# RELATIONSHIP TRANSITIONS 

Proceedings of the<br>Australian Psychology Society's Psychology of Relationships Interest Group<br>$4^{\text {th }}$ Annual Conference

# Australian Catholic University Melbourne Australia 

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# Proceedings of the Australian Psychology Society's Psychology of Relationships Interest Group $4^{\text {th }}$ Annual Conference 

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The papers contained in these proceedings have been subject to a double blind peer-review process.

## Welcome from the Chair of the Conference Committee

One of the highlights for those interested in research and practice to do with relationships is the APS Interest Group on the Psychology of Relationships Annual Conference. This is our $4^{\text {th }}$ Conference and Melbourne is where the Relationships Conference happens.

For our $4^{\text {th }}$ Conference the theme chosen is Relationships Transitions. A theme such as this is very inclusive-it is difficult to imagine a relationship which is static and unchanging, and as such all of our relationships are in a state of Transition. It does so happen that some transitions are more dramatic and more public than other. One of the outcomes of such a theme is the considerable range in the topics of the papers being presented at this year's Conference. As a result of the reviewing of the abstracts, we have 39 individual paper presentations over the two days. We have designed these sessions such that there should be time for plenty of discussion-3 papers in 1.5 hours. In addition to the individual papers we have three special addresses - Keynote Addresses by Kim Halford and Kate Moore and an invited address by the recently elected President of the APS-Amanda Gordon.

In addition to listening to the addresses and the individual papers, it is hoped that you will enjoy the opportunity to socialise and network with others who are interested in relationships.

On behalf of the Conference Organising Committee thank you for attending the Conference. The Committee has done all it can so it is now up to you the attendees to ensure that the Conference is all that you would want it to be.

Regards
Barry J Fallon PhD FAPS
Chair, Conference Organising Committee

## TABLE OF CONTENTS

The Effect of Advocacy and Adaptive Functioning on Student Self- esteem, Self-efficacy, School Life, Academic Performance and Attendance
Terry Bowles \& Ailsa Brown ..... 7
The Effect of Selection, Training, and Participation on Student Counsellor Self-description and Coping Terry Bowles \& Carly McKinnis ..... 14
Client Satisfaction with Relationship Counselling
Adele Carmady, Ann Knowles \& Andrew Bickerdike ..... 20
Selves in contact: Multiple perspectives on the role of relationships in the life of the individual with Dissociative Identity Kymbra Clayton ..... 24
The Influence of Interpersonal Relationship on Conflict Resolution Style John A. Davidson ..... 31
Do Adolescent and Parental Perceptions of Interparental Conflict Differ? Melanie T. Davern, Petra K. Staiger \& Ernest S.L. Luk ..... 35
Theoretical Frameworks for Relationship Transitions and the Predictors of Successful Transitions
Amanda E. Ferguson (amanda@lifethatworks.com) ..... 40
The relationship between love styles and relationship dependent and independent outcome variables: A within couple analysis Barry J. Fallon \& Terry Bowles ..... 46
Is The Extent Of My Lying And Deception With The One I Love Related To My Attachment Style?
Barry J Fallon \& Christopher Holt ..... 52
Adoption, Attachment, and Relationship Experiences Judith A. Feeney, Nola L. Passmore \& Candida C. Peterson ..... 58
Favouritism and Rejection in Families: Black sheep and Golden-haired Children Julie Fitness ..... 63
Excessive Internet Use as a Behavioural Addiction
Carina J. Henry \& Cecelia Winkelman ..... 68
Bullying Relationships in High Schools
Dorothy Lenthall ..... 73
The healthy balance among work, family, and personal relationships: fact or fiction?
Kathleen A. Moore. ..... 79
Melancholic Mothers and their Mourning Infants
Clare O'Bree, Lisa N. Eisen, Zita Marks, Jeannette Milgrom \& Kate Neilson ..... 85
The disparate olfactory determination of sex and age in humans, reflecting the reproductive and relationship characteristics of the species. Robert N. Paddle \& Jacqui Robert ..... 91
Parental Decision-Making surrounding Complicated Births: The Impact on Parent-Infant and Infant-Marital Relationships
Sarah J. Phillips \& Gregory A. Tooley ..... 96
Attachment Security and Intimate Relationship Satisfaction: The
Mediational Role of Maladaptive Attributions
Zoë J. Pearce \& W.K. Halford ..... 102
The Utility of Work and Family Stressors and Perceived Social Support in the Prediction of Counselling Utilisation
Andrea Quah \& Terry Bowles ..... 109
Improving family and peer relationships with children who engage in problem sexual behaviour
Dr. Petra Staiger, Dr Nicolas Kambouropoulos, Jari Evertsz, Joe Tucci \& Janise Mitchell ..... 117
The Role of Interactions Between Parents and Children in Social Skills Development of Prep Children
Gill Terrett \& Michelle Puttick. ..... 124
Attraction for Out-Group Members: Is There a Role for Attitude Importance and Attitude Similarity ?
Gill Terrett, Cecelia Winkelman \& Barry Fallon ..... 132
Lying in relationships: Protecting ourselves or protecting our partners? Alexandra E.West \& Barry J.Fallon ..... 137
Factors Affecting the Acquisition of Skills in PET (Parent Effectiveness
Training): Language, Gender and Education
Christine D. Wood \& John A. Davidson ..... 141
Social Disconnection and Depression
Neil Welch ..... 145
Adolescent Psychological Health and School Attitudes: The Impact of Attachment Relationships
Ross B. Wilkinson \& Monika Kraljevic ..... 150

# The Effect of Advocacy and Adaptive Functioning on Student Self-esteem, Self-efficacy, School Life, Academic Performance and Attendance 

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#### Abstract

This research examines the influence of a teacher advocacy program and adaptability on the outcome measures of Self-esteem, Self-efficacy, Perception of School Life, Academic Performance, and School Attendance of a year 10 student group. It was expected that students receiving the advocacy of teachers ( $\mathrm{n}=39$ ) who were classified as Adaptors, would have a significantly higher self-rating on the outcome measures than participating Stabilizers followed by the non-participating Adaptors and Stabilizers ( $\mathrm{n}=43$ ) after the six month intervention. A mixed-between-withinsubjects ANOVA was used to measure the influence of advocacy and adaptability. None of the expected interaction effects were found. A main effect showed Adaptors had higher Self-esteem, Self-efficacy and School Life scores compared with Stabilizers. The results are discussed in reference to improving the advocacy program and analysis of such interventions in future research.


Social support in the form of mentoring programs is part of a movement to provide non-classroom interventions for students (Carter \& Sugai, 1989; Graden, Casey, \& Bonstrom, 1985). Mentoring programs have been shown to have a positive effect on student performance by improving attendance, academic results, and reducing acting out behaviour (Rhodes, Grossman, \& Resche, 2000; Roberts \& Cotton, 1994; Royse, 1998). Advocacy programs based on similar procedures to the mentoring program have also been effective (Ocean, 2001a; Ocean, 2001b). The problem is no previous Australian research has investigated the effectiveness of advocacy programs using a questionnaire based preand post-test method and no previous research has investigated the adaptability of adolescents involved in an advocacy program. The aim of the present study was to extend research into advocacy programs by evaluating the effectiveness of one program provided to a year 10 group of students who were defined in terms of their adaptive functioning. The dimensions used in the evaluation were the students' Self-esteem, Self-efficacy, attitude to school, grade scores in Math and English, and Attendance.

## Advocacy and Mentoring Programs

Mentoring programs have developed from Intervention Assistance Programs and were designed to enhance collaborative problem solving, facilitate
student compliance in the least restrictive environment, serve a remedial, preventative function, and follow an ecological view of student problems as arising from the environments in which students live (Rathvon, 1999). Mentoring programs are designed to promote a young person's identification with an adult who possesses and displays a set of positive characteristics (Roberts \& Cotton, 1994). Adolescents are presumed to acquire the attitudes and characteristics of the mentor through the process of observational learning as discussed in social learning theory (Bandura, 1969; 1990). Improvement in Academic Performance and enhanced Self-esteem are the goals of many mentoring programs, however the limited research on these projects does not indicate a strong link between mentoring and its desired outcomes. Roberts and Cotton (1994) found no significant effects of participation in a mentor program for African-American high school students on grade point averages and Self-esteem. Slicker and Palmer (1993) found that mentoring had no significant effect on self-concept. Similarly, Royse (1998) found no effects on Self-esteem, attitudes to drugs and alcohol, grade point averages, school absences, or disciplinary infractions when he evaluated the Brothers Project, a mentoring program for African-American adolescents. In contrast, Hill (1993) found a positive effect for mentoring on communication and self-concept, concluding that the quality and function of the mentor relationship contributed significantly to the effectiveness of the mentoring program. An evaluation of Project RAISE (McPartland \& Nettles, 1991) found mentoring was associated with a reduction in absence rates and grade scores.

The advocacy project is a type of support-based mentoring program that has been introduced into selected Victorian secondary schools to address the problems of poor Academic Performance, poor Attendance, and risk of dropping out of school before completing the VCE (Ocean \& Jones, 2001b). The advocacy project facilitates supportive relationships between individual students and teachers, and encourages appropriate interdependence (Gilligan, 1982). It derives from the ethic of care (Noddings, 1992), which is concerned with students functioning positively through goal setting, decision making and having belief in the future (Ocean \& Jones, 2001a). The role of the advocate, who is a teacher, is to be a friend to help, guide, and support the student. The recommended frequency of meetings is once per
fortnight (Ocean, 2001b). It is desirable that students are able to choose their own advocates so that they are paired with a person they like while taking account of gender and cultural issues. Ideally advocates are volunteers who rate highly on emotional competence and avoid making insensitive or inappropriate responses to student concerns. Being a counsellor (Egan, 1994) is one of the functions of the advocacy role (Ocean, 2001b).

If mentoring programs influence Academic Performance, general attitudes, and Attendance it follows that this will be associated with changes in Self-efficacy and attitude to school. By extension, it is expected that Self-esteem would be influenced by successful educational outcomes, through participation in a successful mentoring relationship.

## Adaptive Functioning

The aims of advocacy programs of setting goals, making decisions, having a belief in the future, remaining committed, and attending to the task correspond closely with the aims of the theory of goal setting and task motivation (Locke \& Latham, 2002). In the theory of goal setting and task motivation, setting goals, capability, commitment, and managing factors that influence success like Self-efficacy and receiving feedback facilitate the development of strategies toward a goal. A comprehensive model entitled the Adaptive Change Model (ACM) is a representation of the theory of goal setting and motivation (Locke \& Latham, 2002) and has been developed to assist individuals to achieve their goals in therapeutic and educational domains (Bowles, under review ${ }^{1}$; under review ${ }^{2}$ ). These factors comprise Openness to Opportunity, Visualization, Planning, Action and Closure. When summed they are called the Process factors. Influencing each of these factors throughout the process of adapting are three Support factors: Social Support, management of Negative Emotions, and Inner Drive. When summed they are called the support factors (Bowles \& Fallon, 2003).

Previous research using the Process and Support factors shows that tertiary students' Self-esteem was predicted by Support factor but not the Process factors (Bowles, Wong, Aranjuez, \& Hamid, 2004). Research has also shown that adults attending therapy are less adaptive than a non-attending control group, with the clinical respondents scoring consistently and significantly lower on the eight scales of adaptive change (Bowles, under review ${ }^{1}$ ).

To date no previous Australian research has systematically investigated the relationship between adolescent Self-esteem, Self-efficacy, School Life and Academic Performance. Further, no research involving adolescents has explored the link between adaptive functioning as operationalized by the Adaptive Change Questionnaire (ACQ), individual difference, and performance factors. In this research the general aim is to investigate the influence of involvement in an advocacy program on students with different levels of adaptability in reference to individual difference and performance factors. From the above research the following hypotheses are proposed.

1) Students involved in the advocacy program will have higher scores at the second testing, time two, on adaptive functioning, Self-esteem, Self-efficacy, School Life, Academic Performance and improved Attendance in comparison with the control group.
2) The ACQ factors will form two clusters, a high cluster of Adaptors and a low cluster of stable students.
3) The scores on Self-esteem, Self-efficacy, School Life, Academic Performance and improved Attendance will be highest for the Adaptors in the advocacy program, followed by the Stabilizers in the program and the Adaptors not in the program, with the lowest scoring expected to be from Stabilizers not in the advocacy program.

## Method

## Participants

Student participants in the Advocacy group were 39 Year 10 students ( 20 female and 19 male; mean age, 15.47; $S D=0.41$ ) from a Secondary College from regional Victoria who were randomly selected for participation in the advocacy program. Participants in the control group were 43 Year 10 students ( 23 female and 20 male; mean age, $15.38 ; S D=.40$ ) from the same school. The 82 participants included in the analysis were derived from the 90 students in the whole year level.

## Materials

The Coopersmith Self-Esteem Inventory, school form (Coopersmith, 1989; SEI) was used in this research. The SEI is designed to measure evaluative attitudes toward the self in social, academic, family, and personal areas of experience. In relation to the SEI, the term Self-esteem refers to the evaluation a person makes, and customarily maintains, of him- or herself. The single factor school form consists of 50 Selfesteem items.
The Multidimensional Scales of Perceived SelfEfficacy (MSPSE) (Bandura, 1990) were used to measure change in Self-efficacy, which is defined as an individual's evaluation of his or her ability to accomplish a given task or activity (Choi, Fuqua, \& Griffin, 2001). The scale contains 57 items that measure a range of Self-efficacious themes rated on a Likert scale from $1=$ not at all well to $7=$ very well.

The School Life Questionnaire (Ainley, 1986) was used to measure the respondent's experience of school. It consists of 40 statements about the student's experience of school to which students are asked to indicate their level of agreement on a four-point Likert scale from "definitely agree" to "definitely disagree".
Academic Performance was measured as an average percentage of English results, and an average percentage of Mathematics results at the end of semester one. This data was compared with academic data in school records from December of the previous year. Attendance was measured as the total number of days absent in semester one of the year of the research. This was compared with total number of days absent in semester two of the year before.

## Procedure

In January of the year of the research, after students had been allocated to advocacy and non-advocacy groups, but before they had their first meeting with their advocate, students completed the Coopersmith SEI, the School Life Questionnaire, and the Multidimensional Scales of Perceived Self-efficacy. The same instruments were employed again in the July post-testing.

Advocates were twelve volunteer teachers, 8 female and 4 male. In selection they were judged by a committee of three peers, as to their warmth, empathy, the ability not to be judgmental or authoritarian, and having suitable interpersonal skills to implement the program in the spirit in which it was intended. Not all applicants were accepted as advocates. Advocates undertook a two-hour training session, including basic counselling skills.
Students were given a list of all twelve advocates and selected three with whom they would be happy to work. The coordinator then matched students with one of the advocates they nominated. Students who felt that they were not able to work well with their advocate could ask the coordinator to change advocates, without giving a reason, within the first six weeks of the program, but no student took up this option. Gender was not considered in the matching
process, except in so far as the student selected an advocate of a particular gender.

Advocates were to meet with their students at least once every fortnight for approximately twenty minutes. The focus of the meeting was to be agreed between the advocate and the student. The advocates were supported by a coordinator and had a reference support group comprising a psychologist, social worker, careers counsellor, school nurse, student welfare coordinator, year level coordinator and the assistant principal. The advocate recorded the date and focuses of each meeting with the student and provided this information to the coordinator. Other records of meeting content, such as goal-setting or problem solving, remained confidential between the advocate and student.

## Results

Tests for normality were conducted and considered to be acceptable. Correlations and descriptive statistics were obtained for the variables of interest: the ACQ, SEI, MSPSE, School Life, Mathematics and English scores and Absence are reported in Table 1. Time one with time two correlations indicate that the ACQ factors are weak to moderate and the reliability of the other variables of interest are typically moderate. Generally, the ACQ factors share weak to moderate correlations.

Table 1
Descriptive Statistics and Correlations of Variables in the Analyses

|  | $1{ }^{1}$ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Open. to Opp'y | $34^{3 * *}$ | $62^{4 * *}$ | $58^{* *}$ | $42^{* *}$ | $61^{* *}$ | $46^{* *}$ | $70^{* *}$ | $57^{* *}$ | $26^{*}$ | $51^{* *}$ | $29^{* *}$ | 12 | 06 | -01 |
| 2. Visualization | $65^{* *}$ | $20^{* *}$ | $56^{* *}$ | $39^{* *}$ | $51^{* *}$ | $43^{* *}$ | $50^{* *}$ | $37^{* *}$ | * $28^{*}$ | $42^{* *}$ | $33^{* *}$ | 08 | -09 | 00 |
| 3. Planning | $77^{* *}$ | $75^{* *}$ | $\underline{47 *}$ | 41** | $58^{* *}$ | $25^{*}$ | $66^{* *}$ | $37^{* *}$ | * $26{ }^{*}$ | $47^{* *}$ | $37^{* *}$ | 14 | -01 | -05 |
| 4. Action | $30^{* *}$ | 21 | $28^{*}$ | $\underline{27 * *}$ | $44^{* *}$ | $46^{* *}$ | $51^{* *}$ | $28^{*}$ | $27 *$ | $47^{* *}$ | $33^{* *}$ | 16 | 06 | -21 |
| 5. Closure | $79^{* *}$ | $61^{* *}$ | $72^{* *}$ | 22 | 44** | $41^{* *}$ | $67^{* *}$ | $53^{* *}$ | * $33^{* *}$ | * 58** | $36^{* *}$ | 15 | 01 | -09 |
| 6. Neg. Emotions ${ }^{2}$ | $31^{* *}$ | $29^{* *}$ | $25^{*}$ | $38^{* *}$ | $34^{* *}$ | $61^{* *}$ | $40^{* *}$ | $28^{*}$ | 49** | * 40 ** | $27^{* *}$ | * $2{ }^{*}$ | 21 | -10 |
| 7.Inner Drive | $72^{* *}$ | $61^{* *}$ | $67^{* *}$ | $44^{* *}$ | $70^{* *}$ | $32^{* *}$ | 34** | $46^{* *}$ | * $36{ }^{*}$ | * $57^{* *}$ | $39^{* *}$ | -05 | -04 | $-23^{*}$ |
| 8.Social Support | $70^{* *}$ | $56^{* *}$ | $62^{* *}$ | $30^{* *}$ | $75^{* *}$ | $33^{* *}$ | $67^{* *}$ | $33^{* *}$ | * $37 * *$ | * $43^{* *}$ | $33^{* *}$ | * 19 | 07 | -19 |
| 9. Self-esteem | 17 | 17 | 17 | 16 | $27^{*}$ | $27^{*}$ | $29^{* *}$ | $21^{* *}$ | * $688^{* *}$ | * 48** | $50^{* *}$ | $26^{* *}$ | 21 | -14 |
| 10. Self-efficacy | $62^{* *}$ | $55^{* *}$ | $64^{* *}$ | $33^{* *}$ | $67^{* *}$ | $41^{* *}$ | $64^{* *}$ | $61^{* *}$ | $22^{*}$ | - 63** | $53^{* *}$ | $23^{*}$ | 12 | -21 |
| 11. School life | $49^{* *}$ | $42^{* *}$ | $49^{* *}$ | 06 | $55^{* *}$ | $28^{*}$ | $55^{* *}$ | $51^{* *}$ | $29^{* *}$ | * $72{ }^{* *}$ | 58** | $31^{* *}$ | * $31^{* *}$ | * -01 |
| 12. Math score | 15 | 03 | 15 | 07 | $26^{*}$ | $31^{* *}$ | 15 | 19 | 20 | 09 | $29^{* *}$ | 49** | * $45^{* *}$ | * 05 |
| 13. English score | 11 | 04 | 12 | -01 | 16 | $32^{* *}$ | 00 | 17 | 04 | 08 | $26^{*}$ | $60^{* *}$ | $\underline{54 *}$ | * 16 |
| 14. Absence | -01 | 07 | -02 | -05 | 03 | 09 | 00 | -07 | -06 | 02 | -02 | -19 | -06 | $\underline{48 *}$ |
| Time 1 Mean | 4.16 | 3.92 | 3.96 | 4.73 | 4.29 | 3.83 | 4.00 | 4.347 | 72.4827 | 79.6711 | 13.315 | 54.59 | 70.14 | 10.19 |
| Time $15 D$ | . 65 | . 64 | . 67 | . 69 | . 92 | . 77 | . 69 | . 85 | 14.86 | 43.501 | 11.37 | 29.39 | 21.06 | 7.59 |
| Time 2 Mean | 4.20 | 4.09 | 3.88 | 3.78 | 4.32 | 3.96 | 4.08 | 4.39 | 73.6228 | 81.8611 | 11.415 | 57.94 | 73.30 | 7.13 |
| Time 2 SD | . 84 | . 80 | . 86 | . 75 | 1.04 | . 70 | . 80 | . 851 | 16.594 | 49.891 | 14.292 | 26.472 | 24.61 | 5.81 |

${ }^{1}$ Note: Above the diagonal is time one, below is time two. ${ }^{2}$ Note: The Negative Emotions scores have been reversed. ${ }^{3}$ Note: Diagonals, underlined, represent the correlation of the same variable at times one and two. ${ }^{4}$ Note: Decimals have been removed from the correlations in the table. ${ }^{*}$ Indicates correlation is significant at the 0.05 level ( 2 -tailed); ${ }^{* *}$ indicates correlation is significant at the 0.01 level ( 2 -tailed);

To investigate the first hypothesis that students involved in the advocacy program will have higher scores at time two on adaptive functioning, Selfesteem, Self-efficacy, School Life, Academic Performance, and improved Attendance in comparison to the control group, a mixed-between-within-subjects ANOVA ( 2 levels of intervention by 2 times of testing) was completed. The results indicated
that there was no significant difference between scores obtained before and after the intervention other than for Attendance. That is, student Absences reduced between time one and two $(F(1,79)=10.52$, $p=.002, \eta^{2}=.12$; Table 1) regardless of group membership. This effect shows a decrease in Absence from a mean of 10.19 days absent at time one, to 7.13 days absent at time 2.

To test the second hypothesis that the student's ACQ factors scores could be clustered to form two groups of students, a $k$-means cluster procedure was applied. The eight ACQ factors scores from time one, with centers derived from the data, were loaded into the analysis. Inspection of the dendograms and the agglomeration schedule revealed that the best solution contained two clusters. These two clusters are defined as Adaptors who rate each of the ACQ variables significantly higher than do the Stabilizers. Table 2 shows the mean difference between the groups on each ACQ factors indicating that the Adaptors scored significantly and consistently higher for each of the ACQ factors. Adaptors are defined as being agentic, preferring to change strategically and using their supports to change. By comparison, the Stabilizers are defined as preferring not to change and remain in a more stable state.

Table 2
Means, Standard Deviations, and Effects of Cluster Structure on Factors of the Adaptive Change

| Adaptors |  | Stabilizers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Mean } \\ & (S D) \end{aligned}$ | $\begin{aligned} & \text { Mean } \\ & (S D) \end{aligned}$ | F |  | $\eta^{2}$ |
| Opportunity | $\begin{gathered} 4.75 \\ (.49) \end{gathered}$ | $\begin{gathered} 3.82 \\ (.47) \end{gathered}$ | 71.15 | . 001 | . 47 |
| Visualization | $\begin{aligned} & 4.45 \\ & (.51) \end{aligned}$ | $\begin{aligned} & 3.61 \\ & (.48) \end{aligned}$ | 54.98 | . 001 | . 41 |
| Planning | $\begin{gathered} 4.51 \\ (.67) \end{gathered}$ | $\begin{gathered} 3.64 \\ (.42) \end{gathered}$ | 51.70 | . 001 | . 39 |
| Action | $\begin{gathered} 4.15 \\ (.67) \end{gathered}$ | $\begin{aligned} & 3.48 \\ & (.58) \end{aligned}$ | 22.54 | . 001 | . 22 |
| Closure | $\begin{aligned} & 5.14 \\ & (.53) \end{aligned}$ | $\begin{aligned} & 3.79 \\ & (.71) \end{aligned}$ | 81.09 | . 001 | . 50 |
| Neg. Emotions | $\begin{aligned} & 4.33 \\ & (.79) \end{aligned}$ | $\begin{aligned} & 3.54 \\ & (.58) \end{aligned}$ | 26.94 | . 001 | . 25 |
| Inner Drive | $\begin{aligned} & 4.59 \\ & (.58) \end{aligned}$ | $\begin{aligned} & 3.66 \\ & (.49) \end{aligned}$ | 59.96 | . 001 | . 43 |
| Social Support | $\begin{gathered} 4.89 \\ (.60) \\ \hline \end{gathered}$ | $\begin{aligned} & 4.03 \\ & (.81) \\ & \hline \end{aligned}$ | 54.98 | . 001 | . 24 |

The relationship between the clusters of Adaptors ( $n$ $=30)$ and Stabilizers $(n=52)$ is shown in Figure 1 in reference to pre- and post-test scores. These results illustrate in greater depth the magnitude of the difference shown in Table 2. There was no difference in the scores obtained for the Adaptors or the Stabilizers as a result of involvement in the advocacy program. Although not significant there was one noteworthy pattern that emerged from this analysis. The Stabilizers (darker two columns) increased their scores for each of the eight ACQ factors, whereas the Adaptors (lighter two columns) were less adaptive at time two compared with time one for each of the ACQ factors.


Figure 1
Adaptors and Stabilizers scores on the ACQ factors at time one and two

As a validity check to establish that the random distribution of the students into each group had resulted in a nonsystematic classification of students on the basis of Adaptability clusters, a chi-square analysis was completed. The frequency of students in each of the cluster by group cells is shown in Table 3. The result of a chi-square analysis indicated that there was no systematic association between advocacy group membership and membership of cluster of adaptability at time one $\left(\chi^{2}(1,82)=113, p=.457 ; \eta=\right.$ $0.04)$.

Table 3
Frequency of Students in Advocacy Groups and Adaptive Clusters

|  | Group |  |  |
| :---: | :---: | :---: | :---: |
|  | Non-advocacy <br> Total | Advocacy |  |
| Cluster | $(S D)$ | $(S D)$ |  |
| Stabilizers | 28 | 24 | 52 |
| Expected | 27.3 | 24.7 | 52 |
| Adaptors | 15 | 15 | 30 |
| Expected | 15.7 | 14.3 | 30 |
| Total | 43 | 39 | 82 |

The analysis of the mean scores shown in Table 4 indicates that there was consistently little difference in Self-esteem, Self-efficacy, School Life, Math, English, and Attendance between time one and time two scores (the within analysis). There was greater variability in the differences between the Adaptors and Stabilizers (the between clusters analysis) with the Adaptors scoring consistently higher on Selfesteem, Self-efficacy, and School Life, at both time one and time two. There was no difference between Adaptors and Stabilizers, at either time one or time two, on Math or English scores or on the amount of Absence from school.

The final test of whether the Adaptors or the Stabilizers responded differently to involvement in the advocacy intervention was tested through a series of mixed-between-within-subjects ANOVAs (six individual difference and performance variables by two times of testing by 2 ACQ clusters) were completed. The results are in Table 4.

Table 4
Means, Standard Deviations, and Effects of FOCQ Cluster Structure on Self-esteem, Self-efficacy, School Life, Academic Performance and Attendance

| Time | Adaptors | Stabilizers |  | $p$ | $\eta^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean $(S D)$ | $\begin{aligned} & \text { Mean } \\ & (S D) \end{aligned}$ | $F$ |  |  |
| 1. Self-esteem | 79.47 | 68.46 | 11.83 | . 001 | . 12 |
|  | (14.40) | (13.21) |  |  |  |
| 2. Self-esteem | 81.77 | 68.92 | 13.12 | . 001 | . 13 |
|  | (13.27) | (16.59) |  |  |  |
| 1. Self-efficacy | 307.84 | 263.12 | 25.93 | . 001 | . 24 |
|  | (32.12) | (41.03) |  |  |  |
| 2. Self-efficacy | 312.65 | 264.09 | 22.89 | . 001 | . 21 |
|  | (35.48) | (48.56) |  |  |  |
| 1. School life | 118.74 | 107.58 | 12.27 | . 001 | . 13 |
|  | (9.89) | (14.66) |  |  |  |
| 2. School life | 118.04 | 107.58 | 11.51 | . 001 | . 12 |
|  | (10.98) | (14.66) |  |  |  |
| 1. Math | 57.33 | 53.00 | 0.41 | . 524 | . 01 |
|  | (28.12) | (30.27) |  |  |  |
| 2. Math | 61.37 | 55.96 | 0.79 | . 376 | . 02 |
|  | (27.93) | (25.65) |  |  |  |
| 1. English | 70.38 | 69.70 | 0.02 | . 888 | . 01 |
|  | (18.80) | (24.51) |  |  |  |
| 2. English | 77.23 | 71.04 | 0.18 | . 668 | . 01 |
|  | (21.69) | (26.07) |  |  |  |
| 1. Absence | 8.90 | 10.94 | 1.38 | . 243 | . 02 |
|  | (5.93) | (8.36) |  |  |  |
| 2. Absence | 7.17 | 7.09 | 0.01 | . 995 | . 01 |
|  | (5.31) | (6.07) |  |  |  |

## Discussion

In conclusion, the analysis investigating the influence of the advocacy program showed that there was no significant effect on student Self-esteem, Selfefficacy, School Life, and Academic Performance. There was an improvement for Attendance but as this was not involving an interaction with group membership, it does not show an effect for the program. The second hypothesis that two clusters based on the factors of the ACQ would emerge from the adolescent's rating of their adaptability was found. A cluster analysis showed a more adaptive group called Adaptors and a group less likely to adaptively change, the Stabilizers, emerged. The third hypothesis linking the influence of the advocacy program and adaptive change showed that there was no relationship between the two factors on student Self-esteem, Selfefficacy, School Life, Academic Performance or improvement in Attendance. By contrast, there were differences in Self-esteem, Self-efficacy, and School Life with the Adaptors consistently scoring higher than the Stabilizers on Self-esteem, Self-efficacy, and School Life, however there was no relationship between Mathematics scores, English scores or Absence.
These findings are in line with previous research that shows little effect between mentoring and Self-
esteem (Slicker \& Palmer, 1993), grade scores, and absences (Roberts \& Cotton, 1994; Royce, 1998) but are contrary to the findings of Hill (1993). These findings raise a number of questions related to previous conclusions about advocacy and mentoring programs. In particular, what explains the absence of the anticipated influence of involvement in the advocacy program? In short, the best explanation is likely to be the result of method effect, content dealt with in the program, frequency versus optimal availability, and finally, a school effect. Firstly, this research was a quasi-experimental design with random assignment of students, which is very different to previous Australian research, such as Ocean's (2001a; 2001b). The presumption that adolescents acquire the attitudes and characteristics of the mentor through the process of observational learning as discussed in social learning theory (Bandura, 1969; 1990), was not shown. Similarly, improved Self-concept was not shown as a result of involvement in the advocacy program (Hill, 1993). The approach to mentoring through observational learning is likely to be influential when the association requires common activity and behaviour, such as in Big Brother/Big Sister Programs over prolonged periods of contact. The advocacy program is unlike such programs in that the relationship between the Advocate and student is more likely to be characterized as student-directed support based, solution-focused or student- (client-) centred counselling, which may be more remedial of students experiencing stress or difficulty. The outcome of such interventions is more likely to result in alleviation of the specific problem and associated stress. Measuring this would require a different set of outcome measures more relevant to the content of the discussions between advocate and student.

Two previously unconsidered explanations of the absence of effect are to do with the frequency of meetings and general effect of the program on the school. The frequency of the meetings has been noted as an important contributing factor. It was expected that the meetings would be once per fortnight (Ocean, 2001b) however, such regularity may not correspond to the needs of the student or the impact of the distressing event or issues requiring attention. Finally, the general effect of the program on the school may neutralize the effect of a specific advocate. That is, the existence of the program may generalize awareness and practice across the whole staff coincidentally, which extends the effectiveness of all staff and correspondingly diminishes the effect of the specific advocate on the student. This makes measuring the effect of a small number of advocates problematic.

The differences in the student cohort attending year 10 in one secondary college was sufficient to generate definition of two types of students, Adaptors and Stabilizers. These findings show that the ACQ meaningfully defines adolescent behaviour related to Self-esteem, Self-efficacy and School Life, which provides evidence of the potential effect of adaptive functioning and support factors. These findings also indicate the relevance of the theory of goal setting and
task motivation in schools, in line with Locke and Latham (2002). The level of adaptability of the students did not have a systematic influence on the students Mathematics or English scores or their Attendance. The difference between these two sets of dependent variables is that the former set is associated with the self in context and the latter set is an outcome and behaviour specific and related directly to school performance. The test, retest correlations showed that there was a low to moderate relationship indicating that the factors of the ACQ are not highly stable. The ACQ is therefore likely to be able to be readily useful in therapy and educational settings if used as a model of direct intervention that the participant may learn to manipulate for themselves.

There are a number of limitations of this study. Firstly, the sample was limited to a year 10 group in a regional college, so generalizing from this research is questionable. The number of respondents in the research reinforces this caution. The use of cluster procedure is advantageous to identification of typologies but is based on the group definition, which may vary from sample to sample, making generalizing from this research more questionable. Finally, the test- retest procedure measured the effect of the program immediately before and after the semester of the program. There may have been a residual or developmental effect in which the effect may have become apparent in the subsequent and further semesters.

Future research needs to attend to refining the aims and processes involved in the advocacy program. Introduction of specifically targeted behaviours would assist measuring effectiveness. Care would need to be taken not to reduce the informal nature of the program in so doing. Revision of the assumed elements of the program may also assist improvement of the program For example, more training of staff, limiting the aims of the intervention, clearer record keeping of aims and outcomes of students and greater emphasis on changing behaviour as well as focusing on support for, and buoyancy of, the student.

In reference to the ACQ, there is a need to replicate this research and develop a clearer understanding of the impact of informal use of, and direct teaching of the eight factors of the ACQ in an attempt to improve Self-esteem, Self-efficacy, and School Life. Attempting to improve Mathematics and English grade scores and Attendance from school is more likely to eventuate through direct intervention based on teaching the ACQ model.

In conclusion, this research provides insight into new ways of conceptualizing student support and measuring effectiveness of student support programs. It has assisted in refining the understanding of the effect of advocacy and the ongoing desire to improve the programs. It has differentiated the advocacy program from other mentoring programs and shown that specific forms of measurement are more likely to be advantageous in further refinement of such programs. The research has also demonstrated that the ACQ has merit and promise as a means of facilitating the self and may be useful through direct intervention
in enhancing student academic management and selfmanagement in future.

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# The Effect of Selection, Training, and Participation on Student Counsellor Self-description and Coping 

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#### Abstract

The aim of this research is to examine the effects of the selection and training of student counsellors. Previous research suggests that enhancement of self-esteem, relationships, and communication skills result from participation as a peer counsellor. In this research, peer counsellors $(n=20)$ were selected and matched with same age and sex peers ( $n=24$ ) from the same school. All participating students completed a pre-test and post-test, seven months later. It was expected that the counsellors would have higher scores on the selfdescription questionnaire and coping scales at time one due to the effect of the selection. It was also expected that the self-description and coping scores would increase due to peer support training and experience in relation with the comparison group. Between-subjects analysis at time one showed effects for a range of the self-description questionnaire and coping scales. Mixed-between-within-subjects ANOVA showed no increase for the counsellors or the comparison group over time. The implications will be discussed in reference to the peer counsellors, their training, and improvements to the program.


Counselling is widely accepted as a successful tool for helping individuals in their journey through life. Research suggests that while access to professional counsellors has increased, adolescents in particular are still more likely to turn to peers for help before seeking assistance from adult counsellors (Fallon \& Bowles, 1999; Rickwood, 1992). This has challenged professionals working with adolescents to diversify support services, provide alternatives, and to encourage increased access to professionals. Consequently, a number of practical programs have been developed and implemented, particularly within the educational setting, to provide support by utilizing the resources of adolescents (Douglas, 1998). Such programs have a long history informed by many influences. The purpose of current student support programs range from facilitating harmonious student relations and reduction of school related violence, to replacement of the more formal therapeutic counselling and tuition of students with difficulties learning. Such programs have their philosophical and practical origins in early mentoring programs which evolved from Intervention Assistance Programs that were designed to enhance collaborative problem solving, facilitate student compliance in the least restrictive environment, serve a remedial, preventative function, and follow an ecological view of student's problems arising from the environments in which
students live (Rathvon, 1999). Despite the variability of peer support and mentoring programs all such programs are based on, or conform to, the theory of social support which suggests that social support in the form of significant others, peers, or family members, mitigates the impact of adversity of stressful life events (Barrera, Chassin, \& Rogosch, 1993; Cohen \& Wills, 1985; Newcomb, \& Bentler, 1988).

Some mentoring programs are designed with adults as mentors (Roberts \& Cotton, 1994). When the mentoring is provided by students it has been defined as, "having two or more individuals willingly form mutually respectful, trusting relationships focused on goals that meet the needs and focus the potential of the mentee, while considering the needs of the mentor and the context in which they both function" (Kochan, 2002, p. p. 284). A subset of such mentoring programs are peer support programs and a subset of these are peer mediation programs. The former are to generally assist students in a mentee-centered fashion. The latter are more specifically designed to address the growing problem of disruptive and violent student behavior and to provide effective preventative programs to ensure school safety and increase appropriate student social interaction (Smith, Daunic, Miller, \& Robinson, 2002).
The evidence suggests that peer support programs are effective in assisting students (Forouzesh, Grant, \& Donnelly, 2001). Peer mediators describe the process as effective in assisting changes to the behavior of students who seek help (Gerber \& TerryDay, 1999). Research into peer counselling programs has shown that helpers also experience positive outcomes. Helping others has resulted in positive changes to self-esteem, relationships, and communication skills for helpers (Douglas, 1998). Student participants and student leaders, mentors, and mentees consistently articulate a range of benefits of peer programs (Forouzesh, Grant, \& Donnelly, 2001). However, two important questions have yet to be sufficiently answered related to mentor behavior. Firstly, are student counsellors different from, or similar to, the students that they seek to assist? Secondly, do students who act as mentors or counsellors gain from the training for, and experience of mentoring?

Results from a very large national survey of American student counsellors provided some insight into these questions. Eighty-five percent of the 862 students surveyed indicated that participation in the program had helped them at school and $72 \%$ indicated
that participation had helped them at home (Forouzesh, Grant, \& Donnelly, 2001). Specifically, participants reported improvements in friendships, class attendance, contribution to, and connection to school, communication with family and teachers, conflict resolution and decision-making. The students also reported a resistance to peer pressure, and greater propensity to refuse drugs, cigarettes, and alcohol as a result of involvement in the program. Such evidence suggests that involvement in peer programs is favorable.

By logical extension counselors would be expected to have different attributes of coping skills and selfperception compared with other students, prior to participating in the training to become a counselor. It would also be logical to expect that the student counsellors would increase their coping capabilities and strengthen their self-perception as a result of participation in the training program. Thus, the research will also examine the effects of counselling on the student's coping and self-description over time.

As yet there has been no known quantitative research using psychologically designed measures of coping and self-description into the experience of the student counsellor. This research will examine differences between students chosen for inclusion in a peer-counselling program as mentors, and students not participating in the program as counsellors. The research will also focus on the effects on coping and self-description for students who participate in a peercounselling program.

In summary, this research investigated the attributes of student counsellors at entry to participation in a program based on the Kids Help Line "Peer Skills" (Kids Help Line Program Peer Skills, 2003) prior to training. The focus of this research is not on the effectiveness of peer mentoring counselling but on the student counsellors. The absence of research into the experience of, and direct and coincidental benefit of, participation in student counsellor programs is the problem being addressed in this research. Particularly, the absence of fine grained information about the coping strategies used and the self-description of students trained as peer counsellors from the Australian context is the problem under consideration in this research.

The first general aim of this research is to establish whether the entry process into student counselling programs identifies students with particular characteristics appropriate to the task demands. That is, the Counselling and Training Group will have higher positive and lower negative frequencies of coping and rate factors defining their self-description higher. The second aim is to investigate the gain in coping and self-description for the Counselling and Training Group, as a function of participation in the training program. Therefore it is expected that the Counselling Group will have significantly more frequent positive coping and less frequent negative coping and rate their self-description higher at time two in comparison to the Comparison Group who are not expected to alter their frequency scores of coping and ratings of self-description from time one to time two.

## Method

## Participants

Forty-four secondary students (aged 12-17) at a private, single sex, male school in Melbourne, Australia, volunteered to participate in the research. Twenty of the students volunteered to be trained as peer counsellors (Counselling and Training Group) and completed the questionnaires. A further 24 students participated in the research as a comparison group and received no training but completed the questionnaires.

Students included in the Counselling and Training Group were selected in a two-stage process. The first stage required the students to nominate themselves or be nominated by other students to participate in the peer counselling training. During the second stage of the selection process the school counsellor and a teacher interviewed the nominated students. Students included in the Comparison Group volunteered to participate in this research after responding to ageneral request to students. The comparison group was matched on the basis of student sex and year level. Below is a table (Table 1) summarizing the data included for analysis in this research project.

Table 1
Distribution of Participants by Age and Comparison Group

| Year Level | $\mathrm{CT}^{1}$ | C | Total |
| :---: | :--- | :--- | :--- |
| 8 | 9 | 7 | 16 |
| 9 | 6 | 3 | 9 |
| 10 | 4 | 4 | 8 |
| 11 | 5 | 5 | 11 |
| Total | 20 | 24 | 44 |

Note: ${ }^{1}$ CT represents the Counselling and TrainingGroup; C represents the Comparison Group.

## Materials

Two psychometrically sound questionnaires defining psychological constructs were used in this research. The two questionnaires were the Adolescent Coping Scale (ACS; Frydenberg \& Lewis, 1993) and the SelfDescription Questionnaire II (SDQ-II; Marsh, 1990). The ACS is an 80 -item self-report inventory that assesses 18 different coping strategies. Scores on the scales of the ACS were standardized in line with the instructions of the authors (Frydenberg \& Lewis, 1993). Each item reflects a different coping response. All scales are reliable with alphas ranging from 0.54 to 0.85 (Frydenberg, 1994; 1999) with a median of 0.70 . For a comprehensive description of the coping scales development, see Frydenberg and Lewis (1993).

The SDQ-II (Marsh, 1990) is a 102 item self-report inventory that assesses three areas of academic selfconcept, seven areas of non-academic self-concept, and general self-concept. The coefficient alpha estimate of reliability for each SDQ-II scale is generally high, varying from .83 to .91 (median $=.87$ ) whereas the average correlation among the factors is modest (mean $r=.18$ ) (Marsh, 1990). The SDQ-II
measures distinct facets of self-concept, underscoring the utility of this questionnaire usefulness as both a clinical and research instrument (Marsh, 1990). For further information on the reliability and validity of the SDQ-II see Marsh, Relich, and Smith (1983), Marsh, Parker, and Barnes (1985), and Marsh and Hocevar (1985). For a comprehensive description of the SDQ-II development, scale and items see Marsh (1990).

## Design and Procedure

Testing occurred in three separate sessions. Two tests at the beginning of the first school term and one at the beginning of the fourth school term were completed. The pre-testing of the counselors was completed on the first day of the peer counselling training. The pretesting for the Comparison Group was held separately during school lunchtime. Post-testing was concurrent for the Counselling and Training and Comparison Groups at the beginning of term four. On all occasions of testing students were given verbal instructions in completing the questionnaires and the researcher and the school counsellor were present to answer questions during testing.

## Training

The peer counselling program run by the school counsellor was based on Kids help Line program "Peer Skills" (Kids Help Line Program Peer Skills, 2003). In line with the program the training is designed to enhance participant's natural helping skills by including consideration of values and attitudes; listening and responding skills, problem solving skills, self-care and information on the local health resource network, referral processes and understanding your limits.

## Results

Four of the ASC scores failed to meet standard tests of normality and were transformed. Analyses on both the transformed and untransformed data provided similar results so the untransformed item scores were used in the analyses. The means and standard deviations of the scale scores of the ACS at times one and two are represented in Table 2.

To test whether the expected difference between the Counsellor and Training Group and Comparison Group differed on scores of coping and selfdescription, a series of between-subjects analyses at time one were completed. The ANOVA tests showed significant effects wherein six of the 18 variables measuring coping were significantly different between groups. That is, the Counselling and Training Group was significantly lower rating on Seeking to Belong $\left(F(1,42)=5.59, p=.023, \eta^{2}=.12\right)$; Wishful Thinking $\left(F(1,42)=10.11, p=.003, \eta^{2}=.19\right)$; Not Coping ( $\left.F(1,42)=7.19, p=.01, \eta^{2}=.15\right)$; Social Action $\left(F(1,42)=4.44, p=.041, \eta^{2}=.10\right)$; Ignore the Problem $\left(F(1,42)=6.58, p=.014, \eta^{2}=.14\right)$; and, Keep to Self $\left(F(1,42)=15.09, p=.001, \eta^{2}=.26\right)$.

Table 2
Name, Means and Standard Deviations of the 18 Coping Scales Used

| Scale | Time 1 |  | Time 2 |
| :---: | :---: | :---: | :---: |
|  | $\mathrm{CT}^{1}$ | C | CT C |
| Seek Social Support | 59.00 | 55.33 | 53.8047 .50 |
| Focus-Solving the Problem | 67.00 | 65.17 | 63.4061 .33 |
| Work Hard and Achieve | 72.20 | 74.33 | 73.0071 .17 |
| Worry | 50.40 | 52.83 | 48.8050 .17 |
| Invest in Friends | 59.60 | 67.33 | 57.4063 .00 |
| Seek to Belong | 55.60 | 65.17 | 52.6058 .83 |
| Wishful Thinking | 49.40 | 65.00 | 50.2063 .50 |
| Not Cope | 36.20 | 48.33 | 34.2045 .83 |
| Tension Reduction | 49.00 | 44.64 | 43.3341 .00 |
| Social Action | 33.75 | 43.33 | 33.5035 .63 |
| Ignore the Problem | 45.50 | 56.04 | 44.7553 .13 |
| Self-Blame | 47.25 | 9.17 | 43.5053 .75 |
| Keep to Self | 48.00 | 65.20 | 51.5063.13 |
| Seek Spiritual Support | 32.00 | 42.50 | 33.0038 .33 |
| Focus on the Positive | 59.25 | 66.88 | 58.5062 .50 |
| Seek Professional Help | 40.00 | 42.92 | 39.5041 .87 |
| Seek Relaxing Diversions | 78.05 | 82.54 | 81.9082 .54 |
| Physical Recreation | 72.80 | 80.20 | 73.1576 .13 |

Figure 1 shows the standard scores of means for the six scales and indicates that the difference between groups was consistent across the six scales. The three coping strategies used most frequently by both groups were related to Belonging, Wishful Thinking, and Keeping to Self.


Figure 1
Standardized coping scores for the counselling and training group with the comparison groups at time one

Similar analyses were completed using the eleven scales measuring adolescent self-description. The scales were screened and all scales met criteria for normality and adequacy for the paired analyses. The means and standard deviations of the scale scores of the SDQ-II scales at times one and two, are represented in Table 3.

Table 3
Name, Means, and Standard Deviations of the Selfdescription Scales

|  | Time 1 |  | Time 2 |  |
| :--- | :---: | :---: | :---: | :---: |
| Scale | $\mathrm{CT}^{1}$ | C | CT | C |
| Math | 38.40 | 39.63 | 37.40 | 42.21 |
| Physical Appearance | 35.77 | 33.63 | 35.94 | 32.12 |
| General Self | 51.60 | 47.54 | 52.55 | 45.54 |
| Honesty-Trustworthiness | 47.74 | 40.04 | 50.15 | 43.29 |
| Physical Abilities | 39.80 | 37.58 | 39.00 | 35.58 |
| Verbal | 48.90 | 41.13 | 47.05 | 42.00 |
| Emotional Stability | 40.95 | 38.42 | 43.50 | 39.55 |
| Parent Relations | 41.00 | 35.33 | 42.00 | 36.13 |
| General School | 48.52 | 44.95 | 49.10 | 44.38 |
| Same-Sex Relations | 51.37 | 50.54 | 51.40 | 46.70 |
| Opposite Sex Relations | 38.85 | 36.21 | 37.65 | 33.54 |

Note. ${ }^{1}$ CT represents the Counselling and Training Group; C represents the Comparison Group.

Of the eleven scales, four were found to vary significantly between groups at time 1 (Figure 2). The Counselling and Training Group was significantly higher scoring than the Comparison Group on General Self $\left(F(1,42)=5.00, p=.031, \eta^{2}=.10\right)$; HonestyTrustworthiness $\left(F(1,42)=6.46, p=.015, \eta^{2}=.14\right)$; Verbal $\left(F(1,42)=7.53, p=.009, \eta^{2}=.15\right)$; and, Parent Relations $\left(F(1,42)=4.88, p=.033, \eta^{2}=.10\right)$.

To test whether the ACS scores varied as a function of the training and experience as a student counsellor, a mixed-between-within-subject ANOVA was completed using the 18 ACS scores. There was no effect involving time one and time two score for either the Counselling and Training or Comparison Groups. Similarly there were no interactions involving time and between group effects.


Figure 2
Self-description scores for the counselling and training group with the comparison groups at time one

To establish whether the SDQ-II scale scores varied as a function of the training and experience as a student counsellor, a mixed-between-within-subjects ANOVA was completed using the $11 \mathrm{SDQ}-\mathrm{II}$ scales. Effects were found in line with the tabulated findings (Table 3). Like the ACS there was no effect involving
time one and time two score when comparing the Counselling and Training Group and there was no interaction.

## Discussion

In summary, the findings show that as expected, there were significant differences between the Counselling and Training Group and the Comparison Group at entry to the program on 10 of the 29 scales considered. There was no change in coping or selfdescription as a function of participation in the program. These results will be discussed in turn.

The Counselling and Training Group used the coping strategies of Seeking to Belong; Wishful Thinking; Not Coping; Social Action; Ignore the Problem; and Keep to Self significantly less than the Comparison Group. None of the 12 other scales revealed a significant difference between groups at time one. Similarly, four of the SDQ-II scales were higher for the Counselling and Training Group suggesting that the process of selection identified a set of attributes that differentiated the groups. Closer analysis of the scales suggests that the selection criteria, whether unintended or by design, identified appropriate attributes for the counsellors. These attributes indicate a disposition in the counsellors favouring independence, rational thinking, problem, and solution focused behaviour, and a likelihood of discussing and working through presenting issues in preference to keeping them to oneself. Combining the SDQ-II scores broadens the profile of the counsellors indicating that they also reported that they were honest and trustworthy, verbally capable, and secure that is connected to school and parents more than the Comparison Group. Thus, the selection process of the students was successful in identifying students with a profile that could be considered appropriate for student counsellors.

It was anticipated that the Counselling and Training Group would use positive coping more, and negative coping less frequently, and have higher selfdescription scores at time one in comparison to the Comparison Group. It was expected that the Counselling and Training Group's self-description would be higher at time two in comparison to time one, and would be higher than the Comparison Group at time two. It was also expected that the Counselling and Training Group would use more frequently positive and less negative coping at time two in comparison to time one and in comparison to the Comparison Group. Some evidence for difference between groups at time one exists. No main effects or interactions involving comparison of scores at times one and two, were found.

While twelve of the eighteen coping scale scores were not significantly different, six factors did differ significantly between groups. Of these six scales, four different scales could be considered unhelpful to the individual when coping: Wishful Thinking, Not Cope, Ignore the Problem and Keeping to Self. This indicates that the Counselling and Training Group are using unconstructive means of coping less frequently than the Comparison Group, which does support the
expectations of difference between groups at time one.

Similarly, four of the eleven SDQ-II scale scores were different between the groups at time one. This shows that the Counselling and Training Group was more likely to consider that they were more honest, more expressive, maintained better relations with parents and a better attitude to school. These are dispositions appropriate for students advising others.

The differences between groups at time one on the coping and self-description scales gives some support for process used to select students counsellors which identified students with particular characteristics appropriate to the task demands. The counselors reported using unhelpful coping strategies less and viewed themselves as appraising situations and themselves more honestly, communicating more and maintaining better relations with parents and their school.

The expected difference between time one and two scores for the Counselling and Training Group was not found nor was the expected difference between groups at time two. What does it mean that there was no difference between time one and two for the Counselling and Training Group and between groups at time two? Does this nullify the noted value of such program from other research (Forouzesh, Grant, \& Donnelly, 2001). A number of explanations might elucidate the absence of the effects. Firstly, method effects are likely. Previous research (Forouzesh, Grant, \& Donnelly, 2001) shows that the programs are effective by asking direct questions about how programs are perceived to assist students. This is a very different approach to anticipating a gain in individual difference factors such as coping and selfdescription as a result of participation as a student counsellor. Secondly, such expectations may be unrealistic. Coping may be predicated on a stress and the Counselling and Training Group may not have been stressed or challenged to use or develop coping strategies. Thirdly, the training may not have internalized anything associated with coping or the self, but may have developed skills to assist others not the self. Fourthly, there may be a misconstrual and measurement of the wrong effect. That is, there may be no effect at the individual level but there may be at the school or community level requiring different measurement such as is appropriate for measuring the perception of the general effect of the program, for example, Forouzesh, Grant, and Donnelly (2001). Lastly, it may be explained as a special case of role effects. By that I mean that helpers help and give, they don't gain and to do so would reduce the authenticity of the process and the unconditional nature of the focus on the person requiring help. This last possible explanation fits with elements of the theory of social support (Barrera, Chassin, \& Rogosch, 1993; Cohen \& Wills, 1985; Newcomb, \& Bentler, 1988). Taken together, the research suggests that there may be no direct secondary gain for the individual participating in student counselling or helping programs other than knowing that a personal and generous contribution has been made. However, more research is necessary to establish this.

What is the best training for student counsellors and what skills, knowledge, and attributes do they need? Improvements to future student counselling programs may include the refinement of the aims of the program to include some anticipated change for the student counsellors. Increasing the focus of the program on coping and self-enhancing activities may increase the coping skills and self-description of counsellors. Providing time for training that is programmed and includes the development of skills, understanding, attitudes, and values associated with care of self and other would broaden the program. Specifically dealing with debriefing, vicarious experiences, self-regulation of behavior, and personal growth of the student counselor and the counseled person may also assist the development of counsellors. Limiting the range of experiences that student counselors are to address, and clearly defining the skills and processes within a problem-solving model for student counsellors to follow may coincidentally increase coping and self-description of student counsellors.

Although not of major interest in this research the difference between groups may be used to inform future planned educational programs wherein greater emphasis is given to enhancing students coping by using unhelpful coping less frequently. Enhancing the facility of students to be more honest and less defensive, more appropriately expressive, and maintain a more positive self in relation to parents and school would be positive.

The conclusions and recommendations from this research have to be regarded with caution, as there are clear limitations. There is a small sample size, restricted to one, single sex, school that reduces the generalizability of the findings. Similarly, the conclusions are based on two questionnaires that may not represent the best factors for consideration when measuring selection, training, and participation in such a program. There is also scope for further research to identify a model that best defines the attributes of the student counsellor. More research is required to identify whether there are secondary gains to be made by participating in such programs, both by designing them and coincidentally. Further research could also address whether there are differences that occur as a function of the sex of the students in the counsellor and the counselled person.

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# Client Satisfaction with Relationship Counselling 

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#### Abstract

While relationship counselling has been provided in Australia for over 50 years there has been little research that has investigated outcomes for couples who have received relationship counselling in real life settings. Participants were 316 heterosexual couples who attended counselling together at one of the 78 branches of a national Australian relationship counselling organisation. Participants completed telephone interviews with independent interviewers after their counselling had finished. Results showed that both men and women considered communication to be the most important issue discussed in counselling. Respondents also reported using various communication strategies to solve their relationship problems before seeking counselling, with women talking to a wider range of people than did men. Men who attended counselling with the same goal as their partner reported higher levels of satisfaction with counselling than men who had a different goal than their partner. Couples who were no longer living together when surveyed were significantly more likely to have come to counselling with different goals to their partner than couples who were still together. Results indicated that future research should examine couples' goals pre and post relationship counselling.


The current study evaluated outcomes for couples who had relationship counselling through a national Australian organisation. Such studies are rare. A meta-analysis of previous research into the efficacy of marital therapy (Shadish, Ragsdale, Glasner \& Montgomery, 1995) concluded that while marital therapy appeared to be at least as efficacious as other forms of psychotherapy, few such evaluation studies had been conducted in clinical settings. Vidler (2000) reviewed 30 evaluations of couples' satisfaction with counselling dating from 1995-2000 and found that only 3 of these studies were conducted in clinical settings. One of these studies (Hampson, Prince, \& Beavers, 1999) found that $92 \%$ of couples attending 3 or more counselling sessions experienced an improvement in their relationship. A German study which evaluated the effectiveness of marital counselling using pre and post measures found moderate improvement in marital satisfaction due to counselling, although the attrition rate was high with only $51 \%$ of the original group participating in posttreatment assessment (Hahlweg \& Klann, 1997).

In non-couple counselling research variables found to be associated with client satisfaction include: client and therapist reports of improved ability to handle presenting problems (Deane, 1993; LaSala, 1997); attainment of goals for therapy (Deane); counsellor qualities (Hampson, et al., 1999; Helmke, Bischof \& Ford Sori, 2002); and client expectations of counselling (Sanders, Trinh, Sherman \& Banks, 1998). Generally, clients who agree to participate in such studies report moderate to high levels of satisfaction and few differences in satisfaction have been found between male and female clients (Johnson \& Lebow, 2000). The high levels of client satisfaction typically reported have raised concerns about social desirability and acquiescence (Deane, 1993; Gaston \& Sabourin, 1992). Gaston and Sabourin did not find a significant relationship between client satisfaction and social desirability but did find a low, but significant, relationship between treatment length and satisfaction. While the question of how much therapy is effective depends on many factors (Shadish et al., 1995) this is an important issue where agencies are increasingly required to demonstrate effective client outcomes to secure ongoing financial support.
Research suggests that for clients in individual therapy, goal attainment is linked to client satisfaction (Deane, 1993). However, whether this applies to couples counselling in real life settings does not appear to have been investigated previously. The current research explored factors that influence client satisfaction with couple counselling in community settings within Australia. These included the issues couples considered important to discuss in therapy, strategies clients had tried to resolve their problems before attending counselling and their counselling goals, including the influence on satisfaction of whether or not couples attended therapy with the same goals. Gender differences were explored.

It was hypothesised that clients and their partners who have more shared goals/reasons before attending counselling would be more satisfied with the outcome of counselling than clients who have different goals/reasons than their partners for attending counselling.

## Method

## Participants

One hundred and fifty-eight male/female couples who attended counselling together and who both responded to the questionnaire participated ( $\mathrm{N}=316$ individuals). Clients were given a letter requesting their participation in the survey when they attended one of the agency branches over a six month period. They were asked if they were willing to be contacted by telephone after counselling had ceased and respond to questions about their experience of counselling. The mean number of sessions attended by participants in the current study was 4 , and $96 \%$ of participants attended for 10 sessions or less.

## Materials

The information sheet given to clients explained that their questionnaire responses would be confidential and anonymous. The purpose of the study was defined as an evaluation of outcomes, including their rating of the progress they had made on the issues that brought them to counselling. Clients were informed that the telephone survey would take around 10-15 minutes.

