

*Bhoomika R. Kar*

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**PERSONAL PARTICULARS**

Date of birth: April 10<sup>th</sup>, 1970.

Address (Home): 20 Spandan, DRDO residential Complex, Chauphatka, Prayagraj, 211001

Work Address: Centre of Behavioural and Cognitive Sciences, University of Allahabad, 211002

Phone: 9935974823

Email: [bhoomika@cbcs.ac.in](mailto:bhoomika@cbcs.ac.in)

Web page: <http://facweb.cbcs.ac.in/bkar>

**EDUCATION**

- **PhD (1998-2002) Department of Clinical Psychology**  
National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore
- **M.Phil. in Medical and Social Psychology (1993-1995)**  
Central Institute of Psychiatry (CIP), Ranchi
- **Masters in Psychology (1990-1992)**  
University of Lucknow, Lucknow

**FELLOWSHIPS**

1. UGC Junour/Senior Research Fellowship, awarded for eligibility for lecturership and research, 1997.
2. Olive Reddick award for Academic Excellence, IT College, Lucknow, 1990.
3. State Government (U.P) Scholarship awarded for academic excellence in high school (1985- 1987).

**WORK EXPERIENCE**

Head, Centre of Behavioural and Cognitive Sciences (CBCS), University of Allahabad, Allahabad, India (March 2018-current)

Adjunct Faculty, Cognitive Science Program, IIT Delhi (2020-current) (Taught a full course on Cognitive Neuroscience to MSc Cognitive Science students at IIT Delhi 2020 and 2021 batch)

Professor, Centre of Behavioural and Cognitive Sciences (CBCS), University of Allahabad, Allahabad, India (November 2015-current)

Associate Professor, Centre of Behavioural and Cognitive Sciences (CBCS), University of Allahabad, Allahabad, India (December 2011-October 2015)

Reader, Centre of Behavioural and Cognitive Sciences (CBCS), University of Allahabad, Allahabad, India (December 2008-November 2011)

Visiting faculty, Centre of Behavioural and Cognitive Sciences (CBCS), University of Allahabad, Allahabad, India (January 2004 – November 2008)

***Professional activities***

- Chairperson, Expert Committee of the DST-Cognitive Science Research Initiative for Postdoctoral fellowship (August 2021- current)
- Member, Advisory Board, School of Medical Sciences, University of Hyderabad (2021 to current)

- Member, Board of Studies, Cognitive Science program, Thapar School of Liberal Arts and Sciences, Thapar Institute of Engineering and Technology, (August 2021 to current)
- Associate Editor, Psychological studies
- Associate Editor, Psychology and Developing Societies
- Review editor, Frontiers in Aging Neuroscience, Frontiers in Psychology
- Co-ordinator, Allahabad regional Brain Bee Competition
- Member, Cognitive Psychology division, National Academy of Psychology, India

## **TEACHING**

### **Courses Taught (2003 to current)**

#### *Masters' programme in Cognitive Science*

- Introduction to Cognition
- **Principles of Neuroscience**
- Research Methods (Co-taught)
- Cognitive Neuroscience and Neuropsychology
- Learning and Memory
- Psycholinguistics
- **Cognitive Disorders**
- **Cognitive development**
- Thinking and Problem Solving (Co-taught)
- Special Topics in Cognitive Science: Emotions
- **Attention**

#### *Doctoral Programme*

- Methods in Cognitive Science (2011-current)
- Foundations in Cognitive Science (co-taught, 2015, 2016)

### **Doctoral Thesis (Supervision)**

#### *Awarded*

1. Dr. Rashmi Gupta, Diagnostic Markers of ADHD: A Cognitive Neuropsychological Approach
2. Dr. Tanya Dash, Mechanisms of the interaction between bilingualism and cognitive control
3. Dr. Jayprakash Singh, Anticipation and cognitive control among bilinguals
4. Dr. Yagyima Nehabala, Development of Conflict monitoring as a component of Cognitive and Affective Control

#### *Ongoing*

- Richa Nigam - "Cognitive Aging and Emotion Regulation" (Submitted)
- Garima Joshi - "Anxiety and Dynamic Adjustments in Cognitive Control"
- Ganga Tiwari- Development of Social Emotional Competence in Children
- Tripti Verma- A developmental study on flexible cognitive control
- Sanchita Mahendru- An fMRI study on Cognitive and affective ageing: A life span perspective

**Master thesis supervision** (supervised 47 dissertations, 2003-current)

**RESEARCH****Areas of Interest**

- Cognitive development (development of attentional processes, cognitive and affective control, cognitive aging and positivity bias/emotion regulation)
- Bilingualism and cognitive control
- Affective conflict adaptation
- Anxiety and cognitive control
- Cognitive disorders (Dyslexia, ADHD)

**Research Grants*****Projects (completed)***

1. Dynamic adjustments in cognitive control: EEG characterization of anxiety and its effect on the dual mechanism of cognitive control (2017-2021) funded by **Department of Science and Technology, (DST), Cognitive Science Research Initiative** (32 Lakhs)
2. Development and validation of a screening tool for learning disability (multicentre grant by DST led by NBRC, Manesar, under the Educational Neuroscience initiative of the **DST** (2013- 2015) (14 lakhs)
3. Neuro-cognitive mechanisms of conflict adaptation and affective control: A multimodal investigation (research grant awarded by the **DST** under the Cognitive Science Initiative, 2011) (12.24 lakhs)
4. Bilingualism and Cognitive control, under Cognitive Science research Initiative on “Language and Brain Organization in Normative Multilingualism” (funded by the **DST** under the Cognitive Science Initiative, 2009) (14 lakhs)

