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Cheating under the Circumstances in Marital Relationships: The Development and Examination of the Propensity towards Infidelity Scale

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Abstract: Most of the previously developed scales addressing infidelity were developed on young samples in dating relationships and with limited couple experience. The present study proposes an instrument to measure the proneness for infidelity among married people with substantial experience as a couple. Specific contexts described by the items, in which unfaithful behavior might occur, were selected from those revealed by previous research on people's motives of past infidelity. Across two studies ($N = 618$) we examined the factorial structure and the psychometric characteristics of the Propensity towards Infidelity Scale (PTIS). Results revealed a one-dimensional structure of the PTIS and supported its reliability, its construct, criterion and incremental validity. PTIS emerged as negatively associated with two measures of adherence to moral standards, and positively related to past unfaithful behavior. Furthermore, the new instrument was found to bring a significant contribution in explaining these behaviors beyond two other scales of infidelity intentions.

Keywords: infidelity; propensity towards infidelity; infidelity motives; scale development; marriage

1. Introduction

Marital infidelity is one of the most cited causes for divorce (DeMaris 2013; Apostolou et al. 2019) and one of the most commonly cited reasons why couples seek therapy (Abrahamson et al. 2012; Leeker and Carlozzi 2014; Josephs 2018; Fife et al. 2008). At the same time, it is a very difficult problem to address in couples therapy and deeply affects the relationship, often resulting in pain, uncertainty, and loss of trust (Fife et al. 2008). Infidelity includes all violations of a commitment of emotional and/or physical exclusivity that the two partners of one relationship have explicitly or implicitly made to each other (Kampowski 2015; Snyder et al. 2007). Its prevalence is quite high among married people: over 30% to 60% of men and 20% to 50% of women engage in at least one extramarital affair (Vangelisti and Gerstenberger 2004), and the negative consequences are multiple and weigh much harder than in non-marital relationships. Noninvolved partners often experience a range of emotional and psychological distress following infidelity, including depression, anxiety, decreased personal and sexual confidence, and decreased self-esteem (Bird et al. 2007). Infidelity can lead to conflict and divorce (Gordon et al. 2005), including sexual and physical abuse (Conroy 2014; Stieglitz et al. 2012), or can take the resources of wives and children (Conroy et al. 2018), and children exposed to parental infidelity are often adversely affected (Thorson 2009).

The researchers in the area of infidelity had to deal with the multifaceted understanding of this notion across previous studies, as it has been operationalized through various behaviors (Blow and Hartnett 2005a): having an affair, extramarital relationship, cheating, sexual infidelity, emotional infidelity, extra-dyadic sexual activities, emotional betrayal, internet infidelity and others. This heterogeneity partly stems from the fact that each type of relationship—marriage, cohabiting, heterosexual, or homosexual—has its specificities in

defining infidelity (Blow and Hartnett 2005b). While for a romantic relationship flirting with another person or going out with someone else might not weight that much, for a marital relationship they could mean a pretty serious betrayal and be considered infidelity.

The present study is focused on marital relationships and examines people's propensity towards infidelity, aiming to develop a novel scale addressing their psychological proneness or motivational intensity towards unfaithful behavior. Past studies indicated differences in sexual behavior patterns between the heterosexual and the homosexual populations, for instance in what concerns the prevalence of partnership concurrency and engagement in non-monogamous sexual relationships (Glick et al. 2012). Moreover, heterosexual infidelity is likely to generate more significant losses than same-sex unfaithfulness: in the case of men, as highlighted by the evolutionary perspective, paternity of offspring can be threatened (Buss and Schmitt 1993), and in the case of women, the extant material resources currently dedicated to her and her children could be transferred to a new family (Conroy et al. 2018). Consequently, we focused on heterosexual partners in marital relationships in our research.

This paper presents two studies that describe the development of a reliable and valid measure of predilection for infidelity among married people, based on the most common motivations that previous studies have brought to attention for this behavior. Such an instrument may be useful in couples therapy, either premarital, as suggested by a systematic review by Haseli et al. (2019), or later, when therapists face the partners' difficulties in talking openly about infidelity (Blow and Hartnett 2005a). A measure that reveals a predilection for infidelity and the reasons behind it could guide the psychotherapeutic intervention.

The assessment of infidelity among the married population or the propensity for unfaithful behavior is currently limited by important aspects: most current measures of this concept are designed strictly for investigations related to a certain context, focusing on a single element/behavior (Blow and Hartnett 2005a) or most often addressing only sexual and/or emotional infidelity, such as the measure developed by Drigotas et al. (1999) which analyzes past infidelity. Furthermore, the intention to engage in extramarital behaviors is most often expressed in the existing scales by assertions that do not specify the nature of the behavior (Jones et al. 2011) or by indicating approval or disapproval of a continuum of extramarital behaviors, such as flirting, kissing, falling in love, sexual intercourse, and a long-term sexual relationship with someone other than their partner (Buunk 1980). It is also important to acknowledge that these scales were developed within a heteronormative latent framework, i.e., by restricting their focus on heterosexual couples. As people with different sexual orientations have been denied access to civil marriage for a long part of history (Eskridge 1999), the entire literature on marital infidelity is dedicated to heterosexual relationships in terms of attitudes, causes or consequences. Moreover, the research on people' reactions to their partner's infidelity that involves same-sex relationships has only focused on heterosexual couples (Brewer 2014; Confer and Cloud 2011; Denes et al. 2020; Denes et al. 2015).