Questionnaire The questionnaire contained 52 questions including demographics such as age, gender and marital status. Clients were asked their main reason for attending counselling and whether they believed their partner attended for the same reason. They indicated from a range of nine strategies the ones they had used to sort out their problems before they contacted the agency for counselling and answered questions about what actually happened in counselling. Couples were also asked if they were still living together when contacted by the interviewer.
A 5 item Satisfaction with Outcome Scale (SWOS), based on La Sala (1997), was created to measure satisfaction with the counselling outcome. All were Likert-type items with responses ranging from 1 (very dissatisfied) to 5 (very satisfied). Two items asked clients how satisfied they felt: "Overall, how satisfied are you with the outcome of counselling?" and "Overall, how satisfied are you with the way counselling was carried out?" These items, as well as "How much do you think you have personally changed as a result of counselling?" "My experience of counselling has improved my ability to manage other relationship issues", "My experience of counselling will help me manage my relationships in the future" were summed to create the scale. Cronbach's alpha for this scale was .84 and the range of possible scores was $5-24$. The scale had a normal distribution ( $\underline{M}=17.88, \underline{\mathrm{SD}}=3.78$ ). Higher scores on the scale reflect higher levels of satisfaction.

## Procedure

Due to the sensitive nature of the study the questionnaire data were coded into a SPSS data file by an independent specialist research institute and then the file containing de-identified data was forwarded to the national community organisation.

## Results

Data were analysed using SPSS for Windows statistical package version 11.

## Importance of Issues Addressed in Counselling

Respondents were asked about the importance of 17 issues which may have been discussed in their counselling on a Likert-type scale from 1 (Not at all important) to 4 (Very important). For 5 of the 17 issues the mean response was over 3, indicating that these were perceived as the most important issues discussed. They were: Communication Issues ( $\underline{M}=$ 3.51; $\underline{\mathrm{SD}}=0.74$ ); Concerns about Closeness ( $\overline{\mathrm{M}}=$ 3.36; $\underline{\mathrm{SD}}=0.86$ ); Concerns about Commitment ( $\mathrm{M}=$ 3.20; $\underline{\mathrm{SD}}=1.00$ ); Parenting/Children's Issues ( $\overline{\mathrm{M}}=$ 3.15; $\overline{\mathrm{SD}}=1.00$ ); and Extra Marital Affairs ( $\overline{\mathrm{M}}=$ $3.03 ; \underline{\mathrm{SD}}=1.11$ ).

## Problem Solving Strategies Tried by Clients Prior to Counselling

Respondents were asked to indicate how many (if any) of nine problem solving strategies they had tried before coming to counselling. The frequency of "yes" responses for males and females are given in Table 1, together with chi square analyses examining gender differences.

Table 1
Frequencies for Problem Solving Strategies Tried Before Counselling with Gender Differences

| Strategy | Males | Females | $\chi^{2}(1)$ |
| :--- | ---: | ---: | ---: |
| Tried to talk to partner | 151 | 148 | ns |
| Tried to solve it myself | 143 | 152 | ns |
| Talked to friends | 58 | 109 | $33.27^{* *}$ |
| Read books/literature | 59 | 96 | $17.44^{* *}$ |
| Talked to family | 46 | 74 | $10.58^{* *}$ |
| Saw counsellor/psychologist | 43 | 70 | $10.08^{* *}$ |
| Went to a doctor | 36 | 55 | $5.59^{*}$ |
| Other agency | 11 | 22 | ns |
| Religious help | 12 | 20 | ns |
| ${ }^{*} \mathrm{p}<.05, *{ }^{*} \mathrm{p}<.001$ |  |  |  |

Table 1 shows that 'Tried to talk to my partner' and 'Tried to solve it myself' were strategies tried by almost all respondents. Of the remaining seven strategies, women reported trying five of them significantly more often than did men.

## Couples' Goals and Satisfaction with the Outcome of Counselling

Participants were given five possible reasons (goals) for attending counselling and were asked to indicate which one was the main reason for them. They were also asked whether they thought their partner's goal was the same as their goal. The goals were: "To improve your relationship"; "Discuss how to separate"; Decide about the future of your
relationship; Discuss parenting/stepparenting/children's issues"; and "Discuss personal issues around building relationships". Frequencies for the goals (reasons) couples gave for attending counselling are given in Table 2.

Table 2
Frequencies of Main Goal for Attending Counselling for Males and Females

| Variable | Male <br> $(\underline{\mathrm{n}}=158)$ | Female <br> $(\underline{\mathrm{n}}=158)$ |
| :--- | :---: | :---: |
| Improve relationship | 71 | 74 |
| Decide future of relationship | 40 | 33 |
| Personal issues | 22 | 24 |
| Discuss parenting | 13 | 14 |
| Discuss how to separate | 3 | 9 |
| Other | 9 | 4 |

Table 2 shows the most common goals were: 'Improve the relationship' and 'Decide future of the relationship'. Chi-square analyses showed no significant gender differences.

Inspection of the data indicated that while $77 \%$ of both men and women thought that their partner attended counselling with the same goal as themselves in fact only $46 \%$ of couples entered counselling with the same goal. Independent samples t-test were performed to examine gender differences in satisfaction with the outcome of counselling for these couples who had the same goal and couples who had different goals. The results are shown in Table 3.

Table 3
T-test Comparisons on Satisfaction with Counselling for Couples Commencing Counselling with the Same or Different Goals

Satisfaction with Outcome Scale (SWOS)

| Males | M | (SD) | $\underline{n}$ | $\underline{\mathrm{t}}$ (df) |
| :---: | :---: | :---: | :---: | :---: |
| Same goal | 18.29 | (3.24) | 107 |  |
| Different goal | 16.78 | (4.50) | 50 | $2.30 *$ (155) |
| Females |  |  |  |  |
| Same goal | 18.20 | (3.65) | 101 |  |
| Different Goal | 17.48 | (4.13) | 56 | 1.08 (155) |

*p $<.05$
Table 3 shows that the SWOS score for men in couples who had the same goal in counselling as their partner was significantly higher than scores for men in couples who had different goals to their partner in counselling. Similar comparisons for women were not significant

Taking couples who had agreed on goals of counselling compared to couples who did not agree, chi-square analyses were performed to examine whether there was a difference on whether or not they
had separated after counselling finished. Results are presented in Table 4.

Table 4
Chi-Square Analyses for Couples Together versus
Separated on Same Goals or Different Goals for Counselling

| Variable | Together |  | $\underline{\text { Separated }}$ |  | $\chi^{2}(\mathrm{df})$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | $\underline{n}$ | \% | $\underline{n}$ |  |
| Goal |  |  |  |  |  |
| Same | 50 | 105 | 36 | 39 |  |
| Different | 50 | 104 | 64 | 68 | 5.43 (1)* |

Results in Table 4 show that couples who were no longer living together were significantly more likely to have come to counselling with different goals than their partner compared to couples who were still together. Couples who were still living together had an equal distribution of same goals or different goals for counselling compared to their partner.

## Discussion

Communication was reported by $83 \%$ of both men and women as the most important focus of counselling. Concerns about closeness ( $75 \%$ ) were identified as next in importance. This finding suggests that teaching a couple how to communicate more effectively should be a major focus of couples counselling.
When asked about strategies tried before counselling commenced, most men and women said they had tried to talk to their partner and/or tried to solve the problems themselves, which again highlights the importance of developing successful communication strategies. Women reported that they were more likely than men to have talked to family, friends, a counsellor or a doctor, and to have read relevant literature. This would suggest that women may make more attempts to communicate with a range of other people about their relationship problems than do men; reasons for this difference should be explored in future research.
Results indicated that most couples attended counselling with the goal of improving their relationship or deciding the future of the relationship. While most couples believed they had the same goals for attending counselling, in fact $46 \%$ said they had different goals and participants did not appear to be aware of this discrepancy. Men in couples with the same goal were more satisfied with the counselling outcome although this was not found for women. Results also showed that couples who had separated since counselling had ceased were more likely to have come to counselling with a different goal to their
partner. Previous research on individual therapy has suggested that goal attainment is linked to client satisfaction (Deane, 1993). The current study findings suggest that similarity of goals for couples counselling is important for satisfaction with the outcome of counselling. This is an area therapists may need to focus on, perhaps investigating early in counselling whether couples share goals for counselling and working sensitively with couples who present with different goals. Research has shown that for couples to feel satisfied with counselling they need to feel that the needs and goals of both partners are addressed (Sells et al., 1996). Also, if couples attend counselling for different reasons, therapeutic interventions that articulate and clarify differences between the couple could still lead to satisfaction with the process if not the outcome (Stacey, Allison, Dadds, Roeger, Wood \& Martin, (2002).
Results showed that satisfaction with outcomes was related to commencing counselling with the same goals for men but not for women. It is not clear why this difference occurred and these differences should be further addressed in future research.
In conclusion, the current study provided a rare opportunity to examine couples data collected in a real-life setting. Nevertheless, data were only obtained from clients after counselling had finished. Future research should focus on pre and post measures of client outcomes in couples counselling. The high financial, emotional and social costs of relationship breakdown highlight the importance of ongoing research in this area.

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# Selves in contact: Multiple perspectives on the role of relationships in the life of the individual with Dissociative Identity 

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#### Abstract

This paper explores two main relationships which are significant to the individual with dissociative identity disorder (DID): the client -therapist relationship and the individual's relationship with significant others. By examining recent research on DID and analysing transcripts of interviews, discourses are identified that challenge the traditional assumptions concerning the therapist/client relationship and the capacity of those with multiple selves to establish meaningful relationships. They offer new ways of looking at the role and significance of relationships in the life of the individual with DI.


## Sitting on the fence

Come sit down beside me
I said to myself,
And although it doesn't make sense
I held my own hand
As a small sign of trust
And together I sat on the fence
(Michael Leunig)
People are described as having Dissociative Identity Disorder (previously known as Multiple Personality) if their lived experience is one of multiple selves or different identities (Kluft \& Fine, 1993; Rivera, 1996; Ross, 1997). Each of these multiple selves may function in thought and action as though they are the only self, being totally amnesic to the other selves, or may function as a 'group' when amnesia is not present between all parts.

Depending upon which theory you read, DID is either an extremely rare condition (Spanos, 1994) or is experienced by $1 \%$ of western populations (Kluft \& Fine, 1993; Ross, 1997). DID is understood to be a result of severe interpersonal trauma such as emotional, physical and sexual abuse from early childhood (Kluft, 1999; Rivera, 1996). The perpetrators are often those closest to the child, (i.e. parents, siblings, caregivers, family friends, or in some cases church and community groups). Given that dissociation is a common coping response to trauma, the word "disorder" in the label Dissociative Identity Disorder can be questioned. To avoid assuming "disorder", the term dissociative identity (DI) will be used in this paper.

In any exploration of DI, an understanding of interpersonal relationships is crucial. This paper explores two main relationships: the therapist-client relationship and the individual's relationship with significant others. The data were taken from two sources: (1) prominent clinical texts on the etiology and management of DI (Barach, 1994; Kluft, 1999;

Kluft \& Fine, 1993; Rivera, 1996; Ross, 1989, 1997) and (2) interviews with Australian participants in my PhD research project. The participants are people who experience DI and supporters, and therapists of a person with DI.
A search of the academic literature found very few references to the relationships of individuals with DI. In these few, the message was negative. For example, Chu (1998) suggests that relationships bring little gratification and perpetuate uncertainty and fear for the individual with DI, and Ross (1997) provides a very brief section on spousal relationships.

## Individual Views to DI

To introduce some of the interpersonal issues for a person with dissociative identity, I'd like to pose some questions to you. Look at the person sitting next to you. What if I tell you that this person is multiple? What does this mean to you? Does it mean they are mad? Or dangerous, like the infamous Dr Jekyll/Mr Hyde? Or delusional? Or making it up? Are they likely to be dysfunctional or unreliable or irresponsible?

People's responses to these questions range from the polarised position of viewing individuals with multiplicity as insane, dangerous, delusional, dysfunctional, unreliable and irresponsible through to sane, safe, functional, genuine, reliable and responsible. Some examples from my interviews:
"A lot of people I know think that my friends with DID are just crazy." (Terri, supporter)
"DID is not insanity; it is a normal reaction to an abnormal situation. We missed our opportunities to go insane as soon as we learned how to dissociate." (Sharon, DI)
"Well, I am not dysfunctional. In fact, I know I'm extremely functional." (Marta, DI)
"It is funny how many people either think DID is invented to keep from accepting responsibility or confuse us with schizophrenics." (Johanna, DI)
What framework are you using to answer the questions posed above? We are not taught how to relate to individuals who experience multiple selves. DI is invisible or kept secret. Most people seem to work with the accepted notion that everyone has a 'true' or 'core' self, "a self which is unitary, rational, consistent, and the origin of its own actions." (Neimeyer \& Raskin, 2000). We may say such things as 'part of me feels', but we see those parts as encompassing a unified whole. What we do learn of DI is often that which is promoted by the media, that is, that individuals with DI are crazy and dangerous.
"I think that a lot of the world's perspective is that if you have dissociation, you have a split
personality, and you have one that's capable of murder." (Rhonda, therapist, integrated DI)
Recently a mainstream movie 'Identity' (2002/3 release) portrayed exactly that image.

What are the implications of your particular positioning for how you would relate to a person with DI? You may decide not to relate to the person. If you do relate to them, will you acknowledge or reject DI? For example
"Well, it's a 'fad' thing to her, because what she actually said to me was: 'Oh, well, look, if you're going to go down that path, don't get me involve'." (Marta, DI)
Or will you believe their experience of DI but interpret their way of being as disordered and even sick?
"My husband was really quite willing to see me as mentally disordered. And that sort of, being under that gaze, it was quite horrific actually." (Anna, DI)
"I no longer have close personal friendships. It's impossible to sustain a friendship. Rejection of people with mental illnesses is alive and well. "(Hope, DI)
In contrast, in relating to the person with DI, will you try to learn about and understand their multiplicity?
"People fear what they don't understand so yes, gaining some true understanding of DID, of any disorder, problem, that doesn't fit 'normal' is vital for that group's safety and well being. I would love for people to have open minds about things they don't understand/or know about instead of prejudging." $(Q w y, D I)$
Whichever of these options you choose, several issues crucial to relationships with someone with DI must be taken into account. Safety and stigma are mentioned above. Another issue is trust. Do you trust your work colleague to remember what was said at the meeting and act on it? Do you trust your friend to mind your child?
"At first my best friend was terrified to leave her children in my care. "(Sharon, DI)
Another issue is who you relate to. Will you relate to all the parts or will you set boundaries and only relate to one or two? Will you request that certain parts come out to interact with you at certain times or will you just go with the flow of who is there at any given moment? Will you seek out parts that serve your purposes? A partner of an individual with DI, Laurie recommends that you
"Try and be aware if you are manipulating parts for your own purposes. That's a bit of a minefield!" (Laurie, DI)
"(For sex) my husband makes sure he is with an adult and not a child from our system." (Barbara, DI)

How will you respond if the parts don't behave as you had envisaged? What if some parts want nothing to do with you? This is a situation faced by Marta's partner Edward
"Before our son was born, it was more Matilda, one of the others, that was around and, yes Edward wants Matilda back. And now she's just not going to go with him." (Marta, DI)

Some of these relationship issues are shown in Figure 1. This pictorial representation only offers a glimpse of the possible relationship outcomes and does not cover all the factors involved in such complex issues.

## Knowing/Not Knowing: Relationship Impact

I actually made it easy for you at the beginning because I told you the person next to you was multiple. What if you hadn't known or what if they don't know now but are diagnosed later into a relationship with you? Do you have a right to know? Would it change how you related to them?
"I live in a tiny community. If I want to be totally isolated from all humanity, telling these people would accomplish all of that. "(Hope, DI)
"As for my family, they haven't changed their beliefs so I have decided not to have a lot to do with them (and definitely not tell them I have DID) for my own health and safety." (Qwy, DI)
The questions posed in relating to a person with DI are new, challenging and possibly confronting for many people. Unfortunately most people have only the negative attitudes from the media to inform their response. Researchers have not explored the issue.

## The Therapist and DI Client

To be nobody but yourself - in a world which is doing its best, night and day, to make you like everybody else means to fight the hardest battle which any human being can fight, and never stop fighting."
$\sim$ E.E. Cummings
What are the implications of DI for the person's relationship with their therapist? The same issues explored previously operate within the therapeutic relationship. The therapist can view their client's DI as dysfunctional or as simply further along a normal spectrum. Whereas the individual relating to a person with DI has little framework to base their responses on, the therapist has a wealth of clinical research (mainly North American) and the International Society for the Study of Dissociation (ISSD) treatment guidelines to inform their practice. The Diagnostic Statistical Manual (DSM-IV) presents dissociative identity as a disorder (DID). The ISSD treatment guidelines explicitly state that individuals require "symptom stabilisation", "control" of their behaviour and "restoration of functioning." (Barach, 1994).The assumption is that individuals with DI are unstable, out of control and dysfunctional. Indeed, dysfunction is assumed to the extent that, unlike other disorders such as schizophrenia, "diagnosis can be made in the absence of significant objective dysfunction" (Summerfield, 2001). The dominant discourse in the texts is also dysfunctionality:


Figure 1
Impact of multiplicity on relationship with other person
"In adulthood, now that the patient is removed from the precipitating traumatic situations, frequent and easily activated dissociation becomes a seriously maladaptive response to the normal stresses of life." (Putnam, 1989, p. 137)
Interviews carried out in my research with current Australian therapists, however, indicate a broad range of views with regard to disorder and dysfunctionality in people with DI.
"It was an effective way of coping with an overwhelming and un-copeable situation. It's a disorder in the sense that it is not an affective, functional way of dealing with life as an adult." (Lindsay, therapist)
"In terms of having, you know, a very functioning life, in terms of personal and business relationships, it's a huge detraction." (Robert, therapist)
"It's not a disorder; it's actually a response to a disordered thing that happens to them. It's not a 'disorder' in itself." (Lucy, therapist)
The dominant view within the clinical texts is that clients with DI are delusional, seeking attention, or even faking it, although this provokes frustration amongst some therapists and individuals.
"MPD is elaborate pretending. The patient pretends that she is more than one person, in a very convincing manner. She actually believes it herself. The alters are, put another way, devices." (Ross, 1989, p.109)
"I get frustrated with that concept of the medical profession or the psychiatric profession, the mental health profession, saying it's 'made up." (Fleur, therapist)
"But none of the current therapists believe I have DID" (Jessica, DI)
It is important to remember that much of the literature on dissociative identity is based on clinical samples and hospital-based research.
"There may be in the general population a large number of people with MPD who are highfunctioning, relatively free of overt psychopathology, and no more in need of treatment than most of their peers. They may not have abuse histories and may have evolved a creative and adaptive multiplicity. If these people exist, virtually nothing is known about them. " (Ross, 1989, p. 97)
In contrast to the dominant view of multiplicity equalling dysfunction, the therapists interviewed took a more non pathologising perspective; with many defining multiplicity as a different way of being (and in some cases taking the position that it was a normal way of being) rather than as psychopathology.
"They come to understand it as a healthy process, a reaction to what has happened in their lives and a protective process for them, okay? So I think that's quite useful for people." (Lucy, therapist)
"Everybody has parts, and we all talk to ourselves, we all argue with ourselves." (Lindsay, therapist)

## Goals and the Therapeutic Relationship

The position that therapists take with regard to DI impacts on what would be seen as the ideal goal(s) of therapy. Because the dominant discourse is that DI is dysfunctional, the texts focus on the issue of 'cure'. The goal - 'a script to order'- is generally seen as integration of the 'parts' into a unitary self. The relationship that arises out of such a medical focus is one of doctor and patient.
"The goal of treatment of MPD is not palliation. It is cure." (Ross, 1997, p. 204)
"She needs to integrate." (Ross, 1997, p.294)
"Integration as an overall treatment goal." (Barach, 1994)
Many of the interviewed therapists, however, mentioned that as they got to know their individual clients better, the concept of a standard goal of integration became questionable
"You see, one of the things, one of my big learnings with this is that no two people are the same, in terms of dissociation. I mean, I thought at first, yeah, multiple personality, I can get a handle on this, yeah, yeah, once I knew the nuts-and-bolts, then just put those in place, which books like Putnam kind of almost led you to believe." (Libby, therapist)
The individuals with DI and partners offered some alternate views to integration as well, suggesting that control and functionality were much more a focus.
"Yeah, in fact, you know, I like it this way. I don't want to change it. I don't want to be integrated. (but) I'd like to have some sort of more control." (Marta, DI)
"Provided I can function in society \& do what ever I set out to do (without negatively affecting myself or other people), then I see no reason not to keep my 'family'. I see no reason to integrate." (Qwy, DI)
"I guess it would be more functional though if the parts worked together as a team. Life would be much easier for her." (Laurie, partner)
So how do therapists position themselves in regard to the dominant discourse of integration espoused by the texts? The majority of the therapists interviewed consciously placed themselves outside this discourse
"I'm not clear in my mind that integration is necessary. I think once everybody's cooperating, that can lead to a functional person." (Libby, therapist)
Some of the therapists encapsulated their goals into words such as upgrading, cooperation, and control.
"The parts are all upgraded to 2003. That everybody's in the present time. That the person is able to engage in relationships, whether they be intimate sexual ones or friendship ones." (Fleur, therapist)
"I generally talk "cooperation", so the parts are actually working together for a common goal." (Libby, therapist)
"I'm aiming that the client has control over her own life and feels good about herself." (Lindsay, therapist)
The literature also instructs us to focus on the fact that the individual with DI is to be seen as one self.
"The more deeply parts of the individual connect with the therapist; the more important it is for the therapist to remember that the client is one person." (Rivera, 1996, p. 122)
"The patient's conviction that there is more than one person in her is a dissociative delusion and should not be compounded by a 'folie a deux' on the part of the therapist." (Ross, 1989, p.109)

What does this mean for the therapist's relationship with the client and the client's selves? The concept of one self sat well for only a couple of the therapists interviewed, eg Lindsay, while for Marta, an individual with DI, being discouraged from using the word multiple was confusing.
"I don't think of them as different personalities. I prefer the 'parts' language and when the parts all work well together, then it feels integrated." (Lindsay, therapist)
"The psychiatrist that I am seeing at the moment doesn't like me to use the word 'multiple. Well it makes me feel like I am making things up and its very confusing if someone says there is one me and it feels so obvious that there isn't. " (Marta, DI)
For some other therapists it meant positioning themselves in opposition to the traditional framework of one self, and working from within the client's framework.
"Validate who they are. Validate their experience. Appreciate it. I have tremendous compassion for these parts. "(Fleur ,therapist)
"I think the biggest thing I've found is that they're accepted for who they are." (Rhonda, therapist, integrated DI)
One of the individuals with DI saw this alternative positioning by her therapist as
"Well, it gave a chance for everybody to be... to be heard, and for everybody to tell the story as they are. And to understand what on earth had been going on. I was just so relieved and so joyous that somebody's hearing us!'" (Rhonda, DI)

## Therapist Knows Best

Within the medical/psychiatric field there exists an accepted dominant discourse that 'the therapist knows best.' The therapist is thereby given authority and power.
"Treatment will be a collaboration but not democratic. The patient is the patient and I am the doctor. We are not friends, and I am the only one getting paid." (Ross, 1997, p.302)
"Although the patients feelings and preferences need to be explored while devising and implementing a treatment plan, the therapist not the patient, ought to be the primary architect of the treatment plan." (ISSD guidelines, 1994, section IIIB)
"There's a real swing back to 'You are the therapist and you are the expert' that's what I've found quite confronting." (Lucy, therapist)
Interestingly, the majority of therapists interviewed positioned their clients as the experts, the ones who know best; a completely polarised view to the clinical texts. Some of the therapists did mention that early in their careers they too thought they were to be the expert, that this was expected from the clients. Almost all the therapists mentioned that the acceptance that they didn't need to know everything came with time and experience.
"The client's the expert on their life, and where they want to go. But they can use the tools that you can bring and show them." (Libby, therapist)
"You need to be secure about people, like who they are, and allow them to find who they are on their terms. They need your help but not your trying to give them your standards." (Rhonda, therapist)
For many of the therapists and individuals some important shifts occurred during the course of the therapeutic relationship. Therapists and DI individuals acknowledged that the relationship brought about a mutual process of growth and learning. Often the therapists remarked how they were in awe of the survival of their DI clients, of their skills, and their ability to remain 'human'.

## Responsibility

A separate issue that also impacts on the relationship between therapist and client is responsibility. What does responsibility mean to the therapist and to the client with DI? If the therapist holds to the notion of one self, how do they reconcile that their client may not be aware of some actions that the therapist then says their client is responsible for? What does this mean for the therapeutic relationship? The texts are explicit in their recommendation - and suggests that often clients will resist being responsible.
"Therapists ought to hold the whole person to be responsible for the behaviour of all the alternate personalities." (ISSD guidelines, 1994, Section IIIA)
"Initially, confrontation should be kind, firm, matter of fact, and incorruptible. Once it is clear that the patient understands what is required but behaves inappropriately nonetheless, more forthright confrontation may have a role. This may be especially forceful if the issue concerns cooperation with therapy." (Kluft, 1993, p. 43)
The therapists interviewed, however, found this to be a much more complex issue and none were able to give a definitive answer. For most, they felt it depended upon the situation, and the individual client.
"I mean, my basic understanding of life is that we're each responsible for ourselves. I'm not clear in my mind totally how responsible people are in terms of another part, you know. My critical self says: Of course they're ruddy responsible, they've got to get their act together and...But another part of me says: I don't know. You know, I see people doing things they're not aware that they've done that. So that the jury's out on that, I'm still not quite clear. (Libby, therapist)
In contrast, the individuals, perhaps surprisingly, had no such turmoil in relation to responsibility. All of them mentioned the need to take responsibility for all actions, regardless of which self committed the actions (and whether they had memory of the actions).
"I know one thing that is important to me is taking responsibility for my behaviour. And that is not easy to do sometimes especially if I don't remember saying or doing something."(Celine, DI)

## Being Multiple

What would happen if I now asked you to switch places? You now are multiple. How do you feel about being multiple?
"I'm in awe of it, (multiplicity as a way of being) absolute awe. My whole system is just so clever, it's wonderful. So imaginative and creative, I love it." (Rhonda, DI)
"I cannot tolerate having this disorder as nothing ever seems real." (Jessica, DI)
"Well, it's totally normal. It's just me, that's all I've ever known. "(Marta, DI)
How do you experience the world? Does it feel OK for you?
"I still find myself in "my own world" as I am told by the people in my life- but its safe there. " (Orion, DI)
"I think dissociative identity is very isolating in that it's not like something you put out there." (Anna, DI)
"I like being multiple! I don't like all the problems that can accompany having a dissociative disorder, but I like who I am, all of me." (Qwy, DI)
Is your being multiple OK for those around you? Are they able to relate to your other selves?
"I want him better, it is an extreme challenge to be supportive when sometimes I feel he has no control or makes little effort to communicate with the therapist, so we can take all necessary cautions to prevent an episode. It greatly affects me--it has turned life upside down."(Tina, partner)
"It makes life a bit of a roller-coaster. You can never take anything for granted because what is one day is often different the next. In some ways that makes life difficult but in other ways it keeps life interesting and ensures you never take your partner or the relationship for granted."(Laurie, partner)
"I don't have any proper confirmation from anybody saying, "Yes, it's okay to be like that. It's sort of like not even talked about." (Marta, DI)
How do you relate to your other selves?
"Firstly accepting their existence which is so obvious but has been rejected for so long and then honouring them by giving them time and beginning the connection"(Sharon, DI)
Who needs to change?
"Never lose sight of the fact that your partner is an individual above all. Get familiar with her ways!" (Laurie, partner)
"Well, I guess, what I, for me personally, I want to be whole. I mean, I don't have a problem with - if someone can live and function as a multiple." (Rhonda, therapist, integrated DI)
What about if for others your being multiple is ok? Does this help you? Do you feel ok, comfortable in the world?
"Thank fully I have met a few who can see that though I am DID I am not an idiot, mentally impaired, sick or in need of incarceration or an institution." (Tribe, DI)
"When I'm with people who understand it, I feel quite ok and normal. "(Marta, DI)
Whose world do you want to be in: the singleton or the multiples?
"You know what...I'm fascinated ...your own experience is the only way you experience the world I can't imagine what it would be to experience the world in a way other than my own. I didn't think
mine was different in the first place. Or that it could be different. It's a challenging thought. "(Anna, DI)

## Issues to Question

An analysis of the research and transcripts raises some important questions which impact on individuals with DI and their relationship to others and to therapists. Does the traditional view of dissociative identity empower or pathologise individuals' experiences?
"It's just ludicrous, there's no acceptance, there's no understanding, and people are treated not very well. So I can understand why they don't want to come out and say... yeah, and I can understand the levels of distrust and suspicion. "(Lucy, therapist)
Does the therapy offer space for clients to develop new forms of subjectivity or does it confirm them within positions of both being misunderstood and needing to hide their multiplicity.
"They're not listening to what is being said, for a start, and it's like turning it into nothing. Turning it into absolutely nothing. Again, that "You just don't exist." (Marta, DI)
"Psychiatrists just see it as a disorder. Something wrong with the person, that's as far as it ever goes. So you can see how difficult it would be for anyone with DID. " (Lucy, therapist)
Would it help if more therapists were willing to talk about their experiences with other therapists without fear of being isolated, or ridiculed?
"I think the biggest problem is the lack of education. Yeah. ...I think more therapists will then to actually expand their mind to understand that this exists, this is real, and you need to deal with it. Not brush it under the carpet or think: "Well, okay, I need to find someone, if this is what you have got, I need to find someone else to send you to." (Rhonda, therapist, integrated DI)


Figure 2
Multiple Interpersonal Relationships
Is there enough support and education available for partners and friends of individuals with multiple selves? What about the issues that many people with DI may not have relationships at all that often they may have had to cut off the family for safety reasons, they cannot trust potential friends due to past
experiences, and that often they are unable to make friendships due to stigma? Their other selves may also need befriending, both from the individual themselves and others outside.

Because most of the literature on DI is in the form of clinical case studies or quantitative reports, the experiential issues faced by the individual and the therapist are lost. This brief qualitative exploration demonstrates the complexity of a few of the many issues (i.e. trust, responsibility and knowing) that are involved in relating with an individual with DI. No longer can we assume a simple two-way relationship. Now we have multiple interpersonal relationships (Fig 2), each affected by the dominant discourses in society, the media, and if in therapy, the DSM-IV.

Individuals with DI are still required to 'hide' or pass as singletons, otherwise they are pathologised or seen as 'freaks'. By taking another perspective towards DI, and focusing more on the day to day issues, (i.e. coconsciousness, communication and cooperation between the selves; being able to work, relating to others), a different approach to therapy could also develop. Issues such as the partners involvement in therapy and the partners own needs and support are urgently in need of further exploration. The issue of children and DI parents is conspicuously absent from most dissociative literature. In that which is written, it is emphasised the individuals with DI should integrate before having children (Putnam, 1989).
There is no literature however which looks at this issue from an experiential framework. It is therefore of real importance to gain further insight to the issue of parenting. This was further emphasised to this author by the fact that the majority of the DI individuals in this paper had children who were totally aware of their parents DI, were quite okay with it, and as Rhonda (DI) mentioned "They were great. They were terrific." From the childrens' perspective it is important to find out what helped them understand, what did or do they find difficult, what do they think would be useful to know?

Other issues such as how the individual with DI deals with the loss of friends/ partners, and the everyday issues that we all face are also in need of further exploration from a qualitative framework. All of these questions help to create possible paths, our directions depend upon positions taken; the route we take is ours to choose. The way from here is to attempt a greater understanding by creating more room for research that describes the experiential world of DI.

## Summing up... from 'Kevin \& the crew'

"To answer some of your questions: I hold down an office job, where I work as a computer programmer and web designer. I'm also an artist. I have a driver's license and a car; I have friends, girlfriends, and a regular schedule of social events and contacts. I have a sense of humour, enough so that I'm infamous among my friends for my twisted humour and bad puns. (Is there any such thing as a good pun?) There are many things that I enjoy and have fun with. For all this, I don't know that I'll ever
be "fully recovered." I don't know that I need to be "fully recovered." One of my pet peeves with the mental health establishment in our culture is that we're all tied up with the concepts of illness, disorder and wellness. It's the assumption that if we're different, we are "wrong" and need to be "cured." In traditional Western psychiatry and psychology there doesn't seem to be a whole lot of room for just being "different" if that involves living outside the accepted parameters of "normal." It's taken me a long time and some hard struggles to reach this point, but more and more I don't look at myself as sick, crazy or "unwell." I try not to regard The Crew as a problem to be fixed (especially because I'm one of them!). This is just how I live, and I'm making the best of it I can. "

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# The Influence of Interpersonal Relationship on Conflict Resolution Style 

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#### Abstract

Sternberg and Dobson (1987) reported strong consistencies in conflict resolution style and widespread individual differences across conflicts involving various types of interpersonal relationships. The present study used the same 16 conflict resolution styles but reduced them to the four primary strategies of problem-solving, contending, conceding and avoiding postulated in the dual concern model (Rubin, Pruitt, \& Kim, 1994). Ratings were obtained for these strategies from 81 students in a course on the psychology of peace and conflict. Students recorded and rated conflicts with a parent or authority figure, with a same or opposite sex peer, and with a subordinate or younger sibling. Conceding was used significantly less than the other styles in conflicts with an authority figure or peer. In conflicts with a subordinate conceding and avoiding were both used significantly less than contending and problem-solving. There were low to moderate correlations for a single strategy across two relationship types, ranging from . 13 to .47. These results suggest that cross-situational consistencies in conflict resolution styles have been overestimated by Sternberg and Dobson, and they accord with the findings of Davidson and Biffin (2003) on the importance of contextual factors.


Sternberg and Dobson (1987) conducted three experiments to assess the consistency of conflict resolution styles across a variety of interpersonal relationships. They reported high levels of consistency across the various relationships, though correlations appear to have been elevated by correlating means, and the sample sizes of only 40 are somewhat problematic. Relationships included those with parents, same and opposite sex peers, teachers, room-mates and romantic partners.
One of the contributions of the Sternberg and Dobson research is to identify a list of 16 methods of conflict resolution that are frequently employed. These methods can be categorized into the more theoretically useful strategies of contending, problemsolving, conceding or avoiding in the dual concern model (Blake \& Mouton, 1964; Pruitt \& Rubin, 1986; Rubin, Pruitt, \& Kim, 1994). In the dual concern model these strategies are predicted to be more likely to be elicited in situations where concern for self and for the other are respectively high and low (contending); high and high (problem-solving) low and high (conceding); or low and low (avoiding).
A more recent study of levels of individual consistency by Davidson and Biffin (2003) found correlations between the four strategies based on the Sternberg and Dobson items and the same strategies measured by a specially constructed Dual Concern Model Questionnaire to be low to moderate, ranging between .09 for problem-solving and . 45 for
contending, with three of the four being statistically significant. That study, however, did not explore the effects of different interpersonal relationships.

In addition to finding this moderate degree of individual consistency in the use of conflict resolution styles, Davidson and Biffin (2003) also found substantial effect sizes for situations and the situation $x$ person interaction. Substantial interaction effects have been found previously in a number of other studies attempting to partition the response variance between personality and situational factors (Endler \& Hunt, 1966, 1968; Moos, 1969).

If contextual factors such as relationships are included as part of the situation effect it becomes important to explore more thoroughly the effects of different relationships on the choice of conflict resolution styles. The purpose of the present study was to extend the Sternberg and Dobson work by including relationships with subordinates or younger siblings as well as with parents and peers, then comparing mean levels of strategy use across the different types of relationship, and assessing by correlations the consistency of use of each strategy between pairs of relationships.

## Method

## Participants

Participants for the study were 81 second or third year undergraduate psychology students ( 72 female, 9 male) enrolled in a unit on the psychology of peace and conflict.

## Materials

Instruction sheet for recording conflicts Instructions included describing conflicts with a same or opposite sex peer, a parent or authority figure, and a younger sibling or other person over whom the participant was exercising some degree of authority. A conflict was defined as any interpersonal interaction in which the person did not feel OK, or was conscious of having incompatible wishes or aspirations with those of another person where it appeared both could not be fulfilled.

Scoring Instructions and Recording Sheet The scoring instructions included a list of the 16 methods of conflict resolution with definitions as used by Sternberg and Dobson (1987). The sheet also provided a rating scale with scores of 0 (not at all) to 10 (high) for the use of each method. Any number of methods could be rated for each of the three conflicts.

## Procedure

Participants wrote down a conflict of each type in which they had been personally involved and then
scored the conflicts themselves using the scoring instructions and recording sheet provided.

## Results

The 16 conflict resolution methods were grouped into the following categories representing the four basic strategies:

Contending: Economic action, physical force, undermine, withhold support, manipulate, verbal force, confrontational discussion;

Avoiding: Wait and see, avoidance, separation;
Conceding: Accept, back down, give in;
Problem solving: Third party, bargain/compromise, mutual discussion.

The score for each strategy was determined as the maximum score of any of the methods falling within that category. The .05 significance level was used for all statistical tests, unless otherwise specified.

## Differences in Strategy Use

A repeated measures analysis of variance was performed with the factors strategy with four levels (contending, problem-solving, conceding, avoiding), and type of conflict with three levels (parents, peers, subordinate). As shown in Figure 1 there was a significant interaction between strategy and type of conflict, $F(5,313)=5.87, \mathrm{p}<.001$, following a Greenhouse-Geisser correction to the degrees of freedom. Follow-up tests for the three relationships showed that for authority figures the only significant difference was between avoiding, the most-used strategy, and conceding, the least used. For peers conceding was used significantly less than all three other strategies which were not significantly different from each other. For subordinates contending and problem solving were both used significantly more than avoiding or conceding. The remaining differences were not statistically significant.

## Consistencies in the Use of Particular Strategies

To assess the degree of consistency in the use of strategies across different types of conflict correlations were determined for the use of each strategy across the different pairs of relationships. The results are shown in Table 1. The conflict resolution strategy which had the highest level of consistency was contending with correlations of .41 to .47 across the pairs of relationships. Next highest was problemsolving with correlations of .24 to .42 . The only significant correlation for conceding was .42 between conflicts with peers and subordinates. There were no significant consistencies in the use of avoiding across pairs of relationships.

## Discussion

The finding of a significant interaction between the type of interpersonal relationship and choice of conflict resolution strategy is consistent with the importance of contextual or situational factors in influencing the use of particular methods of conflict resolution (Davidson \& Biffin, 2003). The finding
also complements the work by Sternberg and Dobson (1987) by showing that the participants in this study handled conflicts with subordinates differently from those with parents or peers by a substantially lower use of avoidance.

Conceding was uniformly the least used conflict resolution method. The use of the other three methods was not significantly different for parents or peers, though avoidance was admittedly the most used in conflicts with parents.

In relation to consistencies in the use of particular conflict resolution strategies across conflicts involving different interpersonal relationships, the results qualify rather than negate the findings of Sternberg and Dobson (1987). The correlations are lower, being based on individuals as opposed to group means, but they are still moderately high for contending across all pairs of relationships. Low to moderate correlations were obtained for problem solving and conceding. Only in the case of avoiding were all the correlations non-significant. Avoiding is the most problematic of the conflict resolution strategies, and often yields inconsistent results within the framework of the dual concern model (Davidson \& Biffin, 2003).

In terms of general social relevance two other questions emerge from a consideration of the results. Given that problem solving is the method most likely to lead to a mutually beneficial solution, why has it not been adopted as clearly superior to dominating across all of the relationships in which the present participants have been involved? Secondly, why is it that conflicts with parents are currently characterized by the use of avoidance rather than problem solving as the most typical method of resolving conflict?

There is an accumulating body of evidence that conflict resolution skills related to communication and problem solving can be successfully taught (Davidson \& Wood, 2004), and that they are particularly effective when integrated into an institutional culture that fosters cooperation and respect for diversity (Coleman \& Fisher-Yoshida, 2004; Johnson \& Johnson, 2004). These findings now need to be reevaluated and applied in family and educational settings. A child who grows up without learning how to listen, or to be able to express a contrary view without blaming, or who cannot work through a disagreement with someone else to produce a mutually beneficial outcome is as socially deprived as a child that has never been taught to share.
Resolving a conflict with a parent or authority figure presents the added difficulty of a power differential. In a recent study based on a workplace problem, Davidson, McElwee, \& Hannan (2004) found that while trust in a relationship had direct and indirect effects on satisfaction with outcome, being in part mediated by the use of the problem solving strategy, the effect of power was direct, and reduced outcome satisfaction irrespective of strategy choice. In this regard approaches to parenting that build on mutual respect and good communication are clearly advantageous in facilitating constructive adult relationships (Wood \& Davidson, 2003).


Figure 1
Ratings for mean conflict resolution strategy use for each relationship

Table 1
Correlations for ratings of strategy use between pairs of interpersonal relationships

| Strategy | Relationship |  |  |
| :--- | :--- | :---: | :---: |
|  | Parent-Peer | Parent-Subordinate | Peer-Subordinate |
|  | $\mathrm{N}=76$ | $\mathrm{~N}=62$ | $\mathrm{~N}=63$ |
| Problem Solving | $.25^{*}$ | .24 | $.42^{* *}$ |
| Contending | $.43^{* *}$ | $.41^{* *}$ | $.47^{* *}$ |
| Conceding | .14 | .20 | $.42^{* *}$ |
| Avoiding | .13 | .25 | .17 |

* $\mathrm{p}<.05$, ** $\mathrm{p}<.01$

In conclusion the study has demonstrated the importance of interpersonal relationships in the determination of conflict resolution strategy. Future studies might profitably attempt to characterize these effects and relationships within a broader theoretical context such as social interdependence theory (Johnson \& Johnson, 2003).

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# Do Adolescent and Parental Perceptions of Interparental Conflict Differ? 

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#### Abstract

Research indicates adolescent adjustment problems are associated with high levels of interparental conflict. This study examined parents' and adolescents' perceptions of interparental conflict and the relationship of these perceptions to adolescent adjustment through a survey of adolescent secondary students and their parents. Sixty-two adolescents and 62 parents participated in the study. Adolescents completed three self-report measures of psychological adjustment, a demographic questionnaire and the Consensus and Cohesion subscales of the Dyadic Adjustment Scale (DAS). Parents completed the same subscales of the DAS and a demographic questionnaire. There were no significant differences between the levels of interparental conflict perceived by adolescents and parents. However, adolescent perceptions of interparental conflict were a better predictor of adolescent psychological adjustment when compared to parental perceptions of conflict. The results of this study emphasise the importance of adolescent perceptions of interparental conflict, and provide support for both parental and adolescent reports of family functioning to be taken into account in future clinical studies.


The link between interparental conflict and adolescent maladjustment was established in the divorce literature of the 1970s (Emery, 1982). The examination of such conflict in the family environment led to the consensus that interparental conflict was more detrimental to adolescent adjustment than a divorced family structure (Emery, 1982; Forehand, Long, \& Brody, 1988; Forehand, Thomas, Wierson, Brody, \& Fauber, 1990; Lussen, 1988; Mechanic \& Hansell, 1989; Neighbours, Forehand, \& Bau, 1997).
Interparental conflict has been associated in the literature with several different expressions of adolescent psychological health issues, including social withdrawal (Forehand, McCombs, Long, Brody, \& Fauber, 1988), lowered self-esteem, lowered self-perceived competence, increased anxiety, less internal control, and higher levels of anger and aggression (Enos \& Handal, 1986; Kelly, 1998; Mechanic \& Hansell, 1989), increased maturity, pseudoadolescence, and increased vulnerability (Lussen, 1988; Wallerstein \& Kelly, 1976), depression and physical symptomatology (Kelly, 1998; Krishnakumar \& Buehler, 2000; Mechanic \& Hansell, 1989), and poorer academic functioning and problem solving skills (Long, 1987). Such research has concentrated on associating adolescent psychopathology with interparental conflict using
parental reports of interparental conflict. Hence, it is parental perception of interparental conflict that has been associated with adolescent psychopathology rather than adolescents' perceptions of such conflict.

It is argued in this paper that consistent with clinical practice, research into family functioning needs to take into account adolescents' perceptions as well as that of the parents. The majority of studies on family conflict focus on parental perceptions, and do not assess adolescents' or children's points of view.

Greater understanding of the perceptions of conflict of both parents and adolescents will lead to better understanding of the choice, and successes, of different types of coping strategies employed by adolescents. For example, it is possible that adolescents perceive interparental conflict as being severe in a situation where parents rate conflict as being low. The volume of an argument might be a key indicator of conflict to an adolescent irrespective of the content. In contrast, parents may perceive the content of an argument to be a more significant indicator of the level of conflict intensity. Adolescents uncomfortable with emotional expression may perceive any type of high emotional expression to be conflict, whereas their parents may be engaging in this behaviour to effectively deal with disagreements. Further, emotional expression in the family is a predictor of illness outcomes in psychological disorders (Van Humbeeck, Van Audenhove, De Hert, Pieters, \& Storms, 2002). Past research has found that level of hostility, presence of physical aggression, and children's age are the best predictors of children's appraisals of interparental conflict (Grych, 1998).

Few studies have investigated differences in perceptions held by adolescents and their parents, particularly in relation to interparental conflict. Much of the research conducted on perceptions of family conflict has been focused on younger children, older adolescents and/or has relied on different conflict measures for parents and adolescents (Aquilino, 1986; Grych, 1998; Grych, Seid, \& Fincham, 1992; Joshi, 2001; Tschann et al., 2002). Young adolescent perceptions of interparental conflict have contributed unique variance to adolescent adjustment beyond what was accounted for by parental reports of conflict (Wierson, Forehand, \& McCombs, 1988). Other studies that have assessed only the influence of interparental conflict in adolescents have relied on parental reports of conflict (Neighbours et al., 1997), while those that have assessed both adolescent and parental perceptions have relied on non-standardised measures of conflict assessment (Harold \& Conger, 1997).

Both adolescent and parental perceptions of body image and the family environment have been investigated in eating disorders research. Congruence between mother and daughter perceptions of body image was assessed by Rupp and Jurkovic (1996) within the families of bulimic daughters and control families. Bulimic daughters were less able to predict how their mothers would describe their personality than were daughters in the control families. Further, the descriptions that mothers of bulimic daughters gave of their daughters were significantly different to their daughters' self-perceptions. Similar misperceptions have been found by Geller, Srikameswaran, Zaitsoff, Cockell and Poole (2003) in body image ratings provided by adolescent daughters and their parents. Greater discrepancies between parents' and daughters' ratings of daughters' feelings about their bodies were associated with greater levels of daughter body dissatisfaction. Daughters who were most unhappy with their bodies had parents who were not aware of their daughters' feelings regarding their bodies. Thus, in eating disorder research, a lack of congruence in parental and adolescent perceptions has been associated with mental health issues in adolescence. The eating disorder literature emphasises the importance of different perceptions between parents and adolescents, and the importance of such perceptions in relation to mental health. It is also possible that differences in adolescent and parental perceptions of interparental conflict also exist, and may produce different associations with adolescent mental health

Existing literature in interparental conflict has been limited by a reliance on parental perceptions of conflict, the effect of conflict on children rather than adolescents, and the use of separate conflict measures for parents and adolescents. The present study investigated the relationship between parental and adolescent perceptions of interparental conflict and adolescent adjustment using the same standardised conflict measure. It was hypothesised that adolescent perceptions of conflict would be more important to adolescent adjustment than parental perceptions of conflict.

## Method

## Participants

Adolescent participants and one of their parents were recruited from two independent secondary schools. Sixty-two adolescents and 62 parents participated in this study. Each adolescent participating in the study was aged between 14 and 16 years, and was in either Year 9 or Year 10 in secondary school. Mothers comprised $89 \%$ of the parent population, while $11 \%$ of fathers participated. Adolescents and parents were predominantly from an Anglo-Saxon background in a middle class area of Melbourne, Australia. Of the adolescents, $58 \%$ were females and $42 \%$ were male ( $M=14.5$ years, $S D=0.6$ ).

## Measures

Adolescents completed three self-report measures of adjustment: the Coopersmith Self-Esteem Inventory
(Coopersmith, 1967), the Nowicki-Strickland Locus of Control Scale (Nowicki \& Strickland, 1973), and the Comprehensive Quality of Life Scale for Students in Grades 7-12 (Cummins \& McCabe, 1994). The adolescents also completed a demographic questionnaire and the Consensus and Cohesion subscales of the DAS (Spanier, 1976). All measures have sufficient reliability and validity (Cummins \& McCabe, 1994; Nowicki \& Strickland, 1973; Omizo \& Omizo, 1988; Robinson \& Shaver, 1975; Spanier, 1976). The three separate self-report measures of selfesteem, locus of control, and QOL were aggregated to provide an indication of adolescent adjustment. Parents completed the same two subscales of the DAS and a demographic questionnaire. The information obtained from the demographic questionnaire related to age, gender, and absence of significant family members from the family home. Parents were also asked to estimate the household's current income.

## Design and Procedure

Students in their middle years of secondary education and their parents were invited to participate in the study. These students were recruited from two independent secondary schools in metropolitan Melbourne, Australia. Participation was required from an adolescent and a parent in each family.

In order to include single parent families, only one parent from each adolescent's family was required to participate. Parents were asked to complete the shortened version of the DAS. The instructions on this measure stipulated that the questionnaire was to be answered according to the present situation between the adolescents' parents, irrespective of whether these parents were living together or were separated/divorced. This is because interparental conflict has been found to be detrimental to adolescent health regardless of family structure (Wallerstein \& Kelly, 1980). After the researcher received the completed and returned parent questionnaires, adolescents completed the four selfreport measures during school hours.

## Results

Adolescents perceived more extreme levels of interparental conflict (score range $=25.00-82.00, \mathrm{M}=$ $60.62, \mathrm{SD}=11.85$ ) than did their parents (score range $=40.00-76.00, \mathrm{M}=61.76, \mathrm{SD}=7.71$ ), as indicated in the greater score range and standard deviation of adolescent perceptions of conflict. A one-way analysis of variance revealed no statistically significant differences between the amount of interparental conflict perceived by adolescents or by parents, $\mathrm{F}(1,115)=.38, \mathrm{p}>.05$.
Initial investigation suggested a significant relationship between adolescent perceptions of interparental conflict and parental perceptions of interparental conflict ( $\mathrm{r}=.43, \mathrm{p}=<.001$ ). There was a stronger relationship between adolescent perceptions of interparental conflict and adolescent health ( $\mathrm{r}=.41$, $\mathrm{p}=<.01$ ) than there was between parental perceptions of conflict and adolescent health $(\mathrm{r}=.20, \mathrm{p}>.01)$.

The aim of the present investigation was to examine adolescent perceptions of interparental conflict and parental perceptions of interparental conflict and their relationship to adolescent psychological adjustment. To examine this, a standard multiple regression analysis was performed. The model using adolescent perceptions of conflict ( $\beta=.45, \mathrm{p}=<.01$ ) and parental perceptions of conflict ( $\beta=-.08$ ) as predictors explains a significant proportion of adolescent adjustment ( $\mathrm{R} 2=.17, \mathrm{p}<.005$ ) as indicated by the significant F-ratio, $\mathrm{F}(2,48)=5.08, \mathrm{p}<.01$.
To test for the unique contributions of adolescent perceptions of interparental conflict, $\mathrm{sr}^{2}$ significant contributions were calculated. Of the two independent variables, adolescent perceptions of interparental conflict was the only variable that contributed significantly to adolescent adjustment ( $\mathrm{sr} 2=.40$ ). Parental perceptions of conflict did not contribute significantly to adolescent adjustment ( $\mathrm{sr} 2=-.08$ ). The two variables in combination contributed another .01 in shared variability. In total, $17 \%$ of the variability of adolescent adjustment was predicted by knowing adolescent and parental perceptions of interparental conflict. The results of this standard multiple regression suggest that adolescent perceptions of interparental conflict are a better predictor of adolescent health than are parental perceptions of interparental conflict.

## Discussion

Adolescent perceptions of interparental conflict were found to be a better predictor of adolescent adjustment than were parental perceptions of interparental conflict. However, adolescent and parental perceptions of interparental conflict were not significantly different.
These results suggest that there is little rationale for the sole reliance on parental reports of conflict and/or adolescent health in earlier studies of adolescent functioning. Perhaps in the past, parental reports of adolescent functioning were thought to be more objective than adolescent self-reports. Alternatively, parental perceptions of the family environment may have been assumed to be similar enough to adolescent perceptions of the family environment (Neighbours et al., 1997). The results of this study suggest that adolescent perceptions of the family environment may be more important than parental perceptions of the family environment in predicting adolescent psychological adjustment. The importance of adolescent perceptions of conflict is consistent with Wierson et al. (1988) who also found that adolescent perceptions of conflict contributed unique variance in the prediction of adolescent adjustment.
Careful examination of the data suggests that adolescent perceptions are more extreme when compared to parental perceptions, even though both are moderately correlated. Parents and adolescents reported similar levels of conflict when analysed as a group, as indicated by non-significant differences in the group data of parents and adolescents. However, important information can be drawn from the individual differences within the adolescent group, with more variation in the level of discord reported by
adolescents. The increased variation in the results of the adolescents does suggest that there were individual differences in what parents and adolescents reported. However, these differences were not large enough to produce a statistical difference in the group data. The individual differences between what parents and adolescents reported may have been a result of adolescents having different perceptions of, and attributing different meanings to, the same event experienced by themselves and their parents.

Differences in adolescent-parent perceptions are not unique to interparental conflict. They have also been found in body image perceptions of parents and adolescents in families where a daughter had been diagnosed with an eating disorder (Geller et al., 2003; Rupp \& Jurkovic, 1996). These studies also provide support for the idea that sole reliance on parental perceptions of the family environment may not provide an accurate picture of the actual amount of conflict present in the family. The findings of the current study add to the literature emphasizing the importance of collecting both parental and child perceptions of family environment or specific psychological disorders such as bulimia nervosa.

The perceptions of a stressful event are related to its impact on an individual (Grych \& Fincham, 2000). If adolescents perceive more or less interparental conflict than their parents, or associate it with a different meaning, it could explain why adolescent reports of conflict are a better predictor of adolescent psychological health. Grych and Fincham (1993) suggested that children's perceptions of the threat posed by conflict, their ability to cope effectively with conflict, and attributions regarding the cause of conflict were particularly important for shaping emotional and behavioral responses. Neighbours and colleagues (1997) also suggested that the young adult's perspective of interparental conflict may be most pertinent to his or her functioning. Future studies could investigate adolescents' appraisals of perceived conflict and their attributions regarding its cause.

The findings emphasise the importance of adolescent perceptions of interparental conflict. It is common practice for clinicians to take into account differences in perceptions of the family environment during assessment. The results of this study provide support for this practice, but research continues to rely largely on parental reports of conflict. The current results provide support for both parental and adolescent reports of family functioning to be taken into account in future clinical studies. These results may also be of interest to those developing assessment guidelines in child protection and community services policy.

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# Theoretical Frameworks for Relationship Transitions and the Predictors of Successful Transitions 

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#### Abstract

Increasing rates of divorce and a decline in the traditional marriage for life is seen particularly in the X-generation (1961-1976). Yet a return to traditional marriage values has also been found in the younger Y generation (1976-1991). Both X and Y - generation have high hopes for the future of their relationships. Despite the various trends towards and away from long term relationships, there is an increasing incidence of transitions, both within relationships and between relationships. Individuals must become increasingly sophisticated in relationship knowledge, skills and attitudes if they are to negotiate these changes successfully. Transitions are considered from four theoretical bases: social constructionism, attribution theory, attachment theory and theories of loss and renewal. A review of the literature reveals the main factors required for the success of long term relationships as well as successful transitions between relationships. Communication training is perhaps the one skill found universally in marital therapies, yet requires ongoing qualitative research to identify the factors that couples find improves their communication. Finally, suggestions are made for future research and approaches to relationship counselling.


Globalisation, and an accelerating pace of technological and social change has brought with it increasing rates of divorce and a decline in the traditional marriage for life. This is particularly seen in the X-generation (1961-1976) (Bumpass, Sweet, \& Martin, 1990; Glick, 1989; Martin \& Bumpass, 1989). Yet a return to traditional marriage values has also been found in the younger Y-generation (1976-1991). Both generations have high hopes of relationships and marriage as the foundation of their future happiness. Yet the expectations of these generations do not match actual experiences. Research shows that these relationships will probably not last and provide a future foundation (Arnett, 2000; Larson, Wilson, Brown, Furstenberg \& Verma, 2002). The divorce rate of first marriages in the USA has increased to $52 \%$ and for second marriages is $10 \%$ higher (Goldberg, 2003), making relationship transitions a major social issue.

Despite the various trends towards and away from long term relationships, there is an increasing incidence of transitions, both within relationships and between relationships. Yet there continues to be a lack of research on the process that adults traverse when making transitions between significant relationships, particularly when re-establishing intimate relationships after divorce (Schneller, 2003). Longitudinal research has shown how marriages also change over time (Goldberg, 2003). 'Success' in long
term relationships is here defined as one in which a couple is highly satisfied over longitudinal time, (Lerner, 2003). 'Success' in transitions between relationships, is here defined as leading to personal growth (Schneller, 2003). Thus transitions within and between relationships require individuals to become increasingly competent if they are to negotiate these changes successfully.

Romantic relationships have a significant impact on adult development and adaptation; 'developmental trajectories are enmeshed with relationship trajectories' (Laursen, 1997, p. 641). Following Freud (1905/1962, cited in Schneller, 2003), both Erikson (1950, cited in Schneller, 2003) and Sullivan (1953, cited in Schneller, 2003) created elaborate theoretical frameworks where psychological competencies were organised according to social tasks and interpersonal relationships. Erikson's influential theory of life tasks over the life time found the pursuit of intimacy and identity especially important during later adolescence. The task to achieve intimacy is particularly important to young women yet the task to achieve identity goals such as tertiary qualifications and career, can present a conflict. Facing a new life task involves making a transition into a new life period and anxiety and conflict is associated with this (Cantor, Acker, \& Cook-Flannagan, 1992). Hence relationship transitions have a significant impact on individuals.

## Theoretical Frameworks

Recent literature has begun to discuss the complex transition through divorce and the establishment of post-divorce relationships. Much of the research on adjustment to divorce operationalises a stress and coping framework and focuses on the distressing aspects, such as loss of social and financial structures, which applies mostly to initial stages of divorce. Recent findings show that individuals eventually adjust better to divorce depending on their personal perceptions and formation of new relationships (Ross, 1995; Wang \& Amato, 2000). Yet research still neglects to explore the process by which individuals move from martial breakdown to new relationships (Schneller, 2003). Schneller (2003) conceptualised divorce as an emotional and cognitive process that can potentially promote individual development and renewal. Research that does extend analysis beyond the initial stages of stress focuses on the structures of new marriages and families. Notable exceptions include Furstenberg \& Spanier (1987) who found that divorced individuals perceived relationships less romantically and more practically than those in their first marriages. Attachment theorists have found tentative evidence for some changes in attachment representations (Schneller, 2003). Divorced people
have been found to make diverse choices that may reflect a newfound sense of freedom, such as dating, cohabitation as well as commitment (Weiss, 1975). Yet there has remained a lack of theoretical framework to explain the transitional process and why some people reinvest in close relationships and others do not (Schneller, 2003).
Scheneller (2003) has drawn together four theoretical frameworks to explain findings. Firstly, social constructionism provides an explanation for how the reaction to divorce may be impacted by language, as seen by the 'explanations an individual makes, by social interchange with others, and by the cultural meanings of marriage and divorce that have influenced a person's thoughts and perceptions'. Social constructionism emphasises how people create knowledge and meaning through 'languaged interaction' (Schneller, 2003, p.6). This is highly relevant to research on relationship transitions and possible changes in regard for and meaning found in intimate relationships. Social constructionism helps us to understand how reaction to a divorce can be influenced by explanations given, communication with others and cultural influences in the meanings of marriage and divorce.
Secondly, attribution theory may explain why individuals make different choices about post-divorce intimacy. Attribution theory contributes a systematic approach to understanding how people explain the causes of life events (Bensen, Arditti, Reguero de Atiles, \& Smith, 1992, cited in Schneller, 2003). Individuals may construe their divorce in ways that are positive or negative: either damaging trust, promoting a sense of mastery and optimism regarding future relationships, or encouraging personal change. The attributions that individuals develop about the breakdown of relationships have been found to influence their cognitions, affect and behaviour about future relationships (Grych \& Fincham, 1992, cited in Scnheller, 2003). Research has found that individuals who make interactive attributions such as a lack of communication, lifestyle differences or values were associated with better post-divorce adaptation than those who blamed themselves or their ex-partners (Newman \& Langer, 1981, cited in Schneller, 2003; Ty \& Frazier, 2003). These individual attribution patterns are about the cause of marital failure and are related to decisions about whether to engage in new intimate relationships. Thus, attribution theory shows how an optimistic or pessimistic attitude to new relationships is linked to attributions, conceptions and relationship transitions.

