



## Seda Dural, Ph. D.

Professor of Experimental Psychology

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*Understanding the underlying mechanisms of behavior and discovering how the mind works have always been a priority in my research. I am particularly interested in innate and acquired aspects of number-space associations. In the same vein, I also find it quite exciting to work through how learning and memory processes are involved in forming these associations.*

### Academic Appointments

Professor	İzmir University of Economics <i>Department of Psychology</i>	2019 -
Associate Professor	İzmir University of Economics <i>Department of Psychology</i>	2013 - 2019
Assistant Professor	İzmir University of Economics <i>Department of Psychology</i>	2011 - 2013
Assistant Professor	İzmir University <i>Department of Psychology</i>	2010 - 2011
Research Assistant	Ege University <i>Department of Psychology</i>	2005 - 2010
Research Assistant	Muğla University <i>Department of Psychology</i>	2001 - 2005

### Education and Training

Postdoctoral Research	Ruhr University <i>Advisor: Professor Onur Güntürkün</i>	2015 - 2016
Ph.D. (Psychometrics)	Ege University <i>Advisor: Professor Oya Somer</i>	2005 - 2010
M.A. (Experimental Psychology)	Muğla University <i>Advisor: Professor Hakan Çetinkaya</i>	2001 - 2005
B.Sc. (Psychology)	Hacettepe University	1997 - 2001

### Awards and Honors

Outstanding Young Scientists Award	<i>Turkish Academy of Sciences</i>	2019
Overseas Experience Scholarship (Ruhr University)	<i>İzmir University of Economics</i>	2015

Erasmus Visiting Researcher Grant (Ruhr University)	<i>İzmir University of Economics</i>	2013
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### **Funding / Research Support (Principal Investigator or Co-Investigator)**

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İzmir University of Economics Scientific Research Project Grant (BAP2023-03) <i>Title: Time Dependent Effects of MNL Compatible and Incompatible Stimulus-Response Relations on Magnitude Space Associations</i> <i>Role: PI</i> <i>Co-Investigator: Ezgi Palaz</i>	2023 - 2024
Turkish Academy of Sciences Grant (GEBIP2019) (Outstanding Young Scientists Program) <i>Title: A Memory Model for Magnitude-Space Associations</i> <i>Role: PI</i> <i>Research Assistants: Merve Bulut, Ilgün Hepdarcı, Ezgi Palaz</i>	2019-2023
The Scientific and Technological Research Council of Türkiye (120K778) (1002-Short Term R&D Funding Program) <i>Title: An Investigation of The SNARC and SNARC-Like Effects: Time-Dependent Effects of Compatible and Incompatible Stimulus-Response Practice</i> <i>Role: PI</i> <i>Co-Investigator: Merve Bulut</i>	2021-2022
İzmir University of Economics Scientific Research Project Grant (BAP2019-15) <i>Title: An Investigation of Space-Size Association in the Context of Long-Term Memory Representations</i> <i>Role: PI</i> <i>Co-Investigators: Hakan Çetinkaya, Seda Can</i> <i>Research Assistants: Merve Bulut, Ilgün Hepdarcı, Ezgi Palaz</i>	2020 - 2022
The Scientific and Technological Research Council of Türkiye (111K258) (3501-Career Development Program) <i>Title: The Investigation of Effects of Stimulus Modality on the Non-Invasive Prevention of the Return of Fear Memory</i> <i>Role: PI</i> <i>Consulting: Hakan Çetinkaya</i>	2011 - 2013
The Scientific and Technological Research Council of Türkiye (111K233) (1001-The Scientific and Technological Research Projects Funding Program) <i>Title: Investigation of Personality Traits in Acquisition and Extinction of Trauma Expectation by Using Conditioned Stimuli of Different Modalities in an Instructed Fear Paradigm</i> <i>Role: Co-Investigator</i> <i>PI: Hakan Çetinkaya</i>	2011-2013

### **Other Grants (Consulting or Minor Role)**

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The Scientific and Technological Research Council of Türkiye (114K213) (3501-Career Development Program)	2014-2016
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*Title: Exploring the Design Criteria of Low-Cost Motor Learning Game Systems*