Although these instruments provide valuable information about heterosexual marital infidelity, there are some aspects that should be highlighted when discussing the generalizability and content validity of the data they collect. Concerning the former, their psychometric proprieties are, in many cases, checked on college student samples, composed of young participants (Drigotas et al. 1999; Jones et al. 2011), and with limited relational experience (only a few months) in comparison to the general population. Secondly, most of the previous scales address direct questions concerning one's past (i.e., "Did you commit infidelity?") or prospective infidelity (i.e., "would you do it in the near future?"). This may raise content validity issues, especially when researching marital infidelity, because of the delicate nature of the topic and of its associated social and moral sanctions. Participants' responses are influenced by the tendency to provide socially desirable responses, which entails the under-reporting unfaithful behaviors. Blow and Hartnett (2005a) point out that the risk of response distortions in this area could be lowered by a more careful

formulation of items. Their suggestion is to use explicit assertions about emotional or physical involvement, or the meaning that these behaviors have for the subjects and their relationship.

Diminishing the distortions in people's responses to questions that investigate this issue by addressing their propensity towards infidelity in specific contexts, in our view, would lead to a higher probability to receive honest answers, as they do not refer directly to people's intentions to commit unfaithful acts. Instead, they ask for an estimation of the respondent's chances of entering an extramarital relationship in certain situations, and all these situations are only hypothetical. These contexts are selected on the basis of previous research on people's reasons for infidelity: life circumstances in which unfaithful behavior is most likely to appear. This increases the chances that people who are inclined towards unfaithfulness, and are thus more likely to actually engage in extramarital relationships, will react accordingly to the scale items by admitting that these contexts would make them prone to be unfaithful.

Glass and Wright (1992) were among the first authors to propose four categories of motivations for extramarital relationships: sexual, emotional, extrinsic reasons (such as revenge or other interests like career advancement) and love. Their study found that men were more likely to adopt sexual motives, and women were more inclined to support emotional motives. The studies of Barta and Kiene (2005) or of Omarzu et al. (2012) were carried out in the same retrospective manner, the first on heterosexual dating couples, and the second on the married heterosexual population. Barta and Kiene (2005) proposed four categories of reasons for such a past episode, i.e., dissatisfaction, neglect, anger, and sex. Omarzu et al. (2012), focusing on the emotions experienced with these episodes of infidelity, suggests three types of reasons for this behavior: sexual needs, emotional, and love, paralleling the physical, emotional, and love motivations proposed by Glass and Wright (1992).

We developed the items of the scale on the more comprehensive taxonomy of reasons behind unfaithful behavior proposed by Drigotas (Drigotas et al. 1999). It describes five broad categories of such reasons, each highlighted by other studies as significantly and frequently associated to unfaithful behavior. These categories are: *sexuality*, referring to the need for sexual variety or sexual incompatibility with the partner (Omarzu et al. 2012; Buunk 1980; Glass and Wright 1992; Barta and Kiene 2005), *emotional satisfaction*—the need for intimacy and emotional connection, and unsatisfactory, routine marital climate, where attention, love, shared affection, and intellectual stimulation are missing (Haseli et al. 2019; Fincham and May 2017; Shackelford et al. 2008), *social context*—contexts favorable to infidelity, through close interactions with people of the opposite sex in the professional environment, the physical distance between the partners, or spending lots of time at work or separately with friends (Kuroki 2013; Gwinn et al. 2013), *attitudes-norms*—permissive attitudes towards infidelity or permissiveness of sexual relations in one's social context (Jackman 2015; Rodrigues et al. 2017), and *revenge-hostility* reasons, such as the desire for revenge on a partner who has already committed infidelity or other harms (Barta and Kiene 2005).

In the present study, our aim was to develop and examine the psychometric qualities of a scale measuring the propensity towards infidelity (henceforth PTIS). The items address one's predisposition for such behavior in contexts that previous research indicated as conducive to or favoring unfaithful behaviors by including samples of participants with significant marital experience. Across two studies, we examined the structure of the new instrument and its construct, criterion and incremental validity, the latter by comparing the PTIS to a previously developed scale addressing infidelity through people's intentions to commit such behavior.

2. Study 1

The main objective of the first study was to develop a new instrument to measure the propensity towards infidelity on the basis of the five motivational categories synthesized

by Drigotas et al. (1999): sexuality, emotional satisfaction, social context, attitudes-norms, and revenge-hostility, and to examine its structure and reliability.

2.1. Materials and Methods

2.1.1. Participants and Procedure

Ethics approval for both studies reported in this paper was obtained from the Research Ethics Committee in the University where the authors are affiliated, located in a large Romanian city. A convenience sample of 330 heterosexual married subjects (162 men and 168 women) between 24 and 62 years old (M = 37.10, SD = 8.14) and a mean marriage length of 10.33 years (SD = 8.23), residents in the North-Eastern region of Romania, participated in this study. In exchange for course credit, forty field operators (students) were instructed to recruit 5 female and 5 male participants, all married for at least one year, but from different relationships. All participants were informed about the aims of the study before their agreement to participate, and they were assured of the confidentiality of their responses. The participants filled in the online questionnaire sent by the volunteers, and the latter did not have access to their answers.

2.1.2. Measures

The PTIS was developed by generating an initial item pool of 25 items, with five items for each category of reasons for infidelity. Each statement included a potential reason for infidelity from the taxonomy of Drigotas et al. (1999) (detailed above) and a certain unfaithful behavior (e.g., 'The absence of sexual relations with my spouse would be a reason for me to have an extramarital relationship' for *sexuality*; 'The lack of love from my spouse would be a reason for me to seek affection from another partner' for *emotional satisfaction*; 'There are certain contexts in which it would be plausible to have an extramarital affair' for *social context*; 'The fact that other married friends have had extramarital relationships makes me think that it can happen to me' for *attitudes-norms*; 'If my spouse would be unfaithful, then it would seem natural to me to have an extramarital relationship' for *revenge-hostility*). The two authors worked collaboratively in designing the items, which were based on the theoretical underpinnings and past empirical results concerning the specific reason for infidelity targeted by each item and the behaviors comprising infidelity, as indicated by the literature review. Consensus on the final wording of each item was reached through discussion. Participants were required to rate their agreement with each statement on a 6-point Likert scale, from 1—strongly disagree to 6—*strongly agree*. Thus, a high overall score indicates an increased propensity towards infidelity.