Thirdly, attachment theory provides a conceptual basis for understanding interactions between security and change in relationship transitions. Attachment theory emphasises that our earliest experiences with caretakers teaches us what to expect in intimate relationships, from which we form mental representations or working models of relationships (Van IJzendoorn, 1995, cited in Schneller, 2003). While these mental representations are consistent and stable components for daily functioning, they are also flexible structures open to change. Relationship break-ups are among the experiences frequently cited
as being able to cause fundamental changes in attachment styles (Bakermans-Kranenburg \& van IJzendoorn, 1997; Feenney, 1999, cited in Schneller, 2003). One four-year study found that break-ups consistently predicted change from secure to insecure attachment (Kirkpatrick \& Hazan, 1994). However researchers have not examined how these changes to attachment styles occur or the change to individuals' feelings, opinions and desires for future intimate relationships.

Finally, loss and renewal theories offer a conceptual basis for understanding how our experiences of loss evolve and transfer to post-divorce relationships. Theorists have focused on the processes of recovering from the loss of a primary relationship, applying Bowlby's (1961, cited in Schneller, 2003) theory of mourning. Three phases of mourning must be negotiated: (1) the urge to recover the lost object, (2) disorganisation, and (3) reorganisation (Gray \& Shields, 1992 cited in Schneller, 2003). This shows how cognitions and feelings change over the mourning period, or the transitions that an individual makes. Recent findings extend this stage theory to a more interpretive process of how the individual finds meaning from loss (Riessman, 1990, cited in Schneller, 2003), and possibly growth and renewal as well, as divorce is an opportunity to change negative patterns. Traditional mourning theories implied a necessity of relinquishing the lost loved one in order to begin a new relationship. However, individuals are now thought to experience a continuity of relationship with the lost one as an integrated internal phenomenon (Baker, 2001, cited in Schneller, 2003). The lost relationship may continue to be re-interpreted and inform new experiences as part of positive adjustment (Madden-Derdich \& Arditti, 1999, cited in Schneller, 2003). Thus, it is the interpretation of relationships rather than the loss itself that is critical to transitions (Schneller, 2003).

Scheneller's studies contribute to understandings about the connection between divorce experiences and post-divorce intimacy. Scheneller (2003) draws three conclusions from her study. First, divorce serves consistently as a catalyst for self-analysis, or 'interpretation and personal growth' (Schneller, 2003, p.iii), and many authors are now focusing on how people can reconstruct a higher quality of life following break-ups (Robbins, Caspi \& Moffitt, 2002; Schneller, 2003; Tashiro \& Frazier, 2003). These sources have helped people to understand divorce responses and differences such as gender and age. The social context within which divorce occurs is an important influence on the interpretative process, and the stigma that divorce still carries in our society makes this process more of a challenge. Second, the interpretive process shapes 'adult's post-divorce perceptions and experiences in intimate relationships' in positive ways (Schneller, 2003, p,iii). Deliberate changes are made in communication patterns, interactions, attitudes and expectations in relationships. Third, fundamental changes in mental representations occur. These changes are linked to gender: women come to view themselves as more
assertive and men as more egalitarian and responsible for relationship maintenance (Schneller, 2003).

## Predictors of Transitions

Transitions within and between relationships have been considered in terms of changes in levels of intimacy. Changes in intimacy have effects on passion such that increases in intimacy produces stronger passion, whereas stable intimacy (high or low) produces low passion (Baumeister \& Bratslavsky, 1999). Romantic beliefs have been found not to be linked to longevity of relationships, yet scores on the romanticism scale tend to decrease over time. Couples who break up have been found to experience a substantial decrease in their romantic beliefs from before to after the break-up (Sprecher \& Metts, 1999). Some researchers argue that degree of dependence within the relationship is the primary issue in understanding break-up decisions. Dependency is found to increase 'when important outcomes in the current relationship are not available elsewhere', and to predict those who stay in relationships, no matter how dissatisfying the relationship might be (Drigotas \& Rusbult, 1992, p.1).

Pre-marital relationship break-ups have been attributed to sources within the individual, the relationship and the social network environment (Felmlee, Sprecher \& Bassin, 1990). Significant predictors included the level of comparison for alternatives, the amount of time spent together, racial differences, support from partner's social network, and duration of the relationship(Felmlee, Sprecher \& Bassin, 1990). Social exchange, similarity and social network theories all contribute towards an explanation of pre-marital break-ups (Felmlee, Sprecher \& Bassin, 1990). Other factors include self-control, partner's control, control external to the relationship, partner's lack of caring, instability and lack of ability to commit (Hortacsu \& Karanci, 1987), unequal involvement in the relationship and discrepant age, educational aspirations, intelligence and physical attractiveness. The desire to break-up was seldom mutual. Women are more likely to find problems in these relationships and are somewhat more likely to end them (Hill, Rubin \& Peplau, 1976).

People who break-up because of affairs have reported higher dissatisfaction, attribute their own and their partners' extradyadic relationships more to motives of aggression and deprivation, and cite a higher level of conflict generated by these relationships. These people tend to overlook their own extradyadic involvements as contributing significantly to the break-ups. Men, much more often than women, tend to blame their break-ups on their partners' extradyadic relationships. Some evidence has been found that partners' extradyadic involvement had a stronger influence on the decision to break-up (Buunk, 1987).

Findings show that the very 'qualities that are disliked in a partner, and that are implicated in a break-up are often very similar to those that were found to be initially attractive' (Felmlee, 1998). This phenomenon has been termed 'fatal attraction', where the relationships are doomed from the beginning.

These 'disenchanting attractions' occur because of contradictory dilemmas faced by those in intimate relationships, for instance, a desire for intimacy combined with a need for independence (Felmlee, 1998). Brickman (1987) suggested that the integration of negativity is the greatest challenge of intimacy (cited in Thompson, 1995). Ambivalence is the presence of at least moderate amounts of positive and negative attitudes regarding partner attributes and has been found to be a predictor of break-ups, over and above feelings of love for a partner, or the incidence of conflict in the relationship. Its effect has been found to be moderated by individuals' commitment to their relationships. Ambivalence acts as a catalyst either facilitating or impeding the growth of intimacy (Thompson, 1995). Other theorists concur on the need for couples to learn to live with negativity and ambivalence, and even to see virtue in faults (Harvey \& Weber, 2001).

## Predictors of Success

Little research has been conducted on factors that determine the development and maintenance of longterm relationships. For instance, there has been relatively little research into commitment compared to other relationship constructs such as love and attachment, trust and satisfaction. Research into the predictors of sustained intimacy in marriage shows that the partners must each have attained an adequate degree of individuality and can also allow them selves to become physically and emotionally close. Changes by one must be accommodated by the other. Hence changes should be of a complimentary nature for which both partners are carefully prepared (Birtchnell, 1986).

Findings have shown that positive couple agreement in marriages significantly decreases over time in five aspects: personality issues, communication, conflict resolution, leisure activities and sexual expectations. However, agreement increases significantly in financial management, marriage expectations, children and parenting, and spiritual beliefs. Projections of satisfaction levels are linked with degree of functionality of the relationship (Goldberg, 2003). While marital satisfaction tends to lessen over time, skills and insights can be gained to prevent the erosion of satisfaction (Clements, Cordova, Markman \& Laurenceau, 1997; Dunn, 2002). Thus the need for ongoing skilling of couples is critical.
Communication training is perhaps the one skill found universally in marital therapies. Components that couples endorse in their communication include: identifying factors that improve communication over the course of the marriage; recognising that the timing of communication is important; a cooling off separation period before resolving arguments when they escalate. Difficulties that have been identified include lack of understanding of what is being communicated, lack of time together and time spent on improving communication. (Lerner, 2003). Conflict is often avoided in relationships, yet conflict resolution is associated with romantic satisfaction (Cantor, Acker \& Cook-Flannagan, 1992). Some
theorists base their assessments of marriages on the style of conflict employed (Gottman, 1998). Thus, ongoing research is required to identify the factors that couples find improves their communication.
Individual differences have been linked to relationship outcomes. These are factors such as personality differences: some people tend to be happy across relationships while others are not (Robins, Caspi \& Moffitt, 2002); and birth-order, with firstborns showing the most irrational beliefs about relationships and last-borns the least (Sullivan \& Schwebel, 1996). Social influences include network approval (Sprecher \& Felmlee, 2000). Helpful attitudes include seeing relationships as a process (Weigel \& Murray, 2000), and viewing individual performance differences from a 'team' point of view (Beach, Whitaker, Jones \& Tesser, 2001). Resilience appears in recent literature as determining relationship happiness and longevity. Skills can be learnt to develop and maintain resilience (Reivich \& Shatte, 2002).

Empathy has been found to be critical to the harmony in relationships, promoting positive social interactions and inhibiting antisocial behaviour (Sezov, 2002). Many marital intervention programs have been based on building empathy-based skills (Rogge, Cobb, Johnson, Lawrence \& Bradbury, 2002). Increased empathy has been positively related to relationship satisfaction (Long, Angera, Carter, Nakamoto \& Kalso, 1999). Existential dilemmas must importantly be faced and addressed in couple transformation (Dunn, 2002). Mortality salience, or death reminders, of one's partner has been found to lead to more willingness to work on the relationship (Miller, 2003; Taubman, Findler \& Mikulincer, 2002).

## Therapeutic Implications and Future Research

The implications of these findings for therapeutic interventions are significant. The experience of marital dissolution is a common reason for individuals to seek therapy. Marital life is more complex today and represents a significant challenge for couples and therapists. Couples need ongoing education and therapists must provide this dual role (Goldberg, 1985). The findings discussed here show how important it is that individuals interpret their divorce in terms of themselves as well as post-divorce relationships, where the promotion of a more objective assessment of the relationship rather than blaming individuals can promote optimism about future relationships. Many divorced individuals have difficulties in redefining themselves and their close relationships after divorce. Therapists can formulate better intervention processes the more they understand the complexities of the process that divorced people undergo in making the transition from marital dissolution to other relationships. Educational systems can also be informed by these findings, and in particular, Schneller's (2003) constructive approach to post-divorce experiences as developmental processes. In this way, eventually the increase in major transitions might attract less stigmatism.

Further research is needed to support the usefulness of the theoretical frameworks posed here and to more fully examine the interpretive processes that individuals undergo as part of transitions between significant relationships. Future research would be well directed as to the more flexible and inventive approaches people take to relationships after divorce (Weiss, 1975) and to the pros and cons of this trend for the breakdown of traditional family units, and the psychological and social effects on individuals, couples and children. Finally, ongoing research is required to develop the understanding of how to help adults traverse relationships and to develop better social resources and competencies for adult relationships.

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# The relationship between love styles and relationship dependent and independent outcome variables: A within couple analysis 

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#### Abstract

The present research investigates feelings about close relationships and the ways these feelings are related to outcome measures that are not necessarily relationship dependent - overall life satisfaction, subjective wellbeing and psychological distress as well as a relationship outcome variable- relationship satisfaction. In this research feelings about relationships is operationalised by a measure of love styles. The focus of the data for the present research is the couple in a romantic heterosexual relationship. Data from 118 heterosexual couples ranging in age from 18 years through 86 years formed the basis for analysis of the associations between agape, eros, and storge love styles, affective relationship variables, and the more general variables of psychological distress and general well-being. Questions addressed include: Is there a consistent association between the agape, eros, and storge love styles of the partners? What is the relationship between the agape scores of one partner and their partner's perceptions of that relationship both relationship dependent outcomes as well as nonrelationship dependent outcomes? While many of the associations are consistent with previous research, there are different patterns of results for males and females. The research highlights the importance of analysing couple data appropriately.


The varied attitudes and beliefs about love which individuals bring to a relationship impact differentially on the perceptions which those in that relationship have about their partner and the relationship itself. While the concept of love has been examined and written about in a wide variety of disciplines including philosophy, psychology, sociology, and theology, the term remains elusive. Many definitions allow for a variety of forms of other-centered love that promotes behaviors designed to support the quality of life of loved ones. Other terms, which can be used to describe other-centered love, include unconditional love, agape, compassion, and selfless love.

Lee (1973) proposed a typology of love and he maintained that different attitudes to love stem in part from previous experiences especially within the family of origin. The attitudes influence emotions and behaviors towards the partner and the relationship. Lee (1973) proposed that the emotions and behaviors could be classified into six different types. There were three primary love styles: eros, ludus, and storge and three secondary types: mania, pragma, and agape.

Of particular interest in the present research is the agape love style. (Lee, 1998) described this love style as a combination of eros and storge, which makes this style of love intense and friendly with the added quality of altruism whereby the loved one's needs are placed before their own. Consistent significant correlations between agape and eros and storge have been reported (e.g., Hendrick \& Hendrick, 1986).
Previous research investigated the association between love styles and various relationship variables. In what is reported here only those findings concerning agape, eros, and storge will be reported. Frazier, Byer, Fischer, Wright, \& De Bord (1996) reported that relationship satisfaction was higher for those who were high in eros and those high in agape. Contreras, Hendrick, \& Hendrick (1996) reported that eros was the strongest predictor of relationship satisfaction and agape was also a positive predictor of relationship satisfaction for women. Worobey (2001) in research into the relationship between love styles and temperament reported that fearfulness and distress were most predictive of agape.

It is likely that feelings about a close relationship permeate every day functioning. Consequently outcome measures which are not necessarily relationship dependent will be explored in the present research. After a review of literature on general well being and the relationship literature, it became apparent that a number of related constructs have been investigated. At least to some degree, it would seem that well being and psychological distress have been confused, although Heady \& Wearing (1993) argue that they represent separate dimensions. In a substantial study by Barnett and colleagues (see Barnett, \& Marshall, 1993; Barnett, 1994; Barnett, Marshall, Raudenbush, \& Brennan, 1993) investigating psychological distress in dual earner couples, the authors measured psychological distress via a frequency of symptoms scale. Derived from the SCL-90R (Derogatis, Yevzeroff, \& Wittelsberger, 1975) the symptoms scale measures anxiety and depression - a key to mental health (Barnett, Marshall, \& Pleck, 1992; Barnett, 1994).
Measures of psychological distress concentrate on the negative aspects of functioning, and how this distress is exhibited. Well being, however, seeks to tap into how happy individuals are in their life. Strong links have been drawn between overall life satisfaction and satisfying interpersonal relationships (Traupmann, Hatfield \& Wexler 1983). Further, an absence of close relationships is argued to have an
association with poor subjective well being (SalmelaAro \& Nurmi, 1996). A well being scale devised by Barnett (1992) which adopts a positive assessment of well being, represented by symptoms of life satisfaction will be used in this investigation.

In the present investigation, the notion that psychological distress and well being are separate dimensions will be adopted. The definition of psychological distress in terms of the symptoms of anxiety and depression will also be adopted. Well being will be contrasted with psychological distress in tapping the positive aspects of life experience for the individual.

The focus of the data for present research is the dyad - the couple in a romantic heterosexual relationship. By far the majority of research reporting on love styles has been at the individual level and examining associations between variables within individuals. Of interest in the present study is the association between the love style of one partner and the relationship dependent outcomes for their partner as well as some variables of the partner which are not relationship dependent e.g., well being. This leads to questions such as: What is the relationship between the agape scores of one partner and their partner's perceptions of that relationship - both relationship dependent outcomes as well as non-relationship dependent outcomes? If the agape love style is as described by Dwyer (2000) as "An unconditional, caring, giving, and forgiving type of love. There is no expectation of reciprocity, love is self-sacrificing" (p.22) then it may be reasonable to expect that there will not be any consistent association between one partner's agape score and the other partner's outcomes. Hendrick \& Hendrick (2000) claim that one of the most consistent themes in love style research has been the exploration partner similarity. They report that for the most part, a person's own love style was correlated with their preferences for partners with the same love style and that the most appealing love styles were agape and storge. The present research will enable an examination of the correlations of love styles between partners.

In essence, the love style of particular interest in the present research is agape. The outcome variables of interest are positive and negative affects, relationship satisfaction, general well-being, and psychological distress.

## Method

## Participants

Data was collected using a snowball technique from couples in a heterosexual relationship. Two hundred and sixty two individuals aged between 17 and 86 years of age completed the questionnaires. Respondents were primarily in exclusive dating relationships (55.3\%) with the remainder being in married (34.7\%), defacto (6.1\%) or engaged (3.8\%) relationships. Due to the small numbers of engaged ( $\mathrm{N}=10$ ) and defacto $(\mathrm{N}=16)$ respondents they were excluded from further analysis. There were equal numbers of men and women in the sample, and the
mean age of the remaining 236 respondents was 31.0 years (sd. $=14.2, \min =17, \max =86$ ).

In the present study $44.5 \%$ of respondents were employed in either full-time $(n=84)$ or in parttime/casual work ( $n=21$ ), 49.1\% of respondents were students in full-time $(n=107)$ or part-time ( $n=$ 9 ) study and $6.4 \%$ of respondents were unemployed.

## Measures and Materials

Respondents were presented with a questionnaire booklet that included a brief demographic section followed by the scale measures

Love Styles Respondents completed the Love Attitudes Scale (LAS) described by Hendrick \& Hendrick (1986). While the scale taps six love styles: eros, ludus, storge, pragma, mania, and agape, each measured by seven items, the present research only uses the scales of agape, storge, and eros. Items are responded to on a 5 point Likert rating scale ranging from $1=$ strongly disagree to $5=$ strongly agree.

Relationship Satisfaction The Kansas Marital Satisfaction scale (KMS; Schumm et al. (1986)) was adapted in the measurement of relationship satisfaction. There are three items in this scale each of which requires a response on a 7 point Likert scale. The higher the rating the greater the satisfaction.

Relationship Affects Relationship affects were determined from six affect items; anger, guilt, contentment, and happiness (Austin \& Walster (1974), and depression and loving (Sprecher (1992). The respondents were asked to rate each of these affects on a 5 point Likert scale where $1=$ strongly disagree to $5=$ strongly agree. The affects of contentment, happiness and loving formed the positive affect variables and guilt depression, and anger formed the negative affect variable

General Well-Being The 19 item scale (Barnett, Marshall, \& Pleck, 1992) required respondents to indicate how much of the time during the past month they had felt each of the items. The 5 point rating scale for the items in this scale ranged from $1=$ not at all to $5=$ always.

Psychological Distress A twenty four item scale examined the anxiety and depression aspects of psychological distress Barnett and Marshall (1993). A 5 point rating scale was provided for each item. The scale was anchored at $1=$ strongly disagree to $5=$ strongly agree.

## Procedure

Instructions were given for respondents to complete the questionnaire booklet away from their partner, without consultation before placing the completed questionnaire in an envelope, and then placing both envelopes in a larger one for returning to the researcher.

## Results

Before conducting the major statistical analyses to address the research questions, analysis of the factor structure and reliability of the scales was undertaken.

For relationship satisfaction the Cronbach's alpha found in this study was 0.91 . Using the GLM procedure in SPSS a repeated measures analysis of variance explored differences in responses on the three items. A significant effect $(F(2,464)=14.386, p$ $<.001$ ) indicated that individuals endorsed the items differently from each other, suggesting that the items tap non-redundant aspects of satisfaction.

There were six affects. were examined in AMOS (Smallwaters, 1997), testing for the superiority of a two factor solution over a single factor. Results indicated that the two factor model of correlated positive and negative affect provided a much better fit of the data $\left(\Delta \chi^{2}(1)=71.38, p<.001\right)$. The goodness of fit indices also supported the superiority of this solution (GFI $=0.981, \mathrm{AFI}=0.949, \mathrm{PFI}=0.374, \mathrm{CFI}$ $=0.990$ ) and the two factors correlated -0.580 . A measure of positive affect was derived by summing the three positive affect items (Cronbach's alpha $=$ 0.89 ), responses (mean $=13.01, S D=2.16$ ) indicated a generally high level of positive affect (scale range $=$ 3 to 15). A negative affect measure was derived by summing the negative affect items (Cronbach's alpha $=0.67$ ) and responses on this measure (mean $=4.41$, $S D=1.73$ ) indicated a very low level of negative affect (scale range $=3$ to 15 ).

A single measure of well being was generated by taking the mean of the nineteen items (Cronbach's alpha $=0.94$ ). Responses indicated a moderate level of well being ( mean $=4.41, S D=0.74$; scale range 1 to 6 ).

The anxiety and depression sub-scales described by Barnett et al. (1993) were highly reliable ( $\alpha_{\text {anxiety }}=$ 0.85 , $\alpha_{\text {depression }}=0.88$ ). Single measures were generated by taking the mean of the 10 items for anxiety (mean $=1.60, S D=0.61$ ) and 14 items for depression (mean $=1.84, S D=0.59$ ). Responses indicated low levels of both in the sample. The two sub-scale measures were highly correlated ( $r=0.82, p$ $<.001$ ). It seems clear that the sub-scales measure different aspects of a single construct. Consequently a single measure of psychological distress was developed by taking the mean of all 24 items (mean $=$ $1.74, S D=0.59$ ) for use in further analyses.

Reliability analyses of the three love style subscales revealed moderate to high reliabilities. The Cronbach alphas for the three scales were as follows: agape $=.83$, eros, .74 , and mania $=.70$

Descriptive statistics are presented in Table 1. Preliminary analyses indicated that there were no significant differences between those reporting that they were married and those who reported that they were dating. Due to the dyadic nature of the data, partner's scores are likely to be non-independent (Kashy, 2000; Kenny, 1996). As such, cross-couple correlations on the measures obtained were examined (see Table 2) before proceeding with further analyses. Pearson's correlations were used to investigate the associations between the variables.

Table 1
Means for males and Females

| Variable | Males | Females |
| :--- | :--- | :--- |
| Agape | 3.93 | $3.55^{* * *}$ |
| Eros | 3.99 | 4.00 |
| Storge | 3.69 | 3.80 |
|  |  |  |
| Relationship Satisfaction | 6.10 | 6.15 |
| Positive Affect | 4.28 | 4.28 |
| Negative Affect | 1.48 | 1.49 |
| Psychological Distress | 1.69 | 1.80 |
| Wellbeing | 4.40 | 4.40 |

In order to test for possible sex differences on the research variables dependent $t$-tests were conducted. The means (see Table 1) for both the females and the males on relationship satisfaction, positive affect, and the love styles were relatively high which is in contrast to the means for the more negative aspects such as negative affect and psychological distress. There was a significant difference $(t=5.67, d f=121$, $\left.p<.001, \eta^{2}=.21\right)$ on only one of the variables agape. The male mean was significantly higher (3.93) than the female mean (3.55).

The correlations between the variables of interest within couples are set out in Table 2. For the three love styles there was a significant correlation between partners with the eros love style providing the highest correlation $(r=.50)$ and storge the lowest $(r=.39)$. For the outcome variables with the exception of psychological distress there was also a significant correlation between partners. Relationship satisfaction resulted in the highest correlation $(r=.41)$.

The significant correlations and the non-significant dependent $t$ tests provide substantial support for the proposition put forward by Hendrick \& Hendrick (2000) of partner similarity. The exception to this general proposition was for the agape love style where the males were significantly higher than the females.

Table 2
Within Couple Correlations

| Variable | Correlation |
| :--- | :--- |
| Agape | $.42^{* * *}$ |
| Eros | $.50^{* * *}$ |
| Storge | $.39^{* * *}$ |
|  |  |
| Positive Affect | $.27^{* *}$ |
| Negative Affect | $.23^{*}$ |
| Relationship Satisfaction | $.41^{* * *}$ |
| Wellbeing | $.36^{* * *}$ |
| Psychological Distress | .16 NS |
| ${ }^{*}<, 05 ; * * p<.01 ;^{* * *} p<.001$ |  |

An examination of the intraindividual correlations between the love styles indicated that for the females there were significant correlations between agape and $\operatorname{eros}(r=.47, p<.001)$ but not between agape and storge ( $r=.02, p>.05$ ). For the males the correlations of eros and storge with agape were both significant (( $r$ $=.51, p<.001$ and $r=.29, p<.001$ respectively).

With respect to the correlations between the variables within the individuals, agape correlates significantly with all of the relationship dependent variables for both the males and the females. For the nonrelationship dependent variables the correlations with agape were non-significant for the females and for the males the correlation between agape and well being was positive and statistically significant where as it was not for agape and psychological distress. For the females eros correlated significantly with both the relationship dependent variables as well as the nonrelationship dependent variables. It was similar for the males with the exception of the correlation between eros and distress, which was not statistically significant. Storge was not correlated significantly with any of the outcome variables for the females, while for the males it only correlated significantly with one variable - relationship satisfaction.

To examine the relationship between agape and the outcome variables more closely a high, medium, and low group of males and a high, medium, and low group of females were formed based on their scores on their agape love style scores. Each group had as close to equal numbers as possible. A chi-square test of association between agape groups and relationship type indicated that there was no association between these two variables for either the males or the females.
ANOVAs were computed with agape group as the independent variable and the partner's relationship dependent outcomes (positive affect, negative affect, relationship satisfaction) and non-relationship dependent outcomes (psychological distress and wellbeing) as the dependent variables. Given that there were a large number of statistical tests $\alpha$ was set at . 01.

There were no significant differences on any of the female partner variables between the high, medium, and low male agape groups. For the females while there was no difference on the partner's negative variables of negative affect and psychological distress, there were significant differences between the three female agape groups and their partner's positive outcome variables. In each case there was only a minor non-significant difference between the low and medium agape groups while the mean for the high agape group was significantly higher than the means for both the medium and low agape groups. The results of the ANOVAs (see Table 3) were as follows: for positive affect $F=9.27, d f=2,118, p<$ $.001, \eta^{2}=.14$; for relationship satisfaction $F=9.53$, $d f=2,118, p<.001, \eta^{2}=.14$, and for well-being $F=$ $6.35, d f=2,117, p=.002 \eta^{2}=.09$.
In addition to conducting the analyses with the partner's variables as the dependent variables, the same analyses were conducted with the individual's own variables as the dependent variables. For the males there was a significant difference between the three agape groups on only two of the dependent variables - positive affect and relationship satisfaction. The results of these ANOVAs were as follows: for positive affect $F=17.00, d f=2,118, p<$ $.001, \eta^{2}=.22$ (means of $3.79,4.21$, and 4.64 for the low, medium and high groups respectively) and for relationship satisfaction $F=13.38, d f=2,118, p<$
$.001, \eta^{2}=.18$ (means of $5.59,6.00$, and 6.49 for the low, medium, and high groups respectively). In both instances the mean for the high agape group was the highest and there was only a minor non-significant difference between the means for the low and medium agape groups.

Table 3
Means for male outcome variables for each of the three female agape groups

| Variable | Low <br> Agape | Med <br> Agape | High <br> Agape |
| :--- | :---: | :---: | :--- |
| Relat Satis | 5.83 | 5.91 | $6.54^{* * *}$ |
| Positive Affect | 4.09 | 4.09 | $4.66^{* * *}$ |
| Negative Affect | 1.53 | 1.59 | 1.28 |
| Psych Distress | 1.64 | 1.81 | 1.57 |
| Wellbeing | 4.26 | 4.21 | $4.75^{* *}$ |
| ${ }^{* *} p<.01,{ }^{* * *} p<.001$ |  |  |  |

For the females, the results of these ANOVAs were the same as for the males - significant differences on positive affect $F=8.33, d f=2,123, p<.001, \eta^{2}=$ .11 (means of $4.19,4.24$, and 4.76 for the low, medium and high groups respectively) and for relationship satisfaction $F=8.67, d f=2,122, p<$ $.001, \eta^{2}=.11$ (means of $5.96,5.92$, and 6.58 for the low, medium, and high groups respectively). In both instances the mean for the high agape group was the highest and there was only a minor non-significant difference between the means for the low and medium agape groups.

In summary, for both the three male and the three female agape groups, positive affect and relationship satisfaction were significantly different when it was their own scores which were the dependent variables. When it was the partner's outcome variables as the dependent variables, the parallel situation pertained for the female agape groups, i.e., there were significant differences for the males on relationship satisfaction, positive affect but also with the addition of well being. The female outcome variables did not differ between the three male agape groups..

## Discussion

The data analyses indicated that there were more similarities than differences between partners on their love styles and the outcome variables, especially those which can be seen to be relationship dependent. Following the line of argument proposed by Dwyer (2000) it would have been expected that there would not have been any particular relationships between the scores of the partners. However, as Hendrick and Hendrick (2000) argued one of the most consistent themes in love research has been that of partner similarity. There was support for the Hendrick and Hedrick (2000) proposition. Of all the variables involved in the present research there was only one on which there was a significant difference within partners. That was for agape. The proposition that we seek out those with a similar love style is statistically supported not only by the one significant dependent $t$
result but also by the correlations between partners. With only one exception, the correlations between partner's scores were statistically significant. The coefficients ranged from .39 to .50 . While these correlations are statistically significant, they share only from $15 \%$ (for storge love style) to $18 \%$ (for agape love style), and $25 \%$ (for eros love style) of the variance. Is this sufficient to claim that we seek out a partner who is similar in love style?

With previous research often reporting either no difference between partners or, on occasion females scoring higher on agape than males the present result is in slight contrast to the earlier research. It may well be that the present results are as much part of a within couple analysis in contrast with much of the previous research where a between males and females analysis was used. It may also be that we are at the early stage where we may find that the males are changing more in their reporting of relationship characteristics than are the females. In terms of societal expectations about males and females in relationships, the females have been exposed to pressures and opportunities for change for more than thirty years. It is far more recently that males are now expecting to, as well as being expected to be more attuned to relationship characteristics.

When the participants were grouped into high, medium, or low based on their agape scores and their own outcomes variables were the dependent variables, the same pattern occurred for both the males and the females. The positive relationship outcome variables of positive affect and relationship satisfaction varied between the three agape groups with those in the highest agape group reporting the highest satisfaction and positive affects. There were no differences for the negative relationship dependent outcome variable or for either of the positive or negative non-relationship dependent outcome variables.

When the partner's outcome variables were the dependent variables, a similar pattern of results occurred for both the males and the females. Once again for both the males and the females, the positive relationship dependent outcome variables of relationship satisfaction and positive affect were significantly different between the three groups with those highest in agape scoring highest on these variables. In addition for the males, the nonrelationship dependent variable of well being followed the same pattern with significant between the three female agape groups. This suggests that for the males the way they feel about their partner especially in terms of intensity and friendliness with the added quality of altruism and the way their partner feel about them does permeate their every day functioning. Not only do the differences between the agape groups result in differences in relationship dependent outcomes but also the more general nonrelationship dependent variable of well being.

Conversely, for the females the data suggests that there is no carry over into everyday functioning. There were no differences between their partner's agape groups and the outcome variables, and there was only a difference on the positive relationship dependent variables for the groups based on the
female agape scores. Neither their own, nor their partner's agape scores resulted in differences on the non-relationship dependent variables.
It is interesting to note that no significant differences between the agape groups, based on one's partner's scores or on one's own scores, for the negative outcome variables whether they be relationship dependent or non-dependent. That there were differences for some of the positive outcome variables but not at all for any of the negative outcome variables gives some weight to the notion that there is a relative independency between the positive and the negative aspects of psychological functioning. That is, the factors which contribute to the positive outcomes do not by definition "reduce" the negative aspects of a relationship and conversely, those factors which result in negative outcomes do not necessarily result in a reduction of the positive outcomes.
This research highlights the importance of treating dyadic in an appropriate way. If the analyses had been left at simply a between groups (males and females) design the results and implications would have been basically that there were no differences between the males and the females. However, by acknowledging and appropriately utilising the dependency in couple data, the results indicated that there are differences between the males and the females. In this research it indicates that females are less dependent on their partner for their relationship outcomes than are the males.

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# Is The Extent Of My Lying And Deception With The One I Love Related To My Attachment Style? 

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#### Abstract

Thirty-five married couples and 14 dating/engaged couples provided the data for the present study. Participants were asked about the deception they use in their relationship as well as their perception of their partner's deception. They also were asked about the frequency of lying to their partner and their perceptions of their partner's lying to them. The participants also completed an attachment style measure. As there was only a small number of participants in each of the dismissive, preoccupied, and fearful attachment style categories these were combined into a not-secure category. ANOVAs with sex and attachment style as the independent variables and own and partner's lies and deceptions as the dependent variables resulted in no main effects or interaction effects involving sex. However, there were significant effects for attachment style on each of the four dependent variables with those reporting a secure attachment style also reporting less deception of their own and their partner and lower use of lying by themselves and by their partner. The results are discussed in terms of the use of deception and lying as mechanisms for maintaining one's own attachment style.


Intimate or close relationships with others can be the source of the deepest satisfaction and of the blackest misery. Many people are lonely and unhappy, some are mentally ill, simply because they are unable to establish and sustain an intimate relationship in today's world (Argyle, 1983).
Attachment theory is one way in which interpersonal relationships can be understood. Bowlby, considered to be the founder of attachment theory, believed that an attachment bond is developed between the primary caregiver and infant to provide children with a sense of security (Collins \& Read, 1990). It is believed that the events and experiences which occur during the child/caretaker relationship strongly influence the nature and quality of close relationships in adulthood (Collins \& Read; 1990, Fraley \& Davis, 1997). Attachment theory is most suited as a framework for understanding interpersonal relationships, as it explains how love can develop and how it can be shaped by social experience to produce different relationship styles. It explains how both healthy and unhealthy forms of a relationship originate (Hazan \& Shaver, 1987).

Three attachment styles were originally identified (Hazen \& Shaver, 1987). Individuals with a secure attachment style have mental models of themselves as being friendly, good natured, and likable and they have mental models of others as being well intentioned, reliable, and trustworthy. Those with an
anxious style have a model of themselves as being misunderstood, unconfident, and under appreciated and they view others as being unreliable and unwilling to commit themselves. Those with an avoidant style possess models of themselves as suspicious, aloof, and skeptical and they possess mental models of others as being unreliable or too eager to commit to relationships. It is these beliefs and expectations (mental models) which are the blue print for future relationships later in life (Collins \& Read, 1990). Research conducted by Collins and Read (1990), Feeney and Noller (1990), and Hazan and Shaver (1987) have all found evidence to support the claim that the mental models formed in early infant years are also found in adult relationships.
Bartholomew and Horowitz (1991) proposed a four category model of attachment styles among young adults. It is based on an extension of Hazan and Shaver's (1987) three category model, as it has two types of avoidant attachment; dismissing and fearful styles. Each attachment style is defined in terms of the person's model of self and the person's model of others (Simpson \& Rholes, 1998).
Each attachment style can be defined using a two dimensional approach: positivity of a person's model of self and positivity of a person's model of others. The self-model is associated with levels of anxiety, due to their perceptions of self worth and whether or not they will gain their partner's approval. The model of others is associated with whether or not they should seek or avoid closeness, due to their perceptions of others as being available and supportive Simpson \& Rholes, 1998).
Those with a secure attachment style are defined as a person with a positive self model and positive model of others, they generally have a sense of self-worth and are not anxious as they do not fear abandonment. They also are comfortable with being intimate and therefore are not avoidant in their behaviour, they perceive others as being available and supportive (Simpson \& Rholes, 1998). Those with a preoccupied attachment style have a negative self-model and a positive model of others, they anxiously seek to gain acceptance from others, whilst being non-avoidant in behaviour (Simpson \& Rholes, 1998). This attachment style is similar to Hazan and Shaver's (1987) anxious-ambivalent style (Keelan, Dion, \& Dion, 1998). Those with a fearful attachment style have both a negative model of themselves and others. They are similar to that of the preoccupied in the sense that they are dependent on others. They are anxious as they fear abandonment, and avoid intimacy for reasons such as fear of rejection (Simpson \& Rholes, 1998). Those with a dismissing attachment
style have a positive model of self and a negative model of others, they fear intimacy for reasons such as negative expectations, and lack anxiety as they maintain an ideology of self worth by criticizing the values of close relationships (Simpson \& Rholes, 1998).

Although trust contributes to feelings of closeness and intimacy, occasionally the costs of telling the truth can do more harm than good. People are more likely to use deception if the cost of telling the truth is too high. Deception is considered to be a fact of daily life (De Paulo \& Kashy, 1998). However society frowns upon deception and those caught deceiving are looked down upon by other people (Boon \& McLeod, 2001). Deception can be defined as "intentionally trying to mislead someone (DePaulo, Kashy, Kirkendol, Wyer \& Epstein, 1996, p981). DePaulo, et al, (1996) examined the nature of lying in community members and college students. It was found that both groups were more likely to tell lies which benefited themselves than tell lies which benefited others. Their research also suggested that the majority of the self centered lies told were told to enhance the individual's self esteem. There are several explanations for the use of deception in close relationships. They are all to some extent linked to the social exchange perspective in that people are less likely to the tell the truth when the costs of doing so outweigh the benefits (Cole, 2001). One explanation for deceptive behavior is the norm of reciprocity, meaning that an individual will tend to match their partner's contributions in a 'tit for tat' transaction. Deceiving a partner leads to a decrease in commitment and satisfaction (Cole, 2001). The perception that a partner is dishonest results in a decline in commitment and satisfaction in the relationship. Therefore in the present research it is expected that own use of deception is associated with the perception that their partner engages in deception.
Another explanation for deceptive behavior in relationships is the costs associated with telling the truth. Although telling the truth contributes to feelings of closeness and intimacy, people however are more likely to use deception if the costs of telling the truth are too high (Cole, 2001).
A final explanation for deceptive behavior is based on individual's differing needs for intimacy and closeness. In examining Bartholomew and Hororwitz's (1991) four category model of attachment styles, it can be seen that there are differing levels of intimacy and closeness in this model. The secure attachment style is considered to be comfortable with being intimate, in contrast the dismissing attachment style, fear being intimate. Deceit may be used by individuals uncomfortable with intimacy, to keep others at a safe distance. Cole (2001) examined the prevalence of deception in romantic relationships. One of his assumptions was that fear of intimacy is positively related to the use of deception. Fear of intimacy is a characteristic of people categorized into the avoidant attachment style. His findings found that a positive relationship does exist between fear of intimacy and use of deception. It is expected in the present research that deception is higher for those
individuals with the dismissing attachment style compared to those with a secure attachment style. Also, deception may be used to increase partner's interest in closeness and devotion. Individuals with the preoccupied attachment style, where a person anxiously tries to seek acceptance he/she may lie to their partner by saying, 'I love you' simply to increase partner's interest in them (Cole, 2001). In the present research it can be expected that deception is also higher in those with a preoccupied attachment style.

The aim of this research is to investigate the differing levels of deception among attachment styles. It can be hypothesised that own use of deception is associated with the perception that partner engages in deception. It can be hypothesised that deception is high in those with a dismissing/fearful attachment style. It can also be by hypothesised that deception is higher in those with a pre-occupied attachment than those with a secure attachment style.

## Method

## Participants

Participants were 49 couples who had been in a heterosexual relationship for six months or more. Couples were recruited using a snowball technique. The mean age of males was 38.8 years (range 18 to $67, S D=13.50$ ), the mean age of females was 37.29 years (range 18 to $64, S D=13.00$ ) the average length of the relationship was 14.52 years (range .8 to 41.40 years, $S D=12.27$ ). Out of the 49 couples $13.3 \%$ were exclusively dating, $10.8 \%$ were in a de-facto relationship and $70.4 \%$ were married.

## Measures

Demographics This section incorporated questions regarding participants' age, sex, level of education, current employment status, type, and duration of relationship.

Deception The deception scale developed by Cole consists of nine items pertaining to one's own deception and four items relating to perceived partner deception. The nine-item scale developed by Cole (2001) measures how often one uses deception using a seven point Likert scale ( $1=$ strongly disagree, $7=$ strongly agree) e.g.: "I sometimes find myself lying to my partner about things I have done". The inter-item reliability of this nine item scale was acceptable with a Cronbach alpha of .84. The four item scale developed also by Cole (2001) measures how often people perceive that their partner deceives them using a seven point Likert scale $(1=$ strongly disagree, $7=$ strongly agree). The inter-item reliability was acceptable with a Cronbach alpha of .80 . This current study obtained a Cronbach alpha of .64 for own deception and perceived partner deception . 47 .

Attachment Bartholomew and Horowitz (1991) 35item attachment scale consists of two sub scales: avoidance (e.g. " I prefer not to show a partner how I feel deep down") and anxiety ( e.g. "I worry about being abandoned"). It is rated using a seven point Likert scale $(1=$ strongly disagree, $7=$ strongly
agree). Items 3, 15, 19, 22, 25, 27, 29, 31, 33, 35 are reversed scored. The standardized reliabilities (coefficient alpha) for the sub scales are: avoidance . 94 and anxiety .91 . This current study obtained a Cronbach alpha for the sub scales: avoidance .92; anxiety .88 . Using scoring instructions found in Simpson and Rholes (1998) participants are classified into either a secure, fearful, preoccupied or dismissing attachment style.

## Procedure

Questionnaires and information letters were distributed to 75 couples who were eighteen years or older and who were currently in a heterosexual relationship lasting 6 months or more. Out of the 75 couples complete data from both partners on all variables was obtained from 49 couples indicating a $65 \%$ return rate. Both partners from each couple were asked to complete questionnaires in a comfortable, isolated environment away from their partner. Questionnaires for each couple were returned in a sealed envelope so that data for each couple was not separated. Participants were informed that they could not be identified by name and the completion of the questionnaire indicated that they had given voluntary consent and could withdraw at any time.

## Results

Results were analysed using correlations to test for significant relationships among dimensions of deception, avoidance, and anxiety for both males and females. A two by three multivariate analysis of variance was used to test for significant main and interaction effects on deception, as the dependant variable, gender and the different attachment styles as the independent variables. Gender yielded no significant main or interaction effects and was not included in further analyses. Correlations were also used to examine if partner scores are dependant on each other.
To examine if associations exist between anxiety, avoidance, and deception, mean scores, standard deviations, alpha levels and correlations were calculated. These are presented in Table 1.
According to the social exchange theory norm of reciprocity, one's own use of deception may be associated with their partner's use of deception (Cole, 2001). To examine if partner's scores on deception are related, correlations were calculated. These are presented in Table 2.

Table 1
Correlations between anxiety, avoidance, and deception

|  | Mean | SD | Alpha | Avoidance | Anxiety | Own <br> Deception | Partner's <br> Deception |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Avoidance | 1.92 | 1.00 | .92 | - | $.70^{* *}$ | $.55^{* *}$ | $.29^{*}$ |
| Anxiety | 2.87 | 1.97 | .89 | $.47^{* *}$ | - | $.49^{* *}$ | $.37^{* *}$ |
| Own <br> deception | 2.83 | 1.27 | .64 | $.44^{* *}$ | .28 | - | $.45^{* *}$ |
| Partner <br> deception | 2.90 | 1.04 | .47 | $.59^{* *}$ | $.37^{* *}$ | $.63^{* *}$ | - |

Note. Lower diagonal half represents female correlations, upper diagonal half represents male correlations.

* p < . 05 ; ** p $<.01$

Table 2
Correlations between partner's scores on deception and perceived partner deception

|  | 1. | 2. | 3 |
| :--- | :--- | :--- | :--- |
| 1. Female deception |  |  |  |
| 2. Female perceived partner deception | $.63^{* *}$ |  |  |
| 3. Male deception | $.43^{* *}$ | .25 |  |
| 4. Male perceived partner deception | $.44^{* *}$ | .29 | $.45^{* *}$ |
| *p<05 $* * \mathrm{p}<01$ |  |  |  |

As shown in table 2 males' perceived partner deception has a significant positive relationship with their own partner's use of deception $(r=.44, p<.05)$, and their own deception ( $r=.45, p<.05$ ), indicating that if a female partner engages in deception, the male partner believes that their partner is engaging in deception, and they too engage in deception themselves. Females perceived partner deception was not related to their partner's use of deception but a significant positive relationship with their own deception ( $r=.63, p<.05$ ), indicating that there is no
association between female's perceived partner deception and their partner's actual use of deception, however if the female partner perceives that their partner is engaging in deception they too engage in deception. In relation to the second hypothesis analysis reveals that own use of deception was associated with the perception that their partner engages in deception.

Correlations and analysis of variance were used to test the association between deception and avoidance. As shown in table 1 for males, the attachment
avoidance scale was found to have a significant positive relationship with own use of deception ( $r=$ $.55, p<.05$ ), partner deception ( $r=.29, p<.05$. A similar pattern was found for the females. The attachment avoidance scale was found to have a significant positive relationship with, own use of deception ( $r=.44, p<.05$ ), partner deception ( $r=.59$, $p<.05$. Indicating that having a negative view of others is associated with a high level of deception, and perceived partner deception for both males and females.
The anxious attachment scale for males was found to have a significant positive relationship with own use of deception ( $r=.49, p<.05$ ), partner deception ( $r=.37, p<.05$ ). Indicating that having a negative view of self is associated with an increase in deception and partner deception for males. The anxious attachment scale for females was found to have a significant positive relationship with partner deception ( $r=.37, p<.05$ ). Indicating that females having a negative view of self, is associated with high partner deception for females.
In examining gender differences it was only found that females differed in comparison to males as there was no association between the anxious attachment scale and own use of deception in females. All other correlations were similar among male and female.
The degree to which an individual perceives that their partner is trustworthy can be associated with the attachment style they possess (Guerrero, 1996). As trust is associated with deception. Deception may also vary among the attachment styles. In analyzing the
four attachment styles, it was found that there were only three participants who were categorized into the dismissive attachment style. The dismissing and fearful attachment styles were combined as they both represent characteristics of Hazan and Shaver's (1987) avoidant attachment style. Calculated means and standard deviations of own deception and perceived partner deception were examined to observe differences among attachment styles. These are presented in table 3.

It was found that there was a significant difference on own use of deception between the attachment styles $(F(2,95)=9.344, p<.05)$. Using Tukey posthoc comparisons it can be said that the difference lies between those with a secure and preoccupied and those with a secure and dismissive attachment styles. In examining the means among the three different attachment styles it can be seen that people are who posses a dismissing/fearful attachment style ( $m=$ 3.91) are more likely to engage in their own use of deception than those with a preoccupied ( $m=3.41$ ) and those with a secure ( $m=2.52$ ) attachment styles.

Using Tukey post-hoc comparisons it can be said that there was a significant difference also between those with a secure and those with a dismissive attachment style. In examining the means among the three different attachment style groups it can be seen that people are who posses a pre-occupied attachment style ( $m=3.41$ ) are significantly more likely to perceive that their partner engages in deception than those with a secure ( $m=2.52$ ) attachment style.

Table 3
Means and standard deviations of own deception and partner deception for each attachment style

|  | Own deception |  |  | Partner deception |  |  |
| :--- | :---: | :---: | ---: | :---: | ---: | ---: |
|  | $n$ | $M$ | $S D$ | $n$ | $M$ | $S D$ |
| Secure | 70 | 2.51 | .98 | 70 | 2.76 | .83 |
| Preoccupied | 17 | 3.41 | 1.76 | 17 | 3.23 | 1.39 |
| Dismissive/Fearful | 11 | 3.91 | 1.25 | 11 | 3.70 | 1.23 |

## Discussion

The aim of this research was to investigate the levels of deception within attachment styles. Use of deception was associated with the perception that their partner engages in deception. Deception was high in the dismissing/fearful attachment style. Also, deception was higher for those with a pre-occupied attachment than those with a secure attachment style.

Cole (2001) suggested that that if a person perceives that their partner is engaging in deception, they too will engage in deception. Results from this research support this finding as a significant association between own use of deception and perceived partner deception was obtained. This also supports the norm of reciprocity (social exchange theory) in that, if someone believes that their partner is deceiving them, they too will retaliate by engaging in deception themselves in order to match their partner's deceit. Whilst from the current research males were generally more successful in predicting if
their partner engaged in deception, females own use of deception was associated more to the belief or perception that their partner engages in deception. Possible reasons for this stronger association in females compared to males, can be due to the fact that females are considered to be more concerned with interpersonal behaviour and have a more integrated view of trust, they often are more dependant on their partner (Rempel, et al, 1985). They tend to place more value in the relationship and therefore if they suspect deceit, they will retaliate more than their male counterpart.

Simpson and Rholes (1998) suggested using Bartholomew's four category attachment style measure. Those who have a negative view of others avoid intimacy for reasons such as fear of rejection and or have negative expectations about their relationship. These are characteristics of the fearful and dissimive attachment styles. Ainsworth similarly states that the avoidant attachment style (fearful /dismissive) lack confidence in themselves and they
view others as being unreliable and unwilling to commit themselves (Collins \& Read, 1990). Results from this research found that those who possess a fearful/dimissive attachment style, are associated with an increase in own use of deception, the belief that their partner engages in deception, relationship concern and a decrease in faith, dependability, being responsive and the ability to deal with conflict.

Simpson and Rholes (1998) also suggested that those who have a negative model of themselves, again anxiously gain to seek acceptance from others which is a characteristics of the pre-occupied attachment style and are also dependant on others which is a characteristic of the fearful attachment style. Results from this research found that those who have a negative view of themselves (pre-occupied attachment style) is associated with an increase in own use of deception, belief that their partner engages in deception. This is also associated with those who have a negative view of others (fearful/ dismissive attachment style).

Whilst there is a lack of research examining the association between deception and attachment styles Cole (2001) found an association between deception and those who possess a negative model of themselves (fearful and preoccupied attachment styles) and those who possess a negative model of others (fearful/dismissive attachment styles). The present findings support Cole's (2001) association, as deception was significantly correlated with avoidance (negative model of others) and with anxiety (negative model of self) measures. Differences in deception were also found among attachment styles as those securely attached scored significantly lower on own use of deception than the pre-occupied and the fearful/dismissive attachment styles. The present findings support Cole's (2001) assumptions that people who possess a negative model of others (fear of intimacy) engage in deception possibly to keep others at a distance and those who possess a negative model of themselves (anxiously seek acceptance) engage in deception to increase a partner's interest in them.

Although the results obtained relate to previous research and theories, there are however some methodological limitations which need to be considered. The use of self report measures may not be a true representation of individuals' actual characteristics, as people are less likely to report their use of deception as it is socially frowned upon. They may fear that their partner might find out that they are being lied too, as in conversation with participants most where curious about their partner's responses to questions regarding deception. Also people may have different views in what they define as deception, omissions or white lies may not be viewed as deceit by some participants (West, 2001)

Future research could include an 'observer report' for example a close friend(s) of the couple, who is in a position to report each partner's or a partner's level of trust and deception. Another threat to validity of the results is due to the comparison of unequal and small group sizes, as the majority of participants in this study categorized into the securely attached style, and
few participants represented the fearful/dismissive and pre occupied attachment styles.
The use of dyadic data is another methodological concern, as partner's scores are interdependent of each other. Previous research has found significant low to moderate correlations between partner scores, however interdependence does not account for all variation among scores (West, 2001).
In accordance with the social exchange theory, own use of deception is associated with the belief that their partner engages in deception. In order to protect one's self-esteem, own use of deception is associated with a decrease in trust as previous research suggests that individuals who engages in deception automatically create false impressions that their partner engages in deception to avoid feelings of guilt. This investigation also demonstrated that the infant-care taker bond formed, being the blue-print for future relationships, is associated with trust and deception. Differences were found between attachment styles. Those with pre-occupied and fearful/dismissive attachment styles are associated with deception, for possible reasons of fear of abandonment (pre-occupied attachment style) and fear of intimacy (fearful/dismissive attachment style). Although results support previous literature, caution must be made with current findings as selfreport measures were used as the basis of analysis, interdependence of partner scores were not taken into consideration and some group sizes were relatively small. Further research could investigate the causal links between attachment styles and deception to further our understanding in why some find it easy to fall in love and others don't.

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# Adoption, Attachment, and Relationship Experiences 

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#### Abstract

There is evidence that adopted persons are overrepresented in clinical populations, and fare worse than non-adoptees on various psychosocial variables, including relational adjustment. However, some studies have yielded null results, and others have highlighted the greater variability in adjustment among adopted persons. Despite considerable discussion about loss, rejection, and trust in adoptees, no research has comprehensively explored the impact of adoption on dimensions of attachment security and relationship outcomes in adulthood, or the moderating role of family and search/reunion experiences. This paper presents the first phase of a longitudinal study of adults who were adopted as infants, and a comparison sample of adults who grew up with both biological parents. The samples were generally comparable in terms of relevant background variables. Overall, attachment profiles indicated less security in the adopted sample than the comparison sample. However, variability was somewhat greater among adoptees, and those who had not searched for birth relatives did not differ from the comparison group. For adopted persons, attachment security was related to perceptions of childhood relationships with adoptive parents and, to a lesser extent, relationships with birth mothers. Ongoing work will focus on stability and change in relationship variables, and in-depth exploration of adopted persons’ experiences.


Personal relationships play a crucial role in meeting needs for intimacy and security, and in promoting physical and psychological well-being (Baumeister \& Leary, 1995; Weiss, 1991). For these reasons, issues regarding the development and deterioration of personal relationships are of prime importance. More specifically, there are crucial reasons for investigating the relationship experiences and relationship concerns of adult adoptees. Adoptees have lost the major person(s) with whom attachments are normally formed (i.e., biological parents). Further, with recent changes in legislation, many adult adoptees are now searching for birth relatives, and search and reunion experiences sometimes entail further loss and rejection. Hence, adoption may be a risk factor for negative relational attitudes and relationship difficulties in adult life.

## Adoption, Family Experiences and Adjustment

Many researchers have investigated the extent to which adoption is a risk factor for general adjustment difficulties. There is evidence that adoptees are overrepresented in clinical populations (Wierzbicki, 1993), and fare worse than non-adoptees on a range of psychosocial variables including self-esteem and depression (Borders, Penny, \& Portnoy, 2000; Cubito \& Obremski-Brandon, 2000; Levy-Shiff, 2001). However, Collishaw, Maughan, and Pickles (1998) found that adoptees were no different to the general population in terms of psychological distress, and Borders et al. (2000) found no difference between adoptees and their friends in terms of life satisfaction. Further, Sharma, McGue, and Benson (1996) reported higher levels of prosocial behaviour among adopted than nonadopted adolescents. While methodological differences may explain some of these mixed results, an alternative explanation is that factors such as search status and family experiences moderate the association between adoption status and psychosocial outcomes. Research shows that adoptees who have searched for birth parents ('searchers') have lower self-esteem than non-searchers (Aumend \& Barrett, 1984; Borders et al., 2000; Sobol \& Cardiff, 1983). Further, Sobol and Cardiff (1983) found a trend among non-searchers such that those who had less favourable relationships with adoptive parents were more likely to indicate a desire to search in the future. Hence, a well-functioning adoptive family may act as a buffer against unfavourable psychosocial outcomes. Indeed, there is evidence that when the adoptive family is open and supportive, adoptees are more likely to develop healthy self-esteem (Kelly, TownerThyrum, Rigby, \& Martin, 1998; Levy-Shiff, 2001).
If adoption is a risk factor for psychosocial difficulties, at least for some adoptees, then many adoptees may also experience difficulties in interpersonal relationships. Issues concerning loss and betrayal (which are inherently relational) are central to the adoption experience. Not only have adoptees lost their birth parents; they have also lost other birth relatives, knowledge of their genetic heritage, and the knowledge of being biologically tied to significant others (Jones, 1997; Schechter \& Bertocci, 1990). In cases where an unsuccessful reunion has taken place, adoptees may feel rejected again, and thus experience
a double loss. Parental loss through death or divorce has already been linked to insecurity and interpersonal difficulties (Kobak, 1999), but the losses associated with adoption have unique features that may predispose individuals to relationship problems. Specifically, these losses are covert and often unacknowledged or downplayed, and may entail a sense of betrayal and abandonment (Brodzinsky, 1990; Jones, 1997; Nickman, 1985). Although several studies have investigated the family relationships of adoptees, few have assessed the impact of adoption on the peer relationships of adult adoptees. As argued below, attachment theory is uniquely suited to addressing these issues.

## The Adult Attachment Perspective

Hazan and Shaver (1987) argued that adults' close relationships (especially those between spouses and dating partners) share important emotional and behavioural similarities with infant-caregiver bonds, and that the concept of 'attachment style' is relevant to both types of relationships. These researchers proposed that differences in adult attachment security predict key relationship outcomes and reflect, in part, childhood experiences with attachment figures. Subsequent research has supported these propositions (Feeney, 1999).
Recently, Edens and Cavell (1999) argued for the utility of attachment theory in the study of adoption, noting that current conceptualisations of adult attachment are directly relevant to relationship phenomena that are unique to adoptees, including loss of biological ties, and the potential for search and reunion. To our knowledge, however, Borders et al. (2000) are the only researchers to have systematically investigated attachment security in adult adoptees. These researchers studied adoptees and their nonadopted friends. While these two groups did not differ in marital satisfaction or sensitivity to rejection, differences did emerge with regard to adult attachment and social support. In terms of attachment categories, non-adoptees were over-represented in the secure group, and adoptees (regardless of search status) were over-represented in the preoccupied and fearful groups. Adoptees also reported lower social support than their non-adopted friends, though this association was moderated by search status: Searchers reported lower support than non-searchers and nonadopted respondents. This study provided a first step in exploring the link between adoption and adult attachment, but was limited by its cross-sectional nature, its reliance on a categorical measure of attachment, and its failure to fully consider the role of early parenting and ongoing relationship experiences.
In summary, despite the considerable literature on issues of infant attachment, loss, rejection, abandonment and trust in adoptees, no study to date has comprehensively explored the impact of adoption on dimensions of attachment security and relationship outcomes in adulthood, or the moderating role of family and search/reunion experiences on these outcomes. This paper reports on the first phase of a study addressing these issues. We expected that adults who were adopted as infants would report higher
levels of insecurity than adults who grew up with both biological parents (Hypothesis 1a). However, the adopted sample was also expected to show greater variability on attachment measures (Hypothesis 1b). Within the adopted sample, insecurity was expected to be higher for those who had searched for birth relatives (Hypothesis 2), and those who perceived relationships with adoptive parents and birth mothers in a more negative light (Hypothesis 3).

## Method

## Participants

Participants were 131 adults who were adopted as infants, and a comparison sample of 124 adults who grew up with both biological parents. The demographic characteristics of the two samples are shown in Table 1. Analysis of variance indicated that the samples were similar in terms of age, and frequency comparisons generally revealed similar patterns of gender, relationship status, parental status, education level, and employment status.

Table 1
Demographic characteristics of comparison and adopted samples

| Variable | Comparison | Adopted |
| :---: | :---: | :---: |
| Age | $M=37.63$ years | $M=37.67$ years |
| Gender | 74.19\% females | $77.86 \%$ females |
| Relationship status | $33.62 \%$ single <br> $11.21 \%$ de facto <br> $44.00 \%$ married <br> $11.21 \% \mathrm{sep} /$ divorced | 26.32\% single <br> $12.28 \%$ de facto <br> 42.98\% married <br> $18.42 \% \mathrm{sep} /$ divorced |
| Parental status | 47.15\% with children | 57.25\% with children |
| Education level | 7.26\% some high school 6.45\% Year 12 <br> $24.19 \%$ some further study <br> 62.10\% university degree | 9.92\% some high school <br> 9.92\% Year 12 <br> $35.11 \%$ some further study <br> 45.04\% university degree |
| Employment status | 43.90\% full-time <br> $32.52 \%$ part-time <br> $23.58 \%$ not employed | 49.62\% full-time <br> 34.35\% part-time <br> $16.03 \%$ not employed |

## Measures

As part of a larger study, participants completed measures of parental bonding and attachment security. In addition, adoptees reported on their search and reunion experiences.

