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**Spouse Similarity in Recollections of Parenting Received : A Study in a
Nonclinical Sample.**

THESE

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Rapport de synthèse

L'article constituant le présent travail de thèse décrit une recherche portant sur des couples adultes recrutés dans la population générale, décrivant rétrospectivement les attitudes de leurs parents respectifs envers eux au cours de leur enfance.

Le rôle joué par les attitudes d'attachement dans les relations adultes, et notamment les relations de couples, est bien démontré. De même, il est établi que les relations établies avec les parents dans l'enfance influencent le type d'attitude d'attachement qui prédominera à l'âge adulte. Dès lors, nous avons investigué l'existence, au sein de ces couples adultes, de souvenirs similaires quant aux attitudes prodiguées par les parents.

Pour réaliser cette recherche, nous avons contacté tous les parents des enfants scolarisés en 2^e/3^e années et en 6^e/7^e années au sein des écoles de plusieurs communes de la région lausannoise, permettant de constituer un échantillon de 563 couples de parents. Au moyen d'auto-questionnaires, nous avons évalué pour chaque membre du couple : 1) sa description rétrospective des attitudes de ses deux parents envers lui pendant son enfance ; 2) le degré de sa symptomatologie psychiatrique actuelle ; et 3) son évaluation du degré d'ajustement dyadique actuel au sein du couple.

La comparaison des scores des époux respectifs sur « l'échelle de lien parental » (PBI : Parental Bonding Instrument) a montré une ressemblance, au sein des couples, concernant la « chaleur et affection » (« Care ») témoignée au cours de l'enfance par le parent de même sexe que le sujet.

Les analyses complémentaires effectuées semblent exclure que cette similarité soit due à des facteurs confondant comme l'âge, l'origine culturelle, le niveau socio-économique, ou le degré de symptomatologie psychiatrique. De même, cette similarité ne semble pas être attribuable à une convergence de vue grandissante des conjoints au cours de leur union.

Par ailleurs, le degré d'ajustement dyadique s'est révélé être dépendant du degré cumulé de chaleur et d'affection tel que remémoré par chaque conjoint, et non du degré de similarité dans le couple pour ce qui concerne le souvenir de la chaleur et de l'affection reçues.

Bien que basée sur des évaluations rétrospectives des attitudes parentales, et ne disposant pas d'une investigation psychiatrique standardisée incluant les critères diagnostiques, cette étude repose néanmoins sur un grand échantillon, recruté dans la population générale.

Nos résultats ont notamment des implications concernant la santé des enfants. En effet, en raison de la similarité mise en évidence dans nos résultats, un enfant dont un des parents a reçu peu de chaleur et d'affection dans son enfance a plus de chances que son autre parent aie lui-même également reçu moins de chaleur et d'affection. De ce fait, d'une part l'ajustement dyadique du couple parental sera particulièrement bas, ce qui peut se répercuter sur les enfants du couple. D'autre part, comme les attitudes parentales se transmettent en partie de génération en génération, le même enfant risque d'être exposé, de la part de ses deux parents, à une attitude comportant peu de chaleur et d'affection, ce qui représente un risque de développement ultérieur des pathologies psychiatriques chez cet enfant.

Original Communication

Spouse Similarity in Recollections of Parenting Received: A Study in a Nonclinical Sample

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Despite a large body of research on both children's relationships to their parents and adult dyadic relationships, associations between these types of relationships have rarely been studied. In this paper, spouse similarity in recollections of parenting received in childhood was assessed in a nonclinical sample. Parenting by the same- and opposite-sex parent was measured using the Parental Bonding Instrument (PBI). Spouse similarity was found with respect to the recalled level of care received from the same-sex parent. This correlation was independent of similarity in sociodemographic variables or current psychiatric symptomatology. The fact that spouse similarity did not increase with increasing age suggests that similarity is a result of assortative mating rather than convergence during marriage. These results suggest a significant association between parent-child relationships and the mating process.

Keywords: spouse similarity, parental bonding, gender differences, nonclinical sample, dyadic adjustment

There is a large body of research on the relationship between physical or psychological parental characteristics and adult mate selection. Epstein and Guttman (1984) suggested grouping this research according to the underlying theoretical framework: (a) psychoanalytic theories, (b) parental image theory, (c) unconscious archetypes theory, and (d) other less studied theories. Aside from these constructs that consider the parental characteristics as central in mate selection, other researchers have focused on the parent-child relationship and its various implications in later life. This led to the concept of "attachment" (Bowlby, 1969, 1973, 1977, 1980, 1988), which was further developed by several authors (Ainsworth, 1989; Ainsworth & Bowlby, 1991; Goldberg, 1991; Lopez, 1995; Mallinckrodt, 1995; Schneider, 1991; Shaver & Norman, 1995). The concept of attachment assumes that individuals develop expectations about the availability of an attachment figure during infancy and adolescence (Bowlby, 1973). Thus, individual attachment patterns are considered to be based on "internal working models," which are shaped by the individual's relationship to his/her parents. Several studies have shown children's attachment patterns to be highly associated with