2.2. Results and Discussion

In order to test the adequacy of the PTIS we performed an exploratory factor analysis using SPSS 22.0 for the 25 items, with principal axis factoring method for factor extraction in order to reveal the underlying structure of the items. Since we assumed that they are correlated, we used the Direct Oblimin method of factor rotation. First, we reviewed the descriptive statistics and decided to remove one item because of its low inter-item correlations (i.e., lower than 0.30) as suggested by Tabachnick et al. (2007). After that, we decided to remove three other items, because they were loaded with a second factor, as they belong to several categories of reasons for infidelity in the classification we adopted, while the other 21 items were loaded with the first factor. An exploratory factor analysis was applied on the remaining 21 items. The Keiser-Meyer-Olkin (KMO) measure of sampling adequacy (0.966) and Bartlett's test ($p < 0.001$) supported the appropriateness of factor analysis on our data.

We analyzed both the structure and the pattern matrix coefficients, which indicated similar relationships between items and factors. We used several criteria in deciding the number of factors retained. While two factors emerged as having an Eigenvalue above 1, both the scree plot and the parallel analysis (PA) suggested that a one-factor solution would be more appropriate. In accordance with this PA criterion (Glorfeld 1995), we retained for

interpretation only this first factor. Moreover, there was only one item with a loading above 0.30 in the second factor, while all 21 items had loadings above 0.50 in the first factor. The factor retained also accounted for more than half (i.e., 59.66%) of the data variance. The loadings of the items on each of the two factors are presented in Table 1. The Cronbach's alpha of the scale (i.e., 0.96) indicated excellent reliability.

Table 1. Results of the Exploratory Factor Analysis.

Items	Factor 1	Factor 2
PTIS16	0.896	
PTIS20	0.872	
PTIS13	0.856	
PTIS9	0.834	
PTIS18	0.820	
PTIS14	0.818	
PTIS12	0.815	
PTIS24	0.810	
PTIS6	0.810	
PTIS17	0.802	
PTIS10	0.789	
PTIS19	0.781	
PTIS22	0.774	
PTIS25	0.773	
PTIS23	0.760	
PTIS11	0.710	
PTIS5	0.662	0.316
PTIS15	0.603	
PTIS4	0.602	
PTIS8	0.562	

Extraction Method: Principal Axis Factoring.

The results of the first study indicate a one-dimensional structure of the Propensity Towards Infidelity Scale (PTIS), although its items were developed to target five distinct categories of motivations for infidelity. This single factor explains a large proportion of the variation in participants' responses, and this first version of the PTIS appears to have a high level of internal consistency. Haseli et al. (2019) point out in their systematic review that infidelity is affected by multiple ecological factors on several levels. The ecological model adopted by their study—Bronfenbrenner's Bioecological Systems Model—states that human existence is so complex that to understand the factors associated with infidelity, we must know them very well, and then understand the close interdependence between them. The results, following this first exploratory analysis, are in line with the vision proposed by these researchers, who propose the concept of interactive systems that influence infidelity. The aspects related to the personality characteristics of the two partners are influenced by their couple dynamics, and this can be significantly shaped by the existing social environment. This view of infidelity as a system of union in which the elements of the microsystem intertwine with those of the mesosystem, exosystem, or chronosystem, allows us to understand these results in which different motivations for infidelity retrospectively analyzed in previous studies are no longer distinguished as independent factors when we want to highlight them in terms of the predilection for unfaithful behavior. For example, permissive attitudes toward a partner's extramarital affairs may be influenced by the

couple's dynamics, such as sexual or emotional dissatisfaction, but also by the other partner's attitudes. They can also be shaped by social media or religion or the spiritual activities of the two involved in the relationship.

3. Study 2

The first purpose of the second study was to verify the factorial structure of the PTIS through a confirmatory factor analysis approach in AMOS (the fit indices used are presented in the Results section). The second was to explore the construct, criterion and incremental validity of the PTIS that emerged from the previous study. Concerning construct validity, we aimed to examine the convergent validity of the PTIS on two conceptual layers. Firstly, we analyzed its associations with a previously developed scale measuring people's intentions to commit infidelity. Secondly, we examined its relationships with instruments measuring constructs that are proximal in the nomothetic network of propensity towards infidelity. To this aim, we selected two psychological dimensions that past work on unfaithful behavior indicate as negatively related to openness towards infidelity, namely moral identity and morality founded on divine authority (Burdette et al. 2007; Greeley 1994; Wasserstrom 1974). The divergent validity of the PTIS was explored through its associations with another moral dimension, but one that is less related to infidelity, i.e., utilitarianism.

The criterion validity of the new instrument was addressed through the relationships of the PTIS with gender and with a measure of past unfaithful behavior. We also examined its incremental validity in predicting this behavior in comparison with the other two scales measuring intentions towards infidelity.

3.1. Materials and Methods

3.1.1. Participants and Procedure

A convenience sample of 288 heterosexual married participants (151 women and 137 men) took part in this study. Their age ranged from 24 to 62 years (M= 37.41, SD = 7.93), and their average length of marriage was M = 10.46 (SD = 8.58). The recruitment procedure was the same as in the first study, after being approved in advance by the Research Ethics Committee of the university to which the two authors are affiliated, and informed consent was obtained from all participants.

3.1.2. Measures

The Intentions towards Infidelity Scale (ITIS; Jones et al. 2011) consists of seven items asking respondents to estimate their likelihood of engaging in infidelity behaviors (e.g., 'How likely are you to be unfaithful to a partner if you knew you wouldn't get caught?') on a 6-point Likert scale (α = 0.80).

