

Neuroanatomical bases of effortful control: evidence from a large sample of young healthy adults using voxel-based morphometry

Rui Nouchi^{a,b}, Hikaru Takeuchi^c, Yasuyuki Taki^{c,d,e}, Atsushi Sekiguchi^{e,f}, Yuka Kotozaki^b, Seishu Nakagawa^g, Carlos Makoto Miyauchi^h, Kunio Iizuka^{g,i}, Ryoichi Yokoyama^{j,k}, Takamitsu Shinada^g, Yuki Yamamoto^g, Sugiko Hanawa^g, Tsuyoshi Araki^b, Yuko Sassa^c, Ryuta Kawashima^{b, c, g}

^a*Creative Interdisciplinary Research Division, Frontier Research Institute for Interdisciplinary Science (FRIS), Tohoku University, Seiryomachi 4-1, Sendai 980-8575, Japan*

^b*Smart Ageing International Research Center, Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan*

^c*Division of Developmental Cognitive Neuroscience, Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan*

^d*Department of Nuclear Medicine and Radiology, Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan*

^e*Division of Medical Neuroimaging Analysis, Department of Community Medical Supports, Tohoku Medical Megabank Organization, Tohoku University, Sendai, Japan*

^f*Department of Adult Mental Health, National Institute of Mental Health, National Center of Neurology and Psychiatry, 4-1-1 Ogawa-Higashi, Kodaira, Tokyo 187-8553, Japan*

^g*Department of Functional Brain Imaging, Institute of Development, Aging and Cancer, Tohoku University, Sendai, Japan*

^h*Graduate Schools for Law and Politics, The University of Tokyo, Tokyo, Japan*

ⁱ*Department of Psychiatry, Tohoku University Graduate School of Medicine, Sendai, Japan*

^j*Japan Society for the Promotion of Science, Tokyo, Japan*

^k*Faculty of Medicine, Kobe University, 7-5-Ikusunoki-cho, Kobe, 950-0017 Japan*

Corresponding author:

Rui Nouchi, Ph. D, Assistant Professor

Creative Interdisciplinary Research Division,

Frontier Research Institute for Interdisciplinary Science (FRIS), Tohoku University

