. The Society for Neuroscience. San Diego. CA.
18) Kang, M.-S., Kim, S., & Lee, K.-M. (2016). Failure in inhibiting eye movements in a cued probe-matching task. Meeting of the Vision Science Society, St. Pete Beach, FL.
19) Hong, S.-W., & Kang, M.-S. (2015). Motion-induced color appearance shift. The Society for Neuroscience. Chicago, IL.
20) Kim, J., Kang, M.-S., & Lee, S.-H. (2015). The effects of emotion on the dynamics of inhibitory cognitive control. Joint Conference of KSBNS & KSND. Daejun, Korea.

21) Kang, M.-S., & Choi, J. (2015). Retrieval-induced competition in short-term memory. Meeting of the Vision Science Society, St. Pete Beach, FL.
22) Fukuda, K., Kang, M.-S., & Woodman, G. (2015). Electrophysiology reveals distinct neural mechanisms for lateralized and spatially global visual working memory representations. Meeting of the Vision Science Society, St. Pete Beach, FL.
23) Eo, K., Cha, O., Kang, M.-S., & Chong, S.C. (2015). Attending away makes semantic information available during rivalry. Meeting of the Vision Science Society, St. Pete Beach, FL.
24) Kang, M.-S., Eo, K., Cha, O., & Chong, S.C. (2014). Inattention opens door for unconscious processing during continuous flash suppression. The Society for Neuroscience. Washington D.C.
25) Jung, Y., Kang, M.-S., & Chong, S.C. (2014). Effect of attention on the initiation of binocular rivalry. Meeting of the Vision Science Society, St. Pete Beach, FL.
26) Hong, S.-W., & Kang, M.-S. (2014). Temporal dynamics of brightness induction from motion in context. Meeting of the Vision Science Society, St. Pete Beach, FL.
27) Hong, S.-W., & Kang, M.-S. (2013). Large shift in color appearance induced by motion in context. Meeting of the Vision Science Society, Naples, FL.
28) Kang, M.-S., & Woodman, G.F. (2013). The CDA is insensitive to the involuntary, miniature gaze-shifts induced by number of items to remember. Meeting of the Vision Science Society, Naples, FL.
29) Kang, M.-S., & Woodman, G.F. (2012). Enhanced β and γ band phase coherence between hemispheres during visual working memory encoding. The Society for Neuroscience. New Orleans, LA.
30) Kang, M.-S., & Woodman, G.F. (2012). Visual working memory still contaminates perception. The Portland Working Memory Workshop. Portland, OR.
31) Hong, S.-W., & Kang, M.-S. (2012). Perceptual consequence of normalization revealed by a novel brightness illusion. Meeting of the Vision Science Society, Naples, FL.
32) Kang, M.-S., DiRaddo, A., Logan, G., & Woodman, G.F. (2011). Electrophysiological evidence for preparatory reconfiguration before voluntary-task switches but not cue-task switches. The Society for Neuroscience. Washington D.C.
33) Kang, M.-S., Blake, R., & Woodman, G.F. (2011). Semantic analysis does not occur in the absence of awareness during interocular suppression. Meeting of the Vision Science Society, Naples, FL.
34) Woodman, G.F., Arita, J.T., Pardo, D., Carlisle, N.B., Williams, M., & Kang, M.-S. (2010). Covert attentional selection in monkey and man: Bridging the gap reveals underlying neural circuitry. The Society for Neuroscience Annual Meeting. San Diego, CA.
35) Kang, M.-S., & Woodman, G.F. (2010). Interactions between motion perception and visual working memory. Meeting of the Vision Sciences Society, Naples, FL.

