



Articles

The Hungarian Version of Sociosexual Orientation Inventory Revised (SOI-R): Sex and Age Differences

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Abstract

Affectionless, uncommitted sexual behavior was formerly interpreted in psychology as a function of individual decisions, a kind of intrapsychic variable. Sociosexual orientation is directly linked to reproductive success, so among other issues, measuring sociosexual orientation has been of great interest for evolutionary scientists. Most recently Penke and Asendorpf (2008) prepared the revised version of Sociosexual Orientation Inventory (SOI-R), which has been used in dozens of studies since its publication. The aim of the current study was to test the usability of the Hungarian version and to analyze the factor structure and internal reliability of the inventory. It was translated and the structure was analyzed on a Hungarian sample (n = 1345, females = 832, males = 513; age: M = 26.37 years, SD = 8.75, range: 16-74). Our results show that the Hungarian version has the same three-factor structure as proposed by Penke and Asendorpf (2008) and is a reliable inventory for further studies of sociosexual desire decreases with age, whereas older participants report less restricted sociosexual behavior. Sociosexual attitude is uneffected by age. Results are discussed from both evolutionary and life-span developmental points of view.

Keywords: Sociosexual Orientation Inventory, sexual strategies, mate choice, evolution

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Introduction

Definition and Measurement of Sociosexuality

The first scientific evidence showing that promiscuity is a more characteristic part of the human behavioral repertoire than formerly assumed was published in the Kinsey-reports (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). It was Kinsey who first used the term 'sociosexuality', referring to the individual differences in the willingness to engage in short term, uncommitted sexual intercourse. However, a few decades had to elapse until the publication of the Sociosexual Orientation Inventory (SOI) by Simpson and Gangestad (1991), which enabled the measurement of the openness to promiscuity along a single dimension, a global sociosexuality scale.

The original inventory was composed of seven items, two of which referred to the former sexual behavior of the subject, another two to the expected future behavior, and the last three gave a picture of the general attitude to emotionally uncommitted sex. Thus, two sub-scales, measuring sociosexual behavior and attitude, emerged. The authors (Simpson & Gangestad, 1991) found that men, in general, score higher on the SOI scale than women.

The results showed that there are two groups of people from both sexes. Individuals in the first group are more willing to engage in a sexual intercourse without emotional commitment, while those in the second group are more reluctant to get involved in uncommitted sexual relationships. The two groups were referred to as showing unrestricted sociosexuality and restricted sociosexuality, respectively (Gangestad & Simpson, 1990; Simpson & Gangestad, 1991, 1992). Relatively high SOI scores indicate one's willingness to engage in short-term relations (i.e., having multiple partners over a short period of time), whereas lower scores indicate preference for long-term relationships (i.e., having relatively fewer partners with exclusive sexual access). According to the explanation of Gangestad and Simpson (2000), these are alternative mate choice strategies that lead to different SOI scores.

Evolution of Sex Differences in Sociosexuality

According to an evolutionary psychological perspective, ancestral men and women faced different adaptive problems that threatened their survival and reproduction (Buss. 1994). According to parental investment theory. there is a conflict for both males and females in how much time, effort, and resources to invest in mating versus parenting (Trivers, 1972). For mammals, including humans, males need to invest substantially less in parenting than females to achieve successful reproduction. The fertilization and gestation occur within the female, and, after birth, mothers provide the primary nutritional support for their offspring until they are weaned. Male investment in offspring may be as little as the sperm produced during copulation.

According to sexual strategies theory males in most mammals can achieve tremendous reproductive success by inseminating many females, making males relatively indiscriminate when it comes to choosing a sex partner (Buss, 1994). Females, in contrast, have much more invested, at least potentially, in a single copulation. The possibility of pregnancy, and the time and energy spent caring for the resulting offspring, favored ancestral females who were selective in mating. Because of the long period of immaturity in humans, ancient women's reproductive interests were often best served by selecting a mate who not only would provide good genes, but who also would invest in her and her offspring. Over evolutionary time, it was also in men's reproductive interests to see to it that their offspring received the support necessary to survive to reproductive age. But the amount and duration of investment necessary to ensure the survival of offspring was less for men than for women. Thus, although both men and women shared a common reproductive goal (getting their offspring to adulthood), the optimal level of investment to achieve this goal was unequal for the sexes, placing males' and females' reproductive interests in conflict (Bjorklund & Shackelford, 1999).