The Infidelity Scale (IS; Drigotas et al. 1999) was used to measure actual unfaithful behavior. The IS consists of 11 items, which require respondents think about a person from their past whom they were very attracted to, while they were also involved in a romantic relationship and to evaluate their agreement with statements that describe various intimate behaviors that might have occurred in this extradyadic relationship (e.g., 'How much flirting occurred between the two of you?'), on 6-point Likert scale (strongly disagree to strongly agree) (α = 0.94).

The Moral Identity Questionnaire (MIQ; Black and Reynolds 2016) was used to assess the degree to which moral standards are important for participants' view of themselves and of the world. It includes 20 items that address two facets of moral identity, namely Moral Self (e.g., 'I try hard to act honestly in most things I do') and Moral Integrity (e.g., 'Lying and cheating are just things you have to do in this world'). Respondents are required to express their agreement with each item on a 6-point Likert-scale from strongly disagree to strongly agree (α = 0.89).

The short version of the Morality Founded on Divine Authority scale (MFDA; Piazza and Landy 2013) was used to measure beliefs about the divine foundations of morality.

Participants indicate their agreement on a 6-point scale (strongly disagree to strongly agree) to five items such as 'Everything we need to know about living a moral life, God will show us.' (α = 0.83).

The Utilitarianism Scale (US; Baron et al. 2015) was used to measure another facet of moral thinking, namely utilitarian judgment, which favors impartiality and the criterion of the supreme good in any circumstance (Kahane et al. 2015). The US includes 13 items that require respondents to estimate their agreement with items such as 'When we can help some people a lot by harming other people a little, we should do this' on a 6-point Likert scale (α = 0.50).

The 21-item PTIS that emerged from the first study was also used. In this study, Crombach's alpha of the PTIS (0.92) indicated a high reliability of the scale. Lastly, participants reported a set of demographic data concerning gender, age, spouse's age and length of marriage.

3.2. Results

3.2.1. Confirmatory Factor Analysis

The 21-item PTIS was analyzed using a first-order Confirmatory Factor Analysis approach using Maximum Likelihood Estimation in AMOS 22.0. An overall model fit was assessed with the goodness of fit (GFI), the comparative fit index (CFI) and the root mean square residual (RMSEA). Values for model fit indices indicating good fit are 0.95 to 1.0 for the CFI and < 0.05 for RMSEA with optimal upper and lower confidence intervals for RMSEA between 0.00 and 0.08, and a non-significant χ^2 value (Kline 2005; Hooper et al. 2008). We also analyzed the squared multiple correlations of each item and the model misspecification indexes—the covariance and the modification indexes. The results testing the adequacy of the factorial structure of the PTIS indicated a poor fit χ^2 (189) = 780.4, p < 0.001, GFI = 0.76, CFI = 0.88 and RMSEA = 0.10. In order to identify the poor fitting items, we examined the residual covariances, the squared multiple correlations of items and the model misspecification indexes. Based upon this examination, we found that some items had large residual covariances with other items. Consequently, taking into account these indices and, at the same time, the lower values of the load of items in the factor, we dropped 11 items progressively. The final model had a good fit to the data: χ^2 (35) = 96.33, p < 0.001, GFI = 0.938 (with adjusted goodness of fit which favors parsimony AGFI = 0.90), CFI = 0.96, RMSEA = 0.07 [95% CI 0.06; 0.09], in accordance to CFA guidelines (Kline 1998). The final scale, with its ten items, descriptive statistics and factor loadings is provided in Table 2.

3.2.2. Construct Validity

The Pearson correlations between PTIS and the other scales are presented in Table 3. Concerning convergent validity, results indicate a strong positive association between PTIS and the scale that addresses infidelity intentions, i.e., ITIS. The pattern of relationships between PTIS and the two scales measuring participants' adherence to moral standards were also in accordance with expectations, as they suggest that PTIS is negatively related to moral identity (i.e., MIQ) and to both of its dimensions, namely moral self and moral integrity, as well as to MFDA. The non-significant association between PTIS and utilitarianism (UI), a more distant dimension belonging to the same psychological area (i.e., moral judgments), support the divergent validity of the new scale.

Table 2. The items of the Propensity Towards Infidelity Scale, with means, standard deviations, and final factor loadings (Study 2).

Item	Mean			SD	Loading
	Men	Women	All		
1. If my spouse would be unfaithful, it would seem natural to me to have an extramarital relationship.	2.65	2.07	2.35	1.63	0.70
2. Flirting with another person would make me feel wanted.	3.19	3.11	3.15	1.69	0.61
3. The lack of sexual relations with my spouse would be a reason for me to have an extramarital relationship.	2.90	2.29	2.58	1.80	0.81
4. It is plausible for me to have a relationship with someone else than my spouse if I feel emotionally bonded to him/her.	2.82	2.79	2.80	1.77	0.58
5. My spouse's long-term absence would make me engage in relationships with other people.	2.52	1.93	2.21	1.52	0.83
6. Colleagues of the opposite sex represent a potential opportunity for an extramarital affair.	2.00	1.64	1.81	1.30	0.74
7. If I knew that my spouse would never find out, I could have an extramarital affair.	2.42	1.93	2.16	1.61	0.88
8. There are certain contexts in which it would be plausible to have an extramarital affair.	2.72	2.27	2.49	1.69	0.77
9. My spouse's close relationship with a colleague of the opposite sex would make it likely for me to engage in a relationship with someone else.	2.36	1.68	2.00	1.47	0.82
10. The fact that other married friends have had extramarital relationships makes me think that it can happen to me.	2.56	1.93	2.23	1.58	0.77

Table 3. Pearson correlations between study variables, means and standard deviations.

