

Nature and nurture both shape brain in their own way

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

Twins have long been the subject of studies in the quest to determine the influences of nature vs. nurture. An earlier study, published in the journal *"Nature Genetics"* in May 2015, examined more than half a century of research collected on 14.5 million pairs of twins and concluded that the nature versus nurture debate is a draw; both have nearly identical influences on a person's traits and diseases. But we still didn't know specifically how nature and environment can affect our brains.

Now, researchers at Osaka University Graduate School of Medicine in Japan have begun to focus in on just that. In their study of 40 monozygotic (identical) and 18 dizygotic (fraternal) twin pairs, ages 30 or older, they used positron emission tomography (PET) scans with the radiopharmaceutical 2-deoxy-2-F-18-fluoro-D-glucose (FDG) targeting regional cerebral glucose metabolism. Eighteen control pairs matched genetically unrelated individuals of the same age and gender as the twins in the study.

Jun Hatazawa, MD, PhD, corresponding author of the study, explains, "Glucose is an essential fuel for brain energy metabolism as well as oxygen. Functional activation of neurons is normally associated with increases in the local cerebral glucose utilization and blood flow."

Read full, original post: [Twin Study Finds Genetics and Environment Affect Different Brain Regions](#)