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Assortative Mating Among Men and Women with Histories of Aggressive, Withdrawn, and Aggressive-Withdrawn Behaviour

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Abstract

Assortative Mating Among Men and Women with Histories of Aggressive, Withdrawn, and Aggressive-Withdrawn Behaviour

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Concordia University, 1999

The purpose of the present study was threefold. The first aim was to examine the continuity of aggressive and withdrawn behaviour among men and women who had been identified as showing elevated levels of these behaviours in childhood. The second aim was to investigate the occurrence of above chance levels of similarity between these individuals and their spouses on the behaviours of aggression and withdrawal. Finally the study examined whether relationship satisfaction varied as a function of couple similarity on aggression and withdrawal. The principal question of assortative mating was investigated within a longitudinal, community-based sample of men and women with histories of aggressive and/or withdrawn childhood behaviour. Using peer nominations, 1,770 boys and girls were originally identified at ages 7, 10, and 13 as being highly aggressive, withdrawn, both aggressive and withdrawn, or non-deviant (contrast group). At the time of the present study, the original participants were in their mid- to late 20's and many were involved in marital or co-habiting relationships. Of these original participants, 112 women and 99 men completed self-report measures of aggressive, deviant, and withdrawn behaviour, along with their partners. Couples also completed ratings of their satisfaction with the relationship. With respect to behavioural stability, results indicated a moderate degree of continuity in aggressive behaviour from childhood to early adulthood for our female participants,

but less so for our male participants. In contrast, both genders showed a significant association between childhood social withdrawal and self-rated introverted behaviour in adulthood. Support was found for the hypothesis that partners in intimate relationships resemble each other in terms of their aggressive and deviant behaviour. Couples were not similar in shy, withdrawn behaviour, but did resemble one another in internalizing symptoms. Support was not found for the hypothesis that couple similarity on aggressive and withdrawn behaviour would be associated with relationship satisfaction.

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Introduction

One of the key elements in the transition to adulthood is the formation of an intimate partnership with another person. While friends and family continue to play a role in the social environment of the individual, the marital or marital-like relationship assumes a primary place (Kandel, Davies, & Baydar, 1990).

As with other social selections, such as jobs, activities, and friends, the choice of a marital partner has important implications for adult development, particularly personality development. Theorists interested in personality stability and change across adulthood have proposed that selection of a similar partner creates an environment that sustains and reinforces initial personality dispositions. Through exposure to shared and mutually selected environments, existing personality tendencies are crystallized (e.g. Buss, 1984b; Caspi & Bem, 1990). Conversely, the choice of a dissimilar marital partner can serve as a turning point in the discontinuity of personality characteristics. Hence, change rather than stability in behaviour and personality attributes is obtained.

Assortative Mating

Similarity between partners, when it occurs at above chance levels, is referred to as "assortative mating." Couples have been found to show assortment on a number of variables, ranging from background variables such as age and race, to cognitive and personality variables. The highest correlations between partners are generally found for race and ethnicity, and for such characteristics as religiosity, political conservatism, and authoritarianism. Moderate correlations have been

registered for intelligence, educational achievement, vocational interests, and personal values. Lower, albeit positive correlations have been shown for personality and physical variables (see Buss, 1985; Epstein & Guttman, 1984; Thiessen & Gregg, 1980; Vandenberg, 1972 for reviews).

Although the extant literature suggests that similarity is the "rule in human mating," (Buss & Schmidt, 1993, pg. 205), the proposition that opposites attract continues to receive attention, despite very little evidence to support it (e.g., Berscheid & Walster, 1978; Buss, 1985). The hypothesis of complementarity proposes that people are attracted to those whose personality traits and needs are complementary to their own (e.g., Berscheid & Walster, 1978; Winch 1958). Several reasons have been offered to explain the complementarity hypothesis, with many explanations focusing on a deficit model of interpersonal attraction; that is, characteristics that individual lack in themselves and desire are likely to be sought out in others (Berscheid & Walster, 1978; Grant, 1976; Reik, 1957; Winch 1958). The deficit model implies that two people who share an attraction are at the opposite ends of a continuum on the desired characteristic(s). As such, the complementarity hypothesis may best be applied to individuals who fall outside of the moderate range on personality characteristics (Schellenberg & Bee, 1960; Winch, 1958).

Given the greater empirical support for the similarity hypothesis rather than the complementarity hypothesis, many reasons have been posited to explain the process by which similar partners are selected. According to sociobiologists and behaviour geneticists, assortment among individuals who are genetically similar but not related maximizes gene representation in future generations, while avoiding the harmful

effects of inbreeding (Thiessen & Gregg, 1980). Sociocultural theories tend to stress demographic or economic factors, such as geographical proximity or the influence of social class and ethnic membership. These factors are hypothesized to limit the field of eligible partners to those with similar social backgrounds (Eckland, 1968; Morgan, 1981). Additional theories suggest that individuals select partners who are similar because communicating and interacting with such a person is easier than with a nonsimilar partner. There are fewer opportunities for conflict and it is easier to share values, beliefs, and activities. Moreover, the selection of a similar partner provides validation for one's values and beliefs, and ultimately validates one's sense of self (Byrne, 1971). In contrast, dissimilarity rather than similarity has been proposed as highly salient, leading individuals to exclude dissimilar others as potential romantic partners (Rosenbaum, 1986).

An interactional approach to the phenomenon of partner similarity is taken by theorists interested in the creation of environments which may sustain individual characteristics over time. They argue that personality and behaviour are shaped by interactions between the person and environment, and that individuals seek environments which are compatible with their dispositions (Buss, 1984b; Caspi & Bem, 1990; Scarr & McCartney, 1983). This interaction of person and environment is thought to become increasingly active, as individuals mature into more autonomous beings and are more involved in their selection and creation of environments (Buss, 1984b; Scarr & McCartney, 1983). Thus the choice of friends and eventually of spouse or partner assumes increasing importance in the creation of social environments which may influence individual dispositions (Buss, 1984b; Caspi, 1993; Kandel, 1978).

The selection of a similar partner is proposed to reinforce and sustain those shared characteristics, whereas the selection of a dissimilar partner is hypothesized to contribute to change in personality and behavioural characteristics (Buss, 1984b; Caspi & Herbener, 1990).

The majority of studies examining assortative mating for psychological characteristics have measured the degree of similarity that is present after several years of marriage, referred to as realized assortment, rather than measuring initial assortment. As such, couple similarity may reflect, in addition to initial assortment, a change in spousal resemblance over the course of the marriage as a result of mutual influence and shared environmental experiences. Evidence of a change in time in couple similarity has been largely taken from cross-sectional studies, which provide only an approximation of longitudinal trends. Results from these studies do not support the hypothesis that couples become more similar over the course of the relationship (Buss 1984a, Guttman & Zohar, 1987; Mascie-Taylor, 1989; Price & Vandenberg, 1980). Although few in number, longitudinal investigations have also failed to support the hypothesis of couple convergence (Caspi, Herbener, & Ozer, 1992; Feng & Baker, 1994). Thus it appears that couple similarity reflects initial assortment on characteristics rather than a change in spouse resemblance over the course of the marriage.

Regardless of the process by which similar partners select one another, assortative mating has clear implications for individual personality development and behavioural stability in adulthood. Moreover, assortative mating has implications for the relationship itself, in that partner similarity has been linked to greater satisfaction

for the couple (see White & Hatcher, 1984, for a review). Furthermore, assortative mating is likely to affect the social climate in which offspring of such couples are raised. Finally the consequences of assortative mating have implications for changes in the genetic structure in future generations (Buss, 1984b).

When considering the implications of assortative mating, it is important to note that much of the research on behavioural and personality characteristics shared by a couple has focused on adaptive characteristics. The implications of assortative mating can be equally applied to couple similarity on maladaptive behavioural and personality aspects. For example, the psychiatric literature provides abundant evidence of above-chance concordance between spouses on schizophrenia, affective disorders, personality disorders, and alcoholism (Gershon, Dunner, Sturt, & Goodwin, 1973; Kallman & Mickey, 1946; Kreitman, 1968; Merikangas & Spiker, 1982; Rutter & Quinton, 1984). Less is known about assortment of couples on behavioural characteristics which may not represent severe psychopathology, but which may contribute to problematic functioning and negative life outcomes for the individual, the couple, and for their offspring.

Present Study

The general aim of the present study was to examine assortative mating on the behavioural characteristics of aggression and social withdrawal. These characteristics were selected as representative of the primary externalizing and internalizing domains of childhood behaviour problems (e.g., Achenbach, 1991, Quay, 1986). The community-based sample for the current study comprised young adults who had been

originally identified as displaying high levels of aggressive and/or withdrawn behaviour in childhood. These individuals were thought to be at risk for a number of psychological and social difficulties because of their atypical childhood behaviours. The general aim of examining assortative mating was imbedded within the broader aim of examining the stability of aggression and social withdrawal from childhood to adulthood. A third aim was to investigate the relationship between couple satisfaction and couple similarity on aggression and social withdrawal. Pertinent literature is reviewed below, beginning with an overview of findings regarding the stability of aggressive behaviour, and the findings with respect to couple similarity on aggressive and deviant behaviour. A similar approach is taken to the relevant findings for stability and assortment on social withdrawal. Finally, investigations of the relationship between couple similarity and couple satisfaction are summarized.

Stability of Aggressive Behaviour

Aggressive behaviour, situated firmly within the externalizing domain of childhood behaviour, is defined as physical actions or verbalizations which are hostile, threatening, injurious, or destructive to persons or property. The intent of aggressive behaviour is to inflict harm on others. Aggression is often used interchangeably in the literature with the terms conduct disordered and antisocial. These latter terms represent descriptive rather than diagnostic terms, and refer to a broad cluster of problematic behaviours, of which aggression is often a salient feature. However, antisocial behaviours and conduct problems are not limited to aggressive acts, but encompass oppositional behaviours, violations against property, and violations against

societal norms (Frick et al., 1993). For the following literature review, an effort will be made to distinguish studies pertaining to aggressive behaviour from those pertaining to the broader constellation of antisocial behaviours.

The continuity of aggressive behaviour from childhood, through adolescence, to adulthood has been well documented. For instance, Caspi, Elder, & Bem (1987) found that the tendency toward explosive, under-controlled behaviour in childhood was evident in adulthood. Robins (1966) reported a high level of stability in crime and aggression over time. Similarly, Huesmann and colleagues (1984), in their longitudinal study of the aggressiveness of 600 subjects, their parents, and their children, found that early aggressiveness predicted later aggression and criminal violence. In his review of more than 16 studies on aggressive behaviour, Olweus (1979) reported an average correlation between early aggressive behaviour and later criminality of .68. Loeber (1982) completed a similar review of the extant literature and concluded that the evidence supported the hypothesis of the stability of antisocial behaviour, of which aggression was often a core feature. While the manifestation of aggressive tendencies may vary with age, changing from tantrums and explosive outbursts in early childhood, to violent crime in adolescence and adulthood, the evidence suggests that aggressive behaviour is relatively stable across stages of the life course, and is highly predictive of a variety of psycho-social difficulties (e.g., Farrington, 1991; Loeber, 1982; Olweus, 1979).

There is also growing evidence that the early onset of aggressive behaviour (i.e., early school-age years) appears to increase the risk of later aggression and antisocial behaviour (e.g., Loeber, 1982; Magnussen, Stattin, & Dunner, 1983; Roff &

Wirt, 1984). A number of recent articles have expanded the study of age-of-onset to the broader constellation of antisocial behaviours (e.g., Loeber, 1988; Moffitt, 1993; Patterson, Capaldi, & Bank, 1991). Whether looking specifically at aggressive behaviour or adopting a wider view of conduct problems, the consensus is that an early onset is associated with a more negative long-term prognosis (e.g., Hinshaw, Lahey, & Hart, 1993; Moffitt, 1993). In contrast, a later age-of-onset, usually defined as occurring in adolescence, is thought to result in less acting-out behaviour, and to show greater desistance over time. Moffitt (1993) proposes that peers play a significant role in the development of late-onset conduct problems, whereas the early emergence of problematic conduct reflects neuropsychological and attentional deficits, along with family histories of antisocial behaviour.

The majority of studies of children's aggression have been conducted exclusively with boys. Fewer studies have examined the continuity of aggressive behaviour for girls. Male aggression is generally characterised as being overt or direct; that is, involving a face-to-face confrontation. Girls also engage in direct forms of aggression, as evidenced by reports of gang violence among female adolescents, (Cummings, 1994; Harris, 1994). However, girls' rates of physical aggression are generally lower than that for boys (see Block, 1983; Parke & Slaby, 1983 for reviews). In contrast, girls' rates of indirect or relational aggression, where harm to others is delivered circuitously, are reported to be higher than boys (e.g., Björkqvist, Österman, & Kaukiainen, 1992; Crick & Grotpeter, 1995). When all forms of aggression are considered together (e.g., direct and indirect), boys and girls show less divergent rates of aggressive behaviour (Crick & Grotpeter, 1995).

The continuity of aggressive behaviour for boys and girls is similar in many ways. For example, Huesmann et al. (1984) found that early aggression predicted later aggression for both boys and girls. Moreover, girls' aggression, once it has been established, predicts later aggressive tendencies as well as that of boys (Cairns, Cairns, Neckerman, Ferguson, & Gariepy, 1989; Pulkinnen, 1987). Robins (1986) reported that although girls had significantly fewer conduct problems than boys, the rank-order of the frequency of conduct problems was similar for boys and girls. However, in her follow-up of children referred to clinics for antisocial behaviour problems, Robins noted that the outcomes for boys and girls differed in adulthood. Girls with childhood conduct problems were somewhat less likely than boys to be diagnosed with antisocial personality in adulthood, although they were comparable to their male peers in risk for drug and alcohol abuse. Notably, girls were more likely than boys to experience internalizing disorders such as anxiety and depression in adulthood (Robins, 1966, 1986). A recent study by Bardone and colleagues echoes these findings (Bardone, Moffitt, Caspi, Dickson, & Silva, 1996). In point of fact, anxiety disorders remain the most common psychiatric disorder for girls, with conduct disorder the second most common (Zoccolillo, 1993).

Although aggressive girls may be less likely than aggressive boys to engage in adult crime and deviance within the community, there is evidence suggestive of the continuity of aggression and related disturbances within close relationships for females. Robins (1966) found that women with histories of childhood conduct disorder experienced more marital difficulties and were more neglectful of their children than were men with similar histories. In a follow-up of female delinquents,

Lewis and colleagues found that these girls, while less likely to be arrested for violent offenses than delinquent males, were involved in violent relationships with male partners. Moreover, many of the women had children, and displayed problematic child-rearing (Lewis et al., 1991). Simons and colleagues similarly found that aggressive girls were likely to be involved in violent relationships with aggressive men (Simons, Johnson, Beaman, & Conger, 1993).

Results from the Concordia Longitudinal Project are consistent in showing overlapping and divergent patterns of stability of aggressive behaviour for men and women. Findings to date indicate that boys rated as highly aggressive by their peers tended to rate themselves as extraverted as adults, rather than as aggressive (Leung & Schwartzman, 1991). Nevertheless, boys with childhood histories of aggressive behaviour had a greater likelihood of committing a criminal offense, relative to a group of control boys. Aggressive girls, while at less risk of a criminal offense than their aggressive male peers, were more likely than girls in the control group to have a record of offenses. In addition, aggressive girls were at greater risk than girls in the contrast group for adolescent pregnancy and childbirth, for single parenthood and less competent parenting skills, and for psycho-social and medical difficulties in their children (Serbin, Peters, McAffer, & Schwartzman, 1991; Serbin, Peters, & Schwartzman, 1996). As adults, a subsample of these women rated themselves as elevated on indices of aggressive behaviour and emotional variability (Leung & Schwartzman, 1991). In a series of interaction tasks with their eldest child, women identified as aggressive in childhood were observed to be less responsive to their children than women without histories of childhood aggression. Childhood aggression

in these mothers also predicted aggressive behaviour, restlessness, and unresponsiveness in their offspring during videotaped interactions (Cooperman, 1996).

In summary, a substantial body of evidence supports the continuity of aggressive behaviour from childhood to adulthood for boys and girls. Although the manifestations of aggression appear to differentiate with age for males and females, the cumulative evidence indicates that childhood aggression is a risk factor, predicting later difficulties for individuals who display such behaviour. For women, aggressive behaviour in childhood has been also linked to subsequent difficulties in their children. Thus these findings highlight the importance of broadening the research focus to examine the partner choice of aggressive women and men.

Couple Similarity on Aggressive and Deviant Behaviour

The choice of a marital or common-law partner by an aggressive man or woman represents an important transition point in the maintenance or movement away from their aggressive behaviour. Unfortunately, few studies have specifically examined couple similarity on aggression. Buss (1984b) found correspondence between spouses on a category of quarrelsomeness, which appeared to comprise items reflecting verbal aggression (e.g., yelled at partner) and hostility (e.g., criticized a minority group for being lazy). Buss (1984a) also reported a correlation of .20 between partners on the aggression scale of the Personality Research Form.

Turning to the psychiatric and forensic literature, there is a good deal of evidence of congruence for characteristics related to antisocial activity, of which aggressive behaviour is a central feature. Rutter, Quinton, and Hill (1990), examined

a sample of boys who had been raised in children's group homes because of family breakdown. These boys were compared with girls from similar backgrounds (i.e., ex-care). In turn, both ex-care samples were compared with individuals who lived in the same inner-city borough, but had no history of institutional care. Results showed that ex-care women were more likely than the control women to marry deviant men (52% vs. 19%). Deviance was defined as persistent criminality or chronically impaired interpersonal relationships. In contrast to the female participants, ex-care men showed only a minimal, nonsignificant tendency to marry deviant women (27% vs. 17% of male controls).

Rutter and colleagues (1990) examined possible reasons why women were gravitating toward deviant partners. They proposed that women were more likely than men to be seeking escape from unhappy family situations through pregnancy or marriage. In support of this, they found that ex-care women were younger than control women at the time of their first cohabitation, had significantly higher rates of adolescent pregnancy than control women, and were more likely to enter marriage for negative reasons. In contrast, significant differences were not found on these measures for ex-care men versus control men.