Study Variables	PTIS	ITIS	IS	MIQ	MS	MI	MFDA	US	Gender	Age	Spouse Age	Marriage Lenght	Mean	SD
PTIS	1	0.741 **	0.702 **	−0.539 **	−0.374 **	−0.535 **	−0.171 **	−0.089	−0.180 **	0.067	0.034	0.075	2.38	1.25
ITIS		1	0.672 **	−0.557 **	−0.351 **	−0.577 **	−0.083	−0.041	−0.167 **	0.091	0.059	0.135 *	2.47	1.04
IS			1	−0.422 **	−0.234 **	−0.458 **	−0.064	−0.073	−0.141 *	−0.023	−0.043	0.016	2.87	1.28
MIQ				1	0.805 **	0.922 **	−0.010	0.169 **	0.149 *	0.069	0.084	−0.015	5.00	0.74
MS					1	0.513 **	0.085	0.198 **	0.125 *	0.088	0.102	0.027	5.10	0.83
MI						1	−0.069	0.115	0.134 *	0.042	0.055	−0.040	4.94	0.55
MFDA							1	−0.091	0.144 *	0.095	0.143 *	0.208 **	3.11	1.34
US								1	0.074	0.051	0.043	0.041	4.22	1.15
Gender									1	0.016	0.272 **	0.129 *	47.6% women	
Age										1	0.888 **	0.849 **	37.41	7.93
Spouse age											1	0.834 **	37.45	8.26
Marriage length												1	10.46	8.58

Note: * $p < 0.05$; ** $p < 0.001$; PTIS—Propensity Towards Infidelity Scale; ITIS—Intentions towards Infidelity Scale; IS—Infidelity Scale; MIQ—Moral Identity Questionnaire; MS—Moral Self; MI—Moral Identity; MFDA—Morality Founded on Divine Authority; US—Utilitarianism Scale.

3.2.3. Criterion Validity

The high positive association of 0.72 between PTIS and the measure we used to capture unfaithful behavior (i.e., IS) suggests that scores on the PTIS are a significant predictor of actual infidelity among the married participants in our sample. In order to check whether PTIS scores conformed to expectations about gender differences, we performed a multiple regression on these scores that included as predictors the four demographic variables (see Table 4). Results showed that only gender emerged as a significant predictor, with males scoring higher on the PTIS than female participants.

3.2.4. Incremental Validity

In order to examine the unique contributions of PTIS to actual infidelity behaviors in comparison to the instrument addressing intentions towards unfaithful behavior (i.e., ITIS) we performed a hierarchical regression. We controlled gender, age, spouse's age and marriage length by introducing them in the first block. We included ITIS in the second block and PTIS in the third block (see Table 5). Results show that PTIS significantly accounted for unfaithful behavior alongside ITIS. Moreover, PTIS brought a significant contribution in explaining unfaithful behavior above that accounted for by ITIS and the demographic factors.

Table 4. Hierarchical regression model for PTIS.

Socio-Demographic Variables	PTIS β
Gender	−0.219 *
Age	−0.147
Spouse age	0.119
Marriage length	0.128
R^2	0.042 *

Note. * $p < 0.01$; PTIS—Propensity Towards Infidelity Scale.

Table 5. Hierarchical regression model for unfaithful behavior (IS).

Variables	IS			
	Step 1 β	Step 2 β	Step 3 β	ΔR^2
Gender	−0.160 *	−0.017	0.012	
Age	−0.196	−0.070	−0.067	
Spouse age	0.016	−0.017	−0.057	
Marriage length	0.189	0.001	0.041	
ITIS		0.675 **	0.305 **	0.429 **
PTIS			0.490 **	0.102 **
R^2				0.559 **

Note. * $p < 0.01$; ** $p < 0.001$; PTIS—Propensity Towards Infidelity Scale; ITIS—Intentions Towards Infidelity Scale; IS—Infidelity Scale.

3.3. Discussion

The results of this study support the construct, criterion and incremental validity of the PTIS. The scores on the new instrument emerged as positively related both to actual unfaithful behavior, which indicates its criterion validity, and to people's intentions to engage in such behaviors, which suggests its convergent validity. Regarding external validity, the gender differences we found correspond to those derived from previous studies conducted on extramarital relationships, which show that men are more inclined towards unfaithful behavior (Haseli et al. 2019). The analyses concerning the convergent validity of the PTIS also found it to be negatively associated with two dimensions of moral thinking that underpin an ethical opposition to infidelity. Firstly, high scores on the new measure of propensity towards infidelity were found to be related to low scores on the moral identity measure, in accordance to theoretical expectations describing unfaithfulness as transgressing common moral standards (e.g., Burdette et al. 2007; Greeley 1994). Secondly, people who believe in the divine foundation of moral norms, thus adhering more strictly to religious principles in their definition of moral and immoral behaviors, scored lower on the PTIS. Finally, results also showed that the PTIS brings a unique, significant contribution to explaining variations in actual infidelity behaviors besides that accounted for by the measure of intentions to engage in unfaithful acts, which supports the incremental validity of the new scale.

4. General Discussion and Conclusions

The main goal of this research was to develop an instrument measuring the propensity towards infidelity of heterosexual people in marital relationships on the bases of the five major categories of infidelity motives proposed by Drigotas et al. (1999), namely sexuality, emotional satisfaction, social context, attitudes-norms, and revenge-hostility. Previous studies on motivations of infidelity used a retrospective approach, exploring people's post-hoc reasons and factors that led them to engage in past infidelity episodes (Barta and Kiene 2005; Omarzu et al. 2012; Glass and Wright 1992). We used a prospective approach, which integrated the most frequent such motivations in an instrument that aims to capture the degree to which they might contribute to heterosexual people's decision to engage

in an extramarital relationship in the future. Our reasoning was that such a measure of prospective infidelity would bypass to a substantial extent the social desirability concerns that bias people's answers to direct questions on sensitive and high-stake matters, as marital infidelity is. Instead of requiring a straightforward estimation of one's probability to be unfaithful, we used hypothetical scenarios built on specific circumstances, revealed by past research on infidelity motives as associated to actual infidelity. As previously suggested (Blow and Hartnett 2005a), this approach of targeting specific facets of and circumstances in which infidelity occurs in real life could elicit more honest responses, and thus more related to actual future involvement in unfaithful behaviors.