their father's and mother's parenting attitudes (Benoit & Parker, 1994; Fox, Kimmerly, & Schafer, 1991; Isabella, 1993; Steele, Steele, & Fonagy, 1996; Stevenson-Hinde & Shouldice, 1995). Moreover, studies on adults have revealed a similar association between attachment style and recollections of parental behavior experienced during childhood (Carnelley, Pietromonaco, & Jaffe, 1994; Gittleman, Klein, Smider, & Essex, 1998; Hazan & Shaver, 1987; Manassis, Owens, Adam, West, & Sheldon-Keller, 1999; Perris & Andersson, 2000). This finding is compatible with Bowlby's assumption that attachment patterns persist relatively unchanged throughout the rest of an individual's life and, when positive, provide the necessary confidence to explore one's environment and socialize with others. This relative stability of attachment patterns has been confirmed in several studies (Ainsworth, 1989; Ammaniti, Van Ijzendoorn, Speranza, & Tambelli, 2000; Benoit & Parker, 1994; Fraley, 2002; Schneider, 1991; Shaver & Norman, 1995; Skolnick, 1986), suggesting that the attachment theory may be applicable to relationships beyond infancy (Ainsworth, 1989; Fraley & Shaver, 2000; Hazan & Diamond, 2000; Hazan & Shaver, 1994a, 1994b). However, continuity of attachment

may be interrupted in high-risk children exposed to various negative life-events (Weinfield, Sroufe, & Egeland, 2000). Moreover, a transition from insecure to secure attachment style was observed in children benefiting from social work intervention or treatment (Iwaniec & Sneddon, 2001).

Supporting the association between parenting experienced in childhood and characteristics of adult relationships, several authors have reported correlations between recollections of parenting received and the quality of intimate relationships (Hickie et al., 1990; Rodriguez, Bayon, & Franco, 1993) as well as social bonds or support in adulthood (Flaherty & Richman, 1986; Parker & Barnett, 1988; Parker, Barrett, & Hickie, 1992; Sarason, Sarason, & Shearin, 1986). Similarly, attachment styles were found to be associated with the quality of the relationship in dating couples (Collins & Read, 1990; Feeney, 1996; Klohnen & Bera, 1998).

A large number of studies have found evidence of spouse similarity in individual characteristics such as sociodemographic, physical, and psychological traits, and psychiatric disorders. This observed similarity may be due to either positive assortative mating (non-random mating, or the tendency to select a mate who is similar to oneself in a particular characteristic) or convergence over the years of marital life (Feng & Baker, 1994; McLeod, 1995; Procidano & Rogler, 1992). The literature on spouse similarity has been extensively reviewed by Merikangas (1982), Epstein and Guttman (1984), and Galbaud du Fort, Kovess, and Boivin (1994).

As individuals may attempt to repetitively establish the same type of relationship throughout life (Sroufe & Flee-son, 1986), some authors have addressed the question concerning whether individuals also tend to choose a mate with a similar attachment style. Frazier, Byer, Fisher, Wright, and DeBord (1996) assessed the attachment style of graduate and undergraduate psychology students using the Adult Attachment Scale (Collins & Read, 1990) and a self-classification measure of three adult attachment styles (Hazan & Shaver, 1987). Among these students, in 83 dating couples, partners were similar to each other with respect to attachment style. Similar results were also obtained for single students (226 graduate and 146 undergraduate students) who were most attracted to potential partners with a similar attachment style. For undergraduate students, in addition to attachment style, recollections of parenting received in childhood were also assessed using an adaptation of Hazan and Shaver's measure of parental caregiving style (described in Collins & Read). In particular, the caregiving style of the student's mother was found to be associated with both the student's and the preferred potential partner's attachment style. In another study based on a sample comprised exclusively of men, the authors found an association, especially in insecurely attached men, between their ideal image of a mate and their ideal image of the mother, whereas the ideal image of the father was not assessed (Tolmacz, Goldzweig, & Guttman, 2004). In another study on 71 couples (recruited among friends and acquaintances of mem-

bers of a university research class), Collins and Read found significant similarity in self-rated attachment style. Similarly, in a sample of 144 couples recruited from a university introductory psychology course, Simpson (1990) found evidence for limited similarity in attachment style. Overall, mean inter-spouse correlations for attachment dimensions were rather low but consistent across the studies cited, ranging from $r = .13$ (Simpson) to $r = .22$ (Collins & Read). To our knowledge, no adult community study has ever attempted to replicate or extend the findings based on psychology students' data.

The primary goal of the present study was to assess, in a nonclinical sample of couples, spouse similarity in their recollections of the parenting they received in childhood. As recollection of parenting received as a child has been shown to be associated with current attachment style, positive inter-spouse correlations for recollection of parenting would support the findings of previous studies showing spouse similarity in attachment style (Collins & Read, 1990; Frazier et al., 1996; Simpson, 1990).

