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# Árni Gunnar Ásgeirsson

<b>Office Address</b> University of Akureyri Sólborg v. Norðurslóð 2 IS-600 Akureyri Iceland	<b>Address</b> Barmahlíð 55 IS-105 Reykjavík Iceland (+354) 766 3029
EDUCATION	
<i>Ph.D.</i> , Experimental Psychology University of Copenhagen, Denmark Thesis: A brief history of selection: Effects of repetition and reward on visual cognition	October 2014
Magister Scientiarum, Psychology University of Iceland, Reykjavík, Iceland Thesis: Accounting for priming in visual search	October 2010
Baccalaureus Artium, Psychology University of Iceland, Reykjavík, Iceland Thesis: Vernier acuity across the blind-spot and in the periphery (Icelandi	October 2007 c)
PROFESSIONAL EXPERIENCE	
University of Akureyri, Iceland Head of the Faculty of Psychology	2023 -
University of Akureyri, Iceland Dósent (Associate Professor; tenure from 1. jan, 2022)	August 2020 –
University of Akureyri, Iceland Lektor (Assistant Professor)	January 2017 – July 2020
Leiden University, The Netherlands Postdoctoral researcher	February 2015 – December 2016
Center for Visual Cognition, University of Copenhagen, Denmark Research Assistant	September 2014 – January 2015
Cognitive Neuroscience Research Unit, University of Aarhus, Denmark Research Assistant	May – July 2014
Department of Psychology, Aalborg University, Denmark External Lecturer.	February 2014 – June 2014

Department of Psychology, University of Copenhagen, Denmark Ph.d. student – At Center for Visual Cognition – Supervisor: Claus Bundesen	November 2010 – March 2014
Department of Nursing, University of Iceland Research Assistant	June – August 2010
Department of Psychology, University of Iceland Research Assistant	June – August 2009
Icelandic Web of Science (www.visindavefur.is) Freelance Researcher on Project: YOSCIWEB	March – May 2009
Research Institute for Pharmaceutical Outcomes and Policy, University of Icelo Project manager: Drug wastage in Iceland	and April – October 2008
City of Reykjavík Temporary department manager at Byggðarendi 6	March 2007– January 2008
University of Iceland Teaching Assistant	January 2007 –June 2010
National University Hospital of Iceland Employee at Laugarásvegur 71	May – September 2006

# PUBLICATIONS

Peer-reviewed publications:

- Khvostov, V., Ásgeirsson, Á.G. & Kristjánsson, Á. (submitted to Journal of Experimental Psychology: General). Explicit Access to Detailed Representations of Feature Distributions
- Iakovlev, A., Khvostov, V., Ásgeirsson, Á.G., Utochkin, I., Kristjánsson, Á. (in review at Attention, Perception & Psychophysics). Amplification from saliency affects explicit but not implicit ensemble representations
- Fuller, J.C.M, Kristjánsson, Á., Clarke, A., & Ásgeirsson, Á.G. (in review at Attention, Perception & Psychophysics). Continuous feature foraging: Modelling probabilistic attentional selection in vision with a generative model
- Mannix, T., Sørensen, T.A., Shepherdson, P. & Ásgeirsson, Á.G. (under revision). Synaesthetic colours do not facilitate pop-out, search rates or perceptual decision making. *Acta Psychologica*.
- Entzmann, L., Ásgeirsson, Á.G., & Kristjánsson, Á. (2025). How does color distribution learning affect goaldirected visuomotor behavior?. *Cognition, 254*, 106002. https://doi.org/10.1016/j.cognition.2024.106002
- Kristjánsson, Á. & Ásgeirsson, Á. G. (2021). The moment-by-moment attentional temperature: How do history effects influence attentional capture?, *Visual cognition*, 29, 583–586. https://doi.org/10.1080/-13506285.2021.1918809
- Ásgeirsson, Á. G. & Kristjánsson, Á. (2019). Attentional priming does not enable observers to ignore salient distractors, *Visual Cognition*, *27*, 595–608. https://doi.org/10.1080/13506285.2019.1657215
- Jonauskaite, D., Abdel-Khalek, A., Abu-Akel, A., Al-Rasheed, A.S., Antonietti, J-P., Ásgeirsson, Á.G., ..., Mohr, C. (2019). The sun is no fun without rain: Physical environments affect how we feel about yellow across 55 countries *Journal of Environmental Psychology*, *66*, a101350. https://doi.org/10.1016/j.jenvp.2019.101350