The instrument developed and examined across the two studies reported here addresses people's motivational intensity towards infidelity, i.e., their psychological proneness or susceptibility to engage in such behaviors under certain circumstances. As the contexts represented in the scale items cover all categories of a comprehensive classification of people's infidelity motives, derived from past research, a high association between the PTIS scores and actual unfaithful behavior is highly plausible. The results of our second study confirm this expectation, indicating the criterion validity of the PTIS. Moreover, the new scale was also found to have a significant contribution in explaining unfaithful behavior beyond a measure of infidelity intentions. These results suggest a strong relationship between PTIS scores and one's actual likelihood to engage in such behavior.

The examination of the reliability and construct validity of the PTIS also indicate its good psychometric qualities. In particular, the negative association between the PTIS and moral identity and beliefs in the divine foundation of moral norms, respectively, corresponds to the theoretically—derived expectations concerning the opposition between one's adherence to moral rules and his/her proneness to engage in extramarital relationships (Burdette et al. 2007; Atkins and Kessel 2008; Treas and Giesen 2000). Further empirical study could extend the examination of moral thinking about infidelity. Of relevance in this respect, we found propensity towards infidelity, as measured by PTIS, to be unrelated to utilitarianism, a result which supports the divergent validity of the scale. Besides this psychometric aspect, the investigation of the moral underpinnings of people's opposition or openness to infidelity is a research endeavor worth pursuing, as it could highlight distal yet important variations among people, as well as subtle influences on the dynamic of the marital relationship itself.

The previous studies on people's reasons for infidelity, which approached this issue in a retrospective manner, classified these motivations into distinct categories (Omarzu et al. 2012; Barta and Kiene 2005; Drigotas et al. 1999; Glass and Wright 1992). For instance, Barta and Kiene (2005) identified four categories of such factors that represent reasons for infidelity: dissatisfaction, neglect, anger and sex. Our research, using the Drigotas et al. (1999) classification in a prospective approach, led to the development of a unifactorial scale, with all items converging on a single factor irrespective of the motivational category that they pertain to. This suggests that all motives, be they sexual, emotional or extrinsic in nature, may be motives for unfaithful behavior for the same individual at different moments.

This difference could be explained as an indication that the theoretical differentiation of the reasons for infidelity is not accompanied by a similar distribution of unfaithful people into distinct categories of motivations. Although the retrospective account of one's unfaithful actions might focus on a specific type of motivation, this does not rule out the possibility that other reasons might also have had contributed to this behavior, in light of our limits of determining the nature of the cognitive processes responsible for our choices (Berger et al. 2016). This corresponds to past observations that the frequent dichotomization of the reasons for infidelity in emotional and sexual motivations seldom reflects real-life unfaithful behavior, as there are few cases in which one type completely excludes the other; most of the extramarital episodes being on a continuum between those two (Barta and Kiene 2005). In addition, data from practitioners show that many unfaithful individuals engage in infidelity behaviors on several occasions with different partners,

with each episode of infidelity having a different justification. Moreover, the post-hoc explanations of past actions are frequently incapable of predicting future behavior, an argument that has already been advocated in the literature on infidelity (Drigotas et al. 1999).

Therefore, the strong associations we found between people's propensity towards unfaithful behavior in different motivational contexts, as captured by the PTIS items, is psychologically plausible, and in line with past studies that found the factors of infidelity to be correlated (Mark et al. 2011; Buss and Shackelford 1997). This indicates that the different motivations for infidelity are associated with favoring future unfaithful behavior. Furthermore, the high association of the PTIS total scores with actual infidelity behavior suggests that these psychologically distinct motivations could have a cumulative effect in influencing the decision to engage in extramarital relationships. For instance, the desire for sexual variety could be enhanced by the favorable context or the permissive norms, but also by the sexual dissatisfaction with the marital partner, and the emotional attachment to another person could be fueled by the neglect experienced from the partner or his/her hostility. As Haseli et al. (2019) point out in their systematic review, infidelity is affected by multiple ecological factors on several levels in close interdependence. While retrospectively these factors might be differentiated as distinct and parallel causes of infidelity, they actually represent interactive systems in determining one's propensity towards engaging in future unfaithful behavior.

One of the main limitations of our research is that it used self-report instruments, hence being susceptible to self-presentation biases. The sensitive matter of the topic contributes to this issue, making it difficult to obtain complete sincerity from married participants about their past or potential infidelity. Another limitation is the inclusion of convenience samples that are not representative of the whole population. Moreover, the study was conducted on the heterosexual population and targets the specific motivations of infidelity in this category. Although some of these reasons may also characterize infidelity in a relationship with a same-sex partner, further investigations are needed. The current body of research on this topic is scarce; for instance, Denes et al. (2020) highlighted a specific motivation for infidelity with a same-sex partner (i.e., pure experimentation), but this result should be taken with caution, as participants were still part of the heterosexual population. Therefore, further studies could assess the psychometric qualities of the scale using other types of relationships. Also, although PTIS concerns future involvement in infidelity, we used a scale focusing on a past infidelity episode in order to check the criterion validity of the PTIS, similar to other studies that examined instruments addressing future unfaithful behavior (Buunk 1980; Jones et al. 2011). Future studies should investigate the relationships between one's propensity towards infidelity and current or longitudinally-measured unfaithful behavior. Moreover, the cultural variations of this propensity could be examined, beside or together with its associations to other dimensions of moral thinking.