Parental Bonding The Parental Bonding Instrument (PBI; Parker, Tupling, \& Brown, 1979) contains 25 items describing various parental attitudes and behaviours. This measure requires participants to think back over the first 16 years of life, and to rate each item (separately for mother and father) from 0
(very unlike this parent) to 3 (very like this parent). Adoptees answered these questions with respect to their adoptive parents. (Those in the comparison sample answered with respect to their biological parents, but these data are not considered in this paper.) The PBI yields scores on the dimensions of care ( 12 items, e.g., 'spoke to me with a warm and friendly voice'), and overprotection ( 13 items, e.g., 'tried to control everything I did'). Both scales were highly reliable, with alpha coefficients exceeding .90 for each parent.

Attachment Security Current attachment security was measured in two ways. First, attachment style was assessed by asking participants to endorse one of the four attachment descriptions (secure, preoccupied, dismissing, fearful), developed by Bartholomew and Horowitz (1991). Second, participants completed the 40-item Attachment Style Questionnaire (ASQ), developed by Feeney, Noller, and Hanrahan (1994). The ASQ measures five dimensions of adult attachment: confidence in self and others ( 8 items; e.g., 'I feel confident about relating to others'), discomfort with closeness ( 10 items; e.g., 'I prefer to keep to myself'), need for approval (7 items; e.g., 'It's important to me that others like me'), preoccupation with relationships ( 8 items; e.g., 'I worry a lot about my relationships'), and relationships as secondary to achievement (7 items; e.g., 'Achieving things is more important than building relationships'). Each item is rated on a 6 -point scale, from 1 (totally disagree) to 6 (totally agree). All five scales were reliable, with alpha coefficients ranging from .74 to .88 .

Search and Reunion Experiences Adoptees answered a series of questions about their search and reunion experiences. This paper considers only three questions dealing with relationships with birth mothers; these questions tapped satisfaction with the initial reunion and satisfaction with the current relationship ( $1=$ extremely dissatisfying to $6=$ extremely satisfying), and emotional closeness of the current relationship ( $1=$ extremely distant to $6=$ extremely close).

## Procedure

Participants for both samples were recruited through the first-year Psychology pools at the University of Queensland and University of Southern Queensland, through brochures and flyers placed on university campuses and in various community centres, and through advertisements in local media. Those interested in participating were informed of the purpose and confidential nature of the study, and were mailed a questionnaire package with a pre-paid envelope for return of the materials. The major sections of the questionnaire (search and reunion experiences, attachment security, relationships with adoptive parents) were presented in counterbalanced order.

## Results

## Adoption and Attachment Characteristics

The association between adoption and attachment security was assessed in two ways. First, a frequency comparison was conducted, relating sample (comparison versus adopted) to the four-group (forced-choice) measure of attachment style. Results revealed a significant association between sample and attachment category, $\chi^{2}(3)=19.41, p<.001$. Adopted persons represented only $37 \%$ of the secure group; in contrast, they represented $55 \%$ of the dismissing group, $63 \%$ of the preoccupied group, and $72 \%$ of the fearful group.
Second, a MANOVA was conducted to assess differences between the samples on the five scales of the ASQ. This analysis revealed a significant overall difference, multivariate $F(5,249)=3.49, p<.005$; further, univariate tests showed that this difference applied to all five scales. Adopted persons obtained lower scores than comparison persons on confidence, and higher scores on all remaining attachment scales (see Table 2, top rows). The multivariate test of homogeneity variance was also marginally significant, indicating greater variability in attachment scores within the adopted sample than the comparison sample. However, this effect applied only to the confidence scale.

## Search Status

To assess the role of search status, a more finegrained MANOVA was conducted in which searchers ( $n=97$ ), nonsearchers ( $n=32$ ) and comparison participants ( $n=124$ ) were compared on the attachment scales. Significant differences emerged on all scales except for relationships as secondary. Post hoc (Tukey) tests showed a consistent pattern, involving significant differences between the reports of searchers and comparison participants (see Table 2): Searchers reported lower levels of confidence, and higher levels of discomfort, preoccupation, and need for approval. Interestingly, non-searchers and comparison participants did not differ on any of the five scales.

Table 2
Mean scores and standard deviations on the attachment scales according to group

|  | Conf. | Disc. | Relate <br> second. | Need <br> approv. | Preocc. |
| :---: | :--- | :--- | :--- | :--- | :--- |
| Comparison | 4.50 | 2.95 | 2.06 | 2.97 | 3.14 |
|  | $(0.81)$ | $(0.92)$ | $(0.75)$ | $(0.92)$ | $(0.95)$ |
| Adopted | 4.10 | 3.25 | 2.27 | 3.34 | 3.55 |
|  | $(1.01)$ | $(1.00)$ | $(0.80)$ | $(1.03)$ | $(0.96)$ |
| Searchers | 4.05 | 3.29 | 2.24 | 3.40 | 3.61 |
|  | $(0.99)$ | $(1.04)$ | $(0.84)$ | $(1.04)$ | $(0.93)$ |
| Non- | 4.24 | 3.18 | 2.37 | 3.18 | 3.31 |
| searchers | $(1.10)$ | $(0.96)$ | $(0.73)$ | $(0.99)$ | $(1.08)$ |

Note. Conf. $=$ Confidence, Disc. $=$ Discomfort, Relate second. $=$
Relationship as secondary, Need approv. $=$ Need for approval, Preocc.
= Preoccupation

## Relationships with Adoptive Parents and with Birth Mothers

To assess the role of family relationships (within the adopted sample), the five attachment scales were correlated with reports of childhood relationships with adoptive parents, and, for those who had met their birth mother $(n=75)$, with ratings of that relationship. These results are shown in Table 3. The strongest associations with reports of relationships with adoptive parents were for the confidence, discomfort, and need for approval dimensions of attachment.

Confidence was related positively to parental care (from both adoptive mother and adoptive father), and negatively to parental overprotection. Conversely, discomfort and need for approval were related negatively to parental care, and positively to parental overprotection.

Associations with items assessing relationships with birth mothers were more scattered. However, perceptions of a satisfying reunion were associated with more confidence and less discomfort.

Table 3
Correlations between attachment security and adoptees' reports of parental relationships

| Relationship variable | Conf. | Disc. | Relate <br> second. | Need <br> approv. | Preocc. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Adoptive parents | $.42^{* * *}$ | $-.41^{* * *}$ | $-.18^{*}$ | $-.23^{* *}$ | $-.22^{*}$ |
| Maternal care | $.32^{* * *}$ | $-.27^{* *}$ | -.09 | $-.30^{* * *}$ | $-.23^{* *}$ |
| Paternal care | $-.38^{* * *}$ | $.37^{* * *}$ | $.17+$ | $.28^{* * *}$ | $.22^{*}$ |
| Maternal overprot. | $-.29^{* * *}$ | $.24^{* *}$ | -.02 | $.25^{* *}$ | .10 |
| Paternal overprot. |  |  |  | -.07 | -.09 |
| Birth mother | $.10+$ | $-.25^{*}$ | -.22 | -.07 | -.01 |
| satisfaction (reunion) | .11 | -.10 | -.15 | -.07 | -.02 |
| satisfaction (current) <br> closeness | -.10 | -.17 | -.02 |  |  |

Note. Conf. $=$ Confidence, Disc. $=$ Discomfort, Relate second. $=$ Relationship as secondary, Need approv. $=$ Need for approval, Preocc. $=$ Preoccupation;
$+p<.06,{ }^{*} p<.05,{ }^{* *} p<.01,{ }^{* * *} p<.001$

## Discussion

Before discussing the results in more detail, it is important to consider the limitations of the study. Sample size was relatively small for some categories (e.g., those who had met their birth mothers). Further, because all these data were drawn from Phase 1 of the study, they are cross-sectional in nature. This issue complicates, in particular, interpretations of the associations between measures of attachment security and relationships with birth mothers. It is possible, for example, that avoidant attachment (which is reflected in high levels of discomfort with closeness) colours reports of the reunion experience, rather than the reverse.
Overall, the results support the suggestion that insecure attachment is more widespread among adoptees than among the general population. Adoptees scored lower than comparison participants on confidence in self and others, and higher on all five scales tapping dimensions of insecurity. Adoptees were also over-represented in the insecure attachment categories. This over-representation applied particularly to the fearful style; attachment theory suggests that fearful attachment represents the most negative pattern of working models (Bartholomew \& Horowitz, 1991), and empirical research on the characteristics of the four styles supports this assertion (e.g., Feeney, Noller, \& Hanrahan, 1994). These findings on the attachment characteristics of the samples support Hypothesis 1a; moreover, supplementary analyses indicated that the results were robust across gender. Hence, these findings fit with the suggestion that attachment theory provides a
useful perspective on the relationship issues that arise for adoptees, including loss of biological ties and the potential for search and reunion (Edens \& Cavell, 1999).

However, consistent with Hypothesis 1b, the results also pointed to the wide variability in adoptees' responses to measures of attachment security. Further, on four of the five attachment scales, it was only those who had searched for birth relatives who reported higher levels of insecurity than the comparison sample. These results fit with previous studies linking search status to indices of psychological adjustment (e.g., Sobol \& Cardiff, 1983), and support Hypothesis 2.

As expected (Hypothesis 3), our results supported the association between positive childhood relationships with adoptive parents (high levels of care, low levels of overprotection) and current attachment security. This finding fits with the broader literature on the link between responsive parenting and offspring's attachment security (e.g., Rothbard \& Shaver, 1994). To a lesser extent, the results also point to the relevance of relationships with birth mothers, at least in terms of the reunion experience. The weaker nature of the findings pertaining to birth mothers probably reflects not only the smaller sample size, but also the less formative nature of these relationships, compared to those with primary caregivers.

Finally, it is worth noting some of the future directions in this research project. We are interested in the stability of adult attachment over time, given previous suggestions that working models may be more tentative and unstable in insecure individuals. Further, we have collected a large body of qualitative
data tapping relationships with adoptive parents and experiences of search and reunion, and these data will be supplemented by in-depth interviews with the adoptees. One of the complex issues to be addressed in the interviews concerns adoptees' experiences of negotiating roles, relationships, and boundaries between birth and adoptive families. These issues need to be addressed in order to develop best practice for adult adoptees who may be at risk of relationship problems.

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# Favouritism and Rejection in Families: Black sheep and Golden-haired Children 

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#### Abstract

Despite the assumption that parents aim to treat their children equally, children frequently perceive and complain about parental favouritism and its mirror image, disfavouritism. Psychologists and evolutionary theorists have proposed several factors that might account for familial favouritism and rejection, including offspring viability, genetic relatedness, similarity to parents, sex, and birth rank. Little is known, however, about laypeople's theories of the causes of familial rejection. In the current study, 70 respondents reported on the incidence of, and perceived reasons for, family favouritism and rejection in their immediate and extended families. Nearly $69 \%$ of respondents reported the existence of a family favourite, with perceived reasons for favouritism involving birth order, sex, 'goodness' and similarity to parents. Some $80 \%$ of respondents reported that there was a black sheep in the family, with perceived reasons for rejection involving a sense of difference, genetic unrelatedness, trouble-making, and deviance. Interestingly, respondents' perceptions of familial favoritism and rejection were negatively associated with reported closeness to extended family while growing up. Implications for family-related theory and research are discussed.


There is an implicit assumption (in Western society, at least) that parents treat their children equally (Klagsbrun, 1992). However, children frequently perceive and complain about parental favoritism (Harris \& Howard, 1988; Kowal, Kramer, Krull, \& Crick, 2002; Zervas \& Sherman, 1994). For example, in one study of 127 males and females aged 17-30 and 62 of their siblings (aged 18-32 years), Brody, Copeland, Sutton, Richardson, and Guyer (1998) found that $65 \%$ of participants reported favouritism in their families and $24 \%$ reported disfavouritism (i.e., not receiving the same benefits as other siblings). There was modest sibling agreement both on the existence of favouritism and on the identity of the favoured/disfavoured child. Crucially, the presence of disfavouritism was positively related to lower family cohesion, higher family disengagement and higher family conflict. Moreover, participants who perceived themselves to be disfavoured experienced more frequent and intense shame and fear.
Given that most parents at least try to treat their children equally, how is it that perceptions of favouritism and disfavouritism arise in families? A number of potentially important contributing factors have been suggested. For example, some children may experience disfavouritism as a function of family dynamics. Clinicians with interests in family therapy have described so-called family 'scapegoats', described by Dare (1993) as children who are treated
"as though they are irretrievably bad and blamed for all the tension and strife in the family" (p. 31). Therapists argue that scapegoating means families can maintain levels of solidarity and cohesiveness that they could not otherwise maintain (Vogel \& Bell, 1960). However, such treatment is extremely painful for the family member who is object of scapegoating. Furthermore, a scapegoated child is frequently threatened with 'eviction' from the family, and may even be sent away, e.g., to boarding schools, reform schools, or foster families.

An interesting question, then, is why one child in a family might be scapegoated, while another child might be particularly highly regarded. Rohde et al. (2003) have argued that, from an evolutionary perspective, some offspring are simply better investments than others, depending on factors such as their sex, age, and health; the mother's age and health (and opportunities for future reproduction); and environmental factors such as the availability of resources and support. Offspring who, for one reason or another, are 'riskier' investments (or who perhaps require less investment than more vulnerable siblings) may quite accurately perceive that they are, comparatively speaking, disfavoured. Another possibility is that offspring who jeopardize their own and/or their siblings' reproductive success (e.g., via deviance, criminality, etc.) may be relatively disfavoured, whereas offspring who enhance their own and their siblings' reproductive success (e.g., through talent, attractiveness etc.), may be relatively favoured.

A second and related factor that might contribute to differential parental treatment derives from the welldocumented human tendency to invest more in genetically-related others than in non-genetically related others (e.g., see Daly \& Wilson, 1998). This implies that adopted and foster children may well feel less included and more rejected than biological children in a family. Indeed, Daly and Wilson have marshaled an impressive body of evidence demonstrating that stepchildren are at relatively greater risk for assault and murder by step-fathers than are fathers' biological offspring. Step-children are also more likely than biologically-related children to be killed by more violent and malicious means, as opposed to being killed in their sleep. Clinical data suggest that step-children, adopted children and foster children are all more vulnerable to being scapegoated, as are children with physical or intellectual disabilities and signs of 'difference' from other children in the family (Brody et al., 1998).

A more proximal factor that may elicit differential treatment of children involves birth rank. Sulloway (1996) proposed that offspring can enhance their
chances of survival by occupying different family 'niches' and so reduce inter-sibling competition for resources. Based on his investigations, Sulloway argued that middle born children are more likely to rebel against traditional family values than firstborns, who tend to be family-conscious and relatively conservative. Middleborns may also be less 'indulged' than lastborns, who are frequently in a position to enjoy more exclusive use of parental resources (including time and accumulated financial assets). Middleborns, then, may be correspondingly more likely to perceive disfavouritism than firstborns or lastborns.

There is some empirical evidence supporting the idea that middleborns differ from firstborns and lastborns. For example, Salmon (2003) found in a study of 245 Canadian students that middleborns expressed more positive views towards friends, and less positive opinions of family, than firstborns or lastborns. They were also less inclined to help the family in need than firstborns or lastborns.

Along with birth-order, another proximal factor contributing to parental favouritism is a child's sex. As Hrdy (2000) has pointed out, there is a widespread historical preference around the world for male, rather than female, children. Within any one family, however, a preference for one sex or the other may depend on factors such as how many children of a particular sex have already been born.

Clearly, there are a number of factors that play potentially important roles in the differential treatment of children in families. In particular, theories derived from evolutionary social psychology suggest that the most important factors may derive from offspring qualities (such as genetic relatedness) and/or behaviours (such as criminality) that potentially impact on a person's reproductive success, and/or that of his/her siblings. However, these theories have not yet been empirically examined. Moreover, the question of how laypeople think about and explain their favoured or disfavoured status within the family to themselves and others is also unexplored. For example, to what extent do disfavoured offspring blame themselves for their relatively rejected status? And how do favoured offspring justify their relatively enhanced familial status?

## Overview of Current Study

The aims of this preliminary study were first, to explore laypeople's accounts of their experiences and perceived causes of familial favouritism and disfavouritism; and second, to examine the extent to which these accounts would be in line with the kinds of causal factors suggested by evolutionary theorists. A semi-structured questionnaire was administered to individuals participating in a larger-scale study on family rules, rule violations, and forgiveness (see Fitness, in press; Fitness \& Parker, 2003). Participants' accounts were coded for details pertaining to the reported targets and causes of familial favouritism and disfavouritism.

## Method

## Participants

Seventy respondents were recruited from the $1^{\text {st }}$ year Psychology pool at Macquarie University ( 26 males and 44 females, $M$ age $=27.5$ years). Of these, $34 \%$ were firstborns, $36 \%$ were middleborns, and $30 \%$ were lastborns. The majority ( $94 \%$ ) were of European background. Participants received one hour's course credit for participating in the study.

## Materials and Procedure

Along with a battery of questionnaires unrelated to the current study, participants completed a questionnaire containing the following, open-ended questions: a) was there a favorite in your family? And if so, how did you know s /he was the favourite? and b) was there a 'black sheep' (defined for participants as "someone who was not approved of, or liked, or included as much as the others") in your family? And if so, how did you know s/he was the black sheep? They were also asked demographic questions about their sex, age, birth order, and number of siblings, and were asked to rate their perceived closeness to extended and nuclear family members when they were growing up on 5 pt . Likert scales (end points, not close at all to extremely close). Responses to the open-ended questions were coded by two, independent raters into a category system based on theoretical accounts of the potential causes of familial favouritism and disfavouritism (e.g., birth order; genetic unrelatedness). Responses that did not fall into one of these categories (e.g., similarity to parent) were coded initially as 'other', then placed in discrete subcategories. Inter-rater reliability was high, with an overall Cohen's $k$ of .88 .

## Results

## Family Favourites

In line with the findings from other, larger-scale studies, nearly $69 \%$ of respondents reported there was a family favourite, with $48 \%$ reporting it was themselves, $35 \%$ reporting it was a brother, and $17 \%$ reporting it was a sister. Moreover, and in accord with Sulloway's (1996) birth-order theory, 58\% of firstborns and $62 \%$ of lastborns believed they were the family favourites; however, only $31 \%$ of middleborns reported favoured status.
As shown in Table 1, the most frequently reported reasons for favouritism involved birth order (specifically, being first or last born, but never middleborn); sex (in particular, being the only boy or girl in the family); so-called 'goodness' (having talent, being attractive, likable, 'fitting in'); similarity to a parent, and illness (specifically, having a sibling who required special attention and who was treated in a way that could be construed as 'favoured'). Respondents were just as likely to cite birth order, sex, goodness, and similarity to a parent as reasons for their own favoured status as for the favoured status of siblings.

Table 1
Most Frequently Reported Reasons for Favouritism (\%)

| Birth order | 33 |
| :--- | ---: |
| Sex | 23 |
| Goodness | 21 |
| Similar to parent 19 |  |
| Sibling illness | 4 |

## Black Sheep

Remarkably, $80 \%$ of respondents reported that there was a black sheep in the family, with $21 \%$ claiming it was themselves, $13 \%$ naming a brother, $16 \%$ a sister, $25 \%$ an uncle, and $25 \%$ naming a cousin, in-law or distant relative. Some $38 \%$ of middleborns believed they were the 'black sheep' of the family, compared to only $7 \%$ of firstborns and $18 \%$ of lastborns.
The reasons given for black sheep status differed, depending on who the target was (see Table 2). Respondents made the kindest attributions to themselves for having black sheep status, with $100 \%$ citing 'difference' to the rest of the family (including genetic unrelatedness). Perceived difference was also frequently mentioned to explain a sister's black sheep status, along with her perceived rejection of the family by marrying someone undesirable, and/or severing contact with family members. Very few respondents mentioned 'badness' (drugs, criminality) in relation to a sister's black sheep status. Nearly three-quarters of black sheep brothers, on the other hand, were believed to have attained their status via trouble-making, including drug and alcohol involvement, rebelliousness, and criminality. The remaining $29 \%$ were perceived as 'different' from the rest of the family.
Finally, the majority of uncles and other extended family members ( $99 \%$ of whom were male) were considered to have earned their disfavoured status through behaving badly. This category included perceived moral deviance (e.g., homosexuality; adultery; family desertion; gambling) as well as drugrelated and criminal behaviour (e.g., fraud, theft). There was also a category best described as 'strangeness' that included mental illness and behaviour regarded by participants as eccentric (e.g., nudism). Perceived difference accounted for $10 \%$ of extended family black sheep, and most of these involved religious differences.

## Treatment of Black Sheep

The majority of participants (42\%) reported exclusion or ostracism of the black sheep. Indeed, some $10 \%$ of these participants reported that a whole 'side' of a family had been rejected or ostracized for religious reasons or because of long-standing feuds and hatreds (the origins of which were not aalways known or understood by respondents). Another $16 \%$ of participants described cold, distant, 'chilly polite' behaviour toward the black sheep. The remaining $33 \%$ reported active rejection of the black sheep,
including criticism, nagging, meanness, and ridicule (including public humiliation).

Table 2
Most Frequently Reported Reasons for
Disfavouritism According to Target (\%)

| Self | Perceived difference | 100 |
| :--- | :--- | ---: |
| Sister | Perceived difference | 72 |
|  | Rejection of family | 25 |
|  | 'Badness' | 3 |
| Brother | 'Badness' | 71 |
|  | Perceived difference | 29 |
| Extended |  |  |
| Family | 'Badness' | 70 |
|  | 'Strangeness' | 20 |
|  | Perceived difference | 10 |
|  |  |  |

## Extended Family: A Protective Factor?

There was an interesting and unexpected finding that emerged in the section of the study designed to measure perceptions of family closeness. Specifically, the more contact respondents reported having had with their extended family as they grew up, the less likely they were to report there had been a black sheep ( $r=-.47$ ) or a favourite ( $r=-.29$ ) anywhere in the family.

## Discussion

Overall, these findings suggest that laypeople's accounts of the incidence and causes of familial favouritism and disfavouritism are remarkably consistent with evolutionary and social psychological accounts. In line with Sulloway's (1996) theory, birth order (first or last) was a frequently mentioned reason for perceived favoured status; however, although considerably more middleborns than first or lastborns considered they were the black sheep of the family, none of them cited birth order as the reason for their own disfavoured status. Rather, perceived difference was the most frequently cited reason for a participant's own disfavoured status. Indeed, many participants discussed at length their difference to the rest of the family - they looked different (frequently reported), had different personalities, talents, or interests, and just didn't 'fit into' or feel they belonged to the family, whether genetically related or not. This failure to 'fit in' was also a prominent reason for black sheep sisters.

It is interesting to speculate whether, from an evolutionary perspective, such perceptions of 'difference' may indeed serve as proximal cues to the possibility of genetic unrelatedness (signaling a risky investment, with respect to parents' and siblings' reproductive interests). In relation to this point, it is worth noting that $19 \%$ of favourites were considered to have attained their status through similarity to a parent (a cue for genetic relatedness). This possibility is supported by the findings of a study involving a hypothetical adoption task in which Volk and Quinsey (2002) found that men responded most favorably to
infants whose facial features most resembled their own.

There was also an interesting contrast between socalled 'goodness' and 'badness' in relation to favouritism and disfavouritism. The majority of disfavoured males, in particular, were considered to have attained their status through behaviours that effectively dishonoured or shamed the family (criminality, deviance). Such behaviours may diminish a male's reproductive potential and relatedly, through reputational damage, the reproductive success of his siblings. Indeed, a prominent aspect of many participants' accounts involved the notion of the family as an entity to which members owe allegiance. For example, a sizable proportion of disfavoured sisters were considered to have effectively betrayed their families by rejecting family values, marrying 'out' and/or severing contact. No doubt such behaviours involve the risk that a daughter may 'waste' her limited opportunities to produce high quality offspring. However, comments were also made about a daughter's duty to remain close and loyal to family, and to facilitate contact between grandchildren and grandparents.

## Family favourites and scapegoats: The products of self-fulfilling prophecies?

One important point to consider with respect to both familial favouritism and disfavouritism concerns the direction of causality. Brody et al. (1998) noted that if a child is disfavoured, he or she receives relatively few parental rewards and so exhibits fewer and fewer positive behaviours; in effect becoming less 'likable'. Similarly, children who are perceived by parents, teachers, and peers as attractive and likable tend to receive a disproportionate number of rewards which may, in turn, increase their popularity. As noted by Baumeister and DeWall (in press), people who feel rejected by society frequently exhibit the kinds of behaviours observed in laboratory studies of rejection, including self-defeating behaviours and impaired selfregulation. This begs the question re so-called 'black sheep': To what extent were they rejected by their families because they were different (or deviant), and to what extent did they become different (or deviant) as a function of having been (or felt) rejected by their families? No doubt, there is a bi-directional relationship here. However, and as discussed earlier, there are also factors, such as birth rank and degree of genetic relatedness, that may push children toward the edge of their families. In this regard, it is worth noting the associations found between apparent lack of favouritism or disfavouritism and extended family involvement. It may be the case that having a large, available, and involved network of kin provides a buffer against parental scapegoating of particular children.

## Conclusions

There is an enormous amount of work to be done in this fascinating field. The current study has a number of limitations, including the small sample size and the fact that the data were drawn from a culturally and
socio-economically homogenous population. Largescale cross-cultural studies are needed to more systematically investigate the evolutionary arguments proposed here, along with detailed analyses of relevant familial demographics (e.g., parental age, health, birth spacing). Importantly, however, research in this field has applied, as well as theoretical significance. The need to belong is fundamental to human beings, and the pain of feeling unacceptably 'different' may be severe. Indeed, strong links have been found between parental rejection and depression in adolescents and adults (Robertson \& Simons, 1998; Nolan, Flynn, \& Garber, 2003). A better understanding of the causes, beliefs, and assumptions underlying such rejection may enhance the health and happiness of humans in their first, and arguably most crucial, context of belonging: The family.

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# Excessive Internet Use as a Behavioural Addiction 

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#### Abstract

The Internet offers many activities, such as chat rooms and multi-user dungeons. The Internet may eventually have as profound an impact on people's lives as the telephone and television. This may be problematic for high Internet users, who, compared to low users, have reported higher levels of depression and less social support. Low self-esteem has also been related to excessive Internet use. Excessive use of the Internet may be seen as an impulse control disorder akin to pathological gambling. This paper discusses excessive internet use as a behavioural addiction.


The Internet has rapidly changed from simply a communication tool, similar to email, to include an expanded range of information and activities (Wallace, 1999). World use of the Internet went from $0.4 \%$ in 1995 to $9.5 \%$ in 2002. In 2001, $42 \%$ of Australians reported having used a personal computer at home in the week preceding the census (ABS, 2004). Almost seven million people in Australia had used the Internet in that same week. Australian Internet usage has grown from $6.7 \%$ in 1997 to $54 \%$ in 2002 (NUA, 2004). This is an explosion in use, considering the Internet is a relatively contemporary technology.

The Internet started to take off in 1993, when user friendly features were added to the world wide web (WWW). These features, such as email, discussion forums, chat rooms and multi-user dungeons, made it more interesting to use (Jonscher, 2000). People from all walks of life created home web pages and joined discussion forums (Wallace, 1999). The social and psychological impact of the Internet may be of concern in the same way that other communication technologies, such as television, radio, and newspapers, have had a significant impact on people's lives (Howard, Rainie \& Jones, 2002). That the Internet is rather abruptly becoming a routine part of life makes its potential social and psychological impact pervasive.

The Internet, if moderately used, can be beneficial (Young and Rodgers, 1997). A distinction can be made between healthy and unhealthy use of the Internet. Healthy Internet use involves integrating time spent online and time spent in the real world (Suler, 1996). Individuals can bring their interests and personalities with them online. They can use the Internet to keep in touch with those with whom they already have firm relationships. When face-to-face with family and friends, they do not feel as if they must hide how they have spent their time online. For
these users, time online is not excessive. They tend not to have personal problems from which Internet use is an escape, nor does Internet use usually result in any social or emotional disturbance (Davis, 2001).
For those whose time spent online is dissociated from real life, their use of the Internet may be unhealthy. The Internet may be used as an escape (Suler, 1996). These individuals may portray a personality to others online different to that of their offline personality. They may keep their cyber world separate from their real world, and may not discuss their time spent online with those outside the Internet. Rather than viewing these as clear-cut categories, Internet use may be viewed along a continuum ranging from healthy to unhealthy use (Davis, 2001). When individuals engage in use that is skewed towards the unhealthy end of this continuum, they may be regarded as addicted. Since the phenomenon of Internet addiction is relatively new, it can be compared with aspects of other addictions in order to validate it as a syndrome.
Addiction is difficult to define, but the consensus is that it is repetitive abuse of a substance or an activity that is problematic, either to the individual or society, or both (Walker \& Lidz, 1983). Substance addiction involves the ingestion of a substance, including food, nicotine, heroin and alcohol (Greenberg, Lewis \& Dodd, 1999). Addictions to an activity include addictions to exercise, gambling, television and video games and are often referred to as behavioural addictions. Usually those addicted lose control over use of the substance or activity with the inability to regain control. This loss of control makes it unacceptable, as one of the core societal values of Western culture is to retain self-control.
Many abused substances and activities are legal and often enjoyed in the company of others, such as gambling and drinking alcohol (Walker \& Lidz, 1983). They are acceptable in moderation, but become intolerable when they are performed repeatedly. Internet addiction is defined as problematic use of the Internet that results in dysfunction in occupational, academic, social and/or psychological aspects of life (Beard \& Wolf, 2001).
A number of models exist to explain addiction, though not all are relevant to Internet addiction. For example, the medical model is the most prevalent model explaining addiction, though it does not account for behavioural addictions such as Internet addiction (Marlatt, Baer, Donovan \& Kivlahan, 1988). This model views addiction as a disease, and assumes
the person with the addiction is suffering from a disease (Thombs, 1994).
The maladaptive behaviour model accounts for both substance and behavioural addictions (Marlatt et al., 1988). Addiction is viewed as the result of behaviour learned within the context of personal and environmental factors. It is based on social learning theory, and explains the addictive substance or activity as being reinforcing for the individual (Donegan, Rodin, O'Brien \& Solomon, 1983).
The neurobiological model offers an explanation based on the activity of neurotransmitters (Panksepp, 1998). The dopamine hypothesis states that addictive urges are initiated by the activity of the neurotransmitter dopamine. Interaction on the Internet may trigger the release of neurotransmitters that make the experience pleasurable, acting as a conditioned reinforcer
A psychoanalytic model proposes that addiction is a response to an inner emptiness, and that the addict's control over the substance creates an illusion that this emptiness is not there (Good, 1995). The Internet addict may have a sense of control over the Internet that masks this inner void.
Regardless of which model is used to explain addiction, there exists several common properties of both substance and behavioural addictions that predispose them to become addictive and make them difficult to give up (Donegan et al., 1983). Two such components of addictions include tolerance and withdrawal.
Tolerance occurs when the initial levels of a substance that produced satisfaction no longer produce the same satisfying effects. This results in a greater perceived need, which consequently leads to an obsession with seeking the high associated with the addiction (Van Den Bergh, 1991). Compulsive behaviour thus follows in order to obtain the substance or engage in the activity. This compulsive behaviour interferes with the ability to function in various facets of life. Attempts to abstain result in withdrawal effects.
Withdrawal is a consequence of physiological and psychological dependence and involves an unpleasant consequence of abstaining from the addiction (Elster \& Skog, 1999). Physiological dependence is apparent when the substance is no longer available and the body suffers physiological effects, such as irritability, sweating and shaking (Donegan et al., 1983). In rare cases, these somatic effects also take place in behavioural addictions (Elster, 1999). Psychological dependence is manifested when the substance or activity is no longer available, resulting in withdrawal effects of emotional distress and cravings.
These have been documented in cases of addictions. In a study of substance and behavioural addictions, which examined cravings, withdrawal, tolerance and lack of control, the highest level of addiction was found in exercise, caffeine, television and alcohol (Greenberg et al., 1999). The study also found evidence for Internet addiction using these components. Brenner (1997) also reported evidence that withdrawal, tolerance and cravings occur in Internet addiction.

As with other behavioural addictions, Internet addiction does not involve some of the symptoms of substance abuse, such as physiological dependence and withdrawal (Beard \& Wolf, 2001). It may be better described as an impulse control disorder. Young (1996) modified the DSM-IV criteria for the impulse control disorder of pathological gambling to suit Internet addiction, yielding eight criteria: 1) preoccupation, 2) increasing use, 3) inability to control use, 4) irritability when not using, 5) staying online longer than intended, 6) jeopardizing relationships or career, 7) lying to conceal use, and 8) use as an escape.

Internet addiction is assumed if people meet five of the eight criteria. Young (1996) found that those addicted increased their time spent on the Internet substantially. This is similar to developing tolerance. These addicted individuals would make drastic attempts to cut back time spent online, such as disconnecting their Internet services. This resulted in becoming preoccupied with thoughts of being online. This is comparable to cravings. In this way, Internet addiction can be viewed as an impulse control disorder.

With addiction, short-term gratification is generally followed by long-term consequences (Lang, 1983). These consequences involve difficulties in various facets of life, including financial, occupational and personal. This may occur as a result of the impulsive nature of the individual. Impulsivity, a feature of impulse control disorder, is a personality trait defined as reacting hastily to impulses or urges without stopping to think before acting (Lorr \& Wunderlich, 1985). This trait has been implicated in a variety of addictions.

For example, cocaine-dependent individuals have greater levels of self-reported impulsivity than matched controls (Coffey, Gudleski, Saladin, \& Brady, 2003). Those with high levels of impulsivity are also less able to delay gratification in order to receive a better reward. Also, those with pathological gambling problems have greater impulsivity than social gamblers, who have greater impulsivity than non-gamblers (Nower, Derevensky \& Gupta, 2004). This implies that the greater the problem, the greater the impulsivity. Similarly, those with co-morbid addictions of gambling and substance abuse have greater impulsivity than those with only a gambling or only a substance abuse problem (Vitaro, Ferland, Jacques \& Ladouceur, 1998).

Sensation seeking is a feature of impulsivity, where those who are sensation seekers tend to prefer novelty and spontaneity (Zuckerman \& Link, 1968). Lin and Tsai (2002) found that sensation seeking is related to Internet addiction. As explained by the maladaptive behavioural model (Marlatt et al., 1988), sensation seekers may find the Internet to be a stimulating, adventurous activity, reinforcing to their impulsive personality (Lin \& Tsai, 2002).

People continue their addictive behaviour despite the problems when the consequences outweigh the benefits (Falk, Dews, \& Schuster, 1983). Internet addicts tend to spend so much time online that their personal and professional lives suffer (King, 1996).

They also spend less time engaging in what were formerly pleasurable activities (Davis, 2001). As they engage less in other activities and engage more in the primarily solitary activity of the Internet, they may become socially isolated.

Currently, the Internet is still growing, and may be viewed as a continuation of the shift towards spending more time with technology and less time with families and friends (Ajayi, 1995, cited in Griffiths, 1997). Social history has witnessed the introduction of radio in the 1930s and television in the 1950s (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, \& Scherlis, 1998). As a means of privatising entertainment, both have been held responsible, especially television, for reduced social participation. Even when radio or television are enjoyed in the company of others, there is little interaction between viewers.

Unlike television, the Internet includes two-way interaction, allowing people to have their say to the rest of the world and to receive a response (Gackenbach \& Ellerman, 1998). Rather than people using the Internet as a means to further privatise their entertainment, they may actually become more social in their entertainment, using the Internet to break geographical barriers and to communicate with the rest of the world (Kraut et al., 1998).

The Internet is a way of connecting socially, yet, paradoxically, at the same time isolates users (DeAngelis, 2000). Those who spend more time on the Internet reported lower quality relationships with their families and friends than those spending less time online (Sanders, Field, Diego \& Kaplan, 2000). Another study found similar results, with participants reporting greater use of the Internet also reporting greater levels of loneliness and less social support than those who used it less (Kraut et al., 1998). This occurred despite the fact that the Internet was used primarily for social and communicative purposes.

Although relationships are often formed online, in chat rooms and multi-user dungeons, these tend to be weak rather than strong relationship bonds (Kraut et al., 1998). Weak bonds are superficial and easily broken, whereas strong bonds are long-lasting with deep feelings of affection and obligation. What separates relationships maintained through other communication devices, such as telephone and fax, from the Internet is that the Internet encourages the development of relationships with complete strangers (King, 1996).

People may be more inclined to form a relationship with a stranger on the Internet than in real life due to the anonymity that the Internet provides. This means that Internet users do not have to worry about the impression their appearance will make to the other person (Wallace, 1999). It also allows Internet users to form an idealistic image of the person with whom they are forming a relationship. In this way, connections are formed rather quickly (Young, 1997). Even intimate details about their lives may be disclosed upon chatting for the first time. These may be things that they do not feel comfortable revealing to people already in their lives, such as partners or friends.

Preferring online to face-to-face interaction may have deleterious consequences. The more one prefers online interaction, the less psychosocial wellbeing they possess (Caplan, 2002). One such psychosocial factor, depression, is associated with greater levels of Internet use (Kraut et al., 1998). Depression involves a low mood, lack of motivation and the inability to gain pleasure from one's usual activities (Bennett, 2003). Depressives often have a negative outlook towards themselves and the future.

Self-esteem is a psychosocial factor that often accompanies depression (Rosenberg, 1965). Selfesteem refers to how people evaluate themselves (Baumeister, 1993). Those with low self-esteem tend to lack positive self-views. Depression and selfesteem have been implicated as factors in other addictions, including alcoholism (Corrigan, 1991) and gambling (Lesieur \& Blume, 1991).
In regards to Internet addiction, people with lower self-esteem spend more time online and have higher rates of addiction to the Internet (Armstrong, Phillips \& Saling, 2000). Internet addiction is also associated with higher levels of depression (Young \& Rodgers, 1997). Higher levels of depression have also been identified in those who spend a greater amount of time online (Kraut et al., 1998).
People with Internet addiction may have negative cognitions that tend to involve either themselves or their world (Davis, 2001). Those Internet addicts who have a negative view of themselves can use the Internet to achieve a more positive view through affirmations from online relationships. Possessing a negative view of the world may lead them to believe that the Internet is a place, if not the only one, where they can feel good about themselves.
The Internet may serve as an escape for people with low self-esteem and depression (Armstrong et al., 2000). They can create an online persona that is different to that which they portray in the real world (Young, 1997). People with low self-esteem tend to be cautious in their self-presentation when interacting with others (Baumeister, 1993). This may be because they fear losing any of what little self-esteem they possess. When people are online, they can create an identity that represents an ideal rather than an actual view of themselves (Young, 1997). This is what they portray over the Internet, making them more confident in their interactions and temporarily boosting their self-esteem.

A possible reason individuals feel more confident interacting on the Internet is that they can meet people in a less intimidating manner than when meeting people face-to-face (Young \& Rodgers, 1997). They also have more control over what they communicate and can avoid the embarrassment of saying something they may regret.
Individuals who are addicted to the Internet tend to use excessively those features that allow communication with other users (Young, 1996). These include chat rooms, multi-user dungeons and email. Those who are not addicted are more inclined to use information protocols, newsgroups and the WWW. This suggests that people may not be addicted
to the Internet as a whole, but only to these particular features.
The attraction to these features may be for a variety of reasons. In multi-user dungeons, individuals create a character to interact with other online characters (Turkle, 1995). These online personas contain aspects of the self that may not be expressed in ordinary real life. As it is easy to find groups with the same point of view, individuals may enjoy interacting in newsgroups and chat rooms (Wallace, 1999). This may enable them to have in-depth discussions with like-minded others, which is unavailable to them elsewhere. This shared common interest may reinforce these individuals, allowing them feel good in themselves about having a point of view that others agree with.
In conclusion, Internet addiction is a new phenomenon and appears to have components in common with other addictions, such as impulsivity, low self-esteem, depression, and problems with social support. Some features of Internet use are more addictive than others. Internet addiction needs to be recognised as a disorder, so that individuals can be offered help, rather than viewed as wasting their time on the Internet.

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# Bullying Relationships in High Schools 

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#### Abstract

In response to evidence that bullying in schools persists in the presence of bystanders, this study sought to add to the existing knowledge about its reinforcing effects. The objectives of this research project were to investigate non-intervention in bullying incidents by students. This was a multi-dimensional investigation of the emotional, cognitive and behavioural factors from the bystander's perspective, within the context of a coeducational Catholic high school, in a sample of eighteen Year 8 students. In-depth and group interviews, participant observation, case studies and the input of a focus group of teachers formed the data collection. Previous findings that fear prevents bystanders from taking action, were extended by this study which revealed was that there are several sources of this fear. The study found reasons for students' fear included embarrassment at making a mistake, the importance of the teachers' responses, the need to assimilate into the new school culture, to be "cool" and to avoid a negative, conforming self-image. Importantly, the existing focus on fear does not explain why students do not anonymously report bullying. This study found that students resisted taking responsibility for intervening, and unexpected findings included that students categorised victims, only caring enough to report bullying if the victim were a friend or sibling. The thrill of watching bullying was also a strong deterrent to bystander intervention. The study suggests, therefore, information based anti-bullying policies will be ineffective unless students are motivated to intervene. It is crucial that programmes now address the emotional deterrents of fear, excitement and apathy before considering educational approaches, and that future policies need to examine the culture of the school, including teachers' responses to bullying, which dictates the behavioural code for incoming Year 8 students.


Research on bullying to date has mainly been quantitative, providing extensive evidence of the degree of bullying in schools. This qualitative study sought to answer some questions about why bullying is so prevalent.
Year 8 participants were chosen for this investigation because bullying increases during early adolescence (Pellegrini et al, 1999). In order to investigate the bystanders' point of view, the study explored the various contributors to non-intervention by bystanders, or 'bystander apathy', as Latane and Darley (1970) named it. It is well known that bullying behaviours are reinforced by the presence of bystanders (Salmivalli et al, 1996; Simmons, 2002) and Year 8 students are quite well educated in primary school about this aspect of bullying. Bystanders and victims do not report bullying because they fear being bullied themselves (Olweus, 1993; Rigby, 1996) and students do not ask for help from teachers because they fear that doing so will make the
situation worse (Slee, 2002). The study explored the reasons for students' resistance to intervening in bullying incidents, even though they claimed they would.

## The Need to Address Bullying

The people most obviously suffering from bullying are the victims, who experience learning difficulties (Smith and Sharp, 1994) post-traumatic stress (Mynard et al, 2000), low self-esteem, anxiety, depression (Olweus, 1992, Gilligan et al, 1990) and even suicide (Marr and Field, 2001). But it is not just the victims who suffer. Bullies are more likely than non-bullies to suffer depression, guilt, anger and shame (Dietz, 1994). These negative effects are longlasting. One in four male bullies will have a criminal record by the age of thirty and is likely to have convictions for violent crime, be abusive to their wives and children and have children who bully. (Eron et al, 1987). School is an efficient training ground for adult bullying behaviour. Children will take their experiences with them into adulthood and perpetuate them.

Until recently, the focus in schools has been on victims and bullies, while bystanders have received little attention. It is now known that bullying adversely affects them too (Lampert, 1998). Bystanders at school are also likely to suffer longterm psychological and physiological distress (Janson, 2000).

Clearly, the culture of the school is established by its interpersonal relationships. The commitment of the school community is needed to address aggressive and bullying cultures. Close examination of the school climate and the employment of effective strategies can create a culture of peace, respect and dignity.

## Method

## Participants

Participants were eighteen Year 8 students, eleven girls and seven boys, who volunteered to take part in the study. Their ages ranged from twelve to thirteen years. Recruitment was from within the coeducational Catholic high school where the study was conducted. Participants included a volunteer focus group of two male and two female teachers at the same school. Two were full time teachers, one was in middle management and one in upper management.

## Procedure

Definitions of bullying were explained to the participants and possible actions to counter bullying were clarified. Intervention was explained as being any action to counter bullying, such as reporting the bullying, either verbally or anonymously or taking more direct action, such as telling the bully to stop.

Two group interviews were conducted with the students, to allow interaction within the group and to facilitate a stimulating environment (Fontana \& Frey, 2000). Individual, in-depth interviews were conducted with the student participants. The interviews were unstructured, with the aim of allowing students to speak for themselves, with as little input from the interviewer as possible (Stringer, 1996). The software package QSR N6 was used for coding data from interviews to discern strategic or consequential relationships.

The researcher's role was also diminished during discussions with the focus group of teachers, allowing a different, adult perspective to be introduced (Madriz, 2000).

Being the school psychologist facilitated the collection of data from participant observation (Denzin \& Lincoln, 2000). Observations of Year 8 students on a daily basis corroborated and strengthened the trustworthiness of data from the interviews. Endeavouring to be unobtrusive, field notes and reflective notes were written immediately after events, rather than at the time they took place. Bullying behaviours and particularly, the collective behaviour of bystanders were noted.

To maximize understanding of bystanders' behaviour, the sampling of case studies was purposeful (Patton, 1990; Yin, 2003). Cases were selected that would produce the most in-depth information.

## Results

Students felt that adults in the school community should counter bullying and were resentful of the assumption that it was their responsibility. They did not intervene in bullying incidents, despite claiming that they would. They responded to the prevailing school culture of inaction by students and teachers and ignored primary school education, which taught them to take action against bullying. The reason they said they would intervene was to agree with the perceived social justice ethos.

It was found that the fear of being bullied themselves was only one of the fears preventing students from taking action against bullying. It was reasoned that if this was the only fear, then why did students not anonymously report bullying?

There was a marked lack of empathy for victims, who were categorized as being worthy or not of support according to the relationship they had with the bystanders. If they were a friend or a sibling, bystanders were more likely to help. If they were not known to the bystander, especially if they were deemed to "deserve" the bullying, then bystanders would not intervene.

Students feared being embarrassed at misunderstanding aggressive behaviours. Bullies capitalized on these fears, maintaining that their aggression was "just mucking around" and that their victims were really their friends.

Students strived for a "cool" image, and wished to be seen as "tough", rejecting a self-image of conforming to school rules. Not reporting bullying
was a way of asserting that they were part of the popular group.
The thrill of watching violence created a dependent relationship between bystanders and bullies and enforced the code of silence that supports bullying behaviour. Victims also supported their antagonists in an effort to gain favour with them.

## Bystander-Victim Relationship

Bystander intervention relied heavily on the relationship between the bystander and the victim. Participants were quite clear about the strength of the relationship being the only acceptable criterion in the school culture for confronting bullies. Protecting a sibling was considered an automatic response. They thought it honourable to help a best friend and an obligation to help a sibling.

When the victim was only an acquaintance, there was a noticeable shift in attitude towards helping. Participants did not intervene because they feared being told to mind their own business. "Sticking your nose in" was viewed as a cardinal offence evidence that one does not understand the rules of the culture. The school's cultural expectation that bystanders mind their own business, or else risk ridicule and rejection from the dominant group, acted as a controlling factor for those students who would have liked to stop the bullying. The relationship bystanders had with victims was weighed carefully against their own place in the group. Placing victims on a "relationship scale" thus made bullying easier, with the bully enjoying the protection afforded by a culture that accepts aggression as normal.

## The Code of Silence

One of the main difficulties for schools dealing with bullying is the code of silence that students maintain to protect bullies. The refusal of all players in bullying incidents to report them is a theme which repeats itself throughout this paper.
One of the bystanders' biggest fears was being embarrassed at making a mistake by misinterpreting an aggressive incident. Two situations were cited as being open to misinterpretation. The first was when two people were friends and indulging in physical or verbal sparring - "just mucking around". The other situation was when a victim "deserved" to be subject of aggression.

A favourite excuse of bullies for their aggression, silently verified by bystanders, was to say that their actions were a form of friendly play. This explanation effectively blocked any action, even by teachers, against bullying

Teachers adopted a "What can you do?" attitude to aggressive behaviour. In one instance, a teacher on duty stood and watched as three boys pushed, punched and kicked another boy. Later, she said she did not approach them because "Boys are always doing that sort of thing. I thought they were just friends mucking around." In fact, the victim was terrified of his antagonists but, because no-one, not even the teacher, was stopping them, he thought their aggression must be normal behaviour.

## The Bystander-Bully Relationship

The Excitement Element As previously stated, bystanders provide protection for bullies by not reporting their actions. The thrill of watching aggressive behaviour is one of the more subtle and complicated relationship factors involved. Participants likened it to watching wrestling and boxing in the wider community. By gathering around and attracting a crowd, bystanders can encourage violence and accelerate it so that minor incidents become serious. One interviewee, Aaron, said this:
People know what's right in their head, but it's like they've forgotten when it comes to one of those situations. They want to see the result.
When the bully is surrounded by an "audience" of enthusiastic onlookers, they experience the pressure of the audience's demand for a performance. The lines between victim, bully and bystander thus become less defined. Some participants who admitted to bullying, said that they were subjected to extreme pressure by classmates and peers to continue bullying. One girl said that, feeling remorseful for hurting others, she had resolved to stop bullying. Her determination to mend her ways was short-lived, however, when her classmates ostracized her at lunchtime, ridiculing her for becoming a "goody-twoshoes". They had been deprived of the entertainment they had come to expect, and they were disappointed. Under threat of being left out of the dominant group, she resumed bullying and was welcomed back. She said she felt better, even though she was in constant trouble for her behaviour, but felt ashamed of the hurt she was causing.

The Power of Bullies Participants were aware that countering bullying was difficult because of the power they gave to the bullies. The bullies were also aware of this, and responded to the positive reinforcement by bullying more. Victims usually face not only the bully, but also the crowd of supporters, who join in, laughing, cheering and adding to the insults. Even when bystanders do nothing, their presence gives implied approval and confirmation of the behaviour. The bully is safe in the knowledge that none of the bystanders will report the bullying and their power renders victims helpless. The whole group galvanizes towards him or her, providing almost impregnable protection from authority.

Being tough was repeatedly cited as a contributor to the bullying culture. Students felt they had to look tough, so they bullied others and victims did not ask for help for the same reason. Bystanders wanted vicarious toughness, so they supported the bully, completing the cycle of reinforcement.

## The Bystander-Victim Relationship

Participants realized that some victims were provocative. They thought it would be a mistake to intervene if the victim "deserved" to be bullied. They would not act if they did not know the background to the incident.
They considered some bullying to be justified. If the victim was not well liked, they could rely on no support from bystanders. Satisfaction was expressed
by some participants at this situation, with one boy saying, "If you don't like them, you might want them beaten up". A girl said, "If the victim deserves it for being a pest...You're punching him for me as well, because I feel like doing it."

The behaviour of provocative victims is familiar in all schools, and more research is needed on the behaviour of such victims.

## The Victim-Bully Relationship

There was an inexplicable relationship between some victims and the people who bullied them. Group affiliation is so strong that it is very difficult to get victims to report being bullied or leave the dominant group (Mynard et al, 2000), even when there are other groups willing to befriend them. They maintained a fierce loyalty to their antagonists. The pain of being apart from their preferred group was even greater than the often considerable pain inflicted on them by that same group. The victims protected the bully, denying to teachers that they were being bullied, claiming to be "just mucking around", often adding, "We're friends".

Participants in the study recognized this as a way to gain positive reward from the bully and his/her supporters. The self-esteem of these victims was extremely poor and they simply grasped any chance they could to curry favour with the leaders.

One Year 11 boy at the school was called obscene names, was ridiculed, locked in the toilets and had food smeared on him by his peers. They instructed the Year 8 boys to bully him every day at lunch time. A large crowd of Year 8 boys laughing and jeering outside the toilets, where they had barricaded him in with a table, drew the duty teacher's attention. The boy's peers were outraged when reprimanded by the Principal for bullying, denying any involvement. Their denials were upheld by the victim, who concurred with their story and said that the bullying was just friendly banter. He was emphatic that he did not want his "friends" to get into trouble on his behalf.

On another occasion, a girl was repeatedly rejected by her group and was never sure if she was in or out of the friendship circle. When another group of girls invited her to join them, her original group threatened her with permanent rejection and so she stayed with them. She wanted to be part of the dominant group, even at great cost to her wellbeing.

Why Asking for Help is so Difficult Even when victims want bullying to stop, they sometimes endure an enormous amount of misery before asking for help, if they ever do (Marr \& Field, 2001). Although fear of being bullied even more is part of the reason, Besag, (1989) found that they felt ashamed for being unpopular. Their relationship with the bullies was so degrading that they often believed what the bullies said to them, sending their self-esteem plummeting.

When bystanders did not intervene on their behalf, victims' suffering intensified. They felt betrayed and concluded that bystanders supported the bullies.

The new Year 8 students felt that now they were in high school, they should deal with their own
problems. In the masculine culture of this school, it was especially important to maintain this tough image. Victims therefore did not show how upset they were, or tell teachers they were being bullied because they wanted to appear tough, even to teachers. They expected to be on their own and not to expect assistance from staff. This expectation arose from their self-image as being capable of taking care of themselves and being independent.

Staff Responses as a Deterrent to Asking for Help In view of the central importance of a caring ethos in the school, it was surprising that the students did not rely on it to protect themselves from this most feared aspect of school life. In this school's culture, however, both staff and students normalized bullying as if it were innate behaviour. Some of the staff members held particularly disturbing views, giving their opinion that countering bullying was futile because it had always been part of everyday school life and no-one could change it. Many favoured the toughening up of victims - an eye for an eye approach. They were strongly resistant to the introduction of anti-bullying strategies, even though they had attended professional development sessions on ways to deal with bullying. Proven strategies, recommended by world experts, were presented and still a minority of staff rejected any challenge to their preferred way of dealing with bullying.

The Year 8 students were new to high school, and in their heightened state of awareness and tension, were particularly sensitive to teachers' actions. If a teacher's response was not completely supportive even raised eyebrows, a frown, a question about the bullying, or a slight pause before answering - they assumed that they had done something wrong to report bullying. Inadvertently, teachers were indicating that bullying was part of the culture and that these students should not be bothering them by telling them about it. They felt these messages as being criticism of them for not fitting into their new school culture, and resolved never to reported bullying again.

Participants said they felt angry when teachers did nothing to stop bullying. They cited examples of students being called obscene names in class, being punched, having their books thrown on the floor and their property stolen, and claimed that teachers simply told the bullies to stop it. The excuse of "just mucking around" was too readily accepted by teachers, they said. They concluded that staff did not care about it, did not know what to do, or had simply given up trying to deal with it.

Teachers' incompetence in dealing with bullying was a source of exasperation. If they dealt with the situation inadequately, the victim suffered renewed and more forceful attacks. As Slee, (2002) noted, "Girls are very clear about the fact that adults make it worse".

## Relationships with Teachers

The student-teacher relationship is important in determining the students' overall view of bullying behaviours. Teachers provided poor role models when
they were confused and unsure of what action to take against bullying.
Students defined themselves against what they viewed as authoritarian teachers. Students were disdainful of the cultural ideals of this Catholic school, believing that they were not being upheld, particularly by teachers.

The focus group of teachers thought that power structures within the school were masculine, with an emphasis on male sport, management positions being male-dominated and the entire office staff being female. They criticized the school culture as being oppressive, punitive, hierarchical and regimented. Power was viewed as being distributed in masculine ways, like shouting, modeling aggressive behaviour and supporting a way of being negative, preventing mutual respect between teachers and students.

That bullying is a behaviour rejected by Catholic ideals is largely detached from and has little practical impact on students' perspectives. The term "antibullying" is not linked in any convincing manner with the school's Catholic ideals or anti-bullying policy. The institutional culture of bullying appeared when teachers bullied students, raising their voices, using aggressive gestures and punitive measures for behaviour management. This caused resentment among the students, who then viewed the school's efforts to address bullying as hypocritical. They reported feeling embarrassed and angry when teachers bullied them. One girl described some of her teachers' behaviour:
Jaimie: They yell at you, then, when you try to explain something, like, why you didn't do your homework, or why you're late, or something, they, like, yell more, or just go (raised her eyes and groaned).
$D L$ : And what does that mean?
Jaimie: It means that you're not worth listening to. You're nothing.
There is likely to be little connection or communication in such situations, which, in turn, makes it difficult for students to ask such teachers for help if they are being bullied.

## Discussion

The results of this study revealed that Year 8 students arrive at high school in a certain state of tension, which they try to relieve by adapting to the prevailing culture as quickly as possible. Therefore, to effectively counter bullying, the school culture that needs to be changed to a non-bullying one. Critical to an anti-bullying programme's success is a wholeschool approach to countering bullying where there is a change in the school culture to one where all members of the community are treated with respect (Rigby, 1996).
Purely educational anti-bullying programmes will not be effective unless the students' motivation to counter bullying is first addressed. It is essential that students take responsibility for countering bullying, as the impact of adult intervention on the incidence of bullying is practically negligible (Rigby \& Johnson, 2004).

The results of this study show that unless the students take responsibility for countering bullying, there will be no action taken by them to do so. Raising the expectations of student behaviour in bullying situations is therefore fundamental to creating a nonbullying culture, instilling the notion that every individual in the school community has the potential to prevent bullying. Programmes are needed that teach appropriate methods of intervention, particularly in situations such as violence, where there is enjoyment.

One barrier to bystander intervention the study found was the lack of empathy for the victim. This can be increased with the employment of strategies such as Salmivalli et al's (1996) role-play. This highlights the role of the bystander, allowing participants to experience the plight of the victim. This is a clear illustration of how bystanders usually give power to the bully, when they could give it to the victim. People who play the part of the bully report feeling abandoned and powerless when the bystanders defend the victim, which is a realistic reflection of what happens among students.

As part of the whole-school approach, the administration has to support staff to be proactive, rather than reactive to bullying situations. The staff needs to be informed of study's findings that the students view them as incompetent, unreliable and unsure about how to deal with bullying. Teachers underestimated the importance of their responses to bullying. A professional development programme to raise their awareness of the meanings students attach to their behaviour is urgently required. The teachers in this school were shocked at the students' interpretation of their reactions to bullying. The No Blame Approach (Maines and Robinson, 1992), for example, should be adopted by all staff members. It is a most effective method of dealing with bullying (Rigby, 1996; Cross, 2003).
The study found that bullying is protected by a code of silence. Without such protection, bullying would be exposed and much easier to deal with. Some of the participants thought that making bullying public would reduce it.
Enlisting the aid of peers is the most effective strategy within a school because students respond more readily to the opinions of their peers than they do to adults' (Olweus, 1992, Rigby \& Johnson, 2004, Slee, 1997). A culture where it is the expectation that all students take responsibility for countering bullying is essential, so that a future of schools with a culture where students tap each other on the shoulder and say, "We don't bully in this school" would not be beyond the realms of possibility.
The study's findings clearly show that the Year 8 students find themselves in a predicament because the behaviour of other students and teachers repudiates the anti-bullying education they have received. The students' confusion is much worse than was realized. They feel under constant pressure to adapt to the school culture and daily school life for them is a minefield of uncertainty. It is not surprising that in this state of anxiety, they conform.
In conclusion, the school leadership needs to address the confusion of staff in dealing with cullying.

They, in turn, can then assist students, as a body, to reclaim their independence so that it will become the victims, not the bullies who receive their protection. With the leadership promoting the new culture, bullying can be confronted with students quoting from the school Anti-Bullying Policy, "We don't tolerate bullying in this school".

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# The healthy balance among work, family, and personal relationships: Fact or fiction? 