Rutter et al. (1990) also found that planning for work (meaning a definite job or career choice) and planning for marriage (meaning marriage after six months or more of dating, plus a positive choice of partner) had a protective effect in terms of psychosocial outcomes in adulthood for men and women who came from adverse, ex-care backgrounds. Planning for work and marriage did not have a significant role for men and women from the control group. Planning also made it more likely that ex-

care women benefitted from marital support (meaning a harmonious marriage to a nondeviant partner), whereas planning did not have this role for ex-care men or for control subjects. The authors proposed that ex-care women had a lower chance of finding a non-deviant partner if they did not plan for a good choice, given that more deviant men were likely to be in their social environment. Planning appeared to be less critical for ex-care men, who had a greater likelihood of finding a non-deviant woman, perhaps reflecting the greater proportion of non-deviant women in their social environment. These results were maintained even when controls for numerous measures of childhood deviance were introduced.

A final point is that ex-care women who had a positive school experience were more likely to exhibit planning for work and for marriage. Men showed an effect in the same direction, however, it was not significant. This is of particular interest given early findings from the Concordia study that women with histories of aggressive behaviour experienced lower school achievement, relative to their contrast peers (Ledingham & Schwartzman, 1984).

Extending Rutter's findings from an institutionalized sample to a general population sample, Quinton, Pickles, Maughan, & Rutter (1993) found that conduct-disordered individuals, particularly women, were much less likely to attain supportive relationships. Hence, these individuals were likely to show a continuity from childhood disorder to adult disorder. The process by which a supportive or non-supportive relationship was achieved was also examined. A number of factors were involved, including an unsatisfactory parenting environment, a lack of planful behaviour, and association with a deviant peer group. For women, an early pregnancy

significantly increased the likelihood of pairing with a deviant partner.

The presence of a partner has also been examined in the continuity and discontinuity of criminal behaviour. A follow-up of 200 delinquent boys found that marriage led to increasing social stability (Gibbens, 1984). Knight, Osborn, and West (1977) discovered that while marriage did not reduce subsequent criminality to any significant degree, it reduced antisocial behaviour such as drinking and drug use among their sample of delinquent men. Moreover, Knight and colleagues found that marriage to a woman with a criminal history was associated with higher conviction rates after marriage for the delinquent fathers in their sample. West (1982) found evidence of assortative marriage among his sample of male delinquents, who were more likely than non-delinquents to marry a woman with a record of convictions. Although the quality of the marriages was not examined, it was noted that separation or divorce was more frequent among the delinquent couples. Sampson and Laub (1993) emphasized the quality of social ties in modifying the persistence of antisocial behaviour from childhood to adulthood. In their longitudinal study of two groups of delinquent and non-delinquent boys, they found that marital attachment in young adulthood, rather than the occurrence of marriage per se, was related to changes in adult crime. The stronger the young man's ties to his partner, the less crime and deviance among both delinquents and non-delinquents. Controlling for the effects of childhood deviance and the spouses' level of deviance did not alter the findings.

In summary, the studies reviewed suggest that individuals who demonstrate aggressive and deviant behaviour are likely to involve themselves in relationships with similar partners. The risk of choosing a deviant partner appears to be greater for

aggressive women than aggressive men, reflecting, in part, the greater proportion of deviant men than deviant women in the peer network. Involvement with an aggressive partner may sustain aggressive tendencies for both individuals, placing them at risk for a conflictual and discordant relationship. Moreover, aggressive behaviour and impaired interpersonal skills may be extended to the parent-child relationship, jeopardizing the quality of this relationship and the well-being of the children involved.

Stability of Socially Withdrawn Behaviour

Social withdrawal is characterised by behaviours which isolate the self from others, such as avoidance, seclusiveness, timidity, shyness, and fearfulness (Serbin, Moskowitz, Schwartzman, & Ledingham, 1991). Relative to aggression, much less is known about the stability of socially withdrawn behaviour. Although the findings are not conclusive, evidence suggests that socially withdrawn childhood behaviour is stable over the early childhood years (e.g., Broberg, Lamb, & Hwang, 1990; Kagan, Reznick, & Snidman, 1988; Rubin, 1993) and into adolescence (e.g., Kerr, Lambert, Stattin, & Klackenberg-Larsson, 1994).

Additional studies have shown that socially withdrawn children are also at risk for internalizing behaviour problems, such as low self-esteem, anxiety, depression, and loneliness during later childhood and early adolescent years (e.g., Asendorph, 1993; Biederman et al., 1993; Ollendick, Greene, Weist, & Oswald, 1990; Renshaw & Brown, 1993; Rubin, 1993; Rubin, Hymel, & Mills, 1989). This suggests continuity of an internalizing behavioural style.

There is also evidence that shy, withdrawn behaviour continues into adulthood, and may well influence functioning in areas thought to reflect social competence. For example, Caspi, Elder, and Bem (1988), in their follow-up of shy men and women from the Berkeley Guidance study, found meaningful consequences of this behavioural style. Shy boys were more likely than their less inhibited peers to delay entry into marriage, parenthood, and careers, and less likely to attain occupational achievement and stability. This was not the case for shy women, who were more likely than their uninhibited peers to follow a conventional pattern of marriage, childbearing, and homemaking. Caspi and colleagues concluded that shy women in the Berkeley sample were better suited at that time to the traditional female role, whereas shy men were less suited to the traditionally more active male role.

Findings from the Concordia Project support the hypothesis of behavioural continuity of social withdrawal. According to peer reports, socially withdrawn boys were rated as more withdrawn and less aggressive when they were 13 to 16 years old, approximately three years after their original identification as inhibited. Similarly, withdrawn girls were seen by their peers as more inhibited and less aggressive during adolescence (Ledingham & Schwartzman, 1984). As adults, men with a history of childhood withdrawal had significantly higher social avoidance and lower self-esteem than men with no history of withdrawal. Their female counterparts also reported higher social avoidance, but did not differ from their uninhibited peers on self-esteem (Schwartzman & Ledingham, 1985). In addition, a subsample of men and women from the Concordia Project with childhood histories of withdrawn behaviour rated themselves as introverted in adulthood (Leung & Schwartzman, 1991).

In terms of transitions to adult roles, a sub-group of Concordia participants with histories of withdrawn behaviour were not delayed in entering a marital or cohabiting relationship, relative to their non-withdrawn peers. Nor were they delayed in their transition to parenthood. Women with histories of childhood withdrawal had more children than non-withdrawn women, whereas this was not the case for men with histories of childhood withdrawal. Moreover, these women were found to be less supportive in their interactions with their children, relative to non-withdrawn women. Children of withdrawn women, in turn, displayed aggressive behaviour during mother-child exchanges (Cooperman, 1996). Finally, there was no evidence of a delayed entry into stable, full-time employment for either men or women, relative to their non-withdrawn peers. However, men and women who were withdrawn in childhood had lower ratings of occupational prestige (Peters, Verlaan, Schwartzman, Serbin, & Williams, 1995). Taken together, these initial findings from the Concordia project suggest that individuals who were socially withdrawn in childhood are not delayed in their transition to various adult roles. Whether this reflects a discontinuity of withdrawn behaviour is unknown. Also unknown is the role of partner similarity or dissimilarity on social withdrawal. Hence, the focus of the present study on these two issues.

Couple Similarity on Social Withdrawal

With respect to assortment on socially withdrawn behaviour, this characteristic has most often been assessed through administration to couples of measures of extraversion/introversion. This has often been the Eysenck scale, which characterizes

high scorers as sociable, easy-going, and generally impulsive, and low scorers as quiet, introspective, and reserved (Eysenck & Eysenck, 1975).

Price and Vandenberg (1980) administered selected scales from the Eysenck Personality Inventory to samples of Swedish and American couples. Swedish couples showed low, positive correlations on extraversion, (.08). Correlations for American couples were low and negative (-.07), prompting Price and Vandenberg to conclude that both samples were more introverted than average, as suggested by the sample means. Similarly low-positive correlations were found between partners on the extraversion scale of the Comrey Personality Scales. The sample of 138 professional couples in Jerusalem registered an average correlation of .07 (Guttman & Zohar 1987). Consistent with this finding, Feng and Baker (1994) reported a correlation of .09 on extraversion among their longitudinal sample of 124 couples.

Higher correlations were reported by Mascie-Taylor and Vandenberg (1988) on the Extraversion scale of the Eysenck Personality Inventory. Their sample of 193 British husband and wife pairs yielded a significant correlation of .23 for extraversion. This correlation remained significant, even though small, after adjusting for education, social class, and area of residence, which have the potential to limit the availability of possible spouses. Mascie-Taylor (1989) followed with a report of 150 couples from Oxford, who showed positive, albeit lower correlations (.14) on the Extraversion scale of the Eysenck Personality Inventory. Phillips, Fulker, Carey, and Nagoshi (1988) also found evidence for assortment on extraversion among two large samples of spouses. Bivariate correlations were .24 and .34 between spouses on extraversion, the latter estimated from a path analytic model of assortment.

Buss (1984b) investigated couple similarity along the dimension of extraversion/introversion and found a significantly positive correlation of .21. He also examined the specific acts comprising the introversion and extraversion categories, and reported the acts with the largest spousal correlations. Buss observed that couples were similar in their selection of extraverted settings (e.g., nightclubs, dances, parties) and in their choice of preferred leisure activities (e.g., jogging, watching television). He concluded that couples not only show correspondence on personality characteristics, they also show correspondence with respect to the environments they select. In turn, mutually selected environments foster shared experiences that may reinforce initial personality tendencies.

Evidence of the interaction between environmental selection and personality has been provided by Caspi and Herbener (1990), who used a longitudinal design to explore the role of assortative mating on personality continuity and change across middle adulthood. They obtained personality data collected in 1970 and 1981 from two longitudinal studies, the Berkeley Guidance Study and the Oakland Growth Study. Judges' Q-sort ratings for the 126 couples from both samples were correlated, yielding a mean correlation between partners of .32. Comparing this mean correlation to 100 randomly paired samples led Caspi and Herbener to conclude that their study yielded above-chance estimates of assortative marriage. More importantly, the authors argued, was the finding that assorting on personality characteristics increased stability in personality functioning across middle adulthood; that is, marriage to a similar other promoted consistency in individual personality characteristics across adulthood (Caspi & Herbener, 1990).

Couple Similarity and Satisfaction

As suggested by the studies reviewed thus far, the degree of influence of a similar spouse on the stability of personality characteristics appears to involve the quality of the relationship. Hence researchers have attended to the issue of couple similarity and marital quality or satisfaction. Marital satisfaction has generally been assessed with a standardized measure of couple functioning, such as the Locke-Wallace (Locke & Wallace, 1959). Alternatively, researchers have defined marital satisfaction according to the occurrence or nonoccurrence of marital dissolution. The findings as a whole support the conclusion that greater similarity between partners on a number of attributes is associated with marital success (White & Hatcher, 1984).

Of interest to the current investigation, several studies have found evidence of a relationship between couple similarity on behavioural and personality characteristics and marital satisfaction. Cattell and Nesselroade (1967), in their examination of stable couples and couples receiving marital counselling, found significant positive correlations on 8 of 16 personality traits in the stable group. In contrast, the unstable group had three significant negative correlations and two significant positive correlations. Interestingly, the authors reported that stable marriages were characterized by wives who were introverted and husbands who were more extraverted. The opposite pattern applied to unstable marriages (Cattel & Nesselroade, 1967). Given that these data are 30 years old, and given that the pattern of an introverted wife and extraverted husband was likely consonant with gender roles of that time, it remains to be seen if similar patterns emerge today.

Further evidence of the covariance between couple similarity and relationship

satisfaction has been supplied by several studies. Pickford, Signoir, and Rempel (1967) examined personality similarity among three groups of couples: those who were happily married, those who were having difficulty but planned to remain together, and those on the verge of separating. They found that marital unhappiness was related to more extreme differences in scores between husbands and wives. Murstein and Beck (1972) reported that personality similarity, as assessed by a bi-polar adjective checklist, was significantly correlated with marital adjustment among their sample of 60 young couples. Meyer and Pepper (1977) found that couples with similar profiles on the Personality Research Form had a more satisfactory marriage.

Although much of the literature on couple similarity and satisfaction emerges from the United States, consistent findings have been generally reported for British samples (e.g., Eysenck & Wakefield, 1981; Weisfeld, Russell, Weisfeld, & Wells, 1991). Russell and Wells (1991) administered a scale of marital quality and the revised Eysenck Personality Questionnaire to a sample of 94 British couples. Participating couples showed correspondence on the Neuroticism, Psychoticism, and Lie scale, but not on the Extraversion scale. Rather than concluding, however, that similarity in extraversion was of little importance in a marital relationship, the authors noted that couple differences along this dimension were negatively related to marital quality. They did not report whether marital quality varied according to the gender patterns of dissimilarity on the E scale (i.e., husband-extraverted/wife-introverted vs. husband-introverted/wife extraverted).

The few longitudinal studies in the literature have also supported the findings from cross-sectional investigations. Bentler and Newcomb (1978) compared

interspousal correlations on the Bentler Psychological Inventory with marital outcome four years later. Their results supported the hypothesis that a successful marital outcome (i.e., not separated or divorced) was associated with greater similarity between partners. Specifically, for 36 physical, personality, and background characteristics, couples who remained married showed greater concordance on 25 characteristics. With respect to the extraversion/introversion dimension and gender patterns, their findings contradicted those of Cattell and Nesselroade (1967) in that males in successful relationships were introverted, whereas their wives were more extraverted. An additional longitudinal study by Caspi and Herbener (1990) found that couple assortment on personality characteristics was related to less conflict in the marriage, greater friendliness within the relationship, and greater marital satisfaction. The results also indicated that men and women who reported being more satisfied in their marriage were more likely to show stability on personality characteristics, as were their spouses. Thus their findings provide important support for the role of partner selection and couple satisfaction in maintaining personality continuity.

Although the extant literature includes studies which have failed to support the association between couple similarity and marital satisfaction (e.g., Weigel, Weigel, & Richardson, 1973), the data as a whole suggest that positive assortment on various behavioural and personality characteristics is related to greater marital satisfaction and stability. Conversely, couple dissimilarity appears to be associated with marital instability and dissolution. One explanation posited for these findings is that similarity between two members of a marriage is gratifying because each person "validates, enhances, or reinforces the self-concept of the other" (Dryer & Horowitz, 1997, pg.

593). Granted this explanation has been generally applied to couple similarity on adaptive personality and behavioural characteristics. However, it may also apply to characteristics which are less than adaptive, such as aggression and withdrawal. Here too, aggressive or withdrawn couples may find that their behavioural similarity not only validates and reinforces their self-concept, but also reinforces their concept of others. In addition it may simply be easier to be coupled with a partner who has a matching behavioural style, regardless of whether this style is positive or negative. Thus the relationship is perceived as more satisfying than a relationship in which the couple is mismatched on aggression and withdrawal.

Current Study

Initial comments pertain to the contexts in which aggression and withdrawal are considered in the current study. The original assessment of aggression and withdrawal occurred within a peer context, and did not assess these behaviours within more intimate contexts such as parent-child or sibling interactions within the home. Context, in addition to time, modifies behaviour and may result in discrepancies between the original peer assessment of aggression and withdrawal of our subjects, and the adult assessment of these behaviours in a variety of social contexts, including their intimate relationship with a partner. Although these social contexts are indeed different, one can also view them as similar in terms of the extent to which the individual is involved in shaping them. Unlike the family context, into which an individual is born, the maturing person becomes increasingly involved in selecting and forming peer and intimate relationships with another adult. The opportunity to engage

in the creation of one's own environment may increase the likelihood that the individual's behavioural style occurs with some consistency and thus can be assessed within these various social contexts.

The present study was designed to explore three issues. The first pertained to the stability of aggression and withdrawal among community-based adult participants with childhood histories of these behaviours. It was expected that a moderate degree of stability would be found for aggression, consistent with the literature, and that this would be the case for men and women. Evidence was expected to emerge in support of the behavioural continuity of social withdrawal for men and women.

The second focus of the study was the degree of similarity among couples on the dimensions of aggression and withdrawal. Specifically, it was hypothesized that female participants and their partners would evidence above chance levels of similarity in their current aggressive behaviour. Above chance concordance on aggressive behaviour was also anticipated for male participants and their partners. With respect to socially withdrawn behaviour, couple similarity was hypothesized to occur for male participants and their partners, and female participants and their partners. Similarity was expected to be the case for couples scoring in the middle range on measures of aggressive and withdrawn behaviour, and for couples scoring outside the middle range. In other words, evidence in support of couple complementarity on aggressive and withdrawn behaviour was not anticipated.

Additionally, it was anticipated that the degree of similarity between partners would not be associated with the length of the relationship; that is, couples would not show evidence of converging on the behavioural traits of aggression and withdrawal

over the course of the relationship.

The final issue concerned the level of satisfaction among couples and how this varied as a function of their degree of similarity on aggression or withdrawal. It was hypothesized that the degree of partner similarity would be positively associated with the quality of the relationship.

Method

Sample

Identification of the original sample. The Concordia Longitudinal Risk Project began with the screening in 1977 and 1978 of 4,109 students in Grades 1, 4, and 7. All children were attending French-language schools in Montreal at the time of identification. Quebec francophone participants were chosen because demographic data indicate that this population has a low out-of-province mobility rate (e.g., 1% in 1977; Statistics Canada, 1977), thus ensuring a reasonably high retention rate for participants.

The decision to participate in the project was made by the school board, with subsequent approval by the teachers' and parents' committee at each school. Participation of teachers and students was voluntary (over 95% of the children present agreed to participate). The selection process as described below was balanced for sex and grade, yielding a sample of 861 boys and 909 girls (see Table 1).