To conclude, our results support the psychometric qualities of the PTIS as a measure of the propensity to engage in infidelity. These characteristics, together with its development and use on participants with consistent experience in marital relationships, indicate the potentially valuable contribution of the new scale in investigating potential unfaithfulness in this population. The results also highlight the one-dimensional nature of the instrument, which suggests strong interrelations in determining future unfaithful behavior between the various categories of reasons for infidelity that had been highlighted by past research.

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References

Abrahamson, Iona, Rafat Hussain, Adeel Khan, and Margot J. Schofield. 2012. What helps couples rebuild their relationship after infidelity? *Journal of Family Issues* 33: 1494–519. [CrossRef]

Apostolou, Menelaos, Constantinos Constantinou, and Stavros Anagnostopoulos. 2019. Reasons that could lead people to divorce in an evolutionary perspective: Evidence from Cyprus. *Journal of Divorce & Remarriage* 60: 27–46.

Atkins, David C., and Deborah E. Kessel. 2008. Religiousness and infidelity: Attendance, but not faith and prayer, predict marital fidelity. *Journal of Marriage and Family* 70: 407–18. [CrossRef]

Baron, Jonathan, Sydney Scott, Katrina Fincher, and S. Emlen Metz. 2015. Why does the cognitive reflection test (sometimes) predict utilitarian moral judgment (and other things)? *Journal of Applied Research in Memory and Cognition* 4: 265–84. [CrossRef]

Barta, William D., and Susan M. Kiene. 2005. Motivations for infidelity in heterosexual dating couples: The roles of gender, personality differences, and sociosexual orientation. *Journal of Social and Personal Relationships* 22: 339–60. [CrossRef]

Berger, Christopher C., Tara C. Dennehy, John A. Bargh, and Ezequiel Morsella. 2016. Nisbett and Wilson 1977 revisited: The little that we can know and can tell. *Social Cognition* 34: 167–95. [CrossRef]

Bird, Mark H., Mark H. Butler, and Stephen T. Fife. 2007. The process of couple healing following infidelity: A qualitative study. *Journal of Couple & Relationship Therapy* 6: 1–25.

Black, Jessica E., and William M. Reynolds. 2016. Development, reliability, and validity of the Moral Identity Questionnaire. *Personality and Individual Differences* 97: 120–29. [CrossRef]

Blow, Adrian J., and Kelley Hartnett. 2005a. Infidelity in committed relationships I: A methodological review. *Journal of Marital and Family Therapy* 31: 183–216. [CrossRef]

Blow, Adrian J., and Kelley Hartnett. 2005b. Infidelity in committed relationships II: A substantive review. *Journal of Marital and Family Therapy* 31: 217–33. [CrossRef] [PubMed]

Brewer, Gayle. 2014. Heterosexual and homosexual infidelity: The importance of attitudes towards homosexuality. *Personality and Individual Differences* 64: 98–100. [CrossRef]

Burdette, Amy M., Christopher G. Ellison, Darren E. Sherkat, and Kurt A. Gore. 2007. Are there religious variations in marital infidelity? *Journal of Family Issues* 28: 1553–81. [CrossRef]

Buss, David M., and David P. Schmitt. 1993. Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review* 100: 204. [CrossRef]

Buss, David M., and Todd K. Shackelford. 1997. Susceptibility to infidelity in the first year of marriage. *Journal of Research in Personality* 31: 193–221. [CrossRef]

Buunk, Bram. 1980. Extramarital sex in the Netherlands. *Alternative Lifestyles* 3: 11–39. [CrossRef]

Confer, Jaime C., and Mark D. Cloud. 2011. Sex differences in response to imagining a partner's heterosexual or homosexual affair. *Personality and Individual Differences* 50: 129–34. [CrossRef]

Conroy, Amy A. 2014. Marital infidelity and intimate partner violence in rural Malawi: A dyadic investigation. *Archives of Sexual Behavior* 43: 1303–14. [CrossRef] [PubMed]

Conroy, Amy A., Stacey A. McKenna, Megan L. Comfort, Lynae A. Darbes, Judy Y. Tan, and James Mkandawire. 2018. Marital infidelity, food insecurity, and couple instability: A web of challenges for dyadic coordination around antiretroviral therapy. *Social Science & Medicine* 214: 110–17.

DeMaris, Alfred. 2013. Burning the candle at both ends: Extramarital sex as a precursor of marital disruption. *Journal of Family Issues* 34: 1474–99. [CrossRef]

Denes, Amanda, Megan R. Dillow, Pamela J. Lannutti, and Jennifer L. Bevan. 2020. Acceptable experimentation?: Investigating reasons for same-sex infidelity and women's anticipated responses to a male partner's hypothetical same-sex infidelity. *Personality and Individual Differences* 160: 109929. [CrossRef]

Denes, Amanda, Pamela J. Lannutti, and Jennifer L. Bevan. 2015. Same-sex infidelity in heterosexual romantic relationships: Investigating emotional, relational, and communicative responses. *Personal Relationships* 22: 414–30. [CrossRef]

Drigotas, Stephen M., C. Annette Safstrom, and Tiffany Gentilia. 1999. An investment model prediction of dating infidelity. *Journal of Personality and Social Psychology* 77: 509. [CrossRef]

Eskridge, William N., Jr. 1999. *Gaylaw: Challenging the Apartheid of the Closet*. Cambridge, MA: Harvard University Press, pp. 134–35.

