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For our March 2020 ANA Listserv Research Digest, I will introduce an article about neurorehabilitation with cultural considerations, and another about cultural differences in social emotion processing, which was also one of the first articles that fascinated me by explaining how deeply culture shapes human neuroscience/neuropsychology.

The first article is about cultural issues in the context of neurorehabilitation, which include but are not limited to language and ethnicity. Saldivar, Gonzalez, Vega, and Sykora (2016) provided several case examples of working with patients from diverse cultural backgrounds in an acute inpatient rehabilitation facility. Particularly relevant to ANA, several cases presented involve patients from Asian countries or of Asian descent:

- Mr. K, born in Korea and raised in South America, had difficulty in social interaction and mood regulation after sustaining a right parietal lobe stroke. It was also learned that he had limited abilities in both Korean and Spanish languages even at premorbid baseline, which added to his social withdrawal and post-stroke adjustment.

- Ms. J is an 85-year-old Japanese American woman with no significant medical, psychiatric, or substance abuse history, who suffered a fall and head injury. She exhibited varying levels of alertness and orientation, as well as hallucinations, revealed through the use of Japanese interpretations. Psychologists were consulted to differentiate between TBI and cultural variables, and to determine her capacity for medical decision-making.

- Ms. U, a 55-year-old Gujarati (Indian) woman was referred for outpatient psychotherapy after a traumatic brain injury due to concerns from daughter and son-in-law. Adaptation of psychotherapeutic modality in this context was discussed. I worked with Drs. Saldivar, Gonzalez and Sykora at Rancho Los Amigos, and felt that I learnt immensely from them when working with an enormously diverse population in Southern California. I loved reading this chapter. It was like seeing them at work. LOL. (BTW, I know it can be difficult to locate book chapters, so if you are interested, feel free to back-channel me for a copy of the chapter for personal/educational use.)

With a more theoretical and emotional spin, I introduce the second article. Immordino-Yang, Yang, and Damasio (2014) obtained simultaneous data of fMRI and electrocardiogram from Chinese, Chinese American, and Non-Asian American participants when they were asked to report the strengths of their feelings in response to admiration and compassion-themed stories. They found that Chinese participants' feeling strength was associated with ventral anterior insula activity, whereas their Non-Asian American counterparts showed particular association with dorsal anterior insular activity. The ventral part of anterior insular is associated with autonomic modulation, and the dorsal part with visceral-somatosensory and cognitive processes. The results provided new insights in culture's influence on the neural processing of social emotions,

for previous studies conducted with Western subjects almost solely suggested correlations between social emotions with visceral states (e.g., Zaki et al. 2012). As the authors concluded, “[m]ore broadly, the results suggest that the brain’s ability to construct conscious experiences of social emotion is less closely tied to visceral processes than neurobiological models predict and at least partly open to cultural influence and learning.”

Food for thought this month:

How is culture relevant in an inpatient rehabilitation setting for clinical neuropsychologists?

Here are the links to access the articles this month:

1. <https://connect.springerpub.com/content/book/978-0-8261-1528-7>
2. <https://www.frontiersin.org/articles/10.3389/fnhum.2014.00728/full>

References:

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- Immordino-Yang, M. H. (2013). Studying the effects of culture by integrating neuroscientific with ethnographic approaches. *Psychol. Inq.* 24, 42–46. doi:10.1080/1047840X.2013.770278
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