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Contents

Acknowledgement - Reviewers	3
Acknowledgement - Institutions and Organizations	4
Acknowledgement - Psychology Students	5
Instructions for Contributors	6

Articles

Health and Emotion: Is There a Relationship Between Obesity and Anger Emmy M. Charlton	7
Individualistic and Collectivistic Attitudes Toward Marriage Melissa Bausch, Maryel Girón, and Aimee Sepp	11
Effects of Employment on Stress Levels in College Students Clara E. Schroeder	16
Effects of Mental Imagery on Athletic Performance: A Literature Review Rachel J. Simeone	21
Savage Affection: Exploring the Allure of Sexual Masochism Cynthia G. Gilger	27

Special Features

Controversial Issues

Defending Insanity: The Necessity for the Insanity Defense in Today's Courtroom Allison L. Davis	36
Insanity Defense: Good in Theory, Bad in Practice Jeff Kalar	38
Homosexuality is Compatible With Serving In the Military Amanda Lofgreen	41
Homosexuality's Debilitating Effects on the Military Kara L. Biven	43

(continued on next page)

Pretrial Publicity Fails to Exert a Powerful Influence on American Citizens Lindsay Osborne	45
The Costs of Our Biases: Pretrial Publicity Michael Odeh	47
 Conducting Psychological Analyses – Dramatic	
Obedience and Conformity in <i>American History X</i> Jaclyn Johnson	50
Presence of Posttraumatic Stress Disorder in <i>Don't Say a Word</i> Jaysie Crawford	51
Analysis of Reactive Attachment Disorder in <i>Citizen Kane</i> Supriya K. Bhatia	53
Paranoid Schizophrenia in the Movie <i>Fight Club</i> Erika Lawrence	54
Depression in <i>Ordinary People</i> Kavita Jagarlamudi	56

Psychologically Speaking

Promoting Undergraduate Research Panel Discussion Held at the 72nd Annual Convention of the Rocky Mountain	59
 An Invitation to Contribute to the Special Features Section	
I—Evaluating Controversial Issues	68
II—Conducting Psychological Analyses – Dramatic	69
III—Conducting Psychological Analyses – Current Events	70
 Subscription Form	 72

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Cover Design

The creation of the graphic for the logo came about by thinking of how ideas are formed and what the process would look like if we could see into our brains. The sphere represents the brain, and the grey matter inside consists of all the thoughts in various stages of development. And finally, the white spotlight is one idea that formed into a reality to voice.

The entire logo is an example of creation in the earliest stages.

Cathy Solarana
Graphic Designer

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Instructions for Contributors

The *Journal of Psychological Inquiry* encourages undergraduate students to submit manuscripts for consideration. Manuscripts may include empirical studies, literature reviews, and historical articles; manuscripts may cover any topical area in the psychological sciences. Write the manuscript for a reading audience versus a listening or viewing audience.

1. Manuscripts must have an undergraduate as the primary author. Manuscripts by graduates will be accepted if the work was completed as an undergraduate. Graduate students or faculty may be co-authors if their role was one of teacher or mentor versus full fledged collaborator.
2. Manuscripts must (a) have come from students at institutions sponsoring the Great Plains Students' Psychology Convention and the *Journal of Psychological Inquiry* or (b) have been accepted for or presented at the meeting of the Great Plains Students' Psychology Convention, the Association for Psychological and Educational Research in Kansas, the Nebraska Psychological Society, the Arkansas Symposium for Psychology Students, or the ILLOWA Undergraduate Psychology Conference. The preceding conditions do not apply to manuscripts for the Special Features Sections I, II, or III.
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5/02

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Health and Emotion: Is There a Relationship Between Obesity and Anger

Emmy M. Charlton

Southern Arkansas University

This study examined levels of anger among participants in three weight categories (normal, overweight, and obese). One hundred and sixty students participated in the study (101 women, 59 men). Participants were given the State-Trait Anger Expression Inventory (STAXI) and scored on four types of anger: trait-anger, anger-in, anger-out, and anger-expression. The hypothesis was that obese individuals would have the highest scores; however they only scored highest on anger-in, which represents suppressed anger. The overweight participants scored highest on the other three anger categories: anger-out, anger-expression, and trait-anger. Future research should include emphasis on overweight individuals and the possible causes for high levels of anger.

Emotions play a tremendous role in the way people eat and live their lives. "I am angry so I eat." "I am lonely so I eat." "I am depressed so I eat." Many people find excuses to eat continuously. They try to rationalize the reason they ate an entire bag of potato chips at midnight. Some people eat unhealthy food, and then wonder why they have a weight problem. Are these people happy? If individuals eat because they are angry, are they just as likely to be angrier in general as those who take the time to be healthier?

There is an enormous amount of research about topics dealing with obesity. Much research examines obesity and emotional eating. Ganley (1989) reviewed the post-1957 literature dealing with emotions, eating, and adult obesity and found many commonalities. For instance, he found that negative emotions and stressful events caused the majority of emotional eating and such eating was episodic. Ganley discovered that emotional eating existed at all socioeconomic levels and that three emotions preceded most eating episodes: depression, anxiety, and anger.

Edelman (1981) studied binge eating among normal and overweight individuals and looked at the frequency of emotional eating in men and women. She found that women were more likely to experience episodes of emotional eating. Edelman also reported that normal weight individuals engaged in emotional eating, but not to the degree of overweight people. She examined how people

felt after consuming a large amount of food. Some felt guilty, angry, disgusted, and unhappy whereas others felt good, relaxed, mellow, and satisfied.

Russell and Shirk (1993) studied women and the effect of anger on eating. They were concerned with establishing obesity as a woman's issue and investigated anger as a primary emotion with which obese women dealt. They questioned whether anger caused women to eat or if women were angry because they ate. Russell and Shirk used two focus groups to better understand the relationship between eating and anger. Both groups admitted that eating was a general response to nearly every emotion. Eating was the only way to deal with sad or happy events in their lives. Food was a way to suppress what was bothering them. "Skillfully diverting the focus away from negative emotions such as anger, food is used to cope with these uncomfortable feelings and attempt to soothe and nurture the self" (p. 184).

Excessive eating and stress play essential roles in health problems. Heart disease and hypertension are very common among overweight and obese individuals and can be triggered by hostile or suppressed emotions can trigger those conditions. Ravaja, Kauppinen, and Keltikangas-Jarvinen (2000) studied the relationship between hostility and physiological coronary heart disease (CHD) risk factors to determine if depressive tendencies (DT) altered the relationship. They discovered that neither hostility nor DT had significant effects on CHD risk factors, but risk factors such as high blood pressure could be predicted when hostility and DT interacted.

Dimsdale, et al. (1986) examined the possible influence of suppressed anger on blood pressure among normotensives and hypertensives. They reported that suppressed anger was significantly related to increased systolic blood pressure within hypertensives whereas normotensives were relatively free of suppressed anger. After they controlled for age, social class, and obesity, they still found a positive relationship between suppressed anger and high blood pressure.

Gina Bates from Southern Arkansas University was faculty sponsor for this research project.

The present study examined obesity and anger, not as partners in emotional eating or health consequences, but anger as a characteristic of obese people. Obese individuals have additional strain on their lives. They deal with failing to live up to the desired “ideal” body type and may not feel wanted by others. Therefore, they may conceal their emotions through excessive eating, which causes additional weight, embarrassment, and discomfort. With this additional strain on their lives, obese individuals may tend to be unhappy and that unhappiness may bring negative emotions such as anger. This study focused on normal, overweight, and obese groups of men and women based on their body-mass index. The hypothesis was that obese individuals would have higher anger scores on the State-Trait Anger Expression Inventory (STAXI) than normal and overweight individuals.

Method

Participants

One hundred and sixty undergraduate college students participated in the study (101 women, 59 men). The ages of participants varied from 17 to 56 years ($M = 20.59$). Participants were enrolled in one of four sections of general psychology and participated on a voluntary basis. Those who participated received extra credit for the course.

Materials

The State-Trait Anger Expression Inventory (STAXI), (Spielberger, 1996), was used to measure the participants’ experience and expression of anger. The STAXI includes 44 items divided into six scales and two subscales. The inventory has three parts: How I feel right now (10 items); How I generally feel (10 items); and When angry or furious (24 items).

Participants ranked items on a 4-point Likert scale ranging from 1 (*not at all*) to 4 (*very much so*) and from 1 (*almost never*) to 4 (*almost always*). There was a scoring page with each answer sheet and written below each part of the inventory were instructions for scoring. There was scoring for four types of anger: trait-anger (T-anger), anger-in (AX-IN), anger-out (AX-OUT), and anger-expression (AX-EX).

