

# The Sexy Seven Descriptors of Sexuality in Brazil and their Relationships with Big Five Factors of Personality, and Self-Esteem

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Studies oriented by the Big Five Model usually start from a wide range of descriptors of human characteristics. These descriptors undergo a series of procedures aiming to reduce the number of words submitted to empirical testing (John et al., 1988). Some characteristics that are often excluded after those procedures refer to sexuality.

However, when Buss and Schmitt (2000) included some words that describe sexual characteristics in a study conducted to test the replicability of the model, these authors found seven dimensions of sexuality with adequate internal consistency:

- 1) Sexual attractiveness: evaluation of the own potential to be physically attractive to prospective mates
- 2) Relationship exclusivity: willingness to engage in exclusive romantic relationships
- 3) Gender orientation: how people are classified according to gender roles
- 4) Sexual restraint: level of restriction for sexual practice
- 5) Erotophilic disposition: motivation for having sex
- 6) Emotional investment: willingness to invest emotionally in a relationship
- 7) Sexual orientation: how people are characterized in terms of sexual orientation

Based on Evolutionary Psychology and taking the Lexical Hypothesis into account, sexual descriptors should be part of spoken language in all human cultures. Curiously few studies investigated the emergence of the dimensions of sexuality in other cultures. Besides that, there is no evidence that sexuality descriptors contribute to predict psychological variables beyond the traits assessed by the Five Factor Model (FFM).

## Goals

The present research aimed to map the structure of sexuality person descriptors on Brazilian Portuguese language, and to test relationships between sexuality and big five personality traits.

## Method

### Participants

#### Study 1

Participants of the first study were 331 individuals. Most of them (73.4%) were undergraduate students and 65% were women. The average age was 23.3 years ( $SD = 4.53$ ). Around half of the participants (56.2%) responded an online questionnaire and the others responded a paper and pencil version.

#### Study 2

Participants of the second study were 723 individuals participated, 59.8% of whom were women. The mean age of the women was 26.2 years ( $SD = 8.22$  years), and the mean age of the men was 29.9 years ( $SD = 8.25$  years). This age difference between women and men was significant,  $t(712) = 4.21$ ,  $p < .001$ ;  $d = 0.32$ . Education varied from incomplete undergraduate education (51.7%) to bachelor's degree (48.3%).

## Results

### Study 1

A seven factor solution, similar to the findings of Schmitt and Buss (2000), was extracted ( $KMO = .82$ , Bartlett's:  $p < .001$ ). Four items did not show satisfactory factor loadings and were thus excluded from the final analysis. The items and their factor loadings are reported in Table 1, as well as internal consistency of the seven factors. Table 2 shows correlations with the big five factors.

	1	2	3	4	5	6	7	8	9	10	11	12	R
1. Sexual Attractiveness													
2. Gender Orientation	-.09												
3. Erotophilic Disposition	.28***	.07											
4. Emotional Investment	.33***	-.17**	.02										
5. Relationship Exclusivity	-.12**	.06	-.33***	.31***									
6. Sexual Orientation	.01	-.06	-.29***	.08	.28***								
7. Sexual Constraint	-.12*	-.05	-.20**	.05	.15**	.03							
8. Neuroticism	-.10	.09	.22**	-.21**	-.12	-.02							
9. Extraversion	-.39***	-.15	.17**	.17*	-.09	-.01	-.22**						
10. Agreeableness	-.05	-.09	-.38***	.30***	.24***	.21**	.09	-.36***					
11. Conscientiousness	.06	-.12	-.26***	.19*	.23**	.07	.15*	-.30***	-.02				
12. Openness	.16*	.04	.31***	.11	-.13	-.12	-.20**	.12	.23**	-.04			
R	.41	.21	.50	.40	.32	.23	.30						

Note. Below the main diagonal are shown the coefficients for the Study 1 sample ( $N = 331$  for characteristics related to sexuality and  $N = 214$  for Big 5 personality traits); above the main diagonal are shown the coefficients for the Study 2 sample ( $N = 723$ ). R: Multiple correlation coefficients between each of the seven sexuality dimensions and all the Big 5 personality factors. Coefficients equal or higher than .30 are bolded. All of the coefficients were calculated from the standardized scores for each gender.

