

# Homosexuals Are Similar to Their Opposite Sex, at Least on Empathy and Systematizing

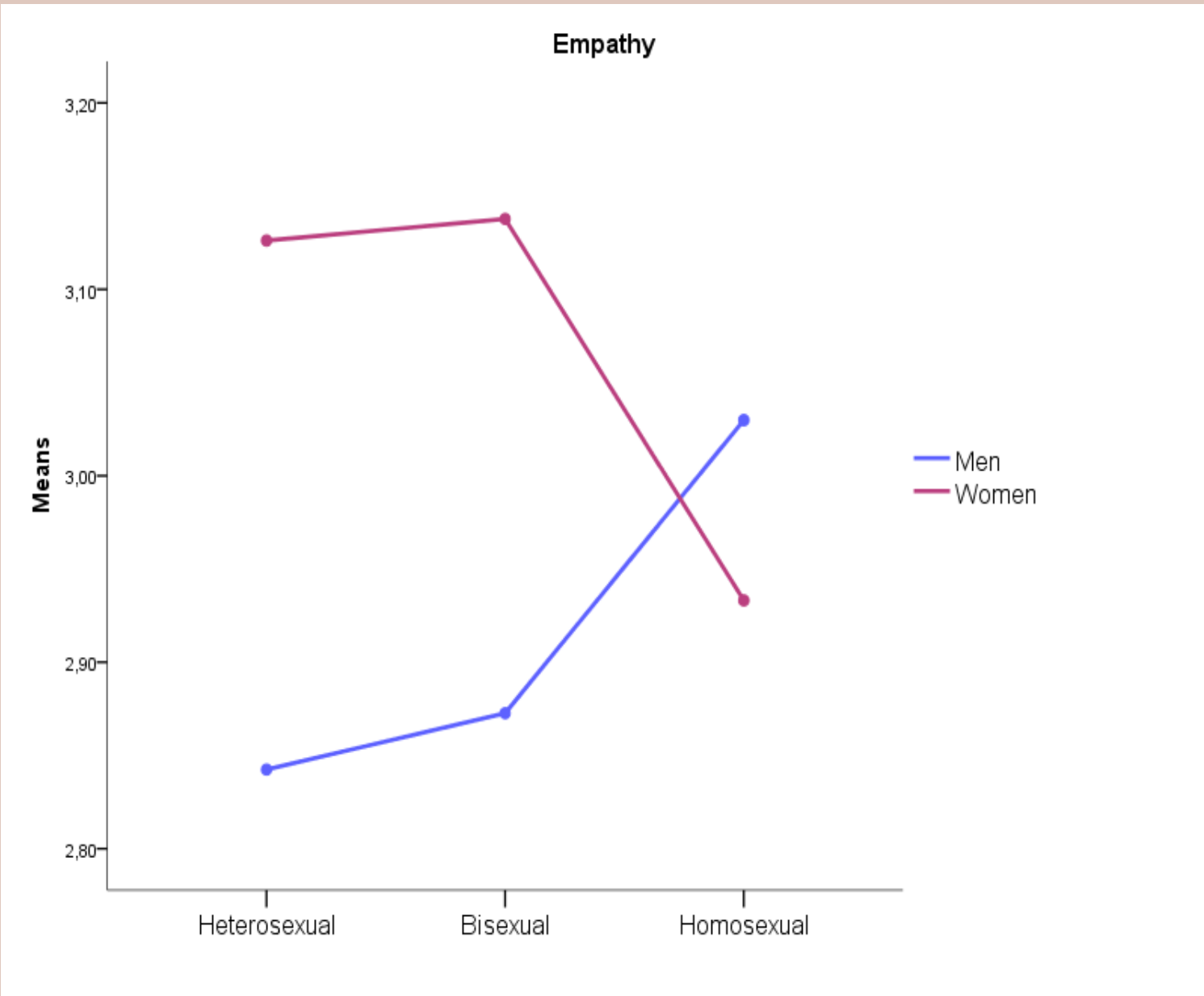
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Empathy and systemizing are personal characteristics that show normal-distributed levels within men and women. Empathy is characterized as a tendency to identify emotions and feelings of another person and responding accordingly in situations of social interaction. Systematizing refers to an inclination to analyze systematically and to seek patterns for a wide sort of objects. Although men and women oscillate in their levels of empathy and systematizing, on average, women have higher levels of empathy and men of systematizing. These differences have been attributed to sexual-differentiation-related mechanisms that contribute to the development of empathy and systematizing; primarily, the exposure to prenatal androgens. Foetal androgen exposure has also been associated with sexual orientation manifest later. Based on evidences found in the scientific literature, it is assumed there are relationships among factors that drive the development of typically male and female brains in terms of empathy and systematizing, and aspects that regulate sexual orientation.