Moreover, recent studies have found gender differences in the association between recollection of parenting received in childhood, on the one hand, and mental health (Gittleman et al., 1998) or the outcome of anxiety disorders treatment (Chambers, Power, & Durham, 2004), on the other hand. In these studies, men's mental health or treatment outcome correlated higher with Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979) scores describing maternal care and women's mental health or treatment outcome correlated higher with PBI scores describing paternal care. Thus, gender differences may also be relevant to the study of spouse similarity in recollection of parenting. Indeed, as one parent may also contribute more to the development of the attachment style during childhood than the other parent as a function of the child's gender, parenting by one parent may also play a more important role in mate selection. In order to examine the level of spouse similarity in recollection of parenting by the same- versus opposite-sex parent, we assessed spouse similarity in recollection of parenting by (a) the same-sex parent (i.e., association between parenting received by the husband from his father and that received by the wife from her mother) and (b) the opposite-sex parent (i.e., association between the parenting received by the husband from his mother and that received by the wife from her father).

Our second goal was to determine whether sociodemographic variables are likely to be confounders in spouse similarity in their recollection of parenting received in childhood. Although some authors have raised the hypothesis that the marital correlation for an observed variable is attributable, in whole or in part, to a tendency to select spouses from similar social backgrounds ("social homogamy"), previous studies have rarely focused on sociodemographic variables as a potential explanation of spouse similarity in psychological variables (Heath & Eaves, 1985). In the present study, we assessed the extent to which spouse similarity in recollection of parenting is explained by spouse sim-

ilarity in the sociodemographic variables age, professional level, nationality, and native language.

The third goal was to rule out the possibility that spouse similarity in recollection of parenting received in childhood is due to spouse similarity in psychiatric symptomatology. Given consistent observations of spouse similarity in psychiatric symptoms and disorders (Dubuis-Stadelmann, Fenton, Ferrero, & Preisig, 2001; Galbaud du Fort, Bland, Newman, & Boothroyd, 1998; Maes et al., 1998; McLeod, 1995) and the well-known association between recalled parenting and psychiatric symptoms or disorders (Arrindell, Emmelkamp, Monsma, & Brillman, 1983; Arrindell et al., 1989; Chambers et al., 2004; Enns, Cox, & Clara, 2002; Faraveli et al., 1991; Helgeland & Torgersen, 1997; Onstad, Skre, Torgersen, & Kringlen, 1993; Parker, 1979; Silove, Parker, Hadzi-Pavlovic, Manicavasagar, & Blaszczynski, 1991), an underlying spouse similarity in psychiatric symptomatology may partially or entirely explain spouse similarity in recollection of parenting. There are two mechanisms by which this confounding might occur. First, similarity in current psychopathology, as measured in the present study, might influence both spouses' recall of parenting in a similar way. Second, given the relative stability of psychiatric symptoms, current spouse similarity in psychiatric symptomatology, if present, would likely be associated with (past) spouse similarity in psychiatric symptomatology at the time of mate selection (i.e., concordant psychiatric symptomatology due to positive assortative mating), which might thus be the underlying factor for current similarity in recollection of parenting.

The fourth goal was to determine whether spouse similarity in recollection of parenting received in childhood was restricted to couples with specific symptomatic or sociodemographic characteristics. Therefore, we assessed whether the magnitude of spouse similarity in recollection of parenting varied as a function of the level of current psychiatric symptomatology or as a function of sociodemographic characteristics.

The fifth goal was to assess the association between spouse similarity in recollection of parenting received in childhood and marital adjustment as previous research suggests that spouse similarity in attitudes (Aube & Koestner, 1995; Craddock, 1991) and in psychological characteristics (Nemecek & Olson, 1999; Russell & Wells, 1991) are predictors of a good marriage.

Method

Participants

In 1996 and 1997, a population-based study of all schoolchildren in the second/third (mean age 8.4 years; $SD = 0.95$ years) and sixth/seventh grades (mean age 12.5 years; $SD = 0.98$ years) was conducted in several communities in the suburbs of Lausanne, Switzerland. This study entailed the completion of self-report questionnaires by the children and their parents. With the help of the school administrations, an attempt was made to contact and invite all the parents to participate with their offspring; written consent was obtained from all parents who participated. Participation rates were 63% for children, 46% for mothers, and 33% for fathers. Children completed the questionnaires in class at school while a member of the research team was present. Parents were invited to complete the questionnaires in questionnaire completion sessions at school. Those who could not attend these sessions completed their questionnaires individually at home. From this sample, for the analysis of spouse similarity, we included 563 couples in which both members had returned their questionnaires (regardless of marital status and whether their child participated). Table 1 provides a description of these 563 couples. The husbands' mean age was two and a half years higher than the wives'. Almost two thirds of the husbands held managerial or professional specialty positions, whereas less than 30% of the

Table 1
Description of the Sample

Variable	Husbands (<i>N</i> = 563)	Wives (<i>N</i> = 563)
Age (<i>SD</i>)	42.6 (5.8)	40.1 (4.9)
Managerial or professional specialty position (%)	63.2%	27.0%
Swiss (%)	77.9%	76.9%
Native language French (%)	81.3%	74.3%
Married (%)		96.1%
Number of children, mean (<i>SD</i>)		2.3 (0.8)
Recollection of parenting (<i>SD</i>)		
Care from father / mother	22.2 (7.5) / 25.9 (7.0)	23.1 (8.6) / 25.9 (8.3)
Denial of autonomy from father / mother	4.5 (3.5) / 6.3 (4.4)	4.5 (3.7) / 6.0 (4.4)
Encouragement of freedom from father / mother	10.5 (3.8) / 10.3 (3.7)	9.6 (4.2) / 9.6 (3.9)
Dyadic adjustment total score (<i>SD</i>)	114.3 (15.9)	114.2 (17.1)
Symptom Check List 90 PST score (<i>SD</i>)	19.5 (15.0)	21.6 (15.5)

wives held such positions, and nearly 40% were housewives. Over 70% of the sample were Swiss nationals and native speakers of French. Almost all couples were married (96%), and the majority had two (54%) or three children (25%). With regard to the high rate of married couples in our sample, and for the sake of clarity and terseness, we decided to constantly use the terms “husbands” and “wives” as well as “spouse” similarity in this paper.