Children were screened with a French translation of the Pupil Evaluation Inventory (PEI), a peer nomination instrument developed by Pekarik, Prinz, Liebert, Weintraub, and Neale (1976). A sociometric measure was selected for several reasons. Using peers to identify children at risk for adult maladjustment has been shown, in several studies, to be more valid and reliable than teacher and clinician ratings (Cowen, Pederson, Babigian, Izzo, & Trost, 1973; Roff, 1970; see Asher & Hymel, 1981 for a review). Peers enjoy a unique perspective as actual participant-observers of peer social interactions (Hayvren & Hymel, 1984; Smith, 1967). Consequently, they may be in a better position to evaluate the status of their peers in terms of

Table 1

Number of Participants by Classification Group and Grade at Time of Identification (1977-1978)

	Peer Classification Group				
	Aggressive	Withdrawn	Agg.-With	Contrast	Total
Grade 1					
Men	12	15	54	155	236
Women	11	12	70	170	263
Grade 4					
Men	35	35	30	145	245
Women	28	30	48	194	300
Grade 7					
Men	50	58	25	247	380
Women	62	70	11	203	346
Total	198	220	238	1114	1770

psychosocial functioning. In their position as evaluators, peers far outnumber teachers and clinicians, thereby increasing the power of the assessment procedure. Furthermore, sociometric testing is relatively simple to administer to large numbers of children, and does not appear to impact negatively on children's peer interactions (Hayvren & Hymel, 1984).

The PEI (see Appendix A) contains 35 items on the factor-analytically derived dimensions of Aggression, Withdrawal, and Likeability (because of their minimal reading skills, children in the first grade received an abbreviated form of the PEI containing only 17 items). The items within these scales assess not only the behaviour of the child, but also the behaviour of peers toward the child. For the purpose of the Concordia Study, children were screened on the Aggression and Withdrawal dimensions only.

In each of the 152 participating classrooms, children rated the boys and girls in separate administrations. Children were instructed to nominate up to four boys and four girls (chosen from class lists) who were best described by each item of the peer inventory. The number of nominations for each child was summed for the Aggression and Withdrawal dimensions. Total nomination scores for the two scales were then subjected to a square root transformation to reduce skew. Finally, the transformed Aggression and Withdrawal scores were converted to $\underline{z}$ scores for each sex within each class to control for the effects of differences in class size and sex differences in the baseline rates of Aggression and Withdrawal. This process enabled each child to be scored relative to appropriate norms for his or her own sex and age, and resulted in approximately equal samples of girls and boys.

Percentile cutoffs for the z scores were selected to identify groups of children who showed extreme scores on the PEI Aggression and/or Withdrawal scales (Schwartzman, Ledingham, & Serbin, 1985). All children who registered z scores above the 95th percentile ($z > 1.65$) on Aggression and below the 75th percentile ($z < 0.68$) on Withdrawal, relative to same-sex classmates, were selected for the aggressive group ($n = 198$). Conversely, children who registered z scores above the 95th percentile on Withdrawal and below the 75th percentile on Aggression, relative to same-sex classmates, were selected for the withdrawn group ($n = 220$). Children selected for the aggressive/withdrawn group ($n = 238$) registered z scores equal to or above the 75th percentile on both the Aggression and Withdrawal dimensions. The lower criteria were used to identify this group because the probability of a score above the 75th percentile on both dimensions is very low. Hence, lower criteria were necessary to obtain an adequate sample of children with elevated scores on both dimensions. Contrast participants ($n = 1,114$) were chosen randomly from among those children whose z scores fell between the 25th and 75th percentiles on both Aggression and Withdrawal (i.e., 0.68 standard deviations above and below the mean).

Sample for this study. Participants from the Concordia Risk Project have been followed since the time of identification, when they were 7, 10, or 13 years of age. At the time of the current study, approximately 1,000 of the participants remained in contact with the Risk Project. For the study, active participants who were known to be in marital or common-law relationships (as recorded in the project's data base) were contacted. A small number of participants (62) recorded in the project's data base as single were also contacted to determine if they were eligible for the study (i.e.,

in a dating relationship of at least six months duration). These latter participants were all members of the risk groups, as the decision was made to focus recruiting efforts on these groups in order to ensure an adequate number of participants. Recruiting efforts also focused on the older age groups (i.e., participants who were originally in Grades 4 and 7), as participants in these age groups were more likely to be in relationships. Information about civil status was based on project demographic data collected approximately one year earlier. Of the 473 participants contacted, telephone numbers were no longer in service for 12, or 0.03% of the potential sample of participants. Of the remaining 461 participants, 99 were not in a relationship of at least six months duration and were ineligible for the study. Seven of the 461 participants were used to pilot the questionnaire procedure. The recruiting breakdown is presented separately for men and women in Table 2 and 3.

The final recruiting sample comprised 355 individuals who had remained in a marital or common-law relationship, or had been dating for at least six months. Of these participants, 291 or 82.0% agreed to complete, and were thus mailed a questionnaire package. Sixty-four of the participants contacted indicated that they or their spouse would not be interested and were not mailed a package. A chi-square test on the refusal rate by peer classification group was not significant.

Of the 291 participants who agreed to complete the study, 211 participants and their spouses or partners completed the questionnaires, a return rate of 72.5%. The return rate was 87.0% for the aggressive-withdrawn group, 81.8% for the aggressive group, 80.7% for the withdrawn group, and 60.2% for the contrast group. A chi-square test on the return rate by peer classification group indicated that the rate for the

Table 2

Recruitment Breakdown for Male Participants (%)

	Peer Classification Group				
	Agg.	With.	Agg-With.	Contrast	Total
Contacted	42	61	45	88	236
No Phone	2 (4.8)	1 (1.6)	2 (4.4)	3 (3.4)	8 (3.4)
Ineligible*	14 (33.3)	26 (42.6)	18 (40.0)	9 (10.2)	67 (28.4)
Pilot	0	1 (1.6)	0	3 (3.4)	4 (1.7)
Refused	2 (4.8)	7 (11.5)	6 (13.3)	13 (14.8)	28 (11.9)
Not Returned	3 (7.1)	2 (3.3)	1 (2.2)	15 (17.0)	21 (8.9)
Participant Completed	1 (2.4)	2 (3.3)	0	6 (6.8)	9 (3.8)
Couple Completed	20 (47.6)	22 (36.1)	18 (40.0)	39 (44.3)	99 (41.9)

* Includes participants who were single or in a relationship of less than six months duration.

Table 3

Recruitment Breakdown for Female Participants (%)

	Peer Classification Group				
	Agg.	With.	Agg-With.	Contrast	Total
Contacted	41	46	51	99	237
No Phone	2 (4.9)	1 (2.2)	1 (2.0)	0	4 (1.7)
Ineligible*	3 (7 .3)	6 (13.0)	14 (27.5)	9 (9.1)	32 (13.5)
Pilot	0	0	1 (2.0)	2 (2.0)	3 (1.3)
Refused	5 (12.2)	8 (17.4)	8 (15.7)	15 (15.2)	36 (15.2)
Not Returned	3 (7.3)	4 (8.7)	0	13 (13.1)	20 (8.4)
Participant Completed	3 (1.3)	3 (1.3)	5 (2.1)	19 (8.0)	30 (12.7)
Couple Completed	25 (61.0)	24 (52.2)	22 (43.1)	41 (41.4)	112 (47.3)

* Includes participants who were single or in a relationship of less than six months duration.

contrast group was significantly lower than the other groups (X^2= 19.32). As noted earlier, efforts at recruiting and follow-up by project staff were directed at participants from the risk groups, which resulted in a smaller number of unreturned packets from these groups, relative to the contrast group. Similarly, of the 39 participants who completed the questionnaires, and whose spouses did not, only 14 were from the risk groups. The 39 "stand alone" participants were included in analyses on the continuity of aggression and withdrawal (n=250), but were not included in analyses pertaining to couples (n=211 dyads).

Table 4 portrays the mean, standard deviation, and median of the aggression and the withdrawal z-scores for the original participants and the 250 individuals participating in the current study. The z-scores for the two samples were compared in order to determine if they were significantly different. The z-scores for the present sample were examined for men and women separately and found to be normally distributed. However, one-sample t-tests found the male participants in the present study to have significantly higher withdrawal z-scores than their counterparts who did not participate. There was also a trend for men in the current study to have higher aggression scores. Female participants in the current study had significantly higher aggression and withdrawal scores than did women who did not participate. Differential recruiting for the current sample led to a larger representation of participants from the three risk groups, 62%, relative to the contrast group, whereas the original sample comprised 42% of participants from the risk groups. Given that designation in a risk group was based on an elevated z-value, it is not surprising that the z-values of the current sample are higher. However, the z-values for the men and

Table 4

Summary Statistics for the Aggression and Withdrawal z-Scores of the Original Sample and the Present Sample

		Aggression	Withdrawal
Original Sample (n = 1770)			
Men	mean	.246	.324
	SD	.935	.947
n = 753	median	-.002	.056
	min.	-1.759	-1.842
	max.	3.159	3.819
Women	mean	.271	.329
	SD	.990	.926
n = 767	median	-.084	.067
	min.	-1.379	-1.335
	max.	3.590	3.267
Present Sample (n = 250)			
		Aggression	Withdrawal
Men	mean	.469	.581
	SD	1.241	1.055
n = 108	median	.116	.299
	min.	-1.23	-1.603
	max.	3.159	2.519
		t(125) = -1.79, p < .10	t(132) = -2.39, p < .05
Women	mean	.538	.528
	SD	1.212	1.088
n = 142	median	.049	.235
	min.	-1.595	-1.440
	max.	3.184	2.694
		t(179) = -2.47, p < .05	t(180) = -.2.05, p < .05

women in the current sample were not significantly different from the z-values of the 49 men and 56 women who were contacted for the study, and who refused to participate or failed to return the questionnaire packet.

Overall sample characteristics are presented in Tables 5 and 6. The majority of male and female participants and their partners were Canadian born, identified French as their primary language, and Catholicism as their religious affiliation. Over two thirds of male participants and their partners were in common-law relationships (68.7%), with 26.3% married and 5.1% dating. Relative to male participants, fewer female participants were co-habiting with their partners, (50.9%) while more were married (40.2%) or in dating relationships (8.9%). The majority of these relationships were heterosexual (98.5%), with only one female same-sex couple and three male same-sex couples participating in the study. A small number of male participants (5.1%) and their partners (6.1%) indicated that they had been married previously, although this did not include prior common-law relationships. Similarly, only a few female participants (3.6%) and their partners (10.7%) had previous marriages. With the exception of one partner of a male participant who had been widowed, all previous marriages ended in separation or divorce. At the time of the study, more female participants had children living with them in the home than male participants.

Ninety-two percent and 63% of male and female participants, respectively, were employed at the time of the study. Corresponding rates of employment for spouses of male and female participants were 79% and 90%, respectively. The occupational level for female participants ranged from 156 to 610, with a mean occupational level of 391. This level is equivalent to moulder, or telephone

Table 5

Selected Demographic Characteristics for Male Participants and Partners (n=99)

	Male Participants	Partners
Percent (n)		
Ethnicity		
Canada	94.9(94)	93.9(93)
Portugal	1.0 (1)	3.0 (3)
Other	4.0 (4)	2.0 (2)
Language		
French	93.9 (93)	94.9 (94)
Portuguese	3.0 (3)	2.0 (2)
Other	3.0 (3)	2.0 (2)
Current Religion		
Catholic	90.9 (90)	90.9 (90)
Jehovah Witness	2.0 (2)	2.0 (2)
Other	7.1 (7)	7.1 (7)
Civil Status		
Married	26.3 (26)	
Co-habiting	68.7 (68)	
Dating	5.1 (5)	
Prior Marriage	5.1 (5)	6.1 (6)
Separated/Divorced	100 (5)	83.3 (5)
With Children	56.6 (56)	
Employed	91.9 (91)	78.8 (78)
Mean (SD)		
Occupational Prestige	375.31 (119.44)	399.42 (113.81)
Age	28.54 (2.39)	28.07 (4.72)
Years of Education	12.42 (3.08)	12.74 (3.31)
Length of Rel'ship (months)	74.41 (44.95)	

Table 6

Selected Demographic Characteristics for Female Participants and Partners (n=112)

	Female Participants	Partners
Percent (n)		
Ethnicity		
Canada	94.6(106)	93.8(105)
Portugal	2.7 (3)	-
Other	2.7 (3)	6.3 (7)
Language		
French	97.3 (109)	94.6 (106)
Portuguese	2.7 (3)	-
Other	-	5.4 (6)
Current Religion		
Catholic	88.4 (99)	91.2 (102)
Jehovah Witness	1.8 (2)	0.9 (1)
Other	8.9 (10)	8.1 (9)
Civil Status		
Married	40.2 (45)	
Co-habiting	50.9 (57)	
Dating	8.9 (10)	
Prior Marriage	3.6 (4)	10.7(12)
Separated/ Divorced	100 (4)	100 (12)
With Children	66.1 (74)	
Employed	63.4 (71)	90.2 (101)
Mean (SD)		
Occupational Prestige	390.63 (112.53)	395.72 (93.91)
Age	27.71 (2.62)	30.46 (4.60)
Years of Education	12.36 (2.95)	12.43 (2.62)
Length of Rel'ship (months)	88.20 (52.93)	

installer/repairer on the Household Prestige Scale (Nock & Rossi, 1979). Their partners' occupational level ranged from 156 to 670, with an average level of 396, equivalent to carpenter or construction inspector. Occupational levels for male participants ranged from 175 to 720, with an average level of 375. This level is equivalent to jeweller and watchmaker on the Household Prestige Scale. The partners of male participants had occupational levels ranging from 182 to 697. Their mean occupational level of 399 corresponds to sales representative, wholesale trade.

Female participants ranged in age from 22 to 32 years, with a mean age of 27.7 years. Their partners ranged in age from 22 to 44 years, with an average age of 30.5 years. The ages of male participants ranged from 23 to 34 years, with an average age of 28.5 years. Their partners ranged in age from 18 to 44 years, with a mean age of 28.1 years. Female participants completed between 4 and 20 years of education, with their partners completing between 5 and 19 years of education. The mean number of years of education for both female participants and their partners was 12.4 years. Male participants also averaged 12.4 years of education, ranging from 7 to 21 years. Their partners recorded, on average, 12.7 years of completed schooling, with a range of 4 to 20 years.

Measures

Each participant in the study was asked to complete a battery of paper and pencil questionnaires.

Demographic Questionnaire. This 20-item questionnaire requested information from participants about their age, civil status, ethnic origin, religious affiliation

(current and family of origin), education, and occupation (see Appendix B and B1 for French and English versions, respectively).

Couple Questionnaire. The first six items of this questionnaire asked how the couple met, when they began dating, when they began living together, and the date of their marriage, if applicable (see Appendix C and C1 for French and English versions, respectively). Participants were asked if they had been married previously, and if they were separated, divorced, or widowed. They were also asked for the gender and birthdate of any children living with them.

Questions 7 to 16 comprised the Dyadic Satisfaction Subscale from the Dyadic Adjustment Scale (DAS; Spanier, 1976). The Dyadic Adjustment Scale is a standardized measure of adjustment in married or non-married couples. Spanier had initially hypothesized that five factors comprised dyadic adjustment. Following administration of the DAS to samples of 218 married persons and 94 divorced persons, factor analysis supported three of the original five components, in addition to a fourth factor. The four factors comprising the DAS are: Dyadic Consensus, Dyadic Cohesion, Dyadic Satisfaction, and Affectional Expression. Spanier reported an alpha reliability coefficient of .96 for the total scale. Construct validity was supported by a correlation of .86 with the Locke-Wallace Marital Satisfaction Scale. Criterion validity was evidenced by the significant difference between the divorced and married samples on each item of the DAS (Spanier, 1976).

For the purposes of the current study, the Dyadic Satisfaction Subscale was selected as it assesses the degree to which the couple is satisfied with the present state of the relationship and is committed to its continuance. The other subscales were not

used as they contained a large number of items reflecting similarity or agreement between partners in their attitudes, ideas, and interests. It was felt that using these subscales would lead to an overestimation of the association between couple similarity and adjustment (Fincham & Bradbury, 1987). With respect to the reliability of this subscale, Spanier (1976) reported an internal reliability coefficient of .94. Alpha reliability coefficients for the current sample were .86 for participants and .87 for partners.

Withdrawal

Given that the items from the Withdrawn scale of the PEI appear to reflect both behavioural and affective aspects of social withdrawal, it was necessary to select measures of adult functioning consistent with this dual focus. Thus the Eysenck Personality Questionnaire, with its Extraversion dimension was selected, along with the Revised Shyness Scale. Given that withdrawn children are at an increased risk for subsequent internalizing behaviour problems, the SCL-90-R was included as an outcome measure, as it assesses symptoms of primarily an internalizing nature (anxiety and depression).

Eysenck Personality Questionnaire (EPQ). Developed by Eysenck and Eysenck (1975), the EPQ is a widely used measure of three primary factors of personality, Extraversion (E), Neuroticism (N), and Psychoticism (P). It also contains a Lie (L) scale to determine the validity of obtained scores (see Appendix D and D1). The Extraversion scale appears to emphasize sociability, with high scorers described as extraverts who seek out and enjoy the company of others. Low scorers on this scale are referred to as introverts who are more reserved than extraverts. The emphasis of

the E scale is on the behavioural, rather than the affective component of social withdrawal. The Neuroticism scale reflects the dimension of emotional normality-abnormality. High scorers on N are generally nervous, and overly emotional, which may dispose them to develop neurotic disorders under stress. High scorers on the P scale are generally seen as lacking empathy, as aggressive, hostile, and impulsive, as preferring odd or unusual things, and as having socialization difficulties. Conversely, low scorers manifest empathy and sensitivity, are not aggressive or hostile, and have few socialization difficulties (Eysenck & Eysenck, 1975).

The E and N scales of the EPQ, which are very similar to the corresponding scales of its forerunner, the Eysenck Personality Inventory, have a large body of findings supporting their reliability and validity (Eysenck & Eysenck, 1968). The addition of the P scale to the EPQ followed validation studies with samples of criminals and psychotics, both out-patient and hospitalized. Eysenck and Eysenck (1975) reported test-retest reliabilities over a one-month period of .78 (P), .89 (E), .86 (N), and .84 (L). Internal consistencies for a sample of 500 males ranged from .74 for P to .85 for E. Alpha coefficients for a sample of 500 females ranged from .68 for P to .85 for N. The current sample recorded low reliability coefficients for the Psychoticism scale, .39 for participants and .51 for partners. Coefficients for the other scales ranged from .72 for partners on the L scale to .89 for partners on the N scale. For the purposes of the present study, only the E and P scales were used in analyses of behavioural stability and couple similarity.