Men and women have evolved different psychological mechanisms as solutions to the adaptive problems unique to their sex. For example, fertilization occurs within the female, and it is the female who gestates and gives birth to the offspring. This greater prenatal investment of the female comes at considerable cost but brings with it certainty of maternity. In contrast, males, who may invest only sperm and the energy necessary to copulate, cannot be certain of paternity.

Human sex differences in parental investment predict sex differences in sexual strategies. These sex differences include the greater inclination of men to pursue short-term casual sex and the greater selectivity of women in choosing a mate, especially in the context of short-term mating. Men nominate more sexual partners as ideal than women do (Schmitt, Shackelford, Duntley, Tooke, & Buss, 2001), and are more willing to engage in short-term, temporary sexual relationships with no commitment (Buss, 2003).

Components of Sociosexuality

Penke and Asendorpf (2008) proposed that contrary to the former assumption of Simpson and Gangestad (1991), sociosexual orientation is not a single global dimension, but consists of three components: sociosexual behavior, sociosexual attitude, and sociosexual desire. To fit this three-factor structure, the original questionnaire had been revised and published as the SOI-R questionnaire (Penke & Asendorpf, 2008).

Sociosexual behavior — Individual differences in the preference for uncommitted sexual relationships are present in the measurable components of the behavior; some people are quite often engaged in romantic affairs without being emotionally involved, while others prefer more monogamous, long-lasting, emotionally committed relations. Since in the evolutionary past the frequency of sexual intercourses correlated with the number of offspring, unrestricted sociosexual behavior was favored by sexual selection (Jackson & Kirkpatrick, 2007). Therefore, susceptibility to short-term relations can be understood as an evolutionary adaptation. That is, ecological and social factors of the environment modify the developmental trajectory and influence unconscious reproductive decisions. From a developmental perspective, sociosexual behavior also gives information about whether the available resources (time, effort, money, etc.) were invested in short-term partners or in long-term, emotionally committed relationships. Biological models based on life-history theory (LHT) have already revealed such interconnections (Roff, 1992). Consequently, sociosexual behavior measured at any point of life is related to individual experiences of mate choice, and is likely to indicate future behavioral tendencies as well (Penke & Asendorpf, 2008).

Sociosexual attitude — Sociosexual attitude is a cognitive-affective evaluation related to uncommitted sexuality (Penke & Asendorpf, 2008). Individual differences in attitude, of course, may be influenced by cultural characteristics (Schaller & Murray, 2008; Schmitt, 2005b). Cultural values (e.g. morality), sexuality related traditions (e.g. religious rules), and institutionalized conventions (e.g. marriage systems) all might affect the sociosexuality of a particular population (Low, 2007). In their study, Baumeister and Twenge (2002) found that it was not men who suppressed female sexuality, but it was the interest of women to eliminate sexual rivals, because the scarcity of sexual partners increases the value of such. So, intrasexual rivalry might as well have shaped the negative attitude of women towards unrestricted sociosexuality.

Sociosexual desire — Sociosexual desire is a motivational state similar to general sexual desire characterized by the enhancement of sexual interest, arousal, and sexual fantasies (Penke & Asendorpf, 2008; Simpson & Gangestad, 1991; Simpson, Wilson, & Winterheld, 2004). In contrast to general sexual desire, unrestricted sociosexual desire stems mainly from attractiveness, hence it is related to physical appearance. The object of sociosexual desire is a potential sexual partner who can differ from a potential long-term partner in an emotionally committed relationship. Therefore, by measuring sociosexual desire, the motivational basis of long-term and shortterm mate choice tactics can be differentiated.

Recent Research on Sociosexuality

In a first group of studies, researchers used SOI-R for testing hypothetical link between sociosexuality and face preference. Boothroyd, Cross, Gray, Coombes, & Gregson-Curtis (2011) found perceiving facial correlates of sociosexuality. Their results showed that more facially masculine men report stronger preferences for uncommitted sexual relationships. Participants identified as having unrestricted sociosexuality if female, more masculine if male, and more attractive if female. Quist et al. (2012) found new evidence for potentially adaptive variation in women's symmetry preferences that is consistent with trade-off theories of attraction. Their results showed that women's sociosexuality, and their sociosexual attitude in particular, predicted their preferences for symmetry in

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men's, but not women's faces; women who reported being more interested in short-term, uncommitted relationships demonstrated stronger attraction to symmetric men.