Participants with high T-anger scores experience a large amount of frustration, and whether they suppress or express their anger depends on their AX-IN, AX-OUT, and AX-EX scores. High AX-IN scores represent the tendency to suppress feelings instead of expressing them

either verbally or physically. Individuals with high AX-OUT scores frequently experience anger, which is expressed by aggressive behavior. They are likely to physically hurt others or themselves or be verbally abusive. Participants with high AX-EX scores experience very intense angry feelings day in and day out. They suppress, express, or do both with their angry disposition. Information on reliability and validity is available in the STAXI manual.

The STAXI answer sheet contained a section to measure participants’ Body Mass Index (BMI). Participants reported their height and weight, which was the basis for calculating their BMI.

Procedure

After distribution of the STAXI inventory, instructions informed participants that they could choose whether to participate in the study. Students who chose to participate read and signed the consent form. Students not wishing to participate were asked to turn over their STAXI booklet. Instructions were available on the first page of the STAXI inventory. However, participants were urged to read the instructions in each section carefully and were informed that the answer sheet was on the last page of the booklet. After converting participants’ heights and weights into meters and kilograms, the following equation was the basis for calculating their BMI: $\text{weight}(\text{kg})/\text{height}(\text{meters})^2$.

The scores varied from 16.34 to 51.40 ($M = 25.01$). The division of participants was into three weight categories, depending on their BMI: 18.50 to 24.99 (normal, $n = 98$), 25.00 to 29.99 (overweight, $n = 35$), and above 30.00 (obese, $n = 27$) (Centers for Disease Control and Prevention, 2002). Participants required about 15 min to complete the inventory. Afterward there was an oral debriefing of participants. Finally, participants were informed that confidentiality would be maintained because consent forms and inventory booklets were divided and kept separately.

Results

The hypothesis was that obese individuals would have higher anger scores than normal and overweight participants. One-way ANOVAs assessed whether scores for each of the four types of anger (T-anger, AX-IN, AX-OUT, and AX-EX) were different for individuals in each of the three weight categories. An alpha level of .05 was used for all analyses.

One analysis revealed that obese individuals had the highest AX-IN scores, $F(2,157) = 5.28, p = .006, f = .29$. The other three analyses had significantly higher anger scores, not for those in the obese category but for those in the overweight group. The overweight group expressed more anger towards others (AX-OUT), $F(2,157) = 6.13, p = .002, f = .31$, as well as more anger overall (AX-EX), $F(2,157) = 3.14, p = .035, f = .21$. Overweight participants also scored higher on T-anger, $F(2,157) = 4.78, p = .009, f = .27$. Table 1 contains the means and standard deviations of the four types of anger in each weight category.

Table 1
Mean Scores for Three Weight Categories by Four Anger Scales

Weight Category	<i>n</i>	BMI	Anger Scales			
			T-anger	Anger-in	Anger-out	Anger-exp
Normal	98					
<i>M</i>		21.47	18.42	15.92	16.42	24.80
<i>SD</i>		1.90	4.81	3.53	3.87	8.92
Overweight	35					
<i>M</i>		27.26	21.71	16.37	18.94	29.60
<i>SD</i>		1.62	6.99	4.20	5.15	10.54
Obese	27					
<i>M</i>		34.82	18.70	18.56	15.59	25.78
<i>SD</i>		4.20	5.62	3.88	3.86	9.33

Effect sizes were calculated by hand to determine the size of the differences found on anger scores among the three weight groups because the statistical software package used for analysis did not calculate effect sizes. According to Spatz (2001, p. 231), "For ANOVA, the effect size index is symbolized by *f*" and when interpreting these values, if $f = .10$, the effect size is small, if $f = .25$, the effect size is medium, and if $f = .40$, the effect size is large. Therefore, effect sizes for each of the four analyses were moderate.

Discussion

The purpose of this study was to measure anger tendencies in normal, overweight, and obese individuals. The expectation was that obese participants would have higher scores on all four measures of anger than normal and overweight participants. The results for one anger

category (AX-IN) supported the hypothesis. However, results for the other measures (AX-OUT, AX-EX, and T-anger scores) did not support the hypothesis.

Although there has been considerable study of obesity and anger, investigators have not examined personality attributes, but more typically, they have studied the relationship concerning eating and health. Ganley (1989), Edelman (1981), and Russell and Shirk (1993) found that normal, overweight, and obese individuals who concealed emotions, such as anger, had emotional eating tendencies. With these tendencies came more suppressed emotions and those that suffered from emotional eating episodes frequently concealed negative feelings. Kulesa (as cited in Ganley, 1989) found that obese and normal weight individuals had the same emotional eating patterns, but under certain circumstances, such as stress and snacking, obese people ate more. As stated earlier, obese individuals had the highest AX-IN scores, which represent suppressed anger. The high levels of emotional suppression may be directly related to obese individuals consuming more food than normal and overweight people during emotional eating.

Although the results for AX-IN scores supported the hypothesis, the most interesting results were those for individuals in the overweight category. The overweight individuals scored highest on the AX-OUT, AX-EX, and T-anger categories, which represent high levels of frustration and aggressive behavior. There was no previous research to support those tendencies in overweight men and women but perhaps overweight individuals experience more general frustration than obese people because they are more self-conscious about their weight. Because many overweight people have not had a weight problem, they have to deal with the fact they have gained weight and do not fit the "ideal image" anymore. Overweight men and women who have recently gained weight may also feel angered with a characterization as being heavy or fat. However, most obese people have had a weight problem their entire lives so they live each day knowing they do not fit with normal weight individuals. Obese individuals do not receive much sympathy from others so they may suppress their emotions and know that their life will be a struggle. Being overweight or obese is common in our society, but the emotional aspect of living with it can be extremely difficult.

This study examined the relationship between obesity and negative emotional characteristics. However, future research needs to take a more focused approach. Overweight and obese individuals need to be researched separately with emphasis on each anger category. Once

the specific components of anger have been established with each weight group, the causes of anger need to be addressed, as well as why people do not express their feelings. The suppression of feelings enhances health problems such as high blood pressure.

Dimsdale, et al. (1986) found that suppressed anger was significantly related to high systolic blood pressure in hypertensives and that normotensives were relatively free of suppressed anger. Therefore, men and women may begin to see major health benefits or improvements once the fields of medicine and psychology come together to address the relationship between weight gain and suppressed anger.

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Individualistic and Collectivistic Attitudes Toward Marriage

Melissa Bausch, Maryel Girón, and Aimee Sepp

University of San Diego

The purpose of the research was to examine attitudes toward marriage held by individuals from collectivistic and individualistic cultures. We expected that individualists' responses would reflect qualities such as love, intimacy, communication, and mutual responsibility and that collectivists' responses would emphasize the importance of social roles and the development of love followed by marriage. A total of 45 student volunteers participated in the study. Twenty-six participants represented an individualistic culture (United States), and 19 participants were international students representing collectivistic cultures. The groups differed significantly on 6 of the 37 statements; the differences were consistent with our hypotheses.

In an ever-changing world in which cultures are becoming more and more intertwined, awareness of attitudes and beliefs held by members of other cultures is important. Although the institution of marriage is an integral part of many cultures, attitudes and beliefs about marriage vary substantially across cultures.

The individualistic-collectivistic (IC) continuum (Hofstede, 1980) is a common classification scheme that researchers have used when studying various cultures comparatively. Matsumoto (2000) defines IC as, "a dimension along which cultures vary: the degree to which a culture encourages, fosters, and facilitates needs, wishes, desires, and values of an autonomous and unique self over those of the group" (p. 50). Individualistic cultures place personal goals and needs above a group's goal, and they highly value interdependence. Members of collectivistic cultures highly value interdependence and may find the needs of the group more important than individual goals and needs, which may be sacrificed (Dion & Dion, 1993). Research findings have shown that IC is empirically effective in explaining cultural differences in behavior (Matsumoto). Researchers have characterized the United States as the most individualistic society and Latin American and Eastern cultures as collectivistic (Matsumoto).

Dion and Dion (1993) examined IC and the values it fosters as it explains various facets of marriage, exploring differences in romantic love and emotional intimacy, and

how they differ according to IC ideals and norms within particular cultures. Dion and Dion found that romantic love and psychological well-being appear more important in individualistic cultures. Interestingly, individualism fosters attitudes that may conflict with the desire and ability for psychological intimacy. The findings of Dion and Dion further emphasize differences that exist between individualistic and collectivistic cultures and the effect they have on marriage.