36) Woodman, G.F., Heitz, R.P., Cohen, J.Y., Arita, J.T., Kang, M.-S., & Schall, J. (2009). Covert attentional selection in monkey and man: Bridging the gap reveals underlying neural circuitry. Meeting of the Psychonomic Society, Boston, MA.
37) Kang, M.-S., & Blake, R. (2008). A novel technique for generating perceptual waves during binocular rivalry and binocular fusion. Meeting of the Vision Sciences Society, Naples, FL.
38) Woodman, G.F., Kang, M.-S., St. Clair, R., & Schall, J. (2008). Increases in gamma-band activity do not predict spatial working memory retention in macaque monkeys. Meeting of the Vision Sciences Society, Naples, FL.
39) Kang, M.-S., Schall, J.D., & Woodman, G.F. (2006). Electroencephalographic and local-field potential gamma band activity is not reliably observed during spatial working memory maintenance in macaque monkeys. The Society for Neuroscience. Atlanta, GA.
40) Woodman, G.F. Kang, M.-S., Sato, T., Thompson, K., & Schall, J.D. (2006). Visual search efficiency modulates the onset of response preparation: Neurophysiological evidence for discrete flow. The Society for Neuroscience. Atlanta, GA.
41) Emeric, E.E., Pouget, P., Leslie, M., Woodman, G.F., Kang, M.-S., & Schall, J.D. (2006). Anterior cingulate local field potential delta and theta frequency bands are modulated by countermanding errors. The Society for Neuroscience. Atlanta, GA.
42) Kang, M.-S., & Blake, R. (2006). How to enhance the incidence of stimulus rivalry. Meeting of the Vision Sciences Society, Sarasota, FL.
43) Woodman, G.F. Kang, M.-S., Rossi, A.F., & Schall, J.D. (2005). Comparative psychophysiology: Macaque event-related potentials reveal anticipatory and stimulus-evoked components similar to those observed in humans. The Society for Neuroscience, Washington, D.C.
44) Kang, M.-S., Blake, R., & Schall, J.D. (2004). What causes alternations during binocular rivalry? The Society for Neuroscience, San Diego, CA.

STUDENTS UNDER ADVICE

Master Student

1) Eun-Joo Jeong. 2018.03-2020.02. The impact of choice and its outcome on memory
2) Woo-Tek Lee. 2017.09-2019.08. Impact of task switching probability to active reconfiguration processes
3) Ye-eun Kim. 2017.03-2019.08. Fates of unattended information in visual memory
4) Sori Kim. 2014.09-2017.02. Does attention shift by dual task influence visual working memory?

AD-HOC REVIEWER

Acta Psychologica — Attention Perception & Psychophysics — Biological Psychology — Cognition — Cognition & Emotion — Consciousness & Cognition — Cognitive

Neurodynamics — European Journal of Neuroscience — Current Biology — International Journal of Psychophysiology — Journal of Cognitive Neuroscience — Journal of Experimental Psychology: Learning, Memory & Cognition — Journal of Experimental Psychology: Human Perception & Psychophysics — Journal of Neuroscience — Journal of Vision — Journal of Neurophysiology — Korean Journal of Cognitive & Biological Psychology — Korean Journal of Cognitive Sciences — Memory & Cognition — Nature Communications — Neuropsychologia — Perception — Psychonomic Bulletin & Review — Psychophysiology — PLoS ONE — Psychological Science — Vision Research

TEACHING EXPERIENCE

Undergraduate	- Brain and Mind (2013 - 2018) - Learning and Memory (2014) - Neuroscience of Human Behavior (2017, 2019) - Sensation and Perception (2013 - Present)
Graduate	- Advanced Experimental Psychology with lab (2014-2015) - Advanced Studies on Human Memory (2016, 2018) - Programming with Matlab (2014, 2016) - Seminars in Cognitive Neuroscience (2015, 2018)

SERVICES

2016.07-2018.06: Department Chair

2016.03-2019.02: Action editor for Korean Journal of Cognitive & Biological Psychology

2016.03-2019.02: Board member of Korean Society for Cognitive & Biological Psychology

2015.03-2017.02: Program organizer for Korean Society for Cognitive & Biological Psychology