Revised Shyness Scale. This 13-item measure assesses both the behavioural and affective components of shyness (Cheek, 1983). Moreover, it separates

sociability, or the desire to seek out social interactions, from shyness (see Appendix E and E1 for French and English versions, respectively). The author reported a Cronbach's alpha of .90, and an average inter-item correlation of .39. The 45-day test-retest reliability was .88. Internal reliability coefficients for participants and partners from the current sample were .75 and .74, respectively.

Scores on the Shyness Scale have correlated highly with other measures of shyness and social anxiety, such as the Social Reticence Scale (.79) and the Interaction Anxiousness Scale (.86) (Jones, Briggs, & Smith, 1986). High scorers on the Shyness Scale were less talkative and displayed less eye contact in dyadic interactions than low scorers. High scorers were also rated by observers as more tense, inhibited, and unfriendly than their low-scoring counterparts (Cheek & Buss, 1981).

SCL-90-R. This self-report instrument was designed to assess psychological symptoms related to various aspects of psychopathology (Derogatis, 1977). Respondents note the degree to which they are distressed by each symptom, using a 5-point Likert scale. The items are scored and interpreted in terms of nine primary symptom dimensions, which emphasize symptoms of an internalizing nature (e.g., Depression, Anxiety, Somatization). The SCL-90-R also yields three global indices of distress (see Appendix F and F1 for English and French versions respectively). Normative information is provided for a sample of 1,002 heterogeneous psychiatric outpatients, a sample of 974 non-patient normals, and a sample of 112 adolescent psychiatric outpatients. Separate norms are presented for men and women.

Based on a volunteer sample of 219 participants, internal consistency coefficients for the nine primary symptom dimensions ranged from .77 for

Psychoticism to .90 for Depression. Test-retest correlations for a sample of 94 psychiatric outpatients, over a one-week period, ranged from .78 for Hostility to .90 for Phobic Anxiety. Several studies have compared the SCL-90-R with other measures of psychopathology, such as the MMPI and the Middlesex Hospital Questionnaire. Results have supported the validity of the SCL-90-R (Derogatis, 1977). In addition, the SCL-90-R has been sensitive to differences between drug and placebo groups, and has discriminated between depressed and non-depressed groups (Derogatis, 1977). Internal consistency coefficients for participants in the current sample ranged from .70 for Phobic Anxiety to .89 for Depression. Coefficients for partners ranged from .78 for Paranoid Ideation to .92 for Depression.

Aggression

Several measures were used to assess the construct of aggression in adult functioning. These included measures of specific aggressive behaviours, as well as correlates of aggression, such as interpersonal problems, erratic work history, and substance use.

Aggression Questionnaire. Developed by Buss and Perry (1992), the Aggression Questionnaire assesses four components of aggression: Physical Aggression and Verbal Aggression, which represent the instrumental components of behaviour; Anger, which represents the affective component of behaviour; and Hostility, which represents the cognitive component of behaviour. A series of exploratory and confirmatory factor analyses yielded these four scales. Using a sample of 1, 253 college participants, the following alpha coefficients were obtained for the internal consistency of the four scales: Physical Aggression (.85), Verbal

Aggression (.72), Anger (.83), and Hostility (.77). With a sample of 372 participants, test-retest correlations for a nine-week period were as follows: Physical Aggression (.80), Verbal Aggression (.76), Anger (.72), and Hostility (.72). The Aggression Questionnaire correlated significantly, but modestly with peer nominations for aggression.

Buss and Perry (1992) reported that men scored significantly higher on the physical aggression subscale than women in their sample. This finding is not surprising, given the emphasis of this scale on items such as hitting. Recent literature on sex differences in aggression suggests that men and women do not always differ on measures of physical aggression when item content is expanded to include other types of aggressive behaviour (see Björkqvist, 1994 for a review). Accordingly, the Aggression Questionnaire was augmented with nine items assessing the use of other forms of physical aggression (e.g., biting, slapping, staring, threatening with a fist) (see Appendix G and G1 for French and English versions, respectively). Internal reliability coefficients for the current sample were lowest for Verbal Aggression (.54 for participants and .62 for partners), and highest for Physical Aggression (.78 for participants and .81 for partners). Alpha values for the total scale were .88 for participants and .89 for partners.

Conflict Tactics Scales (CTS). As reported by Straus (1979), the Conflict Tactics Scales were designed to measure the use of reasoning, verbal aggression, and violence within a couple in response to a conflict. Several versions of the scales have been used in the literature, including the self-report version used in the present study, and two face-to-face versions employed in national surveys of family violence. All

versions are similar in that they provide a list of actions which might be used in a conflict with a spouse or partner. The items begin with those low in coerciveness and become gradually more coercive and aggressive (see Appendix H and H1 for French and English versions, respectively).

Factor analysis of the CTS revealed three factors, corresponding to the three Conflict Tactics Scales (Straus, 1979). Reliability for the self-report form, assessed by an item analysis, appeared adequate, with item-total correlations ranging from .47 to .91. Alpha coefficients of reliability for the current sample were .75 for participants and .77 for partners.

With respect to the validity of the CTS, Straus acknowledged that the measure likely underestimated the rate of violence within couples, citing evidence from the CTS that partners who completed self-report versions of the measure did not consistently agree on the use of violence in the relationship (Straus, 1990). However, Straus pointed out that the rates of occurrence for verbal and physical aggression obtained with the CTS were consistent with rates found through in-depth interview studies. He proposed that the results from the CTS were as close, or possibly closer to the true incidence of violence between partners than are the findings from other methods of data collection.

Adult Social Functioning. This 16-item measure assesses social maladaptation in the areas of work, social relationships, and sex/love relationships. It was adapted from one used by Zoccollilo, Pickles, Quinton, & Rutter (1992) in their study of the outcome of childhood conduct disorder (see Appendix I and I1 for French and English versions, respectively). In its original use, the questions pertaining to adult social

functioning were administered to participants in an interview format. For the current study, the questions were adapted for a self-report format. Minor additions were also made to the content of the questions, such as asking whether the respondent had been laid off and asking about the number of times the participant had moved. No reliability or validity data are available for the original measure. However, in the Zoccollilo et al. study, over two thirds of adults with histories of conduct disorder showed dysfunction in at least two of the social domains assessed, providing evidence of the measure's construct validity. Alpha coefficients for the present sample were .59 for participants and .61 for partners.

Short Michigan Alcoholism Screening Test (MAST). This shortened version of the original Michigan Alcoholism Screening Test consists of 13 items (see Appendix J and J1 for French and English versions, respectively). Selzer, Vinokur, and van Rooijen (1975) reported alpha coefficients of .76 and .78 for their samples of alcoholic and non-alcoholic men, and a coefficient of .93 for the two samples combined. Correlation coefficients between total MAST scores and criterion group membership (alcoholic and non-alcoholic), yielded coefficients of .83 and .94 in separate samples (Selzer et al., 1975). Further support for the validity of the MAST was reported by Harburg and colleagues, who found higher volume drinkers had higher scores on the MAST (Harburg et al., 1988). Alpha coefficients registered for the current sample were .82 for participants and .77 for partners.

Drug Abuse Screening Test (DAST). The DAST was designed to provide a brief, self-report index of the problems related to psychoactive drug use. Using a sample of 256 drug/alcohol abuse clients, Skinner (1982) found an alpha coefficient of

.92, suggesting substantial internal consistency. A factor analysis supported the unidimensional structure of the scale. Total scores on the DAST differentiated among clients with drug problems only, versus mixed drug/alcohol problems, or alcohol problems only (Skinner, 1982). Higher DAST scores were related to the more frequent use of drugs during the previous 12 months. An additional study by Gavin, Ross, and Skinner (1989) found that the DAST correlated highly with current and lifetime DSM-III drug diagnosis, and moderately with self-reported drug use in the previous week. The discriminative validity of the DAST was supported by its negative correlation with measures of alcohol abuse and dependence (Gavin et al., 1989). Internal consistency values for the current sample were .84 for participants and .80 for partners (see Appendix K and K1 for the French and English versions respectively.)

Procedure

All measures were translated into French. To ensure that the translation adequately preserved the original measure, the measures were re-translated into English by a different person and compared with the original. The process was repeated until equivalent forms were developed. Following this process, three participants (2 men) visited the Concordia laboratory and read through the questionnaire package. They provided feedback about the package contents, such as the clarity of directions for each questionnaire, and any translation difficulties. Minor revisions were then made to the questionnaires, at which point a trial run of the mailing procedure was conducted. Four participants (2 men) were recruited to complete the questionnaires, as well as to provide feedback on the packet. Their

spouses or partners were also asked to participate. All four couples provided positive feedback about the translation and clarity of instructions. However, they noted that the packet seemed long and repetitive, singling out the questionnaires on alcohol and drug use as overly lengthy. They suggested that participants be instructed to omit these questionnaires if they had not used substances in the previous 12 months.

In response to these concerns, the length of the package was reduced in three ways. Firstly, the measures of aggressive and withdrawn behaviour were originally to be completed twice by each participant, once as a self-rating and once as a partner-rating. The partner-rating was eliminated, thus reducing the duplication of these measures, and allowing the study to remain focused on couple's self-ratings of aggressive and withdrawn behaviour, rather than on perceived similarities in behaviour. Secondly, items were carefully checked across questionnaires and duplications or close similarities were generally eliminated (two items from the Dyadic Satisfaction Subscale which were similar to the content of the Conflict Tactics Scale remained). This process resulted in the removal of the hostility scale from the SCL-90-R, as it was felt to overlap with the hostility subscale from the Aggression Questionnaire. The Psychoticism scale was also omitted, as it overlapped with the Psychoticism scale of the EPQ. Finally, the measures of alcohol and drug use were reduced and an opening statement added, as suggested by those who reviewed the measures. These changes decreased the questionnaire completion time from approximately 90 minutes to approximately 60 minutes, without appearing to compromise the integrity of the measures.

At this point data collection was initiated. Potential participants were contacted

through current project files of telephone numbers. One of three research assistants briefly described the study and asked a series of questions to ensure that they met the inclusion criteria. Participants were also asked a number of questions in order to update demographic information for the project. This procedure took approximately 15 minutes to complete. An opportunity to win one of 20 prizes of $100.00 was offered as an incentive to participate in the current study. Those who agreed to participate were mailed a questionnaire package and asked to complete it and return it at their earliest convenience. Participants and their spouses were also instructed during the initial telephone contact and in the letter accompanying the questionnaires to complete the measures independently. When the completed package was received by project staff, a second questionnaire package was mailed to the partner or spouse. This step was taken to increase the likelihood that couples would complete the measures independently.

Results

Preliminary Analyses

Descriptive analyses of all variables were performed in order to detect the presence of univariate and multivariate outliers, and to examine distributions for skewness. Data screening revealed that four participants and four partners were univariate outliers on the total MAST (Shortened Michigan Alcoholism Screening Test) score. Five participants and two partners recorded outliers on the total DAST (Drug Abuse Screening Test) score. These scores were reduced to standardized scores of +3.00. Addressing outlying values, however, did not greatly enhance the distributions, which remained significantly positively skewed. As suggested by Tabachnick and Fidell (1989), logarithmic transformations were performed for the MAST and DAST scores for both participants and partners. The transformations corrected the problems in their distributions and these transformed variables were used in all data analyses. To facilitate presentation, the original names of these variables and their original means and standard deviations are retained in the text.

Reduction of Variables

In order to reduce the number of variables to the proposed two factors of aggression/deviance and social withdrawal, separate confirmatory factor analyses with a varimax rotation were performed on participant and partner variables. The results of the factor analysis for participants did not support the existence of the two factors; nor did the factor analysis for partners. Hence, factors were not used in the following analyses, and the original variables were retained. Total scores were used for the Conflict Tactics Scale, the Buss Aggression Scale, and the Adult Social Functioning

scale. The subscales for these measures were highly positively skewed for participants and partners, whereas the total scores were not. It was also decided to use the total symptom score for the SCL-90-R, as the subscales were highly correlated, both for participants and partners (an average correlation of .54 for participants and .63 for partners). In addition to the MAST and DAST variables defined above, the following variables were used in analyses: CTS (Conflict Tactics Scale), BAG (Buss Aggression Questionnaire), PSYCHO (Psychoticism scale of the Eysenck Personality Questionnaire), ASF (Adult Social Functioning), EXT (Extraversion scale of the Eysenck Personality Questionnaire), RSS (Revised Shyness Scale), and SCL (Symptom Checklist).

Table 7 presents the mean and standard deviation for each measure, separately for male and female participants and partners. Where available, comparable data from normative samples are presented. Descriptively, means and standard deviations from the present study appear similar to those from normative samples for the RSS, EXT, SCL, and PSYCHO. Normative and current means on the BAG are also similar for men. However, they differ for women, with women in the current study, both participants and partners, averaging higher scores than women in the normative sample. This discrepancy may reflect the expansion of the BAG to include six items assessing the use of direct and indirect physical aggression. With respect to the CTS, percentile values from the current sample of participants and partners are lower than those from the normative sample of couples.

Normative data for the MAST are confined to percentage distributions reported for a community sample of men and a clinical sample of men seeking treatment for

Table 7

Current Sample and Normative Sample Means (SD)

Measure	Participant		Partner		Normative	
	Men (n = 108)	Women (n = 142)	Men (n = 144)	Women (n = 106)	Men	Women
CTS	13.55 (7.05)	15.64 (7.45)	15.12 (8.27)	11.93 (6.55)	Percentile Norms	
BAG	78.37 (14.65)	74.45 (15.81)	76.76 (16.89)	75.21 (16.34)	77.8 (16.5)	68.2 (17.0)
MAST	0.74 (1.37)	0.41 (1.02)	0.33 (0.76)	0.76 (1.39)	Percentage Distributions	
DAST	0.73 (1.41)	0.33 (0.99)	0.29 (0.84)	0.60 (1.21)	Percentage Distributions	
ASF	3.71 (2.67)	3.54 (2.27)	3.55 (2.37)	3.72 (2.51)	Not Available	
PSYCHO	4.03 (2.20)	2.77 (1.74)	2.94 (2.06)	4.18 (2.39)	3.78 (3.09)	2.63 (2.36)
EXT	13.53 (4.65)	13.03 (4.47)	12.76 (4.32)	13.35 (4.54)	13.19 (4.91)	12.60 (4.83)
RSS	35.25 (9.11)	35.38 (7.94)	35.88 (8.16)	34.67 (8.68)	33.3 -	32.4 -
SCL	58.02 (10.02)	56.53 (9.55)	58.73 (10.56)	55.86 (11.34)	56 -	53 -

Note. CTS = Conflict Tactics Scale; BAG = Buss Aggression Scale; MAST = Michigan Alcoholism Screening Test; DAST = Drug Abuse Screening Test; ASF = Adult Social Functioning; PSYCHO = Psychoticism Scale; EXT = Extraversion Scale; RSS = Revised Shyness Scale; SCL = Symptom Checklist.

alcoholism. Ninety-one percent of the community sample scored at or below the suggested clinical cutoff of three points, whereas only 6% of the clinical sample scored at or below this cutoff. Consistent with the community sample, over 90% of the current sample scored at or below the cutoff. This result was true for participants and partners of either gender. The use of an abbreviated version of the DAST in the current study limits comparison with normative data to percentage distributions. For the sample of individuals seeking drug-abuse treatment, 97% scored at or above one. In contrast, only 29% of men and 15% of women in the present study scored at or above one, indicative of drug use within the previous year. In summary, the current data from a community sample are generally consistent with community-based normative data. Exceptions suggest that the current sample may differ somewhat from community-derived norms in reporting lower levels of aggressive behaviour within the marital-type relationship. Women in the current sample report higher levels of aggressive behaviour outside of the relationship.

Demographic Variables

To establish the consistency of the current results with previous studies on similarity between partners, participants and partners were initially compared on demographic variables by means of correlation coefficients. Results of these analyses are presented in Table 8. Given the number of coefficients calculated, only those that exceeded the Bonferroni corrected critical value of .005 are interpreted as significant. Consistent with previous research, couples evidenced similarity on a number of variables, notably age, education and employment, and lifestyle variables. Similarity of family background in terms of parents' occupational status was not indicated.

Table 8

Correlations Between Participants and Partners on Demographic Variables

Variable	Male Participants/ Partners r (#)	Female Participants/ Partners r (#)
Age and Physical Traits		
Age	.43 (98)**	.46 (112)**
Reported Height	.23 (97)	.21 (112)
Reported Weight	.13 (95)	.10 (110)
Family Background		
Father's Occupational Status	.05 (95)	.11 (110)
Mother's Occupational Status	.19 (96)	-.09 (111)
Education and Employment		
Years of Education	.55 (97)**	.29 (110)**
Employed (yes-no)	.05 (98)	.29 (111)**
Occupational Status	.33 (72)**	.01 (67)
Values and Lifestyle		
Importance of Religion	.37 (97)**	.36 (111)**
Smoking (yes-no)	.52 (99)**	.36 (110)**

** $p < .005$ (Bonferroni Corrected .05 ÷ 10).

However, the occupational status variable for parents required participants and partners to recall their parents' employment in 1977, when participants ranged in age from 7 to 13 years. Hence this variable should be viewed with caution.

Observed correlations followed a similar pattern for male and female participants and their partners, with the exception of the employment variables. Here it was noted that male participants and their partners showed no association in their employed versus un-employed status. When both members of the couple were employed, male participants and their spouses showed no similarity in their occupational status.

Also consistent with the literature, controlling statistically for the ages of spouses did not change the pattern of significant findings, as correlations were only minimally altered. Hence, a cohort effect did not appear to account for the observed covariance between participants and partners. With the exception of family background variables, the results in Table 8 suggest comparability between the present study and those reported in the literature with respect to demographic variables.

Main Analyses

Results are presented in three separate sections, pertaining to the tripartite focus of the study.