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#### Abstract

In this paper, I present a series of studies which look at the role of work demands on family relationships, in particular work-family conflict, and their several and joint impact on health. The role of neuroticism on these factors will also be considered. In addition, a series of studies which investigate the impact of perceived control as a mediator of work stress as well as the role that organizational support, another form of interpersonal relationship, has on work-family conflict and health outcomes is presented, as are studies which focus on people's intention to quit their job because of the workplace stressors experienced. Common measures of work-family conflict and health have been used throughout these studies thus making the results directly comparable.


The industrial revolution resulted in a major shift in how most of us human beings earn our living. Many folk moved from rural to urban living and from outdoor manual work to indoor mechanized activities. Much literature, and indeed literature it was (e.g, Trollope, 1873:1967), focused on the plight of people working in less than desirable conditions where heat; cold; crowding, poor light, sanitation and long hours, in addition to work demands for poor pay and conditions, were the norm.
Industrialization did not stop in the $18^{\text {th }}$ century or, it seems, the demands and stressors within the workplace. It has in many ways been superceded by the age of computerization and internationalism, where the former feeds into the latter and time of day world-wide has, to some extent, become obsolete as someone, somewhere is always contactable or demanding via the internet. What was and dare I say, should be, a tool, has become one of our masters. Other masters include our own sense of acquisitiveness, our desire for more of life's opportunities and goodies which, for those of us in the western world are of a higher standard than ever before, and the competition to succeed or exceed within our chosen career paths. But what costs have these changes and ambitions brought to our lives, to our relationships with others? In this series of papers, I would like to present the results of an ongoing research program which has as its focus the role of
work demands on employees' relationships, in particular work-family conflict, their health and intention to quit using a range of mediating factors, such as control, social and organizational support. The focus will be on outcomes and a discussion rather than on a review of the pre-existing literature. This detail can be found in each of the published studies.

Working weeks in excess of 50 hours are becoming endemic among workers typically employed for a $371 / 2$ hour week (Australian Bureau of Statistics, 2001) leaving many of us on a treadmill which seems to be going faster and faster. These long hours have been shown to increase work-family conflict and to negatively affect health (Cooper \& Cartwright, 1994; Maruyama \& Morimoto, 1996; Sparks, Cooper, Fried \& Shirom, 1997). Accordingly, the aim of the first paper to be discussed (see Tinker \& Moore, 2003) was to investigate the interrelationships among long working hours, work-family conflict and health, and to test employees' perceived control over working hours and organisational support as mediators of the impact of long working hours on work-family conflict and health. We analysed useable data from a sample of 91 teachers and academics who had been in their profession for an average of 12 years.

The factors in the structural model (Fig. 1) explained a substantial amount of variance (69\%) in health which was represented more strongly by physical ( $\beta=.90$ ) (e.g., not been feeling well and in good health) than psychological ( $\beta=.67$ ) health (e.g., been feeling nervous and strung up). Significant levels of variance in control over the number of hours worked (12\%) and work-family conflict (20\%) were explained by the relevant paths in the models. It is interesting to note that work-family conflict was reduced in circumstances where participants perceived the organisation to be supportive ( $\beta=-.22$ ) (e.g., The organization strongly considers my goals and values) which can be interpreted to suggest that this relationship is important not only in the workplace itself but the effect transfers to family life as well.


Figure 1
Impact of long work hours on work-family conflict and health mediated by organizational support and perceived control

Work-family conflict was also reduced where participants perceived themselves to have some control over their work hours ( $\beta=-.19$ ) (e.g., I could cut back on the hours I work if I wanted). Indeed, in some instances control might not be related directly to the number of hours worked but simply to when the hours were worked, that is, where some degree of flexibility was involved.

Interestingly, there was no direct effect for long worked hours on health in the current model. This finding supports our earlier findings (e.g., Greeenglass, Burke \& Moore, 2003; Moore, 2001) where, whilst we found bivariate correlations between stress and health, we failed to demonstrate a structural relationship between work stress and health. Those results suggested to us that the impact of mediating variables is paramount in determining outcomes.

In summary, these findings confirm the nexus between major facets of our lives: our work, our relationships - here with the organization and with our families, and our health outcomes. In the next study, King and Moore (1999) extended the types of stressors to examine simultaneously the impact of work stress and family stress on work-family conflict and health using data from 78 medical scientists.

Interestingly, we found that $40 \%$ of the variance in work-family conflict was explained primarily by family stress $(\beta=.62)$, and it was also family stress in combination with work-family conflict which negatively predicted health status (6\%) (Fig. 2).

Interestingly, there was no significant relationship between work stress and family stress, or between work stress and work-family conflict. Rather it was family stress that impacted upon work-family conflict and on health ( $\beta=-.12$ ) suggesting that it is our family life that is more influential in terms of domain conflict and health. We decided then to extend this model to include satisfaction with these two life domains (see Fig. 3).


Figure 2
Impact of work stress, family stress on work-family conflict and health ( $\chi^{2} 4.3, p=.503$ ) (Decimal points are omitted for clarity)

The relationships among work and family stress and work-family conflict as would be expected remained stable (see left hand side of model), work stress negatively predicted job satisfaction ( $\beta=-.14$ ) and family stress also had a negative but stronger impact on family satisfaction ( $\beta=-.43$ ). Interestingly, workfamily conflict contributed negatively to both job satisfaction ( $\beta=-.26$ ) and health ( $\beta=-.11$ ) but had no impact on family satisfaction: family satisfaction ( $\beta=$ .29) and job satisfaction ( $\beta=.12$ ) both contributed to better health.

It seems, from the overall pattern of results in these data, that family stress and family satisfaction are more significantly related and play a more significant role in health outcomes than do workplace stress and job satisfaction. While not to downplay the role of work stress and satisfaction on health, the finding that relationships have a stronger influence should not be surprising as our relationships tend to be more long lasting than our job roles (even within the one organization), occupy more of our time and typically are more multi-faceted than work.

We then decided to investigate the role of personality factors, in particular neuroticism, on stress, work-family conflict and health (see Fig 4). Neuroticism had a significant impact on some factors in the model, in particular, on family but not work stress, on health and on the amount of variance explained in health, which increased in this model as a function of Neuroticism from 15 to $42 \%$. Neuroticism was very strongly related to health $(\beta=.61)$ and to family stress $(\beta=.63)$ but not to work stress. Clearly, neuroticism typified by worry, is an important factor in family stress and health outcomes. It might be that these worries are concerned with family strain, children and even the dyadic relationship itself which might subsume any work related worries.
We then used these same data to determine if there were discernible clusters in the data using the same
variables as in the models (see Table 1) as well as an indicator of family-work conflict.

Table 1
Comparison of Clusters

|  | Cluster |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :--- | :---: | :---: | :---: |
|  | 1 | 2 | F | $p$ |  |  |  |
| Family Stress | 30.54 | 76.89 | 109.44 | .000 |  |  |  |
| Family-work conflict | 20.33 | 23.54 | 4.67 | .034 |  |  |  |
| Work stress | 14.38 | 10.96 | 2.99 | .088 |  |  |  |
| Work-family conflict | 49.21 | 70.89 | 54.54 | .000 |  |  |  |
| Health | 94.08 | 88.68 | 4.45 | .038 |  |  |  |
| Neuroticism | 1.68 | 2.44 | 3.91 | .052 |  |  |  |



Figure 3
Extending Figure 2 to include job satisfaction and family satisfaction


Figure 4
Influence on neuroticism on work stress, family stress and health

The results of the ANOVAs on the clusters revealed that those participants who demonstrated more family stress also exhibited more family-work conflict, greater work-family-conflict and poorer health. These findings are interesting in that they suggest that the domains of health and work are, to some extent, discreet and this separateness was also suggested in the models presented in Figures 2 to 4.

The dominant role of family stress on health was largely independent of health differences ( $p=.052$ ) and surprisingly, of work place stress as, for the group high on family stress, work stress tended to be lower ( $p=.088$ ).

We then included job satisfaction and family satisfaction in the clusters (see Table 2 for additions). The groups differed only on level of family satisfaction where those higher on family stress and family-work conflict were also less satisfied with their family life.

Table 2
Cluster Differences on Satisfaction

|  | Cluster |  |  |  |
| :--- | ---: | ---: | :--- | :--- |
|  | 1 | 2 | F | $p$ |
| Family satisfaction | 6.00 | 5.00 | 9.53 | .003 |
| Job satisfaction | 83.83 | 81.05 | 4.67 | .427 |

Overall these results paint a picture where aspects of the work domain (i.e., work stress, job satisfaction) are interrelated and where the family domains (i.e., family stress and family satisfaction) as well as workfamily conflict and to a lesser extent family-work conflict are also interrelated. These findings, while also intuitively correct, contradict the earlier work of Parasuraman, Greenhaus and Granrose (1992) who found that only work role stressors were negatively related to job satisfaction and that family role stressors and work family conflict were unrelated. If these findings are robust in further samples, then they might be indicative of the beginnings of a sea-change where people are beginning to place more importance and value of the role of life outside the workplace.

However, these results, while clearly indicative of discrete domains and effects, are limited in terms of attributing causal directions. The data are crosssectional and provide at best, an indication of the interrelationships among the factors at the time of testing. It is therefore important that future studies are longitudinal in design. It may also be relevant to investigate for possible gender differences as some past research (e.g., Lewis \& Cooper, 1988) has indicated that there may be differential spillover effects in that work role demands are more likely to be related to family life for men while family role stress is more likely to affect the work life of women. Although this premise sounds rather stereotypical, it does warrant investigation, to either confirm or reject, in samples of sufficient size to differentiate between genders.

In two further studies (Firth, Mellor, Moore \& Loquet, 2003; Moore 2003) we looked at the role of work place relationships, more specifically social support in the work place, as a mediator of intention to quit, that is the degree these peer relationships were deemed to buffer stressors and their impact on employees intention to leave their job Although intention is not always indicative of actual behaviour, it does indicate a negative attitude towards the job or organization which may, in future, be actualized as quitting behaviour.

In the first of these studies, using data from 173 employees of a major department store, we found that social support was directly predictive of greater levels of job satisfaction $(\beta=.28)$ and job commitment ( $\beta=$ $.14)$ and lower levels of job stress ( $\beta=-.19$ ); and through these variables, it was indirectly predictive of a reduced intention to quit (see Fig 5).
In the second study using data from 201 nurses whose hospital had recently undergone a restructuring process, we found that social support from colleagues was indicative of lower levels of burnout ( $\beta=-.25$ ) and an increased sense of challenge ( $\beta=.21$ ) to deal with the restructuring process and its impact (see Fig 6 ). However, it must be countered that the greater the level of impact of restructuring (e.g.., less time for patient care, poorer working conditions) the less these nurses felt themselves to be supported by their peers ( $\beta=-.37$ ). It might be that nurses were too busy dealing with increased demands to offer the required levels of support to each other although where this was perceived to be present it was implicated in reduced burnout and an increased sense of challenge as well as indirectly reducing nurses' intention to quit.
It seems from both these studies that the relationship one has with peers at work is important in terms of one's health especially what might be termed workplace health (e.g., burnout - cynical about the job; job satisfaction and commitment to seek or work out job-related problems) and one's attitude, in this case, seeing the impact of organizational change as a challenge.
Another factor which increased nurses' perceptions of the impact of restructuring was the level of communication by the organization. It would be expected that the greater the communication by management the less the impact of restructuring however, this was not the case in the current data. Rather the obverse was true ( $\beta=.60$ ). This finding seems incongruent until one looks at the actual type of communications engaged in by management: 'Management held meetings and told us what would happen'; Management issued newsletters advising us of what would happen'. Clearly, this was not consultation at all: it was simply top-down directives.


Figure 5
Department store data including social support on intention to quit


Figure 6
Effects of hospital restructuring, peer social support and consultation by management on nurses, burnout, efficacy and intention to quit

In summary, these studies indicate that work place relationships, whether of an organizational or peer nature, are vitally important. They are necessary to help staff to deal with demands, to promote health and to maintain a sense of job satisfaction which, in these two studies was operationalised as an intention to quit.
Although by no means conclusive, it does seem that work stress and work support and work-health (e.g. burnout, intention to quit, job satisfaction) are relatively independent domains to family stress and family satisfaction although the latter tends to spillover over to create work-family conflict more than vice versa.

In presenting a synopsis of these studies, I have attempted to broaden the concept of relationship beyond the dyadic relationship we most often think of when using the term relationship. Rather, life is comprised of many different types of relationships
and they all make important contributions to our health and overall sense of wellbeing. As we spend such a large part of our lives in the workplace, it is vitally important that we have a sense of support from both peers and the organization in order that this system functions well for the individual and, indeed, the organization. It seems from these data that it is also important for our health that work-family conflict is kept to a minimum and one mechanism for this might be the maintaining of good interpersonal relationships within the home.

In brief, good relationships wherever they might be are vital for health and wellbeing. This may be especially so where long hours and high workplace demands prevail.

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# Melancholic Mothers and their Mourning Infants 

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#### Abstract

This study focuses on the mother-infant relationship. The impact on this developing relationship of a Depressive Episode in the postnatal period was investigated. Dyadic interactions between depressed mothers and their 6-9 month old infants were observed at the conclusion of a 12-week cognitive-behavioural (CBT) group program designed to treat Postnatal Depression. The quality of the dyadic interactions was assessed using the Infant-Caregiver Behavioural Measures and the Parent-Caregiver Involvement Scale, and compared with the interactions of non-depressed mothers and their infants. The interactive qualities assessed included: verbal involvement; positive and negative regard for child; responsiveness; enjoyment; maternal affect; and infant affect and attention. Depressed mothers treated with CBT had significantly poorer quality of interaction with their infants, compared with non-depressed mothers. This difference was most pronounced for those whose depression had not remitted, but was also significant for those who had recovered. These findings have important implications for the development of treatment strategies for postnatally depressed mothers and their infants.


Depression occurring in the postnatal period has been, and continues to be, the focus of considerable research and clinical interest. Postnatal Depression (PND) represents a significant mental health problem with serious implications for maternal well-being, couple and family functioning, and infant psychological, social, emotional and cognitive development (Murray \& Cooper 1997).
Depressed mothers may be inhibited in their ability to interact spontaneously, sensitively, responsively or joyfully with their infants. The very nature of depression, characterised in part by low mood and resulting displays of flat or negative affect, loss of interest or motivation, fatigue or low levels of energy, and psychomotor agitation or retardation, has the
potential to undermine intuitive mothering capacities. It is well established that the mother-infant interaction is the primary context in which infants develop the ability to regulate their affect (Brazelton, Koslowski, \& Main, 1974; Papousek \& Papousek, 1997; Stern, 1985; Trevarthen, 1993; Tronick \& Gianino, 1986). Depression may interfere with a mother's capacity to respond to an infant with the necessary empathic attunement, sensitivity, and responsivity. Interaction with a depressed mother, who is herself experiencing difficulties in managing her affect, is unlikely to provide the infant with essential assistance to modulate distress, or to increase positive emotions. Infants of depressed mothers may spend considerable time in negative affective states as a result of empathically resonating or attuning with the affect of their mothers. Furthermore, the difficulties of depressed mothers in interpreting and responding to the cues of their infants may result in infants experiencing a sense of helplessness and lack of control at not being able to influence maternal behaviour (Tronick \& Gianino, 1986). Infants whose affective cues are not responded to consistently, would be expected to experience greater levels of negative affect, and may develop a predominant style of withdrawal and reliance on their own self-soothing abilities, rather than drawing on external support for affect regulation. The intricate emotional communication between mother and infant is vulnerable to disruption associated with maternal depression. Such disruption has implications for the effectiveness of the infant's current and future regulation of attention and affect. There is a substantial body of research documenting difficulties within the mother-infant interaction associated with postnatal depression. It has been noted that the affective quality of maternal behaviour, and the temporal relationship of maternal behaviour to infant behaviour are important aspects of the mother-infant
interaction which are compromised when mothers are experiencing depressive symptoms (Cohn, 1993).

This study aimed to evaluate whether difficulties in the mother-infant interaction persist after postnatally depressed mothers have received cognitivebehavioural treatment for their depression. It was assumed, based on the theoretical literature and empirical research, that interactional problems accompany the experience of postnatal depression for many mother-infant dyads. However, the research literature is currently unclear as to whether motherinfant interactions continue to be impaired after initial periods of postnatal depression have resolved.

This study assessed differences in the quality of mother-infant interaction between two groups of mothers and their infants: one group in which the mothers had been postnatally depressed and subsequently received a cognitive-behavioural group treatment for depression (the "treated" group); and another group in which the mothers had not been depressed during the postnatal period (the "control" group.

## Method

## Participants

The participants were 58 mother-infant dyads recruited through a postnatal depression screening program conducted at Maternal and Child Health Centres (MCHCs). Thirty-two of the mothers had experienced a Depressive Episode with an onset in the postnatal period and had subsequently been treated with 12 weeks of group cognitive-behavioural therapy. The depressed mothers averaged 31 and the control group 33 years of age, with their infants averaging 31 and 32 weeks respectively. All infants were born between 37 and 42 weeks gestation, and all were single births. Of the depressed mothers, $41 \%$ were primiparous, and $59 \%$ had either two or three children. Within the control group, $58 \%$ of the mothers were primiparous, and $42 \%$ had either two or three children. The majority of mothers in both groups were married or in defacto relationships, with the exception of one depressed mother who was single, and one control group mother who was separated.

The Infant Clinic Research Project This study was designed to extend research in progress at the Infant Clinic of the Parent-Infant Research Institute based at Heidelberg Repatriation Hospital, under the direction of Professor Jeannette Milgrom. The Infant Clinic research project aimed to evaluate the efficacy of treatment for Postnatal Depression and its effects on the mother-infant relationship disturbance. The 12week cognitive-behavioral program was developed specifically for PND and has been found superior to routine care (Milgrom, Martin, \& Negri, 1999; Milgrom et al 2004).

## Measures

Edinburgh Postnatal Depression Scale (EPDS) Recruitment of participants involved mothers in the North-East region of Melbourne being routinely screened for depressive symptoms using the EPDS.

The EPDS was administered by Maternal and Child Health Nurses at, or as close as possible to, the 12week postnatal visit. The EPDS is a 10 -item selfreport scale specifically designed to detect symptoms of depression experienced by women during the postnatal period. It was administered and scored using the methods described by Cox, Holden \& Sagovsky (1987). The EPDS is simple to administer and score by persons not training in psychometric testing, making it an acceptable tool to be administered by Maternal and Child Health Nurses.

Hamilton Rating Scale for Depression (HAM-D) Mothers who scored above 12 on the EPDS, a score indicating the possibility of depressive symptomatology, were offered an assessment session with a psychologist at the Infant Clinic. The assessment involved administration of the HAM-D clinical interview to determine whether the mothers met full diagnostic criteria for a Major Depressive Episode according to the Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (DSMIV: APA, 1994). The HAM-D (Hamilton, 1960) was used within this research as a diagnostic interview, rather than in its original rating scale form. A version of the HAM-D revised to facilitate diagnostic interviewing was used. The HAM-D contains 14 items, 9 of which correspond with the DSM-IV diagnostic criteria for a Major Depressive Episode. The interview requires systematic consideration of each of the nine diagnostic criteria, for the purpose of arriving at an accurate diagnosis.

## Beck Depression Inventory, Second Edition (BDI-

II) Mothers who were diagnosed with a Major Depressive Episode (MDE), and whose depression had commenced during the postnatal period, were invited to participate in the Infant Clinic's research program, which involved participation in a 12 -week cognitive-behavioural group treatment program. Prior to and at the conclusion of the 12 -week treatment program participants completed the BDI-II (Beck, Steer, \& Brown, 1996). The control group was recruited via letters (inviting them to participate in a study of the effects of Postnatal Depression on mother-infant interaction) sent to mothers who scored below 12, on the EPDS when screened at MCHC, and whose infants were aged between six and eight months of age to match for age of those of the depressed mothers in the main study. The control group also completed the BDI-II. The BDI-II was administered and scored according to the methods of Beck et al. (1996).

Infant/Caregiver Behavioural Measures (ICBM) At the end of the 12-week group treatment for the depressed mothers, the quality of mother-infant interaction was assessed. The control group were scheduled to attend the Infant Clinic to assess motherinfant interaction. Each mother-infant dyad engaged in a 15 -minute play session when the infant was awake and alert, and this interaction was videotaped. A standard set of toys was used for each of the play sessions. The mothers were asked to ignore the
camera as much as possible and instructed as follows: "Play with your baby as you would normally". After ten minutes, mothers were further instructed as follows: "Try to get your baby to talk to you". Efforts were made to focus on the faces of mothers and babies during the interaction, while keeping the play activity in frame. At times when the mother and baby were not in close proximity, the camera was "zoomed out" to decrease the magnification of the image, so that both mother and baby were continually in the frame being filmed. Sound was also recorded using the video camera's inbuilt microphone. The ICBM (Milgrom \& Burn, 1988) assesses interactions between caregivers and infants, according to qualities of caregiver behaviour, observed aspects of infant behaviour, and the qualities of the interaction between infant and caregiver. There are 12 Caregiver Measures: Respond; Stimulate/Arouse - object; Stimulate /Arouse - event; Stimulate/Arouse - using self; Vocalising; Positive Affect - physical; Positive Affect - non-physical; Negative Affect - anxiety; Negative Affect - hostility; Flat Affect; Body Language Stillness; and Attending. The six Infant Measures are: Infant Clarity of Cues; Explore; Smile/Excite; Fuss/Cry; Avert; and Attending to the Caregiver. The joint Caregiver/Infant Measures, of which there are four, are: Mutual Attention; Reciprocity/Synchrony; Joy; and Connectedness. Three further measures, labeled Situational Measures, are included to determine whether an individual profile is valid, and these include: Caregiving; Infant attending to other children; and Infant Alertness. High scores on either of the first two Situational Measures, or a low score on the third, indicate the need for caution in interpreting the result as it may reflect an atypical interaction for the dyad. Each of the abovelisted measures are rated, for each three minutes of interaction, on a four-point scale: a score of zero indicating the absence of the behaviour; a score of one indicating the behaviour occurred from one to 30 percent of the time, a score of two indicating the behaviour occurred 31 to 60 percent of the time, and a score of three indicating that the behaviour was present for more than 60 percent of the time. Interrater reliability for this measure has been established at $84 \%$. ${ }^{1}$

The Parent/Caregiver Involvement Scale (PCIS) used in this research was a revision of several previously developed scales. The current version, revised by Seifer and colleagues (Seifer, Schiller, Sameroff, Resnick, \& Riordan, 1996), was based on the Parent/Caregiver Involvement Scale developed by Farren and colleagues (Farren, Kasari, Comfort, \& Jay, 1986). The scale was designed to focus on the behaviour of the adult caregiver in interaction with an infant or child (aged up to 2.5 years), and does not specifically evaluate the infant or child's contribution to the interaction. The PCIS was designed to assess caregiver interactions during home visits based on a 10 -minute play session, however, its items are

[^0]applicable for play sessions in other contexts. The PCIS, revised version, encompasses 10 sub-scales. The initial six subscales focus on different caregiver behaviours, for which two ratings are made: the amount of the specified behaviour, and the quality of that behaviour: Verbal Involvement, caregiver's verbalisations and vocalisations; Responsiveness, caregiver's reactions to infant signals; Play Interaction, joint playful or game-like activities; Directives and Control Over Child's Activities, organisation and management of the infant's activities by the caregiver; Positive and Negative Regard for the Child, types of physical or verbal overtures or responses made towards the infant, including praise, criticism, affection or rough handling. The final four subscales each require a rating to be made regarding general impression of caregiver involvement with the child: Availability of caregiver to child; General acceptance and approval manifested by caregiver; General atmosphere of caregiver involvement with child; and Enjoyment (as experienced by the caregiver). Each of the first six subscales require two five-point Likert ratings, and each of the final four subscales require one five-point Likert rating. Each of the odd numbers (1, 3 and 5) is behaviourally anchored, meaning that a description is provided to enhance accuracy and consistency of coding. The revised version of the PCIS has been found to be significantly correlated with marital and family functioning (Hayden et al., 1998) and with measures of attachment security at six- and nine-months of age (Seifer et al., 1996). Inter-rater reliability data was not available for this measure.

## Materials

All mother-infant interactions were recorded using a portable video camera. The toys provided to mothers and infants included a soft toy, a set of wooden blocks, a plastic ball, plastic beakers, a rattle, an activity frame, and a toy car.

## Results

For the depressed mothers who received cognitivebehavioural treatment ( $\mathrm{n}=32$ ), BDI scores pretreatment were significantly higher than BDI scores post-treatment (Wilcoxon $Z=4.01, p<.001$ ). Despite this significant reduction in depression following treatment, the BDI scores of only 13 mothers who had received the treatment fell in the range reflecting no or minimal symptoms (Beck et al., 1996). Twelve of the treatment group mothers received scores in the mild range; four in the moderate range; and three received scores reflecting severe depression. As a result of this range of BDI scores following treatment, the treatment group was divided into a "treated/depressed" group ( $\mathrm{n}=19$ ) whose BDI scores were 14 or above, and a "treated/recovered" group ( n $=13$ ) whose BDI scores were in the range of zero to 13. All mothers in the control group ( $\mathrm{n}=26$ ) had BDI scores of between zero and 13. There was a significant difference in BDI scores between the three groups ( $\chi^{2}(2)=38.01, p<.001$ ). Treated/depressed mothers received higher BDI scores than either the
control group ( $U=0, p<.001$ ), or the treated/ recovered group ( $U=0, p<.001$ ), who did not differ significantly ( $U=148, p=.55$ ).

In terms of demographic characteristics, the three groups (control; treated/recovered; treated/depressed) did not differ in the mean age of mothers $(F(2,55)=$ $2.58, p=.09)$, or infants $(F(2,55)=.91, p=.41)$, or in whether or not the infant was first born $\left(\chi^{2}(2)=3.2, p\right.$ $=.20$ ). Mothers' level of education was not associated with group membership $\left(\chi^{2}(6)=7.93, p=.24\right)$.

However, a significant difference was found in family income across the three groups $\left(\chi^{2}(2)=12.52\right.$,
$p<.01$ ). Mann-Whitney tests indicated that the control group reported a significantly higher family income than either the treated/depressed group ( $U=$ $108.5, p<.01$ ) or the treated/recovered group ( $U=$ 88, $p<.02$ ).

A series of Kruskal-Wallis tests were conducted to evaluate differences between the three groups of mothers on items of the ICBM and the PCIS. The relevant items of each of these measures were analysed individually and the results are presented in Table 1. Significant differences across the three groups were found for a number of ICBM and PCIS items, as outlined in Table 1.

Table 1
Comparisons of Mother-Infant Interaction Variables between Groups

| Mother-Infant Interaction Variables | Mean Rank |  |  | df | $\chi^{2}$ | p |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Treated/ depressed $(\mathrm{n}=19)$ | Treated/ recovered $(\mathrm{n}=13)$ | $\begin{aligned} & \text { Control } \\ & (\mathrm{n}=26) \end{aligned}$ |  |  |  |
| - Maternal affect |  |  |  |  |  |  |
| Positive regard - quality ${ }^{\text {a }}$ | 23.47 | 28.96 | 33.06 | 2 | 4.57 | . 10 |
| Positive regard - amount ${ }^{\text {a }}$ | 25.82 | 32.08 | 30.90 | 2 | 1.55 | . 46 |
| Negative affect - hostile ${ }^{\text {b }}$ | 30.53 | 29.00 | 29.00 | 2 | 2.05 | . 36 |
| Negative affect - anxious ${ }^{\text {b }}$ | 27.29 | 35.73 | 28.00 | 2 | 5.32 | . 07 |
| Flat affect ${ }^{\text {b }}$ | 35.76 | 31.50 | 23.92 | 2 | 6.23 | .04* |
| Stillness ${ }^{\text {b }}$ | 33.53 | 34.08 | 24.27 | 2 | 5.82 | . 05 |
| Positive affect - physical ${ }^{\text {b }}$ | 32.45 | 32.08 | 26.06 | 2 | 2.11 | . 35 |
| Positive affect - non-physical ${ }^{\text {b }}$ | 24.45 | 28.00 | 33.94 | 2 | 4.27 | . 12 |
| - Maternal vocalising |  |  |  |  |  |  |
| Verbal involvement - quality ${ }^{\text {a }}$ | 24.00 | 22.19 | 35.87 | 2 | 9.30 | .01* |
| Verbal involvement - amount ${ }^{\text {a }}$ | 22.84 | 27.31 | 35.46 | 2 | 7.77 | .02* |
| Vocalising ${ }^{\text {b }}$ | 21.74 | 29.81 | 35.02 | 2 | 8.06 | .02* |
| - Maternal play |  |  |  |  |  |  |
| Play interaction - quality ${ }^{\text {a }}$ | 25.03 | 24.12 | 35.46 | 2 | 6.69 | .04* |
| Play interaction - amount ${ }^{\text {a }}$ | 24.82 | 32.50 | 31.42 | 2 | 7.92 | .02* |
| - Maternal responsiveness |  |  |  |  |  |  |
| Responsiveness - quality ${ }^{\text {a }}$ | 24.05 | 22.92 | 36.77 | 2 | 10.24 | .01** |
| Responsiveness - amount ${ }^{\text {a }}$ | 22.11 | 28.73 | 35.29 | 2 | 8.40 | .02* |
| Respond ${ }^{\text {b }}$ | 24.21 | 25.19 | 35.52 | 2 | 7.73 | .02* |
| - Infant affect |  |  |  |  |  |  |
| Smile/excite ${ }^{\text {b }}$ | 28.42 | 31.85 | 29.12 | 2 | 0.36 | . 84 |
| Fuss/cry ${ }^{\text {b }}$ | 25.82 | 30.00 | 31.94 | 2 | 1.85 | . 40 |
| - Infant attention |  |  |  |  |  |  |
| Avert ${ }^{\text {b }}$ | 35.39 | 33.12 | 23.38 | 2 | 11.23 | .004** |
| Attending to caregiver ${ }^{\text {b }}$ | 24.00 | 29.65 | 33.44 | 2 | 4.15 | . 13 |
| - Interaction/Enjoyment |  |  |  |  |  |  |
| Atmosphere ${ }^{\text {a }}$ | 24.11 | 24.50 | 35.94 | 2 | 7.71 | .02* |
| Enjoyment ${ }^{\text {a }}$ | 24.55 | 24.35 | 35.69 | 2 | 7.07 | .03* |
| Joy ${ }^{\text {b }}$ | 30.03 | 28.88 | 29.42 | 2 | 0.43 | . 98 |
| Connectedness ${ }^{\text {b }}$ | 26.87 | 28.04 | 32.15 | 2 | 1.30 | . 52 |

[^1]Mann-Whitney tests were employed, for each of the items showing significant differences, as a method of making planned comparisons between the treated/recovered group and the control group. Out of the twelve items with group differences, six items had significant differences between the treated/recovered and control groups.
The control group had a significantly higher score on the PCIS measure of quality of verbal involvement, compared with the treated/recovered group ( $U=90.5, p<.02$ ), however there was no difference between those two groups on the amount of verbal involvement, as measured by the PCIS ( $U=$ $121.5, p=.10)$ or the $\operatorname{ICBM}(U=138, p=.28)$.

The control group had a significantly higher quality of responsiveness as measured by the PCIS, compared with the treated/recovered group ( $U=89, p$ $<.01$ ), and they also had a significantly higher score on the "respond" item of the ICBM ( $U=99.5, p$ $<.02$ ). However, there was no significant difference found between the control group and the treated/recovered group on the PCIS amount of responsiveness item $(U=132, p=.18)$.
The control group demonstrated a higher score on PCIS quality of play interaction, compared with the treated/recovered group, the difference approaching statistical significance ( $U=108.5, p=.05$ ). However, PCIS amount of play interaction, did not differ significantly between the control and treated /recovered groups ( $U=162.5, p=.48$ ).
The control group had a significantly lower score on the ICBM item of "avert" ( $\mathrm{U}=108.5, \mathrm{p}<.01$ ) and a significantly higher score on the PCIS atmosphere item $(\mathrm{U}=105.5, \mathrm{p}<.05)$ and on the PCIS enjoyment item $(\mathrm{U}=104, \mathrm{p}<.05)$ compared to the treated /recovered group.

## Discussion

The aim of this study was to evaluate whether difficulties in the mother-infant interaction persist after postnatally depressed mothers have received cognitive-behavioural treatment for their depression. The behaviour of mothers and infants was examined through observation of a fifteen-minute videotaped interaction.
Only 13 of the 32 depressed mothers in this study had recovered from depression following the cognitive-behavioural group treatment. These treated/recovered mothers and their infants differed significantly from the control group in important ways. Although the treated/recovered mothers in this study resembled the control mothers in terms of amount of responsiveness, vocalising and play, they showed significant disturbance when compared with the control mothers, on the quality of each of these dimensions. Furthermore, treated/recovered mothers and their infants experienced less interactive enjoyment than the control mothers and their infants. The infants of treated/recovered mothers tended to gaze avert more frequently, when compared with the control group. While treated/recovered mothers may have experienced improvement in their energy and mood coinciding with remission from depression, which may have resulted in some improvements in
their interaction with their infants, such as increased time playing or talking with infants, mother-infant relational disturbance appeared to persist in more subtle forms.

The findings of this study are consistent with the theoretical literature, which suggests that early mother-infant interactional disturbance is likely to lead to ongoing relational difficulties, in the absence of appropriate intervention. Papousek and Papousek (1997) assert that difficulties in mother-infant communication can lead to serious interactional disturbances, and possibly to maternal rejection of the infant. These authors suggest that vicious circles can form, whereby early problems elicit chains of secondary deterioration. After postnatal depression has remitted, disturbance established within the mother-infant interaction may continue and gain momentum through such a process. Even brief and remitted episodes of postnatal depression, from this perspective, have serious implications for infant affect regulation and subsequent development.

It is acknowledged that considering mother-infant interaction in isolation of the social context in which the dyad is embedded is somewhat limited. This study did not undertake examination of factors such as social and partner support, which are known to be significant to the experience of postnatal depression and mother-infant relationships (Coyne et al., 1992). Furthermore, the control group in this study reported a significantly higher family income than either the treated/recovered or treated/depressed groups. Socioeconomic status, reflected in family income level, is likely to be related to other psycho-social variables that may exert influence on the quality of motherinfant interaction independently of maternal depression. Further research examining the differential influences on mother-infant interaction of maternal postnatal depression and the social context is required, and would be highly useful in informing targeted treatment strategies.

The data within this study suggests that there may be differences between the treated/recovered and treated/depressed mothers on several dimensions of the mother-infant interaction, however, the modest sample size prohibited analysis of this difference.

This study makes a unique contribution to the body of research examining the impact of postnatal depression on mother-infant interaction. The results indicate that following recovery from postnatal depression, mothers and infants continue to display disturbances within their interaction. These findings focus attention on the importance of considering the mother-infant interaction when planning treatment for mothers with postnatal depression. The cognitivebehavioural group treatment utilised in this research does not appear to have effectively addressed disturbance within the developing mother-infant relationship. Effective treatment to address such disturbances may need to focus on the mother-infant relationship, and involve both members of the dyad.

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# The disparate olfactory determination of sex and age in humans, reflecting the reproductive and relationship characteristics of the species 

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#### Abstract

Olfactory information is critical to mammalian sexual behaviour. Parental investment theory suggests that, in constructing relationships, the relative importance of olfaction compared with vision, touch, taste and hearing should be different for human males and females. A convenience sample of 36 subjects, 30 females and six males, with a mean age of 24.7 years, completed the Sensory Stimuli and Sexuality Survey (Herz \& Cahill, 1997) to ascertain whether olfactory stimuli would be a more important determinant of sexual choice and arousal for females than it would be for males, and this was supported. Subjects were then asked to consider the odours of four selected well-worn and unwashed t -shirts. As expected, females were more accurate than males in determining the sex of an individual by the odour of a worn article of clothing, but females were not more accurate than males in determining the age of an individual by the odour of a worn article of clothing. Combined-sex data showed that age estimates for the wearers of the female $t$-shirts were more accurate than age estimates for the $t$-shirts worn by males. In the light of the more limited span of reproductive fertility amongst human females, this result was not surprising. It was concluded that the human olfactory identification abilities demonstrated in this study reflect basic mammalian relationship proclivities within our species.


Freud and Jung considered that humans seek in mates, characteristics that resemble their opposite sex parent (Eckland, 1968). Winch (1958) believed that people seek characteristics that they themselves lack. Others have examined the popular perception that people seek similarity in mates, that like attracts like (Buss \& Schmitt, 1993). Exchange and equity theories propose that people search for those with whom an equal exchange of valuable resources can be obtained (Berscheid \& Walster, 1974; Clark \& Reis, 1988). All these theories share the view that human mating is strategic and that selections are made, either consciously or unconsciously, to capitalise on a particular characteristic or equipoise. However, they also seem to share a lack of specificity, broadly seeking fairness, similarity and complementarity between the sexes, but not identifying the specific areas in which individuals make their choice. Interest in mate selection criteria has been widespread in research on the sociology of the family, and early findings supported the widely held sex-linked belief that physical attractiveness is more important to men
than women (Powers, 1971). The theoretical framework of all these early studies has, however, been considered less than compelling, and more recent studies have used an evolutionary perspective on human mating behaviour (Feingold, 1992).

Sexual selection was originally proposed by Darwin (1871) and refers to the evolution of characteristics that give organisms reproductive advantage, as opposed to daily survival advantage. Triver's (1972) parental investment model, borrowed directly from Darwin with a "new-synthesis" spin, states that females hold a larger investment in their offspring than do males; women can realistically only bear a limited amount of children whereas men can theoretically impregnate large numbers of women. Parental investment theory suggests that men are mainly attracted to the opposite sex by visual cues that signify reproductive ability, such as youth and physical attractiveness, as women can only reproduce up until a certain age. Women, on the other hand, are said to seek features in a mate that indicate resource attainment, as it maximises the survival prospects of their offspring, rather than appearance-related factors.

Parental investment has been defined as "any investment by the parent in an individual offspring that increases the offspring's chance of surviving (and hence reproductive success) at the cost of the parent's ability to invest in other offspring" (Trivers, 1972, p139), and extensive support for parental investment theory and greater female selectivity has been found throughout many vertebrate and invertebrate species (Trivers, 1985). Such female acuity has been used to explain the extremely high incidence of monogamy found amongst primate species (Paddle, 1989, 1991). In sex-role reversed species, such the Mormon cricket (Anabrus simplex) and Panamanian poison-arrow frog (Dendrobates auratus), in which males, through parental care and protection, invest more in their offspring than females; females are often larger than males, and they compete more aggressively with each other for the more heavily investing males (Summers, 1989; Trivers, 1985). These results draw attention to the fact that relative parental investment, not purely biological sex, drives the process of sexual selection (Buss \& Schmitt, 1993).

Humans are typical mammals, in which females invest more heavily in reproduction. This occurs partly because offspring develop internally within women, and after the birth of a child, women carry the further parental investment of lactation;
accompanying this, however, is a certainty of maternity. Due to these forms of investments, the number of children a women can successfully produce is limited. Men do not have these obligatory forms of heavy parental investment and paternity is never certain. The minimum investment by the male is in contributing easily-replaced sperm. As a result of this, men have a higher potential capacity to produce offspring (Buss \& Schmitt, 1993). According to sexual selection theory (Darwin, 1871), when choosing a mate, the sex differences in parental investment cause women to be the more selective and discriminating, and men to be less discriminating and more competitive. Expressed more simply, males (certainly in the absence of expressed monogamous social structures) should mate with as many fertile females as possible, while females should select mates who are most likely to assure the survival of their offspring (Herz \& Cahill, 1997).

Buss and Schmitt, (1993) have proposed that the assessment of human female fertility is determined by the physical indications of youth and health, for example, full lips, clear and smooth skin, clear eyes, and high activity level, and thus male mate-search strategies are expected to be based mainly on the visual evaluation of physiological cues to a female's maternal fitness (Herz \& Cahill, 1997). Conversely, females have been characterised as predominantly concerned with evaluating males' behaviour, loyalty and contribution of resources towards herself and her prospective offspring, a mate-search strategy conventionally described as based mainly on the evaluation of behavioural cues to a male's possible paternal attitude (Buss \& Schmitt, 1993; Herz \& Cahill, 1997). On reflection, however, the physiological aptitude of the male must also play a part in female assessment, albeit at a more complex level than the simple age-based criterion posited for males, and parental investment theory predicts that females should be more concerned than males with physiologically adaptive mating, because females invest more in their offspring than do males (Trivers, 2002).

Physiologically adaptive mating involves genetic compatibility between a mating couple, including allele combinations in offspring that maximise disease protection. Therefore females should be the more sensitive sex to any physiological cues indicative of immunological genotype.

The major histocompatibility complex (MHC) was first studied because of its importance in tissue transplantation and the immune system in humans (Hendrick, 1993). Products of the MHC have an extremely important role in immune recognition (Wedekind, Seebeck, Bettens, \& Paepke, 1995). Mice can recognise each other by individually characteristic phenotypic body odours that reflect their genetic constitution of the MHC (Beauchamp, Curran \& Yamazaki, 2000), and female mice base their matechoice on odours, seeking out or avoiding certain alleles depending on their own genotype (preferring mates who are genetically dissimilar) (Herz \& Cahill, 1997; Wedekind et. al., 1995).

This preference for genetically dissimilar mates could have evolved either through a strong selective advantage in offspring possessing a wider range of immunological response, presumably provided by variability in MHC genes, or as a means for inbreeding avoidance (Jordan \& Bruford, 1998). Certainly, the greater the MHC similarities existing between breeding humans, the greater the chance of infertility and spontaneous abortion (Ho, Gill, Nsieh, Hsieh \& Lee, 1990). Recent research has shown that human MHC type is an important variable in human female mate choice, and that, as with rodents, it is demonstrated in response to body odour.
Wedekind et. al. (1995) typed female and male students for their human leukocyte antigens which correspond to the mouse MHC. Each male subject then wore a t-shirt for two consecutive nights, after which the t -shirts were collected and placed in identical cardboard boxes for the female subjects to sniff and assess. For each female, half of the boxes contained $t$-shirts from men who were similar to her in MHC-type and half contained t -shirts from men who were dissimilar. Their results found that females preferred the smell of males who were most dissimilar from them in MHC-type, thus indicating that female preferences for male body odour inversely correlate with MHC complementarity. (The odour assessment preference was reversed, however, when the women rating the $t$-shirts were taking oral contraceptives.)
It is well known that animals use olfactory signals to communicate their sexual status and individuation. Such olfactory information is a critical component of sexual and social behaviours expressed in all mammalian types (Jackson, 2003). Odour-based discrimination probably plays a major role in organising group behaviours in most social-living species with well-developed olfactory abilities. That personal odour plays a significant part in human nonverbal communication has been studied by Russell (1976), Schleidt (1980) and Schleidt, Hold, and Attili (1981).

Humans are highly scented mammals, with scentproducing glands associated with each hair follicle. Given that the species is almost as hairless as aquatic and marine mammals, their only function would seem to be to produce various scents (Stoddart, 1990). Apocrine glands are most dense around the armpits, pubic region, the area around the anus, the face, the scalp and the umbilical region. These glands are responsible for most of a healthy person's body odour. In addition to genetic differences, environmental factors, such as diet, also contribute to a person's distinctive body odour. Environmental factors are also seen in the organization of human social-group behaviour, with menstrual synchrony among women living together achieved through pheromones (McClintock, 1971).
The investigation of female mate-search and relationship strategies based on olfactory cues has been somewhat overlooked in psychology. The primary purpose of this research was to investigate the function of the olfactory system with regard to sexual attraction and mate choice. It was hypothesised that olfactory stimuli would be a more important
determinant of sexual choice and arousal for females. It was also hypothesised that females would be more accurate than males in determining the sex and age of an individual by the odour of an article of clothing.

## Method

## Subjects

The convenience sample used consisted of 36 subjects, 30 females and six males, who were studying second year Psychology at an Australian university and participated as part of their course requirements. The subject's age ranged from 19.3 years to 46.2 years, with the mean age being 24.7 years. No attempt was made to establish whether or not female subjects were currently taking a contraceptive pill.

## Materials

To evaluate how different types of sensory information are used by males and females to assess sexual partners and evoke sexual arousal, the Sensory Stimuli and Sexuality Survey was used (Herz and Cahill, 1997). It consists of 18 Likert scaled questions (with $1=$ strongly disagree, and $7=$ strongly agree) grouped under three topics: lover/potential lover choice, sexual arousal during sexual activity and sexual arousal during nonsexual activity. The questions under each topic measured the subjective importance of sight, hearing, touch and smell to subjects' behaviour.
The second part of the research involved determining whether subjects could identify characteristics of an individual by the odour of a worn t -shirt. Three males (between 19 and 29 years) and three females (between 24 and 28 years) were recruited to assist the researchers. They were each given a new $t$-shirt and asked to wear it to bed for three consecutive nights. Before going to bed, the t shirt wearers were asked to shower, but not to use any soap, shampoo, perfume or deodorant. Upon waking, they were asked to remove their $t$-shirt and place it in a resealable plastic bag. The six t -shirts were then collected and bilaterally scissored, to produce two identical odour test samples, thus enabling the use of a replicate $t$-shirt in the study
A set of six questions was asked about each t-shirt concerning the level of attraction felt by a subject, familiarity of odour, probable sex and age of $t$-shirt wearer, point of reproductive cycle (if applicable), and stimulated romantic interest of subject.

## Procedure

Each subject was tested individually in a small room in the presence of one of the researchers, and given a brief explanation of the questionnaires and activity to be completed. They each sniffed and commented upon four different $t$-shirts and one replicate $t$-shirt. The choice and order in which the four different t shirts were to be sniffed was randomised for each subject, with the addition into fourth position of the replicate half of the $t$-shirt first sniffed. After they had answered the six questions on the third t-shirt, the instructions suggested that they may like to return to
the first two t-shirts and readjust their ranking scales as they now had some comparisons. When each subject had completed the exercise, they placed their anonymous response in a designated collection box.

The responses of all 36 subjects were obtained in six hours of testing completed in one day - ensuring an equivalent state of "freshness" for the $t$-shirts under consideration.

## Results

Responses for each subject were scored and descriptive statistics, $z$ tests and $\chi^{2}$ analysis, where appropriate, were conducted. For frequency comparisons involving sex, given the small numbers of male subjects and their resulting limited and unequal range of responses across the available t shirts, $\chi^{2}$ analysis, even with Yates correction, proved problematical (Siegel, 1956). Frequency comparisons in these cases were undertaken by a $z$ Test for significance of difference between two proportions on a logically dichotomous variable (Bruning and Kintz, 1977)

To examine the consistency and reliability of subject's answers, correlative responses to attractiveness for the first t -shirt sniffed and it's later replication, in position four of the sequence, were examined. It was found that there was a significant positive correlation between the first t -shirt and the replicate t -shirt, $r=.737, p<0.001$, representing a perfectly credible level of reliability to the test situation. For comparison, correlative responses to the first $t$-shirt and the third $t$-shirt sniffed (sourced to different bodies) found no significant correlation, $r=.068, p>.05$.

One way independent sample t-tests were calculated for each of the 18 items on the Sensory Stimuli and Sexuality Survey to discover whether sex differences existed in responses. Females rated item four ("how someone smells can make a big difference to me") significantly higher than did males, $t(32)=2.223$, $p<.02$. No significant sex differences were found for any of the other items, including that of appearance ("how someone looks").

The second hypothesis suggested that females would be more accurate than males in determining the sex of an individual by the odour of an article of clothing. Females correctly identified the sex in $72 \%$ of cases. At $52 \%$ males were no better than chance. The data available for sex comparison in this study unfortunately do not originate from equal source and choice bases, and thus fail to meet essential criteria for $\chi^{2}$ analysis. Hence, a one-tailed $z$ Test for significance of difference between two proportions on a logically dichotomous variable was conducted on sex estimation, and this proved significant for the hypothesised female superiority ( $z=1.83, p<.03$ ).

The third hypothesis suggested that females would be more accurate than males in estimating the age of an individual by the odour of an article of clothing. The age range for a correct estimate of age was chosen to be plus or minus five years, within which, rather than showing evidence of greater female ability, males were correct $63 \%$ of the time, females
only $48 \%$ of the time, but this difference was not significant ( $z=1.27, p>.05$ ).

## Discussion

The results of the current study supported the hypothesis that olfactory stimuli would be a more important determinant of sexual choice and arousal for females than it would be for males and that females would be more accurate than males in determining the sex of an individual by the odour of an article of clothing. The results did not support the hypothesis that females would be more accurate than males in determining the age of an individual by the odour of an article of clothing.

The fourth item on the Herz and Cahill (1997) Sensory Stimuli and Sexuality Survey, "how someone smells can make a big difference to me", displayed the only significant difference between male and female respondents. The survey result showed that females believed their sexual interest was affected more by body odour than any other sensory stimuli. Herz and Cahill (1997) found that, for males, when selecting a mate, visual and olfactory cues were equally important, while for females, olfactory cues were the single most important variable in mate choice and were found to be significantly more important than visual, tactile or auditory cues. The current study supported this typical mammalian finding.

Recent research has indicated the importance of human MHC type as a variable in female mate choice and, just as in rodents, it is mediated through body odour (Herz \& Cahill, 1997). Ober, Weitkamp, Cox, Dytch, Kostyu and Elias (1997) found that human mate choice in isolated areas of northern United States and western Canada was influenced by MHC haplotypes, with an avoidance of partners with similar haplotypes to one's own. Wedekind et. al (1995) found that women scored male body odours as more pleasant when they differed from the men in their MHC, than when they were similar. The present findings, that females were significantly more accurate than males in the olfactory determination of sex, support previous research that has demonstrated the importance of olfactory discrimination in female mammal mate-selection strategies (Herz \& Cahill, 1997).

The third hypothesis, that females, because of their greater focus on the olfactory in relationships, would also be superior at estimating the age of the $t$-shirt wearer was not supported.

Interestingly, a post-hoc analysis of this data, combining the sexes, revealed a significant effect in terms of the sex of the $t$-shirt sniffed (see Table 1). By combining the sexes, the existing problem of disparity in source and choice bases of responses was obviated, and a $\chi^{2}$ test became the most appropriate measure for statistical analysis. Subjects as an whole, were markedly better at predicting the age of a female t shirt wearer than they were at predicting the age of a male t-shirt wearer, $\chi^{2}=8.450, p<.005$. One possible explanation for this may be found in a different orientation towards age in social mammalian species. The male's orientation towards mating is based on the physiological, females live as long as, or longer than
males, but are reproductively more restricted in the length of time of fertility in their life-cycle (and less reproductively successful with age), than males. Consequently, males should be biologically programmed to decipher age-related cues from female odours. In contrast, within a social mammalian species, the female orientation towards mating involves both behavioural and physiological assessment, but the latter, at least in terms of the major histocompatibility complex, post-puberty, is not age-related. With males remaining reproductively fertile throughout the bulk of their life-cycle, age is not such a significant factor in female mate-choice, but it may well be important for a female social mammal to recognise females of similar reproductive potential in the vicinity, who may, depending on the species' period of fertility, represent competitors for the most desirable males, but probably more importantly, they represent potential co-operators in the communal care of young.

Table 1
T-shirt age estimates

|  | Correct <br> Estimate | Incorrect <br> Estimate |
| :--- | :---: | :---: |
| Male t-shirt | 25 | 41 |
| Female t-shirt | 44 | 26 |

A number of methodological issues and limitations associated with this research should be noted. While a larger number of subjects, including a greater number of males and broader age range, would be beneficial, potential changes in worn t-shirt odours over time could confound data collection spread over two or more days.
This study was a direct examination of the role of a rarely considered form of sensory information in human sexual behaviour. It found that olfactory stimuli were a more important determinant of sexual attraction and arousal for females than for males. It also found that females were more accurate than males in determining the sex of an individual by the odour of a worn article of clothing. Finally, it was found that estimates for the age of the wearer of a tshirt were more accurate for $t$-shirts worn by females, than $t$-shirts worn by males. Sexual selection was originally proposed by Darwin (1871) and it clearly paved the way for Trivers' (1972) theory of parental investment. The human olfactory identification abilities demonstrated in this study support parental investment theory and appear to reflect basic mammalian relationship proclivities within our species.

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# Parental Decision-Making surrounding Complicated Births: The Impact on Parent-Infant and Infant-Marital Relationships 

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#### Abstract

This paper reviews current research regarding the impact of birth complications on parental decisionmaking, and the resulting effects on parent-infant and infant-marital relationships. It discusses the importance of informed decision-making on parental satisfaction of the birthing experience, and the benefits of certain strategies, such as kangaroo care, in the facilitation of greater levels of attachment and improved relationships. The paper concludes with suggestions for future research areas to focus on finding better ways to prepare and support parents in these situations, thus improving the quality of relationships between parents and with their child.


The technical advances that have characterized newborn care in the last forty years have been accompanied by an increase in the survival rate of preterm (birth before 37 completed weeks), low birth weight ( $<2,500 \mathrm{~g}$ ) and critically ill infants. Twins and higher order multiples, which have increased in birth rate due to assisted reproductive technology (Ventura, Martin, Curtin, Menacker, \& Hamilton, 2001), are also more likely to be born prematurely and have low birth weights (Gardner et al., 1995). Such infants are often at a higher risk of long-term neurological, cognitive and behavioural problems (Breslau, 1995). Accompanying the technological advancements, however, is an increase in the need for parents to participate in very serious treatment decisions regarding resuscitation, mode of delivery, and other neonatal intensive care unit (NICU) decisions. Studies investigating the experience of such tasks have lead to an increased appreciation of the psychological strain and emotional stresses encountered by the family of the sick infant (Siegel, Gardner, \& Merenstein, 2002).

Amidst trying to cognitively and emotionally assess competing treatment options in decision-making for their infant's care, parents have reported an impaired ability to retain and to understand important information in stressful periods such as labour, time constraints, anxiety, and even doubts in the willingness and confidence to be involved in the decision-making process (Harrison, 1993; Zupancic et al., 2002). Qualitative studies investigating parents' experiences of birth complications have highlighted the need for the parents to be able to see, hold, and touch their newborn in order to facilitate early attachment and bonding. The initial separation of the infant from the mother and father has been found to
increase the strain placed on the infant-parent relationship, especially during lengthy NICU stays. Additionally, the delay in the much-awaited event of taking the baby home may increase feelings of anxiety and ambivalence between the parent and infant, also impacting the marital relationship (Harrison, 1993).
Although attention has been alerted to the adverse consequences of poor decision-making processes, and infant-parent separation on relationships, parents currently receive little guidance as to how to make difficult treatment decisions under extraordinary physical and emotional stress. This paper provides a brief overview of the different types of medical and general care decisions that new parents often face, and examines the consequences of poor decision-making for the infant, parent, and family unit. The benefits of kangaroo care (skin to skin contact) and maternal sensitivity and their impact on family functioning will be discussed. Finally, the future research area of education and preparation of couples for serious decision-making surrounding complicated births, and the induction of strategies to facilitate strong maternal and paternal attachment will be highlighted.

## Decisions surrounding Complicated Births

There are many reasons that infants require NICU care. The most common reason is preterm birth, which occurs in almost 7 percent of all births in the state of Victoria (Ridley \& Halliday, 2001). Birth complications other that prematurity are also common, and in the year 2000, documented difficulties included emergency caesareans (11 percent), unplanned vacuum extraction ( 6 percent), and stillbirths ( 0.7 percent). As a consequence of some of these complications, a striking 43 percent of all births in the year 2000 required some form of resuscitation, ranging from external cardiac massage and ventilation, to suction and $\mathrm{O}_{2}$ therapy (Riley \& Halliday, 2001).
As can be inferred from these statistics, complications during birth are not infrequent events and often require serious decision-making in determining the appropriate level of treatment (or non-treatment) of sick infants. Society has, for many reasons, allocated the parents primary responsibility, albeit in collaboration with health care providers, in making decisions about their infant's care (Harrison, 1993; Swaney, English, \& Carter, 2002). Of all people, parents know best the values of the family culture or environment in which the infant will be
raised (Swaney et al., 2002). They often desire to be active participants in the many decision tasks that are necessary during the NICU treatment course, and report daily decision-making tasks (such as whether to contribute to medical care plans, to raise issues with medical staff, or to seek second opinions) as being just as important as serious treatment decisions (Sudia-Robinson \& Freeman, 2000).
However, it has been consistently reported that parents find it difficult to cope with such decisionmaking tasks due to the overwhelming emotional response elicited by unexpected birth complications (Harrison, 1993; Lau \& Morse, 2003). Qualitative interviews of parents who have experienced birth complications have revealed that parents are frequently physically and emotionally overwhelmed, and confused and/or intimidated by the high-tech environment of the NICU and the complexities of their infant's care (Lau \& Morse, 2003). Amid feelings of grief, fear, anxiety and wonderment over their preterm or critically ill infant, they may be uncertain of their proper roles and responsibilities as parents (Swaney et al., 2002). Before examining the potential consequences of poor decision processes, it is important to place in context the influence of the NICU environment itself.

## Impact of NICU Environment

Not only has the number of infants requiring NICU care increased, but the length of time required for an infant to stay in the NICU has also dramatically increased due to lower gestational ages and smaller birth weights (Ventura et al., 2001). The impact of NICU care on mothers and fathers has been well documented. Findings generally concur that mothers, who frequently do not get the chance to see or touch their baby before they are whisked away for medical attention, often feel distressed about being separated from their newborn (Tully, Arseneault, Caspi, Moffitt, \& Morgan, 2004). During the pregnancy, parents often build up a rather idealized picture of the baby they are expecting to be born. However, many parents of even healthy babies later volunteer that they were shocked and appalled when they first saw their baby (Kitchen, Ryan, Rickards, \& Doyle, 1998). Among the negative sequelae of complicated births, such as prematurity, is the disruption in the attachment process, resulting in part from maternal-infant separation caused by standard incubator care. Maternal separation during the post-birth period exerts a negative impact not only on the infant's physiology and behaviour but also on the mother's tie to her infant (Hofer, 1995). The frequency of maternal affiliative behaviour, affectionate touch, and care taking decrease in the immediate post-birth period following premature birth, partly due to disruptions in the psychobiological process of maternal bonding (Feldman, Weller, Sirota, \& Eidelman, 2003). Studies comparing the mother's global relationship style among preterm and full-term infants have found lower levels of maternal sensitivity and adaptation in the preterm group (Feldman et al., 2003). Mothers of premature infants often exhibit an intrusive interactive style (Brachfield, Goldberg, \& Sloman, 1980), which
places the infant at a higher risk for deficient socialemotional growth (Minde, 2000). Such a style may result from the premature infant's lower selfregulatory capacities, as well as from the decreased opportunities for mother-infant touch and contact in the first post-birth period (Field, 1996). Qualitative studies involving interviews with mothers have also revealed that their main, if only, purpose during this time is to express milk. Mothers reported believing that in the high tech environment of the NICU, this is all they can do for their infant, leaving them feeling quite helpless and unneeded (Harrison, 1993). In addition to coping with their own feelings during this time, parents are often required to make, or consent to, serious treatment decisions, which may affect the outcome of their newborns life.

## Consequences of Poor Decisions

Poor decision-making processes may result in unfavourable outcomes for the infant, parents, and family as a whole. By examining the potential consequences of poor decision processes for each of the parties involved, a need for improvement in this area will be highlighted.