***Projects (ongoing)***

1. PI (July 2020 to current), Extensive Cognitive Neuroimaging, funded by the DST. National Neuroimaging Facility with a 3 Tesla MRI scanner has been established at CBCS, AU through this project.
2. PI (July 2020 to current), DST FIST grant

**Research Collaborations (2003-current)**

1. Michaela Riediger, Max Planck Institute for Human Development, Berlin
2. Dr. Ark Verma, IIT Kanpur
3. Prof. M. I. Posner, University of Oregon USA
4. Prof. Thomas Lachmann, University of Kaiserslautern, Germany
5. Prof. Nandini C. Singh, MGIEP, UNESCO, New Delhi, India

**PUBLICATIONS*****Journal papers***

1. Nigam, R. & Kar B. R. (2021). Conflict monitoring and adaptation to affective stimuli as a function of ageing. *Cognitive Processing*, *22*, 675-690. <https://doi.org/10.1007/s10339-021-01042-5>
2. Rao, C., Sumathi, T. A., Midha, R. Oberoi, G., Kar, B. R., Khan, M., Vaidya, K., Midya, V., Raman, N., Gajre, M., & Singh, N. C. (2021). Development and Standardization of the DALI-DAB (Dyslexia Assessment for Languages of India – Dyslexia Assessment Battery). *Annals of Dyslexia*. doi: 10.1007/s11881-021-00227-z

3. Joshi, G., Daksha, C. P., Pammi, V. S. C., & Kar, B. R. (2021, March 8<sup>th</sup>). Standardization and Convergent Validation of the State-Trait Anxiety Inventory with measures of Personality, Affective Control and, Risk Propensity. <https://doi.org/10.31234/osf.io/845bj>
4. Dash, T. & Kar, B. R. (2020). Behavioural and ERP correlates of bilingual language control and general-purpose inhibitory control predicted by L1 and L2 proficiency, *Journal of Neurolinguistics*, **56** doi.org/10.1016/j.jneuroling.2020.100914.
5. Kohli, N. & Kar, B. R. (2020). Ageing in Developing Societies: A Preamble. *Psychology and Developing Societies*. **32**. DOI: 10.1177/0971333620943411.
6. Nigam, R. Kar, B. R. (2020). Cognitive ageing in developing societies: An overview and a cross sectional study on young, middle-aged and older adults in Indian context. In the Special issue on Ageing in Developing Societies, *Psychology and Developing Societies*, <https://doi.org/10.1177/0971333620937511>
7. Nithin, T. H., Parihar, P., & Kar, B. R. (2020). Language Proficiency, sociolinguistic factors and inhibitory control. In the special issue on Cognitive Consequences of Bilingualism, *Journal of Cultural Cognitive Science*, **4** (2), DOI: [10.1007/s41809-020-00065-2](https://doi.org/10.1007/s41809-020-00065-2)
8. Kar, B. R., Nigam, R., Pammi, V.S.C., Gularia, A., & Srinivasan, N. (2019). Neuro-cognitive mechanisms of affective conflict adaptation: An event related fMRI study. *Progress in Brain Research, Emotion and Cognition*, **246**, Elsevier.
9. Singh, J. P. & Kar, B. R. (2018). Effect of language proficiency on proactive oculomotor control among bilinguals. *PLoS One*, doi.org/10.1371/journal.pone.0207904
10. Kar, B. R., Srinivasan, N., Nehabala, Y., & Nigam, R. (2018). Proactive and reactive control depends on emotional valence: A Stroop study with expressions and words. *Cognition and Emotion*, **32**(2): 325-340. DOI: 10.1080/02699931.2017.1304897
11. Kar, B. R. & Praveen, K.K. (2017). Working Memory and Executive Attention: Insights from Developmental Studies and Implications for Learning and Education. *Journal of Indian Institute of Science*. <https://doi.org/10.1007/s41745-017-0044-2>
12. Jain, S. & Kar, B. R. (2014). Effect of cognitive aging on working memory consolidation. *Psychological Studies*, **59**(4):383–393. DOI 10.1007/s12646-014-0276-4
13. Dash T. & Kar, B. R. (2014). Bilingual language control and general-purpose cognitive control among individuals with bilingual aphasia: Evidence based on negative priming and flanker tasks. *Behavioural Neurology*, **679706**. doi.org/10.1155/2014/679706
14. Khare, V., Verma, A., Kar, B. R., Srinivasan, N. & Brysbeart, M. (2013). Bilingualism and the increased attentional blink effect: Evidence that the difference between bilinguals and monolinguals generalizes to different levels of second language proficiency. *Psychological Research*, **77**, 728-737.
15. Gupta, R. & Kar, B. R. (2012). Attention and memory bias among currently depressed and remitted individuals. *Frontiers in Psychiatry*, **3**: 99.
16. Dash, T. & Kar, B. R. (2012). Characterizing language proficiency in Hindi and English: Implications for bilingual research. *International Journal of Mind Brain and Cognition*, **3**, 73–105.
17. Kar, B. R., Vijay, N., & Mishra, S. (2012). Development of cognitive and affective control networks and decision making. In V. S. Chandrasekhar Pammi and N. Srinivasan (Eds), Decision making: neural and behavioural approaches. *Progress in Brain Research*, **202**.
18. Kar, B. R., Rao, S. L., Chandramouli, B. A., & Thennarasu, K. (2011). Growth patterns of neuropsychological functions in Indian children. *Frontiers in Psychology*, **2**: 240. doi: 10.3389/fpsyg.2011.00240
19. Pal, A. K. & Kar, B. R. (2010). Auditory processing and phonological awareness among biliterate normally progressing readers and dyslexic readers. *International Journal of Mind Brain and Cognition*. **1**, 5-29
20. Gupta, R., Kar, B. R., & Srinivasan, N. (2011). Cognitive-Motivational Deficits in ADHD: Development of a Classification System. *Child Neuropsychology*, **17**(1), 67-81.