Stability

The first issue to be investigated was the stability of aggressive and socially withdrawn behaviour from the time of original measurement in 1977 to the present study, approximately 17 years later. This question was initially addressed by

correlating participant's scores (n = 250) over the two time periods, in order to compare the results of this study with other studies which have used correlations as a measure of stability. Correlation coefficients were calculated separately by gender, for five variables representing aggressive and deviant behaviour, and three variables representing socially withdrawn behaviour. Additionally, the Adult Social Functioning measure was included for both constructs, as its assessment of interpersonal impairment in a variety of settings could have reflected either aggressive or withdrawn behaviour on the part of the respondent (a higher score on this variable meant the respondent endorsed greater social impairment).

Stability of aggression. As displayed in Table 9, correlations between the two time periods were in the expected direction for men, but were non-significant at the .05 level of probability. Correlations for women were also in the predicted direction, with all reaching significance at the .05 level of probability or better. When a Bonferroni correction was applied to protect against alpha inflation, a more conservative probability level was set at .008 (.05 ÷ 6). According to this criterion, only the correlations for alcohol use and impaired adult social functioning remained significant for women. In sum, although measures of aggressive behaviour per se did not show a significant continuity from childhood to adulthood for men and women, measures of alcohol use and socially impaired behaviour suggested a continuity in maladaptive behaviour for women. This was not the case for men.

Stability of social withdrawal. As shown in Table 9, both men (r = -.33) and women (r = -.28) evidenced the expected relationship between childhood withdrawal and adult introversion (recall that low scorers on the EPQ Extraversion scale are

Table 9

Correlations Between Peer Ratings (T1) and Self-Ratings (T2) of Aggression and Withdrawal

T2 Measure	Male Participants r (#)	Female Participants r (#)
Aggression/Deviance		
Conflict Tactics Scale	.14 (102)	.20 (138)
Aggression Questionnaire	.13 (106)	.21 (133)
Psychoticism	.17 (102)	.23 (136)
Drug Use	.07 (106)	.17 (142)
Alcohol Use	.06 (107)	.26 (136)*
Adult Social Functioning	.13 (105)	.25 (137)*
Withdrawal		
Shyness	.04 (107)	.13 (138)
Extraversion/Introversion	-.33 (106)**	-.28 (138)**
SCL-90-R	.21 (105)	.13 (141)
Adult Social Functioning	.23 (105)	-.02 (137)

* $p < .008$ (Bonferroni Corrected .05 ÷ 6).

** $p < .013$ (Bonferroni Corrected .05 ÷ 4).

referred to as introverts). These correlations remained significant after application of a Bonferroni corrected critical value of .013 (.05 ÷ 4). In contrast, the Shyness measure showed no such relationship between the two time periods, r = .04 for men and .13 for women. Similarly the measures of internalizing symptoms and social impairment in adulthood, while moderate and in the expected direction for men, did not remain significant after application of the Bonferroni correction. Nor did these measures show a significant association between the two time periods for women.

Taken together, the patterns of correlations for aggression and withdrawal suggest a significant association for women between a peer measure of childhood aggression and self-report measures of deviant adult functioning. The correlations between peer-rated withdrawal in childhood and self-rated withdrawal in adulthood indicate a significant continuity between these two time periods for men and women.

Gender and group differences. A second statistical approach to the issue of stability involved examining the magnitude of male and female differences, as well as the magnitude of group differences on the variables representing aggressive and withdrawn behaviour. Whereas correlation coefficients convey the strength of the relationship between T1 and T2 variables, they do not indicate whether men are significantly higher or lower than women on any of the variables, or whether, for example, participants in the aggressive group are significantly higher than participants in the contrast group on measures of aggressive behaviour. To this end, a 2 (Gender) X 4 (Peer Classification Group) MANOVA was computed on the CTS, BAG, MAST, DAST, ASF, and PSYCHO indices. The multivariate interaction of Gender by Group was not significant (Pillais = .08: $F(18, 609) = .98$, $p > .05$). However, the

multivariate effect of Gender was significant (Pillais = .14: F(6,210) = 5.49, p < .001). Means and standard deviations for the variables are presented in Table 10. Univariate F-tests for the Gender effect showed that women scored higher than men on the Conflict Tactics Scales, whereas men scored higher than women on the measure of drug use and the psychoticism scale of the Eysenck. A trend for men to score higher on the aggression questionnaire was noted.

Also significant was the multivariate effect of Group (Pillais = .17: F(18,609) = 2.09, p < .01). Means and standard deviations are presented in Table 11. Univariate F-tests were followed by t-tests comparing each of the risk groups (i.e., aggressive, withdrawn, aggressive/withdrawn) with the contrast group. Application of a Bonferroni corrected critical value of .017 (.05 ÷ 3) indicated significantly higher scores for members of the aggressive group on the psychoticism scale and the measure of impaired adult social functioning, relative to members of the contrast group. Participants in the aggressive-withdrawn group had significantly higher scores than contrast group members on a number of measures of aggressive behaviour and interpersonal difficulties, specifically the Conflict Tactics Scales, the Buss Aggression Questionnaire, the psychoticism scale, and the Adult Social Functioning measure. Withdrawn group participants did not differ significantly from the contrast group on any of the aggression/deviance variables.

A second 2 (Gender) X 4 (Group) MANOVA performed on the withdrawal variables EXT, RSS, and SCL indicated a significant multivariate effect of Group (Pillais = .25: F(12,672) = 5.15, p < .001). The multivariate effect of Gender was not significant, (Pillais = .01: F(4,222) = .60, p > .05), nor was the multivariate

Table 10

Means (SD) for Aggressive/Deviant Variables as a Function of Participant Gender

	Participant Gender		
	Male	Female	
Variable	(n = 108)	(n = 142)	F(1,206)
CTS	13.55 (7.1)	15.64 (7.5)	4.89*
BAG	78.37 (14.6)	74.45 (15.8)	2.74'
MAST	.74 (1.4)	.41 (1.0)	.78
DAST	.73 (1.4)	.33 (1.0)	3.85*
ASF	3.71 (2.7)	3.54 (2.3)	.37
PSYCHO	4.03 (2.2)	2.77 (1.7)	21.34***

Note. CTS = Conflict Tactics Scale; BAG = Buss Aggression Scale; MAST = Michigan Alcoholism Screening Test; DAST = Drug Abuse Screening Test; ASF = Adult Social Functioning; PSYCHO = Psychoticism Scale.

'p < .10. *p < .05. **p < .01. ***p < .001.

Table 11

Means (SD) for Aggressive Variables as a Function of Peer Classification Group

	Risk Group			Contrast Group	
Variable	Agg. (n = 49)	With. (n = 51)	Agg.-W. (n = 45)	(n = 105)	F(3,206)
CTS	15.24 (8.0)	12.90 (6.5)	*17.89* (8.4)	14.03 (6.5)	3.12*
BAG	77.63 (17.4)	74.66 (14.0)	*83.51* (17.1)	73.46 (13.5)	3.85**
MAST	.90 (1.7)	.22 (0.6)	.59 (1.0)	.54 (1.1)	3.01*
DAST	.63 (1.3)	.51 (1.2)	.76 (1.6)	.32 (0.9)	1.32
ASF	*4.04* (2.5)	3.57 (2.5)	*4.62* (2.7)	3.02 (2.1)	4.67**
PSYCHO	*3.70* (1.9)	3.39 (2.2)	*3.93* (2.1)	2.83 (2.0)	4.05**

Note. Means in italics differ significantly from the contrast group mean at the Bonferroni corrected critical value of $p < .017$ ($.05 \div 3$). CTS = Conflict Tactics Scale; BAG = Buss Aggression Scale; MAST = Michigan Alcoholism Screening Test; DAST = Drug Abuse Screening Test; ASF = Adult Social Functioning; PSYCHO = Psychoticism Scale.

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

interaction of Gender by Group (Pillais = .06: $F(12,672) = 1.22$, $p > .05$). Means and standard deviations for the variables are presented in Table 12. With respect to the Group effect, univariate F-tests with follow-up t-tests indicated significantly lower scores on EXT (i.e., more introverted behaviour), at the Bonferroni corrected critical value of .017 (.05 ÷ 3), for members of the withdrawn group, relative to the contrast group. Participants in the aggressive-withdrawn group scored higher than those in the contrast group on the SCL variable, reflecting more internalizing symptoms of psychological distress. Participants in the aggressive group were not significantly different from contrast group members on any of the withdrawal variables.

In summary, the examination of mean differences revealed a number of noteworthy findings. In terms of gender differences, men reported more aggressive and deviant behaviour, including drug use, than did women. However, within the relationship itself, women reported using more aggressive tactics than men when faced with conflicts. Tactics endorsed by women generally represented verbally aggressive behaviour, such as arguing with a partner, yelling and/or insulting a partner, or refusing to talk about the issue. With the exception of threatening to hit or throw an object at the partner during a conflict, which women endorsed more frequently than men, men and women did not report differing levels of physically aggressive behaviour, within the context of their relationship.

With respect to group differences, participants in the aggressive and aggressive-withdrawn groups were significantly higher than contrast group participants on a number of variables measuring aggressive and deviant behaviour. Participants in the withdrawn group differed only on a measure of extraverted behaviour, scoring

Table 12

Means (SD) for Withdrawn Variables as a Function of Peer Classification Group

	Risk Group			Contrast Group	
Variable	Agg. (n = 49)	With. (n = 51)	Agg.-W. (n = 45)	(n = 105)	F(3,206)
EXT	15.17 (4.3)	*10.94* (4.8)	12.58 (4.3)	13.75 (4.1)	10.35***
RSS	35.17 (9.9)	37.45 (9.2)	34.72 (8.9)	34.60 (7.0)	1.41
SCL	57.0 (9.7)	57.8 (9.7)	*61.58* (12.1)	55.06 (8.0)	5.50**

Note. Means in italics differ significantly from the contrast group mean at the Bonferroni corrected critical value of $p < .017$ ($.05 \div 3$). EXT = Extraversion Scale; RSS = Revised Shyness Scale; SCL = Symptom Checklist.

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

significantly lower than the contrast group. In essence, the findings are consistent with the hypothesis of a continuity in aggressive and socially withdrawn behaviour.

Assortment

Four analytic approaches were taken to test the assortment hypothesis. The first approach involved correlating participant and partner self-ratings on aggression and withdrawal. Next, a series of hierarchical regressions were performed to predict partner's score on aggression and withdrawal variables using participant's score and other predictors. Difference scores were used in the third analytic approach to test whether couple similarity on aggression and withdrawal varied as a function of the participant's original peer classification group. The final test of assortment used chi-square statistics to examine similarity among a sub-sample of couples with extreme scores on aggression and withdrawal.

Participant/partner correlations. In order to establish analytic consistency with the majority of studies in the assortment literature, initial analyses correlated participant and partner self-ratings on the measures of aggression, deviance, and withdrawal. Given the large number of correlations calculated, Bonferroni corrected values of .001 and .005 were established for the aggression variables (.05 ÷ 36) and the withdrawal variables (.05 ÷ 9), respectively. Correlation matrices are presented separately by participant gender in Appendices L1 and L2. Correlations between participants and partners on the same variable are summarized in Table 13. Examination of Table 13 indicated a similar pattern of findings across gender, in that correlations between members of a couple were low and nonsignificant for the withdrawal variables, with the exception of a significant correlation for male

Table 13

Selected Correlations Between Participants and Partners on Aggression and Withdrawal Variables

Variable	r	
	Male Participants/Partners	Female Participants/Partners
Aggression		
CTS	.33	.49*
BAG	.36*	.22
PSYCHO	.15	.02
MAST	.27	.33*
DAST	.50*	.45*
ASF	.39*	.31*
Withdrawal		
RSS	.09	-.10
EXT	-.03	-.07
SCL	.35**	.02

Note. CTS = Conflict Tactics Scale; BAG = Buss Aggression Scale; PSYCHO = Psychoticism Scale; MAST = Michigan Alcoholism Screening Test; DAST = Drug Abuse Screening Test; ASF = Adult Social Functioning; RSS = Revised Shyness Scale; EXT = Extraversion Scale; SCL = Symptom Checklist.

*$p < .001$ (Bonferroni Corrected .05 ÷ 36) **$p < .005$ (Bonferroni Corrected .05 ÷ 09).

participants and partners on the measure of internalizing symptoms, the SCL. Thus the hypothesized association between members of a couple along the withdrawal dimension was only minimally supported.

In contrast, the significant correlations between participant and partner for aggressive behaviour suggested couple similarity in this domain. Male and female participants and partners were similar on the CTS, a measure of tactics used to resolve conflict within the relationship, and the BAG, a measure of anger and aggression which is not specific to the marital-like relationship, but suggests conflictual interpersonal behaviour in a variety of settings. However, only the correlation between female participants and partners on the CTS, and between male participants and their partners on the BAG remained significant with the Bonferroni correction. Further evidence of couple similarity in interpersonal difficulties was suggested by the significant correlations on the ASF, a measure of maladaptive functioning in the areas of work, social relationships (e.g., family, friends), and sex/love relationships.

The second broad area of similarity between participants and their partners pertained to substance use, particularly drug use for both female and male participants and their partners. Alcohol use by female participants was significantly related to their partners' alcohol use, whereas the correlation between male participants and their partners ($r = .27$) did not reach significance. In sum, the initial correlations provided support for the hypothesized similarity between participants and partners on measures of aggressive and deviant behaviour, but did not support couple similarity on measures of withdrawn behaviour.

Hierarchical regressions. The next step in examining couple similarity involved

running a series of hierarchical regressions to predict the partner's score on the aggression and withdrawal variables. It was expected that the participant's score on the same aggression or withdrawal variable would predict the partner's score, given the strength of the majority of zero-order correlations observed in Table 13. However, the contribution of the length of the relationship to the prediction of the partner's score was also of interest, given that the measured similarity between partners may be a function of their length of time together. In addition, the possibility of differential gender patterns in couple similarity was of interest. Thus, hierarchical regressions permitted the staged introduction of several predictors into the equation. Two predictors were entered on the first step, the length of the relationship, and the participant's education. Education was used as a predictor to control statistically for couple similarity in demographic characteristics. Age was not used as a predictor, however, as it correlated highly with the length of the relationship. The participant's score on the relevant outcome variable was entered as the second step, along with the participant's gender. The third step involved entering the interaction of the length of the relationship with the participant's score on the aggression or withdrawal variable. This interaction term, as proposed by Price and Vandenberg (1980), goes beyond the linear effects of the relationship length by providing a test of the occurrence of convergence; that is, a test of whether couples evidence a change in similarity over time as a result, in part, of shared environments. Whereas a positive interaction term is considered to represent convergence, a negative term indicates divergence within a couple over the length of the relationship. The final predictor entered into the equation was the two-way interaction of participant's gender and participant's score on

the relevant outcome variable. This interaction provided a test of whether the relationship between the scores of participant and partner differed depending on participant's gender. Thus, for each of the nine hierarchical regressions, a total of six predictors were used.

The results of the regressions predicting partner's score on the aggression and withdrawal variables are summarized in Table 14. In terms of the aggression variables, the regression equations were significant for each of the six variables, with the combined predictors accounting for a high of 31.2% of the variance in a partner's DAST score ($\underline{R}^2 = .312$, $\underline{F}(6,197) = 14.91$, $\underline{p} < .001$) to a low of 8.7% of the variance in a partner's PSYCHO score ($\underline{R}^2 = .087$, $\underline{F}(6,181) = 2.87$, $\underline{p} < .05$). For four of the six aggression variables, the addition of the interaction terms contributed to a significant increase in R^2. The exceptions were the BAG and the PSYCHO variables. The former variable saw the participant's BAG or aggression score as being the only significant predictor of the partner's BAG score. The psychoticism variable yielded a significant effect for participant gender, with the partners of male participants scoring higher than the partners of female participants.

Participant's gender also emerged as a significant predictor of partner's score on the CTS, MAST, and DAST variables. The partners of male participants scored significantly lower than the partners of female participants on the measure of conflict tactics (CTS). Conversely, the partners of male participants scored significantly higher than the partners of female participants on the measures of substance use, the MAST and DAST. The findings for the DAST variable were qualified by a significant Gender by Participant's score interaction. Examining Figure 1, it can be seen that the

Table 14

Summary of Hierarchical Regressions Predicting Partner's Score on Aggression and Withdrawal Variables

DV	Step/Pred.	Beta	r	sr	t	R^2Ch.	FCh.
CTS	1. Participant's Ed.	-.74	-.10	-.10	-1.5		
	Rel. Length	-.24	-.10	-.03	-0.5		
	2. Participant's Gen.	-3.69	-.22	-.25	-3.8***	.19	22.04***
	Participant's Sc.	2.90	.37	.25	3.8***		
	3. Length Inter.	1.19	.09	.16	2.5*	.03	6.53*
	4. Gender Inter.	.28	.30	.02	.3	.00	.08
	R = .49	R^2 = .24	F(6,185) = 9.51***				
BAG	1. Participant's Ed.	.16	-.03	.01	0.1		
	Rel. Length	-1.18	-.12	-.07	-0.9		
	2. Participant's Gen.	.47	-.04	.01	0.2	.07	6.69**
	Participant's Sc.	6.34	.28	.22	3.1**		
	3. Length Inter.	-.59	-.09	-.03	-0.5	.00	.19
	4. Gender Inter.	-3.14	.16	-.09	-1.3	.01	1.58
	R = .30	R^2 = .09	F(6,182) = 3.05**				
PSYCHO	1. Participant's Ed.	-.17	-.07	-.07	-1.0		
	Rel. Length	-.24	-.08	-.10	-1.4		
	2. Participant's Gen.	1.32	.26	.27	3.8***	.07	7.36***
	Participant's Sc.	.23	-.01	.07	1.0		
	3. Length Inter.	.02	.01	.01	0.1	.00	.00
	4. Gender Inter.	-.26	-.04	-.05	-0.7	.00	.48
	R = .29	R^2 = .09	F(6,181) = 2.87*				

Note. Beta, r, sr, and t values are taken from the last panel of each hierarchical regression. Participant's Ed. = participant's education; Rel. Length = length of relationship; Participant's Gen. = participant's gender; Participant's Sc. = participant's score on relevant outcome measure; Length Inter. = relationship length x participant's score on relevant outcome measure; Gender Inter. = participant's gender x participant's score; CTS = Conflict Tactics Scale; BAG = Buss Aggression Scale; PSYCHO = Psychoticism Scale.