## Infant

For the infant, a poor decision-making process may result in a worse outcome than necessary, an inability to achieve his/her full potential, or a more distressing death (Harrison, 1993). Preterm and low birth weight infants are often at a high risk of long-term neurological, cognitive, and behavioural problems (Breslau, 1995). By the very nature of the situation, infants are placed at the mercy of their parents in their willingness and ability to respond, touch, and interact (Swaney et al., 2002). Studies have found that mothers of premature infants, unlike those of blind or deaf infants, do not increase the level of touch to compensate for their infant's difficulties in maintaining gaze and affective synchrony; to the contrary, the early separation in the NICU decreases proximity and touch (Weizman et al., 1999). Disruptions in other components of the co-regulatory system have also been observed, for example, the emotional expressions of premature infants are often unclear. Infants' reduced self-regulation combined with lower maternal contact may lead to the lower level of synchrony observed between mothers and premature infants, leading to long-term relationship issues (Lester, Hoffman, \& Brazelton, 1985). The effects of maternal depression on infant cognitive and neurological development and emotional selfregulation have also been the topic of thorough investigation. The influence of maternal depression on child outcomes has been thought to be due, in part, to marital conflict. Children exposed to inter-parental conflict have been shown to be vulnerable to externalising and internalising problems, with infants and toddlers expressing more insecure attachments and older children displaying academic and social difficulties (Tulley et al., 2004). In addition, the irritability and agitation associated with depression also may be reflected in mothers' overt expressions of negative affect, which are relatively rare phenomena
in routine mother-baby interactions in nondepressed dyads (Campbell, 1995).

## Parents

For the parents, poor decision-making processes may result in poor parental attachments, guilt, failure, and regret that they had made a poor decision (Siegel et al., 2002).

Parents of a newborn with a disability normally experience lowered self-esteem and view this event as an affront to their reproductive capabilities (Swaney et al., 2002). More specifically, the mother views it as a failure of her feminine role. Parents commonly experience anticipatory grief when serious treatment decisions are required, as the necessity to make life-and-death decisions indicates to the parents that their infant's chances for survival are diminished. Researchers have shown that the decision to transfer an infant to a NICU alone is likely to initiate an anticipatory grief reaction (Benfield, Leib, \& Reutor, 1976; Siegel et al., 2002). Parents may also be experiencing feelings of sadness over the loss of the expected, idealized child that they had wished for during the pregnancy. For some parents, attaching to a critically ill infant may be too overwhelming; parents may withdraw from the infant in an attempt to protect themselves from their feelings of hurt, disappointment and guilt (Bialoskurski, Cox, \& Hayes, 1999; Miles, Holditch-Davis, \& Burchinal, 1999). Some parents may feel ambivalent about the infant; they may feel they could not love or cope with an infant who might die or who would have significant physical or mental problems. Feeling uncertain about whether they want their infant to survive can cause overwhelming feelings of guilt, shame and responsibility (Siegel et al., 2002).

Not surprisingly, parents have reported that these feelings have affected the development of their relationship with their newborn. For example, qualitative interviews with parents, who had decided to do everything possible for the survival of their handicapped infant without having all of the relevant knowledge, have revealed that some mothers in particular, being the main caregivers for their child, were in strong favour of euthanasia. One mother said "If I knew as I know now, I'd have euthanasiaed her. It's cruel for me and it's cruel for her. There's no life for me while she's here and none for her" (Kuhse \& Singer, 1985, p149).

## Family

Clearly, in deciding the lengths to which resuscitation efforts for their preterm/critically ill infant should go, parents need to consider the potential impact a handicapped child will have on their family and themselves. Very important in any neonatal illness and subsequent hospitalization is the disruption and stress that is frequently created in the nuclear family system. It has been demonstrated that the family's functioning and its adaptation to stress have important effects on the family's relationship with the infant and the infant's later development (Siegel et al., 2002). Potentially, the survival of a handicapped premature infant may require constant care and a great amount
of physical, cognitive, emotional and financial resources (Kuhse \& Singer, 1985). Empirical studies of objectively measurable features of the lives of families with, as compared to families without, handicapped children, have found differences between these groups including a higher rate of marital breakup and a decrease in the likelihood for further children in the former. Siblings are also affected, in part because their parents have to give so much of their time and attention to the disabled member of the family, and in part because they - especially if they are sisters, are likely to be asked to do a good deal of babysitting and behave in ways not appropriate to their ages (Kew, 1984, as cited in Kuhse \& Singer, 1985).

These findings have important implications for furthering our understanding of how families function during this time, as it is predominantly viewed that families function as unitary systems and are best understood and treated within a systemic perspective (Feldman et al., 2003). In infancy, studies of family interactions have shown important differences between triadic mother-father-infant interactions and parent-infant relatedness, emphasizing the need for a fuller exploration of family-level processes. One difficulty encountered in studying family-level processes is the multiple sources of influences impacting on the family system. Therefore, several levels of direct and indirect influences need to be considered. These include (a) the influence of each individual on the behaviour of other individuals (e.g. infant-to-parent) or dyads (infant-to-marital) in the family; (b) the influence of each dyad (e.g. marital) on the other dyads (e.g. parenting); and (c) the effects of higher order process on individuals, dyads, and their interrelationships in the family (Feldman et al., 2003). Such influences may emerge through direct interactions, imitation and modeling, or the effects of other relationships. The quality of marital relationships, be they satisfying or distressed, also impacts on parenting behaviour, particularly the father-child relationship (Parke \& Beitel, 1988). Within the context of triadic interactions, moments of shared marital pleasures increase the quality of parenting (Belsky, Crnic, \& Gable, 1995), whereas distressed marital relationships reduce the level of sensitive parenting, particularly maternal sensitivity (Feldman et al., 2003).
The systems perspective can also provide several testable hypotheses on change in family systems. For example, the systemic nature of the family dictates that intervention targeting one relationship would also affect other individuals, relationships, and the higher order process (Feldman et al., 2003). To illustrate, Cowan and Cowan (1992) found that intervention that promotes marital closeness positively impacts the two parenting systems. Furthermore, on the basis of the dyadic-to-triadic influences, gains in one dyadic system are expected to persist when these two individuals interact within the triad. Finally, it is likely that the specific gains for the target system following intervention would be expressed in the same domains in the other systems (Feldman et al., 2003). For example, if intervention affects the degree
of sensitivity or positive affect in marriage, those same properties would also be enhanced in the two parenting subsystems. Testing such hypotheses is not only important for the evaluation of intervention outcomes in infancy, but moreover, for a fuller understanding of how family systems evolve and function (Feldman et al., 2003).

## Strategies to Facilitate Better Relationships

With the potential consequences of poor decisionmaking resulting in poorer outcomes for all involved, it is paramount that clear and effective strategies be employed to facilitate bonds between parents and infants, and parents themselves.
Kangaroo care, or skin to skin contact, may attenuate the negative effects of maternal separation on the mother-child relationship, both in terms of global sensitivity and in relation to micro-regulatory patterns of gaze, affect, and touch (Feldman et al., 2003). Research in human and animal models has shown that touch and handling during periods of early maternal separation had a positive impact on maternal and infant behaviour (Weizman et al., 1999). The provision of maternal-infant body contact during a period of maternal separation has also been examined for its effect on parent-infant and triadic interactions (Feldman et al., 2003). In a study of three month old preterm infants and their parents, these researchers found that following kangaroo care, mothers and fathers were more sensitive and less intrusive, infants showed less negative affect, and family style was more cohesive. In addition, maternal and paternal affectionate touch of infant and spouse was more frequent, spouses remained in closer proximity, and infant proximity position was conducive to mutual gaze and touch during triadic play (Feldman et al., 2003).

In regards to the father-child relationship and the family process, studies on co-parenting have found associations between mothers' and fathers' behaviour toward their children, which is thought to lay the foundation for the family process (Belsky et al., 1995). The researchers thus hypothesized that improvements in maternal sensitivity and intrusiveness following kangaroo care may also be observed between father and child in the same domains.
Maternal warmth has also been the topic of investigation in studies of low birth weight infants and their developmental outcomes. For example, in a study investigating the moderating effect of maternal warmth on the association between low birth weight and children's attention-deficit/hyperactivity disorder (ADHD) symptoms and low IQ, Tully and colleagues (2004) found a significant interaction between children's birth weight and maternal warmth in predicting mothers' and teachers' ratings of ADHD, but no significant interaction for IQ. These findings suggest that the effect of children's birth weight on their ADHD symptoms can be moderated by maternal warmth and that enhancing maternal warmth may prevent behaviour problems among the increasing population of low birth weight children (Tully et al., 2004). These results support the findings of earlier
longitudinal research showing a moderating effect for maternal emotional responsivity to their low birth weight children (Laucht, Esser, \& Schmidt, 2001).

The findings of the aforementioned studies suggest that parents' emotional attitudes may also be an important factor in the development of child psychopathology. Researchers have found that mothers of children with behavioural and emotional disorders express more critical comments, fewer positive comments, and less warmth to their children than control parents (Scott \& Campbell, 2001). As maternal warmth is important for children's competence, behaviour, and development (MacDonald, 1992), high levels of maternal warmth may be critical for low birth weight children and may moderate the risk of long-term cognitive and behavioural difficulties (Tully et al., 2004). In addition, some researchers have found that the effects of low birth weight may be greater in twins than in singletons, due to the evidence that parents of twins may experience greater stress, depression, and marital difficulties, owing to the burden of having two children simultaneously (Thorpe, Golding, MacGillivray, \& Greenwood, 1991). Thus, such strategies to improve infant and family relationships could be applicable to twins and singletons alike.

## Future Research Directions

Given the current state of the literature on the impact of birth complications on parent-infant and infantmarital relationships, coupled with the frequency of such complications, it is clear that advances in this area are required. As previous attempts to aid parents during or immediately before labour have been limited at best, a key area that remains underdeveloped at present is the education and preparation of couples for serious decision-making. Couples could, if willing, participate in an educative intervention program that would focus on helping parents clarify their involvement in the decision process, and familiarize them with common procedures and events following birth complications. If complications during birth do occur, couples may then be aware of how they feel about different decision outcomes, and may be less affected by the time constraints and emotional responses commonly associated with such decision tasks.

Alternatively, research in this area may be useful in helping to guide clinical staff in the way they assist parents to negotiate not only the decision processes, but also care involvement if complications do occur. Perhaps by providing parents with the knowledge of previous research findings about kangaroo care and maternal sensitivity, parents would be more aware of the options they have in their infants care and the benefits, for all parties involved, of touch, gaze, and interactions. The induction of strategies to facilitate strong maternal and paternal attachment would result in the improvement of relationships between family members, and would most likely minimize the negative effects of the NICU environment on relationships and later infant development.

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# Attachment Security and Intimate Relationship Satisfaction: The Mediational Role of Maladaptive Attributions 

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#### Abstract

Attachment insecurity is a well-established predictor of low couple relationship satisfaction. In this study we tested the hypothesis that negative attributions mediate this association. Both partners in 59 heterosexual couples completed self-report measures of attachment, attributions in their current relationship and relationship satisfaction, and watched video vignettes of a potential partner and rated their attributions for that potential partner's behaviour. As predicted, negative attributions mediated between insecure attachment and relationship satisfaction in the current relationship, but not with the potential partner. Attributions seem to be a relationship- specific process rather than a general interpersonal attribute.


Hazan and Shaver's (1987) influential studies showed that the formation and maintenance of adult romantic relationships can be conceptualised as an attachment process analogous to the development of infantcaregiver relationships (Bowlby, 1977). Later research demonstrated a robust association between attachment and relationship satisfaction (Collins \& Read, 1990; Feeney \& Noller, 1990; Simpson, 1990). However, there is a dearth of research investigating the processes through which attachment and satisfaction are related to one another.

Adult attachment is argued to reflect the representation that individuals have of themselves and others as either positive or negative. Recent approaches (e.g. Brennan, Clark, \& Shaver, 1998) classify attachment insecurity across two dimensions - avoidance, and anxiety. While securely attached individuals are comfortable depending on others and having others depend upon them, anxious styles are characterised by the desire to be closer than others would like and worry that their partners do not love them or will leave them; and avoidant styles desire to avoid close involvement and have a negative expectation of others. Attachment style can change in response to new relationship experiences, but is generally assumed to be formed by early experiences and be relatively stable across time (Collins \& Read, 1994).

While psychodynamic in origin, attachment can be explained in terms similar to the cognitive components of attribution theory (Fletcher \& Fincham, 1991). Attribution theorists hypothesise that couples have biases in the explanations they make for partner behaviour (Holtzworth-Munroe \&

Hutchinson, 1993). Current relationship functioning has been strongly related to attributions (about negative behaviour) towards the partner causing and considered blameworthy for the behaviour (Fincham \& Bradbury, 1987), with attributions of negative intent more likely to occur when relationships are unstable, distressed, or close to separation (Bradbury \& Fincham, 1990; Fletcher, Fincham, Cramer, \& Heron, 1987). Gallo and Smith (2001) found anxious attachment was a strong predictor of perceptions of marital support and conflict, and in some cases this relationship was mediated by attribution style. This raises the possibility that attributions might mediate the association between attachment and relationship satisfaction.
Of further interest is the question of whether attributions for negative partner behaviour can mediate attachment and relationship satisfaction across different relationships, representing a consistent pattern of cognitive processing. The earliest studies in social perception support the presence of consistency using real and imagined targets (Burron, Carlson, Getty, \& Jackson, 1971). Further support comes from Baldwin's (1992) theory of relational schemas, cognitive structures for patterns of interpersonal interactions that are cognitions about relationships, and not merely self and other in isolation. The presence of globality-the extent to which the cause for behaviour is perceived to be typical across a number of situations or particular to just that instigating event-in conjunction with stable attachment insecurity would predict the presence of a consistent cognitive bias. In this case, a global attribution style would consistently mediate attachment regardless of the relationship in question, thus the behaviour of current and potential intimate partners would be interpreted in the same manner.
The present study investigated whether attributions mediate the relationship between attachment and relationship satisfaction. Consistent with early attachment research it was hypothesised that avoidant and anxious attachment would be associated with relationship dissatisfaction, and that this relationship would be mediated by maladaptive attributions for negative partner behaviour. Based on the widely made assumption that attachment is a stable personal characteristic (Collins, 1996; Collins \& Read, 1990; Feeney \& Noller, 1990; Gallo \& Smith, 2001; Simpson, 1990) it was also predicted that attributions about the behaviour of a hypothetical future partner's
negative behaviour would mediate between attachment and current relationship satisfaction.

## Method

## Participants

Fifty-nine couples were recruited via an advertisement placed in a metropolitan newspaper for a study of relationship communication. To be included in the study participants had to be in a heterosexual relationship for a minimum of six months, and had to spend a minimum of four nights per week together. The mean duration of relationship was 11.7 years $(S D=10.3)$. The mean age for males was 41.4 years ( $S D=10.9$ ), and for females was 38.1 years ( $S D=10.8$ ). Approximately half of the couples ( $n=33$ ) were married, and the remaining couples were defacto $(n=26)$. The majority of males $(n=47)$ were in full-time employment with 24 females in fulltime employment.

## Measures

Attachment The Experiences in Close Relationships (ECR) is a 36-item self-report measure of adult attachment (Brennan et al., 1998) consisting of two 18-item scales, Avoidance and Anxiety. Participants rate the extent to which they agree with each item on a 7-point likert scale with higher scores reflecting more avoidant or anxious attachment. There is high internal consistency for both Avoidance ( $\alpha=.94$ ) and Anxiety $(\alpha=.91)$, and the scales of the ECR correlate significantly with both Collins and Read (1990) and Griffin and Bartholomew's (1994) measures.

Attributions The Relationship Attribution Measure (RAM) is a 60 -item measure of attributions for ten hypothetical spousal behaviours (Fincham \& Bradbury, 1992). Respondents rate on a 6 -point likert scale the extent to which they agree with six statements for each of the eight negative behaviours and two positive behaviours (included as filler items). Derived scores are the extent to which the partner is seen as causing the negative behaviour, and is responsible or blameworthy for the behaviour. Higher scores represent a greater tendency to make negative attributions of this nature. The RAM displays good internal consistency for both scales.

Relationship Satisfaction The Dyadic Adjustment Scale (DAS; Spanier, 1976) is a 32 -item assessment of couple relationship satisfaction. The DAS is a widely used measure in relationship research, with high scores indicating greater levels of relationship satisfaction. The scoring results in the calculation of a total adjustment score that is highly reliable ( $\alpha=.96$ ). Furthermore, the DAS distinguishes between married and divorced couples, and correlates highly ( $r=.86$ ) with other measures of dyadic adjustment (Spanier, 1976).

Potential Partner Partner attributions were assessed in response to behaviours of a hypothetical potential partner. A Potential Partner video was created using actors and consisting of headshots of the actor making

12 different statements, chosen to prompt attribution processes. The statements spanned three emotional valences (four positive, four negative, and four ambiguous) and were designed to be potentially relevant to a cross-section of relationships. Preliminary testing of the video showed it to be a valid and reliable measure. Attributions made in response to video statements were assessed using a modified version of the RAM that specifically targeted each video statement.

## Procedure

This study formed part of a larger research project conducted as partial requirement for the first author's Doctor of Philosophy degree. Couples responding to the advertisement were sent an ethical consent form and information sheet outlining the broad goals of the study and explaining what to expect in the interviews. All interviews took place at the Psychology Clinic, Griffith University, Brisbane, Australia. Couples participated in two 2-hour interviews during which time they completed the questionnaires and Potential Partner protocol. An information sheet listing local counselling providers was made available should couples wish to seek further assistance. Each couple received $\$ 50.00$ payment for participation.

## Results

The within-gender correlations between the key variables are shown in Table 1. While significant, many of these correlations were moderate at best. Table 1 shows that, for males, there was a small but significant association between attachment style and relationship satisfaction, where greater levels of insecurity were related to reports of lower satisfaction. A similar small but significant association was found between attachment insecurity and causal attributions but this result was not replicated with responsibility-blame attributions. Finally, attributions of both dimensions were moderately associated with relationship satisfaction where making more negative attributions was associated with reports of lower relationship satisfaction. For females, attachment insecurity was associated with relationship dissatisfaction, but the correlations were low to moderate at best. A low strength of association was also evident between attachment and attributions but on the whole greater attachment insecurity was significantly associated with making more negative attributions. Finally, there was a moderate association between attributions and relationship satisfaction, where making more negative attributions was associated with reports of lower relationship satisfaction. Additional between-gender correlations were conducted separately and significant associations were found between female avoidant attachment and male causal attributions ( $r=.29, p<$ .05), and female anxious attachment and male responsibility-blame attributions ( $r=.27, p<.05$ ).

Table 1
Correlations for Questionnaire Measures

| Measure | 1. | 2. | 3. | 4. | 5. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Avoidance | $\mathbf{. 2 4}$ | $.43^{* *}$ | $.28^{*}$ | .12 | $-.31^{*}$ |
| 2. Anxiety | .20 | $\mathbf{- 0 5}$ | $.37^{* *}$ | .14 | $-.38^{* *}$ |
| 3. Cause | .22 | $.32^{*}$ | $\mathbf{. 3 1 *}$ | $.68^{* *}$ | $-.59^{* *}$ |
| 4. Resp/Blame | $.33^{*}$ | $.37^{* *}$ | $.70^{* *}$ | $\mathbf{. 3 3 * *}$ | $-.52^{* *}$ |
| 5. DAS | $-.48^{* *}$ | $-.31^{* *}$ | $-.55^{* *}$ | $-.64^{* *}$ | $\mathbf{. 5 7 * *}$ |

Note. $N=59$. Correlations for male participants are presented above the diagonal; correlations for female participants are presented below the diagonal. Between-gender correlations are presented on the diagonal in bold text. Avoidance $=$ Experiences in Close Relationships Avoidance scale; Anxiety = Experiences in Close Relationships Anxiety scale; Cause $=$ Relationship Attribution Measure Cause scale; Resp/Blame = Relationship Attribution Measure Responsibility-Blame scale; DAS = Dyadic Adjustment Scale.
${ }^{*} p<.05,{ }^{* *} p<.01$

Tests of mediation were conducted using hierarchical regressions (Baron \& Kenny, 1986; Holmbeck, 2002; MacKinnon, Lockwood, Hoffman, West, \& Sheets, 2002; Shrout \& Bolger, 2002) on variable pathways that showed significant IV-MV and MV-DV correlations. The significance of these analyses was tested via the Freedman-Schatzkin test, as suggested by MacKinnon et al. (2002). Initial regression analyses with relationship satisfaction as the criterion and attachment as predictor are presented in Table 2. Male attachment accounted for $17 \%$ of the variance in male relationship satisfaction and when female attachment was entered at Step 2 it accounted for $20 \%$ additional unique variance. Female
attachment accounted for $27 \%$ of the variance in female relationship satisfaction, and male attachment accounted for $13 \%$ additional unique variance. Table 2 also shows that avoidant attachment in males was not a significant predictor for their own or their partner's relationship satisfaction. Conversely, female avoidance significantly predicted male relationship satisfaction. Anxious attachment in males was predictive of female satisfaction but had no impact on their own relationship satisfaction, whereas female anxiety was the best predictor of their own and their partner's relationship satisfaction.

Table 2
Regression Analysis Summary - Relationship Satisfaction as Criterion

| Predictor | $B$ | $S E_{B}$ | $\beta$ | $\Delta R^{2}$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | DV $=$ Male Relationship Satisfaction |  |  |  |  |
| Step 1 |  |  |  | . 17 | 5.84** |
| Avoidance | -3.62 | 2.77 | -. 18 |  |  |
| Anxiety | -5.65 | 2.46 | -.31* |  |  |
| Step 2 |  |  |  | . 20 | 8.09*** |
| Avoidance | -1.88 | 2.51 | -. 09 |  |  |
| Anxiety | -3.78 | 2.44 | -. 21 |  |  |
| Avoidance (P) | -6.55 | 2.42 | -.34** |  |  |
| Anxiety (P) | -4.89 | 2.02 | -.27* |  |  |
| DV $=$ Female Relationship Satisfaction |  |  |  |  |  |
| Step 1 |  |  |  | . 27 | 10.56*** |
| Avoidance | -8.44 | 2.27 | -. 43 *** |  |  |
| Anxiety | -3.90 | 2.08 | -. 22 |  |  |
| Step 2 |  |  |  | . 13 | 8.95*** |
| Avoidance | -4.76 | 2.39 | -. 24 |  |  |
| Anxiety | -4.63 | 2.00 | -.26* |  |  |
| Avoidance (P) | -1.97 | 2.48 | -. 10 |  |  |
| Anxiety (P) | -6.42 | 2.41 | -.35** |  |  |

Note. $N=59$. Relationship satisfaction = Dyadic Adjustment Scale Total Score; Avoidance $=$ Experiences in Close Relationships Avoidance scale; Anxiety = Experiences in Close Relationships Anxiety scale; $(\mathrm{P})=$ partner's measure of this scale.
${ }^{*} p<.05 .{ }^{* *} p<.01 .{ }^{* * *} p<.001$.

Subsequent steps in the mediation analysis were conducted on the data for attachment style, attribution style, and relationship satisfaction following standardisation using z -score transformations. The results are presented in Table 3. For males, more causal attributions mediated the association of avoidant attachment behaviour in their partner and
lower relationship satisfaction, and greater use of responsibility-blame attributions mediated between anxious female attachment and lower relationship satisfaction. For females, Table 3 suggests the association of females' own anxious attachment on their relationship satisfaction was mediated by both causal and responsibility-blame attributions. The
association of male anxious attachment on female relationship satisfaction was mediated by female responsibility-blame attributions. In all but a single case full mediation was supported, and between 28 and 75 percent of the effect of attachment on relationship satisfaction was mediated by attribution style. Overall, the results show that attributions do mediate between attachment and relationship satisfaction.

Within-gender correlations for the Potential Partner attachment style, attributions and relationship satisfaction appear in Table 4. As the significant correlations between attachment and relationship
satisfaction were already illustrated in Table 1, the key relationship of interest in Table 4 is how attachment relates to Potential Partner attributions and how they, in turn, relate to relationship satisfaction. Male attachment style was not significantly correlated with any of the male attribution scales, nor was female attachment security significantly correlated with any of the female attribution scales. Similarly none of the between-gender correlations of interest were significant. Further analyses were not conducted, as the key variables were not related to one another.

Table 3
Tests of Mediation on Significant Standardised Regression Paths

| IV | MV | DV | $\alpha$ | $\beta$ | $\tau$ | $\tau^{\prime}$ | Mediation Results |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Type | Test | \% |
| Males |  |  |  |  |  |  |  |  |  |
| Avoidance (P) | Cause | DAS | .29* | $49 * * *$ | $.51^{* * *}$ | $-.37 * *$ | Partial | $-4.14 * * *$ | 27.89 |
| Anxiety (P) | Resp/Blame | DAS | .27* | $.46 * * *$ | -.35** | -. 23 | Full | $-3.64 * * *$ | 35.32 |
| Females |  |  |  |  |  |  |  |  |  |
| Anxiety | Cause | DAS | .32* | $.50^{* * *}$ | -.31* | -. 15 | Full | $-3.99 * * *$ | 51.83 |
| Anxiety | Resp/Blame | DAS | $.^{.37^{*}}$ | $.61^{* * *}$ | -.31* | -. 08 | Full | -4.80*** | 74.55 |
| Anxiety (P) | Resp/Blame | DAS | .28* | $.59^{* * *}$ | -.35** | -. 18 | Full | -4.36*** | 47.54 |

Note. $\alpha=$ beta weight of IV to MV (MV regressed on to IV); $\beta=$ beta weight of MV to DV controlling for IV, $\tau=$ IV to DV without MV, $\tau^{\star}$ $=$ IV to DV with MV. Avoidance = Experiences in Close Relationships Avoidance scale; Anxiety = Experiences in Close Relationships Anxiety scale; $(\mathrm{P})=$ partner's measure of this scale; Cause $=$ Relationship Attribution Measure Cause scale; Resp/Blame = Relationship Attribution Measure Responsibility-Blame scale; DAS = Dyadic Adjustment Scale.

* $p<.05 .{ }^{* *} p<0.01$. *** $p<.001$


## Discussion

The first hypothesis was supported, where negative attributions about partner behaviour mediated attachment insecurity and relationship dissatisfaction. Contrary to the prediction of hypothesis two, negative attributions about a potential partner's behaviour did not mediate attachment insecurity and relationship dissatisfaction.
The finding in the present study that attachment security significantly predicts relationship satisfaction largely replicates the well-documented association between adult romantic attachment style and relationship outcome (Collins, 1996; Collins \& Feeney, 2000; Collins \& Read, 1990; Feeney, 1994; Simpson, 1990). The fact that higher attachment anxiety in women was inversely associated with relationship satisfaction in male partners is supportive of earlier research (Collins \& Read, 1990; Kirkpatrick \& Davis, 1994; Kirkpatrick \& Hazan, 1994; Simpson, 1990) and may represent the stereotypical possessiveness (Davis \& Oathout, 1987) and jealousy (Sharpsteen \& Kirkpatrick, 1997) often identified in women. The finding that female avoidant attachment was predictive of lower male relationship satisfaction is somewhat contradictory to previous research, but may be due again to gender stereotypes. Females are
stereotyped as being more nurturing of intimate relationships and more comfortable with intimacy (Eagly \& Crowley, 1986) compared to males. Avoidance in females, and anxiety in males, would tend to go against social stereotypes, producing a greater degree of concern in their partners, with both gender effects potentially relevant to the current data. As a whole, however, avoidant attachment was only weakly associated with relationship satisfaction, suggesting avoidant attachment may be a less important predictor than anxious attachment (Gallo \& Smith, 2001).
The unique contribution of the current study is that it provides fairly convincing evidence that maladaptive attributions for negative partner behaviour do mediate between attachment and relationship satisfaction. Working models of attachment have been found by Collins (1996) to bias the attribution process, with insecure participants providing more negative attributions for hypothetical relationship events compared to secure participants. Data from the present study suggest Collins' findings have been supported, albeit with modest correlations.

Table 4
Correlations for Potential Partner Protocol

| Measure | 1. | 2. | 3. | 4. | 5. | 6. | 7. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Avoidance | . 24 | .43** | . 03 | -. 09 | . 05 | . 01 | -.31* |
| 2. Anxiety | . 20 | -. 05 | . 20 | -. 04 | . 15 | . 03 | -.38** |
| 3. Cause PP neg | . 05 | -. 09 | . 18 | . $47^{* *}$ | . 62 ** | .46** | -. 03 |
| 4. Resp/Blame_PP neg | . 12 | . 04 | .77** | -. 05 | . 39 ** | .56** | . 11 |
| 5. Cause PP ambig | -. 04 | . 01 | . $67 * *$ | . $64 * *$ | . 26 | . 60 ** | -. 03 |
| 6. Resp/Blame_PP ambig | . 06 | . 22 | .57** | .80** | .73** | . 09 | . 15 |
| 7. DAS | . $48^{* *}$ | -.31** | -. 08 | -.28* | -. 07 | -. 28 | .57** |

Note. $N=58$. Correlations for male participants are presented above the diagonal; correlations for female participants are presented below the diagonal. Between-gender correlations are presented on the diagonal in bold text. Avoidance = Experiences in Close Relationships Avoidance scale; Anxiety = Experiences in Close Relationships Anxiety scale; Cause_PP = Potential Partner using RAM Cause scale; Resp/Blame_PP = Potential Partner using RAM Responsibility-Blame scale; DAS = Dyadic Adjustment Scale.
${ }^{*} p<.05,{ }^{* *} p<.01$

In perhaps the only empirical study that has investigated both attachment style and attributions in married couples, Gallo and Smith's (2001) research found attachment to be predictive of marital functioning in a sample of 57 married psychology undergraduate students. Furthermore, attributions of negative intent, as assessed by the Relationship Attribution Measure, were found to partially mediate this association. Yet a number of distinct differences between Gallo and Smith's research and the current study should be pointed out. By their own admission, Gallo and Smith suspect their use of the Adult Attachment Scale (Collins \& Read, 1990) to measure attachment was somewhat problematic and the authors instead suggest utilising the ECR in future research. Secondly, the use of a college sample, despite the marital status, may also limit comparing their results to those presented here, as differing recruitment techniques and sample characteristics can reduce generalisability (Amato \& Keith, 1991; Karney et al., 1995). Of course, the sample used in the present study is also limited in terms of how generalisable the results are. Our sample was largely an older, long-term committed, middle-class sample, and caution should be applied before generalising these results too far. Nevertheless, it appears that while earlier research has provided tentative support for a link between attachment and attributions, the mediational nature of attributions specific to attachment (as measured by the ECR) and relationship satisfaction, in a community sample of couples, is a unique result.

The lack of results for the potential partner scenario contradicts the global cognitive bias hypothesis. The mediation of insecure attachment and relationship satisfaction by attributions appears to be dependent on the relationship, not on the individual making the attributions. Is this result due to methodological concerns or a genuine effect? The idea of asking people to consider a complete stranger as a potential intimate partner does require a fair degree of imagination, even though early social perception research supports this methodological technique (Burron et al., 1971). It would be easy to assume that the potential partner video was unable to elicit
attributions to the same successful degree as the Relationship Attribution Measure, or asked participants to engage in unimaginable situations. Yet alpha coefficients for each measure were comparable and both measures were modestly correlated with one another suggesting convergent validity was not a reason for the discrepant results. Additionally, participants' vocalisations during the potential partner scenario suggested they had little difficulty performing the required imagination task.
Previous attachment research that has used both real and imagined partners has found an attachment style difference (Collins, 1996) where avoidant attachment differed across conditions, with interpretations for real partner behaviour reported as less negative and anxious attachment returning similarly negative interpretations across both conditions. Converse to Collins' results, anxious attachment here was not strongly related to the outcome variable in the hypothetical partner condition. Thus while it's possible that the use of different stimuli can produce different results, this may not be the only reason for this result.

While contrary to predictions, this finding is interesting in that it suggests attachment security and attributions combine to produce a different pattern of responding for different people. While attachment has traditionally be considered a global individualdifference variable, there is growing support for reconsidering attachment as a within-person difference variable (La Guardia, Ryan, Couchman, \& Deci, 2000). The lack of support for the potential partner scenario in the present research provides support for some of the more recent attachment literature that suggests people possess models of self and other that are relationship-specific in addition to a global, generalised attachment model (Pierce \& Lydon, 2001). So rather than having a single global attachment style that is generalisable to impact similarly on all relationships, the lack of support for the potential partner scenario lends support to the notion that people possess different attachment styles for different relationships, or different types of relationships. A more recent interpretation of Baldwin's (1992) relational schema theory suggests
multiple schemas exist for multiple relationships, a fact that certainly appears to be supported in the present study (Pierce \& Lydon, 2001).
Finally, it is suggested here that future research would benefit from adding an affective component to the mediational model to account for these differences. The potential partner scenario provided participants with little opportunity to emotionally engage in the task and evidence in favour of the role that affect plays in both attachment (Feeney, Noller, \& Roberts, 1998; Mikulincer, 1998; Rowe \& Carnelley, 2003), and cognitive processing (Forgas, 1998; Teasdale, Lloyd, \& Hutton, 1998) tends to support including this variable in research of this nature, the absence of which is arguably a limitation of the present study. Thus while cognitive biases may be an important mediator in current intimate relationships, generalising this result to all potential partnerships might prove difficult.

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# The Utility of Work and Family Stressors and Perceived Social Support in the Prediction of Counselling Utilisation 

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#### Abstract

This paper examines the utility of work and family stressors (role conflict, role ambiguity, overload, and underutilisation of skills), and perceived social support in independently predicting counselling utilisation. Support from partner, family members, supervisor, and co-workers (in that order) significantly discriminated adults seeking personal counselling from those seeking career counselling and nonusers of counselling. There was no evidence that stressors discriminated between the three groups. Mean ages of participants within each group were between 34 and 38 , with a proportionate number of men and women in each group. All 117 participants completed questionnaires measuring perceived stressors and social support.


Most researchers view stress as a process (Pearlin, Lieberman, Menaghan, \& Mullan, 1981) which has been conceptualised to involve external sources of stress, strain, and outcomes or consequences of such responses to stress (Elliott \& Eisdorfer, 1982).

Work stressors are situations in the workplace that have been associated with potential stress. Two commonly researched work stressors based on role theory (Kahn, Wolfe, Quinn, Snoek, \& Rosenthal, 1964) are role conflict (incompatible and inconsistent work demands) and role ambiguity (uncertainty regarding aspects of work). Further potential sources of workplace stress have been conceptualised by Caplan and his colleagues (Caplan, Cobb, French, Harrison, \& Pinneau, 1975) as work overload (excessive amount of work load) and work underutilisation of skills (the poor usage of a worker's knowledge and abilities).
These four work stressors have been associated with a number of strains - job dissatisfaction, depression (Ganster, Fusilier, \& Mayes, 1986; Terry, Nielson, \& Perchard, 1993), and irritation (Caplan, Cobb, French, Harrison, \& Pinneau, 1975) across a range of occupations.
An important limitation that exists across studies of stress is the use of participants from the general population (Beehr, Jex, Stacy, \& Murray, 2000; Ganster et al., 1986; LaRocco, House, \& French, 1980; Noblet, Rodwell, \& McWilliams, 2001, Terry et al., 1993). In the effort to control for possible confounding variables such as negative affectivity, researchers have neglected to analyse stress in varying populations (Spector, Zapf, Chen, \& Frese, 2000). A study by Surtees, Pharoah, and Wainwright (1998),
however, is an exception as work and general life stressors were measured amongst students attending counselling. Results indicated that general anxiety disorder and major depressive episodes were 5 times more likely to be experienced by counselling users experiencing work and general stress. The absence of a control group in the study, however, prevents conclusions to be made regarding counselling users' vulnerability to stressors in comparison to nonusers. Phillips and Murrell (1994), however, have incorporated a control group in their study investigating help-seeking behaviour amongst the elderly. In particular, those seeking help, reported higher levels of stressful life events compared to nonseekers.

Considering the scarcity of research involving stressors in the context of counselling use, this study turns to investigations involving indices of health amongst counselling users as a guide to their experiences of stressors. Frequent counselling users have reported high scores on the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) College Maladjustment Scale, (Stewart, 1996). Other studies involving control groups have found that counselling users were more anxious than nonusers of counselling (Dua \& McNall, 1987) and had poorer psychological health as indicated by scores on the MMPI (Cooke \& Kiesler, 1967). Taking into account the stressor-strain link established by stress research amongst the general population and findings of poor well-being amongst counselling users, it is plausible that stressors can be useful in discriminating counselling users from nonusers.

More commonly, however, research investigating the characteristics of counselling users has taken into consideration the role of social support. A factor characterised by a variety of dimensions (Cohen \& Wills, 1985; Sarason, Sarason, \& Pierce, 1990), social support entails the provision of "emotional concern, instrumental aid, information, and/or appraisal... between people" (House, 1981, p. 26). Results have indicated that inadequate social support was a common characteristic of university students who attended counselling (Bosmajian \& Mattson, 1980; Snyder, Hill, \& Derksen, 1972). In fact, having alternate sources of social support was the most important factor in discriminating those who accessed counselling services from those who did not (Bosmajian \& Mattson, 1980). Amongst the elderly, limited social support has been found to predict those seeking professional help (Phillips \& Murrell, 1994).

The role of social support in the stressor-strain relationship within the general population can be viewed as lending credence to its role in predicting counselling utilisation. Lack of support from work and family has been found to be associated with high levels of depression, anxiety and irritation amongst respondents from a range of occupations (LaRocco et al., 1980).

## The Present Study

The primary aim of this study is to examine the utility of stressors and social support in discriminating between users and nonusers of counselling. It is expected that inadequate social support is most characteristic of personal counselling users in comparison to career counselling users and nonusers. Whereas past research has indicated social support as an effective discriminator, the experience of stressors has not been researched extensively across such a sample. This study, therefore, is exploratory in nature as it applies the stresssor-strain framework developed within the general population to counselling users. Considering that past research has linked the experience of stressors to poor mental and physical health, and that counselling users have been associated with poor well-being, it is plausible that counselling users experience higher work and family stressors than nonusers. Thus, the utility of work and family stressors in distinguishing personal counselling users from career counselling and nonusers will be examined in this study.

## Method

## Participants

A total of 117 participants provided data for this study through the completion of questionnaires. From this total, 39 participants ( $49 \%$ male) comprised the personal counselling group. The mean age was 37.9 years ( $S D=11.66$ ). Participants in this group were mostly married or partnered ( $80 \%$ ) and had made appointments with a psychologist for problems of a personal or social nature. A total of $39.5 \%$ were professionals, $31.6 \%$ classified as tradespersons and clerical workers, and 28.7 \% blue-collar workers (occupation classification based on Australian Bureau of Statistics, McLennan, 1997).

Participants who sought counselling for work or study related problems were categorised in the career counselling group. This group consisted of 40 participants ( $50 \%$ men) with an average age of 38 years ( $S D=9.87$ ). The majority of participants were either married or partnered ( $83 \%$ ). In this group, 37.5 $\%$ were professionals, $52.5 \%$ tradespersons and clerical workers, and $10 \%$ blue-collar workers.

The third group, noncounselling users, were those who responded to advertisements seeking participants interested in a study of stress. A total of 38 participants ( $52 \%$ male) belonged to this group. On average, participants were 33.7 years of age ( $S D=$ 12.99 ) and $76 \%$ were married or partnered. A total of $52.6 \%$ were professionals, $23.7 \%$ tradespersons and clerical workers, $2.6 \%$ blue-collar workers and 13.2 $\%$ full-time students.

## Measures

Work Stressors Role conflict Rizzo et al.'s (1970) scale was used to measure role conflict. Participants responded to a total of eight items regarding conflicting work demands (e.g., "I receive incompatible requests from two or more people at work). Responses to each item were indicated on a 7 point scale ranging from very false to very true. High scores indicate high role conflict. Good reliability for this scale has been demonstrated. Rizzo et al. (1970) reported a Kuder-Richardson reliability coefficient of . 82 .
Role ambiguity Role ambiguity was measured using the scale developed by Rizzo et al. (1970). Consisting six items in total, participants indicated on a 7 -point scale whether statements such as "I know exactly what is expected of me at work" were very false or very true. All items in this scale were reverse scored so that high scores indicate high role ambiguity. Adequate reliability has been established for this measure, with Rizzo et al. reporting a KuderRichardson reliability coefficient of 78 .

Quantitative work overload Caplan et al.'s (1975) scale was employed to measure quantitative work overload, the "amount of work the person is given to do" (p. 43). Seven of the 11 items required participants to indicate on a 5 -point scale ranging from hardly any to a great deal, the extent of overload at work. An example of an item is, "How much time do you have to do all your work?" For the remaining four questions, participants responded to questions on a five-point scale ranging from rarely to very often. Upon reverse scoring four questions, high scores on this scale were an indication of high work overload. Good reliability for this scale has been established by Terry et al. (1993), reporting a Cronbach's alpha coefficient of 91 .

Underutilisation of skills Three items developed by Caplan et al. (1975) were used to assess underutilisation of skills. For example, "how often can you use the skills from your previous experience and training at work?" was a question presented to participants. Responses were recorded on a 5 -point scale ranging from hardly/rarely to very often. Items on this scale were reversed scored, thus, high scores corresponded with high levels of this stressor. This measure had an adequate reliability coefficient of . 74 (Terry et al., 1993).

Perceived Availability of Work-related Support Social support from five sources (supervisor, coworkers, partner, family, and friends) was measured using a modified scale originally developed by Caplan et al. (1975). Each social support source was measured using six 5 -point scale items. A total of five measures of social support, therefore, were obtained from these items. For the purposes of this study, questions on his measure were modified to explicitly name the domain for which social support was proffered, in this case work-related problems (Terry et al., 1993). An example of a question is "How much can each of these people be relied on when things get tough at work?". Participants indicated whether the perceived availability of social support ranged from
very much to no such person. Reverse scoring was undertaken so that high scores indicated the perception of high levels of availability of social support. Good reliability has been reported for each of the five measures of social support, ranging from . 90 to .95 (Terry et al., 1993).

Family Stressors Role conflict, role ambiguity, underutilisation of skills, and home overload All measures of family stressor variables (role conflict, role ambiguity, underutilisation of skills, and home overload) were based on scales employed for measurement of work stressors described above. In fact, except for minor word changes, the scales used to measure dimensions of family stressors were identical to work stressor measures. The statements "I receive incompatible requests from two or more people at home" and "I know exactly what is expected of me at home" are examples of items on the family role conflict and ambiguity scales, respectively. Thus, questions and statements consisting of phrases "at work", were changed to "at home" in all four measures of family stressors.
Perceived Availability of Family-related Support The social support measure by Caplan et al. (1975) was used as the basis to assess perceived availability of family-related support. Questions in this measure were modified so as to specifically ask whether social support was available for family-related problems rather than general problems. "How much can you count on these people to listen to you when you need to talk about family-related problems?" is an example of one of the six items measuring support from five sources (supervisor, co-workers, partner, family, and friends). These measures, therefore, correspond with the work-related support measures described above.

## Procedure

Personal and Career Counselling Users Clients who made an appointment with a registered psychologist for personal or social problems (personal counselling) and for work or study (career counselling) were invited to complete the questionnaires prior to the commencement of their first counselling session.

Nonusers of Counselling Participants were recruited through advertisements posted on notice boards in Monash University. Additionally, the order in which questionnaires were administered to all three groups was counterbalanced.

## Results

## Data Screening

Inspection of correlations between the variables of social support revealed multicollinearity. Correlations approaching and exceeding .70 were obtained between support for family problems and work problems from identical sources, a pattern established across all sources of support (see Table 3). In accordance with the recommendation by Tabachnick and Fidell (2001), composite variables were created for inclusion in discriminant function analyses. Therefore, the ten variables of social support were combined to create five variables - social support from supervisor, co-workers, partner, family, and friends for both work and family problems.

## Descriptive Statistics

Table 1 presents the means and standard deviations of work and family stressor scores across the three groups of counselling utilisation.

Table 1
Means and Standard Deviations for Work and Family Stressor Scores as a Function of Counselling Utilisation

| Stressor | Personal counselling ${ }^{\text {a }}$ |  | Career counselling ${ }^{\text {b }}$ |  | Nonusers ${ }^{\text {c }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (SD) |  | (SD) | M | (SD) |
| Work |  |  |  |  |  |  |
| Role conflict | 4.25 | (1.18) | 3.71 | (1.25) | 3.66 | (1.20) |
| Role ambiguity | 2.48 | (1.02) | 2.45 | (1.15) | 2.29 | (0.89) |
| Overload | 3.82 | (0.65) | 3.69 | (0.83) | 3.63 | (0.66) |
| Underutilisation | 3.06 | (0.81) | 2.93 | (1.10) | 2.77 | (1.13) |
| Family |  |  |  |  |  |  |
| Role conflict | 3.56 | (1.07) | 3.05 | (1.02) | 3.26 | (0.84) |
| Role ambiguity | 2.48 | (0.88) | 2.37 | (0.69) | 2.39 | (0.82) |
| Overload | 3.18 | (0.25) | 3.20 | (0.23) | 3.17 | (0.72) |
| Underutilisation | 2.87 | (1.13) | 2.69 | (1.07) | 2.97 | (1.05) |

[^2]In order to determine whether potential differences between the groups might be dependent on sex of participants, a $3 \times 2$ between-subjects MANOVA was conducted on the eight stressor variables outlined in Table 1. Independent variables were counselling status (personal, career, and nonusers) and sex. Using Wilks' criterion, the interaction effect was not significant, $F(16,208)=0.62, p>.05$.

Table 2 illustrates the means and standards deviations of social support scores for all three counselling utilisation groups. It can be observed that
personal counselling users consistently have the lowest mean scores in comparison to career counselling users and nonusers across all sources of social support. The nonsignificant interaction between counselling status and sex obtained from a $3 \times 2$ between-subjects MANOVA, confirmed that potential group differences on the social support scores would be independent of sex. Wilks'criterion $F(10,214)=$ $1.10, p>.05$ was utilised.

Table 2
Means and Standard Deviations for Social Support Source as a Function of Counselling Utilisation

| Variable | Personal counselling ${ }^{\mathrm{a}}$ |  | Career counselling ${ }^{\text {b }}$ |  | Nonusers ${ }^{\text {c }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M | ( SD) | M | (SD) | M | (SD) |
| Social Support Source |  |  |  |  |  |  |
| Supervisor | 1.39 | (1.15) | 1.85 | (1.26) | 1.93 | (1.09) |
| Co-workers | 1.53 | (0.99) | 1.96 | (1.00) | 1.97 | (1.20) |
| Partner | 2.08 | (1.36) | 2.98 | (1.41) | 2.98 | (1.26) |
| Family | 2.26 | (0.96) | 2.56 | (0.81) | 2.88 | (0.74) |
| Friends | 2.37 | (1.00) | 2.60 | (0.86) | 2.62 | (0.68) |

${ }^{a} \mathrm{~N}=39 .{ }^{\mathrm{b}} \mathrm{N}=40 .{ }^{\mathrm{c}} \mathrm{N}=38$

## Correlations Between the Measures

Table 3 presents the correlations between the stressors and social support measures for the entire sample. Generally, few significant correlations were obtained between work and family stressors or within the respective domains of stressors. An interesting pattern of correlations emerges between social support directed at work and family problems obtained from the same source. Specifically, the correlations are highly significant across all sources of social support, ranging from .68 to .92 . For example, a highly significant positive correlation was obtained between partner family support and partner work support.

## Discriminant Function Analyses

The first discriminant function analysis was conducted to determine whether eight stressor variables, four variables of work stressors (role ambiguity, role conflict, underutilisation of skills, and work overload) and a corresponding four variables of family stressors, could predict group membership. The three groups of counselling utilisation were personal counselling users, career counselling users
and nonusers. Neither of the two discriminant functions calculated were significant, the overall Wilks' $\Lambda=.90, \chi^{2}(16, N=117)=11.83, p>.05$ and the residual, Wilks' $\Lambda=.97, \chi^{2}(7, N=117)=3.73, p$ $>.05$, indicating that the experience of stressors did not differ between the groups.

The second discriminant function analysis involved five composite variables of social support. Social support from supervisor, co-workers, partner, family, and friends for the domains of work and family were used as predictors of membership in three groups of counselling status. Whereas the overall Wilks' lamda was significant, $\Lambda=.81, \chi^{2}(10, N=117)=24.13, p<$ .01 , the second discriminant function was not, $\Lambda=$ $.98, \chi^{2}(4, N=117)=2.34, p>.05$. Respectively the two discriminant functions accounted for $91 \%$ and $9 \%$ of the between group variability. Table 4 presents the loading matrix of correlations between predictors and discriminant functions.

Table 3
Intercorrelations between Stressor and Social Support Subscales

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Work Stressors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Role ambiguity | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Role conflict | . 40 ** | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3. Overload | . 09 | . $35^{* *}$ | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4. Underutilisation | .27** | . 11 | -. 07 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Family stressors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5. Role ambiguity | . $34 * *$ | . 12 | . 0 | . 15 | - |  |  |  |  |  |  |  |  |  |  |  |  |
| 6. Role conflict | . 18 | . 39 | . 09 | . 16 | . 31 ** | - |  |  |  |  |  |  |  |  |  |  |  |
| 7. Overload | -. 05 | -. 17 | . 08 | . 12 | -. 06 | -. 03 | - |  |  |  |  |  |  |  |  |  |  |
| 8. Underutilisation | .23* | . 14 | -. 14 | . 02 | . 18 | . 04 | -. 17 | - |  |  |  |  |  |  |  |  |  |
| Social support (work) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9. Supervisor | -. 13 | -. 02 | .22* | -. 11 | . 08 | -. 07 | . 00 | . 01 | - |  |  |  |  |  |  |  |  |
| 10. Co-workers | -. 08 | -. 04 | .19* | -. 08 | -. 01 | -. 01 | . 01 | . 03 | . 62 ** | - |  |  |  |  |  |  |  |
| 11. Partner | -. 05 | -. 10 | . 00 | -. 08 | -. 14 | -. 14 | . 01 | -. 12 | -. 08 | . 04 | - |  |  |  |  |  |  |
| 12. Family | . 03 | -. 10 | -. 12 | -. 14 | . 11 | -.20* | -. 18 | . 08 | . 17 | . 08 | . 09 | - |  |  |  |  |  |
| 13. Friends | . 09 | -. 02 | -. 05 | -. 09 | . 06 | -. 16 | -. 07 | -. 04 | . 13 | . 09 | .21* | . $54 * *$ | - |  |  |  |  |
| Social support (fam.) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14. Supervisor | -. 03 | . 07 | . 16 | -. 07 | . 05 | -. 09 | . 03 | -. 01 | .81** | . 45 ** | -. 02 | .21* | . 16 | - |  |  |  |
| 15. Co-workers | -. 06 | . 02 | . 17 | -. 10 | -. 02 | -. 12 | . 11 | -. 13 | .49** | .72** | . 10 | . 12 | . 15 | .65** | - |  |  |
| 16. Partner | -. 09 | -. 08 | -. 01 | -. 02 | -. 14 | -. 11 | . 06 | -. 05 | -. 03 | . 09 | . 92 ** | . 04 | . 16 | -. 01 | . 13 | - |  |
| 17. Family | -. 02 | -.21* | . 00 | -.20* | -. 06 | -. 30 | -. 09 | -. 07 | .36** | . 27 | . 09 | .72** | . 38 ** | . $27 * *$ | .23* | . 11 | - |
| 18. Friends | . 00 | -. 13 | . 03 | -. 09 | -. 01 | -.26** | -. 01 | -. 06 | . $32 * *$ | .28** | . 03 | . $30^{* *}$ | .68** | .27** | .28** | . 03 | . $45^{* *}$ |

Table 4
Correlations of Social Support Variables with the Two Discriminant Functions

| Variable | Function 1 | Function 2 |
| :--- | :---: | :---: |
| Social Support Source |  |  |
| Supervisor | .45 | .10 |
| Co-workers | .45 | .28 |
| Partner | .67 | .47 |
| Family | .62 | -.68 |
| Friends | .28 | .10 |

Since only the first discriminant function and not the second was found significant, interpretation is limited to the former. Table 4 shows that the best predictors for distinguishing between the three groups of counselling utilisation were social support from partner and family, followed by supervisor and coworkers (loadings less than .3 are not interpreted). The means on the discriminant functions are convergent with this interpretation. Nonusers ( $M=$ .91) had the highest mean scores on the combination of social support variables whilst personal counselling users had the lowest mean social support scores ( $M=$ -.67) followed by career counselling users ( $M=-.21$ ).

## Discussion

The primary aim of this study was to determine whether stressors, and social support variables were capable of predicting counselling utilisation. Firstly, it was expected that personal counselling users in comparison to career and nonusers of counselling would be most closely linked with high reports of stressors. Contrary to expectations, the four dimensions of work and family stressors (role ambiguity, role conflict, overload, and underutilisation of skills) did not discriminate between the groups who sought personal counselling, career counselling, and nonusers. Consistent with predictions, however, social support from various sources was found to significantly differentiate the three groups, specifically, support from partner, family members, supervisor, and co-workers (in that order). Nonusers perceived the highest levels of social support, whereas career and personal counselling users perceived low support.

Firstly, the finding that counselling users do not differ from nonusers in terms of stressors experienced is in disagreement with findings of past research. Phillips and Murrell (1994) reported that in addition to poor psychological well-being, stressful life events were able to discriminate between those who sought professional help and those who did not. However the differing ages of participants in Phillips and Murrell's study in comparison to the present study may account for the discrepancy in results. Older adults, above the age of 55 characterize Phillips and Murrell's study, whereas the present findings have been obtained from
a younger adult sample. Thus, it is plausible that the variables which prompt older people to seek help cannot be generalised to a younger sample.
Secondly, it is essential to note the varying sources of help approached by the respective samples. In this study, participants with personal and career problems made appointments with a psychologist, whereas a majority of Phillips and Murrell's (1994) older sample sought mental health assistance from a medical doctor. One could speculate that seeking help from a medical doctor for mental health problems requires people perceiving themselves in a more dire state of need compared to those who do not, a state possibly reflected by the high reports of stressful life events by the former group. Seeing a psychologist on the other hand, may not require higher perceptions of stressors but rather a stronger desire to work through existing stressful issues with a professional. These explanations, however, can only be confirmed by future research that compares characteristics of groups who seek help from different health providers.
Further understanding of the obtained unexpected result indicating the inability of reported stressors to predict counselling utilisation, can be gained through the collective examination of other past research. A characteristic shared by numerous studies is that the entire sample is derived from the university population (Bosmajian \& Mattson, 1980; Cooke \& Kiesler, 1967; Stewart, 1996; Surtees et al., 1998). Thus, whilst Phillips and Murrell's (1994) study involve older adults, these studies involve younger adults, hence obscuring outcomes of direct comparisons between these studies and the present.
Due to the scarcity of past research involving stressors as predictors of counselling use, theory linking these variables in this study is based upon the relationship of poor well-being and counselling use, and the experience of stressors with poor well-being in the general population. In light of the obtained findings, however, it is possible that the relationship between experienced stressors and well-being in the general population cannot be extended to help-seeking behaviour. Significantly poorer well-being may not be associated with higher levels of stressors for counselling users. Future research, therefore, needs to explore the relationship of well-being and experienced stressors amongst counselling users.

Additionally, it is important to distinguish between the "magnitude and impact of stressers" (Schwartberg \& Dytell, 1988, p. 188). Past research has found that although employed and nonemployed women did not differ in terms of family stress levels, the latter were more sensitive to its effects on self-esteem and depression than the former group of women (Schwartberg \& Dytell, 1988). Thus, the fact that counselling users in the current study did not report a higher magnitude of stressors compared to nonusers does not mean that stressors should be dismissed and deemed an unimportant variable. A possibility that has not been investigated by this study is that stressors may still be able to discriminate counselling users from nonusers based on its differential impact on each group rather than its reported magnitude. Further research with measures of well-being may be able to
establish the respective sensitivity of each group to the effects of stressors.
Results indicate that social support for family and work problems from a variety of sources (partner, family members, supervisor, and co-workers) is able to predict counselling utilisation. In particular, personal counselling users are most closely associated with lower levels of perceived social support in contrast to nonusers. These findings are congruent with those obtained by other researchers despite the varying age groups of samples in the respective studies. Thus, social support seems to be an important determinant of counselling use across all ages, ranging from young college students (Bosmajian \& Mattson, 1980) to older adults (Phillips \& Murrell, 1994), including middle-aged adults (as established by the present study).
The nature of the obtained result involving social support and counselling utilisation, can help explicate the perceived function and role of counselling. Specifically, the finding that those low in perceived support are most likely to seek counselling services from a psychologist, suggests that counselling is perceived as a form of professional social support. Thus, an interesting issue for future research to undertake is the examination of the comparative effectiveness of professional versus informal social support.

Another deduction that can be made of counselling use is that it is not the first choice for help. Considering the finding that those high in perceived support are least likely to initiate counselling use, it is reasonable to conclude that the use of professional mental health services replaces rather than supplements the receipt of support from other sources. Such a conclusion complements findings from other studies that report that students with personal problems prefer friends and close relatives rather than counselling services as a source of help (Snyder et al., 1972). In light of the perceived unavailability of alternate sources of support, seeking professional help may be an action taken as the last resort for assistance. This finding, therefore, can contribute to professional mental health providers' understanding of the circumstances under which their services are being sought.

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# Improving family and peer relationships with children who engage in problem sexual behaviour 

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#### Abstract

The Transformers program uses cognitive behavioural and family therapy strategies to assist children under the age of 11 to stop engaging in problem sexual behaviour. The program aims to improve family and peer relationships by working on empathy, respect and communication. This paper presents preliminary findings from 17 children who participated in the Transformers program. There were two groups: Group A participated in assessment only and Group B participated in both assessment and treatment. Data was collected pre and post intervention and then two years later. Questionnaires consisted of a range of measures of child/parent functioning developed for the purpose of evaluating this program. Wilcoxon signedrank tests compared the outcomes of the assessment group (Group A) with those achieved by the intervention group (Group B). Those in the treatment group reported three times the frequency of the problem sexual behaviour compared to the assessment group prior to any intervention. Yet, following intervention, the frequency of this behaviour in Group B was lower with less than an average of one incident per month whilst the assessment only group was still engaging in at least one problem sexual behaviour incident a month. Only the children in Group B reported significant improvements in self-intervention and awareness of personal risk factors. Only Group B caregivers reported a significant increase in confidence to manage the child-parent/caregiver relationship. These findings are discussed in relation to the current literature on children who engage in problem sexual behaviour.


In a little over a decade, the literature in relation to adolescent and adult sex offending has developed rapidly (Araji, 1997). In that time, there has been an increasing interest in building a framework for intervening to stop children who engage in problem sexual behaviour from continuing to develop more harmful sexual behaviour into their adolescence and adulthood. However, the development of this
knowledge base has been fraught with difficulties. Firstly, community responses towards children who engage in problem sexual behaviour are clearly diverse and often dramatically so. Attitudes towards these children vary from denial and minimisation to outrage and condemnation (Burton, Nesmith \& Badten, 1997).. Beliefs about the innocence of children are challenged by these problem behaviours (Mitchell, 2001). Secondly, the responses by statutory services, the police and child welfare organisations have added to the confusion. At almost every level, children who engage in problem sexual behaviour have not been able to access specialist services. There is little public policy which covers their needs and there are few resources allocated to programs specifically designed to support them and their families

Most of the research conducted in this area has arisen from the United States (Araji, 1997). Yet, it is clearly important to develop a knowledge base and data on this topic within Australia. This paper describes the first formal (albeit preliminary) evaluation of a program for children who engage in problem sexual behaviour in Australia.

There have been no attempts made to gauge the prevalence rates of children who engage in problem sexual behaviour either in Australia or internationally. In contrast, it has been estimated that $2 \%-4 \%$ of adolescent males commit sexual assaults (Ageton, 1983) and these offences account for between 30\% and $50 \%$ of all child molestation. A report by the Children's Protection Society in Victoria, estimated that $20 \%-40 \%$ of child sexual assaults are the responsibility of those aged under 18 (Mitchell, 2001).