Among the cultural groups representing collectivist views are Japanese and Mexican perspectives (Hofstede, 1980). Research results reveal similar findings on certain attitudes and beliefs regarding marriage for these groups. For example, Neimann and Romero (2000) and Tsuya and Mason (1995) found that members of both cultures viewed education as a barrier for women to acquire suitable marriage partners. That is, advanced education may result in postponement of marriage (Tsuya & Mason). Because of the norm of male superiority in these countries, men may feel that women with higher education could threaten their dominant role within the culture.

We conducted this research to gain further insight into the similarities and differences in values between individualistic and collectivistic cultures regarding marriage. We hypothesized that members of collectivistic cultures would see marriage as a responsibility, as well as a foundation for building a life-long bond of love between two people with specific social roles, and that members of individualistic cultures would see marriage as a profession of the love shared between two people, a contract they can break if the individual is not fulfilled. We expected that members of an individualistic culture would agree more strongly with values such as intimacy, communication, and mutual responsibility.

Method

Participants

A total of 45 University of San Diego undergraduate volunteers participated in the study. Twenty-six individu-

Ken Keith from the University of San Diego was the faculty sponsor for this research project.

als were natives of the United States, according to Hofstede (1980) the most extreme individualistic culture, with an IC score of 91; these participants comprised the individualistic group. Nineteen participants were international students from Mexico, Japan, Israel, Portugal, Panama, Venezuela, and India (IC scores ranged from 12 to 54), as well as Saudi Arabia (a collectivistic country; Buda & Elsayed-Elkhouly, 1998) and constituted the collectivistic group (Matsumoto, 2000). Those in the collectivistic group had been in the United States for an average of 6.7 years.

Materials

We distributed a 37-item marriage attitudes questionnaire to volunteers along with a consent form. The questions fell into one of four groups: characteristics of marriage, roles of the marriage partners and caretakers, divorce, and problem solving (see Table 1). Participants answered the questions on a Likert scale ranging from 1 (*least true*) to 5 (*most true*).

Procedure

Volunteers completed an informed consent form prior to receiving the questionnaire. We collected data from American student volunteers at two central campus locations, an outdoor gathering place and a campus coffee shop. International student volunteers were identified with the assistance of the International Student Organization. The questionnaires were administered to the International student volunteers at the International Students Office.

Results

We analyzed the results using a series of independent sample t-tests to compare the mean scores of the statements for the individualistic and collectivistic groups. Six of the 37 statements had mean scores that were significantly different. We found no significant differences for the other 31 items, although two statements approached significance. Collectivist participants were more likely to agree with these statements: "Marriage is a determining factor in a person's connectedness with/to society," $t(43) = 2.38, p < .05$, "Mothers have a primary responsibility for raising the children of the family," $t(43) = 3.71, p = .001$, "The husband's help with household duties is not welcomed," $t(43) = 2.79, p < .01$, and "Communication of personal issues is not an important part of a healthy marriage," approached significance, $t(43) = 1.98, p < .07$.

Individualist participants were more likely to believe: "Divorce is socially acceptable," $t(43) = 3.69, p = .001$, "Similar goals, values, and beliefs of both partners are a necessary aspect of marriage," approached significance, $t(43) = 1.96, p < .06$, and "It is the mutual responsibility of the parents to make decisions regarding the family," $t(43) = 2.21, p < .05$. Collectivist participants tended to disagree with the statement: "It is the husband's responsibility to share in the household duties," $t(43) = 3.47, p < .01$, more than individualist participants.

Table 1
Marriage Attitudes Questionnaire

-
- Characteristics of Marriage
1. Responsibility is an important component of marriage.
 2. Love is an important component of marriage.
 3. Honesty is an important component of marriage.
 4. Affection is an important component of marriage.
 5. Similar goals, values, and beliefs of both partners are a necessary aspect of marriage.
 6. Marriage is a determining factor in a person's connectedness with/to society.

- Roles of the Marriage Partners and Caretakers
1. The male partner is more dominant in the marriage.
 2. The female partner is more dominant in the marriage.
 3. Within a marriage, the woman's education is a valuable asset.
 4. Mothers have a primary responsibility for the raising the children of the family.
 5. Fathers have the primary responsibility for raising the children of the family.
 6. Grandparents have a primary responsibility for raising the children of the family.
 7. The community has a primary responsibility for raising the children of the family.
 8. It is the male spouse's responsibility to make decisions regarding the family.
 9. It is the female spouse's responsibility to make decisions regarding the family.
 10. It is the mutual responsibility of the parents to make decisions regarding the family.
 11. It is the husband's responsibility to share in the household duties.
 12. While not his responsibility, a husband's help with the household duties is welcomed.
 13. The husband's help with household duties is not welcomed.
-

Table 1 (continued)
Marriage Attitudes Questionnaire

Divorce	
1. Divorce is socially acceptable.	
2. Divorce is acceptable only under certain circumstances.	
3. Divorce is acceptable when the spouse is being abused.	
4. Divorce is acceptable when the other spouse has an extra-marital affair.	
5. Divorce is acceptable when there is dissatisfaction with the other spouse.	
6. Divorce is acceptable when the marriage is no longer fulfilling.	
Problem Solving	
1. Communication of personal issues is not an important part of a healthy marriage.	
2. Communication of personal issues is a part of a healthy marriage.	
3. Communication of personal issues is neither vital nor detrimental to a healthy marriage.	
4. It is beneficial to the marriage for the couple to spend time alone together to better or "work on" their marriage.	
5. When facing a personal problem, the husband most likely turns to his friends.	
6. When facing a personal problem, the husband most likely turns to family	
7. When facing a personal problem, the husband most likely turns to his co-workers.	
8. When facing a personal problem, the husband most likely turns to his wife.	
9. When facing a personal problem, the wife most likely turns to her friends.	
10. When facing a personal problem, the wife most likely turns to family.	
11. When a facing personal problem, the wife most likely turns to co-workers	
12. When facing a personal problem, the wife most likely turns to her husband.	

Discussion

The findings of this study are consistent with previous research (e.g., Lester 1996; Raymo 1998; Simmons & Von Kolke 1986) and suggest that cultural differences in beliefs and attitudes with regard to marriage do exist. These findings are important in increasing understanding of the role of culture. This understanding is important in perspective taking and may become especially relevant to

Table 2
Item Means for Individualist and Collectivist Groups

Question Number	Individualist	Collectivist
Characteristics of Marriage		
1. Responsibility	4.69	4.89
2. Love	4.69	4.63
3. Honesty	4.77	4.89
4. Affection	4.5	4.58
5. Goals, values	4.35	3.74
6. Connectedness	2.54	3.32 (a)
Roles of the Marriage Partners and Caretakers		
1. Male partner	2.46	3.05
2. Female partner	2.27	2.16
3. Woman's education	4.04	3.53
4. Mothers	2.92	4.21 (c)
5. Fathers	2.88	2.74
6. Grandparents	2.04	2.58
7. Community	2.23	1.83
8. Male decision	2.31	3.00
9. Female decision	2.31	2.42
10. Mutual decision	4.77	4.16 (a)
11. Husband household	4.38	3.05 (b)
12. Husband household	3.23	3.16
13. Husband's help	1.35	2.26 (b)
Divorce		
1. Socially acceptable	3.50	2.21 (c)
2. Certain circumstance	3.08	3.16
3. Spouse abused	4.58	4.53
4. Affair	4.27	4.21
5. Dissatisfaction	2.73	2.63
6. Fulfilling	2.69	2.47
Problem Solving		
1. Communication	1.08	1.53
2. Communication	4.81	4.47
3. Communication	1.50	1.74
4. Time alone	4.65	4.42
5. Friends	2.65	2.95
6. Family	2.81	3.47
7. Co-workers	2.08	2.42
8. Wife	3.96	3.53
9. Friends	3.62	3.42
10. Family	3.69	4.05
11. Co-workers	2.23	2.21
12. Husband	4.15	4.16

^a $p < .05$, ^b $p < .01$, ^c $p = .001$

persons experiencing marriage outside their culture of origin.

Characteristics of Marriage

The difference in the mean scores of the collectivistic and individualistic groups on the statement, “Similar goals, values, and beliefs of both partners are a necessary aspect of marriage,” approached significance. Both groups found similar goals, values and beliefs of both partners important; however, the individualistic group agreed more strongly with the statement. In some collectivistic cultures, there are arranged marriages; Simmons and Vom Kolke (1986) suggested that love and similar interests are not as highly valued in these cultures, although after marriage, love and companionship in these cultures continue to grow (Matsumoto, 2000).

Collectivist participants are more likely to see marriage as a determining factor in defining a person’s connection to society. For example, Hirsch (1999) found that collectivist societies see marriage as the fulfillment of a woman’s necessary role in society and that they also seem to outline certain expectations within this role. The more traditional view within collectivistic societies suggests that one of the ways a woman may obtain financial status or success is through her husband (Raymo, 1998). By contrast, Popenoe (1995) found that individualistic societies focused on self-fulfillment and noted that marriage is not seen as necessary for personal security.