$^{t}p < .10$ $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$ (table continues)

DV	Step/Pred.	Beta	r	sr	t	R^2Ch.	FCh.
ASF	1. Participant's Ed.	-.20	-.14	-.08	-1.2		
	Rel. Length	-.26	-.21	-.10	-1.5		
	2. Participant's Gen.	.24	.02	.05	0.7	.08	8.57^{***}
	Participant's Sc.	.87	.35	.24	3.7^{***}		
	3. Length Inter.	.40	.10	.14	2.2^{*}	.02	4.68^{*}
	4. Gender Inter.	-.20	.23	-.04	-0.6	.00	.38
	R = .40	R^2 = .16		F(6,193) = 6.18^{***}			
MAST	1. Participant's Ed.	-.01	-.06	-.03	-0.4		
	Rel. Length	-.01	.01	-.03	-0.4		
	2. Participant's Gen.	.11	.19	.24	3.6^{***}	.12	12.92^{***}
	Participant's Sc.	.04	.25	.14	2.2^{*}		
	3. Length Inter.	-.02	-.08	-.08	-1.2	.01	1.53
	4. Gender Inter.	.05	.25	.11	1.7^{t}	.01	2.83^{t}
	R = .37	R^2 = .14		F(6,193) = 5.23^{***}			
DAST	1. Participant's Ed.	-.01	-.14	-.05	-0.9		
	Rel. Length	-.02	-.11	-.11	-1.9^{t}		
	2. Participant's Gen.	.11	.16	.26	4.4^{***}	.22	28.97^{***}
	Participant's Sc.	.06	.41	.24	4.1^{***}		
	3. Length Inter.	-.04	-.28	-.18	-3.1^{**}	.04	10.53^{**}
	4. Gender Inter.	.07	.37	.15	2.6^{**}	.02	6.78^{**}
	R = .56	R^2 = .31		F(6,197) = 14.91^{***}			

Note. Beta, r, sr, and t values are taken from the last panel of each hierarchical regression. Participant's Ed. = participant's education; Rel. Length = length of relationship; Participant's Gen. = participant's gender; Participant's Sc. = participant's score on relevant outcome measure; Length Inter. = relationship length x participant's score on relevant outcome measure; Gender Inter. = participant's gender x participant's score; ASF = Adult Social Functioning; MAST = Michigan Alcoholism Screening Test; DAST = Drug Abuse Screening Test.

$^{t}p < .10$ $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$

(table continues)

DV	Step/Pred.	Beta	r	sr	t	R^2Ch.	FCh.
EXT	1. Participant's Ed.	-.01	.00	.00	-0.03		
	Rel. Length	-.31	-.10	-.06	-0.9		
	2. Participant's Gen.	.52	.07	.05	0.8	.01	0.76
	Participant's Sc.	-.31	.01	-.05	-0.7		
	3. Length Inter.	-.88	-.18	-.17	-2.4	.02	5.06
	4. Gender Inter.	.58	.03	.06	0.9	.00	.81
	R = .22 R^2 = .05		F(6,194) = 1.58				
RSS	1. Participant's Ed.	.38	.04	.04	0.6		
	Rel. Length	.55	.06	.06	0.9		
	2. Participant's Gen.	-1.17	-.06	-.07	-1.0	.00	.46
	Participant's Sc.	.90	.01	.08	1.1		
	3. Length Inter.	-.18	-.03	-.02	-0.3	.00	.26
	4. Gender Inter.	-1.79	-.07	-.10	-1.5	.01	2.15
	R = .15 R^2 = .02		F(6,194) = .75				
SCL	1. Participant's Ed.	.89	.07	.08	1.18		
	Rel. Length	-1.83	-.22	-.15	-2.26*		
	2. Participant's Gen.	-2.16	-.13	-.10	-1.4	.03	3.81*
	Participant's Sc.	3.42	.19	.21	3.2**		
	3. Length Inter.	.33	.05	.03	0.4	.00	.15
	4. Gender Inter.	-3.29	.03	-.15	-2.2*	.02	4.90*
	R = .33 R^2 = .11		F(6,198) = 4.05***				

Note. Beta, r, sr, and t values are taken from the last panel of each hierarchical regression. Participant's Ed. = participant's education; Rel. Length = length of relationship; Participant's Gen. = participant's gender; Participant's Sc. = participant's score on relevant outcome measure; Length Inter. = relationship length x participant's score on relevant outcome measure; Gender Inter. = participant's gender x participant's score; EXT = Extraversion Scale; RSS = Revised Shyness Scale; SCL = Symptom Checklist.

†p <.10 *p < .05 **p < .01 ***p < .001

slope of the regression line predicting partner's score is steeper for female participants than for male participants. Thus, as the self-reported drug use of female participants increases, their partners' drug use increases at a faster rate than the drug use reported by partners of male participants. A similar gender interaction was noted for the MAST variable, although it showed only a trend toward significance. Here again, the effect was greater for female participants than for male participants; that is, the alcohol use reported by the partners of female participants increased at a faster rate than the alcohol use reported by the partners of male participants.

The addition of the interaction term for the length of the relationship proved to contribute significantly to the regression equation for three variables: CTS, ASF, and DAST. The positive interaction term for CTS and ASF, both measures of interpersonal functioning within and outside of the relationship, indicated greater similarity on these two variable for couples who have been together longer (see Figures 2 and 3). In contrast, the significant negative interaction term for the DAST variable provided evidence of couple divergence in reported drug use as a function of the length of the relationship (see Figure 4). In other words, couples who have been together longer were less similar in their reported drug use than couples involved in shorter relationships.

With respect to the findings for the withdrawal variables, the regression equations for EXT and RSS, the core measures of withdrawn, inhibited behaviour, were not significant (see Table 14). The regression equation was significant for SCL, representing symptoms of an internalizing nature, and accounted for 10.9% of the variance in the dependent variable ($R^2 = .109$, $F(6,198) = 4.05$, $p < .001$). Significant

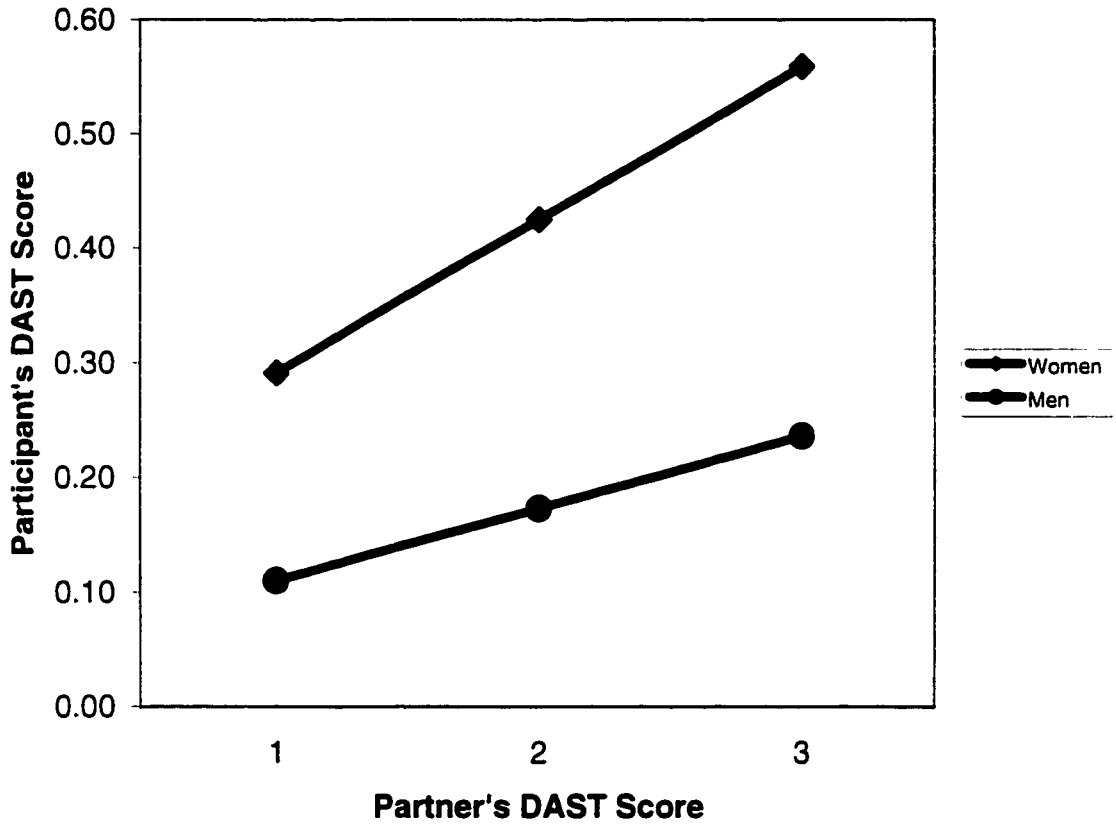

Figure 1: Interaction of participant's gender and DAST score in predicting partner's DAST score

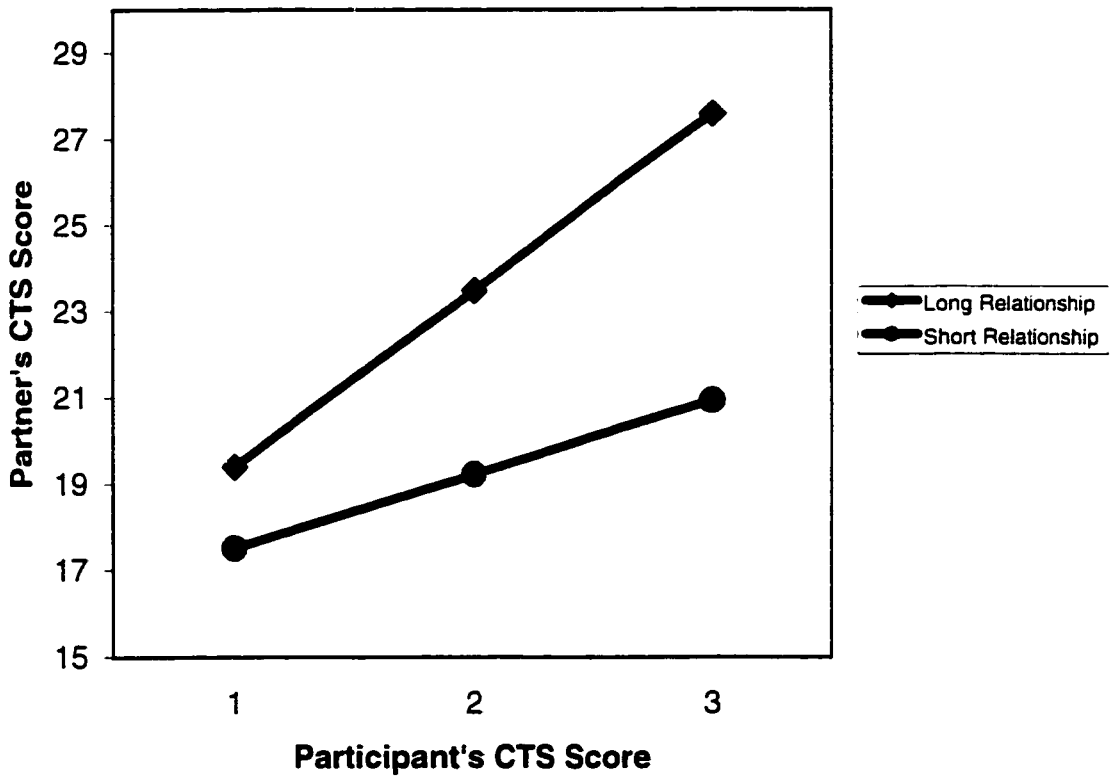

Figure 2: Interaction of participant's CTS score and relationship length in predicting partner's CTS score

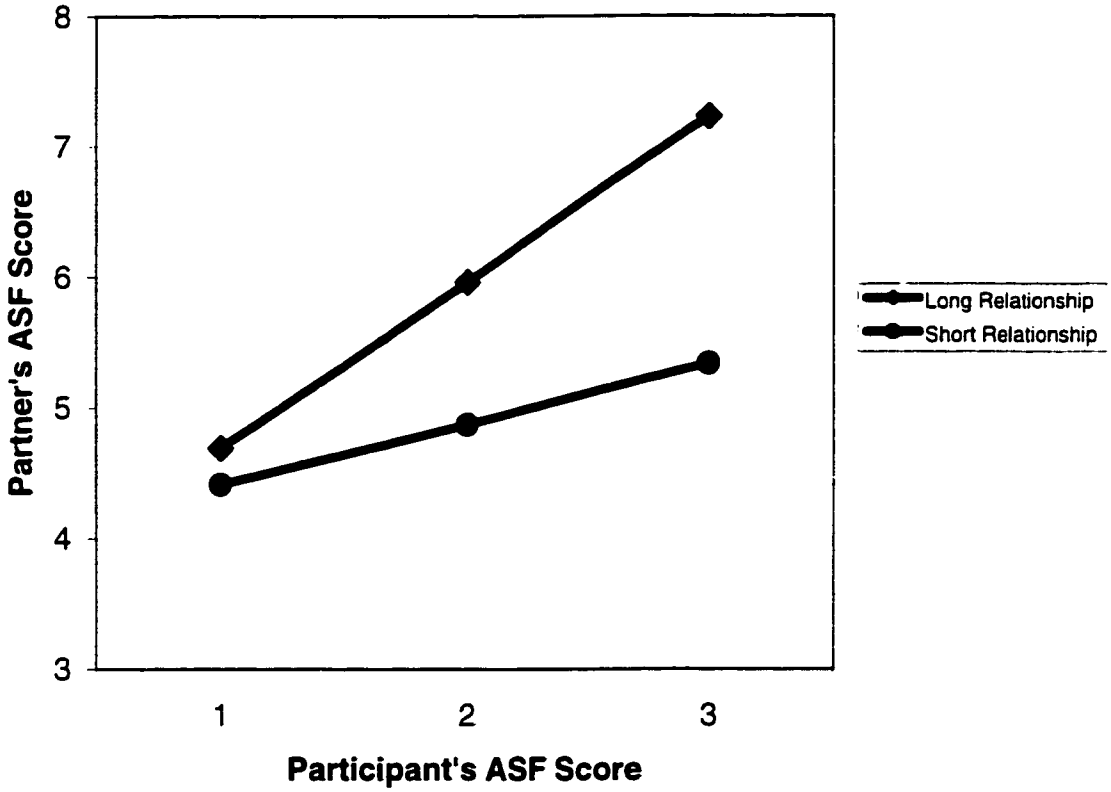

Figure 3: Interaction of participant's ASF score and relationship length in predicting partner's ASF score

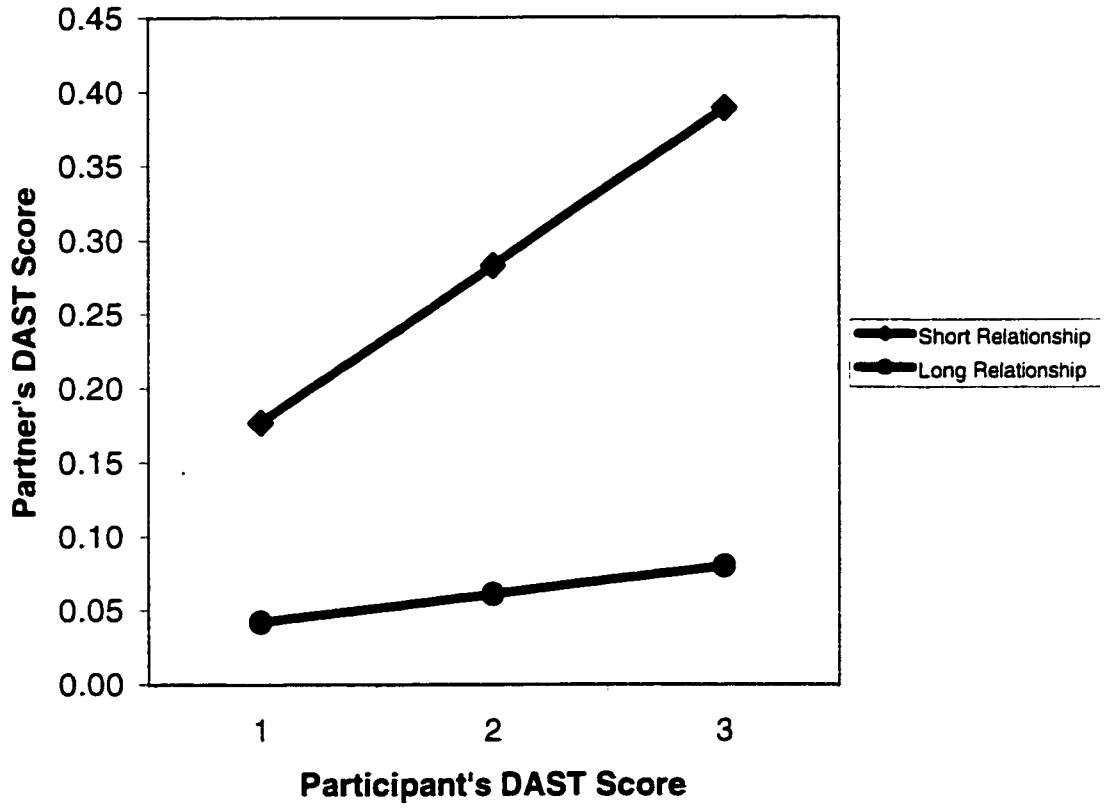

Figure 4: Interaction of participant's DAST score and relationship length in predicting partner's DAST score

predictors of the partner's SCL score were the participant's SCL score and the relationship length, the latter indicating that the partner's SCL score decreased over the course of the relationship. There was no evidence of convergence in couple SCL scores as a function of the length of the relationship. Rather, the significant gender interaction indicated that the relationship between the SCL score of participant and partner differed depending on participant sex. As shown in Figure 5, the slope of the regression line is steeper for male participants than for female participants, indicating a greater effect for male participants and their partners than for female participants and their partners. Thus, as participants report increasing levels of internalizing symptoms, the partners of male participants report more internalizing symptoms than the partners of female participants.