Mouilso and Calhoun (2012) examined the link between pathological personality traits (i.e., narcissism and psychopathy) and perpetration of sexual aggression among college men. They explored how sexuality impacts the operation of these personality traits in the context of sexual aggression. The researchers described a model proposed that sociosexuality (i.e., willingness to engage in frequent, casual sexual encounters) would explain the associations of narcissism and psychopathy with perpetration of sexual aggression. According to their results, participants who scored in the upper third of the distribution of all three personality variables were twice as likely to report perpetration relative to the sample as a whole. Both narcissism and psychopathy distinguished perpetrators from nonperpetrators, but with sociosexuality included in the model neither personality trait continued to explain significant variance in perpetration.

Jonason, Teicher, and Schmitt (2011) attempted to replicate and extend the construct validity of the Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003) by relating it to sociosexuality and self-esteem. The researchers replicated some of the most well documented Big Five correlations: Self-esteem was negatively correlated with neuroticism and positively with extraversion; sociosexuality was positively correlated with extraversion and negatively with agreeableness.

Objectives

The aim of the recent study was to translate the Revised Sociosexual Orientation Inventory (SOI-R; Penke & Asendorpf, 2008) into Hungarian, and test its internal reliability and validity. We assumed that, due to the underlying ultimate behavioral causes (see details in Discussion), the structure of the questionnaire is universal and independent of cultural influences, therefore, the structure and psychometric indices of the SOI-R can be replicated with a Hungarian sample in our study. Furthermore, we predicted that between-sex differences would be similar to those found in former studies, wherein females showed more restricted sociosexuality than males.

Methods

Participants

In this study, data from 1345 participants were analyzed (age: M = 26.37 years, SD = 8.75, range: 16-74). From our participants 832 were female (age: M = 25.20 years, SD = 6.75, range: 16-68), and 513 male (age: M = 28.27years, SD = 11.00, range: 18-74). The SOI-R questionnaire was used in multiple studies over a one-year period in online format (www.surveymonkey.com). Volunteers were recruited through various electronic media, such as web-based social networks, mailing lists of the university, etc. Though useful means for assessing sexual orientation (i.e., to see if a participant is hetero-, bi-, or homosexual) are available (e.g. the Kinsey-scale; Kinsey, Pomeroy, & Martin, 1948), since the aim of the study was to compare the sociosexuality of an average female and male population, this question was not addressed.

Instrument

The SOI-R consists of three sub-scales: (1) sociosexual behavior – SOI-B; (2) sociosexual attitude – SOI-A; and (3) sociosexual desire – SOI-D. Each sub-scale consists of 3 items. The original SOI-R was validated in two forms: questions of the basic form have to be answered on 9-point Likert-scales. Besides, a questionnaire with 5-point Likert-scales for subjects with lower socioeconomic status was prepared as well. The version with the 5-point



Likert-scale is less differentiated, so it is easier to understand. The current study investigates the usability of the form with 9-point Likert-scales. The 9 items of the questionnaire were translated into Hungarian using both the English and the German version to preserve the original sense of the SOI-R. To check the accuracy of the translation, the English back-translation was compared to the original English version (it can be found in Appendix A,) (SOI-R in 25 different languages is available at www.larspenke.eu). Hungarian version can be found in Appendix B.



Figure 1. Confirmatory factor analysis of the Hungarian version of the Sociosexual Orientation Inventory. *Note.* Each factor weights and each covariance is significant (p < .001). Cronbach's α for global SOI-R (9 items) is .85.

Statistical Analysis

After exploratory factor analysis (EFA), we tested the fit of the data from our Hungarian sample to the structure of SOI-R (suggested by Penke and Asendorpf, 2008) using confirmatory factor analysis (CFA). To assess the reliability of the SOI-R, we examined the values of Cronbach's alphas. We used Pearson's linear correlation to test interrelations between the SOI-R scales, and between the SOI-R scales and the age of the participants. Scores of the two sexes on the three sub-scales were compared with ANOVAs. For the analyses, IBM SPSS Statistics 19.0 and Amos 18.0 software was used.

Results

Structure and Psychometric Properties of the SOI-R

Exploratoy factor analysis (PCA, Varimax rotation) yielded a three component solution (Table 1) based on the eigenvalues of the components. The components consisted of the same items as suggested by Penke and Asendorpf (2008), so, they were labeled accordingly.