Roles of Marriage Partners and

Caretakers

The results also indicated cultural differences with respect to roles within a marriage. Collectivistic societies for example, are more likely to give the responsibility of the care of the children to the mother. In these societies the father’s role is generally to provide economic stability, and the mother’s role is centered in the home (Raymo, 1998). In individualistic societies both the man and the woman may be battling for independence and may see children as a hindrance to this independence; therefore both groups may feel the responsibility should be shared. Thus, according to Contreras, Hendrick, and Hendrick (1996) individualist couples have fewer children, which increases marital satisfaction. This situation allows the couple more freedom, which some members of individualistic cultures may see as essential.

Individualist participants are more likely to believe that husbands share responsibility for household duties

with the wife, and the help of the husband is welcome. Collectivistic societies may not see household duties as the shared responsibility of the husband. In this study, both collectivist and individualist participants disagreed with the statement, “The husband’s help with household duties is not welcomed;” however, individualists disagreed more strongly than collectivists.

Jianxiang (2000) found that many collectivistic societies, especially Eastern societies, regulate the family relationship by a hierarchical system in which men dominate. There are prescribed roles to which partners adhere, and these cultures do not encourage its members to go outside the norms and rules of societal roles. In individualistic societies, the family may not be the primary focus of the mother or father. In some couples, neither partner is willing to assume all the responsibilities, and because both persons desire their independence (Popenoe, 1995), they may compromise and share household duties.

Individualists were more inclined to believe that making decisions regarding the family is the mutual responsibility of both parents. This finding is consistent with the tendency of collectivists to agree more with the statement “Mothers have a primary responsibility in raising the children of the family,” and the individualist tendency to believe that “It is the husband’s responsibility to share in the household duties.” Future research should further explore collectivist beliefs about family decision-making.

Divorce

Our findings suggest that individualist participants are more likely to view divorce as socially acceptable. This result is consistent with the work of Lester (1996), who reported that collectivistic societies such as Mexico, Japan, and Portugal have low levels of divorce. On the other hand, the United States, which rates as the most individualistic nation (Hofstede, 1980), has the highest level of divorce (Lester). Dion and Dion (1993) offered a reason for this difference, suggesting that love precedes marriage in individualistic societies, but that love follows marriage in collectivistic societies. This distinction implies that in individualistic societies, when love in a relationship changes or ends, dissolving the marriage is acceptable, whereas in collectivistic societies love is not a necessary ingredient to marriage. Instead, love is cultivated during the course of the marriage. Interestingly, Popenoe (1995) found that in all societies the divorce level was increasing—perhaps because of an increase in women’s social status and growing economic independence.

Problem Solving

Both individualists and collectivists disagreed with the statement, "Communication of personal issues is not an important part of a healthy marriage." However, individualists tended to disagree more strongly than did the collectivistic group. This result is consistent with the findings of Halford and Hahlweg (1990), who found that although many similarities in marital communication exist across cultures, there are also differences.

Limitations

This study contained a number of limiting factors. Participants representing the collectivistic culture had lived in the United States for an average of 6.7 years. The researchers were uncertain about the degree of Western influence on their views, and that influence could have been a biasing factor. As Hirsch (1999), Raymo (1998), and Niemann and Romero (2000) pointed out, Western culture is increasingly influencing collectivistic cultures and ways of thought. Future studies should use participants in their countries of origin.

Researchers could strengthen ecological validity of this type of research by including a more heterogeneous sample. Participants in the present study were all university-educated students from a single campus. Further, researchers distributed all the questionnaires in English. The international students may have interpreted some statements differently than the researchers intended. Future research should include such provisions as back translations of research documents to assure equivalence of meaning (Brislin, 2000). Despite these limitations, this study supports previous research findings and adds to a growing body of cross-cultural knowledge about attitudes toward marriage. This information may also be applicable for clinicians working with couples, especially inter-culture couples.

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Effects of Employment on Stress Levels in College Students

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This study examined the effects of employment on the stress levels of college students. One hundred and forty-four students completed a questionnaire composed of the Daily Stress Inventory, demographics, and questions regarding their daily activities. The hypothesis was that working students would have higher stress levels than students who did not work. However, results revealed that there was not a significant relation between the number of hours worked and students' stress levels. However, this finding does not mean that working is absence detrimental effects on college students. The more students worked the less likely they were to study, achieve high grades, and have time available for leisure activities. Additional factors such as sex, amount of money students earned per week, and the means by which students were paying for college also contributed to variability in stress levels among students. Because of the consequences and number of college students who work, there is a need for additional research.

Stress is common in college students' lives, not only because of the amount of course work or the expectations to succeed, but also because of their lives away from the classroom. The college years bring separation from home and parents, academic demands that are greater than those in high school, and questions about personal identity and career choice (Whitman, Spendlove, & Clark, 1984). Other variables that may intensify stress include financial concerns because of college expenses, increased competition, and an uncertain job market (Whitman et al.).

Selye (1976) defined stress as a response elicited by a variety of external events. An event or environmental stimulus that makes a person feel tense or aroused is a stressor. The experience of stress can be a mental state of tension and arousal in which interpretive, emotive, defensive, and coping processes occur inside a person, possibly creating a mental strain. Stress can also be defined as the body's response to physical demands of the environment (Rice, 1992).

Although there are various sources of stress outside of the university setting, requirements of the university — exams, papers, and projects, along with the pressure to

earn good grades — can cause mental stress (Ross, Niebling, & Heckert, 1999). Many students are also working at jobs outside of school. Kramer (1994) stated that college-board data revealed that 75% of all traditional college students are employed and suggested that high tuition might account for the increase employment.

The article "Paying for College" (1986) reported that although 86% of parents want their children to attend college, only 54% saved money to help them. Of those families who did save, only 11% believed that their savings would cover all of the college expenses. Tuition is unaffordable for most families and can be a great burden for students. Because the money students receive from their families often is not enough to pay their expenses, students must work to help defray the costs.

An increasingly popular strategy among college students is to combine work and education by finding employment that has a connection to their long-term plans (Misra & McKean, 2000). Although these jobs come with increased responsibility, they also may demand more hours and increased accountability, which can ultimately increase stress. One manifestation of increased stress among college students is a drop in grade-point average. However, many students working in jobs connected to their long-term plans achieve grade-point averages higher than do those students not working. Perhaps students who pay for some or all of their education work harder because of the monetary sacrifice they make to attend college.

In addition, Misra and McKean (2000) discovered that, although women had more effective time management behaviors than men, they experienced higher academic stress and anxiety. Stress in small amounts can be positive for some people, but stress can be negatively associated with a student's self-concept. The results of one survey found that stress was especially high among college women (Hudd et al., 2000). The researchers also found that students with higher levels of stress were much less satisfied with several life factors that contribute to self-esteem.

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Students must devote their time not only to attending school and working, but also to finding enough hours in the day to study, spend time with their family and friends, and sleep. Misra and McKean (2000) found that leisure time was a predictor of stress. They defined leisure satisfaction as the positive feeling of contentment a person perceives as a result of meeting personal needs through leisure activities. Their research results indicated that satisfaction with leisure activities and perceived academic stress were negatively related. Ragheb and McKinney (1993) also found a negative association between academic stress and leisure activities.

In the present study, students completed a survey that addressed stress, grade-point average, leisure time, and source of income. One hypothesis was that working students would have higher levels of stress than students who did not work. In addition, I hypothesized that women would have higher levels of stress than men. Furthermore, I hypothesized that students who helped pay for college by working would have higher grade-point averages than students who received money from alternative sources (e.g., loans and tuition remission). The final hypothesis was that students who spent less time participating in leisure activities would have higher levels of stress than participants who spent more time participating in leisure activities.

Method

Participants

Participants were 144 undergraduate students (39 men, 105 women) at a mid-sized Midwestern university. The ages of the students ranged from 18-25 years, with the majority of the students falling between 18 and 21 years of age. All participants were enrolled full time at the university; the mean number of course hours was 16. Of the participants, 36 were in their first year of school, 43 in their second, 33 in their third year, and 32 in their fourth year or higher. The mean self-reported grade-point average for students was 3.61 on a 4.0 scale. The job status of the students who responded was as follows: 22 did not have a job at the current time; 53 had one part-time job; 25 had a work-study job; 32 had a work-study and a part-time job; and 12 had two or more part-time jobs, or a full-time job.