- Ásgeirsson, Á. G. & Nieuwenhuis, S. (2019). Effects of arousal on biased competition in attention and short-term memory. Attention, Perception & Psychophysics, 81, 1901 – 1912. https://doi.org/10.3758/s13414-019-01756-x
- Kristjánsson, Á. & Ásgeirsson, Á. G. (2019). Attentional priming: Recent insights and current controversies. *Current Opinion in Psychology*, *29*, 71–75, https://doi.org/10.1016/j.copsyc.2018.11.013
- Ásgeirsson, Á. G. & Nieuwenhuis, S. (2017). No arousal-biased competition in focused visuospatial attention. *Cognition*, 168,191–204. https://doi.org/10.1016/j.cognition.2017.07.001.
- Ásgeirsson, Á. G., Nordfang, M. & Sørensen, T. A. (2015). Components of attention in grapheme-color synesthesia: A modeling approach. *PLOS One*, *10*(*8*), 1–19. https://doi.org/10.1371/journal.pone.0134456.
- Ásgeirsson, Á. G., Kristjánsson, Á. & Bundesen, C. (2015). Repetition priming in selective attention: A TVA analysis. Acta Psychologica, 160, 35–62. https://doi.org/10.1016/j.actpsy.2015.06.008.
- Ásgeirsson, Á. G. & Kristjánsson, Á. (2014). Random reward priming is task-contingent: The robustness of the 1-trial reward priming effect. Frontiers in Psychology. 5:309, 1–10. https://doi.org/10.3389/fpsyg.2014.00309.
- Ásgeirsson, Á. G., Kristjánsson, Á. & Bundesen, C. (2014). Independent priming of location and color in identification of briefly presented letters. *Attention, Perception & Psychophysics.* 76, 40–48. https://doi.org/10.3758/s13414-013-0546-6
- Jóhannesson, Ó. I., Ásgeirsson, Á. G. & Kristjánsson, Á. (2012). Saccade performance in the nasal and temporal hemifields. *Experimental Brain Research*. 219, 107–120. https://doi.org/10.1007/s00221-012-3071-2
- Ásgeirsson, Á. G. & Kristjánsson, Á. (2011). Episodic retrieval and feature facilitation in intertrial priming of visual search. Attention, Perception & Psychophysics. 73, 1350–1360. https://doi.org/10.3758/s13414-011-0119-5

Book chapters:

- Ásgeirsson, Á.G. (2022). Perceptuel hukommelse og priming. In Sørensen, T.A., Gjedde, A. & Rasmussen, R.S. (Eds.). Hjernen og hukommelsen. Hjerneforum.

Published abstracts:

- Khvostov, V., Ásgeirsson, Á.G., & Kristjánsson, Á. (2024). Does selective attention utilize physical feature values or perceptual interpretations? *Journal of Vision, 24, 547.*
- Entzmann, L., Kristjánsson, Á., Baldvinson, J., & Ásgeirsson, Á.G. (2024). Color distribution learning modulates saccade endpoints: a study of the global effect. *Journal of Vision, 24, 515*.
- Khvostov, V., Ásgeirsson, Á.G., & Kristjánsson, Á. (2023). Are attentional templates based on physical feature values or perceptual interpretations?. *Journal of Vision* 23(9), 5136. https://doi.org/10.1167/jov.23.9.5136.
- Entzmann, L., Ásgeirsson, Á.G. , & Árni Kristjánsson. (2023). How does color distribution learning affect oculomotor selection? *Journal of Vision 2023;23(9)*5087. https://doi.org/10.1167/jov.23.9.5087
- Ásgeirsson, Á.G. & Kristjánsson, Á. (2019). No feature-based attention in additional singleton search. *Perception, 48(2S), 47–48.*
- Ásgeirsson, Á. G., Barckmann, C., Þórudóttir, S., & Jóhannesdóttir Petersen, M. (2018). Flexible visual memory coding revealed by probing method. *Journal of Vision*, 18, 829–829. https://doi.org/10.1167/18.10.829
- Ásgeirsson, Á., & Nieuwenhuis, S. (2017). No arousal-biased competition in visuospatial attention. *Journal of Vision*, 17, 961–961. https://doi.org/10.1167/17.10.961
- Ásgeirsson, Á. G. & Nieuwenhuis, S. (2016). Arousing brute force and alerting selectivity in visual attention. *Journal of Vision*, *16*, 1022–1022. https://doi.org/10.1167/16.12.1022