Results of Exploratory Factor Analysis							
						Component	
SOI-R items					-	2	e
SOI-R scale: Sociosexual desire							
8. How often do you experience sexual arous	al when you are in contact w	vith someone you are	not in a committed rom	antic relationship with	1?		
7. How often do you have fantasies about ha	ving sex with someone you a	ire <i>not</i> in a committed	I romantic relationship v	with?	.874		
9. In everyday life, how often do you have sp	ontaneous fantasies about ha	aving sex with someo	ne you have just met?		.840		
SOI-R scale: Sociosexual attitude							
4. Sex without love is OK.						.843	
5. I can imagine myself being comfortable an	d enjoying "casual" sex with	different partners.				.799	
6. I do not want to have sex with a person un	il I am sure that we will have	e a long-term, serious	relationship.			791	
SOI-R scale: Sociosexual behavior							
2. With how many different partners have you	had sexual intercourse on o	one and only one occ	asion?				.877
 With how many different partners have you With how many different partners have you 	had sexual intercourse with had sex within the past 12 r	out having an interes! nonths?	t in a long-term committ	ed relationship with th	iis person?		.860 .756
% of Variance Explained	-				26.862	25.025	24.770
Table 2							
Pearson's Correlations of the Sub-Scales and	the Total Score of the SOI-F	~					
	Sociosexua	al behavior	Sociosexu	al attitude	Sociose	xual desire	
	Females (<i>n</i> = 832)	Males (<i>n</i> = 513)	Females (<i>n</i> = 832)	Males (<i>n</i> = 513)	Females (<i>n</i> = 832)	Males (<i>i</i>	1 = 513)
Sociosexual attitude	r =.50	r =.43					
Sociosexual desire	r =.20	r =.23	r =.39	r =.47			
Global sociosexual index	r =.69	r =.68	r =.89	r =.86	r =.67	r=.7	6
n < 0.1 for all correlations							

The Hungarian Version of SOI-R

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The fit of this three-factor structure to our data was verified with CFA (maximum likelihood method). The model showed excellent fit: $\chi^2(27) = 232.378$, p < .001; TLI = 0.96; CFI = 0.97; RMSEA = 0.075, 95% CI [0.066, 0.084]. The factor weights and the covariances between the scales are shown in Figure 1. All scales proved to be internally consistent with Cronbach's alphas of .80 and higher (for details see Figure 1).

The interrelation of the sub-scales and the global sociosexuality index is shown in Table 2. Pearson's correlations between the sub-scales ranged from weak to moderate, whereas the sub-scales showed strong correlation with the global index.

Age and Sociosexuality

It was assumed that the correlations might differ between the two sexes, so coefficients were calculated separately for both sub-samples (Table 3). The age of both men and women correlated positively and significantly with the sociosexual behavior, whereas it showed a negative correlation with sociosexual desire. This means that with increasing age, both men and women exhibited more unrestricted sociosexual behavior and experienced less sociosexual desire. Neither the sociosexual attitude, nor the total SOI-R scores showed any significant correlations with age in the two groups.

Table 3

Linear Correlations of Age and Sociosexuality of the Two Subgroups

		Sociosexual behavior	Sociosexual attitude	Sociosexual desire	SOI-R global score
Age	Females (<i>n</i> = 832)	<i>r</i> = .114*	<i>r</i> = .019	<i>r</i> =140**	<i>r</i> =005
	Males (<i>n</i> = 513)	<i>r</i> = .126*	<i>r</i> =037	<i>r</i> =251**	<i>r</i> =058

*p < .005. **p < .001.

Between-Sex Comparisons

The scores of female and male participants on the sub-scales of the SOI-R, and their global sociosexual index were compared with independent samples t-tests (Table 4). The results confirmed our expectations. The sub-scales (behavior, attitude, desire) and the global index showed significant differences between the sexes; men scored higher than women on all scales.

Table 4

SOI-R Scale Scores for Men and Women, the Results of ANOVAs; df = 1 in Each Case

	Females	s (n = 832)	Males	(<i>n</i> = 513)		
SOI-R scales	М	SD	М	SD	F	p
Behavior	7.03	4.22	8.10	5.41	16.447	<.001
Attitude	14.17	7.42	18.10	7.30	19.792	<.001
Desire	8.57	4.89	14.14	6.65	310.668	<.001
Global sociosexual index	29.78	12.80	40.34	14.94	189.908	<.001



Discussion

The current study aimed to analyze the factor structure of the Hungarian version of the Sociosexual Orientation Inventory Revised (SOI-R). The results showed that the Hungarian version has the same three-factor structure as proposed by Penke and Asendorpf (2008), hence it is a reliable instrument which has three sub-scales of high internal consistency. The correlations between the sub-scales and the global sociosexuality index corresponded with the psychometric properties of the English version (Penke & Asendorpf, 2008).