21. Kar, B. R., Rao, S. L., Chandramouli, B. A., Thennarasu, K., & Satishchandra, P. (2010). Neuropsychological lateralization of brain dysfunction in children with mesial temporal sclerosis: A presurgical evaluation. *Journal of Child Neurology*, *25* (6): 705-714.
22. Gupta R. & Kar, B. R. (2010). Specific Cognitive Deficits in ADHD: A Diagnostic Concern in Differential Diagnosis. *Journal of Child and Family Studies*, *19*, (6): 778-786.
23. Tripathi, N. & Kar, B. R. (2009). Simultaneous and successive processing in children with reading and writing difficulties. *Indian Journal of Clinical Psychology*, *36*, 83-93.
24. Gupta, R., Kar, B. R., & Srinivasan, N. (2009). Development of Task Switching and Error Monitoring in Children. *Behavioral and Brain functions*, *5*; 38.
25. Kar, B. R., Rao, S. L., Chandramouli, B. A., Thennarasu, K. (2009). Clinical Validation of the NIMHANS Neuropsychological Battery for Children. *Psychological Studies*, *53*, 271-277.
26. Gupta, R. & Kar, B. R. (2009). Development of attentional processes in children with ADHD and normally developing children. *Progress in Brain Research: Attention*, *Vol. 176*. Amsterdam: Elsevier.
27. Kar, B. R. & Rao, S. L. (2008). Cognitive development in children with chronic protein energy malnutrition. *Behavioural and Brain Functions*, *4*: 31.
28. Gupta, R. & Kar, B. R. (2008). Interpretative bias in individuals with unipolar depression. *German Journal of Psychiatry*, *11*, 98-102.
29. Khetrapal, N., Kar, B. R., & Srinivasan, N. (2008). Development of Visuospatial Working Memory: Role of load and task difficulty. *Psychological Studies*, *53*, 170-174.
30. Agarwal, S. & Kar, B. R. (2007). Neuropsychological deficits in children with dyslexia. *Indian Journal of Clinical Psychology*, *34*, 112-122.
31. Dash, T. & Kar, B. R. Voluntary orienting as a function L1 and L2 proficiency among Hindi- English bilinguals: Evidence based on the endogenous cueing paradigm (In preparation).
32. Nehabala, Y. & Kar, B. R. Developmental patterns of affect dependent proactive control in children and adolescents as a function of temperament and family expressivity. (In preparation)
33. Kar, B. R., Roy, D., Bolaram, A., Nigam, R., Gularia, A., Pammi, VSC, Srinivasan, N. Intrinsic functional connectivity in the brain and emotion localization. (In preparation)
34. Joshi, G. & Kar, B. R. Effect of levels of anxiety on cognitive control in the AX-CPT task
35. Nigam, R., Riediger, M., & Kar, B. R. Adult Age Differences in Day-to-Day Affective Experiences and Implicit Representation of Affect Valence: Evidence based on Experience Sampling and Implicit Association Tests in an Indian Context.

### **Book/ Test Development**

1. Tripathi, R. C., Kar, B. R., & Pande, N. (Editors) (In Press). Towards an Integrative Psychological Science: Issues, Approaches and Applications. Springer.
2. Kar, B. R. (Editor). (2013). Cognition and Brain Development: Converging evidences from various methodologies. Washington: American Psychological Association.
3. Srinivasan, N., Kar, B. R., & Pandey, J. (Eds.). (2010). *Advances in Cognitive Science: Volume 2*, Delhi: Sage Publications.
4. Kar, B. R., Rao, S. L., Chandramouli, B. A. & Thennarasu, K. (2004). *NIMHANS Neuropsychological Battery for Children- Manual*. Bangalore: NIMHANS publication division.

### **Book Chapters**

1. Kar, B. R. & Nigam, R. (In Press). Interaction between affect and cognition as a function of ageing: Testing the positivity bias in Indian population. In R. C. Tripathi, B. R. Kar, & N. Pande. (Eds). Towards an Integrative Psychological Science: Issues, Approaches and Applications. Springer.
2. Singh, N.C., Cherodath, S., Sumathi, T. A., Kosera, R., Currawala, K., Kar, B. R., Oberoi, G. Reading skills in children provided simultaneous instruction in two distinct writing systems – insights from