- Sørensen, T. A., Nordfang, M., & Ásgeirsson, Á. G. (2016). Gradual consolidation of synesthesia during adolescence: a case study. *Journal of Vision*, *16*, 460–460. https://doi.org/10.1167/16.12.460.
- Sørensen, T. A., Nordfang, M., & Ásgeirsson, Á. G. (2015). Synesthesia induced colors do not bias attention in the same manners as physical colors do. Journal of Vision, 15, 66–66. https://doi.org/10.1167/15.12.66
- Ásgeirsson, Á.G., Kristjánsson, Á., Einarsdóttir, K.V. & Bundesen, C. (2014). The color of money: Valuedriven selectivity enhancements. *Journal of Vision, 14,* 499–499. https://doi.org/10.1167/14.10.499
- Sørensen, T.A., Ásgeirsson, Á.G., Staugaard, C.F. & Overgaard, M.S (2014). Dissociating Contents of Consciousness from Contents of Short-Term Memory *Journal of Vision*, 14, 1382. https://doi.org/10.1167/14.10.1382
- Sørensen, T. A., Nordfang, M., Pedersen, M. N., Overgaard, M. S., & Ásgeirsson, Á. G. (2013). Components of Attention in Synesthesia. *Journal of Vision*, *13*, 1328-1328. https://doi.org/10.1167/13.9.1328
- Asgeirsson, A., & Kristjansson, A. (2013). When actions have no consequences: Rewards in visual search and the role of contingencies. *Journal of Vision*, 13, 898-898. https://doi.org/10.1167/13.9.898
- Ásgeirsson, Á., Kyllingsbæk, S., Kristjánsson, Á., & Bundesen, C. (2012). The weight of the visual world is modified by recent experience: Modeling repetition priming in a partial report task. *Journal of Vision*, 12, 931–931. https://doi.org/10.1167/12.9.931
- Ásgeirsson, Á., Kristjánsson, Á., Kyllingsbæk, S., Hrólfsdóttir, K., Hafþórsdóttir, H. & Bundesen C. (2011).
  Position priming in briefly presented search arrays. *Perception*, 40, (ECVP Abstract Supplement), 109.
- Kristjansson A, Johannesson O & Asgeirsson A. (2011). Saccadic asymmetries in response to temporal versus nasal trigger stimuli depends upon attentional demands. *Perception, 40,* (ECVP Abstract Supplement), 150.
- Ásgeirsson, Á., Aurich, M., & Kristjánsson, Á. (2010). Independent and additive effects of repetition of target and distractor sets in active visual search. *Journal of Vision*, 10, 1288. https://doi.org/10.1167/10.7.1288
- Almarsdóttir, A.B., & Ásgeirsson, Á.G. (2009). Unused Drugs in Iceland-Value of and Reasons for Disposal. In *Pharmacoepidemiology and Drug Safety, 18, S231–S232.*
- Ásgeirsson Á.G. & Kristjánsson Á, (2008). Episodic retrieval accounts of priming in visual search explain only a limited subset of findings on priming. *Perception, 37*, (ECVP Abstract Supplement), 93.

Other publications:

- Sørensen, T.A., & Ásgeirsson, Á.G. (2013). Sanseoplevelser i Hjernen-Synæstesi. Psykologisk Set, 30, 23–29.
- Ásgeirsson, Á.G. & Almarsdóttir, A.B. (2008). Sóun lyfja á Ísland (Drug wastage in Iceland). Report written for Research Institute for Pharmaceutical Outcomes and Policy.
- Ásgeirsson, Á.G. & Kristjánsson, Á. (2008) Episodic retrieval accounts of priming in visual search explain only a limited subset of findings on priming. In Jóhannesson, G.Þ. & Björnsdóttir, H. Rannsóknir í Félagsvísindum IX: Félags– og Mannvísindadeild, Félagsráðgjafardeild, Sálfræðideild og Stjórnmálaf-ræðideild. Reykjavík: Author.