The fact that males scored higher than females on all sub-scales is in line with other research results (e.g. Schmitt et al., 2003). An appropriate evolutionary explanation for the sex differences in sociosexuality is delivered by the theory of sexual strategies (Buss & Schmitt, 1993). The difference between sexes is a direct consequence of parental investment theory (Trivers, 1972), which claims that in many species the reproductive success of one sex, but not that of the other, is directly and strongly influenced by the number of available potential sexual partners. On the one hand, males generally invest much less energy and time in offspring than females do. Therefore, their genetic representation in the next generation can be increased successfully by increasing the number of mating partners. This effort is limited by the number of susceptible females tolerating and/or accepting an uncommitted sexual relation. On the other hand, female reproductive fitness can be increased by acquiring the resources (food, territory) monopolized by males, and not by the number of potential mating partners. Because these environmental factors (i.e. resources), exert a strong influence on females' capacity to raise their young, they usually seek out less sexual partners than males (Symons, 1979). In short, women use their cognitive-emotional-motivational capacity primarily to evaluate the potential partner's willingness and ability for parental investment. At the same time, men have been under evolutionary pressure to mate with as many sexual partners as possible (Buss & Schmitt, 1993).

Although it was found that the global index of the SOI-R did not correlate with age, the sub-scales showed a more complex pattern. Both men and women showed more unrestricted sociosexual behavior as their age increased (i.e. experience casual sexual intercourses more frequently), and at the same time the sociosexual desire of the older participants was lower than that of the younger individuals. Sociosexual attitude seemed to remain unaffected by age.

Sexual motivation of both sexes is based physiologically on the level of sex-hormones (testosterone) that decreases with age (Edelstein, Chopik, & Kean, 2011). The increase of sociosexual behavior is seemingly in contradiction with the fact that older individuals have generally lower desire. The explanation is that some questions of the SOI-R refer to the whole lifetime. Older people might have had more sexual opportunities during their life, while younger ones, though their desire is higher, had less time to achieve their sexual goals.

Sociosexual attitude, in contrast to behavior and desire, is not influenced by age; though older people might have more experiences, their attitude to casual sex does not become more permissive. Attitude is less directly based on hormonal functioning, it is much more the product of socialization and other environmental inputs. Based on the theory of cognitive dissonance (Festinger, 1962), we assume that sociosexual attitude remains unchanged until the desires and self-image of the individual, and social expectations directed towards the individual are in harmony. In an average population the sociosexual desire decreases with age, and probably this corresponds to the general societal ideas about the sexuality of elderly people (Trudel, Turgeon, & Piché, 2000). Hence the attitude does not need to be changed. The global index of the SOI-R is independent of age, since younger individuals

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have generally higher desire and less experience, and older individuals have less desire and more experience. The two factors, together with the age-independent sociosexual attitude scale, counterbalance each other, resulting in an age-independent global score.

Conclusions

Individual differences in sexual commitment have already been revealed by the Kinsey-reports (Jonason & Buss, 2012; Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). It was also Kinsey, who introduced the term 'sociosexuality' to describe the extent of individuals' willingness to engage in uncommitted sexual relations. Since the trade-off between long- and short-term mate choice strategies (i.e. sex with or without commitment) has been a central issue in evolutionary psychology (Schmitt, 2005a), sociosexuality and its objective measurement have become important for this discipline.

We translated the SOI-R (Penke & Asendorpf, 2008) into Hungarian and investigated its psychometric properties. CFA confirmed the three-factor structure of the Hungarian version. The comparison of the SOI-R scores of men and women revealed sex differences in the expected direction (i.e. men scoring higher on all subscales). These results are in line with parental investment theory (Trivers, 1972). The relationship between age and the different aspects of sociosexuality was explained using both physiological and social psychological points of view. Our results prove the Hungarian version of the SOI-R to be a reliable instrument for measuring uncommitted sexuality on the level of behavior, attitude and desire. However, further studies have to test the validity of the Hungarian version of SOI-R in more detail. Beside its use in research, the SOI-R could be an inventory suitable for clinical work, especially in marital and sex therapy.

Appendix A – SOI-R in English

The revised Sociosexual Orientation Inventory (SOI-R)

Please respond honestly to the following questions:

1.	With how many	/ different	partners ha	ve vou had	sex within the	past 12 months?
•••						

0	1	2	3	4	5-6	7-9	10-19	20 or more

2. With how many different partners have you had sexual intercourse on one and only one occasion?

0	1	2	3	4	5-6	7-9	10-19	20 or more

3. With how many different partners have you had sexual intercourse without having an interest in a long-term committed relationship with this person?