Instruments

Recollection of parenting received in childhood

Recollection of parenting received in childhood was measured using the PBI (Parker et al., 1979), which has been shown to be a valid measure of parental behavior (Mackinnon, Henderson, & Andrews, 1991; Parker, 1989). Using this instrument, participants retrospectively score each of their parents on 25 attitudinal and behavioral items (on a 4-point scale) as recalled regarding the first 16 years of life. Using a factor analytic approach, the originators of the instrument described a two-factor structure of the scale, namely, the fundamental parental dimensions of care and overprotection. The care factor (12 items) referred to “affection and warmth” (“was affectionate to me,” “appeared to understand my problems and worries”), the overprotection factor (13 items) referred to discouragement of “psychological autonomy” (“tried to make me dependent on him/her,” “invaded my privacy”) (Parker, 1989). More recent findings, however, revealed a three-factor rather than two-factor structure to be appropriate (Cubis, Lewis, & Dawes, 1989; Gomez-Beneyto, Pedros, Tomas, Aguilar, & Leal, 1993; Murphy, Brewin, & Silka, 1997), with the further partitioning of the overprotection factor into a positive (encouragement of behavioral freedom) and negative pole (denial of psychological autonomy). In this study, we used our own French translation of the PBI, for which the postulated three-factor structure has been confirmed in adults (Mohr, Preisig, Fenton, & Ferrero, 1999). In the French version of the instrument, Cronbach’s alpha was .86 for care, .84 for denial of psychological autonomy, and .72 for encouragement of behavioral freedom. Interscale correlation was $-.21$ for care and denial of autonomy, $.45$ for care and encouragement of freedom, and $-.47$ for denial of autonomy and encouragement of freedom.

Psychiatric symptomatology

The presence of psychiatric symptomatology during the previous week was evaluated using the Symptom Checklist-90-Revised (SCL-90 R; Derogatis, Rickels, & Rock, 1976), a 90-item self-report inventory of symptomatic complaints. We used Pariente and Guelfi’s (1990) French translation of the inventory. Testing of the postulated 10-factor structure of the original SCL-90 R (somatization, obses-

sion, sensitivity, depression, anxiety, hostility, phobia, paranoid traits, psychotic traits, other symptoms) has produced conflicting results (Cyr, McKenna-Foley, & Peacock, 1985). Pariente et al. (1989) suggested a three-factor structure (depression, somatization, and panic-agoraphobia subscales) based on the results of a study of a French outpatient sample. This structure was successfully replicated in our study using confirmatory factor analysis (Preisig, 2001). Cronbach’s alpha was .92 for depression, .79 for somatization, and .74 for panic-agoraphobia. In the present paper, results were based on the PST (Positive Symptom Total) overall score, which represents the sum of positive items regardless of item severity (0 to 4). Cronbach’s alpha for the PST score was 0.96. Alternative analyses using the GSI (Global Severity Index) score, which also takes the severity of each item into account, led to the same results.

Marital adjustment

Marital adjustment was measured using the Dyadic Adjustment Scale (DAS; Spanier, 1976). This 32-item scale was derived from a factor analytic study of all available instruments that measure marital quality, distress, and/or adjustment. The four subscales are: dyadic satisfaction, dyadic cohesion, dyadic consensus, and affectional expression. Spanier presented substantial evidence for reliability and construct validity of the original version. A French version of the scale was established and its validity tested by Bailargeon, Dubois, and Marineau (1986) and by our group (Vandeleur, Fenton, Ferrero, & Preisig, 2003). These validation studies have shown the French translation to possess the essential characteristics of the original scale. Cronbach’s alpha was .89 for both consensus and satisfaction, .80 for cohesion, .74 for affectional expression, and .94 for the overall adjustment dimension (total score). In the present study, we used the total score of the scale as a measure of global dyadic adjustment.

Statistical Analyses

Missing values were replaced by the sample median of the given item if the participant completed at least 90% of the items of an instrument.

To meet the first study goal, spouse similarity in recollection of parenting received in childhood was assessed using nonparametric statistics (Spearman’s rank correlation coefficients) because the care score could not be transformed into a normal distribution given the extreme shift of this distribution to the right with the mode being identical to the highest scale value. We first tested spouse similarity in recollection of parenting by the same-sex parent (association between the husband’s recollection of parenting by his father and the wife’s by her mother). We then assessed similarity in parenting received from the opposite-sex par-

ent (association between the husband's recollection of parenting by his mother and the wife's by her father).