- behaviour and neuroimaging. In, Peer, L. and Reid, G. (Eds.) (2016). *Multilingualism, Literacy and Dyslexia – Breaking down barriers for educators* London: Routledge
3. Kar, B. R. & Srinivasan, N. (2013). Development of selection and control. In B. R. Kar (Ed), *Cognition and Brain Development: Converging evidences from various methodologies*. Washington: American Psychological Association.
  4. Kar B. R. (2013). Learning disability: Issues and concerns for social policy. In R. C. Tripathi and Yoganand Sinha (Eds), *Social Policy and Perspectives from Psychology*, Springer.
  5. Kar, B. R. & Kar, B. C. (2013). Cognitive assessment for the armed forces. In G. Kaur & M. K. Mandal, Pentagon Press.
  6. Kar, B. C. & Kar, B. R. (2013). Forensic neuropsychology: Mapping the link between brain and behaviour. In Y. K. Nagle, K. Srivastava, and A. Gupta, (Eds), *Handbook of Forensic Psychology*.
  7. Kar, B. R. (2012). Electrophysiological measurement: Insights about temporal dynamics of brain and cognition. In N. Srinivasan, P. N. Tandon, and R. C. Tripathi. Nova Science.
  8. Kar, B. R., Khare, V. & Dash, T. (2011). Bilingualism and Cognitive Control: Is bilingualism a Cognitive Advantage? In R. K. Mishra & N. Srinivasan, *Language and Cognition: State of the Art*. Munich: Lincom Europa.
  9. Posner, M. I. & Kar, B. R. (2010). Brain networks for attention and preparing for school subjects. In N. Srinivasan, B. R. Kar, & J. Pandey, (Eds). *Advances in Cognitive Science: Volume 2*. Delhi: Sage Publications.
  10. Kar, B. R. & Shukla, M. (2010). Effects of Remediation on Auditory Temporal Processing in dyslexia: An overview. In N. Srinivasan, B. R. Kar, & J. Pandey, (Eds). *Advances in Cognitive Science, Volume 2*. Delhi: Sage Publications.
  11. Kar, B. R. & Tripathi, N. (2008). Cognitive Profiles of Children with Dyslexia. In N. Srinivasan, A.K. Gupta, & J. Pandey, (Eds.). *Advances in Cognitive Science, Volume 1*, 341-354. Delhi: Sage Publications.
  12. Tripathi, N. & Kar, B. R. (2008). Teacher's perception of the learning related problems of children in school settings in Allahabad city. K. Thapa, G. Aalsvoort, & J. Pandey. (Eds.), *Perspectives on Learning Disabilities in India: Current Practices and Prospects*. Sage Publications, India.
  13. Gupta, R. & Kar, B. R. (2006). Specific cognitive dysfunction in children with Attention deficit hyperactivity disorder: An overview. In U. Kumar and S. Mukherjee (Eds). *Recent developments in Psychology*. New Delhi: DIPR.
  14. Shukla, M. & Kar, B. R. (2006). Neurophysiological correlates of remediation in dyslexia. In U. Kumar and S. Mukherjee (Eds). *Recent developments in Psychology*. New Delhi: DIPR.

#### **Published Abstracts**

1. Gupta, R., & Kar, B. R. (2008). Multiple Pathway Model: Predictor for Error Monitoring in ADHD. *Journal of International Neuropsychological Society*.
2. Gupta, R., & Kar, B. R. (2007). Cognitive Impairments as Diagnostic Markers for ADHD: An Overview. *Parkinsonism and Related Disorders*, 13, Supplement 2, S76.
3. Kar, B. R. (2007). Cognitive mechanisms of attention-emotion interaction. *Annals of Neurosciences* (Suppl.), 14, 54.
4. Khetrapal, N., Kar, B. R., & Srinivasan, N. (2007). Development of visuo-spatial working memory. *Annual Meeting of the International Neuropsychological Society*, Portland, USA.
5. Kar, B. R., Rao, S. L., Chandramouli, B. A., Thennarasu, K., & Satish Chandra P. (2006). Lateralized neuro-cognitive deficits in children with mesial temporal sclerosis. *Annals of Neurosciences* (Suppl.), 13, 57.

**PRESENTATIONS*****Invited Talks***

1. Kar, B. R. (2021). Is Bilingualism a special case of experience induced cognitive/ neuroplasticity? Keynote address at the Annual meeting of the Association for Cognitive Science (online), January 23-25, 2021.
2. Kar, B. R. Cognitive-Social-Emotional Competence: implications for education and learning. Refresher Course, UGC-HRDC, University of Allahabad, November 2021.
3. Kar, B. R & Joshi, G. (2019). Anxiety-cognition interactions. Symposium on Applications of Cognitive Psychology, Annual meeting of the National Academy of Psychology. Pondicherry University.
4. Kar, B. R. (2018). Proficiency as a continuous or categorical measure of bilingualism: Stable vs subtle effects on cognitive control. Xth Architectures and mechanisms of language processing (AMLaP) Asia Conference University of Hyderabad, Hyderabad.
5. Kar, B. R. (2018). Developmental cognitive disorders, ADHD, Dyslexia, Autism: screening, identification and cognitive impairments. Allahabad Development Division, Allahabad
6. Kar, B. R. (2018). Neuro-cognitive mechanisms of affect dependent cognitive control: Implications for studies on emotion regulation, Annual conference of the Indian academy of Health Psychology, Nasik.
7. Kar, B. R. (2017). Developmental Cognitive Neuroscience: Insights into the mechanisms of developmental disorders. International Conference of the Indian Academy of Health Psychology, India.
8. Kar, B. R. (2017). Lecture series (6 lectures) on Cognitive neuroscience and neuropsychology. Calcutta University, Kolkata, India.
9. Kar, B. R. (2017). Profiling and Interpretation of DALI: Dyslexia assessment for languages of India. Maharashtra Dyslexia Association, Mumbai, India.
10. Kar, B. R. (2016). Timing of Cognitive events: EEG/ERP. Workshop on Methods in Cognitive Science, IIT Kanpur.
11. Kar, B. R. (2016). Child Neuropsychological assessment: Implications for diagnosis and cognitive rehabilitation. International conference on trends in clinical psychology, NIMHANS, Bangalore, India.
12. Kar, B. R. (2016). Cognitive and Neural Mechanisms of ADHD. Workshop on Brain and Cognition, IISC, Bangalore.
13. Child Neuropsychological assessment: Implications for diagnosis and cognitive rehabilitation. International conference on trends in clinical psychology, NIMHANS, Bangalore, November, 2016.
14. Cognitive and Neural Mechanisms of ADHD. Workshop on Brain and Cognition, Indian Institute of Science, Bangalore, June 2016.
15. Introduction to EEG/ERP methods. Workshop on Methods in Cognitive Science, University of Allahabad, 2015.
16. fMRI and Psychiatric disorders, Workshop on NMR and fMRI at CBMR, Lucknow, 2014.
17. Neuro-cognitive mechanisms of Emotions. Brain Awareness Week, IIIT Allahabad, 2013.
18. Ethics in Neuroscience and Psychiatry. Refresher course on Applied Ethics, Department of Philosophy, University of Allahabad, 2012
19. Electrophysiological measurement: insights about brain and cognition, Workshop on Methods in Cognitive Neuroscience, Sophia College, Mumbai, 2012.
20. Kar, B. R. (2011). Introduction to EEG/ERP. Workshop on Methods in Cognitive Neuroscience. Sophia College, Mumbai.
21. Kar B. R. (2010). Electrophysiological measurement: Insights about the temporal dynamics of brain and cognition. IBRO School on Neuroimaging, NBRC, Mansesar.