0	1	2	3	4	5-6	7-9	10-19	20 or more

4. Sex without lo	ove is OK.							
1 □ Strongly disagree	2 🗆	3 🗆	4 🗆	5 🗆	6 🗆	7 🗆	8 🗆	9 □ Strongly agree
5. I can imagine	myself bein	g comfortabl	e and enjoyi	ng "casual"	sex with diffe	erent partners	S.	
1 □ Strongly disagree	2 🗆	3 🗆	4 🗆	5 🗆	6 🗆	7 🗆	8 🗆	9 □ Strongly agree
6. I do <i>not</i> want	to have sex	with a perso	n until I am s	sure that we	will have a lo	ong-term, se	rious rela	ationship.
1 □ Strongly disagree	2 🗆	3 🗆	4 🗆	5 🗆	6 🗆	7 🗆	8 🗆	9 □ Strongly agree

7. How often do you have fantasies about having sex with someone you are *not* in a committed romantic relationship with?

- □ 1 never
- \square 2 very seldom
- $\hfill \ensuremath{\square}$ 3 about once every two or three months

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- □ 4 about once a month
- $\hfill\square$ 5 about once every two weeks
- □ 6 about once a week
- □ 7 several times per week
- □ 8 nearly every day
- $\hfill\square$ 9 at least once a day

8. How often do you experience sexual arousal when you are in contact with someone you are *not* in a committed romantic relationship with?

- □ 1 never
- \square 2 very seldom
- $\hfill\square$ 3 about once every two or three months
- □ 4 about once a month
- $\hfill\square$ 5 about once every two weeks
- □ 6 about once a week
- \square 7 several times per week
- □ 8 nearly every day
- □ 9 at least once a day

9. In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?

- \Box 1 never
- \square 2 very seldom
- $\hfill\square$ 3 about once every two or three months
- \square 4 about once a month
- $\hfill\square$ 5 about once every two weeks
- □ 6 about once a week
- \Box 7 several times per week
- □ 8 nearly every day
- $\hfill\square$ 9 at least once a day

Items 1-3 should be coded as 0 = 1, 1 = 2, 2 = 3, 3 = 4, 4 = 5, 5-6 = 6, 7-9 = 7, 10-19 = 8, 20 or more = 9; they can then be aggregated (i.e., summed or averaged) to form the Behavior facet ($\alpha = .85$). After reverse-coding item 6, items 4-6 can be aggregated to form the Attitude facet ($\alpha = .87$). Aggregating items 7-9 results in the Desire facet ($\alpha = .86$). Finally, all nine items can be aggregated to a total score of global sociosexual orientation ($\alpha = .83$). When items 1-3 are presented with open response format instead of the rating scales, items 2, 4, and 7 of the original SOI can be added to the SOI-R to allow for calculating the SOI total score in addition to the SOI-R scores. In this case, the open responses should be recoded to the rating scale format (i.e., 0 = 1, 1 = 2, ..., 20 to max. = 9) before the SOI-R scores are determined. (Downloaded from: http://larspenke.eu/pdfs/SOI-R%20Manual.pdf)

Appendix B – Hungarian Translation of SOI-R

Szocioszexuális orientáció kérdőív (SOI-R)

Kérem, válaszoljon őszintén a következő kérdésekre!

1. Hány különböző partnerrel létesített szexuális kapcsolatot az elmúlt 12 hónapban?

0	1	2	3	4	5-6	7-9	10-19	20 vagy több

2. Hány különböző partnerrel létesített alkalmi szexuális kapcsolatot (közösült) élete során úgy, hogy az egy és valóban csak egyetlen alkalom volt?

0	1	2	3	4	5-6	7-9	10-19	20 vagy több

3. Hány különböző partnerrel létesített már szexuális kapcsolatot (közösült) úgy, hogy nem kívánt ezzel a személlyel hosszú távú párkapcsolatot kialakítani?

0	1	2	3	4	5-6	7-9	10-19	20 vagy több

4. A szexuális érintkezés szerelem nélkül is elfogadható.

1 🗆	2 🗆	3 🗆	4 🗆	5 🗆	6 🗆	7 🗆	8 🗆	9 🗆
Egyáltalán nem	i értek egyet						Telj	esen egyetértek

5. Elképzelhetőnek tartom, hogy a különböző partnerekkel folytatott "alkalmi" szexuális érintkezés élvezetes lehet számomra.