*Role: Consulting*

*PI: Gazihan Alankuş*

## **Manuscripts in Progress**

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- Gelbart, B., Conroy-Beam, D., Walter, K., et al. (under preparation) Culturally variable or culturally invariant? Jealousy across 37 cultures.
- Kowal, M., et al. (under preparation) Cross-cultural data on romantic love, mate preferences, and physical attractiveness from 119,247 participants.
- Kaya, C., Candemir, A., Kaya, D., Cetinkaya, H., & Dural, S. (under preparation) Investigating no SNARC: Do reading habits provide insight into the SNARC patterns of Turkish sample?
- Grigoryev, D., Gallyamova, A., Komyaginskaya, E., et al., (under preparation) Sociosexual orientation, life history strategy, and reproductive success: A large-scale cross-cultural analysis across 92 contemporary societies.
- Zerhouni, O., Lalot, F., Gallyamova, A., et al. (under review) Environmental harshness and sexual behavior: A multi-country comparison. *Nature Human Behavior*. Submission ID: NATHUMBEHAV-24103913.
- Pfuhl, G., Prazeres, F., Kowal, M., et al. (under review) A preliminary study on the role of personal history of infectious and parasitic diseases on self-reported health across countries. *Pathogens and Disease*. Submission ID: PAD-24-07-0060.
- Kowal, M., Bode, A., Koszalkowska, K., et al. (under review) Love as a commitment device: Evidence from a cross-cultural study across 90 Countries. *Nature Human Behavior*. Submission ID: NATHUMBEHAV-24103913.
- Palaz, E., Cetinkaya, H., & Dural, S. (under review) Representational context modulates the direction and transiency of practice effects on SNARC. *Quarterly Journal of Experimental Psychology*. Submission ID: QJE-STD-24-248.
- Hepdarcıan I., Korkut, I., Gur, E., Cetinkaya H., & Dural S. (under review) Revisiting the SNARC effect: Testing magnitude classification in a Turkish sample typically lacking the SNARC effect. *Journal of Cognitive Psychology*. Submission ID: JCP-247637866.
- Kowal, M., Sorokowski, P., Roberts, C., et al. (under review) Predictors of romantic love experiences across a multitude of nationally representative samples. *Journal of Personality and Social Psychology*. Submission ID: IRGP-c4895e0e5d1f7660.
- Kowal, M., Al-Shawaf, L., Varella, M. A. C., et al. (under review) Insights on the importance of physical attractiveness: Two-step cluster analysis on data from 93 countries. *Scandinavian Journal of Psychology*. Submission ID: JOEP-D-23-00246.
- Gelbart B., Walter K. V., Conroy-Beam D., et al. (under review) The function of love: Assessing commitment device and relationship maintenance hypotheses of romantic love. *Evolution and Human Behavior*. Submission ID: EVOLHUMBEHAV-D-23-00184.
- Hepdarcıan I., Cetinkaya H., & Dural S. (in press) Magnitude-space representations in the n-back task: Long-term representations of magnitudes alter the working memory performance. *Memory & Cognition*. Submission ID: MC-ORIG-23-364.

Bulut, M., Çetinkaya, H., & Dural, S. (in press) SNARC effect in a transfer paradigm: Long lasting effects of S-R compatibility practices. *Psychological Research*. Submission ID: 9d618795-b4cd-4be2-af8c-6e1e7f129f9a.

## Peer-Reviewed Publications

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Palaz, E., Çetinkaya, H., Tuncali, Z., Kamar, B., & Dural, S. (2024) Practice-induced SNARC: Evidence from a null-SNARC sample. *Cognitive Processing*. DOI: 10.1007/s10339-024-01198-w.

Mesko, N., Kowal, M., Lang, A. D., et al. (2024) Exploring attitudes toward "sugar relationships" across 87 countries: A global perspective on exchanges of resources for sex and companionship. *Archives of Sexual Behavior*. DOI: 10.1007/s10508-023-02724-1.

Groyecka-Bernard, A., Sorokowski, P., Karwowski, M., et al. (2024) Conservatism negatively predicts creativity: A study across 28 countries. *Journal of Cross-Cultural Psychology*. DOI: 10.1177/00220221241238321.

Kowal, M., Sorokowski, P., Dinic, B. M., et al. (2024) Validation of the short version (TLS-15) of the Triangular Love Scale (TLS-45) across 37 languages. *Archives of Sexual Behavior*. DOI: 10.1007/s10508-023-02702-7.

Croy, I., Heller, C., Akello, G., et al. (2024) COVID-19 and social distancing: A cross-cultural study of interpersonal distance preferences and touch behaviors before and during the pandemic. *Cross-Cultural Research*. DOI: 10.1177/10693971231174935.

Bulut, M., Hepdarcı, I., Palaz, E., Çetinkaya, H., & Dural, S. (2023) No SNARC effect among left-to-right readers: Evidence from Turkish sample. *Advances in Cognitive Psychology*. DOI: 10.5709/acp-0394-x.