To meet our second and third goals, following the approach suggested by Mascie-Taylor and Vanderberg (1988) and Galbaud du Fort et al. (1994), several variables were created to test the influence of spouse similarity in sociodemographic variables (age, native language, nationality, and professional level) and current psychiatric symptomatology (SCL-90R PST score) on the inter-spouse correlations for PBI scores. For age and the SCL-90 PST score, similarity variables were operationalized as the absolute values of the percentile difference between spouses. For native language (French vs. other), nationality (Swiss vs. other) and professional level (managerial position vs. other), similarity was assessed as a dichotomous variable with "1" indicating that the husband's and wife's values were the same and "0" that they were not the same. Spearman inter-spouse correlation coefficients for PBI scores in bivariate models were compared to partial Spearman correlation coefficients for the spouse's PBI scores in models adjusting for the variables measuring similarity in sociodemographic characteristics and current psychiatric symptomatology.

To meet our fourth goal, we assessed the effect of each spouse's current psychiatric symptomatology and sociodemographic variables on spouse similarity in recollection of parenting. For these analyses, we used the absolute value of the percentile difference between spouses as a measure of spouse similarity in the three PBI dimensions. As the percentile differences were normally distributed after logarithmic transformation, we were able to use multiple regression to determine the association between each spouse's current psychiatric symptomatology and sociodemographic variables and spouse similarity in PBI scores.

Finally, to meet our fifth goal of assessing the association between spouse similarity in recollection of parenting and marital adjustment, we conducted an analysis of vari-

ance (ANOVA) comparing the DAS total scores of four groups of couples: (a) concordant couples with both spouses above the median of a specific PBI dimension, (b) discordant couples with the husband above and the wife below the median of a specific PBI dimension, (c) discordant couples with the husband below and the wife above the median of a specific PBI dimension, and (d) concordant couples with both spouses below the median of a specific PBI dimension.

Given the three PBI factors and two types of comparison (same-sex vs. opposite-sex parent) and resulting number of tests, we adjusted the significance level using the Bonferroni correction (significant $p < .05 / 6 = .0083$). Data were analyzed using PROC CORR, PROC REG, and PROC GLM of the Statistical Analysis System.

Results

Spouse Similarity in Recollection of Parenting Received

Spearman correlation coefficients of the association between the PBI scores of the spouses' (a) same-sex parents and (b) opposite-sex parents are shown in Table 2. A significant correlation was only found for the care dimension with respect to the spouses' same-sex parents.

Influence of Spouse Similarity in Sociodemographic Variables

As expected, spouses showed significant similarity in the demographic variables age, $r = .67$; $p < .0001$, native language (French vs. other), $\chi^2(1) = 72.0$, $p < .0001$, nationality (Swiss vs. other), $\chi^2(1) = 124.8$, $p < .0001$, and profes-

Table 2
Spouse Similarity in PBI Scores

PBI Subscale	Spearman's rank order correlation		Spearman's partial rank order correlation, adjusted for the effect of:			
	<i>r</i>	99.17% CI	Spouse similarity in sociodemographic variables ¹⁾		Spouse similarity in psychiatric symptomatology	
	<i>r</i>	99.17% CI	<i>r</i>	99.17% CI	<i>r</i>	99.17% CI
			(partial)		(partial)	
Same-sex parent		(<i>N</i> = 528)		(<i>N</i> = 516)		(<i>N</i> = 519)
Care	.17	(.06; .28)	.18	(.06; .29)	.17	(.05; .28)
Denial of autonomy	.11	(-.01; .22)	.11	(-.01; .22)	.11	(-.01; .22)
Encouragement of freedom	.10	(-.01; .21)	.11	(-.01; .22)	.10	(-.02; .21)
Opposite-sex parent		(<i>N</i> = 520)		(<i>N</i> = 507)		(<i>N</i> = 510)
Care	.10	(-.02; .21)	.09	(-.03; .21)	.10	(-.02; .22)
Denial of autonomy	.10	(-.02; .21)	.09	(-.03; .21)	.12	(-.00; .23)
Encouragement of freedom	.04	(-.07; .16)	.03	(-.08; .15)	.04	(-.07; .16)

Note. ¹⁾ age, native language, nationality, professional level

sional level (managerial position vs. other), $\chi^2(1) = 25.2$, $p < .0001$. Within individuals, Wilcoxon rank sum tests only revealed associations (group differences) between sociodemographic variables and PBI scores in husbands. Specifically, Swiss nationality was found to be associated with lower maternal denial of autonomy, approximated $z(1) = 2.37$, $p < .05$, higher professional level with both lower maternal care, approximated $z(1) = 2.65$, $p < .01$, and lower maternal encouragement of freedom, approximated $z(1) = 2.09$, $p < .05$, and French native language with lower paternal care, approximated $z(1) = 3.09$, $p < .01$. As for age, there was no correlation with PBI scores in either sex.