1 🗆	2 🗆	3 🗆	4 🗆	5 🗆	6 🗆	7 🗆	8 🗆	9 🗆
Egyáltalán nem értek egyet							Telj	esen egyetértek

6. Senkivel nem szeretnék szexuális kapcsolatot létesíteni addig, amíg nem vagyok biztos benne, hogy a kapcsolat hosszú távú és komoly lesz.

1 🗆	2 🗆	3 🗆	4 🗆	5 🗆	6 🗆	7 🗆	8 🗆	9 🗆
Egyáltalán ner	n értek egyet						Telj	esen egyetértek

7. Milyen gyakran vannak szexuális fantáziái olyan valakiről, akivel ön nem áll elkötelezett párkapcsolatban?

- □ 1 soha
- 2 nagyon ritkán
- 3 két-háromhavonta
- □ 4 havonta
- □ 5 kéthetente
- □ 6 hetente
- 7 heti több alkalommal
- B majdnem minden nap
- 9 naponta legalább egyszer

8. Milyen gyakran tapasztal szexuális izgalmat, amikor olyan valakivel kerül kapcsolatba, akivel ön nem áll elkötelezett párkapcsolatban?

🗆 1 – soha

- 2 nagyon ritkán
- 3 két-háromhavonta
- 4 havonta
- □ 5 kéthetente
- \square 6 hetente
- 7 heti több alkalommal
- B majdnem minden nap
- 9 naponta legalább egyszer



9. A mindennapok során milyen gyakran vannak spontán fantáziái arról, hogy olyan ismeretlen személlyel érintkezik szexuálisan, akivel éppen csak találkozott?

- 🗆 1 soha
- 2 nagyon ritkán
- 3 két-háromhavonta
- 4 havonta
- 5 kéthetente
- $\square 6 hetente$
- 7 heti több alkalommal
- \square 8 majdnem minden nap
- 9 naponta legalább egyszer

Instrukciók az értékeléshez. Az 1-3. itemek kódolása a következő: 0=1, 1=2, ... 10-19=8, 20 vagy több=9. Az első három item összege adja viselkedésre vonatkozó alskálát. A 6. Item fordított kódolású. A 4-6. item összege adja az attitűdökre vonatkozó alskálát. A 7-9. Item összege adja a vággyal kapcsolatos alskálát. Az 1-9. itemek összeadásával megkaphatjuk a globális szocioszexuális orientációt.

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Competing Interests

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References

- Baumeister, R. F., & Twenge, J. M. (2002). Cultural suppression of female sexuality. *Review of General Psychology*, *6*, 166-203. doi:10.1037/1089-2680.6.2.166
- Bjorklund, D. F., & Shackelford, T. K. (1999). Differences in parental investment contribute to important differences between men and women. *Current Directions in Psychological Science*, *8*, 86-89. doi:10.1111/1467-8721.00020
- Boothroyd, L. G., Cross, C. P., Gray, A. W., Coombes, C., & Gregson-Curtis, K. (2011). Perceiving the facial correlates of sociosexuality: Further evidence. *Personality and Individual Differences*, 50(3), 422-425. doi:10.1016/j.paid.2010.10.017
- Buss, D. M. (1994). The evolution of desire. New York, NY: Basic Books.
- Buss, D. M. (2003). Sexual strategies: A journey into controversy. *Psychological Inquiry, 14*, 219-226. doi:10.1080/1047840X.2003.9682883
- Buss, D. M., & Schmitt, D. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100, 204-232. doi:10.1037/0033-295X.100.2.204