Materials

The Daily Stress Inventory (Brantley, Waggoner, Jones, & Rappaport, 1985) assessed student stress levels; it consists of 58 items that provide a daily assessment of

the sources and individualized impact of relatively minor stressful events. Participants were instructed to indicate whether the potential stressor had occurred within the last 24 hrs and if so, to rate the stressor on a scale of 1 (*not stressful*) to 7 (*an event that caused the respondent to panic*). If the event did not happen within 24 hrs, participants placed an X in the space provided. Cronbach's alpha for the Daily Stress Inventory was 0.94.

The survey included questions about the students' sex, age, year in school, and major area of study. Students also answered questions about their current semester, course load, and grade-point average and how they spent their time and whether they were working during the current semester.

Procedure

Researcher distributed surveys to 34 classes from all areas of the university. A total of 625 undergraduate students received the Daily Stress Inventory and demographics questions. Students completed and returned the survey by the end of the week. Twenty-three percent of the surveys were completed and returned.

Results

Employment and Daily Activity

A series of analyses examined the relation between the number of hours worked and time spent on other daily activities. Hours worked and leisure time were negatively correlated, $r(142) = -.49, p < .01$; the more time individuals spent working, the less time they had for leisure activities. Students who spent more time working slept fewer hours at night, $r(142) = -.29, p < .01$. Hours worked and time spent on academic activities were also negatively correlated, $r(142) = -.31, p < .01$; students who spent more hours working spent less time at school or studying. This finding may explain the negative correlation between hours worked and grade-point average, $r(110) = -.19, p < .05$.

Employment and Stress

An analysis of variance (ANOVA) indicated that there was no significant difference in stress level as a function of job status, $F(4, 139) = .44$ (see Table 1), nor was there a difference in stress level because of the numbers of hours worked per week, $F(4, 139) = .53$ (see Table 2). However, the results did reveal a significant difference in stress level because of the amount of money

Table 1
Stress Scores and Job Status

Job Status	Stress	
	<i>M</i>	<i>SD</i>
No job	89.00	40.55
Part-time job	84.89	51.42
Work study job	89.32	51.11
Work study and part time job	93.00	44.68
2+ part-time or full-time job	105.92	93.49

Table 2
Stress Scores and Hours Worked

Hours Worked	Stress	
	<i>M</i>	<i>SD</i>
No hours	89.0	40.55
Less than 14 hours	80.74	50.63
14.01 - 20 hours	91.15	52.76
20.01 - 30 hours	91.06	47.45
30.01 hours or more	100.84	71.93

students made per hour, $F(1, 117) = 4.89, p < .05$; students who earned more than \$8 per hour reported significantly higher stress levels ($M = 102.87$) than students who earned less than \$8 per hour ($M = 80.50$).

Stress and Sex

An ANOVA revealed a significant difference between stress levels and the sex of the participants, $F(1, 138) = 4.10, p < .05$; women reported higher stress levels ($M = 95.31$) than men ($M = 75.24$). Table 3 contains the five highest stressors. Analyses revealed a significant difference between men and women on "Thought about unfinished work," $t(138) = -2.104, p < .05$, and a trend toward significance for "Had money problems," $t(138) = -1.944, p = .054$. There were no significant differences between men and women among the remaining three stressors.

Table 3
Five Highest Reported Stressors

Stressor	Mean Score	
	Men	Women
Thought about unfinished work [*]	4.00	4.58
Hurried to meet a deadline	3.42	4.06
Thought about the future	3.26	3.73
Unable to complete all tasks for the day	2.82	2.92
Had money problems ^{**}	2.05	2.92

^{*} $p < .05$, ^{**} $p = .054$

Stress and Leisure Time

The current study defined leisure time as the number of hours spent with family, friends, and doing other activities unrelated to work or school. Participants who had the least amount of leisure time tended to report the most stress, $r(144) = -.16, p = .053$. Also, individuals who slept more during the night reported lower levels of stress, $r(144) = -.21, p < .05$.

Money for Tuition and Grade-Point

Average

A series of analyses examined students' financial investment in their education. The expectation was that students who worked to pay for their education would have higher grade-point averages. Students who paid for their education using tuition remission or loans were expected to have lower grade-point averages. Analyses revealed no significant correlation between self-reported grade-point average and money used from work to pay for tuition. However, there were significant negative correlations between self-reported grade-point average and money received from (a) loans, $r(111) = -.29, p = .01$, and (b) tuition remission, $r(111) = -.23, p = .05$. Students who received money from loans or tuition remission were more likely to have lower grade-point averages. Self-reported grade-point average and money received from grants were positively related, $r(111) = .26, p = .01$. Students who had higher grade-point averages were more likely to receive grants, which are often based on academics, to help pay for their education.

Discussion

The primary goal of this study was to examine the relation between stress and employment. Specifically, the expectation was that students who did not work or worked only minimal hours would have significantly lower stress than students who worked part-time or full-time. The results did not support this hypothesis. There was, however, a positive correlation between stress and the amount of money earned per hour. Significantly higher stress levels were evidenced among students who made more than \$8 per hour compared to students who made less than that amount. These more challenging, higher-paying jobs may create a more stressful working environment for students.

Another important finding was the difference in stress levels between men and women. Women reported significantly higher stress levels than men. This result may be because of a tendency for women to handle stress differently than men. Women may also be more apt to report stress because they feel that it is more acceptable to do so. In addition, women versus men may feel more pressure to succeed in college, resulting in higher stress levels. Specifically, women may feel that they have to work harder in order to succeed in a society they perceive as paternalistic.

Another expectation was that students who helped to pay for college by working would have higher grade-point averages than students who received money from alternative sources (e.g., loans and tuition remission). This hypothesis was based on the premise that students who have to pay for some or all of their education would work harder because of the monetary sacrifice they make to attend college. However, the results did not support this expectation. On the other hand, results did reveal that more money students received from loans and tuition remission was associated with lower their grade-point average.

The negative correlation between leisure time and stress levels corroborates previous reports (Misra & McKean, 2000; Ragheb & McKinney, 1993). Those investigators found that increased satisfaction with leisure time activities was associated with less stress.

Although the results supported several of hypotheses from this study, there was no significant relation between the number of hours worked and stress levels among students. One explanation for the lack of significant findings

might be that the Daily Stress Inventory is not a sufficiently sensitive measure of stress among college students. However, this inventory is a valid measure for identifying daily stress in the general population (Brantley et al., 1985). The timing of the survey may have impacted the results. I administered the survey at a time of high stress for college students — the week of midterm exams. Because of the timing, some students may not have had time to complete the survey. Furthermore, students who did have time to complete the survey may not have had stress levels as high as students who did not have time to complete it. The students completed the survey may have had better coping or time management skills.

Overall, the results of this study suggest that working, per se, may not increase stress in students. However, the more hours students spend working the less time they have for leisure time activities, which may increase the stress students experience. Another variable that can impact educational success is the degree to which students are financially invested in their future. For example, students who are going to school using loans or tuition remission tend to have lower grade-point averages. Because of the consequences and number of college students who work, there is a need for additional research.

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Effects of Mental Imagery on Athletic Performance: A Literature Review

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Imagery, which involves having an athlete imagine a specific component of an athletic event prior to performing that component, is a technique sport psychologists often employ in an effort to enhance athletic performance. This literature review examines the effectiveness of imagery in a sport psychology context. Research findings regarding the use of imagery as a sole intervention with athletes are mixed, with success dependent on the specific skill and the experience of the athlete. However, other studies have examined its effectiveness when imagery is used in combination with other sport psychology techniques, including self-talk, relaxation, and goal-setting. Under those circumstances, imagery appears to have a more consistently positive effect on athletic performance.

Sport psychology began in North America in the 1920s (Vealey, 1994). It gained prominence in the 1960s and the early 1970s when organizations, including the International Society for Sport Psychology and the North American Society for the Psychology of Sport and Physical Activity, began to form and promote the psychological aspects of sport performance. The *Journal of Sport Psychology* was established in 1979, allowing for wider publication of research in this field. In the late 1970s, applied sport psychology gained popularity in the United States. Psychological skills training (PST) describes the techniques and strategies created for teaching or improving mental skills that affect performance. With the development of PST, sports psychology specialists began to start psychological training with athletes (Vealey, 1994).

According to the Association for Advancement of Applied Sport Psychology (2002), sport psychology professionals work with people who use their participation in sports, exercise, and physical activity to enhance personal growth and well-being during their lifetime. Sport psychologists also provide information on the role of psychological factors in sport, exercise, and physical activity to individuals, groups, and organizations. They teach athletes certain mental, behavioral, psychosocial, and emotional control skills for sport, exercise, and physical activity. Sport psychologists' clients might seek to improve their performance, better cope with the pres-

ures of competition, or obtain psychological aid with injury rehabilitation. Although elite athletes, such as those involved in collegiate, Olympic, or professional sports, utilize the services of sport psychologists most often, people in many domains of exercise and sport may seek their services.