Potential confounding of spouse similarity in recollection of parenting by similarity in sociodemographic variables was assessed by comparing the unadjusted inter-spouse Spearman correlation coefficient for PBI subscales with the respective partial correlation coefficients adjusted for spouse similarity in age, native language, nationality, and professional level. Table 2 shows that adjusted and unadjusted correlation coefficients do not differ significantly, with partial correlation coefficients consistently lying within the 99.17% confidence interval for the Spearman correlation coefficients, indicating that spouse similarity in recollection of parenting was not attributable to spouse similarity in the demographic variables. Moreover, the correlation for care with respect to the same-sex parent remained highly significant after adjusting for potential confounders.

Influence of Spouse Similarity in Psychiatric Symptomatology

In our sample, the husbands' and wives' SCL-90R PST scores correlated significantly with each other, $r = .20$; $p < .0001$. We also found a high intra-individual association between SCL-90R PST and the three PBI subscales in both husbands and wives (Table 3). The magnitude of these correlations did not differ by gender. As expected, the PST score correlated positively with denial of autonomy and negatively with both care and encouragement of freedom.

Table 3
Intra-Individual Correlations of Psychiatric Symptomatology With PBI Scores

PBI subscale	SCL-90R: PST score			
	In Husbands		In Wives	
	<i>r</i>	95% CI	<i>r</i>	95% CI
Same-sex parent	(N = 529)		(N = 552)	
Care	-.29	(-.36; -.21)	-.33	(-.40; -.26)
Denial of autonomy	.29	(.21; .36)	.27	(.20; .35)
Encouragement of freedom	-.19	(-.27; -.11)	-.20	(-.28; -.12)
Opposite-sex parent	(N = 546)		(N = 527)	
Care	-.29	(-.36; -.21)	-.30	(-.37; -.22)
Denial of autonomy	.27	(.19; .34)	.26	(.18; .34)
Encouragement of freedom	-.15	(-.23; -.07)	-.23	(-.31; -.15)

However, the comparison of the unadjusted inter-spouse Spearman correlation coefficients for PBI subscales and the respective partial correlation coefficients adjusted for spouse similarity in current psychiatric symptomatology again revealed no significant differences (Table 2). Therefore, the inter-spouse association observed for recollection of care by the same-sex parent is not attributable to spouse similarity in current psychiatric symptomatology.

Influence of Each Spouse's Psychiatric Symptomatology and Sociodemographic Variables

The influence of each spouse's current level of psychiatric symptomatology on the magnitude of spouse similarity in the three PBI dimensions was assessed with multiple regression models. Table 4 shows that the magnitude of spouse similarity in recollection of parenting did not depend on either spouse's current level of psychiatric symptomatology.

Multiple regression models were also employed to assess the influence of sociodemographic characteristics of each spouse on the magnitude of spouse similarity in the three PBI dimensions (results not shown). These models revealed only one significant association, namely, that between the husband's native language and spouse similarity in recollection of denial of autonomy by the same-sex parent. Couples in which the husband spoke French were more likely to have a similar score for denial of autonomy by the same-sex parent, $r = .13$, 99.17%, CI = 0.01–0.24.

Influence of Spouse Similarity in Recollection of Parenting Received on Marital Adjustment

As we only found spouse similarity in the care dimension of the PBI with respect to the same-sex parent (as seen in Table 2), our analysis of the association between spouse

Table 4
Association Between Psychiatric Symptomatology of Each Spouse and Spouse Similarity in PBI Scores (Results of Multiple Regression Models)

Spouse similarity on PBI subscale (dependent variable):	SCL-90R: PST score (independent variable)				Model r^2
	In Husbands		In Wives		
	Partial r	99.17% CI	Partial r	99.17% CI	
Same-sex parent: ($N = 518$)					
Care	.02	(-.09; .14)	-.00	(-.12; .11)	.0005
Denial of autonomy	-.03	(-.15; .09)	-.04	(-.15; .08)	.0026
Encouragement of freedom	.02	(-.10; .13)	.03	(-.09; .14)	.0012
Opposite-sex parent: ($N = 509$)					
Care	.08	(-.04; .20)	-.01	(-.12; .11)	.0064
Denial of autonomy	.02	(-.10; .13)	-.07	(-.19; .04)	.0057
Encouragement of freedom	-.06	(-.17; .06)	.02	(-.10; .13)	.0035

Table 5
Association Between Spouse Similarity in Recalled Care by Same-Sex Parent and Dyadic Adjustment (Results of ANOVA)

	Dyadic Adjustment Scale (DAS): Total score			
	Rated by Husbands		Rated by Wives	
	N	Mean (SD)	N	Mean (SD)
PBI Care: Type of couple				
Concordant: both above median	144	121.4 (14.4)	141	121.9 (13.2)
Discordant: only wife above median	119	113.3 (15.3)	117	116.3 (14.9)
Discordant: only husband above median	122	114.4 (14.9)	121	111.8 (17.4)
Concordant: both below median	137	107.4 (15.4)	135	107.6 (17.9)
ANOVA test statistic:				
F		20.7		20.2
df		3		3
p		<.0001 ¹⁾		<.0001 ²⁾

Note. ¹⁾ All types of couples significantly differed from each other according to Duncan's multiple range test, except for the two types of discordant couples, which did not significantly differ from each other. ²⁾ All four types of couples significantly differed from each other according to Duncan's multiple range test.

similarity in recollection of parenting and marital adjustment was limited to this specific dimension of the PBI. Table 5 provides the mean values for marital adjustment by type of couple with respect to recollection of parental care. The DAS total score, rated either by husband or wife, was highest for couples concordant regarding their recollection of high parental care, intermediate for those discordant regarding their recollection of care, and lowest for those concordant regarding their recollection of low parental care.