Presentations without publication:

- *Verkaskipting á íslenskum heimilum.* (June, 2023). Presented at the conference *Íslenska Þjóðfélagið,* Akureyri, Iceland.
- No synesthetic pop–out in visual search: another nail in the coffin of the superpower hypothesis. (June, 2021). Presented at the Second Icelandic Vision Lab summer symposium, Laugarvatn, Iceland.
- No feature-based attention in additional singleton search. (August, 2019). Presented at the European Conference on Visual Perception, Leuven, Belgium.

- A visual and cognitive examination of the SET card game. (March, 2019). Presented at the 2nd Icelandic Vision lab meeting, Stykkishólmur, Iceland.
- *Revisiting the lack of top-down control of feature-based attention.* (October, 2018). Presented at the 1st Icelandic Vision Lab meeting, University of Akureyri, Akureyri, Iceland.
- *Synesthesia guided attention.* (December, 2017). Presented at the Symposium on Synaesthesia, Expertise and Multisensory Perception, Sino-Danish Center, Beijing, China
- A new online screening tool for grapheme-color synesthesia. (December, 2017). Presented at the Symposium on Synaesthesia, Expertise and Multisensory Perception, Sino-Danish Center, Beijing, China
- Failure to replicate arousal-biased competition in divided visuospatial attention. (August, 2016). Presented at JASP workshop, University of Amsterdam, Netherlands.
- Visual selectivity is not enhanced by arousal. (December, 2015). Presented at NVP Winter Congress, Egmond aan See, Netherlands.
- *Components of attention in synesthesia congruent processing.* (February, 2014). Presented at Synaesthesia in Perspective: Development, Networks, and Multisensory Processing, Hamburg, Germany.
- When actions have no consequences. (October 2013). Presented at Rovereto Attention Workshop, Rovereto, Italy.
- TVA-based studies of priming in visual search. (June 2012). Presented at The Meeting of the iTVA network, Copenhagen, Denmark.
- Eftirtekt of augnhreyfingar: Áhrif af endurtekinni birtingu áreita í sjónleit. (April 2010). Presented at the Annual meeting of the Icelandic Psychological Association.

#### **TEACHING EXPERIENCE**

#### University of Akureyri

- Advanced Research Methods in Psychology (MS level) 2022, 2024 (lecturer)
- Cognitive Psychology 2017, 2018, 2019, 2020 (Coordinator and primary lecturer)
- Cognitive Neuroscience 2017, 2018 (Coordinator and primary lecturer)
- Experimental Psychology 2017, 2018 spring, 2018 fall, 2019, 2020, 2022, 2023, 2024 (Coordinator and primary lecturer)
- Foundations of Psychology 2024 (lecturer)
- Foundations of Statistical Analysis 2023, 2024 (coordinator and lecturer)
- General Psychology 2019, 2020 (lecturer)
- Research Methods and Statistical Analysis 2020 (coordinator and primary lecturer)
- Sensation and Perception 2020, 2022 (coordinator and primary lecturer)
- Coordinator of psychology BA project administration (2017–2018, 2019–2021)
- Bachelor's Project Supervisor (19 projects, 2017-2024)
- MA project co-supervisor (student: Guðný Guðlaugsdóttir; Dept. education)

#### Leiden University

– International Bachelor's Project supervisor (2 projects)

## **University of Aalborg**

- Co-supervisor of phd student Thea Mannix (2019 )
- Experimental Psychology 2014 (Primary lecturer)
- Introduction to Experimental Psychology 2014 (Primary lecturer)

# **University of Copenhagen**

- Statistics 2011 (SPSS-statistics tutor; lectures and exercise sessions)