\*  $p < .05$ .  
\*\*  $p < .01$ .  
\*\*\*  $p < .001$ .

### Study 2

A model with seven correlated factors that explained their respective items was specified in accordance with the structure that was found in Study 1. Table 3 shows the coefficients. Table 4 shows reliability coefficients and sex differences.

The predictive value of sexuality characteristics in explaining the variance in a construct beyond the Big 5 factors was tested. For this purpose, a hierarchical regression analysis was performed. This analysis included self-esteem as the dependent variable and the following independent variables: step 1 (gender and age), step 2 (five main factors), and step 3 (seven of dimensions sexuality).

The coefficients are shown in Table 5. One can observe that the addition of the Big 5 factors explained 25% of the variance in self-esteem, and the addition of the sexuality dimensions explained 6%. Both of these sets of variables significantly explained the self-esteem variance.

### Instruments

#### Study 1

Two versions (online, paper-and-pencil) of a questionnaire with a list of 32 sexuality descriptors originated from two previous studies with Brazilian samples. Participants had to inform in which degree each descriptor characterized them using a 7 points scale.

#### Study 2

Online questionnaire containing one list of 28 sexuality adjectives derived from Study 1, a brief five-factor personality scale, and the Rosenberg's self-esteem scale.

### Procedures

Paper-and-pencil respondents were recruited in two universities and responded the instrument in their classrooms. Online respondents were recruited through invitations by emails and links in social network websites.

	Sexual Attractiveness	Gender Orientation	Erotophilic Disposition	Emotional Investment	Relationship Exclusivity	Sexual Orientation	Sexual Restraint	R <sup>2</sup>
Sexual	.83	.18	.12	.12	.02	.02	.02	.77
Attracting	.82	-.14	.17	.06	.08	.03	-.07	.73
Sexual	.81	.04	.12	.14	.09	-.09	-.09	.72
Attractive	.79	.11	-.05	.13	.06	-.08	.002	.67
Hot	.78	.14	.15	.10	-.07	.06	-.01	.67
Feminine	.70	.91	-.15	.12	-.13	.04	-.02	.89
Manly	.05	.99	.14	.06	.04	.001	.03	.85
Masculine	-.02	.89	.21	.07	.12	.04	.01	.86
Effeminate	.16	.81	.03	.12	-.10	.08	.03	.71
Obscene	-.07	.85	.06	.13	.12	.07	.07	.77
Indecent	.15	.89	.80	-.09	.09	.09	-.05	.70
Vulgar	.02	-.14	.77	-.10	.14	.04	-.001	.65
Perverted	.15	-.15	.60	.09	.16	.16	-.15	.55
Affectionate	.10	.89	-.07	.86	-.12	-.04	-.11	.78
Amorous	.15	.82	.04	.82	-.11	.04	.07	.72
Genital	.16	.17	.01	.81	-.12	-.01	-.04	.73
Romantic	.26	.11	.05	.82	.19	-.07	.24	.45
Unifamiliar	.08	-.02	.25	-.18	.80	-.01	-.07	.76
Monogamous	-.04	.12	.02	.78	.79	.16	.11	.66
Polygamous	.08	-.21	-.22	-.03	.79	.15	.08	.68
Homosexual	.03	.05	-.16	.31	.73	-.10	.07	.66
Heterosexual	-.02	-.07	.11	.03	.02	.90	.02	.87
Bisexual	.06	.02	-.07	.03	.09	-.09	.03	.85
Bisexual	.02	.14	.21	.03	.17	.79	-.02	.72
Heterosexual	-.01	.09	.03	.03	.03	-.09	.03	.49
Pure	.12	-.01	-.14	.16	-.05	.01	.87	.51
Virginal	.30	.10	.01	.09	.01	.01	.66	.48
Reproducers	-.11	-.01	-.13	-.10	-.14	-.03	.85	.48
Shy	.50	.454	.264	.228	1.76	1.51	1.34	
Alpha coefficient	.89	.92	.81	.81	.81	.88	.69	
McNemar (SD)	4.48 (1.14)	2.13 (0.70)	2.02 (1.03)	5.69 (0.66)	6.14 (1.08)	6.31 (1.28)	2.58 (1.11)	
McNemar (SD)	4.14 (1.10)	5.87 (0.69)	2.68 (1.29)	5.28 (0.65)	5.47 (1.24)	6.19 (1.58)	2.62 (1.02)	
Tucker's phi <sup>2</sup>	.71	.86	.80	.85	.81	.74	.93	
d	0.31**	-.420**	-.050**	.043**	.058**	.009	.003	