The increased focus on the effects of mental attributes on performance has led researchers to examine the effectiveness of sport psychology techniques as a means of enhancing athletic performance. Among the techniques employed by sport psychologists are imagery, goal setting, arousal regulation, relaxation training, and self-talk. The purpose of this paper is to review research that evaluates the use of imagery as a means of enhancing performance. The review focuses on imagery rather than other sport psychology techniques because imagery has been researched and tested to a greater degree than other techniques. A discussion of the shortcomings of the existing research and recommendations for future study follows.

Imagery Defined

Imagery involves having the athlete imagine a specific component of an athletic event. For instance, before a game, a football player might imagine himself making a tackle. Imagery can occur at any time and under any circumstance. Hardy, Jones, and Gould (1996) define imagery as "a symbolic sensory experience that may occur in any sensory mode" (p. 28). Sensory mode refers to the particular sense that the athlete is using when conducting imagery. For example, if a soccer player was performing an imagery task, she might visually imagine herself running down the field. At the same time, she may also attend to what she would hear, feel, touch, or smell while running. One expected effect of imagery on performance is that athletes who use it prior to competition will perform better than those athletes who do not use it. Another expected effect of imagery on performance is that athletes will perform better if they use imagery prior to competition than if they do not.

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Imagery as Sole Intervention

Studies examining the effects of imagery as the sole intervention have yielded mixed results. Some studies have shown that imagery does improve athletic performance. For instance, Rodgers, Hall, and Buckolz (1991) found imagery to have a positive effect on the performance of 29 club figure skaters. A bivariate correlational analysis indicated that there was an improvement in visual imagery ability, which was significantly correlated to an improvement in percent element completed score and performance score. Thus, skaters who improved in their visual imagery ability became more victorious in completing their program elements.

Kinesthetic imagery ability was also correlated to these two scores as well. In another study, Shambrook and Bull (1996) used a multiple-baseline design that looked at how imagery training affected basketball free-throw performance. Four female basketball players completed imagery training to determine if performance increased or decreased across trials. Free-throw performance was measured on a 5-point scale using a scoring system developed by Hardy and Parfitt (1991). Each free-throw could have a maximum score of 5 and a minimum score of 0. For example, a clean basket scored a 5; if it hit the rim and went in, a 4 was scored; if it hit the backboard and went in, a 3 was scored; if it hit the rim and went out, a 2 was scored; if it hit the backboard and did not go in, a 1 was scored; and if it was a complete miss, a 0 was scored.

A binomial test determined if there was a significant difference between the expected post-intervention performance that might result merely from practice and the actual post-intervention performance. Only one of the four participants showed an increase in performance level from pre- to post-intervention that was significantly greater than the expected practice effects. However, the authors note that this particular participant had more shooting experience than the other three, who showed a decrease in performance after the administration of the imagery training. Shambrook and Bull (1996) speculated that the initial effect of having to learn to use imagery in the pre-shot routine could have been the cause for this decrease. The less-experienced shooters may have tried to accommodate for the imagery training, which meant adjusting their free-throw shot in a negative way.

Driskell, Copper, and Moran (1994) performed a meta-analysis to determine whether imagery affects performance and to identify the skills for which imagery has its greatest effects on cognitive and physical tasks. The

results showed imagery to be effective in enhancing overall performance; however, it was not as effective as physical practice. Regarding its effects on specific skills, Driskell et al. (1994) found imagery to have a greater impact on performance when the task had more cognitive elements than physical elements. They also found that the positive effect that imagery had on performance decreased as the time interval between practice and performance increased, and the optimum duration of imagery was about 20 min. Finally, Driskell et al. found that imagery enhanced performance more with experienced than with nonexperienced participants. Unfortunately, the authors did not specify the exact nature of the physical tasks.

Gould, Weinberg, and Jackson (1980) conducted a study involving a leg-kick task that measured the effect of several cognitive strategies on muscular strength, power, and endurance. These strategies consisted of attentional focus, preparatory arousal, imagery, and counting-backward cognitive distraction. Researchers also included a control group that rested. The results of an analysis of variance showed that participants who used preparatory arousal and imagery strategies performed significantly better than the participants who used the other three strategies.

In a second experiment, however, Gould et al. (1980) included only the preparatory arousal, imagery, and control group conditions. In that study, there was not a significant difference between the groups.

Murphy (1990) conducted a review examining the effect that imagery has as a “psyching up” method in sport psychology. He found that the success of performance depended on the actual task. In one reviewed study, the implementation of imagery just prior to performance significantly enhanced putting accuracy (Woolfolk, Parrish, & Murphy, 1985). However, it did not significantly improve performance for dart-throwing (Epstein, 1980) or tennis serving (Weinberg, Gould, Jackson, & Barnes, 1980) in other research.

In Epstein’s (1980) research on dart-throwing participants participated in one of three conditions: internal imagery, external imagery, or a control condition. Dart throwing accuracy did not significantly improve in any condition. Weinberg et al. (1980) examined mental preparation strategies and the effect they had on a tennis serve task. Forty tennis players performed a tennis serve test under one of four conditions, including use of imagery to prepare for the serve, making positive self-efficacy statements, attentional focus, and a control group

where participants prepared as they normally would. Tennis serves did not significantly improve under any of these conditions.

Finally, Frahm (2002) conducted two studies of the effect that mental imagery, physical practice, and achievement motivation have on male and female college students' golf putting ability. There were 34 participants in the first study and 28 participants in the second. In both experiments, two groups of participants were formed, one using both physical and mental practice, and the other using physical practice only. In the second experiment, participants were further divided on the basis of achievement motivation, measured by the Mehrabian Achieving Tendency Scale (MATS) (Mehrabian, 1994). In both experiments, participants significantly increased the number of successful putts from pre- to post-experiment. This result seems to be due to the participants' physical practice of the task. The results of the second experiment showed a significant increase in performance in the high achievement motivation group compared to the low achievement motivation group. There was not a significant increase in performance following imagery training in either experiment. Overall, the existing research suggests that imagery as a sole intervention does not have a consistently positive effect on athletic performance, especially among less-experienced athletes.

Imagery Combined with Other Interventions

Often, sport psychologists combine imagery with other interventions, such as self-talk, relaxation training, and goal setting. Many studies have examined the effectiveness of combining these techniques and the results support the notion that a combination of imagery with other techniques may enhance athletic performance.

Murphy (1990) critiqued an experiment by Riley and Start (1960) that examined whether the combination of physical practice and imagery would influence performance. Although, the results showed that participants using both physical practice and imagery performed significantly better than participants who used physical practice alone, the study did not have a control group, making interpretation of the results difficult (Murphy, 1990). Kelsey (1961) found imagery significantly improved performance on a muscular endurance task, specifically a 5-min sit-up test. Male students from the University of British Columbia participated and supported the notion that physical practice will significantly

influence performance the most, yet imagery will also significantly improve performance compared to no practice.

Two studies have examined the effects of imagery combined with goal setting. Burton (1989) measured the performance of 30 female college swimmers. Performance was measured by the difference between the swimmers' race times and their personal record time. There were no significant differences in the performance of the female swimmers who received the imagery and goal setting training compared to the female swimmers who did not receive the training. Davis (1991) conducted a case study of the effects of imagery and goal setting, as well as arousal regulation, on the performance of a college tennis player. The use of these techniques had a positive influence on performance, as measured by satisfactory completion of four of five goals. The goals included: to serve 70% of first serves into play, to hit at least two volleys every service game and one volley every game she returns serve, to improve the forehand return of serve (one error allowed every two games), and to avoid consecutive, identical service errors.

Greenspan and Feltz (1989) reviewed three studies that examined the effectiveness of combining relaxation and imagery in the domains of basketball free-throw shooting, gymnastics, and karate. In all three studies (Hall & Erffmeyer, 1983; Lee & Hewitt, 1987; Weinberg, Seabourne, & Jackson, 1981), the combination of these two techniques improved performance to a greater degree than if only one of these techniques was administered. Hall and Erffmeyer (1983) found visuo-motor behavioral rehearsal to significantly improve free-throw accuracy among 10 highly skilled players on a collegiate Women's basketball team. Lee and Hewitt (1987) used 36 female gymnasts in their study and measured performance by averaging three scores from state qualifying gymnastic meets. There was a statistically significant increase in performance when imagery and relaxation were combined, compared to imagery alone or a no-treatment group. Weinberg et al. (1981) conducted a study examining the effect of imagery, relaxation, or both techniques combined on karate performance. Participants in this study were 32 male students, aged 18 to 24 years old, who were members of the North Texas State University Karate Club. Performance was measured using skill tests and each skill was rated on an 11-point Likert scale. Participants who used a combination of imagery and relaxation performed significantly better than participants in the relaxation alone, imagery alone, or control groups.