Seiryomachi 4-1, Aoba-ku, Sendai 980-8575, Japan

Tel/Fax: +81-22-717-7988

E-mail: rui.nouchi.a4@tohoku.ac.jp

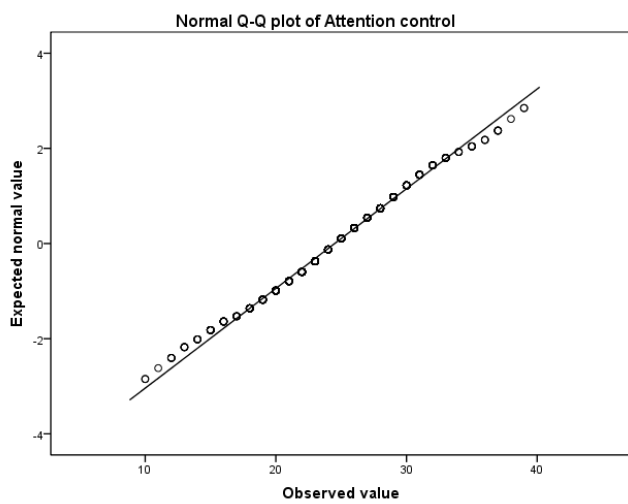
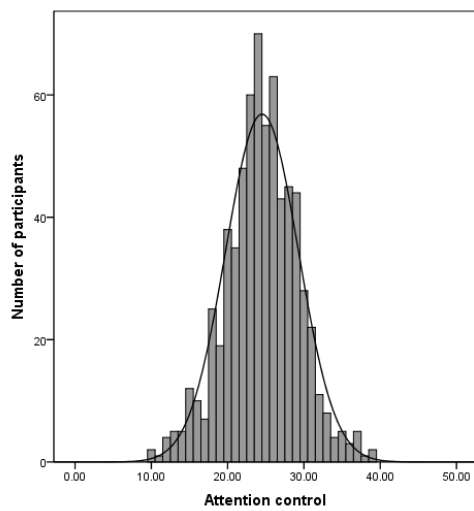
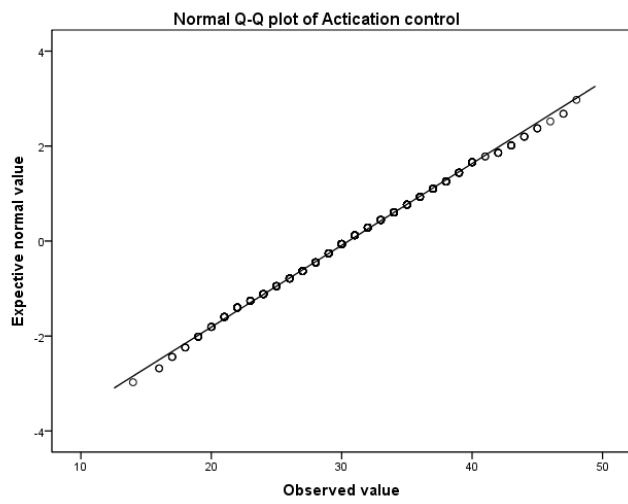
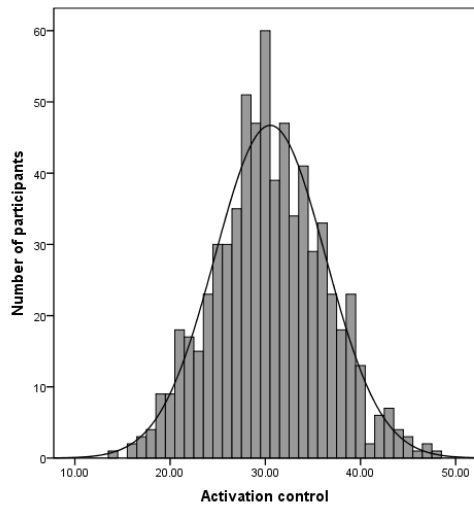
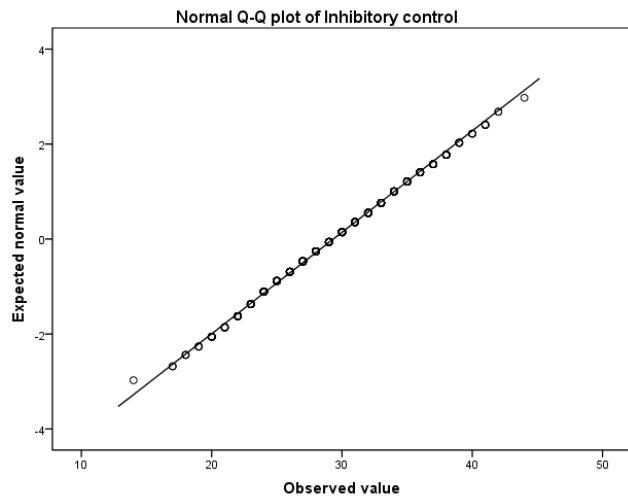
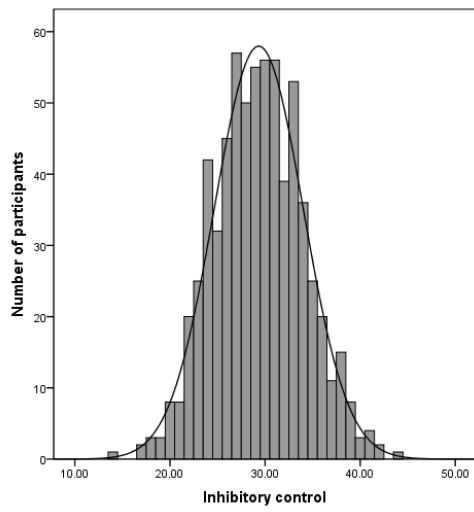


Figure S1. Histograms and Quantile-Quantile in inhibitory control (top), activation control (middle), and attention control (bottom).