Fife, Stephen T., Gerald R. Weeks, and Nancy Gambescia. 2008. Treating infidelity: An integrative approach. *The Family Journal* 16: 316–23. [CrossRef]

Fincham, Frank D., and Ross W. May. 2017. Infidelity in romantic relationships. *Current Opinion in Psychology* 13: 70–74. [CrossRef]

Glass, Shirley P., and Thomas L. Wright. 1992. Justifications for extramarital relationships: The association between attitudes, behaviors, and gender. *Journal of Sex Research* 29: 361–87. [CrossRef]

Glick, Sara Nelson, Martina Morris, Betsy Foxman, Sevgi O. Aral, Lisa E. Manhart, King K. Holmes, and Matthew R. Golden. 2012. A comparison of sexual behavior patterns among men who have sex with men and heterosexual men and women. *Journal of Acquired Immune Deficiency Syndromes* 60: 83. [CrossRef]

Glorfeld, Louis W. 1995. An improvement on Horn's parallel analysis methodology for selecting the correct number of factors to retain. *Educational and Psychological Measurement* 55: 377–93. [CrossRef]

Gordon, Kristina Coop, Michael A. Friedman, Ivan W. Miller, and Lowell Gaertner. 2005. Marital attributions as moderators of the marital discord–depression link. *Journal of Social and Clinical Psychology* 24: 876–93. [CrossRef]

Greeley, Andrew. 1994. Marital infidelity. *Society* 31: 9–13. [CrossRef]

Gwinn, Andrea Marlea, Nathaniel M. Lambert, Frank D. Fincham, and Jon K. Maner. 2013. Pornography, relationship alternatives, and intimate extradyadic behavior. *Social Psychological and Personality Science* 4: 699–704. [CrossRef]

Haseli, Arezoo, Mohammad Shariati, Ali Mohammad Nazari, Afsaneh Keramat, and Mohammad Hassan Emamian. 2019. Infidelity and its associated factors: A systematic review. *The Journal of Sexual Medicine* 16: 1155–69. [CrossRef]

Hooper, Daire, Joseph Coughlan, and Michael Mullen. 2008. Evaluating model fit: A synthesis of the structural equation modelling literature. Paper presected at 7th European Conference on Research Methodology for Business and Management Studies, London, UK, 19–20 June; pp. 195–200.

Jackman, Mahalia. 2015. Understanding the cheating heart: What determines infidelity intentions? *Sexuality & Culture* 19: 72–84.

Jones, Daniel Nelson, Sally Gayle Olderbak, and Aurelio José Figueredo. 2011. The intentions towards infidelity scale. *Handbook of Sexuality-Related Measures* 2021: 251–53.

Josephs, Lawrence. 2018. *The Dynamics of Infidelity: Applying Relationship Science to Psychotherapy Practice*. Washington, DC: American Psychological Association.

Kahane, Guy, Jim A. Everett, Brian D. Earp, Miguel Farias, and Julian Savulescu. 2015. 'Utilitarian' judgments in sacrificial moral dilemmas do not reflect impartial concern for the greater good. *Cognition* 134: 193–209. [CrossRef] [PubMed]

Kampowski, Stephan. 2015. A promise to keep: Which bond, whose fidelity. *Nova et Vetera, English Edition* 13: 489–514.

Kline, Rex B. 1998. *Structural Equation Modeling*. New York: Guilford.

Kline, Theresa J. 2005. *Psychological Testing: A Practical Approach to Design and Evaluation*. Sauzend Oaks: Sage Publications.

Kuroki, Masanori. 2013. Opposite-sex coworkers and marital infidelity. *Economics Letters* 118: 71–73. [CrossRef]

Leeker, Olivia, and Al Carlozzi. 2014. Effects of sex, sexual orientation, infidelity expectations, and love on distress related to emotional and sexual infidelity. *Journal of Marital and Family Therapy* 40: 68–91. [CrossRef]

Mark, Kristen P., Erick Janssen, and Robin R. Milhausen. 2011. Infidelity in heterosexual couples: Demographic, interpersonal, and personality-related predictors of extradyadic sex. *Archives of Sexual Behavior* 40: 971–82. [CrossRef]

Omarzu, Julia, Alexis N. Miller, Chenelle Schultz, and Ashlee Timmerman. 2012. Motivations and emotional consequences related to engaging in extramarital relationships. *International Journal of Sexual Health* 24: 154–62. [CrossRef]

Piazza, Jared, and Justin Landy. 2013. "Lean not on your own understanding": Belief that morality is founded on divine authority and non-utilitarian moral thinking. *Judgment and Decision Making* 8: 639–61.

Rodrigues, David, Diniz Lopes, and Marco Pereira. 2017. Sociosexuality, commitment, sexual infidelity, and perceptions of infidelity: Data from the second love web site. *The Journal of Sex Research* 54: 241–53. [CrossRef] [PubMed]

Shackelford, Todd K., Avi Besser, and Aaron T. Goetz. 2008. Personality, marital satisfaction, and probability of marital infidelity. *Individual Differences Research* 6.

Snyder, Douglas K., Donald H. Baucom, and Kristina C. Gordon. 2007. Treating infidelity: An integrative approach to resolving trauma and promoting forgiveness. In *Infidelity*. London: Routledge, pp. 113–39.

Stieglitz, Jonathan, Michael Gurven, Hillard Kaplan, and Jeffrey Winking. 2012. Infidelity, jealousy, and wife abuse among Tsimane forager–farmers: Testing evolutionary hypotheses of marital conflict. *Evolution and Human Behavior* 33: 438–48. [CrossRef]

Tabachnick, Barbara G., Linda S. Fidell, and Jodie B. Ullman. 2007. *Using Multivariate Statistics*. Boston: Pearson, vol. 5, pp. 481–98.

Thorson, Allison R. 2009. Adult children's experiences with their parent's infidelity: Communicative protection and access rules in the absence of divorce. *Communication Studies* 60: 32–48. [CrossRef]

Treas, Judith, and Deirdre Giesen. 2000. Sexual infidelity among married and cohabiting Americans. *Journal of Marriage and Family* 62: 48–60. [CrossRef]

Vangelisti, Anita L., and Mandi Gerstenberger. 2004. Communication and marital infidelity. In *The State of Affairs: Explorations in Infidelity and Commitment*. London: Routledge, pp. 59–78.

Wasserstrom, Richard. 1974. Is adultery immoral? *Philosophical Forum* 5: 513.