Discussion

Despite a multitude of studies on the relationship between physical and/or psychological parental characteristics and mate selection, spouse similarity in recollection of parenting received in childhood has rarely been examined. To the best of our knowledge, the present study is the first to address this topic using a nonclinical sample.

Spouse Similarity in Recollection of Parenting Received

Our results provide evidence for spouse similarity in recollection of parenting. However, the amount of inter-spouse similarity was modest and restricted to (a) the care dimension of the PBI and (b) parenting by the same-sex parent (i.e., the wife's mother and the husband's father). This means that husbands who remembered their fathers being affectionate and warm were more likely to be married to wives who remembered their mothers being affectionate and warm. This finding of a modest but highly significant inter-spouse correlation is in line with results from previous studies on spouse similarity in psychological characteristics.

Given the high association between recollection of parenting and attachment style (Carnelley et al., 1994; Gittleman et al., 1998; Hazan & Shaver, 1987; Manassis et al., 1999; Perris & Andersson, 2000), our observation of an as-

sociation between recollection of parenting and partner selection is consistent with Frazier et al.'s (1996) finding of intimate partner similarity in attachment patterns in unmarried psychology students. Our results also suggest that people's recollection of care by their parents plays a more relevant role in mate selection processes than recollections of denial of autonomy or encouragement of freedom, which could be characteristics more specific to parent-child relationships and affect attachment style in a less relevant way for mate selection than the care dimension does.

The sex-specific pattern of spouse similarity (i.e., similarity only with respect to the same-sex parent on the care dimension) as observed in the present study suggests that parenting by the same-sex parent might be more relevant for partner selection than that received from the opposite-sex parent. As suggested by Truant (1994), the greater influence of the same-sex parent could be attributable to a stronger identification with this parent. Alternatively, processes in marital relationships could be more influenced by the poorer parental relationship of childhood, which is most often with the same-sex parent (Truant). The pattern of spouse similarity observed in our study may have been mediated by each partner's caregiving characteristics. Indeed, Carnelley and colleagues (1994), who studied 86 dating or married couples, were able to demonstrate the greater influence of the same-sex compared to the opposite-sex parent with respect to caregiving characteristics.

Previous studies essentially studied associations between parental variables and the characteristics of an ideal partner as chosen in a test situation (e.g., Frazier et al. 1996; Tolmacz et al., 2004). In contrast, the present study examined real spouses' similarity in their recollections of parenting by their respective parents. This approach allowed us to take into account each spouse's and each parent's sex (same vs. opposite sex). For these reasons, the results of the present study are only partially comparable to those of previous studies.

Influence of Spouse Similarity in Sociodemographic Variables

Our data do not support the hypothesis that the spouse correlation for the observed variable is attributable, in whole or in part, to the tendency of individuals to select spouses from similar social backgrounds (social homogamy) (Heath & Eaves, 1985). Similar to those of Galbaud du Fort et al. (1994), who addressed this issue with respect to psychological distress and well-being, our comparisons of results of unadjusted analyses and models with adjustment for similarity in sociodemographic variables (age, native language, nationality and professional level) revealed that sociodemographic similarity could not explain spouse similarity in recollection of parenting. This lack of influence of sociodemographic characteristics on spouse similarity in recollection of parenting results from (a) their low intra-individual associations with PBI subscales and (b) the re-

striction of the three observed intra-individual associations (between PBI subscales and Swiss nationality, higher professional level, and French native language) to husbands.

Influence of Spouse Similarity in Psychiatric Symptomatology

Similarly, the results of our analyses showed that the inter-spouse correlation for recollection of parenting was not attributable to underlying spouse similarity in current psychiatric symptomatology, which could have induced similar recall bias in spouses. Moreover, given the relative stability of psychiatric symptoms over time, assortative mating for psychiatric symptomatology at the time of mate selection also appears to be an unlikely explanation for the observed spouse similarity in recollection of parenting.

Influence of Each Spouse's Psychiatric Symptomatology and Sociodemographic Variables

The high stability of PBI ratings over time (Lizardi & Klein, 2005; Mackinnon & Henderson, 1989; Wilhelm, Niven, Parker, & Hadzi-Pavlovic, 2005) as well as the convergence of our results regarding significant inter-spouse similarity in recollection of parenting with Frazier et al.'s (1996), who studied individuals prior to marriage, suggest the presence of inter-spouse similarity in recollection of parenting prior to mate selection rather than convergence over years of marriage. Moreover, if spouse similarity was the result of convergence over years of marriage, we would expect this similarity to increase with increasing age, since a person's age and years of marriage generally tend to correlate. However, our data do not reveal an association between either spouse's age and the magnitude of spouse similarity in recollection of parenting received in childhood. Similarly, the magnitude of the inter-spouse correlation for recollection of parenting did not depend on the level of current psychiatric symptomatology or other sociodemographic characteristics of either spouse. Only the husband's native language was found to be associated with the magnitude of inter-spouse similarity in recalled denial of autonomy by the same-sex parent. The items of the denial-of-autonomy subscale might be more difficult to understand than those of the other two subscales; therefore, good knowledge of the language may be particularly relevant with respect to this subscale in order to prevent underestimation of spouse similarity due to the spouses' linguistic problems. Given the high association between the native language of the two spouses, the fact that only the husband's language remained significant in the multiple regression model (where the language variables for the two spouses were entered simultaneously) can hardly be considered an indicator of a specific sex effect.