In summary, the findings from the hierarchical regressions are generally consistent with the hypothesized association between participants and partners in terms of their aggressive and deviant behaviour. This behavioural similarity of couples varies as a function of participant gender and, contrary to expectations, also varies with the length of time the couple have been together. Couples in longer relationships are more similar in their approach to conflict resolution within the relationship. They are also more similar in their interpersonal functioning outside of the relationship (e.g., with friends, neighbours, co-workers). Couples in shorter relationships evidence greater similarity in their level of reported drug use. The strength of association between participants and partners in drug use is greater for female participants and their partners than for male participants and their partners. The findings for the withdrawal variables provide partial support for the hypothesis of couple similarity

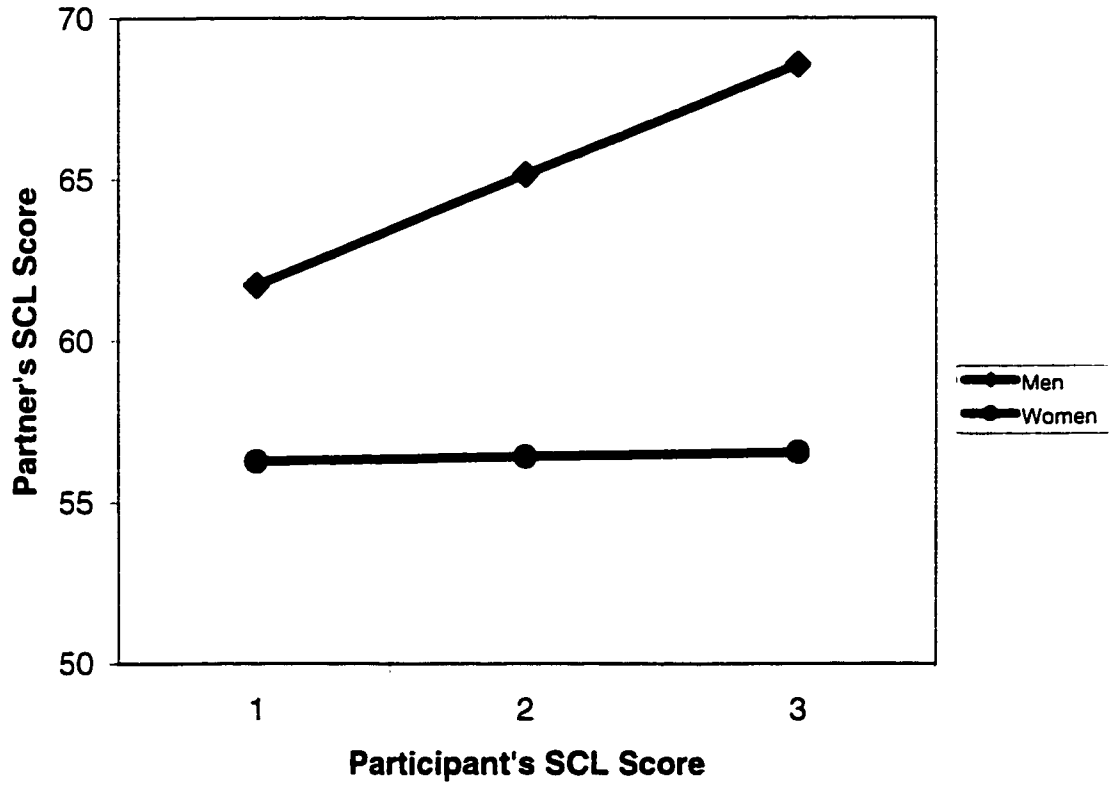

Figure 5: Interaction of participant's gender and SCL score in predicting partner's SCL score

along this dimension. Although couples are not similar in shy, inhibited behaviour, they are similar in reported symptoms of a largely internalizing nature (e.g., depression, anxiety, and somatic complaints). The strength of this association is greater for male participants and their partners than for female participants and their partners.

Difference scores. Given the evidence of similarity between participant and partner ratings of aggressive and deviant behaviour, the question remained as to whether this relationship varied as a function of the participant's original peer classification; that is, were participants from the aggressive group and their partners, for example, more similar in their mean ratings than participants from the contrast group and their partners. To test this, difference scores were computed for each variable, with the absolute value of a participant's score minus their partner's score constituting the difference score. As the intercorrelations among the nine difference scores were not adequate for a MANOVA procedure, univariate ANOVA'S were conducted for each difference score, using a 2 (Gender) X 4 (Peer Classification Group) design. The interaction of Gender by Group was not significant for any of the variables, nor was the Gender effect significant. Peer Classification Group was significant for the difference score for one variable, RSS, the measure of shy behaviour ($F(3,194) = 3.56$, $p < .05$). Means and standard deviations for all variables are presented by Peer Classification Group in Table 15. A Bonferroni correction (.05 ÷3) was applied to follow-up t-tests comparing each of the risk groups (i.e., aggressive, withdrawn, aggressive-withdrawn) with the contrast group on the RSS difference score variable. Results of the t-tests indicated that participants in the

Table 15

Means (SD) for Difference Scores as a Function of Peer Classification Group

	Risk Group			Contrast Group	
Variable	Agg. (n = 45)	With. (n = 46)	Agg.-W. (n = 40)	(n = 80)	F
CTS	5.95 (4.5)	6.10 (4.6)	8.00 (7.4)	6.03 (5.3)	(3,186) = 1.31
BAG	13.52 (11.6)	13.30 (13.0)	15.91 (13.9)	14.45 (13.4)	(3,183) = 0.31
MAST	.72 (1.1)	.63 (1.0)	.82 (1.3)	.78 (1.2)	(3,194) = 0.13
DAST	.78 (1.4)	.44 (1.0)	.78 (1.2)	.38 (0.8)	(3,198) = 1.15
ASF	2.20 (1.8)	2.36 (2.0)	2.16 (1.9)	1.95 (1.7)	(3,194) = 0.51
PSYCHO	.72 (1.1)	.63 (1.0)	.82 (1.3)	.78 (1.2)	(3,182) = 0.48

Note. CTS = Conflict Tactics Scale; BAG = Buss Aggression Scale; MAST = Michigan Alcoholism Screening Test; DAST = Drug Abuse Screening Test; ASF = Adult Social Functioning; PSYCHO = Psychoticism Scale.

(table continues)

	Risk Group			Contrast Group	
Variable	Agg. (n = 45)	With. (n = 46)	Agg.-W. (n = 40)	(n = 80)	F
EXT	4.53 (4.3)	5.77 (4.1)	4.35 (3.8)	4.83 (3.8)	(3,195) = 1.06
RSS	10.83 (8.8)	*11.63* (8.4)	9.79 (8.1)	7.44 (5.7)	(3,194) = 3.56*
SCL	4.53 (4.3)	5.77 (4.1)	4.35 (3.8)	4.83 (3.8)	(3,199) = 0.64

Note. Means in italics differ significantly from the contrast group mean at the Bonferroni corrected critical value of $p < .017$ (.05 ÷ 3). EXT = Extraversion Scale; RSS = Revised Shyness Scale; SCL = Symptom Checklist.

*$p < .05$.

withdrawn group and their partners had larger difference scores on the measure of shy behaviour than couples in the contrast group. Mean scores on the RSS variable for participants and partners in the withdrawn group were 37.4 and 33.1, respectively. Thus participants in the withdrawn group rated themselves as more shy than their partners, providing evidence of a dissimilarity in shy behaviour. Otherwise, the examination of difference scores did not indicate a significant effect of peer classification group or gender.

Chi-square statistics. The final statistical approach pertained to couples whose aggression and withdrawal scores fell outside of the middle range of scores. This approach was taken to determine if above chance levels of similarity occurred for couples with extreme scores, or whether these couples were more likely to be dissimilar, thus providing support for the complementarity hypothesis. With the exception of the MAST and DAST variables, participants and their partners scoring in the upper or lower ranges were divided into two groups: Those couples who were similar on the aggression or withdrawal variable in question (i.e., both scored in the upper or lower quartile), and couples who were dissimilar (i.e., one member scored in the upper quartile and one in the lower quartile). The number of couples where both partners scored in the top or bottom 25% ranged from a low of 22 couples for PSYCHO to a high of 51 couples for BAG. For the variables measuring substance use, MAST and DAST, couples were divided into similar versus dissimilar groups on the basis of whether they reported alcohol or drug use within the previous twelve months. This dichotomized approach was taken because the majority of participants (i.e., 85%) received a score of zero on the MAST and DAST measures, indicating no

substance use. The number of couples where both partners endorsed substance use was 67 for alcohol consumption and 47 for drug use.

Chi-square statistics were computed for each aggression and withdrawal variable, comparing the frequency of similar versus dissimilar matches between partners who scored in the upper or lower ranges. Analyses were run separately by participant gender. For female participants and their partners, results were significant for four of the aggression/deviance variables, CTS, ASF, MAST, and DAST, at the .006 level of probability required by the Bonferroni correction (see Table 16). Significantly more of the couples who scored outside of the middle range on these four variables were similar than dissimilar. For male participants and their partners, application of the Bonferroni-corrected .006 level of probability (.05 ÷9) resulted in significant findings for the BAG, ASF, MAST, and DAST variables. Again, couples scoring outside of the middle ranges on these aggression/deviance variables were more likely to be similar than dissimilar. Thus, consistent with previous analyses, the chi-square results support the hypothesis of couple similarity in aggressive and deviant behaviour but fail to support above-chance levels of couple similarity with respect to shy and withdrawn behaviour.

Couple Satisfaction

Descriptive statistics. The final issue concerned the level of satisfaction among couples and how this varied as a function of their similarity on aggressive or withdrawn behaviour. It was hypothesized that couples who showed similar levels of aggressive and withdrawn behaviour would be more satisfied in their relationships than dissimilar couples.

Table 16

Chi-Square Analyses of Similar Versus Dissimilar Couples Scoring Outside the Middle Range

Variables	Chi-Square	
	Male Participants and Partners (n)	Female Participants and Partners (n)
CTS	6.37 (19)	11.57**(28)
BAG	7.54**(26)	3.24 (25)
PSYCHO	0.09 (11)	0.82 (11)
MAST	8.85**(95)	14.23**(107)
DAST	34.20**(95)	27.25**(111)
ASF	8.91**(22)	12.25**(16)
EXT	0.53 (17)	0.18 (22)
RSS	0.05 (19)	0.05 (21)
SCL	7.20 (20)	0.00 (24)

Note. CTS = Conflict Tactics Scale; BAG = Buss Aggression Scale; PSYCHO = Psychoticism Scale; MAST = Michigan Alcoholism Screening Test; DAST = Drug Abuse Screening Test; ASF = Adult Social Functioning; EXT = Extraversion Scale; RSS = Revised Shyness Scale; SCL = Symptom Checklist.

**$p < .006$ (Bonferroni corrected $.05 \div 9$).

Prior to testing this hypothesis, the mean satisfaction scores for the sample were compared to normative data and found to be consistent. Specifically, participants and partners averaged 39.8 and 39.2, respectively, in their relationship satisfaction scores (the satisfaction scale has a maximum score of 50). The mean satisfaction score for 218 married couples from the normative sample was 40.5. The bivariate correlation between the satisfaction scores of participants and partners in the current study was $r = +.59$.

Hierarchical regressions. To determine if couple satisfaction varied as a function of couple similarity in aggressive and withdrawn behaviour, two statistical approaches were taken. The first involved predicting participants' and partners' satisfaction scores in separate hierarchical regressions. Difference scores between participants and partners for each of the aggressive and withdrawn variables were used as predictors on the first step in the regression equation. Participant's gender was entered on the second step. Interactions between participant's gender and each of the difference scores were entered on the third step.

The results for both hierarchical regressions were non-significant. Specifically, the regression equation accounted for only 17% of the variance in participants' relationship satisfaction ($R^2 = .17$, $F(19,122) = 1.33$, $p > .05$) and 14% of the variance in partners' relationship satisfaction ($R^2 = .14$, $F(19,118) = 1.02$, $p > .05$). Thus no significant association was found between couple similarity in aggressive and withdrawn behaviour, and their relationship satisfaction.

Extreme scores. Secondly, the satisfaction scores of couples whose aggression and withdrawal scores fell in the upper or lower ranges were examined. This enabled

a comparison of the relationship satisfaction of couples similarly matched in extreme scores with dissimilar couples. Recall that couples scoring in the upper or lower percentiles on each aggression and withdrawal variable had been previously divided into two groups: Similar couples where both scored in the upper or lower ranges, and dissimilar couples who were mismatched in terms of their extreme scores. The relationship satisfaction scores of the subsample of participants and partners scoring outside the middle range served as the dependent variables in a series of 2 (Gender) X 2 (Group - Similar versus Dissimilar) MANOVA's. The exception was the ASF variable, which due to a cell of $n = 1$, was analyzed separately using nonparametric procedures.

The results for all analyses were nonsignificant, with the exception of a significant MANOVA Group effect for the drug use variable, DAST (Pillais = .11: $F(2,188) = 11.68$, $p < .001$) and a significant Gender effect for the BAG variable, a measure of aggressive behaviour (Pillais = .14: $F(2,41) = 3.43$, $p < .05$). Means and standard deviations are presented in Table 17. With respect to the Group effect for the DAST variable, univariate F-tests indicated that participants who were similar to their partners in either abstaining or using drugs were significantly more satisfied with their relationship than participants who were dissimilar from their partners in reported drug use ($F(1,199) = 19.18$, $p < .001$). Partners in these matched couples also rated themselves as significantly more satisfied with the relationship than partners from mismatched couples ($F(1,196) = 14.71$, $p < .001$). Univariate F-tests for the BAG gender effect did not reach significance for either participants or partners. Thus, with the exception of the DAST variable, the results of the MANOVA's did not support the

Table 17

Mean (SD) Relationship Satisfaction Scores of Couples Whose Aggression and Withdrawal Scores Fell Outside the Middle Range

	Similar Couples		Dissimilar Couples		
Grouping Variable	Male Participants/ Partners	Female Participants/ Partners	Male Participants/ Partners	Female Participants Partners	F
CTS	36.64/36.36 (8.1)/(7.4) n = 14	41.77/41.36 (5.6)/(6.5) n = 22	40.25/36.25 (6.2)/(11.4) n = 4	41.60/41.40 (2.9)/(4.9) n = 5	(2,40) = 0.66
BAG	41.06/40.78 (5.9)/(5.2) n = 18	40.13/39.19 (7.1)/(7.7) n = 16	40.50/41.83 (4.8)/(5.2) n = 6	44.17/38.67 (3.2)/(6.8) n = 6	(2.41) = 2.49
PSYCHO	40.00/41.40 (3.2)/(4.4) n = 5	40.25/40.00 (4.0)/(3.2) n = 4	43.33/42.17 (5.9)/(3.9) n = 6	37.67/38.17 (7.1)/(6.7) n = 6	(2,16) = 0.78
MAST	39.72/39.27 (5.5)/(5.3) n = 60	40.00/39.40 (5.5)/(6.0) n = 68	40.90/39.61 (5.2)/(6.7) n = 31	39.61/37.8 7 (5.4)/(5.7) n = 31	(2,185) = 0.64
DAST	41.06/39.74 (4.8)/(5.8) n = 73	40.71/40.15 (4.9)/(4.9) n = 75	35.28/36.39 (6.9)/(7.0) n = 18	37.93/35.93 (6.6)/(7.4) n = 27	(2,188) = 2.60

Note. CTS = Conflict Tactics Scale; BAG = Buss Aggression Scale; PSYCHO = Psychoticism Scale; MAST = Michigan Alcoholism Screening Test; DAST = Drug Abuse Screening Test;

(table continues)

Grouping Variable	Similar Couples		Dissimilar Couples		
	Male Participants/ Partners	Female Participants/ Partners	Male Participants/ Partners	Female Participants Partners	F
EXT	39.43/37.14 (6.8)/(5.2) n = 7	40.25/41.58 (5.9)/(4.8) n = 12	40.22/40.00 (3.8)/(6.0) n = 9	39.56/38.00 (4.6)/(3.8) n = 9	(2,32) = 2.80
RSS	41.50/40.80 (4.1)/(3.0) n = 7	41.33/40.89 (5.2)/(3.8) n = 12	40.44/38.11 (4.8)/(6.3) n = 9	43.89/43.33 (4.4)/(6.8) n = 9	(2,32) = 1.29
SCL	39.81/38.44 (4.5)/(6.4) n = 16	36.75/36.75 (6.9)/(7.9) n = 12	42.00/38.00 (5.0)/(11.0) n = 4	39.80/38.10 (8.0)/(6.0) n = 10	(2,37) = 0.06

Note. EXT = Extraversion Scale; RSS = Revised Shyness Scale; SCL = Symptom Checklist; Similar Couples = Both participant and partner scored in the upper or lower range on the same aggression or withdrawal variable; Dissimilar Couples = Participants and partners who were mismatched in their extreme scores on the same aggression or withdrawal variable.

hypothesized association between couple similarity and greater relationship satisfaction between participants and partners.

Peer classification group. Analyses were conducted to examine differences in the relationship satisfaction scores of participants and partners, as a function of participant's gender and peer classification group. The results of a 2 (Gender) X 4 (Peer Classification Group) MANOVA were not significant for the multivariate effect of Gender, (Pillais = .00038: $F(2,189) = .036$, $p > .05$), or Group (Pillais = .036: $F(6,380) = 1.18$, $p > .05$). The multivariate interaction of Gender and Group was also nonsignificant (Pillais = .031: $F(6,380) = 1.00$, $p > .05$). Please see Table 18 for means and standard deviations. Thus participants and partners did not differ significantly in their relationship satisfaction scores as a function of gender and peer classification group.