Sorokowska, A., Kowal, M., Saluja, S., et al. (2023) Love and affectionate touch toward romantic partners all over the World. *Nature: Scientific Reports*. DOI: 10.1038/s41598-023-31502-1.

Sorokowski, P., Kowal, M., Sternberg, R., et al. (2023) Modernization, collectivism, and gender equality predict love experiences in 45 countries. *Nature: Scientific Reports*. DOI: 10.1038/s41598-022-26663-4.

Kowal, M., Sorokowski, P., Pisanski, K., et al. (2022) Predictors of enhancing human physical attractiveness: Data from 93 countries. *Evolution and Human Behavior*. DOI: 10.1016/j.evolhumbehav.2022.08.003.

Dural, S., Gur, E., & Çetinkaya, H. (2022) Testing the memory reconsolidation hypothesis in a fear extinction paradigm: The effects of ecological and arbitrary stimuli. *Learning and Behavior*. DOI: 10.3758/s13420-022-00536-2.

Burkova, V. N., Butovskaya, M. L., Randall, A. K., et al. (2022) Factors associated with highest symptoms of anxiety during COVID-19: Cross-cultural study of 23 countries. *Frontiers in Psychology*. DOI: 10.3389/fpsyg.2022.805586.

Walter, K. V., Conroy-Beam, D., Buss, D. M., et al. (2021) Sex differences in human mate preferences vary across sex ratios. *Proceedings of the Royal Society B: Biological Science*. DOI: 10.1098/rspb.2021.1115.

Butovskaya, M. L., Burkova, V. N., Randall, A. K., et al. (2021) Cross-cultural perspectives on the role of empathy during COVID-19's first wave. *Sustainability*. DOI: 10.3390/su13137431.

Sorokowska, A., Saluja, S., Sorokowski, P., et al. (2021) Affective interpersonal touch in close relationships: A cross-cultural perspective. *Personality and Social Psychology Bulletin*. DOI: 10.1177/0146167220988373.

Burkova, V. N., Butovskaya, M. L., Randall, A. K., et al. (2021) Predictors of anxiety in the COVID-19 pandemic from a

global perspective: Data from 23 countries. *Sustainability*. DOI: 10.3390/su13074017.

- Hepdarcı, I., Bulut, M., Palaz, E., Can, S., & Dural, S. (2021) The distance effect on discrimination ability and response bias during magnitude comparison in a go/no-go task. *Attention, Perception & Psychophysics*. DOI: 10.3758/s13414-021-02274-5.
- Sorokowski, P., Sorokowska, A., Karwowski, M., et al. (2020) Universality of the triangular theory of love: Adaptation and psychometric properties of the triangular love scale in 25 countries. *The Journal of Sex Research*. DOI: 10.1080/00224499.2020.1787318.
- Dobrowolska, M., Groyecka-Bernard, A., Sorokowski, P., et al. (2020) Global perspective on marital satisfaction. *Sustainability*. DOI:10.3390/su12218817.
- Kowal, M., Sorokowski, P., Sorokowska, A., et al. (2020) Reasons for Facebook usage: Data from 46 countries. *Frontiers in Psychology*. DOI: 10.3389/fpsyg.2020.00711.
- Walter, K. V., Conroy-Beam, D., Buss, D. M., et al. (2020) Sex differences in mate preferences across 45 countries: A large-scale replication. *Psychological Science*. DOI: 10.1177/0956797620904154.
- Conroy-Beam D., Buss D.M., Asao K., et al. (2019) Contrasting computational models of mate preference integration across 45 countries. *Nature: Scientific Reports*. DOI: 10.1038/s41598-019-52748-8.
- Conroy-Beam, D., Roney, J. R., Lukaszewski, A. W. et al. (2019) Assortative mating and the evolution of desirability covariation. *Evolution and Human Behavior*. DOI: 10.1016/j.evolhumbehav.2019.06.003.
- Dural, S., Burhanoglu, B. B., Ekinci, N., Gurbuz, E., Akın, İ. U., Can, S., & Cetinkaya, H. (2018) Compatibility between physical stimulus size-spatial position and false recognitions. *Frontiers in Psychology*. DOI: 10.3389/fpsyg.2018.01457.
- Sorokowska, A., Groyecka, A., Karwowski, M. et al. (2018) Global study of social odor awareness. *Chemical Senses*. DOI: 10.1093/chemse/bjy038.
- Sorokowski, P., Randall, A. K., Groyecka, A., et al. (2017) Marital satisfaction, sex, age, marriage duration, religion, number of children, economic status, education, and collectivistic values: Data from 33 countries. *Frontiers in Psychology*. DOI: 10.3389/fpsyg.2017.01199.
- Sorokowska, A., Sorokowski, P., Hilpert, P., et al. (2017) Preferred interpersonal distance: A global comparative analysis. *Journal of Cross-Cultural Psychology*. DOI: 10.1177/0022022117698039.
- Dural, S., Cetinkaya, H., & Gunturkun, O. (2017) Imagine a mouse and an elephant: Hemispheric asymmetries of imagination. *Laterality*. DOI: 10.1080/1357650X.2016.1200594.
- Hilpert, P., Randall, A. K., Sorokowski, P., et al. (2016) The associations of dyadic coping and relationship satisfaction vary between and within nations: A 35-Nation study. *Frontiers in Psychology*. DOI: 10.3389/fpsyg.2016.01106.
- Dural, S., Cetinkaya H., & Gulbetekin, E. (2015) Hemispheric specialization in the assessment of female physical attractiveness. *Laterality*. DOI: 10.1080/1357650X.2014.955503.
- Dural, S., Cetinkaya H., Can S., Kaya A. G., & Hunler, O. S. (2014) Examination of sex differences in the responses to heterosexual and homosexual infidelity. *Anatolian Journal of Psychiatry*. DOI: 10.5455/apd.39255.
- Gulbetekin, E., Iyilikci, O., Amado, S., Cetinkaya, H., & Dural, S. (2012) Hemispheric asymmetry in expression and