Note. For women,  $n = 215$ ; for men,  $n = 116$ . Componential loadings larger than .40 are bolded and indicate the dimension in which the respective items are more likely to be found. The following items were inverted to calculate the means: feminine, effeminate, unfamilial, polygamous, heterosexual and bisexual. Tucker's phi coefficient of congruence among component found in women and men samples (Tucker, 1951). Negative values of Cohen's  $d$  indicate higher means for men (Cohen, 1982).

\*\*  $p < .001$ .

	Seven items	Seven items and Big 5	Seven items and Big 5	Seven items and Big 5	Seven items and Big 5	Seven items and Big 5	Seven items and Big 5
	Single-factor A	Two-factor A	Seven factors	Single-factor B	Two-factor B	Five factors	12 factors
$\chi^2$	8901.0	5859.4	1047.0 (947.4)	13,033.7	11,664.7	7451.0	2795.5 (2559.9)
df	350	345	320	1080	1079	1070	1014
p	<.001	<.001	<.001	<.001	<.001	<.001	<.001
$\chi^2/df$	22.9	17.0	3.18 (2.88)	12.1	10.8	6.96	2.76 (2.52)
CFI	.46	.57	.80	.45	.49	.61	.85
AGFI	.37	.49	.88	.40	.44	.57	.82
NFI	.25	.45	.90	.19	.28	.54	.83
TLI	.19	.41	.92 (.92)	.17	.26	.55	.87 (.87)
CFI	.25	.46	.91 (.91)	.20	.29	.57	.88 (.89)
RMSEA	0.17	0.15	0.051 (0.051)	0.12	0.12	0.081	0.040 (0.040)
CI 90% RMSEA	0.17-0.18	0.14-0.15	0.051-0.059	0.12-0.13	0.089-0.093	0.047-0.052	
CAC	8425.0	6322.0	163.9	13,751.7	12,400.3	8254.8	4024.1

Note.  $N = 723$ . The numbers between parentheses are the Satorra-Bentler corrected coefficients (Satorra & Bentler, 1994). Single-factor A model specified with a single factor explaining by all of the sexuality characteristics-related items. Two-factor A model defined according to the Hypothesis of Schmitt and Buss (2000). It was specified with two correlated factors, one explaining Sexual Attractiveness, Sexual Orientation and Sexual Restraint and the other by Gender Orientation, Emotional Investment and Relationship Exclusivity. Both factors were explaining Erotophilic Disposition. Seven factors: model specified with seven correlated factors, each explaining their respective observable sexuality characteristics, as in the model found in Study 1. From this research, Single-factor B model specified with a single factor explaining all of the sexuality characteristics items and by the 5 factors. Two-factor B model specified with two correlated factors, one explaining the sexuality characteristics items and the other by items from the Big 5 model. Five factors: model specified according to the results of Schmitt and Buss (2000, p. 162) exploratory analysis for determining the sexuality and Big 5 dimensions. Five-factor model was specified with five correlated factors. One was explaining by the Agreeableness and Emotional Investment items, another by Sexual Attractiveness, Extraversion, Erotophilic Disposition and Sexual Restraint, another by items from Openness and Sexual Orientation, another by Neuroticism items and Gender Orientation, and another by the Conscientiousness and Relationship Exclusivity items.  $\chi^2$ : Chi-square; df: Degrees of freedom;  $\chi^2/df$ : Chi-square/Degrees of freedom ratio; CFI: Goodness of Fit Index; AGFI: Adjusted Goodness of Fit Index; NFI: Normed Fit Index; TLI: Tucker-Lewis Index; CFI: Comparative Fit Index; RMSEA: Root Mean Square Error of Approximation; CI 90% RMSEA: 90% Confidence Interval; CAC: Consistent Akaike Information Criterion.