Generally, studies have defined problem sexual behaviour as that which "far exceeds the mutual exploratory behaviour normally seen in young children" (Friedrich \& Luecke, 1988, p. 154) and is "outside the normal developmental sexual activity expected for children" (Johnson, 1988, p. 222). For
example, public masturbation, forceful penetrative behaviour, excessive fondling and genital contact characterise children presenting with sexual behaviour problems (Johnson, 1988; Gray et al., 1999).

Research has shown that children presenting with sexual behaviour problems often appear to come from low income families, with many living below the poverty level. In general males are over-represented in samples of children who engage in problem sexual behaviour (approximately $70 \%$ are boys). Studies reviewed indicate that children who engage in problem sexual behaviour are characterised by high levels of behavioural and emotional problems, low levels of empathy, restricted affect and depressive symptoms (Araji, 1997; Gray et al., 1999).

Research has reported that children with sexually abusive caregivers are more likely to develop problem sexual behaviour (Johnson, 1988; Pithers, Gray, Busconi \& Houchens, 1998). In addition, high rates of physical and emotional abuse among such children have also been reported (e.g., Johnson, 1988; Ray \& English, 1995). Studies have found that approximately two-thirds of mothers were victims of childhood physical neglect and/or had been sexually abused (Burton et al., 1997).

The majority of treatment programs for problem sexual behaviour in children have been developed in the United States. The various treatment programs have a number of common components. Most programs utilise cognitive and behavioural approaches as their primary theoretical framework, with treatment interventions specifically targeting the problematic sexual behaviours. In all of the programs, parents or caregivers are considered to be an important part of the treatment process and are required to participate in treatment. The primary mode of treatment for children is group therapy, with individual and family therapy also frequently utilised, often as an adjunct to group treatment. It is important to note however that the effectiveness of many of these programs has not been empirically examined. To date, there have been only three published outcome evaluation studies, all of which were conducted in the United States (Bonner, Walker \& Berliner, 1999; Pithers et al., 1998; Ray et al., 1995).

Each of these treatment outcome studies is limited by methodological problems. Only one study had a comparison group, this means that changes in test scores from pre-treatment to post-treatment cannot be attributed with certainty to the impact of the treatment. The study by Ray et al. (1995) did not include self report data from the children themselves. Despite methodological limitations, these treatment outcome studies provide some evidence to support the efficacy of structured cognitive behavioural and dynamic/expressive therapy for children who engage in problem sexual behaviour. It also appears that a number of important components are inherent in most programs, including family involvement and group therapy.

Over the last eight years the Australian Childhood Foundation, based in Melbourne, has developed a specialist treatment program for children who engage in problem sexual behaviour. This program has a
particular focus on treating the whole family system and not just the child. The program focuses on improvements in psychosocial functioning and not just reduction in problem sexual behaviours. The evaluation measures utilised consist of a combination of validated and newly developed measures. The latter were piloted in a previous study (Mulhern, 1997) and found to be sensitive to change and show adequate face validity, yet require psychometric validation. The new measures were developed in order to examine clinically and theoretical constructs relevant to the program. For example, taking responsibility for one's behaviour is a central theme of the clinical intervention and hence a child friendly measure in the form of a "blame cake" was developed to measure this construct in a time efficient manner.
The current paper presents some of the data from the preliminary evaluation of the Transformers Program. Clients who participated in the program were compared with those completed the assessment phase only. The comparison group, although selfallocated, provides a unique contrast to those participating in the intervention. In addition to the problem sexual behaviour per se this paper focuses on changes in specific child measures of psychoemotional functioning (depression, anger, empathy, and program learning) and parent/caregiver measures (understanding and confidence of child's problem behaviour) as a result of the intervention.

## Method

## Design

An evaluation of the Transformers Program was conducted which included the collecting of information via questionnaires and interviews. Two groups were included in the evaluation. The first group (Group A) participated in the assessment phase of the intervention. The second group (Group B) participated in the assessment and treatment phases of the program. Due to ethical considerations, there was no control group comprising children who did not receive any treatment. The outcomes of the assessment group (Group A) were compared with the outcomes achieved by the intervention group (Group B). Data was collected prior to children entering the assessment phase for both groups and at the end of their participation in the program.

## Intervention

The Transformers Program is primarily based on the principles of cognitive behavioural therapy and systems theory. It emphasizes the importance of understanding children as part of a family system within the constraints of their developmental stage. The program has three components: an assessment stage; group program for the children and; a concurrent parental group therapy program.
The assessment takes place over $4-6$ sessions, the assessment evaluates the systems issues and problems for the child; the impact of parenting/family factors; the onset, duration, triggers, and risk level for the sexual behaviour.

The group program for the children is conducted weekly over a 20 week period and each session is approximately 1.5 hours in duration. The sessions are conducted by two therapists. The group intervention program is based on a schedule incorporating activities which:

- Develop personal responsibility for behaviour;
- Identify triggers to sexual behaviour;
- Provide alternative methods of dealing with difficult feelings;
- Increase awareness of personal risk patterns;
- Promote empathy for other's experiences and feelings;
- Enhance self-intervention skills;
- Develop and maintain an appropriate support network;
- Improve children's self-esteem and self-confidence. The parent/caregivers program occurs concurrently with the children's group and is also facilitated by two therapists over a 20 week period. The parent's group has both a supportive and an educational function and aims to:
- Understand, prioritise and respond to the needs of the child;
- Identify and respond appropriately to the protective needs of the child;
- Appropriately and consistently discipline;
- Understand the issues regarding sexually aggressive behaviours in children;
- Cope with their own anger and denial;
- Appropriately respond to the child's sexually aggressive behaviours;
- Support better models of coping in the child;
- Identify and change familial maintaining factors to the child's behaviour;
Involvement in the parents/caregivers group is not a prerequisite for the child to receive treatment but participation is encouraged.


## Participants and Procedure

During a 2-year period, all children who engaged in problem sexual behaviour under the age of 12 referred to the Transformers Program of the Australian Childhood Foundation were asked to participate in the study. Children were excluded if there were protection issues pending, no parental consent and/or no stable living environment, moderate/severe intellectual impairment, global developmental delay. The mean age of the children was 9.27 ( $\mathrm{SD}=1.74$ ). For Group A (assessment phase only) the mean age was 9.61 (SD $=1.70$ ) while for Group B (treatment phase) the mean age was 8.83 ( $\underline{\mathrm{SD}}=1.82$ ). Group A was comprised of seven boys and two girls, and Group B consisted of six boys and one girl.
In total, 152 children were referred to the program and 41 were eligible to participate. Twenty-two families gave consent to take part and six of these withdrew from the program due to clinical reasons, protective and placement issues (see Results). Children who were eligible and agreed to participate were firstly assessed for sexual behaviour problems and were administered the instruments described below at the assessment phase. Those children
continuing on to treatment took part in the intervention program. Measures obtained during the assessment phase were again completed post intervention. Relevant ethics approval was obtained from the Standing Committee on Ethics in Research with Humans.

## Measures

Frequency of problem sexual behaviour Behaviour report forms were completed by teachers, parents, and statutory child protection workers to provide an approximation of the frequency of problem sexual behaviours. The questionnaires were used as structured interview items. They elicited information on the type, risk level, and frequency of sexualised behaviours. The interviews with teachers and child protection workers were conducted via the telephone by the therapist. Where there was disagreement between informants the average frequency was recorded. For the purposes of this report, the number of occurrences per month was taken as the index of frequency of sexual behaviours.

Responsibility taking A "Blame Cake" was presented to children with the explanation about the cake representing the degree of responsibility for the sexual behaviour. Children were asked to divide the cake into proportions according to whom they believe should accept responsibility for the problem sexual behaviour. The proportion of blame which the child allocated to themselves was used as the measure of responsibility taking $(0-100$ expressed as a proportion).

Empathy In order to provide a measure of empathy, children were asked "How do you think (name of target child) felt about the behaviours?" The expectation that the children would be able to generate three possible feelings resulted in the score range of $0-3(0=$ no response, $3=3$ feelings generated).

Self-rated confidence by parents A single item was used to assess parental confidence in managing their child's problem sexual behaviours. Parents were asked to rate from 0 (not confident at all) to 4 (extremely confident), "How confident do you feel in your ability to effectively manage these behaviours?" For the purposes of this report, scores were computed a percentage of scale maximum (e.g., $4=100 \%$ ).

Parental understanding Parental knowledge and management of their child's problem sexual behaviours was rated by therapists on a 39 item questionnaire. This measure was divided into three sections (13 items each). These were: actual management responses; knowledge of risk issues; and understanding of own impact upon the child. Every question endorsed by the therapist was given a value of 1 , resulting in a possible score range of 0-39.

## Results

## Sample Characteristics

In total, data from 16 children with sexual behaviour problems were included in the analyses. Nine children completed the clinical assessment phase (Group A) and seven children completed assessment and participated in treatment for problem sexual behaviour (Group B). In Group A, two children lived at home with both parents, the remainder were in foster care, at home with a natural parent and a defacto, or in residential units. Four of the seven children in Group B lived at home with both parents and three were in foster care or placed with extended family members.

Of the 16 children, seven were victims of physical abuse, six were exposed to emotional abuse, and four children had been sexually abused. Four of the 16 children had been exposed to family violence and four had been victims of neglect. Over half of the sample of caregivers were themselves victims of some form of physical and/or sexual abuse.

## Withdrawn children or children excluded

Initially, 22 children participated in the study however six children were withdrawn for the following reasons. One child was withdrawn for clinical reasons and referred to a child and adolescent mental health service. The remaining children were withdrawn due to protective issues (2), placement issues (1) and withdrawal by parents (2).

## Intervention Evaluation

Group A consisted of children who only participated in assessment. Group B consisted of children who participated in assessment and intervention. The following results compare the two groups on the dependent measures to examine whether the intervention had an impact on the risk of the children referred to the program continuing to engage in problem sexual behaviour, through shaping their capacity for empathy, and the degree to which they assumed responsibility for the behaviour. The analyses also addressed changes in parental confidence in managing their child's behaviours and in their knowledge and understanding of managing the behaviour.

Means and standard deviations for the dependent measures are displayed in Table 1. Due to the small sample size, individual Wilcoxon signed-ranks tests were conducted to examine changes in these variables from pre to post intervention.

## Baseline Differences

An examination of Table 1 indicates that children in Group B (treatment) were higher than those in Group A on frequency of sexual behaviour problems. As is often the case in intervention programs those with more serious problems continue on to treatment. Even though there are differences at baseline it should be noted that as opposed to Group A, the degree of improvement for the children who received treatment was of a greater magnitude..

## Children

Sexual behaviour Wilcoxon analysis of pre-post data indicated that children in Group A ( $p<0.02$ ) and Group B ( $p<0.02$ ) demonstrated a significant decrease in frequency of sexual behaviour from prepost intervention (See Figure 1). Scores on sexual behaviour at pre-intervention ranged between 0.25 50. Post-intervention scores ranged between $0-8$.


Figure 1
Sexual behaviour at pre and post intervention

Empathy Analysis of empathy ratings revealed no significant changes for Group A children $(p=0.10)$. Group B children displayed a significant increase in empathy from pre-post intervention ( $p=0.04$ ).

Responsibility Taking There were no statistically significant changes in responsibility taking from prepost intervention for either Group A $(p=0.17)$ or Group B children ( $p=0.07$; see Figure 3). The increase in responsibility taking for Group B approached statistical significance.

## Parents

The changes in parental ratings of understanding about problem sexual behaviour and their confidence in responding to such behaviour is presented in Table 2.

Parental Understanding Wilcoxon analysis revealed a significant increase in self-rated understanding for Group A ( $p=0.04$ ) and Group B parents $(p=0.03)$.

Self-rated Confidence by Parents The analysis of confidence ratings indicated no significant changes for parents in Group A $(p=0.07)$. For Group B, parents reported significant increases in confidence from pre-post intervention ( $p=0.02$ ).

Table 1
Means and standard deviations for pre and post assessments for children

|  | GROUP A ( $\left.\underline{N}^{=} 9\right)$ |  |  |  | GROUP B ( ${ }^{\text {N }}=7$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pre |  | Post |  | Pre |  | Post |  |
|  | M | SD | M | SD | M | SD | M | SD |
| Sexual Behaviour | 4.25 | 4.61 | 1.61 | 2.57 | 12.43 | 16.95 | 0.64 | 1.49 |
| Responsibility - taking | 25.00 | 43.42 | 48.13 | 42.92 | 20.00 | 36.51 | 59.29 | 24.56 |
| Empathy | 0.03 | 0.08 | 0.18 | 0.22 | 0.03 | 0.09 | 0.35 | 0.33 |

Note. Resp. Taking $=$ Responsibility taking expressed as percentages.

Table 2
Means and standard deviations for pre and post parental assessments

|  | GROUP A ( $\mathrm{N}=9)$ |  |  |  | GROUP B ( $\left.\underline{N}^{=} 7\right)$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pre |  | Post |  | Pre |  | Post |  |
|  | M | SD | M | SD | M | SD | M | SD |
| Understanding | 20.18 | 6.76 | 23.75 | 9.08 | 18.01 | 6.21 | 25.28 | 10.19 |
| Confidence | 54.32 | 5.89 | 76.21 | 8.36 | 21.01 | 10.17 | 70.87 | 7.72 |



Figure 3
Responsibility taking at pre and post intervention

## Discussion

Approximately $50 \%$ of the children in the current sample had experienced some form of abuse. This is consistent with the numbers reported in the recent large scale study conducted by Bonner, Walker and Berliner (1999) in the USA. From these results, it is reasonable to conclude that previous experiences of child maltreatment increases the probability of children engaging in problem sexual behaviour. However, as a contributing factor, a history of child abuse is not sufficient to completely explain the genesis of the behaviour. Almost two-thirds of the children in the sample of this study had psychiatric diagnoses. A similar proportion was found in previous studies (Gray et al., 1997; Pithers et al., 1998). In particular, children who engage in problem sexual behaviour tend to display greater behavioral problems and more symptoms of anxiety and trauma.

The parents in the current sample showed high rates of psychological difficulties, substance abuse and histories of abuse. These findings are again consistent with prior research (Burton et. al., 1997). Overall, it suggests that the sample of children and their caregivers who took part in the intervention program are representative, or at least similar to, those reported in the literature so far.

This study provides some tentative support for the feasibility and possibly the effectiveness of the Transformers program. More specifically, there was a general decrease in frequency of problem sexual behaviours for children in both groups. However, those in the treatment group showed a greater magnitude of change compared to those who only participated in the assessment phase. Children who participated in treatment showed an increase (a trend approaching significance) in responsibility taking whilst no change was observed for those in the assessment only group.

There was a statistical difference between pre and post empathy ratings in the intervention group only. However, closer inspection of the means suggests that this change is of minimal clinical significance. In most cases, at post-treatment the children were not able to identify one feeling that they thought the other child might be experiencing. Whilst empathy is considered an important prognostic indicator in the adult offender field, it is unclear how predictive it is with children who engage in problem sexual behaviour (Araji, 1997). Once again the importance of the developmental stage of the child is vital in understanding the meaning of these findings. It is highly likely that many children of this age would have difficulties in identifying the feelings of another child. It is unclear from these findings whether the small changes in empathy ratings is due to the lack of sensitivity in the measure or whether the program did
not result in changes in the children's capacity to empathise with others.
For parents, understanding and management of their child's sexual behaviour problems improved significantly for both groups. This indicates that assessment may be just as effective as treatment in addressing parental 'knowledge' issues pertaining to sexual behaviour problems. However, parental confidence in managing the child's sexual behaviour problems only improved significantly for those who received the intervention. This reflects the additional time and resources required to assist parents/carers to integrate their new knowledge into new strategies for understanding and responding to their child's needs.

There was no statistically significant increase in responsibility taking in the children who participated in the assessment phase only. Those in Group B who received the intervention showed a trend towards an increase in responsibility taking which almost approached significance. A closer inspection of the means and standard deviations suggests that there was considerable variability in the response to this question. Once again further development of specific measures to adequately capture the constructs of interest is required before any clear conclusions can be drawn.

Many problems are encountered when conducting research in treatment settings. In this study, the difficulties were magnified by the fact that the subjects of the research were children who engaged in a complex and sometimes confronting behavioural problem. Due to the small numbers in the study, the conclusions should only be considered preliminary. Care was taken not to exceed the number of participants by the number of statistical tests applied. Even so, the ratio was somewhat high. There was no formal control group in this study, that is there was no group who did not receive assessment or treatment. This was based on the ethical concerns for the children of withholding or delaying treatment particularly in the light of the behaviours of this group. The assessment group who themselves chose to not continue into treatment provided a unique comparison group to allow an examination of how effective the treatment was over and above the comprehensive assessment phase. Previous studies have not been able to provide this information as they have had either only one treatment group or 2 different types of treatments. Finally, some of the measures that were specifically developed to measure relevant therapeutic change (i.e. responsibility taking) are new and require validation before a larger clinical trial can go ahead.

The current study suggests that treatment provided through the Transformers Program can result in behaviour change for children who engage in problem sexual behaviour, however a larger clinical trial is required.

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# The Role of Interactions between Parents and Children in Social Skills Development of Prep Children 

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#### Abstract

The aim of this study was to investigate predictors of social skills in young children. Of particular interest were interactions between child and environmental characteristics. This study investigated the concept of interactions in two ways. First, a 'goodness of fit' measure was used to tap aspects of the child's fit with the environment, specifically with parental expectations. Second, a statistical approach was used to assess the contribution of interaction terms created using temperament and parenting characteristics. The results showed that 'goodness of fit' and parental use of inductive reasoning contributed to self-control, however none of the hypothesised predictor variables was significantly related to cooperation. Temperamental sociability and 'goodness of fit' were significantly related to assertion. An interaction between temperamental sociability and parental warmth in the development of assertion was also found. Further investigation of this interaction effect revealed that level of parental warmth did not impact upon the development of assertion in children who were more temperamentally sociable. For children temperamentally less sociable, however, lower levels of parental warmth were associated with lower levels of assertion, while higher parental warmth was associated with higher levels of assertion. This study highlights the value of focusing on specific social skills outcomes, and of pursuing interaction effects in the prediction of children's social skill development.


This study investigates a range of within-child factors and family characteristics which are believed to be influential in determining socially skilled behaviours.

In addition, this study also addresses the question of whether interactions between the child and his/her environment are important in social skill development. The need to pursue interactional models, and also to continue to improve upon additive models of influence on children's behavioural development, has been noted by a number of theorists (Bates, 1989). The current study considers a range of potential contributors to level of social skills. Specifically these are parenting style, temperament, marital functioning, and 'goodness of fit' between child characteristics and parental expectations.

Developing socially skilled behaviours enables a child to interact positively with peers, parents, and teachers and represents one of the most important developmental accomplishments (Gresham, 2002). Three domains of socially skilled behaviour which are
noted by Gresham and Elliott (1990), are: Assertion, which includes initiating behaviours, such as asking others for information, introducing oneself, and responding to the actions of others; Cooperation, which includes behaviours such as helping others, sharing materials, and complying with rules and directions; and Self-control, which includes behaviours that emerge in conflict situations, such as responding appropriately to teasing, and in nonconflict situations such as taking turns and compromising. The current study adopts Gresham and Elliot's (1990) conceptualisation of social skills and considers predictors of these three specific social skills behaviours.

## Parenting Styles

Many investigators have examined the relation of parenting behaviours to children's prosocial behaviour or social competence, although rarely to specific social skills outcomes. Research has indicated, for example, that parental warmth, as seen in displays of affection and closeness to the child, is related to positive social outcomes for children (Eisenberg \& Fabes, 1998), particularly when in combination with adequate control (Putallaz \& Heflin, 1990). Parents who show such behaviours act as models for their children, and use affection as effective positive reinforcement for appropriate behaviour (Baumrind, 1973).
Parenting behaviour which emphasises reasoning may also be an important contributor to children's social development. Reasoning that orients children to the impact of their actions on others is associated with prosocial behaviour (Krevans \& Gibbs, 1996) Furthermore, parental use of inductive reasoning also models appropriate behaviour and may ultimately lead to the internalisation of the inductive process whereby children begin to consider for themselves the pro's and con's of acting in certain ways (Bandura, 1986).

## Temperament and Social Skills

Temperament refers to relatively stable geneticallybased individual differences in behavioural style that are visible from early childhood (Pedlow, Sanson, Prior, \& Oberklaid, 1993; Sanson, Hemphill, \& Smart, 2002). Some research has considered the role of temperament in social skills development. For example, temperamental approach has been linked to prosocial behaviour (see Stanhope, Bell, \& ParkerCohen, 1987). It could be suggested that a child who
is high in temperamental approach (high sociability) is particularly likely to develop assertive behaviours. An approaching (sociable) child is likely to evoke positive feedback from the environment, which in turn leads to greater confidence and opportunity for social interaction, and the development of assertive behaviours. In addition, some previous research has implicated temperamental persistence and inflexibility as contributors to social skills development (Eisenberg, Fabes, Bernzweig, Karbon, Poulin, \& Hanish, 1993).

## Marital Relationship and Social Skills

The marital relationship is an aspect of family functioning that has also been viewed as an important contributor to children's social development, with most of the previous work in this area focusing on the impact of marital conflict. Marital conflict is the way problems, disagreements, and conflicts in the marital relationship are dealt with and resolved. Parke, et al. (2002) however, argue that some degree of marital conflict is inevitable in most parental relationships and is not detrimental to children's functioning under all circumstances. Less work has addressed the effect of the quality of the marital relationship on social skills development. (Stocker \& Youngblade, 1999). Marital quality refers to satisfaction, adjustment, and happiness (Parker, 2002). Research indicates that children whose parents reported lower levels of marital satisfaction played less with their best friends than children from more satisfied marriages (Gottman \& Katz, 1989) and school-age children whose parents were unhappily married showed low levels of sociability in school (Long, Forehand, Fauber, \& Brody, 1987).
The link between marital satisfaction and conflict, and children's social skill development may be via a process of modelling (Bandura, 1986).

## Goodness of Fit and Social Skills

It has been suggested that social development of a child is influenced by the 'fit' between the child and his/her environment (Thomas, Chess, \& Birch, 1968). A good 'fit' occurs when the child's characteristics (capacities, motivations and temperament) are able to cope with the demands and expectations of the environment in which he/she functions. Such consonance between the child and environment promotes optimal positive behavioural adjustment (Chess \& Thomas, 1996).
It could be suggested that a good 'fit' would be likely to influence the development of socially skilled behaviours. The child with better 'fit' with their family is likely to have more positive interactions, and show better adjustment, than the child with poor 'fit'. As a result, this child would have more opportunities to develop and display sociable behaviours. Evidence for the influence of goodness of fit on social skills development was provided by Paterson and Sanson (1999) using a sample of 5 -year old children. They found that better 'fit' was associated with higher scores on combined parent/teacher ratings of overall social skills. The strength of the 'goodness of fit'
approach is that it attempts to capture the complexity of the developmental process.

## Interaction Effects and Social Skills: Statistical Approach

Another method of investigating interactional processes utilises a statistical approach. Thus, apart from considering child temperament and family factors in terms of direct linear effects on social development, of additional interest to this study is the investigation of multiplicative effects. Although findings of significant multiplicative effects are still relatively scant, interaction effects continue to be investigated in the current developmental literature using this statistical approach (see Lengua, 2002).

While the majority of findings indicate direct linear relationships between child temperament and family factors, and social behaviour, evidence is accumulating that temperament-by-parenting interactions are important contributors to the developmental process (Sanson et al., 2002). Sanson and Rothbart (1995) suggest that more complex views of temperament and parenting may prove to be a good deal more useful than searching for simple direct associations. However, the number of studies that have explicitly examined interaction effects is still quite small.

Nevertheless, some studies have found evidence of the importance of interaction effects in the development of externalising behaviour problems ( Paterson \& Sanson 1999), and conscience (Kochanska, 1997). The relative lack of previous literature addressing the role of interaction effects in social skill development means that the current study's investigation in this area is somewhat exploratory. However, the literature points most strongly to the individual roles of temperamental approach (sociability) and warm parenting, and temperamental inflexibility and parental use of inductive reasoning, as possibly contributing to the development of social skills.
This study therefore investigates the concept of interactions in two ways. First, a 'goodness of fit' measure is used to tap aspects of the child's fit with the environment, specifically with parental expectations. Second, a statistical approach is used to assess interaction effects via hierarchical multiple regression.

From this literature review the following hypotheses are proposed:
Hypothesis 1: It was hypothesised that higher levels of temperamental approach (sociability), parental warmth, inductive reasoning, marital satisfaction, and a good 'fit' would be linked to higher levels of assertion.
Hypothesis 2: It was further anticipated that lower levels of temperamental inflexibility, and higher levels of persistence, warmth, inductive reasoning, marital satisfaction, and a good 'fit' would be linked to greater cooperation.
Hypothesis 3: It was hypothesised that low inflexibility and marital conflict, and higher persistence, warmth, inductive reasoning, and a good 'fit' would be linked to higher self-control.

Hypothesis 4: In relation to interaction effects, it was anticipated that the combination of temperamental approach (sociability) and parental warmth would account for additional variance in assertion, over and above the main effects of these two variables.

Hypothesis 5: The combination of temperamental inflexibility and parental use of inductive reasoning was expected to account for additional variance in self-control and cooperation, respectively, over and above the main effects of these two variables.

## Method

## Participants

Participants were 61 Prep children ( 33 boys and 28 girls) who were recruited from four lower middleclass Melbourne Catholic primary schools. The children's ages ranged from 5-6 years.

Predictor Variables Child Temperament Child temperament was measured using the Short Temperament Scale for Children (Prior, Sanson, \& Oberklaid, 1989). This questionnaire consists of 30 items rated on a 6 -point frequency scale ( $1=$ almost never, $6=$ almost always). Three dimensions were relevant for this study; approach (sociability, reaction to novelty), persistence (attention skills and on-task behaviour), and inflexibility (child's negative emotionality and adaptability). Each subscale contains seven items with the exception of inflexibility which has nine items. High scores reflect withdrawal, nonpersistence, and inflexibility, while low scores reflect the positive end of each temperament dimension; approach (sociability), persistence and flexibility. Adequate internal consistencies (alpha coefficients) have been reported for each subscale in children aged 5-6 years; . 75 for approach, .80 for persistence, and . 61 for inflexibility (Prior et al., 2000).
Parenting Style Parenting style was measured by a questionnaire developed by Sanson (1995) which contains factors of warmth, punishment, and inductive reasoning. This questionnaire consists of 25 items rated on a 5 -point frequency scale ( $1=$ never, $5=$ always). Although this questionnaire measures three parenting styles, only two were relevant for this study. These were levels of parental warmth (positive emotional tone in parent-child interactions), and inductive reasoning (parents' tendency to discuss with their children reasons for rules and limitations). The warmth subscale contains 10 items, and the inductive reasoning subscale contains 7 items. The alpha coefficients for the scales were; . 82 for warmth and .66 for inductive reasoning reflecting adequate internal reliability for each scale (Sanson, 1995).

Marital Relationship Marital relationship was assessed by a questionnaire combining two scales. Specifically these were The Hendrick Relationship Assessment scale (1988) which assesses marital quality, and a short form of the O'Leary and Porter Hostility Scale (1980) which assesses marital conflict. This questionnaire consists of 16 items rated on a 5point frequency scale ( $1=$ never, $5=$ always $)$. The scale for marital quality (level of satisfaction and
happiness in the marital relationship) contains 9 items. The scale for marital conflict (the couple's response to problems and disagreements in the marital relationship) contains 7 items. The alpha coefficients for the scales were $>.80$, reflecting high internal reliability.
Goodness of Fit ('Bother' Index) The questionnaire used was based on the work of Feagans et al. (1991). This instrument assesses the degree of 'fit' between parents' desires and their child's characteristics. Parents are presented with a list of 19 potentially undesirable child behaviours compiled by Feagans et al., covering areas such as temper tantrums, and shyness. Parents are first requested to choose five behaviours they would find most undesirable in young children. Parents are then asked to rate their own child on each of the five behaviours, on a 4-point frequency scale ( $1=$ never, $4=$ often $)$. The remaining fourteen items are not rated. Each child's 'fit' score is the sum of rating on these five items, with a minimum score of five and a maximum score of 20 , with higher scores reflecting poorer fit.

Outcome Variable Parent rated Social Skills Rating System (Elementary Level) The Social Skills Rating System (SSRS; Gresham \& Elliot, 1990) was used to assess three social skills. Although this questionnaire measures four social skills, only three were relevant for this study. The social skills scale consists of the following subscales: assertion (showing social confidence and initiative), cooperation (being helpful and following rules), and self-control (ability to cope in situations of conflict and compromise). Each social skill subscale contains 10 items. Each social skill subscale is rated on a 3-point frequency rating scale ( 0 $=$ never, $1=$ sometimes, $2=$ very often $)$. Scores range from 0 to 20 on each subscale. High scores reflect high levels of social skills. The SSRS is a well validated questionnaire with adequate internal consistencies (alpha coefficients); . 74 for assertion; .77 for cooperation; and .80 for self-control (Gresham \& Elliot, 1990).

## Procedure

Parents of the Prep children were asked to complete five questionnaires regarding dimensions of child temperament, parenting style, marital relationship, 'goodness of fit' and social skills. All parental questionnaires were distributed to Prep children to take home to their parents, and were returned to the school office. Approximately 210 envelopes were distributed, with a return rate of $29 \%$.

## Results

Mean scores and standard deviations for each variable are shown in Table 1. Mean ratings on the temperament dimensions were similar to those found for the 1366 5-6 year old children in the Australian Temperament Project (Prior et al., 1989), and indicated moderate levels of approach (sociability), persistence and flexibility. Parents reported high degrees of warmth, and relatively high levels of inductive reasoning, and in both cases there was little
variation in parents' responses. In relation to the marital relationship, parents reported high levels of marital quality and lower levels of marital conflict. The mean score for the 'goodness of fit' variable reflected moderate 'fit' between child characteristics and parental desires for this sample. Mean scores for social skills of self-control and cooperation indicated the children, on average, displayed socially skilled behaviour a little more than 'sometimes'. However, the mean score for assertion showed that assertive behaviour occurred more often than self-controlled and cooperative behaviours, and was reported as occurring close to mid-way between 'sometimes' and 'very often'.

Table 1
Mean ratings and Standard Deviations for Parents' Ratings of Temperament, Parenting, Marital
Relationship, Goodness of Fit, and Social Skills

| Domain Su | Subscale $\quad M$ | M $D$ |  |
| :---: | :---: | :---: | :---: |
| Temperament ${ }^{\text {a }}$ | Approach | 2.81 | 0.79 |
|  | Persistence | 2.98 | 0.81 |
|  | Inflexibility | 2.54 | 0.67 |
| Parenting ${ }^{\text {b }}$ | Warmth | 4.21 | 0.52 |
|  | Inductive |  |  |
|  | Reasoning | 3.43 | 0.50 |
| Marital Relationship ${ }^{\text {c }}$ | $p^{\text {c }}$ Marital Quality | 4.28 | 0.55 |
|  | Marital Conflict | 2.17 | 0.48 |
| Goodness of Fit ${ }^{\text {d }}$ |  | 11.66 | 3.09 |
| Social Skill Outcomes ${ }^{\text {e }}$ | nes ${ }^{\text {e }}$ Self-Control | 1.18 | 0.27 |
|  | Cooperation | 1.29 | 0.31 |
|  | Assertion | 1.58 |  |
| 0.26 |  |  |  |

Note. $N=61$.
a Scores can range from 1 to 6 ; high scores indicate withdrawal (not approach), nonpersistence, and high inflexibility.
b Scores can range from 1 to 5 ; high scores indicate high warmth and high explanation.
c Scores can range from 1 to 5; high scores indicate high marital quality and high marital conflict.
d Scores can range from 5 to 20; high scores indicate poor fit.
e Scores can range from 0 to 2 ; high scores indicate high frequency of each behaviour.

Intercorrelations between each predictor variable and each social skills outcome were calculated. These results are presented in Table 2.

Table 2
Intercorrelations between Parents' Ratings of Temperament, Parenting, Marital Relationship, Goodness of Fit and Social Skills

| Subscale <br> Assertion | Self-Control |  | Cooperation |  |
| :--- | :--- | :--- | :--- | :--- |
| 1. | Approach | -.12 | -.24 | $-.57^{* *}$ |
| 2. | Persistence | .06 | -.05 | $-.29^{*}$ |
| 3. | Inflexibility | $-.41^{* *}$ | -.21 | $-.40^{* *}$ |
| 4. | Warmth | .20 | .25 | $.30^{*}$ |
| 5. | Ind. Reasoning | .20 | .21 | .15 |
| 6. | Marital Quality | -.02 | .03 | .04 |
| 7. | Marital Conflict | -.06 | -.01 | .02 |
| 8. Goodness of Fit | $-.39^{* *}$ | $-.27^{*}$ | $-.35^{* *}$ |  |

Note. $N=61$
Low scores are positive end of temperament dimensions
${ }^{*} p<.05 .{ }^{* *} p<.01$.

Table 2 indicates that lower inflexibility (ie., high flexibility) scores and lower 'fit' scores (ie., good 'fit') were significantly correlated with higher selfcontrol scores. Lower 'fit' scores (ie., good 'fit) were significantly correlated with higher cooperation scores.

Lower approach scores (ie., high approach), higher parental warmth scores and lower 'fit' scores (ie., good 'fit') were significantly correlated with higher assertion scores.

A series of hierarchical regressions were performed for each of the following outcome variables; self-control, cooperation, and assertion. Step 1 involved entry of the hypothesised predictor variables, e.g., in relation to assertion: approach, warmth, inductive reasoning, 'fit', and marital quality. Step 2 involved entry of the interaction term, for assertion, for example, the interaction term approach x warmth. This strategy allowed for the assessment of both additive and multiplicative effects. The summary results are reported in Table 3, 4 and 5.

Table 3 indicates that in Step 2, 33\% of the variation in the self-control scores were explained by the linear combination of the predictor variables: inflexibility, persistence, warmth, inductive reasoning, 'fit', marital conflict, and the interaction term inflexibility $x$ inductive reasoning. The overall relationship for Step 2 of the model was significant, $F(7,53)=3.72, p<.05$. At Step 2 when the interaction term, inflexibility x inductive reasoning was included, inductive reasoning and 'fit' contributed significantly to the model.

Table 3
Summary of Hierarchical Regression Analysis Predicting Self-Control from Temperament, Parenting, Goodness of Fit, and Marital Conflict ( $N$ =61)

| Outcome | Predictor | $B$ | $S E B$ | $\beta$ |
| :--- | :--- | ---: | :---: | :---: |
| Self-Control | Step 1 |  |  |  |
|  | Inflexibility | -0.12 | 0.06 | $-.29^{*}$ |
|  | Persistence | 0.04 | 0.04 | .13 |
|  | Warmth | 0.03 | 0.06 | .06 |
|  | Ind. Reasoning | 0.08 | 0.07 | .14 |
|  | Fit | -0.03 | 0.01 | $-.30^{*}$ |
|  | Marital Conflict | 0.02 | 0.07 | .03 |

Step 2

| Inflexibility | 0.41 | 0.28 | 1.03 |
| :--- | ---: | ---: | ---: |
| Persistence | 0.06 | 0.04 | .19 |
| Warmth | 0.02 | 0.06 | .04 |
| Ind. Reasoning | 0.51 | 0.23 | $.93^{*}$ |
| Fit | -0.03 | 0.01 | $-.30^{*}$ |
| Marital Conflict | 0.01 | 0.07 | .01 |
| Inflex x Ind. R. | -0.17 | 0.09 | -1.35 |

$\overline{\text { Note.Adjusted } R^{2}=.20 ; R^{2}=.28 \text { for Step 1; } \triangle R^{2}=.05 \text { for Step } 2}$ ${ }^{*} p<.05$.

Table 4
Summary of Hierarchical Regression Analysis Predicting Cooperation from Temperament, Parenting, Goodness of Fit, and Marital Quality (N =61)

| Outcome | Predictor | $B$ | $S E B$ |
| :--- | :--- | ---: | :--- |
|  |  | $\beta$ |  |
| Cooperation Step 1 |  |  |  |
| Inflexibility | -0.01 | 0.07 | -.03 |
|  | Persistence | -0.00 | 0.05 |
| -.01 |  |  |  |
|  | Warmth | 0.10 | 0.08 |
| .17 |  |  |  |
| Ind. Reasoning | 0.12 | 0.09 | .19 |
| Fit | -0.03 | 0.01 | -.26 |
| Marital Quality | -0.03 | 0.08 | -.06 |
|  |  |  |  |
|  |  |  |  |
| Step 2 | -0.01 | 0.36 | -.01 |
| Inflexibility | -0.00 | 0.05 | -.01 |
| Persistence | 0.10 | 0.08 | .17 |
| Warmth | 0.13 | 0.30 | .20 |
| Ind. Reasoning | -0.03 | 0.01 | -.26 |
| Fit | -0.03 | 0.08 | -.06 |
| Marital Quality | -0.00 | 0.11 | -.02 |

[^3]Table 4 shows that in Step 2, 16\% of the variation in the cooperation scores were explained by the linear combination of the predictor variables: inflexibility, persistence, warmth, inductive reasoning, 'fit', marital quality, and the interaction term inflexibility $x$ inductive reasoning. The overall relationship for Step 2 of the model was not significant. At Step 2 when the interaction term, inflexibility x inductive reasoning was included, none of the variables contributed significantly to the model.

Table 5
Summary of Hierarchical Regression Analysis Predicting Assertion from Temperament, Parenting, Goodness of Fit, and Marital Relationship $(N=61)$

| Outcome | Predictor | $B$ | $S E B$ | $\beta$ |
| :--- | :--- | ---: | ---: | :--- |
|  |  |  |  |  |
| Assertion | Step 1 |  |  |  |
|  | Approach | -0.17 | 0.03 | $-.52^{*}$ |
|  | Warmth | 0.10 | 0.05 | .20 |
|  | Ind. Reasoning | 0.01 | 0.05 | .01 |
|  | Fit | -0.02 | 0.01 | $-.29^{*}$ |
|  | Marital Quality | -0.03 | 0.05 | -.06 |

Step 2

| Approach | -0.77 | 0.28 | $-2.40^{*}$ |
| :--- | ---: | ---: | :---: |
| Warmth | -0.33 | 0.20 | -.68 |
| Ind. Reasoning | 0.03 | 0.05 | .06 |
| Fit | -0.03 | 0.01 | $-.33^{*}$ |
| Marital Quality | -0.05 | 0.05 | -.12 |
| Approach x Warmth | 0.15 | 0.07 | $1.98^{*}$ |

$\overline{\text { Note. Adjusted } R^{2}=.41 ; R^{2}=.46 \text { for Step 1; } \triangle R^{2}=.05 \text { for Step } 2}$ *p<.05.

Table 5 indicates that in Step 2, $51 \%$ of the variation in the assertion scores were explained by the linear combination of the predictor variables: approach (sociability), warmth, inductive reasoning, 'fit', marital quality, and the interaction term approach x warmth. The overall relationship for Step 2 of the model was significant, $F(6,54)=9.05, p$ $<.05$. At Step 2 when the interaction term, approach (sociability) x warmth was included, approach (sociability) temperament and 'fit',
and the interaction term contributed significantly to the model. Introducing the interaction term, approach (sociability) x warmth explained an additional $5 \%$ of the variation in assertion scores.
Further investigation of the significant contribution of the interaction term was conducted. Four groups were created based on the median splits of the two variables approach $(M d n=2.71)$ and warmth ( $M d n=$ 4.20). The four groups were: high approach (high sociability)/high warmth; high approach (high sociability)/low warmth; low approach (low sociability) /high warmth; and low approach (low sociability)/low warmth. Mean assertion scores were calculated for each group ( $M \mathrm{~s}=1.68, n=16 ; 1.64, n$ $=11 ; 1.53, n=12$; and $1.39, n=14$, respectively).

The interaction between temperamental approach (sociability) and parental warmth is illustrated in Figure 1.


Figure 1
Mean ratings for assertion among children above and below the median on Approach (sociability) and whose parents were above and below the median on Parental Warmth.

It is apparent from Figure 1 that the combination of high approach (high sociability)/high warmth, and high approach (high sociability)/low warmth reported similar levels of assertion, regardless of the levels of parental warmth ( $M=1.68, M=1.64$, respectively). The combination of low approach (low sociability) with high levels of parental warmth was associated with lower assertion than the two high approach groups, ( $M=1.53$ ) but this group had higher levels of assertion than the low approach (low sociability)/low parental warmth group, which had the lowest levels of assertion ( $M=1.39$ ).

## Discussion

In summary, the findings show that 'fit' and parental use of inductive reasoning were contributing factors to level of self-control. None of the hypothesised predictor variables was significantly related to cooperation. Temperamental sociability and 'fit' were significantly related to assertion as was an interaction between temperamental approach (sociability) and parental warmth.

The emergence of goodness of fit as a predictor of self-control suggests that the interrelationship between child behaviour and parental expectations is important for the development of this social skill. This finding supports the views of Thomas and Chess (1977) and Feagans et al. (1991). The significant contribution of inductive reasoning to self-control supports the idea that such a parenting style models appropriate behaviour and highlights the impact of a child's action on others.

In relation to cooperation, the results indicated that none of the hypothesised predictor variables was significantly related to cooperation. Future research may consider different variables to those focused on in the current study in order to shed more light on the development of cooperation, for example, aspects of the home environment and other aspects of parents'
behaviour separate to the parenting style dimensions considered here.

The finding that temperamental approach (sociability) contributed to assertion is consistent with a number of previous studies which also found an association between this temperament dimension and positive social behaviour (eg., Stanhope et al., 1987). The results of the current study, however, expand upon previous research by showing a link between temperamental approach (sociability) and the specific social skill of assertion.

As with self-control, goodness of fit was also a contributor to assertion, emphasising again the important role congruence between parental demands and child characteristics play in children's social skills development.

In addition, results revealed a significant interaction effect for the combination of temperamental approach (sociability) and parental warmth. Specifically, level of parental warmth did not impact upon the development of assertion in children who were more temperamentally sociable. For children temperamentally less sociable, however, lower levels of parental warmth were associated with lower levels of assertion, while higher parental warmth was associated with higher levels of assertion.

This finding provides support for an interactional model of development. Parallels can be drawn between the current study and previous research by Paterson and Sanson (1999), using a similar age group of Australian children. They found that a combination of high temperamental inflexibility and high punitive parenting was particularly problematic in the development of externalising behaviour problems. Both studies suggest that it is children who are temperamentally 'vulnerable' who are most affected by the parenting style they are exposed to.

It should be noted that the correlational nature of the current data limits claims regarding causality. Nevertheless, the relationships found in this study were consistent with the causal processes believed to be occurring.

Another limitation of this study was the reliance upon questionnaire data. However, while additional forms of data, for example, behavioural observations and teacher ratings, would have been desirable, the questionnaires used generally had sound psychometric properties.

A further limitation in this current study, relates to the reliance on parents as the only source of ratings. Rothbart and Bates (1998), however, comment on the benefits of using parental ratings. For instance, parents can report on children over a greater range of contexts than is possible for an observer, and parents have a wider knowledge base on which to draw when making judgements about a child's general behaviour.

Despite these limitations, a number of implications can be derived from the findings of the current study. Klein (1992) suggests that environments need to be made more flexible so that a wider range of temperaments can receive positive input. This recognises the importance of a good 'fit' between parental demands and child characteristics, to increase a child's chances of developing skilled social
behaviours. Second, the identification of individual predictors of specific social skills outcomes may be useful in the development of social skill intervention programs in order to improve their efficacy. In addition, the significant interaction between temperamental approach (sociability) and parental warmth could provide guidance for effective parent training programs. That is, by taking child temperament and parental style and their interrelationships into account, for example, it may be possible to promote the benefits of parental warmth for parents of children low in temperamental approach (low sociability).

In conclusion, the results of the present study clearly demonstrate the value of identifying specific predictors of specific dimensions of social skills. In addition, the support found for an interactional model of development as shown in the regression analysis (using a statistical approach) and in the prominence of the 'goodness of fit' measure as a predictor of social skills, suggests that interactional processes are important to models of social skill development, and that future research should continue to pursue evidence of interaction effects.

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# Attraction for Out-Group Members: Is There a Role for Attitude Importance and Attitude Similarity? 

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#### Abstract

Working within the theoretical frameworks of social identity theory and interpersonal attraction this research investigated the role of the importance of attitudes and attitude similarity on attraction to out-group members. Seventy-five undergraduate psychology students participated in this research. Attitude similarity and the importance of the attitudes for the out-group member were manipulated. Initial attraction based only on the knowledge of the target group membership was compared with ratings of attraction after participants learned about the target's attitudes. The hypothesis that attitude similarity on important issues would show the largest increase in level of attraction was not supported. The data indicated that those participants who perceived that their attitudes were dissimilar to the outgroup member reported a higher degree of attraction. The hypotheses that attitude similarity, regardless of attitude importance, would increase the level of attraction was not supported. The results are discussed in terms of methodological issues and alternative theory.


Two hypotheses offer explanations for the finding that people tend to be attracted to similar others. One, based on the 'birds of a feather flock together' metaphor, is the similarity-attraction hypothesis. It proposes that people tend to like others who are similar or perceived to be similar in some way (Byrne, 1971, Neimeyer \& Mitchell, 1988). For example, Byrne (1971) found evidence for increased attraction to others who are perceived to share similar attitudes.

The second is the dissimilarity-repulsion hypothesis. It proposes that dissimilarity leads to repulsion. In challenging the similarity-attraction hypothesis, Rosenbaum (1986) argued that the emphasis on similarity is misplaced. Rather, the emphasis should be on dissimilarity, because it is dissimilarity that leads to disliking and decreases attraction.

The argument then is between similarity and dissimilarity. Which has the stronger effect and offers the better explanation for attraction? Is it a matter of moving toward the similar other or moving away from the dissimilar other? Is the better explanation based
on liking or on disliking? As with many findings in psychology, it depends. For one thing, it depends on the perceived status of the target.

For example, it takes little to create the impression that an individual is a member of an in-group. Once an in-group is created, in-group members tend to perceive those not part of the in-group as forming the out-group. The theory of minimal groups explains how easy this is to bring about (Tajfel, Billig, Bundy, \& Flament 1971). Two examples are 1) simply telling participants they are in Group A or Group B or 2) telling them they are over-estimators or underestimators of the number of dots in a picture. It is this easy to create in-groups and out-groups.

Once an in-group is formed, social identity theory proposes that certain processes may be activated to help an individual protect and enhance self-esteem (Tajfel \& Turner, 1986; Turner, 1987). Such processes include identifying with the achievements of one's in-group and showing in-group favouritism, which is the tendency to discriminate in favour of one's in-group over the outgroup. Showing favouritism to other members of one's in-group can also be understood as an indication of attraction or liking.
Research on similarity has demonstrated the tendency for individuals to assume similarity where none may exist. This is the false consensus effect, in which people tend to overestimate the extent to which others share their opinions, attributes, and behaviours (Ross, Greene, \& House, 1977). The fact that people tend to assume others hold similar opinions implies that when one finds the other does hold similar opinions, it comes as no surprise. After all, it was assumed to be so. In other words, expectancy theory plays a part in this argument for assumed similarity among in-group members.

Diehl (1988) found support for combining the theory of minimal groups with that of assumed similarity. In Diehl's study, participants assumed similarity of attitude for the in-group target person more so than for the out-group target.

Chen and Kenrick (2002) investigated the effect of both group membership and assumed similarity on attraction/repulsion to both an in-group and an out-
group member. They based their manipulation of assumed similarity on expectancy theory. That is, because people assume that an in-group member is more similar than an out-group one, finding the ingroup member to be similar is no more that what was assumed and expected. Hence the effect should be little or no increase in attraction to the in-group member.
On the other hand, finding that an out-group member is similar is not assumed nor expected. The impact should led to an increase in attraction for the out-group member who is discovered to be similar. Chen and Kenrick (2002) predicted that an increase in attraction to a similar out-group member would be explained by the similarity-attraction hypothesis. In their study they found that attraction was stronger for the similar out-group member than for the similar ingroup member and that overall similarity was more important than group membership in increasing participants' attraction to the target individual.
The in-group target, who is perceived to hold dissimilar attitudes, violates the assumed similarity; this is not what expectancy theory predicts. One would expect the out-group target to hold dissimilar attitudes, but not the in-group one. The impact should lead to a decrease in attraction for the in-group target, i.e. repulsion. Chen and Kenrick (2002) predicted a decrease in attraction, i.e. repulsion, to a dissimilar ingroup member and explained it with the dissimilarityrepulsion hypothesis.
The current study took up that part of Chen and Kenrick's (2002) study that found an increase in attraction for the out-group member with similar attitudes. This study was a partial replication of Chen and Kenrick. The aim of this study was to compare the similarity-attraction hypothesis with that of dissimilarity-repulsion toward an out-group target. In addition to group membership, this study incorporated a manipulation of attitude importance. Would it matter whether the attitude was important to the participant?
The first hypothesis predicted that the effect of attitude similarity on attraction to an out-group member would depend upon the importance of the attitude to the participant. In other words, it was expected that similarity of attitudes on important issues would predict greater attraction for an outgroup member and dissimilarity would predict greater repulsion. The second hypothesis predicted that attitude similarity, regardless of attitude importance, would increase attraction to an out-group member.

## Method

## Participants

The participants were a convenience sample of 75 undergraduate psychology students. The 66 women and 9 men ranged in age from 19 to 47 years ( $M=$ $22.3, S D=6.01$ ).

## Design

This study used a $2 \times 2$ design. One independent variable was attitude similarity, with its two levels of similar versus dissimilar; a second independent
variable was attitude importance, with its two levels of important versus unimportant. The dependent variable was change in attraction after a one week interval in which the participants were given information about how similar/dissimilar the target's attitudes were.

## Materials

The materials were comprised of three scales.
The Attitude Scale has 15 items measuring pro and con attitudes on a six point scale. This scale was based on Byrne's (1971) Survey of Attitudes and included three of his items: student needs, family finances and money. The other 12 items were generated by the researchers on the basis of two criteria, that they be topical or relevant to students. The issues for these 12 items were: bar on campus, gay/lesbian adoption, detention of refugees, tertiary fees, death penalty, smoking in restaurants, Australia: a monarchy, stem-cell research, legalisation of marijuana, entrance exams, final examinations, and cars in the city centre. Instructions requested that the participant circle the number that best represented his/her attitude. For example, the six choices for detention of refuges were "I am very much in favour of detention of refugees", "I am in favour of detention of refugees", "I am mildly in favour of detention of refugees","I am mildly against detention of refugees", "I am against detention of refugees", "I am very much against detention of refugees". The scale formed the basis of the manipulation for the first independent variable.

The Importance of Issue Scale (IIS) assessed the importance of each of the 15 issues on the Attitude Scale on a 10-point Likert scale, from 1(Not at all) to 10 (Extremely). This scale was constructed specifically for this study to operationalise the second independent variable.

The Interpersonal Judgment Scale (IJS) (Byrne, 1971) has six items on which each participant rates the 'other person': intelligence, knowledge of current events, morality, adjustment, personal feelings, and working together on a project. The response format for each item was a 7 -point scale, ranging from 1 (the most negative, e.g., "I believe that I would very much dislike working with this person on a project") to 7 (the most positive, e.g., "I believe that I would very much enjoy working with this person on a project"). For the purpose of measuring attraction toward the target, only the two items dealing with attraction were included in the scoring: Personal feelings and working together on a project. A mean attraction score based on the combined score for these two items was calculated. The dependent variable was the difference in attraction score between weeks 1 and 2 .

## Procedure

Participants were told that the study was on students' views about different issues, and that a number of institutions were involved. They were asked to
complete the Attitude Scale in relation to their own views on the issues presented. When this was done, they were told that they were each paired with a student from another university in the same city (the target). The purpose of this manipulation was to create minimal groups (Tajfel, Billig, Bundy \& Flament, 1971), in order that the participants would perceive themselves as members of the in-group and the student from the other university, the target, as a member of the out-group.

Next each participant completed the Interpersonal Judgment Scale with regard to their judgments about the target. Finally, each participant was given the Attitude Scale again; but this time, instead of their own attitudes, they were asked to complete it in the manner in which they thought the target student would do so. After writing an identification code on their questionnaires, along with their age and sex, the questionnaires were collected. This ended the first part of the manipulation.

One week later, each participant was given an Attitude Scale and told it was completed by the target student with whom he/she had been paired. In fact, each of these Attitude Scales had been completed by the researchers specifically for each participant in one of the four following ways:

Similar ratings to the participant on issues of importance, random ratings on issues of lesser importance.

Dissimilar ratings to the participant on issues of importance, random ratings on issues of lesser importance.

Random ratings on issues of importance, similar ratings to the participant on issues of lesser importance.

Random ratings on issues of importance, dissimilar ratings to the participant on issues of lesser importance.

After reading this Attitude Scale, each participant again completed an Interpersonal Judgment Scale on the target student. The mean rating on the two items, personal feelings (i.e., degree of liking) and working together (desire to work together), in week one minus the mean rating on these two items in week two yielded a measure of change in attraction.

The participants were debriefed as to the nature of the manipulation.

## Results

Table 1 shows the mean change in attraction to the target for the four groups.

Table 1
Mean Change in Attraction to Target

|  | Attitude |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
|  | Importance: |  |  |  |
| Important | Unimportant |  |  |  |
| Attitude Similarity: | $M$ | $S D$ | $M$ | $S D$ |
| Similar | .05 | .71 | -.14 | .74 |
| Dissimilar | .30 | .92 | .78 | 1.73 |

The means show that for similar attitudes, attraction decreased slightly for unimportant ( $M=$ .14) compared to important $(M=.05)$ attitudes. Change
in attraction toward the target was greater for dissimilar attitudes, and increased more for unimportant attitudes ( $\mathrm{M}=.78$ ) than for important ones ( $\mathrm{M}=.30$ ).
A 2-way (between groups) ANOVA indicated no interaction effect between the two independent variables, attitude similarity and importance of attitude, on the dependent variable, change in attraction toward the target, $F(1,71)=1.74, p>.19)$. One independent variable, attitude similarity, had a significant main effect on the dependent variable, change in attraction toward the target, $F(1,71)=5.25$, $p<.02$. The second independent variable, importance of attitude was not significant, $F(1,71)=0.32, p>$ .58.
Figure 1 displays the means for the change in attraction toward the target for the four groups. The error bars in the figure represent one standard error.


Figure
Mean change in attraction toward target on similarity and importance of attitude

## Discussion

The first hypothesis that the effect of attitude similarity on attraction to an out-group member would depend upon the importance of the attitude to the participant was not supported. The second hypothesis that attitude similarity, regardless of importance of the attitude, would increase attraction to an out-group member was not supported. The results of this study do not support that of previous research by Chen and Kenrick (2002), Byrne (1971), Rosenbaum (1986), nor Neimeyer and Mitchell (1988). Nor can the results be explained by the similarity-attraction nor the dissimilarity-repulsion hypotheses.
The only significant effect, increased attraction toward the out-group member with dissimilar attitudes, especially unimportant ones, goes against both the similarity-attraction and dissimilarityrepulsion hypotheses as well as previous research. How to explain this unusual finding? An explanation may be in the methodology, in that the manipulation to create minimal groups may have been ineffective.

The participants were university students in their second year of study. The researchers manipulated group status by describing the target as a student from a different university. Might these participants have perceived the target as a fellow in-group member? If so, then expectancy theory would explain how the participants may have assumed the target person should share similar attitudes. As Chen and Kenrick (2002) found, expecting the in-group target to share similar attitudes, should lead the participants to assume similarity of attitudes and produce little to no change in attraction. As Figure 1 shows, it was not the similar attitudes that led to the greater increase in attraction to the target. This part of the results is consistent with those of Chen and Kenrick (2002) and is explained by expectancy theory. Assuming similarity of attitude yields no great change in attraction.
But if the participants were expressing their change in attraction toward a perceived in-group member, then why would their attraction increase for dissimilar attitudes? The dissimilarity-repulsion hypothesis would lead one to expect just the opposite of this result. Assuming the participants perceived the target as an in-group member, they should have been repulsed by the dissimilar attitudes. They were not.
It may be that the way dissimilarity of attitudes was operationalised in this study partially explains this result. Unlike Chen and Kenrick (2002), who used a method of constant discrepancy to manipulate all items on their attitude survey so that the target was perceived as entirely similar or entirely dissimilar, in this study the manipulation of dissimilarity, as explained above, was moderate. Perhaps this methodological artifact may help to explain the result that attitude dissimilarity elicited such a strong change in attraction. When the manipulated dissimilarity is constant as was the case for Chen and Kenrick (2002), then dissimilarity is too dissonant and the target is repulsed. In that case the repulsion-dissimilarity hypothesis prevails.
Further explanation may be found in social identity and cognitive dissonance theories. These two explanations might help to explain this result of greater change in attraction for the in-group target with dissimilar attitudes. First, social identity theory (Tajfel \& Turner, 1986): Could it be that the participants were doing something akin to in-group favouritism in an attempt to retain the in-group target as an in-group member?
Rather than showing repulsion and distancing themselves from the perceived in-group target with dissimilar attitudes, the participants focused on the target's similarity in having in-group status and expressed attraction as a way of retaining the target's in-group status. The fact that the change in attraction was greater for the unimportant attitudes suggests it was easier to ignore dissimilarity on the unimportant attitudes than on the important ones. That is, the level of dissimilarity in attitude must not have been sufficient to marginalize or to reject the in-group target.
The second explanation may be found in cognitive dissonance theory (Festinger, 1957). Cognitive
dissonance theory draws on Heider's (1958) balance and consistency theories that explain the way individuals prefer both balance and consistency in their relationships. Having perceived the target as an in-group member, the participants may have experienced cognitive dissonance at finding this individual appeared to hold dissimilar attitudes.

In an attempt to escape the dissonance and reestablish the balance and cognitive consistency that comes from liking similar others, the participants may have rated the target with dissimilar attitudes as more attractive. That is, once the target is perceived as an in-group member, expectancy theory proposes that the in-group member is expected to hold similar attitudes. Finding dissimilar attitudes, when similar ones are expected, should challenge the assumptions of consistency theory, resulting in cognitive dissonance.

Experiencing dissonance is uncomfortable. To escape the dissonance, something has to change. The participants cannot change the target's dissimilar attitudes, but they can change their own. Cognitive Dissonance theory predicts this would happen. Yet, measuring change in participants' attitudes toward the topics was not part of the design for this study, so we cannot say whether such attitude change happened. Cognitive dissonance theory may explain the change in attitude toward the target, that is, the increase in attraction toward the target. Increasing attraction toward the target with the dissimilar attitudes would compensate for and minimize the dissonance caused by the target's dissimilar attitudes.

In conclusion, this study attempted to investigate the role of attraction for an out-group member in terms of attitude similarity and attitude importance. While the results showed a main effect for the similarity-dissimilarity variable, the change in attraction was in the opposite direction to that predicted - greater change in attraction for the target with dissimilar attitudes, especially unimportant ones.

Part of the explanation appeared to be in the methodology, in that the target may have been perceived as a member of the in-group, not the outgroup, and in that the perceived dissimilarity in attitude may have been perceived as moderate. These two facts led to explaining how the participants may have worked harder to retain the target as a member of the in-group and one in good standing. In the end this study contributes to those attempts to understand the conditions under which attraction or repulsion for another individual, whether a member of one's ingroup or of the out-group are maintained. Those with divergent opinions, whether from within the in-group or from without, have the potential to be constructive. Whether their ideas get a hearing or are treated as destructive, a priori, may be an implication of this study investigating similarity-attraction and dissimilarity-repulsion.

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# Lying in relationships: Protecting ourselves or protecting our partners? 