perception of happiness. *Türk Psikoloji Dergisi*. 27(70), 65-83.

Dural, S., Somer, O., Korkmaz, M., Can, S., & Öğretmen, T. (2011) Second order latent growth models and measurement equivalence. *Education and Science*. 36(161), 51-63.

Sorokowski, P., Szmajke, A., Sorokowska, A., et al. (2011) Attractiveness of leg length: Report from 27 nations. *Journal of Cross-Cultural Psychology*. DOI: 10.1177/0022022110392229.

Dural, S., Karaşar, A., & Çetinkaya, H. (2010) The effect of derogation strategies used by females in intrasexual competition on males' mate preferences. *Türk Psikoloji Dergisi*. 25(66), 101-116.

Çetinkaya, H., Dural, S., & Gülbetekin, E. (2010) Testing the concealed ovulation hypothesis in the framework of facial symmetry fluctuations moderated by menstrual cycle in women. *Türk Psikoloji Dergisi*. 25(66), 1-20.

Tok, S., Koyuncu, M., Dural, S., & Çatıkkaş, F. (2010) Evaluation of international affective picture system (IAPS) ratings in an athlete population and its relations to personality. *Personality and Individual Differences*. DOI: 10.1016/j.paid.2010.04.020.

Dural, S., Somer, O., Korkmaz, M., & Can, S. (2010) Latent growth models with multiple indicators. *Journal of Measurement and Evaluation in Education and Psychology*. 1(1), 29-36.

Dural, S., Somer, O., Korkmaz, M., Can, S., & Öğretmen, T. (2010) An analysis of change over time: Latent growth models. *Türk Psikoloji Dergisi*. 24(65), 1-15.

Somer, O., Korkmaz, M., Dural, S., & Can, S. (2009) Detection of measurement equivalence by structural equation modeling and item response theory. *Türk Psikoloji Dergisi*. 24(64), 61-75.

Gülbetekin, E., Güntürkün, O., Dural, S., & Çetinkaya, H. (2009) Visual asymmetries in Japanese quail (*Coturnix coturnix japonica*) retain a lifelong potential for plasticity. *Behavioral Neuroscience*. DOI: 10.1037/a0016406.

Dural, S., Çetinkaya, H., & Gülbetekin, E. (2008) The role of waist-to-hip ratio in evaluation of female physical attractiveness: Eye-tracker data. *Türk Psikoloji Dergisi*. 23(61), 75-91.

Gülbetekin, E., Güntürkün, O., Dural, S., & Çetinkaya, H. (2007) Asymmetry of visually-guided sexual behavior in adult Japanese quail (*Coturnix japonica*). *Laterality*. DOI: 10.1080/13576500701307080.

### **Selected Conference Presentations**

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Dural, S., Bulut, M., Palaz, E., & Gür, E. (2024) *Imagine a number line: Space-number associations from the SMART Lab perspective*. National Congress of Graduate Psychology Students, Antalya, Türkiye.