22. Kar, B. R. (2010). Development of cognitive processes in children and adolescents: indications for differences in developmental trajectories across cultures. *National Symposium on Culture and Cognition: A Developmental Perspective*. Delhi University, New Delhi.
23. Kar, B. R. (2010). Why do we need to know the brain: Insights from cognitive neuroscience and neuropsychology, *Brain Awareness week*, IIT, Allahabad.
24. Kar, B. R. (2010). Identification of developmental disorders. *Workshop on inclusive education for special educators and primary school teachers*. Allahabad.
25. Kar, B. R. (2008). Is Bilingualism a Cognitive Advantage? *National Conference on Advances in Cognitive Science*, BHU, Varanasi.
26. Kar, B. R. (2006). Cognitive Neuroscience: Mapping the link between brain and cognition. National symposium on neuroscience. National seminar on Neurobiology, Allahabad, India.
27. Kar, B. R. (2006). Lessons from Cognitive Neuroscience. *Brain Awareness week*, BHU, Varanasi, India.
28. Kar, B. R. (2005). Neuropsychological approaches to cognitive assessment. *Workshop on Psychological assessment of cognitive abilities and personality*. Defence Institute of Psychological Research, New Delhi, India.
29. Kar, B. R., Rao, S. L., Chandramouli, B. A., & Thennarasu, K. (2004). Child neuropsychological Battery: procedure, administration and scoring. National workshop on Neuropsychological assessment and rehabilitation, *Continuing Education in Neuropsychology*, NIMHANS, Bangalore, India.
30. Kar, B. R. (2003). Functional organization of the cerebral cortex, *fMRI workshop cum training on basics of NMR, Brain function and Psychological Processes*, India.
31. Kar, B. R. (2003). Biological Basis of Psychological Disorders, *fMRI workshop cum training on basics of NMR, Brain function and Psychological Processes*, Dehradun, India.
32. Kar, B. R., Rao, S. L., Chandramouli, B. A., & Thennarasu, K. (2003). A Neuropsychological Test Battery for Children-theoretical framework. *II National Workshop on Clinical Neuropsychology*, NIMHANS, Bangalore, India

### ***Presentations in International Conferences***

1. Kar, B. R. (2020). Emotional aging and cognitive control. Annual Meeting of the International Congress of Psychology (online), July, 2020.
2. Kar, B. R. (2018). Proficiency as a continuous or categorical measure of bilingualism: stable vs subtle effects on cognitive control, AMLAP, Asia, University of Hyderabad.
3. Kar, B. R. (2018). Bilingualism, proficiency and cognitive control. International Symposium on Bilingualism and Cognition. BITS Goa.
4. Kar, B. R. (2016). Child Neuropsychological assessment: Implications for diagnosis and cognitive rehabilitation. International conference on trends in clinical psychology, NIMHANS, Bangalore.
5. Kar, B. R. (2016). Cognitive and Neural Mechanisms of ADHD. Workshop on Brain and Cognition, IISC, Bangalore.
6. Kar, B. R. (2015). Introduction to EEG/ERP methods. Workshop on Methods in Cognitive Science, University of Allahabad.
7. Kar, B. R. (2014). fMRI and Psychiatric disorders, Workshop on NMR and fMRI at CBMR, Lucknow.
8. Khare, V., Verma, A., Kar, B. R., Srinivasan, N. & Brysbeart, M. (2013). Bilingualism and the increased attentional blink effect: Evidence that the difference between bilinguals and monolinguals generalizes to different levels of second language proficiency, Psycholinguistics, Radbound University, Nijmegen, Netherlands.
9. Kar, B. R. & Dash, T. (2012). Behavioural and ERP correlates of Bilingual Language Control and Cognitive Control: Implications for bilingual aphasia. World Federation of Neurology Biennial Meeting, Hyderabad.