## Results

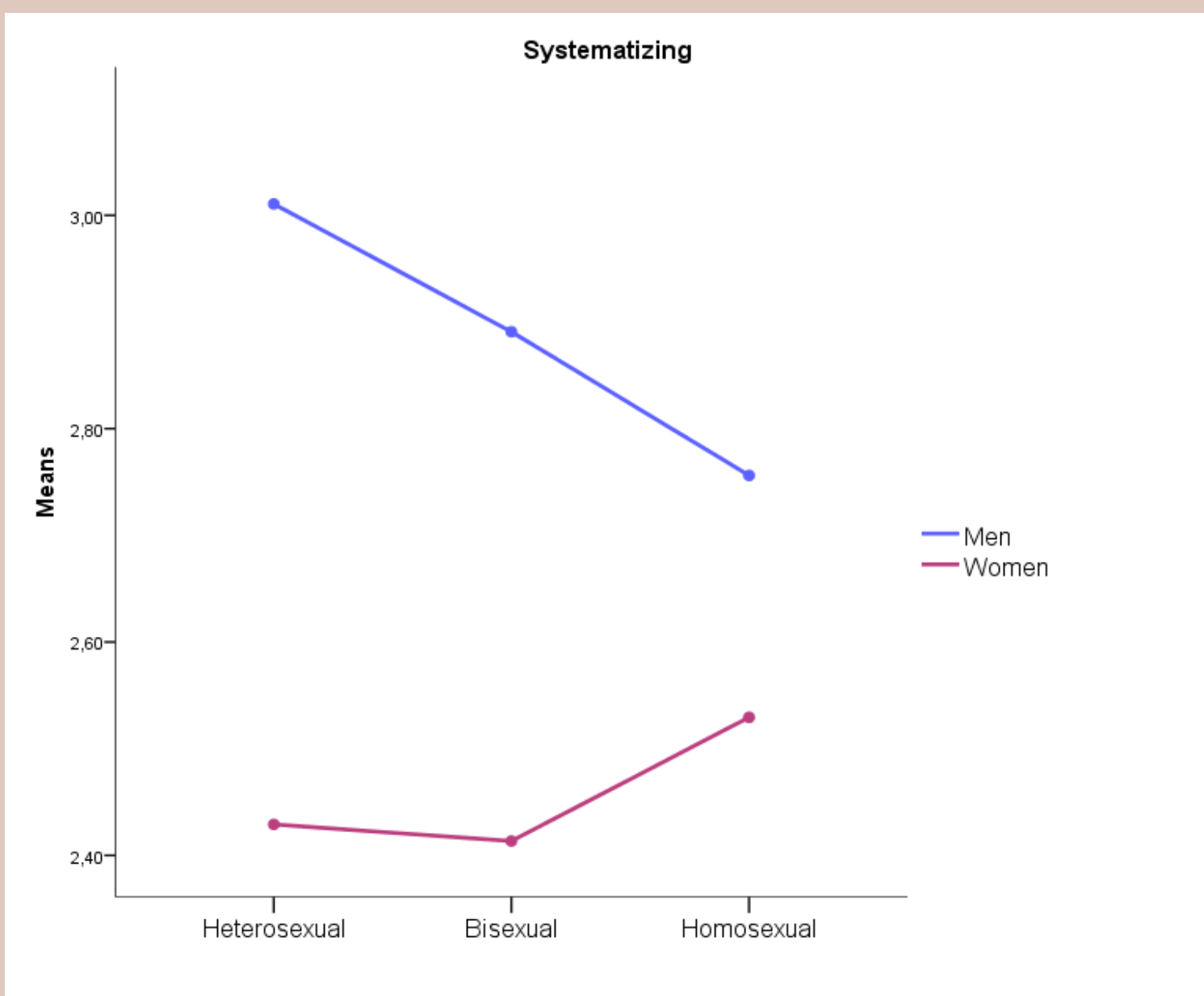
Differences among heterosexuals, bisexuals and homosexuals for empathy and systematizing were tested, and it was found an interaction with the sex of participants for both. Heterosexual and bisexual women showed significantly greater empathy than heterosexual and bisexual men, however within homosexuals that difference decreased and it was not significant. See Figure 1.