- Edelstein, R. S., Chopik, W. J., & Kean, E. L. (2011). Sociosexuality moderates the association between relationship status and testosterone in men and women. *Hormones and Behavior, 60*, 248-255. doi:10.1016/j.yhbeh.2011.05.007
- Festinger, L. (1962). A theory of cognitive dissonance (Mass Communication Series, Vol. 2). Stanford, CA: Stanford University Press.
- Gangestad, S. W., & Simpson, J. A. (1990). Toward an evolutionary history of female sociosexual variation. *Journal of Personality*, *58*, 69-96. doi:10.1111/j.1467-6494.1990.tb00908.x
- Gangestad, S. W., & Simpson, J. A. (2000). The evolution of human mating: Trade-offs and strategic pluralism. *The Behavioral and Brain Sciences*, 23, 573-644. doi:10.1017/S0140525X0000337X
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37, 504-528. doi:10.1016/S0092-6566(03)00046-1
- Jackson, J. J., & Kirkpatrick, L. A. (2007). The structure and measurement of human mating strategies: Toward a multidimensional model of sociosexuality. *Evolution and Human Behavior, 28*(6), 382-391. doi:10.1016/j.evolhumbehav.2007.04.005
- Jonason, P. K., & Buss, D. M. (2012). Avoiding entangling commitments: Tactics for implementing a short-term mating strategy. *Personality and Individual Differences, 52*, 606-610. doi:10.1016/j.paid.2011.12.015
- Jonason, P. K., Teicher, E. A., & Schmitt, D. P. (2011). The TIPI's validity confirmed: Associations with sociosexuality and self-esteem. *Individual Differences Research*, *9*(1), 52-60.
- Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). Sexual behavior in the human male. Philadelphia, PA: W. B. Saunders.
- Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Gebhard, P. H. (1953). Sexual behavior in the human female. Philadelphia, PA: W. B. Saunders.
- Low, B. S. (2007). Ecological and sociocultural influences on mating and marriage systems. In R. Dunbar & L. Barrett (Eds.), *The Oxford handbook of evolutionary psychology* (pp. 449-462). Oxford, England: Oxford University Press.
- Mouilso, E. R., & Calhoun, K. S. (2012). A mediation model of the role of sociosexuality in the associations between narcissism, psychopathy, and sexual aggression. *Psychology of Violence*, *2*(1), 16-27. doi:10.1037/a0026217
- Penke, L., & Asendorpf, J. B. (2008). Beyond global sociosexual orientations: A more differentiated look at sociosexuality and its effects on courtship and romantic relationships. *Journal of Personality and Social Psychology*, 95, 1113-1135. doi:10.1037/0022-3514.95.5.1113
- Quist, M. C., Watkins, C. D., Smith, F. G., Little, A. C., DeBruine, L. M., & Jones, B. C. (2012). Sociosexuality predicts women's preferences for symmetry in men's faces. Archives of Sexual Behavior, 41(6), 1415-1421. doi:10.1007/s10508-011-9848-8
- Roff, D. A. (1992). The evolution of life histories: Theory and analysis. New York, NY: Chapman & Hall.
- Schaller, M., & Murray, D. R. (2008). Pathogens, personality, and culture: Disease prevalence predicts worldwide variability in sociosexuality, extraversion, and openness to experience. *Journal of Personality and Social Psychology*, 95(1), 212-221. doi:10.1037/0022-3514.95.1.212
- Schmitt, D. P. (2005a). Fundamentals of human mating strategies. In D. M. Buss (Ed.), *The handbook of evolutionary psychology* (pp. 258-291). Hoboken, NJ: John Wiley & Sons.



- Schmitt, D. P. (2005b). Sociosexuality from Argentina to Zimbabwe: A 48-nation study of sex, culture, and strategies of human mating. *The Behavioral and Brain Sciences, 28*(2), 247-311. doi:10.1017/S0140525X05000051
- Schmitt, D. P., Alcalay, L., Allik, J., Ault, L., Austers, I., Bennett, K. L., . . . Zupanèiè, A. (2003). Universal sex differences in the desire for sexual variety: Tests from 52 nations, 6 continents, and 13 islands. *Journal of Personality and Social Psychology*, 85, 85-104. doi:10.1037/0022-3514.85.1.85
- Schmitt, D. P., Shackelford, T. K., Duntley, J., Tooke, W., & Buss, D. M. (2001). The desire for sexual variety as a key to understanding basic human mating strategies. *Personal Relationships*, *8*, 425-455. doi:10.1111/j.1475-6811.2001.tb00049.x
- Simpson, J. A., & Gangestad, S. W. (1991). Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology*, 60, 870-883. doi:10.1037/0022-3514.60.6.870
- Simpson, J. A., & Gangestad, S. W. (1992). Sociosexuality and romantic partner choice. *Journal of Personality, 60*, 31-51. doi:10.1111/j.1467-6494.1992.tb00264.x
- Simpson, J. A., Wilson, C. L., & Winterheld, H. A. (2004). Sociosexuality and romantic relationships. In J. H. Harvey, A. Wenzel, & S. Sprecher (Eds.), *The handbook of sexuality in close relationships* (pp. 87-111). Mahwah, NJ: Lawrence Erlbaum.
- Symons, D. (1979). The evolution of human sexuality. New York, NY: Oxford University Press.
- Trivers, R. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man 1871-1971* (pp. 136-179). Chicago, IL: Aldine.
- Trudel, G., Turgeon, L., & Piché, L. (2000). Marital and sexual aspects of old age. *Sexual and Relationship Therapy*, *15*(4), 381-406. doi:10.1080/713697433

