

SF Journal of Clinical Neurology and Brain

Spatial Navigation: The Role of Gender Stereotypes

Izadi M* and Gharibzade SH

Institute for Cognitive & Brain Science (ICBS), Shahid Beheshti University, Tehran, Iran

Keywords

Gender stereotypes; Spatial navigation

Letter to Editor

Many studies have explored the relationship between spatial navigation and variables like age, sex, hormones and stress [1,2]. It has been shown that women in either America or Hungary on the one hand experience more anxiety in route-finding and on the other hand declare less feeling safe despite men. The feeling of not adequate safety can increase women's anxiety about navigation and it can harm their self-confidence [3].

The findings of another research reported that women tend to use route-based strategies and have more spatial anxiety compared to men. In this study men showed greater use of novel ways and they reached the goal faster. It suggested that men act more efficient than women in navigation [4].

Results are controversial in the relationship between hormones and navigation. In a research testosterone was ineffective in navigation while, in other studies opposite outcomes were obtained [5].

Rocha et al., [6] have shown that communication and social interaction and also, achieving enough support from mother in young ages have positive effects on hippocampus and spatial navigation.

We think among these studies and their controversial results, not enough attention was paid to the effect of gender stereotypes on navigation. It has been demonstrated that women see themselves in a more stereotyping way [7]. Also, it has been reported that the stereotype which, children at young ages consider cleverness and acumen as male traits can affect their interests and future career choices [8]. Based on above mentioned points, we suggest that the effect of gender stereotypes should be considered as a variable in evaluating gender differences in spatial navigation.

References

1. Driscoll I, Hamilton DA, Yeo RA, Brooks WM, Sutherland RJ. Virtual navigation in humans: the impact of age, sex, and hormones on place learning. *Horm Behav.* 2005; 47: 326-335.
2. Gabriel KI, Hong SM, Chandra M, Lonborg SD, Barkley CL. Gender differences in the effects of acute stress on spatial ability. *Sex Roles.* 2011; 64: 81-89.
3. Lawton CA, Kallai J. Gender differences in wayfinding strategies and anxiety about wayfinding: A cross-cultural comparison. *Sex Roles.* 2002; 47: 389-401.
4. Boone AP, Gong X, Hegarty M. Sex differences in navigation strategy and efficiency. *Memory & Cognition.* 2018; 46: 909-922.
5. Brake WG, Lacasse JM. Sex differences in spatial navigation: the role of gonadal hormones. *Curr Opin Behav Sci.* 2018; 23: 176-182.
6. Rocha NB, Lemos A, Campos C, Rocha S, Yamamoto T, Machado S, et al. Attachment dimensions and spatial navigation in female college students: the role of comfort with closeness and confidence in others. *Front Psychol.* 2019; 10: 235.
7. Hentschel T, Heilman ME, Peus CV. The multiple dimensions of gender stereotypes: A current look at men's and women's characterizations of others and themselves. *Front Psychol.* 2019; 10: 11.
8. Bian L, Leslie SJ, Cimpian A. Gender stereotypes about intellectual ability emerge early and influence children's interests. *Science.* 2017; 355: 389-391.

OPEN ACCESS

*Correspondence:

Mona Izadi, Institute for Cognitive & Brain Science (ICBS), Shahid Beheshti University, Tehran, Iran.

E-mail: mona.izadi98@yahoo.com

Received Date: 21 Dec 2020

Accepted Date: 22 Jan 2021

Published Date: 26 Jan 2021

Citation: Izadi M, Gharibzade SH.

Spatial Navigation: The Role of Gender Stereotypes. SF J Clin Neurol Brain. 2021; 2(1): 1005.

Copyright © 2021 Izadi M. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.