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#### Abstract

The present research presents an exploratory study on the reasons that individuals give for their use of deception. The aim was to explore the different reasons individuals provided for engaging in deceptive behaviour within their relationships, and to investigate whether these reasons are differentially related to different types of deceptive strategies. A series of openended questions about the use of deception in relationships was completed by 152 participants (73 male, 79 female), who were a combination of undergraduate psychology students, and individuals recruited by the students. The categories of reasons formed from the participants' responses were Conflict Avoidance, Protecting Self, Protecting Relationship, Protecting Partner, Maintaining Impressions, Provoking Partner, and Manipulation. Protecting one's partner was the most common reason for engaging in deception, and was given as a reason by almost half the participants. Avoiding conflict was the next most common reason, with provoking one's partner being the least common reason reported. Results showed no significant differences between males and females in their preference for giving different reasons for engaging in deception. Further findings, regarding the relationship between reasons for deception and specific deceptive strategies, and their implications for the use of deception in relationships are discussed.


The use of deception has been variously viewed as a threat to social mores (Bok, 1978), a predictor of negative life circumstances (DePaulo, Kashy, Kirkendol, Wyer \& Epstein, 1996), and as a social skill (DePaulo \& Jordan, 1982), and has long been an area of interest for relationship researchers. Since early recognition that deception played an important role in communication in close relationships (see Metts, 1989), research has shown that deception is commonly used in social interactions. Defined as deliberately invoking a false belief in another individual that the communicator knows to be untrue (Miller, Mongeau \& Sleight, 1986), deception is used to achieve communication goals, to facilitate interactions, and to maintain impressions (DePaulo \& Kashy, 1998).
While disclosure is thought to have positive outcomes, through enhancing trust and intimacy, deception is generally regarded as damaging (Finkenauer \& Hazam, 2000), as it produces suspicion, which in turn may undermine the values of the relationship (Fehr, 2001). In a culture where individuals are expected to be agreeable and sensitive to other's feelings, however, whether to tell the truth or not can present something of a dilemma in social interactions.

Millar and Tesser (1988) suggest that deceptive behaviour is "a mechanism by which a threat to the maintenance of a social relationship is temporarily resolved" (p.263). Similarly, De Paulo et al. (1996) argued that lying (and deception) can sometimes be used to benefit others, by avoiding conflict, protecting another individual's self-esteem and minimising hurt feelings.

While it has been established that the use of deception is common, its use in intimate relationships is still not clearly understood, particularly with regard to the motivations for engaging in deception with an intimate partner, and the strategies people employ to deceive their partners as opposed to other individuals. Furthermore, research has often divided deception into types or strategies (such as falsification, omission and distortion), not all of which involve blatantly lying to another person (DePaulo et al., 1996; Peterson, 1996). Roloff and Cloven (1990) further noted that although individuals may not overtly deceive their partners, many still withhold information.

DePaulo et al. (1996) investigated the use of lying in everyday interactions, and using diary-study data, examined rates of lying, types of lies, and characteristics of the lies. The researchers believed that lies are more frequently told to benefit oneself rather than to benefit others, but that these lies are told for psychological rewards, such as esteem and affection. Their results showed that lies were indeed commonly used. By developing a taxonomy of lies, De Paulo et al. (1996) found that individuals told more self-centered lies than other-oriented lies, which supported their initial contention. In addition, the researchers found a gender difference in the reasons for lying, with women tending to tell more otheroriented lies, and less self-centred lies than the men in the sample.

DePaulo et al. (1996) further suggested that often, lies are told to avoid conflict and tension, and to minimize hurt feelings. This is a position supported by research by Peterson (1996), who found that individuals often use deception as a method of conflict avoidance.

In later research, DePaulo and Kashy (1998) suggested that because lies (and deception) may be used to benefit others, in that individuals lie to compliment others, pretend to agree, or in an attempt to show understanding, the underlying messages of these lies may be supportive instead of threatening. Metts (1989) also noted that because of the emotional and behavioural interdependence between intimate partners, the main function of deception in the context of close relationships might be to maintain relational harmony and cohesion.

Metts' (1989) review of the literature revealed four broad categories of reason individuals provide for engaging in social deception - protecting one's self, protecting another person, protecting the relationship, and to accomplish one's goals during the interaction. It remains open to debate whether typologies of reasons for deception in social relationships adequately represent the reasons for deception in close relationships. Despite this, Metts (1989) found in her own research, that partner-focused reasons were the most frequently reported reason category, followed by teller-focused, and relationship-focused.

To attempt to address the issue of how people in relationships use deception with their partners, and how this is related to their motivations for deceiving, this research presents a study on deceptive strategies and the reasons provided for their use.

Three research questions were asked: (1) What kinds of reasons are given for engaging in deception, and how frequently are they reported? (2) Do males and females differ in the reasons they give for using deception? (3) Are the deceptive strategies people engage in differentially related to the reasons given for engaging in deception?

## Method

## Participants

Participants were 152 individuals ( 73 male and 79 female), who were undergraduate psychology students as well as members of the general population. The mean age was 21.73 years, $S D=6.93$ (range 18 to 52 years). Of the sample, $79.6 \%$ were exclusively dating, $7.9 \%$ were in defacto relationships, $7.2 \%$ were married, $2 \%$ were engaged, and $3.3 \%$ reported 'other' relationships, most commonly reported as nonexclusive relationships. The mean length of relationship was 30.5 months.

## Materials and Procedure

Participants were presented with a questionnaire that contained a number of relationship measures that form part of a larger research study. Five strategies of deception were presented to participants as part of this questionnaire, and participants were asked to indicate all those strategies they have used in their relationship. The five strategies were based on strategies devised by Boon and McLeod (2001). The deceptive strategies were: (a) state something as true that is not true; (b) make a true statement but say it in a way to make your partner believe it is not true; (c) communicate an untrue message non-verbally; (d) deliberately omit information or fail to mention something so as to lead your partner to a false belief; and (e) exaggerate or distort information so as to lead your partner to a false belief. Participants were instructed to indicate as many options as applied to them.

Participants were then asked, "What would be the main reason/s that you used any of the above strategies?" and given space to provide answers.

## Results

The data presented in the current study was collected as part of a wider study on relationships.

Of all the reasons provided by participants, there were 28 types of reasons provided. On the basis of previous research, seven broader categories of reasons were identified: Conflict Avoidance ("To avoid a fight"); Protecting Self ("Because I did something wrong"); Protecting Relationship ("To protect the relationship"); Protecting Partner ("To protect my partner's self-esteem"); Maintaining Impressions ("To hide my true self"); Provoking Partner ("To annoy my partner"); and Manipulation (e.g. "To get my own way"). Table 1 shows the frequency with which each reason was reported.

Table 1. Frequency of reasons

| Reason | Frequency |
| :--- | :---: |
| Conflict Avoidance | 35 |
| Protecting Self | 22 |
| Protecting Relationship | 12 |
| Protecting Partner | 66 |
| Maintaining Impressions | 22 |
| Provoking Partner | 7 |
| Manipulation | 10 |

Protecting One's Partner was the most commonly reported reason given for engaging in deception, with over half of the sample reporting it. Conflict Avoidance was the second most commonly reported reason, followed by Protecting Self and Maintaining Impressions, Protecting Relationship, Manipulation, and Provoking Partner being the least commonly reported reason.
A chi square analysis was run for each reason category and gender. Results revealed no significant differences between males and females in their reasons given for engaging in deception.
For each of Boon and McLeod's (2001) deceptive strategies, chi square analyses were performed between the deceptive strategy and each reason category. For the strategy of lying, significant results $\chi^{2}(1)=6.46, p<.05$ indicate that those who engaged in this strategy, do not report Protecting Self as a reason.
For the strategy of communicating an untrue message verbally, significant results $\chi^{2}(1)=6.84$, $p<.01$ indicate that those who used this strategy tended to report Protecting Partner as their reason.
For the strategy of omission, significant results were obtained for a number of reason categories. Significant results indicate that those who used omission did not report their reasons as Protecting Self $\left(\chi^{2} \quad(1)=5.43, p<.05\right)$, Protecting the Relationship $\left(\chi^{2}(1)=7.42, p<.01\right)$, or Manipulation $\left(\chi^{2}(1)=5.15, p<.05\right)$.

For the strategy of exaggeration/distortion, significant results indicated that those who used this deceptive strategy, did not report Protecting Self as a reason $\left(\chi^{2}(1)=6.85, p<.01\right)$.

## Discussion

The present study presents some exploratory work on how the reasons people give for using deception are related to the way they actually use deception. From individual's responses to open-ended questions, seven categories of reasons for deceptive behaviour were formed. Of these, Protecting One's Partner was the most commonly reported reason, while Provoking One's Partner was the least commonly reported reason.
The finding that Protecting One's Partner was the most commonly reported reason is consistent with Metts' (1989) results. Metts (1989) did note however, that the predominance of this category was largely a result of the frequency of the specific reason "to avoid hurting partner". This finding was inconsistent with the results presented by DePaulo et al. (1996), however, as these researchers noted, social relationship, rather than close relationships, were the focus of their data collection.
The finding that Protecting One's Partner was the most common reason category would also seem to reflect, from a Social Exchange Perspective, the reciprocity involved in dyadic behaviour. As Cole (2001) suggested, if the cost of being honest is too high, for example causing hurt to one's partner or causing conflict, engaging in deception may be an attractive alternative.
Surprisingly, the results did not show any significant differences between males and females in reasons they gave for engaging in deception. While DePaulo et al. (1996) discussed social relationships, they did find gender differences in reasons for lying. Their results indicated that women told more otheroriented lies, and less self-centered lies than did the men. Within close relationships however, the interdependence, and the more intimate knowledge of the partner, may mean that men and women are more similar in their reasons for deceiving, particularly, if as Metts (1989) suggests, the goal is to preserve the relationship rather than either individual, and to maintain relational cohesion.

In terms of how deceptive strategies were related to the reasons provided, there were mixed results. Those who used deceptive strategies such as lying, exaggeration or omission, tended to not report that they were protecting themselves. Further, those who used omission further reported they were not protecting their relationship, nor being manipulative. The only deceptive category for which the results indicated that people were providing a specific reason, was for the strategy of communicating an untrue message non-verbally, where individuals reported they used this to protect their partner. These mixed results need further clarification, which may involve refining the categorization of reasons people provide for their deception. It could be argued that even though individuals may report using deception to protect other people or to protect the relationship, the
underlying motivation is still to indirectly protect the self from harm; either from harm to the self as a result of upsetting one's partner and the partner's subsequent reaction, or harm to the self as a result of causing damage to an important relationship.

It may also be the categorization of the various types of deception that needs refining. As Metts (1989) pointed out, various researchers have provided a number of different classifications of deceptive strategies, and there has been no attempt to integrate these.

While the results of the current study are not clear in terms of elucidating how deceptive strategies may be differentially related to the reasons people provide for their use, they provide important information about the reasons people give for deceiving those they are close to, and provide a starting point from which further analyses may be done.

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# Factors Affecting the Acquisition of Skills in PET (Parent Effectiveness Training): Language, Gender and Education 

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#### Abstract

An investigation (Wood, 2003) comparing the interpersonal skills of Australian parents after PET courses using either the standard US ( $\mathrm{n}=71$ ) or the vernacular Australian workbook ( $\mathrm{n}=81$ ) and control parents ( $\mathrm{n}=81$ ) found that with either book PET parents improved significantly more in empathic listening, nonantagonistic assertiveness and conflict resolution than control parents. The present study explored the effects of workbook linguistic style, gender, and education levels on the acquisition of skills in the PET groups. A significant interaction between and gender and workbook was found for empathic listening. Males performed significantly better with the Australian version which is simpler and more straightforward. In non-antagonistic assertiveness parents with university education showed significantly more improvement, and in conflict resolution females showed significantly more improvement than males. On three issues related to parenting stress - child management, relationships and parent self-management there were trends for greater improvement by parents without a university education, and for females in child management and relationships. Females showed significantly greater improvement in parent self-management issues. These findings suggest that PET is of benefit across a wide spectrum of parents, and that the now general use of the Australian workbook has particular value for fathers.


Parent Effectiveness Training (PET, Gordon, 1976) is an eight-week course in which the interpersonal skills of empathic listening, non-antagonistic assertiveness and conflict resolution are the major part of a package for parents aimed at improving both the parent-child relationship and the unacceptable behaviours of their children. Having worked with Carl Rogers and a team of colleagues for five years in a program of intensive teaching and research, Gordon acquired a deep understanding of the workings of interpersonal relationships. Based on this experience and his own clinical practice, Gordon formulated his (1970) Theory of Healthy Relationships from which he developed a course he hoped would enable parents to prevent the problems which seemed to arise so frequently in family life.

Empathic listening in PET is the foundation of a flexible system of family communication training. The Gordon model provides operational skills training for emotional self-regulation and tutoring - a skill later termed "emotional coaching" by Gottman (1997) - targeting individual goals set by the parent, and
providing a positive approach to parenting in a way that can be developed as the family grows, and which does not have to be changed to meet the demands of adolescence.

An investigation (Wood, 2003) comparing these skills in Australian parents after PET training using either the standard US workbook $(\mathrm{n}=71)$ or the vernacular Australian workbook ( $\mathrm{n}=81$ ) found that with either book PET parents improved significantly more in each of them than control parents ( $\mathrm{n}=81$ ) with no PET. Qualitative information in the comparison study showed that there were different effects for male and female parents taking PET in terms of their objectives and possibly their acquisition of PET skills. Intuitively it seemed possible that there may have been different effects according to both workbook used and to education levels, and that some light might be thrown on the small differences shown between the standard American and Australian workbook. The aim of the present study was to investigate whether, in the two PET groups there would be differential effects according to workbook used, and to gender and levels of education of participants.

## Method

## Participants

One hundred and fifty one parents were enrolled in 25 PET courses, taught by 11 trained instructors in six Australian states.

Dependent Variable Measures In order to demonstrate theoretical understanding of the principles of PET, its practical application and the subsequent reduction of parental stress concerning behavioural and relationship issues, participating parents were asked to complete a battery of measures including the Parent-Child Response Sheet (PCRS, Wood \& Davidson, 1987, 1994/95, 2003), Issues of Parental Concern (IPC, Gordon, 1976; Wood, 1997) and the Subjective Units of Distress Scale (SUDS, Wolpe, 1990).

## Procedure

The measures were completed in the first session, before any teaching had taken place, and immediately collected by the instructor who placed them in a preaddressed express pack to be despatched back to the experimenter as soon as possible. No feedback was
given. The same procedure was followed at the end of the last session. The parents first filled out the PCRS which measures the acquisition of listening and assertive skills, and the resolution of conflict by eliciting the written responses of parents to six standardised parent-child interactions. They then set out their family concerns, generally about their children's behaviours and their relationships with the children, on the workbook "Setting Objectives" (IPC) form. They were also asked to assess the amount of stress they felt about each issue on a SUDS (Wolpe, 1990) scale of 0 (little or no stress) to 10 (major stress) and to include this figure on the form. The SUDS was developed as a simple but sensitive measure which can be readily understood and calibrated but is essentially quick and non-intrusive. It was first formulated by Wolpe (1969) for use in desensitisation procedures, and is frequently used both in clinical practice and experimental_studies in sensitive areas such as Post Traumatic Stress Disorder.

## Results

In order to investigate the effects of workbook, gender and education on improvement in acquisition of PET skills as assessed by the PCRS, further analyses of variance were performed on the improvement scores (Post - Pre) for the two PET groups across the three measures. Because of small numbers within cells, education was categorised in two levels only university and non-university. The improvements in PET parents' PCRS scores for Active Listening, Assertiveness and Conflict Resolution respectively, broken down by gender, education and workbook are presented in Table 1.

Results for the ANOVA on the improvement scores showed that for Active Listening there were significant effects for Workbook, with greater improvement overall using the Australian PET workbook, $F(1,143)=4.94, p=.028$, and gender, with females performing better than males $\mathrm{F}(1,143)=$ 4.17, $\mathrm{p}=.043$. There was also a significant interaction between gender and workbook $\mathrm{F}(1,143)=$ 3.99 , $\mathrm{p}=.048$.

The means for females were slightly better with the Australian version (US workbook $\mathrm{M}=10.99$, Aus workbook $\mathrm{M}=11.19$ ) but for males there was a striking difference between the two workbooks (US workbook $\mathrm{M}=7.34$, Aus workbook $\mathrm{M}=11.15$ ).

In Appropriate Assertiveness the only significant effect (or interaction) was that of a main effect for education $\mathrm{F}(1,143)=12.46, \mathrm{p}=001$, with a greater mean improvement in the expression of appropriate, that is, Gordon's non-antagonistic assertiveness, for university-educated parents ( $M=10.46$ ) as compared with non-university educated parents $(M=7.37)$. There were no significant interactions.

In Conflict Resolution skills the only significant effect was a main effect for gender $F(1,138)=8.98$, $p=.003$, with females ( $\mathrm{M}=5.39$ ) showing a significantly greater improvement than males ( $\mathrm{M}=$ 3.26). There was a trend towards a gender x education interaction, where the greatest improvement
was for university educated females, $F(1,138)=3.79$, $p=.053$.

Table 1
Improvement in Parents' Active Listening,
Assertiveness and Conflict Resolution Depending on Workbook, Gender and Education

|  | n |  | M |
| :--- | :--- | :--- | :--- |
|  | SE |  |  |
| Improvement in Active Listening |  |  |  |
| Workbook |  |  |  |
| Stan PET | 70 | 9.17 | 0.67 |
| Aus PET | 81 | 11.17 | 0.60 |
|  |  |  |  |
| Gender |  |  |  |
| Female | 117 | 11.09 | 0.43 |
| Male | 34 | 9.25 | 0.79 |
|  |  |  |  |
| Education |  |  |  |
| Uni | 70 | 10.29 | 0.65 |
| Non-uni | 81 | 10.04 | 0.63 |

Improvement in Parent Assertiveness

| Workbook |  |  |  |
| :--- | ---: | ---: | ---: |
| Stan PET | 70 | 8.53 | 0.65 |
| Aus PET | 81 | 9.30 | 0.59 |
|  |  |  |  |
| Gender |  |  |  |
| Female | 117 | 9.54 | 0.42 |
| Male | 34 | 8.29 | 0.77 |
|  |  |  |  |
| Education |  |  |  |
| Uni | 70 | 10.46 | 0.63 |
| Non-uni | 81 | 7.37 | 0.61 |

Improvement in Conflict Resolution Skills

| Workbook |  |  |  |
| :--- | ---: | ---: | ---: |
| Stan PET | 67 | 3.90 | 0.53 |
| Aus PET | 79 | 4.79 | 0.48 |
|  |  |  |  |
| Gender |  |  |  |
| Female | 112 | 5.39 | 0.34 |
| Male | 34 | 3.26 | 0.62 |
|  |  |  |  |
| Education |  |  |  |
| $\quad$ Uni | 67 | 4.57 | 0.51 |
| Non-uni | 79 | 4.08 | 0.49 |
|  |  |  |  |

## Behavioural and Relationship Concerns

In all, 1044 individual items were reported on the Issues of Parental Concern (IPC) forms by the sample of 232 Australian parents, both PET experimental parents and controls. There was a good deal of
similarity and overlap, and all the items were carefully scrutinised and collapsed in 60 categories, as far as possible according to the parents' perspective. Issues perceived by the parents as relating to children's physical and verbal behaviours were categorised as Child Management (78.3\%), whereas those they perceived as interpersonal problems were categorised as Relationship (16.4\%). Parents' selfperceived role frustrations and inadequacies of their own behaviours were placed in the category of Parent Self-Management (5.3\%).

Improvement in SUDS Ratings The improvements in SUDS ratings by PET parents following the PET course are presented in Table 2.
In the analyses of PET parents' improvement in SUDS ratings, the effects of differences in workbook were excluded because of limitations of sample size and the greater interest in the effects of gender and education in improvement of satisfaction with the previously identified parenting issues.
There were no significant effects for Child Management issues but possibly a trend for greater improvement by females $F(1,109)=3.48, p=.065$, and by non- university parents $F(1,109)=3.34, p=$ . 070.
In Relationship issues there was a trend for greater improvement by non-university educated parents (M $=3.43$ ) as compared with university educated parents $(\mathrm{M}=1.95, F(1,55)=3.72, p=059$.
In Parent Self-Management issues females ( $\mathrm{M}=$ 5.01) showed significantly greater improvement in stress reduction than males $(\mathrm{M}=1.88, F(1,14)=$ $5.71, p=.032$ ). There was a trend for non-university educated parents, $(M=4.78)$ to show greater improvement than university educated parents, $\mathrm{M}=$ $2.10, F(1,14)=4.19, p=.060$.
The study was constrained by the small numbers of parents with low education levels, and possibly by the preponderance of female to male parents.

## Discussion

The results shown in this study are illuminating, focusing as they do on the effects of workbook, gender and education - that is upon how parents learn, whether males or females learn better, and whether previous education matters. Particularly important is the finding that males acquire Active Listening skills much better from the Australian workbook. The levels of skill shown by males trained in Aus PET relate well with results reported by Graham and Ickes (1997), who found that men's decoding ability improved when they took into account not only facial expression, but also body language, microexpressions and discrepancies between auditory and visual cues, all of which are dealt with in PET training, but are perhaps more easily extracted from the simplified Australian version. Smith, Archer and Constanzo (1991) found that with practice males were able to reach levels of decoding ability which were at least approximately equal to those of females, a situation which is almost exactly reflected in Table 2, showing males using PET equal females in terms of their Active Listening improvement scores.

Table 2
Improvement in Parent SUDS Ratings on Child Management, Relationship and Parent SelfManagement Issues Depending on Gender and Education

|  | n | M | SE |
| :---: | :---: | :---: | :---: |
| Child Management Issues |  |  |  |
| Gender |  |  |  |
| Female | 91 | 3.34 | 0.20 |
| Male | 22 | 2.49 | 0.41 |
| Education |  |  |  |
| Uni | 56 | 2.49 | 0.30 |
| Non-uni | 57 | 3.33 | 0.34 |
| Relationship Issues |  |  |  |
| Gender |  |  |  |
| Female | 45 | 2.91 | 0.37 |
| Male | 14 | 2.46 | 0.67 |
| Education |  |  |  |
| Uni | 30 | 1.95 | 0.54 |
| Non-uni | 29 | 3.43 | 0.55 |
| Parent Self-Management Issues |  |  |  |
| Gender |  |  |  |
| Female | 14 | 5.01 | 0.60 |
| Male | 4 | 1.88 | 1.17 |
| Education |  |  |  |
| Uni | 13 | 2.10 | 0.67 |
| Non-uni | 5 | 4.78 | 1.13 |

It is not clear why university-educated parents show higher scores for improvement in Assertiveness. It must be remembered that greater improvement in PET-style assertiveness relates to the acquisition of non-antagonistic assertiveness, where the speaker relies on honest personal feelings and concrete description of behaviour rather than on blameful statements. It does not necessarily imply change from non-assertiveness to assertiveness. It would not be correct to infer that that university educated parents were found to be more assertive than non-university parents, but rather that they had improved more in a style of assertion which was less likely to lead to defensiveness or opposition. It is possible that the increased complexity involved in this kind of response was a factor involved in the better improvement shown by university educated parents.

Sharing one's true feelings and reactions without blocking others' responses requires empathic skills and leads to the establishment of authentic and true relationships (Jakubowski \& Lange, 1978). This skill
is taught in PET as part of assertiveness (Changing Gear) and requires the speaker to revert from Assertiveness to Active Listening in dealing with defensive replies. Several parents mentioned the difficulty of acquiring this skill, but reported it was extremely rewarding when it was successful. The finding that female PET parents showed significantly greater improvement in Conflict Resolution skills in comparison with males is in accord with recent research, and lends weight to the importance of valuing women's peacebuilding skills (McKay \& Mazurana, 2001).

The findings on parental satisfaction and reduction of parents' distress over their issues of concern are worthy of note, although only one effect was statistically significant. In relation to Parent-Self Management, female parents showed significantly greater improvement, and there was a trend for greater improvement by non-university parents as compared with those who were university educated. There was a trend for greater improvement in relation to Child Management issues by females and by non-university parents. There was a similar trend for non-university parents to show more improvement on Relationship issues.

It is concluded that differential effects in the acquisition of PET skills have been shown according to the workbook used, and to the gender and education levels of the participating parents.

Australian parents appear to benefit considerably more from the use of the vernacular workbook, and fathers in particular learn the foundational skill of empathic listening significantly better. The trends for non-university educated parents to improve more in stress reduction about Child Management and Parent Self-Management issues as well as Relationship issues also suggest that the Australian workbook is succeeding with a wide spectrum of parents. The findings have implications for the teaching of PET in Australia, and for the training of peace-related skills in the broader community. PET skills relate closely to the Conflict Resolution Model of Littlefield, Love, Peck \& Wertheim (1993) (Davidson \& Wood, 2004; Wertheim, Love, Peck \& Littlefield, in press) and as such should offer increased benefits not only to those who acquire them but also to the communities in which they live and work.

Further studies are needed to include a greater range of parents, and to investigate the outcomes of PET parent training for family relationships and the effects on children in the school environment.

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# Social Disconnection and Depression 

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#### Abstract

This paper explores the hypothesis that social disconnection and its consequences underlie many of the difficulties individuals and their families have in adapting to negative life circumstances; and that identifying the processes leading to and maintaining social disconnection advances our understanding and ability to design effective interventions. Social disconnection is not seen merely as a consequence of negative circumstances but as a process that actively shapes events, relationships and emotional affect. Results will be presented about processes identified as promoting social disconnection in 12 case studies involving individuals diagnosed with clinical depression. Some of the processes identified relate to relationship and life structure changes, social stigma and rejection, treatment practices, and patterns of interaction.


Negative life circumstances and events are frequently associated with the development of depression, social withdrawal and disconnection, and with difficulties in adapting to change (Brown \& Harris, 1978; Williamson, 1998, 2000). Research into the interplay between these factors and the processes underlying their association is still at a relatively early stage and yet would seem to be of critical importance in developing a more holistic understanding of depression, the development of symptoms and the healing or recovery process.
In the research literature there are few references to 'social disconnection'. Baldwin (1998) in her study of a 12 year old lad, referred to 'social disconnection' in terms of disrupted relationships with primary caregivers, family of origin, friends, and associates. In this current study, social disconnection is defined in terms of constriction of life structure and interpersonal range; where life structure refers to a person's weekly activity routine; and interpersonal range to the number of individuals with whom that person regularly interacts. Both life structure and interpersonal range are expected to influence the nature and quality of a person's close relationships.
In the author's work as a practicing psychologist and researcher he had long been interested in the processes that promote and inhibit social disconnection at times of trauma and the influence of these processes on mental health. This research is concerned with exploring these processes in the lives of individuals who have been diagnosed with clinical depression. The hypothesis underpinning this research is that social disconnection is not just a consequence of depression but a process that shapes the course of the 'illness'.
The activity restriction model of depressed affect (Williamson \& Shaffer, 2000) is compatible with this
hypothesis. "It proposes that the extent to which one's normal activities are restricted by a major life stressor plays a central role in psychological adjustment, with major disruptions in normal activities resulting in poorer mental health outcomes" (Williamson \& Shaffer, 2000, p. 173). Since social disconnection usually means activity restriction this model is applicable to my hypothesis.

Since relationships are built around and upon shared activities, activity restriction is likely to disrupt peripheral and close relationships if the activity restriction continues for any length of time. Given the importance of activities in the development and maintenance of friendships, activity restriction will contribute to a constriction of active relationships while impeding the replacement of lost friendships.

Activity restriction and social disconnection involve a loss of interpersonal continuity. The importance of continuity of relationships at times of crisis is highlighted in the work of Omer \& Alon (1994) and is embedded in their 'Continuity Principle'. This is a generic principle for tackling the aftermath of disasters and trauma. It "... stipulates that through all stages of disaster, management and treatment should aim at preserving and restoring functional, historical and interpersonal continuities, at the individual, family, organization, and community levels" (Omer \& Alon, 1994, p.273). This principle is promoted as a guiding principle for dealing with trauma (Klingman \& Cohen, 2004). It is probably equally applicable to individuals with depression and their families although one wouldn't want to try and preserve chronically dysfunctional and destructive relationships.

Since this study focuses on individuals diagnosed with clinical depression, it is important to make a few comments about depression, its diagnosis and treatment. Depression is generally viewed as a medical disorder, as is evident from the diagnostic criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders DSM-1V-TR (American Psychiatric Association, 2000). The DSM criteria is in terms of an individual's symptoms not their social or cultural circumstances, even though there is an extensive research literature that highlights the importance and role played by social events, processes and relationships in the etiology of depression (Halford \& Bouma, 1997; Hops, Perry, Davis, 1997; Joiner, Coyne, Blalock, 1999; Kiesler, 1996; Rudolph, Hammen, Burge, Lindberg, Herzberg, Daley, 2000); and evidence of the effectiveness of socially-focused interventions such as problem solving counselling (Mynors-Wallis, 1996), marriage counselling (Beach, 2001), and interpersonal psychotherapy (Kopta, Lueger, Saunders, \& Howard, 1999) to name but a few. It is therefore not surprising
that there is an overemphasis on medical treatments at the expense of alternative approaches that endeavour to understand depression from an interpersonal and social perspective. Drug therapy may assist in managing symptoms but can't directly help people to solve chronic social problems or to construct a more meaningful and satisfying life for themselves and their families. Failure to help people to change their social circumstances may simply increase the probability of future depressive 'episodes', and the likelihood that other family members will develop affective disorders (O'Connor, 2001).

Most of us live in partnerships, families and social networks where our decisions and actions are made with other people in mind. We live interdependent lives, where our problems, difficulties and actions are inextricably linked. Yet common treatments for depression generally focus on individual clients, ignoring the impact on partners, families and social networks (Beck, Rush, Shaw, Emery, 1979; Holmes, 2002; Lee, 1998; Thase, 1996) e.g., recent research has been found that children with a depressed parent or parents have a much greater probability of developing an affective disorder than those with nondepressed parents (Kim, Capaldi, \& Stoolmiller, 2003). Similarly, treatments for depression generally overlook the role partners and families play, or indeed could play, in the treatment and recovery process, even though there is research evidence that improvements in key relationships, such as the marital and parent-child relationship, are associated with recovery from depression (Beach, 2001), whereas ongoing marital problems are associated with a poor prognosis for recovery (Rousanville, Weissman, Prusoff, \& Herceg-Baron, 1979). Thus while there is evidence that the relationship context shapes recovery from depression, we generally devalue its role in our treatment practices. We usually persevere with individual approaches at the expense of couple, family and community based interventions.

In the context of this study it needs to be mentioned that the two most widely reported and recommended treatments for depression are psychotropic medication and cognitive behaviour therapy. Yet there is evidence that these treatments are not universal panaceas and that there are frequent difficulties with treatment acceptance, compliance and outcome e.g., "as many as $68 \%$ of depressed patients refuse or non-comply with pharmacological management (Ramana, Paykel, Melzer, Mehta, \& Surtees, 2003)" cited in (Burke, 2003, p.250). I have been unable to find statistics dealing with rejection and non-compliance in relation to Cognitive Behaviour Therapy.

## The Study

The present study involved 12 case studies where information was gathered by means of semi-structured interviews and observations from multiple sources, at multiple points in time (Yin, 2003). Participation in this study was voluntary and based on informed consent. These case studies focused on the experiences of nine women and three men, aged from 29 to 58 years (Mean age $=36.1 ; \mathrm{SD}=8.6$ ), who had been diagnosed with clinical depression, and had been
recruited for this study via mental health workers and general medical practitioners. Only one of the focus individuals was from a non-English speaking background and he had lived in Australia for more than 30 years.
Information was collected through conversational interviews using prepared protocols that were designed to allow interviewees to talk freely about their experiences and issues. Multiple interviews were held with each focus individual over a period ranging from 3 months to 2 years. Whenever possible interviews were also held, on at least one occasion, with a partner or a close friend; and in several situations there were interviews with adult and teenage offspring, co-workers and worksite managers. The interviewer's many years of clinical experience in interviewing and counselling adults with depression was a major strength of this study.
While the same set of information was sought from each focus individual, the interview process had to be responsive to fluctuating moods and setbacks being experienced by the interviewees. This, at times, necessitated considerable flexibility on the part of the interviewer in terms of the order of questions, topics covered, and the pace and length of interviews.

Information gathered was analysed in terms of :- the temporal sequencing of events; the changing patterns of activity and social interaction; the presence and prioritisation of problems; the social consequences of actions and events; the association between interpersonal events and intrapersonal experiences; patterns and differences across the case studies; alternative explanations; and corroborating evidence.
The focus individuals lived in a diverse range of household structures:

- two were living alone and had never married
- one was living with her school age child
- one was living with her pre-school child and de facto
- three were living as married couples with preschool children
- three were living as married couples with schoolage children
- two were living alone as married couples, their adult children having left home.
Their occupations were nurse, self employed plumber, clerical worker, service counter assistant, full time university student, truck driver, property manager, cleaner, home duties. Six were currently on WorkCover i.e., had experienced a work place injury or trauma. Ten were parents.
The six on WorkCover were not clinically depressed prior to the work related injury or trauma, and only one of the six had had a prior episode of clinical depression. This had been associated with a break-up with her partner.

Three of the 12 focus individuals were hospitalised for depression during the period of this study. This enabled an exploration of the impact of hospitalization from a concurrent perspective.

## Results

As the time available for this presentation is limited, the author will confine himself to reporting nine observations.

1) In these case studies negative life circumstances led to escalating social disconnection as a means of reducing exposure to stressors and of avoiding social problems. While social disconnection reduced exposure to some stressors and enabled individuals to exercise a high level of control over their ownpersonal lives, it exposed them to other problematic experiences and stressors. It negatively impacted on the lives of partners, families, friends and workmates, and their reactions were not always supportive and positive; and because their lives were restricted it resulted in these focus individuals having reduced access and interaction with friends and relatives, less companionship, less opportunities for social support, less involvement in positive social activities, and a life structure that centred around life at home.
The advantages of social disconnection for these focus individuals were achieved at the cost of living an atypical life, being deprived of many of life's social pleasures, and an exacerbation of feelings of loneliness, difference, boredom, threat and depressed affect.
2) Fear of social rejection, ostracism, stigma and harassment was a key factor shaping the everyday lives of the focus individuals. Each had a personal map of the places and people they sought to avoid to minimise the risk of negative social experiences. When they couldn't avoid certain public places it shaped how they operated in those areas. e.g., individuals reported only quick visits to shopping centres for very specific purchases or transactions but not for general browsing or socializing. The goal was to minimise contact with people they knew to avoid embarrassing questions, black looks, criticism, ostracism and social pressure.

Stigma was perceived by this sample group as endemic in the workplace and community. One informant reported that she would rather have her arm cut off than have depression, as this would be more visible and more easily accepted by others as a disability.

While focus individuals wanted to avoid people they knew, this didn't extend to strangers. Everyday contact with strangers wasn't a problem providing this didn't increase the risk of being seen by familiar others.

It is noteworthy that focus individuals generally reported a history of social rejection and harassment that left them highly sensitized to such experiences and prone to distrusting others.
3) Focus individuals had a profound sense of difference from the others around them, and this had shaped their lives and continued to do so. They generally chose to avoid social situations
where they were too visibly different and in a numerical minority of one. This severely restricted their choices of activities, friends, partners, and lifestyle, and constrained their socializing and membership in groups. By restricting their potential friendship pool and proximity to others, it increased the likelihood that they would form friendships and partnerships with people they perceived as similar to themselves.
This sense of difference was based very much on self observation. Focus individuals saw themselves as being different from others in a wide range of ways including their experiences, achievements, skills, circumstances, relationships and history. Non-normative experiences and normal experiences at non-normative ages contributed to a sense of being a misfit (Neugarten, 1976).
The presence of at least one similar companion could make a critical difference as to whether they participated in some social settings or not. Unfortunately being labeled as depressed along with its associated experiences added to their sense of difference and increased their difficulty in finding a similar companion. Even former friends and companions were often seen differently. As one person said "I couldn't talk with my friends in the same way I did before". An increasing sense of difference and lack of companions for activities appears to be an important factor in the process of social disconnection.
4) Focus individuals were reliant on their partners and immediate families for the great bulk of the companionship and support they received during depressive episodes. They generally lacked close confidants outside the home and even when such relationships existed they had very limited if any ontact with them during depressive episodes. Partners played a key role in this. Friends and relatives frequently avoided visiting the home when they disliked the partner, and a few partners actively discouraged such visits and interactions as unwanted intrusions.
How well focus individuals were supported was thus dependent very much on the capacities and functioning of partners and their willingness and ability to provide companionship and support, and manage family matters. When partners themselves were depressed, ill, or preoccupied with work or other matters, as they frequently were in these case studies, this posed additional problems for everyone and this contributed to the hospitalization for depression of three of the focus individuals.
Frequently dysfunctional relationships with partners combined with difficulties in managing children were an ongoing source of stress, conflict and dissatisfaction. Yet little if anything was done to help focus individuals work through these issues. No doubt in part because they weren't directly asking for this assistance.

Several women thought they would be much better off in most ways if they separated from their partner, but fear of life alone without a partner and loss of the security of the family home dissuaded them from taking this course of action.
5) Lack of support from their own parents was generally reported as a major source of discouragement and interpersonal stress. This was especially the case when there were young children and provision of child care was a problem. Lack of adequate child care support was a major challenge for all depressed mothers. Frequently their own parents declined to be involved in ways that were expected and desired. This resulted in family tension and rifts. Dislike of the partner may have been one of reasons for this reluctance and disengagement.
6) Focus individuals displayed interaction patterns that impeded the development of close friendships and the formation of extensive social networks. They were generally very private individuals who made frequent use of forms of avoidance and disengagement to distance themselves from social difficulties and conflict. They usually didn't seek help from others but this simply reflects the nature of their close relationships and coping style. Some might even describe them as loners.
7) Primary responsibilities for child care, child discipline and general family management were a major source of stress for depressed mothers and this severely impeded their recovery. Depressed men in this study did not have the same primary responsibilities and thus were able to avoid many of the associated stressors.
Children who posed challenging behaviours and were generally non-compliant caused much parental distress. Failure to adequately manage their child's behaviour exposes parents to much social criticism and embarrassment and adds to their difficulties in obtaining child care support and arranging play opportunities for their child. This adds to the pressure on them to stay at home to avoid social criticism, embarrassment and feelings of being an incompetent parent. Unfortunately if children become too homebound this usually exacerbates their challenging behaviours.
8) It was not just focus individuals that shaped the process of social disconnection. Focus individuals generally perceived significant others as disengaging and avoiding them, but didn't have any good understanding as to why this happened except possibly because they were not real friends.

Irrespective of the reasons for this disengagement and avoidance, failure of close friends and family to stay closely connected
contributed to a sense of abandonment, isolation and personal unworthiness.
9) Treatment practices added to the difficulties being experienced by married couples and their families, by ignoring the practical and relationship needs of focus individuals and family members. This exacerbated pre-existing problems and undermined treatment cooperation and compliance.

A few of the difficulties reported were:

- partner's resentment at being excluded from an active involvement in the treatment process especially when they had to rearrange their lives to manage the needs of the family. This increased the tension within the home
- the doctor inadvertently encouraging social disconnection at early stages in the treatment through their advice and sickness certificates
- psychotropic medications affecting their social functioning, dulling their senses and reducing their libido
- adverse drug interactions between psychotropic and recreational drugs interfering with a return to their normal socializing
- hospitalisation seriously disrupting family relationships and functioning, the lives of partners and children, as well as increasing the anxieties and insecurities of offspring, without any steps being taken to ameliorate the situation. Even when focus individuals were discharged there was little if any prior preparation of the family or provision of immediate transition support

These practices added to the pressures on families, eroding their relationships, undermining family stability and cooperation with regard to the treatment process, and reinforcing their sense of powerlessness, isolation and social disconnection.

## Conclusion

This study identified processes that led to social disconnection in the lives of 12 individuals diagnosed with clinical depression. It provides support evidence for the hypothesis that social disconnection and its consequences underlie many of the difficulties individuals and their families have in adapting to negative life circumstances. This has practical implications especially for our understanding and treatment of depression.
'Treatment' for depression needs to be seen as involving a number of tasks of which symptom relief and management is but one. Unless we assist clinically depressed individuals to overcome issues relating to social disconnection, loneliness, and relationship problems, there is a strong likelihood that they and their family members will live socially restricted unhappy lives at high risk of recurring episodes of depression.
While this study involved only a small sample and there are limitations in generalising the results, it nevertheless raises important issues worthy of attention by both researchers and practitioners.

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# Adolescent Psychological Health and School Attitudes: The Impact of Attachment Relationships 

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#### Abstract

The simultaneous and differential effects of parental, peer, and intimate friendship attachment on attitudes to school and psychological health were examined in a sample of 520 adolescents aged from 13 to 19 years. Based on recent extensions to attachment theory it was predicted that parental, peer and intimate friend attachment would impact on psychological health variables, while peer attachment and intimate friendship attachment along with depression and selfesteem would influence attitudes towards school. The hypothesised pattern of relationships was evaluated using structural equation modelling techniques. Overall, there was only partial support for the hypotheses. Results showed that parental attachment and peer attachment were related to psychological health but intimate friendship attachment was not. Intimate friendship was the only attachment variable that directly influenced school attitudes. The three attachment variables were only weakly inter-correlated. Implications with regard to extensions of attachment theory are discussed.


The effect that our relationships with lovers, friends, parents, and acquaintances have on our psychological wellbeing has been a central concern of research examining adult psychological adjustment for many years. More recently, adolescents and their interpersonal relationships have become the focus of research into these important associations (e.g. Armsden \& Greenberg, 1987; Meeus, Osterwegel, \& Vollebergh, 2002; Wilkinson, in press). Adolescent attachment research has continually shown that relationship quality has an impact on an individual's psycho-social adjustment. A high quality of interpersonal relationships in adolescence and adulthood is strongly associated with higher levels of self-esteem, less depression and better social adjustment (Armsden \& Greenberg, 1987; Engels, Finkenauer, Meeus, \& Dekovic, 2001; Greenberg, Siegel, \& Leitch, 1983). In the present study, the selfreported quality of adolescent relationships with parents, peers and intimate friends is considered in regards to the degree of association these have with depression, self-esteem and school attitudes.

## Attachment Continuity

The link between infant and adult attachment is based on the belief that early attachment experiences become cognitively encoded and referred to in relationships throughout the lifetime. These past experiences are stored in the form of selfrepresentations and expectancies, which develop into
internal 'working models' (Ainsworth, 1989; Bowlby, 1973). Parent-infant experiences provide a template or set of "rules" for the kind of experience one might expect in an adult relationship. That is, working models are developed as guides for future expectations and behaviour in interpersonal relationships (Bowlby, 1973).
Early attachment relationships that are centred on love and responsiveness are argued to lead to the development of working models that contain beliefs about the self as worthy of love and attention. In contrast, insecure attachment relationships that are based on inconsistency and unresponsiveness result in working models that contain beliefs about the self as unworthy and unlovable, and beliefs about others as unavailable and antagonistic (Dekovic \& Meeus, 1997). These beliefs have implications for how the individual approaches relationships and social interactions. The type of attachment an individual develops with their primary attachment figure, and therefore the information stored within the internal working model, differ across individuals depending on early childhood experience and attachment quality. In this way, the quality and pattern of adult and adolescent relationships is related to individual infant relationship events (Collins \& Read, 1990).

## Attachment in Adolescence

Adolescent attachment research differs from research focused on infants and adults because it has tended to address relationship quality rather than specific categories of attachment such as anxious or ambivalent attachments (e.g. Ainsworth, 1989; Hazan \& Shaver, 1987). Researchers focus on the quality of relationships in adolescence and how these impact on psychological outcomes. Adolescent-parent relationships are often subject to investigation, similar to infant-parent relationship research. However, in addition to this, adolescent peer attachments have become of interest. Both parent and peer attachment quality have been shown to be associated with psychological health and adjustment in adolescence (Armsden \& Greenberg, 1987).
During adolescence, changes in attachment bonds occur as individuals learn to develop and value nonfamilial relationships. Independence and associations with others becomes increasingly important and young adolescents begin to identify with and seek support from peers more frequently. However, parental attachments continue to remain salient and constant throughout adolescence. Overall, the majority of research has shown that parental attachment is a significantly more powerful predictor
of adolescent well-being than peer attachment quality, although this varies depending on the definition of well-being employed (Wilkinson \& Walford, 2001; Wilkinson, in press). Generally, studies tend to indicate that insecure attachment is associated with vulnerability for depression symptoms and low levels of self-esteem (Engels et al., 2001; Heaven \& Goldstein, 2001; Muris, Meesters, Melick, \& Zwambag, 2001).
Adolescents have been found to be more susceptible to symptoms of depression when they perceive low levels of trust and communication in their attachment to their parents, and high levels of alienation (Milne \& Lancaster, 2001; Muris et al., 2001). Adolescents are more likely to have high self-esteem when parents are supportive and interested in their activities, and low self-esteem when parents are perceived as rejecting (Collins \& Read, 1990).
Attachment quality not only impacts on adolescent psychological health, but also on other forms of adjustment, such as attitudes towards school. Insecure attachment has been found to be associated with significantly lower reports of academic achievement and ambition than secure attachment (Cooper, Shaver, \& Collins, 1998) and secure attachment has been found to be a predictor of positive school adjustment (Soucy \& Larose, 2000). Cotterell (1992) found that attachments with school mentors had a greater positive relationship with school adjustment, than parental attachments. He suggested that relationships with peers and other adults at school offer support that is different from support provided by parents. A more recent study showed that the relationship between parent attachment quality and school adjustment is mediated by social support (Soucy \& Larose, 2000). It would seem from these findings that satisfaction with support provided by peers and intimate friends has a greater association with school attitudes and adjustment than does parental attachment.

## Intimate Friendship Attachment

Adolescent attachment research has tended to focus on attachment to 'peers' with very few studies concentrating on attachments to close or intimate friends. However, Schneider and colleagues (Schneider, Atkinson, \& Tardif, 2001) have claimed that intimate attachment relationships must be considered as separate from broad peer friendships. They argue that early and later intimate relationships (for example, parent and romantic partners) should be more similar to each other than they are to peer group friendships. Intimate relationships in adolescence may be developed with peers, romantic partners or siblings and during this period friendships start to become more significant. Self-disclosure becomes more frequent as adolescents realise that their friends understand the experience of adolescence and are valuable sources of information and advice. Adolescents with intimate friendships that are satisfying, disclosing, and sources of companionship report being less depressed and have higher selfesteem than adolescents whose relationships with their friends are not as intimate (Buhrmester, 1992).

## The Current Study

While adolescent attachment research has often explored the relationship between parent and peer attachments on a variety of aspects of psychological well-being, studies have not often investigated attachment relationships simultaneously and their specific impacts on well-being and adjustment. By incorporating and evaluating the results of studies of adolescent attachment quality on psychological health and school adjustment, it can be concluded that different attachment relationships play important and differing roles in adolescent well-being and adjustment. The central proposal of the current study is that the quality of parental attachments has a more important role in psychological health, whereas support provided by peers and close friends is more influential in other areas of adjustment, such as attitudes towards school.

The overall pattern of hypothesised relationships are presented as a model in Figure 1. Based on previous research, it is expected that parental attachment will be directly related to depression symptoms and self-esteem and indirectly related to school attitudes via the psychological health variables. Higher levels of parental attachment should lead to less depression, higher self-esteem, and indirectly, better school attitudes. Peer and intimate friendship attachment, on the other hand, will be directly related to self-esteem and school attitudes but only indirectly


Note: Covariance paths and error terms not indicated
Figure 1. The Hypothesised Model
related to depression symptoms via self-esteem. Better peer group and intimate friendships should result in better self-esteem, a more positive school attitude, and lower levels of depression. High levels of depression and lower levels of self-esteem are expected to negatively impact on school attitudes.

## Method

## Participants

527 ACT high school and college students participated in the study during scheduled class times. Of the participants, $248(47 \%)$ were female and 279 ( $53 \%$ ) were male. Participant age ranged from 13 to 19 years with a mean of 16.4 years $(S D=0.91)$. The majority of the sample were identified from parent
occupation as of middle to upper socio-economic status.

## Procedure \& Measures

Questionnaire booklets were distributed and completed during scheduled class times and participants were given instructions sheets outlining ethical issues such as consent, confidentiality, voluntary participation and anonymity.

Parent and Peer Attachment A short form of the Inventory of Parent and Peer Attachment (IPPA; Armsden \& Greenberg, 1987) was used to assess parent and peer attachment quality. Fifteen items from the original scale were used for each of the Parent and Peer Attachment scales. Participants were asked to rate items on a five-point scale $(1=$ almost always or always true, $5=$ almost never or never true). Armsden and Greenberg (1987) report high internal consistency and test-retest reliability for the IPPA scales.

Intimate Friendship Attachment A shortened version of the Intimate Friendship Scale (IFS) was used to measure intimate friendship attachment. The IFS is a measure developed to assess the quality of adolescent's relationship with an intimate friend who is close in age, such as a peer or sibling (Wilkinson, Haigh, \& Kraljevic, 2003). The short version of the IFS consists of 15 items that are responded to on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items include 'When I have a bad day my friend cheers me up', 'I am there for my friend when he/she needs support' and 'I don't need to rely on my friend'. Participants were asked to keep in mind one close friend when responding to the items. Internal consistency and test-retest reliability for the IFS is high (Wilkinson et al., 2003).

Self-Esteem The 16-item Self-Liking/SelfCompetence Scale - Revised Version (SLCS-R) was used to assess self-esteem (Tafarodi \& Swann, 2001). Items are rated on a five-point scale from 1 (strongly disagree) to 5 (strongly agree). After coding, the items were summed so that higher scores indicate a higher level of self-esteem. Internal consistency and testretest reliability for the SLCS-R are high (Tafarodi \& Swann, 2001).

Depression A 10-item depression scale consisting of items from previously published scales was used to measure symptoms of depression (Wilkinson, in press). Participants responded to questions involving a range of typical depression symptoms. Examples of items include "I've felt too tired to do things", "I've felt unhappy or sad", and "I've felt hopeless about the future". Items were responded to on a scale from 1 (a lot of the time) to 3 (never). Items were recoded and summed so that higher scores indicated more depression. Internal consistency of the scale was high at .92 (see Table 1).

School Attitude A 10-item school attitude scale was used to measure general attitudes towards teachers, schoolwork, and 'going to school or college'. Items were taken from previously published scales and these were responded to on a four-point scale of 1 (strongly agree) to 4 (strongly disagree). Examples of items include 'I like being at school', 'Teachers often treat you like you were kids' and 'I find school work easy'. The scores for the items were coded and summed so that higher scores indicated a more positive school attitude. Internal consistency was high at .85 (see Table 1).

## Results

Initially, the data were screened for missing values and outliers using the Statistical Package for Social Sciences (SPSS). Using the procedure outlined by Tabachnick and Fidell (1996) with a Mahalonabis distance criteria of $p<.001$, seven multivariate outliers were identified and were deleted, resulting in 520 cases remaining.

## Descriptive Statistics and Correlations

Means, standard deviations, reliability coefficients, and correlations are presented in Table 1. Contrary to expectations, the correlations between the attachment variables, although significant, are rather weak. With regard to the outcome variables of Depression, SelfEsteem and School Attitude, these all correlate significantly with each other. In particular, Depression has a moderate negative relationship with SelfEsteem. However, the relationship between School Attitude and the two psychological health variables is quite small. While both Parent and Peer Attachment are correlated with the psychological health variables,

Table 1
Correlations, Means, and Standard Deviations

|  | 1. | 2. | 3. | 4. | 5. | 6. |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Depression | .921 |  |  |  |  |  |
| 2. Self-Esteem | $-.599^{*}$ | .902 |  |  |  |  |
| 3. School Attitude | $-.280^{*}$ | $.229^{*}$ | .850 |  |  |  |
| 4. Parent Attach. | $-.313^{*}$ | $.256^{*}$ | $.141^{*}$ | .915 |  |  |
| 5. Peer Attachment | $-.247^{*}$ | $.20^{*}$ | $.239^{*}$ | $.257^{*}$ | .854 |  |
| 6. Friend Attachment | -.073 | .032 | $.370^{*}$ | $.183^{*}$ | $.28^{*}$ | .910 |
| Mean | 18.81 | 52.04 | 25.21 | 48.63 | 53.93 | 53.42 |
| SD | 4.04 | 10.72 | 3.96 | 12.55 | 12.24 | 9.76 |

* $p<.01$; Cronbach's alpha presented on the diagonal

Friend Attachment is not. All of the attachment variables were positively related to School Attitude.

## Structural Equation Modeling (SEM)

The hypothesized model of the relationship between the attachment measures and outcomes measures was evaluated using (SEM) techniques implemented in the AMOS 4 computer program (Arbuckle \& Wothke, 1999). The model was evaluated using Maximum Likelihood Estimation and model fit indices. Modification indices were examined and parameters were freed or fixed as appropriate to generate a final model that maximized fit while retaining theoretical coherence. In accordance with current practice in reporting the assessment of SEM models, a number of different fit statistics were employed to evaluate the fit of the models (Tabachnick \& Fidell, 1996). The $\chi^{2}$, Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), and Root Mean Square Approximation Error (RMSEA) were selected as appropriate fit indices.

The hypothesised model tested is presented in Figure 1. Note that errors terms and covariances between exogenous variables are not shown in the figure but were included in the tested model. After analysis, estimated paths with standardized weights of less than .10 were deemed to be of minor importance and were deleted from the model irrespective of whether they were significant. The reduced final model was then reanalyzed and is presented in Figure 2.
Overall, the fit statistics indicated that the final model was a good fit to the data. The AGFI (.975) and CFI (.991) statistics were both above 0.95 indicating that the model fitted the data. The $\chi^{2}(11.80, d f=5, p$ $=.10$ ) was non-significant, indicating a good fit. The RMSEA (.041) was below the recommended value of 0.05 that would indicate a good fit (Arbuckle \& Wothke, 1999). Squared multiple correlation coefficients from the final model indicated that $12 \%$ of the variance in Self-Esteem, 34.3\% of the variance in Depression, and $21.4 \%$ of the variance in School Attitudes were accounted for. Similar to the zero order correlations, the exogenous attachment variables produced low, though significant, inter-correlations in the final model. Parent and Peer Attachment were correlated at .257, Parent and Friend Attachment at .183, and Peer and Friend Attachment at . 248 .
Examination of the path coefficients in the final model (Figure 2) reveal that Parent and Peer Attachment evinced small direct and positive effects on Self-Esteem with Parent Attachment also having a small ameliorating effect on Depression. Both Parent and Peer Attachment produced negligible, though positive indirect effects on School Attitude ( $<.1$ ). There was a small to moderate positive effect of Friend Attachment on School Attitudes, although this variable did not influence Self-Esteem as predicted and this path was removed from the model. Interestingly, and contrary to expectations, the path from Peer Attachment to School Attachment was also not large enough to warrant retaining in the final model. Self-esteem was a moderate negative predictor
of Depression as expected. Both Depression and SelfEsteem evinced small effects on School Attitudes.

## Discussion

Overall, the hypotheses in relation to parental attachment were supported while there was only partial support for the hypothesized pattern of relationships between peer and friend attachment and the outcome variables. The quality of the parental attachment relationship influenced both of the psychological health variables and attitudes towards school as predicted. Although, the weight of the paths generated in the model were quite modest.


Note: Covariance and error terms are not indicated

Figure 2
Final Model

The results with regard to the quality of peer and intimate friendship attachment were not quite as expected. While peer attachment did influence selfesteem as anticipated, the direct relationship with school attitudes was not supported. Further, examination of the indirect effects, of peer attachment on school attitudes via self-esteem and depression, indicated no significant relationship. The quality of intimate friend attachment, on the other hand, had a direct and positive impact on school attitudes as predicted, but did not have the positive impact on selfesteem that was expected.

Generally, the results of the SEM analysis are consistent with what was revealed by the zero order correlations. Essentially, there are quite modest relations between the variables, with the exception of the moderate relationship between depression and self-esteem. The weak relationships found in this study between the three attachment measures is somewhat surprising and may be the key to understanding why the original model with regard to peer and friend attachment did not function as predicted. The relative lack of relationship between the attachment measures is not consistent with the notion that cognitive internal working models strongly influence global attachment patterns. Although there was some relationship between what might be seen as the core attachment construct of parental attachment and the other two measures of an expanded attachment network, peer and intimate friend attachment, it is clear that these constructs are characterized here more by their independence than
their interdependence. It is difficult to conclude, therefore, that participants in this study could be characterized as having a particular attachment 'style'. Rather, the quality of the attachment relationship seems to depend a great deal on whether adolescents are asked to think about their parents, best friends, or peers.

The different attachment relationships also seem to each play somewhat of a different role in relation to the particular outcome variables. Only parent attachment had a direct role in relation to depressive symptoms while only friend attachment had a direct role on attitudes towards school. Consistent with previous findings (Wilkinson, in press) the quality of peer relationships was particularly related to adolescent self-esteem. It seems to be the case that as we begin to move beyond the often simplistic application of attachment theory and examine different forms of attachment relationships we are seeing the underlying complex nature of attachment relationships and their implications for adolescent adjustment (Meeus, et al., 2002).

The results of this study indicate that the quality of relationships with parents and a group of friends is more important for psychological health in adolescence then having a high quality intimate friendship with someone similar in age. Yet, the results also indicate that having a close intimate friend is associated with a more positive school attitude. To some extent this finding can be seen as supporting Cotterell's (1992) earlier research indicating that mentors play a more important role in positive school adjustment than parents. In this case, having a close friend that can be confided in, relied upon, and turned to when times are stressful is associated with a more positive attitude towards the school environment.

The data presented here are, of course, correlational and cross-sectional in nature, and thus this limits the extent to which any claims of causal relationships can be justified. Longitudinal research would certainly overcome some of these limitations and would have further benefits in enabling an examination of the changes in attachment patterns and networks in adolescence over time. It is also worth noting that the work presented here did not explicitly examine sex differences in adolescent attachment patterns. There is some evidence that there are significant differences in attachment to mothers and attachment to fathers for female and male adolescents (Wilkinson \& Parry, in press). Given the present findings in relation to the relative independence of measures of attachment to different significant others, exploration of sex differences and interactions may add further to our understanding of the complexity of attachment in adolescence.

No matter at what stage of the life-span we are in, the quality of our interpersonal relationships impacts on our psycho-social functioning. In recent times attachment theory has been strongly promoted as an organising framework for understanding why this is so. There is mounting evidence, however, that the simplistic application of attachment theory tenets to developmental periods outside of infancy is unsatisfactory. Adolescence, as a period of expanding
social networks and shifting interpersonal needs, is an area of research in which the complexity of multiple interpersonal attachments is becoming apparent. The challenge is to evolve attachment theory to account for this level of complexity.

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[^0]:    ${ }^{1}$ Inter-rater reliability for the ICBM was established using 10 mother-infant interaction videos, each of which was rated by Clare O'Bree and Kate Neilson prior to the commencement of this study.

[^1]:    Note. The PCIS items of Negative regard (amount \& quality) were omitted as this behaviour was observed in only one mother.
    ${ }^{\text {a }}$ Item from Parent/Caregiver Involvement Scale (PCIS), ${ }^{\text {b }}$ Item from Infant/Caregiver Behavioural Measures (ICBM)
    *p $<.05$, **p $<.01$

[^2]:    ${ }^{\mathrm{a}} N=39 .{ }^{\mathrm{b}} N=40 .{ }^{\mathrm{c}} N=38$

[^3]:    $\overline{\text { Note. Adjusted } R^{2}=.07 ; R^{2}=.16 \text { for Step 1; } \triangle R^{2}=.00 \text { for Step } 2}$ *p<.05.