10. Kar, B. R. & Dash T. (2012). Bilingualism, language proficiency, and cognitive control. International Symposium on Language, Literacy, and Cognitive Development, Bangalore.
11. Kar, B. R. & Dash T. (2012). Bilingual language control and general purpose cognitive control among Hindi-English bilinguals. Attentive Listener in the visual world: language, vision action Interface, CBCS, Allahabad.
12. Dash, T. & Kar, B.R. (2012). Bilingual language control and general-purpose cognitive control in relation to bilingual language proficiency: Evidence from negative priming paradigm. Japanese Neuroscience Society annual meeting.
13. Dash, T. & Kar, B.R. (2012). Cognitive and neural mechanisms of the interaction between bilingualism and cognitive control" at World Federation of Neurology, Aphasia and related cognitive disorders, Hyderabad.
14. Dash, T. & Kar, B. R. (2011). Inhibitory control in bilingual language processing: an ERPstudy. World Congress of Neuroscience.
15. Dash T. & Kar, B. R. (2011). Biliteracy and bilingualism: Issues and concerns. Department of Psychology II. University of Kaiserslautern, Germany.
16. Kar, B. R. (2011). Bilingualism, language proficiency, and cognitive control. International Symposium on Language, Literacy, and Cognitive Development, Bangalore.
17. Kar, B. R. (2010). Development of task switching in children. International Conference on Cognitive Development. CBCS, Allahabad University, Allahabad.
18. Kar, B. R. (2010). Cognitive aging: memory consolidation and control processes. International Conference on Cognitive Science, BHU, Varanasi.
19. Kar, B. R. (2010). Bilingualism and Cognitive Control. Annual convention of National Academy of Psychology, JNU, New Delhi.
20. Kar, B. R. (2010). Biliteracy and reading acquisition in Hindi and English. Annual convention of National Academy of Psychology, JNU, New Delhi.
21. Kar, B. R. (2009). Cognitive markers of Attention deficit hyperactivity disorder: Development of control functions affected in ADHD. *International Conference on Cognitive Science*, BHU, Varanasi.
22. Kar, B. R. & Verma A. (2009). Time course of language suppression and activation in bilinguals: Dominance by acquisition versus Dominance by use. *International conference on Language and Cognition Interface: State of the Art*, Allahabad.
23. Vaid, J., Rao, C., Chen, H-C, Kar, B. R., & Sharma, D. R. (2008). Frequency and Length Effects in Hindi vs. Urdu Lexical Decision: Orthographic Depth Matters. Annual meeting of the Association for Psychological Science, Chicago, May 2008.
24. Gupta, R. & Kar, B. R. (2008). Development of attentional processes in children with attention deficit hyperactivity disorder and normally developing children. *International Conference on Attention*, Allahabad.
25. Gupta, R. & Kar, B. R. (2008). Cognitive Markers of ADHD: A Diagnostic Concern. *International Conference on Attention*, Allahabad.
26. Pal, A. K. & Kar, B. R. (2008). Auditory Processing and Phonological Awareness in Good and Poor Biliterate Readers. *International Conference on Attention*, Allahabad.
27. Verma, A. & Kar, B. R. (2008). Language switching in Hindi-English Bilinguals. *International Conference on Attention*, Allahabad.
28. Khare, V. & Kar, B. R. (2008). Cognitive advantage in High-Low Proficient Hindi-English Bilinguals. *International Conference on Attention*, Allahabad.
29. Rimzhim, A. & Kar, B. R. (2008). Individual differences in reading attainments and phonological awareness in Hindi. *7<sup>th</sup> International Conference of the British Dyslexia Association*, Harrogate, U.K.

30. Gupta, R. & Kar, B. R. (2008). Error monitoring and response inhibition in children with ADHD: the multiple pathway model. *Annual meeting of the International Neuropsychological Society*, Hawaii, USA.
31. Bora, S., Hanif, A., Kar, B., Gupta, R. (2008). Attention Deficit Hyperactivity Disorder: A Comprehensive Cognitive-Neuropsychological Rehabilitation Program. *12<sup>th</sup> International and 43<sup>rd</sup> National Conference of the Indian Academy of Applied Psychology*, Kolkata, India
32. Gupta, R. & Kar, B. R. (2007). Cognitive dysfunction as diagnostic markers in ADHD. Annual conference of the society for Parkinsonian disorders, Amsterdam, Netherlands.
33. Kar, B. R. (2007). Cognitive mechanisms of attention emotion interaction. *International Symposium and Annual Convention of the Indian Academy of Neuroscience*, BHU, Varanasi, India.
34. Kar, B. R., Shukla, M., & Tripathi, N. (2006). Cognitive deficits in children with developmental dyslexia: A proposal on electrophysiological correlates of remediation in dyslexia. *Mid-year meeting of International Neuropsychological Society*, Zurich, Switzerland.
35. Kar, B. R. & Shukla, M. (2006). Auditory temporal processing paradigm: Effects of remediation in dyslexia. *Second International Conference on Cognitive Science*, Allahabad, India.
36. Shukla, M. & Kar, B. R. (2006). Effects of remediation on phonological awareness in dyslexia. *Second International Conference on Cognitive Science*, Allahabad, India.
37. Gupta, R., Kar, B. R. & Srinivasan, N. (2006). Development of attentional disengagement in children. *Second International Conference on Cognitive Science*, Allahabad, India.
38. Rimzhim, A., Kar, B. R., & Srinivasan, N. (2006). Phonological priming in second language visual word recognition in multilinguals. *Second International Conference on Cognitive Science*, Allahabad, India.
39. Khetrapal, N., Srinivasan, N. & Kar, B. R. (2006). Development of Attentional Blink among Children. *Second International Conference on Cognitive Science*, Allahabad, India.
40. Kar, B. R., Rao, S. L., Chandramouli, B. A., Chandra, P. S., & Jayakumar, P. N. (2004). Neuropsychological Lateralization of brain dysfunction in children with Medial Temporal Sclerosis: A presurgical evaluation. *5<sup>th</sup> Asian and Oceanian Epilepsy Congress, International League against Epilepsy*, Bangkok, Thailand.
41. Kar, B. R., Rao, S. L., Chandramouli, B. A., & Thennarasu, K. (2004). Age dependent effects on Interrelationships among neuropsychological functions in children. *International Symposium on Building the Brain, National Brain Research Centre*, Manesar, India.
42. Dubey, P. & Kar B. R. (2004). Effect of chronic malnutrition on executive functions in children. *International Symposium on Building the Brain, National Brain Research Centre*, Manesar, India.
43. Srivastava, A. & Kar, B. R. (2004). Componential analysis of visuospatial working memory. *International Symposium on Building the Brain, National Brain Research Centre*, Manesar, India.
44. Kar, B. R., Rao, S. L., & Chandramouli, B. A. (2003). Growth Patterns of Executive Functions in Children. *International Conference of Theoretical Neurobiology*, Delhi, India.
45. Tripathi, N. & Kar, B. R. (2003). A preliminary report on the teacher's perception of learning related problems in children in school settings in Allahabad, *International Conference on Learning Disability and Young at risk*, Allahabad, India.
46. Kar, B. R., Rao, S. L., & Chandramouli, B. A. (2002). Standardization of a neuropsychological test battery for children. *15<sup>th</sup> International Congress of Child and Adolescent Psychiatry and Allied Professions*, Delhi, India.
47. Kar, B. R., Rao, S. L., & Chandramouli, B. A. (1999). Effect of Malnutrition on Neuropsychological Functions in Children, *International Colloquium on Brain Research, National Brain Research Centre*, New Delhi, India.