	Alpha coefficient	Test-retest <sup>1</sup>	Women n = 432		Men n = 291		d
			M	SD	M	SD	
Sexual Attractiveness	.90	.81	4.41	1.36	4.28	1.33	0.30
Gender Orientation	.91	.81	2.27	.96	5.91	.94	-.384**
Erotophilic Disposition	.79	.83	2.01	1.01	2.84	1.35	-.071**
Emotional Investment	.84	.89	2.70	1.00	5.69	1.04	0.30*
Relationship Exclusivity	.83	.91	6.20	1.04	5.66	1.42	0.43**
Sexual Orientation	.82	.86	6.27	1.30	6.06	1.62	0.14
Sexual Restraint	.71	.88	2.79	1.21	2.58	1.08	0.18*

Note. Gender differences verified using Student's  $t$ -test. Negative Cohen's  $d$  (1982) indicates higher means for men.

<sup>1</sup> About 75 days between the first and second responses,  $n = 44$ .

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

	Step 1			Step 2			Step 3		
	$\beta$	<i>t</i>	<i>p</i>	$\beta$	<i>t</i>	<i>p</i>	$\beta$	<i>t</i>	<i>p</i>
Constant	(3.03)	32.8	<.001	(2.42)	14.5	<.001	(2.55)	9.80	<.001
Sex (masculine)	.04	1.03	.30	.03	0.90	.37	.09	1.32	.19
Age	.19	5.13	<.001	.09	2.70	.007	.07	2.23	.03
Agreeableness				.07	1.93	.05	.06	1.48	.14
Extraversion				.12	3.28	.001	.08	2.15	.03
Conscientiousness				.29	8.42	<.001	.25	7.17	<.001
Neuroticism				-.30	-8.39	<.001	-.28	-8.19	<.001
Openness				.06	1.79	.07	.02	0.47	.64
Gender Orientation							-.01	-.016	.87
Emotional Investment							-.01	-.042	.67
Erotophilic Disposition							-.10	-2.66	.008
Sexual Orientation							-.005	-.015	.98
Relationship Exclusivity							.06	1.59	.11
Sexual Restraint							-.09	-2.62	.009
Sexual Attractiveness							.25	7.09	<.001
R <sup>2</sup>				.28			.34		
F		.04	14.9***	39.7***			25.6***		
$\Delta R^2$				.25			.06		
$\Delta F$				47.6***			8.44***		

Note.  $N = 723$ . The value in parentheses corresponds to the non-standardized constant of the coefficient.

\*\*\*  $p < .001$ .

## Conclusion

This study attested the existence of descriptors of personal characteristics concerning sexuality in the Brazilian culture. These descriptors represented the same seven dimensions found by Schmitt and Buss (2000).

Our findings support the idea that sexual dimensions of person description are not subsumed, but go beyond the Five Factors when explaining personality. Stating that means to reinforce the notion that the Big Five and the Sexy Seven refer to independent constructs and can, consequently, provide different kinds of information to explain diverse psychological variables.

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See also:

Natividade, J. C., & Hutz, C. S. (2016). Personal characteristics associated with sexuality can be classified into seven dimensions in Brazil. *Personality and Individual Differences*, 97, 88-97. doi: 10.1016/j.paid.2016.03.030