More recently, Onestak (1997) found that imagery combined with relaxation and mental practice had a positive effect on performance. In this study, 48 male intercollegiate basketball players, ranging in age from 18 to 25, were placed into a high- or low-ability category depending upon their pre-assessment free-throw performance. Each participant received an assignment to one of three experimental conditions: visuo-motor behavioral rehearsal, videotaped modeling, or visuo-motor behavioral rehearsal with videotaped modeling. Onestak used Suinn's (1984) visuo-motor behavior rehearsal, which involves three stages: relaxing the athlete's body by using a brief version of Jacobson's (1938) progressive relaxation technique, mental practice related to the specific sport the athlete plays, and using imagery to mentally rehearse a certain skill under stressful conditions. In this study, mental practice involved the introduction of an idea that was expected to be reflected in the athlete's use of his or her muscles. Therefore, if a basketball player mentally practices shooting a free throw, the player's muscles may go through the movements as well. Imagery, on the other hand, would have a basketball player mentally imagine a situation or skill, while paying close attention to all of the senses of the body (Onestak, 1997). There was a significant increase in free-throw accuracy in all of the conditions by the end of the experiment. Low-ability participants showed a greater improvement in performance than high-ability participants, but the difference was not statistically significant. Unfortunately, the lack of a control condition, in which participants would not receive visuo-motor behavioral rehearsal or videotaped modeling, makes it difficult to draw conclusions about this study (Onestak, 1997).

Kendall, Hrycaiko, Martin, and Kendall (1990) studied the use of imagery rehearsal, relaxation, and self-talk in four female intercollegiate basketball players who participated in training sessions over a 5-day period. The training sessions included relaxation exercises, video footage, cue words to help with self-talk, and imagery rehearsal. Unlike other studies, this research evaluated game performance instead of creating a performance test. The performance variable was the assessment of a specific defensive basketball skill during competition. All games were videotaped and the lead researcher and the head coach of the women's team involved in this study analyzed skill development independently. The raters evaluated an average of 35 instances of the behavior per game tape. All four basketball players demonstrated an increase in correct performance of the defensive skill from pre- to post-treatment phase. Specifically, average correct performance of the skill increased from 55.3% in the pre-treatment phase to 73.7% in the post-treatment

phase. However, no significance tests were performed. Although not stated in this study, it seemed that when the author and head coach evaluated the videotapes, they both knew that the intervention with the four players had occurred. The authors stated that the selected sample consisted of starters or those who played often. It would seem that the coach would have to have knowledge about which players were participating in the study. Thus, it would appear that this research is potentially biased because the raters were not blind to the experiment, and were aware that a player had experienced imagery, self-talk, and relaxation training when they judged the participant's performance.

Hamilton and Fremouw (1985) combined imagery and self-talk in an intervention with three male Division-II college basketball players. A 3-week training program included four elements: deep muscle relaxation, identification of negative self-statements, development of positive self-statements, and imagery rehearsal during team practice. The collection of free-throw performance data occurred during practice and games. By the end of the training program, there was a significant increase in game free-throw performance percentages with an overall mean improvement of 72.5%. Unfortunately, the researchers did not perform significance tests.

Thomas and Fogarty (1997) examined the effects of imagery and self-talk training on the psychological skills and performance levels of amateur golfers. Thirty-two men and women, at different golf skill levels and from two different golf clubs, participated in this study. There were four psychological skills training workshops that focused on self-talk and imagery training. Measures included the Golf Performance Survey (Thomas & Over, 1994), a questionnaire measuring processing preferences created for the purpose of this study; the Sport Imagery Questionnaire (Martens, 1982; Vealey & Walter, 1993); an evaluation questionnaire that measured how much the participants felt they learned from the study and which technique they favored; and golf skills tests which measured golf shot accuracy and handicap. Prior to, during, and following the training sessions, the golf skills measurements were taken.

Participants' Golf Performance Survey scores showed that there was a significant increase in comprehension and application of imagery and self-talk. The participants' handicap significantly decreased over time and their shot accuracy significantly increased. Overall, the training sessions helped the participants gain a better understanding of imagery and self-talk, along with positively influencing their performance. In summary,

although research has found imagery, by itself, to have widely varied effects on performance, when it is combined with other techniques, athletic performance has been enhanced.

Discussion

Summary of Research Findings

Since sport psychology gained prominence in the 1970s, a significant body of research has examined the effectiveness of imagery as a method of enhancing athletic performance. Some research (Frahm, 2002; Gould et al., 1980; Rodgers et al., 1991; Shambrook & Bull, 1996) indicates a negative effect or no effect with the use of imagery as the sole intervention, whereas other researchers suggest that the effectiveness of imagery is dependent on the task (Murphy, 1990) or level of experience of the athlete (Driskell et al., 1994; Shambrook & Bull, 1996). However, when research combines the use of imagery with other techniques, including physical practice (Kelsey, 1961; Riley & Start, 1960; Onestak, 1997), goal setting (Burton, 1989; Davis, 1991), relaxation (Weinberg et al., 1981; Hall & Erffmeyer, 1983; Lee & Hewitt, 198), and self-talk (Hamilton & Fremouw, 1985; Kendall et al., 1990; Thomas & Fogarty, 1997), athletic performance consistently improves. Thus, a combination of techniques might be more helpful to athletes in their overall performance.

Evaluation of Research

Overall, the body of research examining the effectiveness of imagery consists of reasonably well-designed studies. Researchers did a good job of defining measurement of performance and employed a variety of methods to test their hypotheses. On the other hand, there are several ways in which research on imagery can be improved. First, the research primarily involves intercollegiate athletes as participants, which can benefit research because one can find high-level competition at the collegiate level. College athletes are on a continuous schedule of competition and practice, which would seem to make their performance stable. Hence, the effects of an intervention such as guided imagery could be more clearly measured. Although professional athletes are also on fairly consistent schedules, they are likely to be less accessible to researchers. However, research suggests that the more experienced an athlete is, the greater the effect imagery may have in enhancing his or her performance (Shambrook & Bull, 1996). Thus, professional athletes may be needed to determine if this profound effect can be

supported with further research. Therefore, if employment of a sport psychology technique occurs, the assessment of performance levels can determine if the technique enhanced or hindered their performance.

Second, much of the research involved single-subject designs. These designs present some limitations because what works for one participant may not work for another; this design also does not allow the experimenter to generalize the research findings. Also, there were several studies in which there was no control group (e.g., Onestak, 1997; Riley & Start, 1960). Not having a control group can be problematic because researchers cannot rule out the effects of confounding variables, such as practice effects. There is also a possibility that some researchers have been biased when reporting their inter-rater results. This potential bias can be seen in the Kendall et al. (1990) study in which the researchers may not have been blind to experimental conditions when evaluating the participants' behavior.

An additional shortcoming is that very little research examined the use of imagery with child and adolescent athletes. Only Lanning and Hisanaga (1983) involved participants as young as high school age. There has been ample research using the sport of basketball, yet researchers have conducted very little research on other sports such as soccer, gymnastics, or hockey. There might be different psychological experiences for athletes in individual sports compared to those athletes who participate in team sports because athletes in individual sports do not have a team to support them when their performance decreases. Finally, a recommendation is that researchers collect data examining the effects of the treatment over an extended period. It appears that imagery, combined with other interventions, may help performance right away, yet it is not known whether, or for how long, those effects last.

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Savage Affection: Exploring the Allure of Sexual Masochism

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Sexual masochism, desiring pain, bondage, and humiliation in sex, runs contrary to basic drives and needs for avoiding pain, controlling one's environment, and maintaining self-esteem. I have used four motivational theories to explain such behavior. Dual-instinct theory claims sexual masochism provides an outlet for one's unfulfilled wish to die. Individuals can fulfill needs for power and control through sexual masochism by facilitating desired outcomes. Sensation seeking theory suggests sexual masochists need a stronger stimulus to create a strong sexual response. Other individuals participate in masochistic sexual behavior as a defense mechanism (i.e., fantasy) to temporarily escape from pressures of everyday life.

Deviant sexual behavior has captured the interest of many scholars; even as early as 1881 articles were written about “perverted sexuality” (Goodwin, 1999, p. 69) presumably because deviant sexual behaviors run so counter to what most people perceive consider normal human behavior. Humans are fascinated by the unusual. We are astounded that someone would willingly subject him or herself to such defiled sexuality as pain, bondage, or humiliation — and find pleasure in it. Hedonistic tendencies compel humans to seek pleasure and avoid pain. Hedonism is one of the most primitive motivational drives; pain signals tissue damage and drives the afflicted to escape the cause of it as soon as possible (Reeve, 2001). Avoiding pain is one of the most basic survival techniques. Yet some people enjoy being spanked and flogged.