## **University of Iceland**

- Academic supervisor of Jennifer Magerl (2023 )
- PhD co-supervisor of Aleksei Iakovlev (graduated; 2023 2024)
- Co-supervisor of post-doc Léa Entzmann (2023 2024)
- Co-supervisor of post-doc Vladislav Khvostov (2023 2024)
- Secondary advisor to 7 BSc. students at the dept. Psychology.
- History of Psychology 2012 (managed mandatory discussion groups)
- Perception and Cognition A 2012 (a single guest lecture)
- Perception and Cognition B 2010 (two lectures, managed discussion groups, lab tutor, report and exam grading)
- Methodology 2010 (SPSS-statistics tutor; lectures, exercises, examination and grading)
- Perception and Cognition B 2009 (two lectures, managing discussion groups, lab tutoring, grading)
- Methodology 2009 (SPSS-statistics tutor; lectures, exercises, examination and grading)
- Perception and Cognition B 2008 (managed discussion groups, lab tutor, report grading)
- Introduction to Psychology 2007 (grading, managed discussions and revision sessions)
- Explaining Behavior 2007 (technical assistance, examination and grading)
- Perception and Cognition A 2007 (lab tutor, grading)

## **TECHNICAL SKILLS**

- Data analysis and programming: R, Rstudio, Matlab, Excel, JASP, JAMOVI, Python, SPSS.
- Text editing: LTFX, Overleaf, MS word, Rmarkdown/Quarto.
- Referencing: BibT<sub>E</sub>X, Zotero, Papers, Mendeley.
- Experimental programming: PsychToolbox, E-prime, OpenSesame, PsychoPy/Pavlovia.
- Research Tools: EyeLink 1000, CRS High Speed Eyetracker, Tobii, BioSemi EEG, BrainAmp EEG, CRS bits++/bits# stimulus processors, CRS ColorCalII.
- Teaching: Canvas, moodle, panopto, piazza, ugla
- Communication: Teams, Canvas, zoom
- Admin: ugla, kolur, orri, Pure RIS, orcid

## **PEER-REVIEW** for

#### Journals:

- Attention, Perception & Psychophysics
- Behavioural Research Methods
- Cognitive Neuroscience
- Journal of Cognitive Psychology
- Journal of Experimental Psychology: General
- Journal of Experimental Psychology: Human Perception and Performance
- Journal of Experimental Psychology: Learning, Memory and Cognition
- Netla veftímarit um uppeldi og menntun
- Perception
- PLoS One
- Psychological Reports

# Funding agencies:

– RANNÍS - The Icelandic Centre for Research

# GRANTS

- 2022 RANNÍS: Icelandic Research Fund. Project: Probabilistic Attentional Selection (estimated 3 years). Joint application with Árni Kristjánsson, University of Iceland.
   ISK 20.820.000.- (per annum)
- 2002 University of Akureyri Research Centre
- 2018 RANNÍS: Infrastructure fund. Grant to purchase BrainAmp EEG equipment. ISK 2,666,000.-

ISK 700.000.-

- 2017 Icelandic Student Innovation Fund. Grant to hire a student for the Development of an application to register grapheme-color associations in synesthesia
   ISK 699.000.-
- 2017 Startup grant for the Perception and Performance Lab at the University of Akureyri. Funding agency: University of Akureyri Research Centre
  ISK 401.000.-
- 2016 Co-applicant, Project: Synaesthesia the Roles of Association Learning and of Differential Brain Development. Funding agency: Det Frie Forskingsråd
   DKK 6.355.713.-
- 2013 Co-applicant, The Synesthesia Project. Grant to start synesthesia research at the University of Copenhagen. Funding agency: Kristian Holt-Hansen fonden
   DKK 70.000.-

# **EXTERNAL EXAMINATIONS**

- 2017 present University of Iceland: Examiner of MSc./cand.psych dissertations
- 2021 HSE University, Moscow: Examiner of MSc. thesis

## **MEMBERSHIPS**

Co-Principal Investigator at the Icelandic Vision Lab (www.visionlab.is) Centre for Cognitive Neuroscience, Aalborg University Vision Sciences Society Founding Member of Icelandic Society for Neuroscience iTVA Network The Synesthesia Project (www.synesthesiaproject.wordpress.com)

## PRIMARY ACADEMIC INTERESTS

visual perception, visual cognition and attention, synesthesia, arousal and attention, visual memory, cognitive modeling, task history effects, experimental methodology, visual imagery