Dural, S., Palaz, E., & Çetinkaya, H. (2024) *How does practice under different representational contexts change SNAs over time?* 32nd International Congress of Psychology, Prague, Czech Republic.

Bulut, M. & Dural, S. (2022) *Time-dependent effect of compatible and incompatible practice on the SNARC effect in the context of spatial-numerical associations*. 21st National Congress of Psychology, İstanbul, Türkiye.

Bulut, M. & Dural, S. (2022) *Finger counting habit and its link with spatial-numerical associations in a Turkish sample*. 17th European Congress of Psychology, Ljubljana, Slovenia.

Dural, S., Bulut, M., Palaz, E., & Hepdarcı, I. (2021) *The distance effect in a response inhibition task*. 32nd International Congress of Psychology, Prague, Czech Republic.

Dural, S., Çetinkaya, H., & Can, S. (2018) *Biological roots of left-to-right-oriented mental line*. International Society for Comparative Psychology Biennial Meeting, Los Angeles, USA.

### **Invited Seminars, Talks & Colloquia**

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Acquired Fears and Phobias: Experimental Approach 2022  
*İzmir University of Economics (Psychology Club Talks)*

Magnitude-Space Association 2021  
*Hacettepe University (PSL702 Current Issues in Psychology Seminar)*

Magnitude-Space Congruency and False Memories 2018  
*İzmir University of Economics (Department of Psychology Seminar)*

Imagine an Elephant and a Mouse: The Visual Field Bias in Picturing 2016  
*Ruhr University (Biopsychology Research Colloquium)*

A Novel Approach to Extinction of Acquired Fear: Intervening to Reconsolidation  
Process of Fear Memory 2015  
*Dokuz Eylül University (Department of Psychology Seminar)*

Stimulus Modality Effects on Fear Memory Update Process 2013  
*İzmir University of Economics (Department of Psychology Seminar)*

### **Mentoring (Ph.D. students)**

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Merve Bulut *İzmir University of Economics* 2018- 2024

Ezgi Palaz *İzmir University of Economics* 2018- 2024

İlgım Hepdarcı *İzmir University of Economics* 2018 - 2024

### **Mentoring (Graduate students)**

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İrem Aydın *İzmir University of Economics* 2023 -

Zeynep Tuncalı *İzmir University of Economics* 2023 -

Ayşenur Candemir *İzmir University of Economics* 2023 -

İlayda Korkut *İzmir University of Economics* 2023 -

Elvin Naz Tunç *İzmir University of Economics* 2022 -

Sayyara Hasanlı *İzmir University of Economics* 2016- 2018

Beste İçağası *İzmir University of Economics* 2014- 2016

Ezgi Gür	<i>İzmir University of Economics</i>	2012 - 2014
Ayşegül Aydınlık	<i>İzmir University of Economics</i>	2011 - 2014

### **Mentoring (Undergraduate students)**

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Samet Kahraman	<i>İzmir University of Economics</i>	2023 -
Melike Şefikoğlu	<i>İzmir University of Economics</i>	2023 -
Şimal Yenigüllü	<i>İzmir University of Economics</i>	2023 -
Duru Kaya	<i>University College London</i>	2023 - 2024
Zeynep Tuncalı	<i>İzmir University of Economics</i>	2022 - 2024
Ceren Kaya	<i>İzmir University of Economics</i>	2021 - 2024
Emine Bengi Kamar	<i>İzmir University of Economics</i>	2021 - 2024
Büşra Elif Yelbuz	<i>İzmir University of Economics</i>	2016 - 2018

### **Mentoring (Other)**

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Beria S. Haugen	<i>University of Minnesota Twin-Cities</i>	2023 - 2024
Bengisu Alkan	<i>İzmir University of Economics</i>	2023
Ceyhun Yener	<i>Yaşar University</i>	2023
Eylül Hırlak	<i>Yaşar University</i>	2023

### **Dissertation Proposal Committees**

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Merve Bulut	<i>İzmir University of Economics</i>	2020
Ezgi Palaz	<i>İzmir University of Economics</i>	2020
Ilgım Hepdarcan	<i>İzmir University of Economics</i>	2020
Turan Gündüz	<i>Ankara University</i>	2019

### **Dissertation Defense Committees**

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Ezgi Palaz	<i>İzmir University of Economics</i>	2024
Merve Bulut	<i>İzmir University of Economics</i>	2024
Turan Gündüz	<i>Ankara University</i>	2023
Ömer Taha Sözer	<i>Aydın Adnan Menderes University</i>	2021
Yalçın Akın Duyan	<i>Koç University</i>	2019