Difference scores were then calculated between the satisfaction scores of participants and partners, in order for the unit of measurement to shift to the couple. The higher the difference score, the greater the discrepancy between participants and partners in their satisfaction with the relationship. The difference score served as the dependent variable in a 2 (Gender) X 4 (Peer Classification Group) ANOVA, which yielded a significant effect for Group ($F(3,190) = 4.47$, $p < .01$. The effect for Gender was nonsignificant ($F(1,190) = .04$, $p > .05$), as was the Group by Gender interaction ($F(3,190) = .94$, $p > .05$). With respect to the Group effect, follow-up t-tests compared each of the groups with the contrast group (see Table 18). Application of a Bonferroni corrected critical value of .017 (.05 ÷3) indicated significantly larger difference scores in relationship satisfaction for couples in the withdrawn and

Table 18

Means (SD) for Relationship Satisfaction Scores as a Function of Peer Classification Group

	Risk Group			Contrast Group	
Variable	Agg. (n = 45)	With. (n = 46)	Agg.-W. (n = 40)	(n = 80)	
Participants' Rel. Sat'n	40.91 (6.3)	39.84 (4.9)	38.05 (6.5)	39.95 (4.9)	F(3,202) = 1.90
Partners' Rel. Sat'n	39.44 (7.7)	39.50 (5.3)	37.45 (6.0)	39.79 (5.1)	F(3,199) = 1.41
Difference Scores	3.51 (3.9)	*4.65* (3.2)	*5.49* (4.6)	3.11 (2.5)	F(3,190) = 4.47**

Note. Means in italics differ significantly from the contrast group mean at the Bonferroni corrected critical value of $p < .017$ ($.05 \div 3$). Rel. Sat'n = Relationship Satisfaction; Difference Score = Difference between participants' relationship satisfaction score and partners' relationship satisfaction score.

**$p < .01$.

aggressive-withdrawn groups than couples in the contrast group. Thus couples in the withdrawn and aggressive-withdrawn groups were more discrepant in their reported satisfaction with the relationship than contrast group couples. As shown in Table 18, the difference appeared to be in the direction of participants, who recorded higher relationship satisfaction scores, on average, than their partners.

Discussion

The purpose of the present study was threefold. The first aim was to examine the continuity of aggressive and withdrawn behaviour among a community-based sample of men and women who had been identified as showing elevated levels of these behaviours in childhood. The second aim was to investigate the occurrence of above chance similarity between these individuals and their spouses or partners on the behaviours of aggression and withdrawal. Finally, the study examined whether relationship satisfaction varied as a function of couple similarity on aggression and withdrawal. The findings with respect to each aim are discussed separately.

Stability

The results of the correlational analyses indicated a significant association for females between peer-rated aggressive behaviour in childhood and self-rated maladaptive behaviour in adulthood. This association was specific to alcohol use and interpersonal difficulties. Although correlations between childhood and adult aggression were in the expected direction for women, they did not reach significance when corrected for alpha inflation. Similarly, correlations between childhood and adulthood aggression were not significant for men, but were in the expected direction. Thus, the results of correlational stability are in keeping with those studies evidencing an association between aggression and antisocial behaviour in girls, and later interpersonal and substance use difficulties (e.g., Bardone et al., 1996; Robins, 1966). However, the results are not entirely consistent with higher correlations obtained in longitudinal investigations of the stability of male aggression (e.g., Loeber, 1982;

Olweus, 1979) and female aggression (e.g., Cairns et al., 1989; Pulkinnen, 1987).

Stability was hypothesized for the behaviour of social withdrawal, and was confirmed by the current findings for men and women. Both genders showed a significant association between childhood social withdrawal, as rated by peers, and self-rated introverted behaviour in adulthood. This extends the evidence of behavioural continuity beyond the previous findings of a stability of social withdrawal into adolescence (e.g., Kerr et al., 1994). In addition, male participants showed an association between adult measures of internalizing symptoms and social impairment, and peer ratings of childhood social withdrawal. However, significance was not obtained when a correction for alpha inflation was applied.

In contrast to the measure of introversion, the measure of adult shyness showed no significant relationship to childhood social withdrawal for either men or women. This lack of a relationship may reflect the role of sociability, which appears to be tapped by both the EPQ extraversion/introversion scale, and by the PEI, but is not assessed by the Revised Shyness Scale (Cheek & Buss, 1981). In addition, the RSS appears to have more affective items rather than behavioural, whereas the EPQ and the PEI appear to have a balance of behavioural and affective items. As articulated in recent writings, researchers have encountered difficulties in their attempts to define the construct of social withdrawal. For example, Rubin and Stewart (1996) argue that social withdrawal differs from shyness in that shyness refers to inhibited responses in new social situations, whereas social withdrawal is marked by the "consistent display of solitary behaviour when encountering familiar and/or unfamiliar peers" (pg. 280). The current data provide some support for Rubin and Stewart's contention that shyness

and social withdrawal are dissimilar constructs.

With respect to the examination of mean differences on measures of aggression and withdrawal, the findings were consistent with the hypothesis of behavioural stability in that the high-risk groups performed as expected. Participants from the aggressive and aggressive-withdrawn groups rated themselves higher on measures of aggressive behaviour. They also rated themselves higher on a measure of social problems manifested in work disruptions, frequent moves, and interpersonal difficulties with neighbours, co-workers, friends, and family. Participants in the withdrawn group rated themselves as less extraverted, whereas those in the aggressive-withdrawn group endorsed more symptoms of psychological distress, largely of an internalizing nature.

The findings for the aggressive-withdrawn group are consistent with previous results from the Concordia project, which indicate more problematic outcomes for these individuals (e.g., Beltempo, Schwartzman, Marchessault, & Moskowitz, 1990; Moskowitz & Schwartzman, 1989; Peters & Serbin, 1993; Schwartzman, Moskowitz, Serbin, & Ledingham, 1990; Serbin et al., 1991). From the current study, it appears that individuals with histories of both aggressive and socially withdrawn behaviour show indications of stability of both behaviours.

As a whole, the stability results are in keeping with the hypothesized continuity of aggressive and socially withdrawn behaviour for men and women with histories of these behaviours in childhood. The smaller correlations obtained for the aggressive variables may reflect the truncated range of variability, given that the majority (58%) of participants in the current study were from the high-risk groups and thus represented a portion of the original distribution. Also, moving from peer- to self-

ratings introduced another source of variance, possibly reducing correlations.

The stability findings may illustrate the concept of homotypic continuity versus heterotypic continuity (Caspi & Bem, 1990). The former refers to the continuity of similar behaviours over time, while the latter refers to the continuity of an attribute which is thought to underlie diverse, yet related behaviours. From the current study, the evidence of a continuity in aggressive behaviour for women, and the stability of withdrawn behaviour for men and women suggest homotypic continuity. This type of continuity may suggest a greater genetic component for those individuals who continue to display the characteristic longitudinally (Zoccolillo et al., 1992). At the same time, homotypic continuity may indicate the persistence of environmental responses to the behaviour which serve to maintain it. Caspi and his colleagues refer to this as cumulative continuity, whereby "behaviours are sustained over time by the progressive accumulation of their own consequences" (Caspi, Elder, & Bem, 1988, pg. 824). The most useful conceptualization may be one which considers the interaction of these genetic and environmental influences.

From the current study, related behaviours such as drug use by men and impaired social functioning reported by men and women suggest heterotypic continuity. The question remains, however, as to what is the underlying attribute which links aggressive childhood behaviour to substance use and social maladjustment in adulthood. A number of possibilities are suggested by the literature. For example, the neuropsychological deficits proposed by Moffitt (1993) or the social-cognitive impairments highlighted by Dodge and colleagues (see Crick & Dodge, 1994, for a review) may underlie the diverse behaviours which have emerged as related in this

study.

Several points apply to the gender differences obtained on measures of aggressive and deviant adult behaviour. Men reported more drug use than did women, a finding consistent with recent statistics of self-reported drug use by men and women (Canadian Centre on Substance Abuse, 1997). Women reported using more verbal aggression (e.g., arguing, yelling, and insulting) than men when experiencing a conflict with their spouse or partner. Women also rated themselves as threatening to hit or throw an object at their spouse/partner more often during a conflict than did men. In terms of reported use of physical aggression during a conflict, men and women did not differ. This latter finding is consistent with Straus and Gelles (1990), and O'Leary and colleagues (1989).

As a whole, the findings pertaining to aggression within the intimate relationship suggest that by employing more verbal aggression than men, women may be attempting to use a strategy which is less likely to elicit a physically aggressive response from their partners, thereby reducing their risk of personal harm, given the greater size and strength of men (Björkqvist, 1994). Of course the specific context within which women and their partners used various aggressive strategies can not be determined from the current data; that is, the data do not provide information as to which verbally and/or physically aggressive strategies were used in the initiation of the conflict, and by whom, versus those strategies used in a responsive manner. It should also be noted that social desirability may have influenced the response of subjects and their partners regarding conflict within the relationship. However, Straus (1990) argues that research findings do not support social desirability as threatening the

validity of the Conflict Tactics Scales.

When not asked specifically about their use of aggressive tactics within the relationship, men reported higher levels of aggressive, hostile, and unempathic behaviour than did women. This finding is consistent with the oft-noted gender difference in aggressive behaviours, particularly overt aggression (Eagly & Steffen, 1986; Hyde, 1984; Maccoby & Jacklin, 1974). Taken together, the pattern of findings with respect to self-reported aggression are consistent with the proposal that women are more likely to evidence aggressive behaviour within the interpersonal context of intimate relationships, such as with spouses or offspring, than within non-intimate contexts (Lewis et al., 1991).

Assortment

Support was found for the hypothesis that partners in intimate relationships resemble each other in terms of their aggressive behaviour. Initial correlations indicated similarity between women and their partners in terms of the aggressive strategies used in marital conflicts. Men and their partners were similar in their self-reports of aggressive interpersonal behaviour, when not specific to the marital relationship. Couples were also associated in their reports of social maladjustment across a variety of settings. Finally, women and their spouses or partners showed correspondence in their use of drugs and alcohol, while men and their intimate partners were similar in drug use. With respect to drug use within couples, a gender difference emerged whereby the partners of female participants reported levels of drug use which increased at a faster rate than the partners of male participants.

It should be noted that a conservative approach was taken to the correlational analyses through the use of a Bonferroni correction for alpha inflation. This approach has not been taken consistently in the literature. Nevertheless, the results of the correlational analyses are in keeping with the few studies which have found correspondence between partners on aggressive and antisocial behaviours (e.g., Buss, 1984a, 1984b; Rutter et al., 1990). The findings concerning correspondence on alcohol use are consistent with those of Price and Vandenberg (1980) who found a significant correlation in their Swedish and American community samples for alcohol consumption. These authors also found evidence for couple convergence in alcohol consumption, which the current study did not find.

Thus, a general pattern emerges among this community-based sample in which couples share maladaptive behaviours of a conflictual and aggressive nature, both within and outside of the relationship, as well as substance use. A pattern of problematic interpersonal functioning across a variety of settings has implications, both genetic and environmental, for each partner and for the intimate relationship they have formed. For aggressive men and women, their characteristic pattern of conflictual interpersonal functioning is likely to be reinforced with a similar partner, thereby crystallizing the behavioural tendency toward aggressive and maladaptive interactions, and reducing the likelihood of a shift toward more adaptive behaviour (Quinton et al., 1993). The relationship itself, when formed by two people with aggressive interpersonal styles and ineffective problem-solving strategies, is likely to be marked by conflict and instability (Robins, 1986). A conflictual relationship is particularly worrisome for women with histories of aggressive interactions, as they are at greater

risk for physical harm then men within marital conflicts. Furthermore, there are implications for other family members living within an environment of shared aggression and social maladaptation, particularly for offspring who carry the weight of both environmental and genetic effects.

Support was not found for the hypothesis that partners would resemble each other in socially withdrawn behaviour. This finding is not consistent with several studies which have obtained low but significant correlations between spouses on measures of extraverted/introverted behaviour (e.g., Mascie-Taylor & Vandenberg, 1988; Philips et al., 1988). However, the current findings are consistent with a handful of studies which have failed to find couple correspondence along the dimension of extroversion/introversion (e.g., Feng & Baker, 1994; Guttman & Zohar, 1987).

The present study did find a stronger association between male participants and their partners than between female participants and their partners in symptoms of psychological distress, largely of an internalizing nature (e.g., somatic complaints, depression, anxiety). These findings suggest that widening the assortment lens, as it were, to consider broader views of social withdrawal provides evidence of couples who share an internalizing coping style. Moreover, it appears that the likelihood of sharing symptoms of an internalizing nature is increased when the male partner endorses such symptoms, given that men are more likely to choose female partners, among whom internalizing symptoms are more common.

The only finding of couple dissimilarity along the withdrawn dimension pertained to shyness. Here participants in the withdrawn group and their spouses were

more discrepant in shy behaviour than couples in the contrast group. Specifically, participants were more shy than their partners, providing some evidence of a complementary social style.

Contrary to expectations, the length of the relationship was associated with couple similarity in three contexts. Couples in longer relationships evidenced greater similarity than couples in shorter relationships in their conflict tactics within the relationship, and in social maladjustment. Perhaps, as proposed by Buss (1984b), living together in a common environment promotes similarity over time, particularly in the arena of interpersonal functioning, through the reciprocal reinforcement of behaviours. Thus individual's actions begin to resemble each other over time.

However, this does not appear to apply to drug use, where couples in shorter relationships were more similar in their reported drug use than couples who had been together longer. Perhaps with drug use, couples meet via this behaviour and thus have drug use in common at the initial stages of their relationship. But drug use, given the legal implications surrounding it, may be a behaviour which one or both members of a couple are likely to attempt to change, leading to increased dissimilarity over time.

With respect to complementarity, which had not been hypothesized to occur on measures of aggressive or withdrawn behaviour, the chi-square analyses on a sub-set of couples revealed a small group of couples who were behaviourally dissimilar (i.e., both partners scored outside the middle range, with one partner scoring in the upper quartile and one in the lower quartile). Yet the number of dissimilar couples did not significantly exceed the number of similar couples on any of the aggressive or withdrawn variables. Rather, the results of the chi-square analyses on the sub-set of

couples indicated a significantly greater number of similar couples on measures of aggressive and deviant behaviour. In the case of withdrawn behaviour, the number of similar couples was not significantly greater than the number of complementary couples. Thus these findings are in keeping with the extant literature in finding similarity, rather than complementarity, to be the dominant pattern, even among couples who fall outside of the moderate range on behavioural and personality characteristics.

Satisfaction

Support was not found for the hypothesis that couple similarity on aggressive and withdrawn behaviour would be associated with relationship satisfaction. This finding applied to analyses with the entire sample of couples and for the most part to analyses with the subsample of couples scoring outside of the middle range. However, the latter analyses indicated that couple dissimilarity in drug use was associated with lower satisfaction scores from both participants and their partners.

Much of the previous research evidencing an association between couple similarity and relationship satisfaction used measures of relationship satisfaction which overlapped with the concept of similarity (e.g., Caspi & Herbener, 1990; Meyer & Pepper, 1977). In contrast, the current study used a measure of couple satisfaction which did not assess couple similarity. This methodological change may explain, in part, the failure to find an association between similarity and satisfaction for the couples who participated. It is also possible that the behavioural characteristics of aggression and withdrawal are not as important to the satisfaction of the relationship.

In other words, a differential salience exists, with other characteristics having a greater role in determining couple satisfaction.

No significant differences emerged on satisfaction scores when participants and partners were compared by gender and peer classification group. When difference scores between participant and partner satisfaction ratings were considered, withdrawn and aggressive-withdrawn couples showed greater discrepancy, or less agreement in their ratings, on average, than couples in the contrast group.

Final comments are reserved for the pattern of findings pertaining to drug use. Taken together, these findings suggest that drug use is an important behaviour within a relationship, one which is associated with the length of the marriage or partnership, and the satisfaction of the couple involved. Moreover, gender appears to play a role, in that women who report drug use are more likely to have intimate partners who use drugs than men who report drug use.

Limitations

A number of limitations of the study have been touched on in previous sections, such as the truncated range of the current aggression and withdrawal scores, and the failure to find significant results with the selected shyness measure. Additional limitations of the study include participant recruitment. As is true of any research project involving couple similarity and satisfaction, those who agree to participate in studies such as the present one may not be representative of the larger population of couples. It is possible that couples who are more similar and/or more satisfied with their relationship are more likely than dissimilar and dissatisfied couples

to participate in research studies, thereby inflating the obtained measures of similarity and satisfaction. Inflated estimates of couple similarity and relationship satisfaction may also occur when couples complete questionnaires together. Although the current study took steps to reduce the likelihood of this happening by staggering the mailing procedure, there is no guarantee that couples did not jointly complete the questionnaires. However, by staggering the mailing procedure, couples would have had to recall their responses for at least one to two weeks, and often longer, in order to ensure that their second set of questionnaire responses were consistent with their first set of responses.

Social desirability may also have affected responses by participants, particularly to questions about drug use and physical aggression, behaviours which tend to have negative connotations attached to them. Social desirability may have been the reason for the lower scores for participants on the Conflict Tactics Scales, compared to the scores of the normative samples.

Additional limitations also provide direction for future research in this area. Specifically, the current study addressed the issue of couple convergence statistically, rather than measuring changes in self-rated behaviours over time. Thus an approximation of time trends was obtained through the cross-sectional design, when a longitudinal design would more accurately measure the occurrence of behavioural convergence and divergence within a relationship. Continuing to follow the current participants as they move along in their relationships, or as they dissolve and establish new intimate relationships, will provide a valuable developmental perspective on the construction and nurturance of a shared social environment by men and women with

histories of aggressive and withdrawn behaviour.

Finally, the study did not consider the process by which similar couples came to be together, nor did the study examine previous partner choices of men and women with histories of aggressive and withdrawn behaviour. The processes involved in establishing adult intimate relationships with similar others, and the precursors to these relationships, particularly adolescent peer and dating relationships, are worthy of research attention.

Concluding Remarks

The current study has provided evidence of the continuity of aggressive and withdrawn behaviour in a longitudinal, community-based sample of men and women originally identified as socially atypical in childhood. It is impressive that the evidence of behavioural stability spans a 20-year period. Yet from the viewpoint of the lives of the study's participants, the evidence of the stability of socially maladaptive behaviour is concerning. Add to this the evidence of marital assortment for aggression and socially maladaptive behaviour, and what emerges is an alarming portrait of individuals with their own histories of behavioural difficulties, who may close down the range or quality of current and future environments through their relationship with a deviant partner. Moreover, the quality of their children's lives is of concern, both from a genetic and environmental standpoint. Clearly, as knowledge of the life courses of these men and women increases, researchers will be better able to articulate different points for intervention in order to ameliorate life circumstances.

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