#### ***Presentations in National Conferences***

1. Kar, B. R., Pammi, VSC, Nigam, R., Guleria, A., & Srinivasan, N. (2015). Neurocognitive Mechanisms of affective conflict adaptation: An event related fMRI study, Annual meeting of the Association for Cognitive Science, IIT Kanpur.

2. Singh, J. P. & Kar, B. R. (2015). Effect of language proficiency on proactive occulo-motor control among bilinguals, Annual meeting of the Association for Cognitive Science, IIT Kanpur.
3. Joshi, G., Daksha, C. P., Pammi, V. S. C., & Kar, B. R. (2015). Standardization and Convergent Validation of the State Trait Anxiety Inventory with Personality, Affective Control and Risk Propensity, Annual meeting of the Association for Cognitive Science, IIT Kanpur.
4. Kumar, P. & Kar, B. R. (2015). Interaction between working memory maintenance and conflict resolution, Annual meeting of the Association for Cognitive Science, IIT Kanpur.
5. Kar, B. R. (2014). ERP correlates of task relevant affective conflict monitoring and adaptation. First Annual meeting of the Association for Cognitive Science, New Delhi.
6. Kar, B. R. (2014). Development of control processes: Cognitive impairments as diagnostic markers for developmental disorders. Annual meeting of the National Academy of Psychology, Bhopal.
7. Singh, J.P. & Kar, B. R. (2014). Effect of proficiency on the proactive inhibitory control among Hindi English bilinguals: An ERP study. 1<sup>st</sup> Annual Conference on cognitive science, New Delhi.
8. Rehaman S., Patra, A., & Kar, B. R. (2014). Task switching among bilinguals and trilinguals. First conference of the Association for Cognitive Science, Delhi.
9. Kar, B. R., Srinivasan N., Nehabala, Y. & Nigam R. (2013). Proactive Control depends upon emotional content: A Stroop study with emotional expressions and words. Annual meeting of the National Academy of Psychology, Rourkela.
10. Kar, B. R. (2013). Conflict adaptation and affective control. Annual meeting of the Indian Association of Clinical Psychologists, AIIMS, New Delhi.
11. Kar, B. R. Nigam, R. & Srinivasan, N. (2013). Neural and Cognitive Mechanisms of affective control. Annual meeting of the Indian Academy of Neuroscience, Allahabad.
12. Joshi, G. & Kar, B.R. (2013). Effect of anxiety on emotion conflict monitoring. International Conference on Cognition Emotion and Action at the IIT Gandhinagar.
13. Nehabala Y. & Kar, B. R. (2013). Development of Affective Control: Evidence Based on the Face-word Stroop Task in an International Conference on Cognition, Emotion and Action held in IIT, Gandhinagar.
14. Kar, B. R. (2012). Behavioural and EEG/ERP correlates of Bilingual language control and cognitive control. International Symposium on “The attentive listener in the visual world: Interface between language attention vision and memory”. CBCS, Allahabad.
15. Kar, B. R. (2012). Ethics in Neuroscience and Psychiatry. Refresher course on Applied Ethics, Department of Philosophy, University of Allahabad.
16. Kar, B. R. & Jain, S. (2010). Cognitive aging: Issues related to plasticity and memory consolidation. *XXth Annual conference of the National Academy of Psychology*, Bangalore.
17. Kar, B. R. Bilingualism and cognition: insights about language and cognitive control. National Symposium on Recent Advances in Research on Cognitive Science. All India Institute of Speech and Hearing, Mysore, June, 2011.
18. Dash, T., & Kar, B. R. (2010). Language proficiency in bilingual individuals: self-reported information versus objective measures of language skills. Annual Meeting of the National Academy of Psychology, Bangalore.
19. Jain S. & Kar, B. R. (2009). Dissociation of memory and executive functions in young adults, normal aged and individuals with mild cognitive impairment. 36<sup>th</sup> National Annual Conference of Indian Association of Clinical Psychologists, NIMHANS, Bangalore
20. Kar, B. R. (2009). Identification of developmental disorders. Workshop on inclusive education for special educators and primary school teachers. Allahabad.
21. Kar, B. R. & Sinha, A. (2008). Acquisition of Phonological Awareness and Reading Skills in Hindi and English Language *XVIII<sup>th</sup> Annual convention of the National Academy of Psychology*, IIT Guwahati, Guwahati.

