SOCIETY WITHIN THE BRAIN

Society within the Brain presents scientific research linking social connection with brain and cognitive aging through state-of-the-art research. This involves comprehensive social network analysis, social neuroscience, neuropsychology, psychoneuroimmunology, and sociogenomics. This book provides a scientific discourse on how a society, community, or friends and family interact with individuals' cognitive aging. Issues concerning social isolation, as well as controversy around the origins of individual differences in social brain and behavior, are discussed. An integrative framework is introduced to explicate how social networks alleviate the effects of aging in brain health and reduce dementia risks. This book is of interest and useful to a wide readership: from gerontologists, psychologists, clinical neuroscientists, and sociologists; to those involved in developing community-based interventions or public health policy for brain health; to people interested in how social life influences brain aging or in the prevention of dementia.

JEANYUNG CHEY is the current president of the Korean Psychological Association and the director of the Clinical Neuroscience Lab at Seoul National University, where she has led numerous projects on cognitive aging and protective and risk factors for dementia, such as education, social connection, and stress, using a multidisciplinary approach and longitudinal data. A founding leader of the Korean Society for Neuropsychological Research, she opened South Korea's first hospital clinical neuropsychology lab and has developed many neuropsychological tools, including the first dementia test in the country. She was awarded the South Korean government's National Prize for Contribution in Overcoming Dementia in 2022.

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How Social Networks Interact with Our Brain, Behavior, and Health as We Age

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To my mother and aunts.
And to all the aurushin *who have participated in our studies since 1996*
J. C.

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Preface

This book came to be from a series of collaborations with my graduate students and colleagues conducted over the past twenty-eight years. I am especially grateful to have worked with Dr. Yoosik Youm and his lab for the past decade on the Korean Social Life, Health and Aging Project (KSHAP) as well as all the colleagues of the KSHAP team, particularly Drs. Hyeon Chang Kim, Yeong-Ran Park, and Eun Lee, with whom I had the pleasure of collaborating and discussing our studies. Many chapters were contributed by previous students from the Clinical Neuroscience Lab at Seoul National University (CNS@SNU) and the Social Network Lab at Yonsei University, who have conducted studies in rural villages, metropolitan areas, and at CNS and the MRI center at SNU for many years. Unique contributions were made by social neuroscientists and psychologists Drs. Sunhae Sul and Isu Cho, and psychoneuroimmunologist Sung-Ha Lee, which allowed more elaborate discussions with regard to social impact pathways on cognition and brain aging. I am very grateful to all the authors for accepting the invitation to write the chapters and for contributing significant time and effort to finish the book together. It should be mentioned, however, that many more past and current students have contributed indirectly in valuable ways, including conducting and writing up our studies for publication and also assisting me in the editorial process. I owe Jihyeon Jo and Hankyung Lee much gratitude for their dedication for the latter.

I was very fortunate to have met Steve Acerra from Cambridge University Press at the 2019 Annual International Neuropsychological Society Meeting in New York. He kindly suggested that I write a book on my research on the cognitive and brain aging of older Koreans, which might shed light on the recent sharp increase in the global incidence of dementia, especially in developing countries. He has supported me throughout the whole process, from deliberation on the book's theme to the conceptual design of its cover. I am very grateful to Steve, and also to

Rowan Groat, Anne Rufina Raymond, Robert Holden, and Mark Fox, who have been very helpful in improving the manuscript and making progress toward publication.

I thank my daughters Solho and Jinho and my husband Jae-Wook Yoon for their patience and support so that I could concentrate on writing and editing a book removed from a busy household for a good period of time. I am also grateful to my sister Kae-Ryung Chey and my dear friend Janet Levoff for their emotional support in embarking on a new adventure of organizing and writing a book with my colleagues. I confess that without any one of the supports and contributions I have received during this process, this book would not have been possible.

Lastly, this book owes incalculable debt to colleagues, scientists, and scholars in the field. I hope our contribution will be helpful and meaningful for the scientific and professional communities interested in cognitive and/or brain aging and dementia, especially during this era of increased loneliness and social isolation.