Influence of Spouse Similarity in Recollection of Parenting Received on Marital Adjustment

Highest marital adjustment was found in couples with both spouses reporting care levels above the median and lowest in couples with both spouses reporting care levels below the median. This finding indicates that there is no direct association between spouse similarity in recollection of parenting and marital adjustment. Therefore, it is each spouse's recalled level of care, rather than spouse similarity in recollection of parenting, that seems to play a role in marital adjustment. However, the tendency of spouses to have similar recollections of care leads to an increase in couples in which both partners report either higher or lower levels of recalled care and consequently an increase in couples reporting either particularly high or low levels of marital adjustment. Our observation of an intra-individual association between the level of recalled care and marital adjustment is in line with previous studies of psychiatric (Truant, 1994) and non-psychiatric outpatients (Truant, Herscovitch, & Lohrenz, 1987) as well as in the general population (Birtchnell, 1993).

Strengths and Limitations of the Study

The strengths of the present study are (a) the use of a non-clinical sample – this approach reduced the risk of selection bias attributable to the fact that couples with a treated spouse may be systematically different from nonclinical couples; (b) the simultaneous assessment of recollection of parenting received in childhood and current psychiatric symptomatology, which allowed us to determine whether similarity in recollection of parenting was independent of current psychiatric symptomatology; and (c) the application of measurement instruments that were validated in the same study population – as there was no association between Cronbach's alpha and inter-spouse correlations across measurement domains, we were able to rule out the possibility that differential inter-spouse correlations were merely due to differences in measurement reliability.

However, one limitation of the study was the low participation rate in parents, particularly fathers. Therefore, the sample of participants was not necessarily representative of the whole population of parents with schoolchildren. A previous study carried out in the same area comparing sociodemographic variables of participants versus non-participants revealed the presence of a selection bias in the sense that participants were more likely to have a higher professional level and be citizens of Switzerland or other French-speaking countries. Although the effect of a selection bias is generally difficult to estimate, it appears unlikely that the over-representation of French-speaking couples with a higher professional level considerably affected the results of our study since the observed spouse similarity in psychological variables was found to be largely independent of similarity in sociodemographic variables.

Other limitations of our study were that (a) a measure of attachment style was lacking – for this reason, we were not able to determine whether spouse similarity in recollection of parenting was mediated by particular attachment styles; (b) the cross-sectional design did not allow us to assess recollection of parenting, psychiatric symptoms, and sociodemographic variables prior to marriage – for this reason, our data did not allow us to determine which proportion of spouse similarity in recollection of parenting is attributable to convergence during marriage rather than assortative mating for this feature, although there was no association between participant age and spouse similarity in recollection of parenting; (c) a symptom checklist was used for psychiatric assessment instead of the application of standardized diagnostic criteria; (d) the sociodemographic assessment was restricted to the self-rated variable professional level, as well as nationality, native language, and age; and (e) dyadic adjustment and recollection of parenting were rated by the same individual – therefore, it is possible that inter-correlation between these two scales or an individual's particular response style could have affected the measurement of associations between the two scales (Goal 5).

Implications and Recommendations for Future Studies

Our finding of spouse similarity in recollection of parenting received in childhood is likely to have implications not only for marital adjustment but also for the well-being of offspring. Indeed, given the intergenerational transmission of perceived parenting (Lundberg, Perris, Schlette, & Adolfson, 2000; Miller, Kramer, Warner, Wickramaratne, & Weissman, 1997), the observation of spouse similarity in recollection of care implies that children are exposed to similar parenting by both parents. Considering also the non-specific association between recollection of parenting and psychopathology (Mohr et al., 1999), the unfavorable impact of low care from one parent on the child's well-being would tend to be reinforced by low care from the other parent. Therefore, the risk of negative psychological sequelae for children would be increased.

Given the cross-sectional design, the sex-specific findings of the present study need to be replicated in longitudinal research. Moreover, the association between spouse similarity in parenting and psychopathology in children needs to be assessed in future studies. Furthermore, in order to obtain a better understanding of the ways in which parental bonding interacts with current attachment style and mate selection processes, future studies should measure recollection of parenting as well as attachment style. This would allow us to elucidate the association between recollection of parenting and attachment style, on the one hand, and the inter-spouse correlation for attachment style, on the other hand.

Considering the results of the present study, the following two hypotheses should be tested in future studies: (a) Is

there a particularly strong association between current attachment style and recollection of parenting by the same-sex parent? and (b) does the association between recollection of parenting and attachment style only involve the care dimension?

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