22. Gupta, R. & Kar, B. R. (2008). *XVIII<sup>th</sup> Annual convention of the National Academy of Psychology*, IIT Guwahati, Guwahati.
23. Verma, A. & Kar, B. R. (2008). Language Switching in Hindi-English Bilinguals over different SOAs. *XVIII<sup>th</sup> Annual convention of the National Academy of Psychology*, IIT Guwahati, Guwahati.
24. Khare, V. & Kar, B. R. (2008). Conflict resolution in High and Low Proficient Bilinguals. *XVIII<sup>th</sup> Annual convention of the National Academy of Psychology*, IIT Guwahati, Guwahati.
25. Kar, B. R. (2007). Literacy Acquisition, Complex Psycholinguistic Needs of Bilinguals and Attention Networks. *Annual convention of the National Academy of Psychology*, IIT Kanpur, India.
26. Chowdhury, S. & Kar, B. R. (2007). Attentional modulation of emotion. *Annual convention of the National Academy of Psychology*, IIT Kanpur, India.
27. Kar, B. R. & Rao, S. L. (2006). Cognitive development in children with chronic protein calorie malnutrition. *XVI<sup>th</sup> Annual Conference of National Academy of Psychology*, Mumbai.
28. Agarwal, S. & Kar, B. R. (2006). Neuropsychological deficits in children with dyslexia. *XVI<sup>th</sup> Annual Conference of National Academy of Psychology*, Mumbai.
29. Kar, B. R., Rao, S. L. Chandramouli, B. A., Thennarasu, K., & P. Satish Chandra. (2006) Lateralized neuro-cognitive deficits and cognitive development in children with mesialtemporal sclerosis. *Annual conference of Indian academy of neuroscience*, Lucknow.
30. Rimzhim, A., & Kar, B. R. (2006). Psycholinguistic Considerations posed by Devanagari Script: Construction of Tests for Developmental Dyslexia. *XXVIII All India Conference of Linguists of the Linguist Society of India*, BHU, Varanasi, India.
31. Kar, B. R., Rao, S. L., Chandramouli, B. A., & P. Satish Chandra. (2005). Clinical Validation of the NIMHANS neuropsychological battery for children. *Symposium on emerging trends in neuroscience*, NIMHANS, Bangalore, India.
32. Kar, B. R. (2005). Neuropsychological approaches to cognitive development. *Annual convention of National Academy of Psychology*, Faizabad, India.
33. Kar, B. R., Rao, S. L., & Chandramouli, B. A. (2003). Interrelationships among neuropsychological functions in children. *33<sup>rd</sup> National Annual Conference of Indian Association of Clinical Psychologists*, Ranchi Institute of Neuropsychiatry and Allied Sciences, Ranchi, India.
34. Kar, B. R., Rao, S. L., & Chandramouli, B. A. (2000). Age Trends in Neuropsychological Functions in Children- A preliminary report. *49<sup>th</sup> Annual Conference of Neurological Society of India*, Chennai, India.

## Achievements

- Invited by Prof. Michael I. Posner to visit the Department of Psychology, University of Oregon, USA under the Brain Biology Mind Initiative (June 7- July 7, 2007). Developed a research proposal on bilingualism and development of attention with Prof. Posner as the Advisor.
- Invited talk in a Symposium on ‘Dyslexia and the Indian Akshara Languages: Emerging Insights’, 7<sup>th</sup> International Conference of the British Dyslexia Association, Harrogate, UK, March, 2008.
- Travel award to visit the Department of Psychology, University of Kaiserslautern, Germany, for a collaborative project with Prof. Thomas Lachmann on spatial processing in Dyslexia, November 22-29, 2011.
- Edited a volume on “Cognition and Brain Development” published by **American Psychological Association** (APA) under the Human Brain Development Series of American Psychological Association.
- Invited by the international experts on bilingualism to deliver a talk in a symposium for the World Federation of Neurology Biennial meeting at Hyderabad, 2012.
- Part of the National Initiative on Educational Neuroscience of the DST, 2013, which led to a multicenter project on learning disability.

- Contributed to the Development and validation of “Dyslexia Assessment for Languages of India” led by Dr. Nandini C. Singh, NBRC (normative data on a large sample and statistical analysis)

**Coordinator, Outreach Centre, CBCS, AU**

At CBCS we have established an outreach Centre with a few regular activities like memory camp for the elderly, Allahabad Regional Brain Bee competition to enhance awareness about neuroscience education among school children and teachers. We have also held multiple workshops for awareness and training in assessment and intervention for developmental disorders such as dyslexia, ADHD and autism.

**PROFESSIONAL MEMBERSHIPS**

- Psychonomic Society, USA
- Association for Cognitive Science, India
- National Academy of Psychology, India
- Indian Academy of Neuroscience

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