On the other hand, systematizing was greater in heterosexual and bisexual men than in heterosexual and bisexual women, and within the group of homosexuals the sex differences decreased and it was not significant. See Figure 2.



Men-Women (N / N)	d	p
Hetero (364 / 815)	-0,65	<.001
Bi (36 / 60)	-0,54	.01
Homo (80 / 17)	0,20	.43

Sex Differences within groups.



Men-Women (N / N)	d	p
Hetero (364 / 815)	1,18	<.001
Bi (36 / 60)	0,94	<.001
Homo (80 / 17)	0,44	.12

Sex Differences within groups.

Additionally, correlations among empathy and systematizing and Typified and Mixed dimensions of gender orientation were tested. For women, there was positive correlation between empathy and the Typified dimension, and negative correlation for the Mixed dimension; for systematizing the patterns of correlations were the opposite. For men, empathy showed no-correlation with Typified dimension and positive correlation with the Mixed gender orientation. Additionally, systematizing had a positive correlation with Typified and a negative correlation with the Mixed dimension. See Table 1.

Table 1  
Correlations

	1	2	3	4	5	6	7	8
	N=952	N=952	N=458	N=458	N=498	N=498	N=952	N=952
1. Empathy, N=512	--	-.01	.03	-.02	.21**	-.14**	.47**	.23**
2. Systematizing, N=512	-.01	--	-.04	.02	-.17**	.23**	-.05	.30**
3. Sex Orientation Homo-Hetero, N=264	-.16*	.21**	--	-.81**	--	--	.06	.09*
4. Sex Orientation Hetero-Bi, N=264	.05	-.02	-.46**	--	--	--	-.01	-.11*
5. Gender Orientation Typified, N=253	-.01	.26**	--	--	--	-.68**	.34**	.04
6. Gender Orientation Mixed, N=253	.17**	-.15*	--	--	-.69**	--	-.20**	.08
7. Sex Role Feminine, N=512	.51**	-.04	-.22**	.11	-.05	.23**	--	.21**
8. Sex Role Masculine, N=512	.32**	.33**	.04	-.03	.27**	-.11	.19**	--

Note. Above principal diagonal are correlations for women, below for men. \*  $p < .05$ , \*\*  $p < .01$ . The Ns for male sample are in the left column, and the Ns for female sample are in the first line. The coefficients large than .30 are in boldface.

## Goal

This study was elaborated in order to test the following hypothesis:

- The differences between men and women in empathy and systematizing will be exacerbated in heterosexual individuals and reduced in homosexual individuals.

## Method

### Participants

A sample of 1464 adults was accessed, mean age of 28.0 years, from all regions of Brazil, mostly the South. Most of the participants presented themselves as heterosexual (80.5%), others as bisexual (6.6%), homosexuals (6.6%) and some were not classified (6.3%).

### Procedures

All participants answered a questionnaire with:

- Brazilian versions of the Empathy Quotient Scale;
- Quotient Systematizing Scale;
- Gender Orientation Scale;
- Sex Roles Scale.

## Conclusion

The results suggest that the same substrate that promotes male or female brains, in terms of empathy and systematizing, may promote the direction of sexual orientation, in terms of same sex or opposite sex.