The self develops to facilitate an individual's quest for happiness, and part of that goal is directed toward establishing control over the environment (Baumeister, 1988). However there are individuals who eagerly relinquish all control, finding pleasure in being bound. The self goes to great lengths to maintain a positive evaluation of one's self and enhance esteem (Baumeister), but some people seek humiliation. Not only do people with deviant sexual interests defy these general motivational principles, they derive sexual pleasure from the exact opposite: pain, bondage, and humiliation (Baumeister, 1997). Discovering what causes individuals to go against these fundamental tendencies and seek such activities is the focus of this paper.

Masochism Defined

The word masochism is derived from Sacher-Masoch (as cited in Taylor & Ussher, 2001) who described it as “arousal caused by being submissive, humiliated, controlled, or the recipient of pain during sexual activity” (Donnelly & Fraser, 1998, p. 392). Stekel (1929/1953) linked the phenomenon to a variety of deplorable activities including cannibalism, necrophilia and mass murder describing their company as “the kingdom of Hell” (p. 409). Professionals may have become less critical in their evaluations, but masochism still exists in the current *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2000) and is defined as the real act of being “humiliated, beaten, bound, or otherwise made to suffer” (p. 572). In the early 1990s, sexual masochism was also listed in the International Classification of Diseases (United States Health Care Financing Administration, 1991), and as recently as 1993, the United Kingdom reaffirmed its status as a criminal offence (as cited in Taylor & Ussher, 2001).

Prevalence of Interest

Almost 50 years ago, Kinsey, Pomeroy, Martin, and Gebhard's (1953) investigation found that only a few number of men and women reported an erotic response to sadomasochistic stories. Ten percent of the 1,016 men reported a definite or frequent response to such stories, and another 12% reported some response.

The numbers were even lower for the 2,880 women; only 3% reported a definite or frequent response, and 9% reported some erotic response to stories involving sadomasochism. However, in another sample of 567 men and 2,200 women, when researchers inquired about responses to specific behaviors (e.g., biting) considered to be sadomasochistic, the numbers doubled for men to a frequent or definite erotic response in 26% and some erotic response for 24%. The difference was even more striking for women; 26% of them reported a definite or frequent erotic response to being bitten, and 29% reported some erotic response.

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Thirty years later, Scott (1997) delved into the dominance (individuals desiring to establish control and/or inflict pain or humiliation) and submission (individuals who surrender control and/or are the recipient of pain or humiliation) lifestyle and reported 10,000 to 20,000 individuals were actively participating in dominance and submission organizations primarily in New York, Chicago, Los Angeles, and San Francisco, including educational and social clubs, commercial establishments sponsoring parties, as well as one church rooted in female domination. During the 1980s when Scott investigated the phenomenon, from among the 1000 active participants in the San Francisco Bay Area, 500 were involved in some sort of heterosexual female domination, but most of the participants experimented with other forms of dominance and submission.

Straus and Donnelly (1994) conducted a study with 455 sociology and psychology students (163 men and 292 women) in three northeastern colleges. Sixty-one percent of the students reported being sexually aroused while imagining or actually participating in one or more of the three activities in the Masochistic Sex Index used in the study (physical restraint as part of sex play, engaging in playful fights or being physically rough, or spanking as part of sex play). Fifty percent of men and 44% of women reported having been sexually aroused during rough play. The numbers dropped to 17% for men and 11% for women for actually experiencing restraint during sex, but 30% of men and 14% of women had imagined being sexually aroused while being physically restrained by one's partner.

Baumeister's (1989; Baumeister & Butler, 1997) estimation was much lower; he believed only 5%-10% of the population engaged in masochistic play such as blindfolding or slapping, but did not include biting and scratching in this definition. He estimated only 1%-2% participated on a regular basis. However, Baumeister (1989) did point out this small percentage of the American population translated to 2 to 3 million people. The practice may not appeal to a great number of individuals by way of statistical comparison, but there is obviously some appeal to those practicing these behaviors.

The four theories (dual-instinct, need for power and desire for control, sensation seeking and the fantasy defense mechanism) discussed in this article attempted to increase understanding about the possible motivations driving individuals to seek pain, bondage, and humiliation in sex.

Dual-Instinct Theory

Freud (1920/1922) wrote explicitly about masochism; the phenomenon fits his dual-instinct theory. According to Freud, biological forces motivate humans. Individuals are driven to maintain a low level of energy by regulating energy-creating behaviors such as eating with energy expending activities such as work and play. The human mind also needs energy to function (e.g., in order to think, problem solve, and remember), and the mind draws this energy from the body's physical energy supply gained from breathing and eating. Because Freud realized there are too many instinctual bodily demands to list as motivators, he organized them into two general categories: Eros and Thanatos. Eros, the life instinct, consists of instincts for self-preservation and survival such as food, sleep, nurturance, and sex. Thanatos, the death instinct, drives individuals toward energy conservation through rest and inactivity. Freud (1905/1916) emphasized aggression as a primary death instinct, which manifested itself in self-criticism, suicide, unnecessary risk taking, and masochism.

Freud (1938) described masochism as a continuation of sadism; aggression turned against one's self to overcome the self-loathing and shame that arose to combat the libido. Cases of masochism lend strong evidence for striving toward death; many such cases coming from reports when individuals practicing masochistic behaviors finally succeed in ending their lives. According to Cooper (1996) and Mant (1960), coroners and forensic medical experts are familiar with deaths because of asphyxiation or hanging involving men who appeared to have been engaged in autoerotic activity evidenced by partial nudity, binding on the body or genitals, pornographic material, and other fetish objects (e.g., chains and female clothing). Litman (1997) asserted these cases were not medical rarities; he estimated approximately 50 sexual bondage deaths in the United States each year from 1940 to 1970.

Contrary to Freud's view, even individuals involved in more dangerous masochistic activities such as autoerotic asphyxiation, do not necessarily intend to end their lives. According to Cooper (1996), many individuals include safety devices such as a slipknot or a knife in order to have a quick escape. Unfortunately, these safety precautions do not always work, and some of those individuals die regardless of their best intentions. Postmortem psychiatric reconstruction usually describes the masochistic practitioner as highly successful and not depressed or psychotic. Cooper related the case of a man found hanging by a leather belt in his closet; the corner

believed his intention was pleasure, not self-destruction. Cooper proposed most, if not all of those participating in self-asphyxiation do so to increase sexual arousal and pleasure versus an outlet for an unfilled wish to die. In fact, Cooper reported a case of one man who sought help once he realized the risk he was taking because he did not want the masochistic act to result in his own death.

Although some of these cases are most likely accidents, others do show an obvious desire to die. Litman (1997) related the story of a 30 year old man found hanging in the closet of a motel. He had left two notes, the first confessing he had often masturbated while bringing himself to the edge of death, and the second note explicitly described what he planned to do.

Quivering with excitement, I just stand and swish the lovely skirts about my legs. I know what I'm going to do next. I'm really terrified by sadistic thrill. It is 9:35 Sunday night and in three minutes I will be dead. I strike the match, reach down and set fire to the gossamer edge of the black nylon slip. Quickly I wrap the chain around my wrists and snap the padlock firmly. In a frenzy of passion, I kick the chair over and my body is spasming at the end of the chain noose. I come widely, madly. The pain is intense as my clothes start burning my legs. My eyes bulge and I try to reach the keys, knowing I have finally found the courage to end a horrible nightmare life dangerously. (p. 255)

Whereas this case is an extreme example, Litman (1997) reported another case in which the individual had fantasies of being tied up in a small box; he related these fantasies to those about death and dying. Even during one man's own self-reflection regarding his bondage compulsions the death instinct appeared, saying he was "prepared to die getting it [bondage]" (Scoville, 1985, p. 18). After examining several cases, Litman concluded all the men in the cases he examined were deeply depressed and defending themselves against their death orientation by their perversions. People may be on the brink of suicide for many reasons (e.g., childhood abuse and loneliness) and develop masochistic behaviors as an outlet for their unfulfilled wish to die. Another, less obvious, theory that can be applied to sexual masochism relates to one of the needs humans acquire through their social interactions: the need for power (Reeve, 2001).

Need for Power/Desire for Control

One definition of the need for power is the desire to make the world conform to one's personal plan (Winter & Stewart, 1978). Those high in the need for power strive to

have control, impact, or influence over other people or groups (Winter, 1973). The need for power often manifests itself through a person's need for dominance but is also seen in reputation, position, and status. Several conditions have the ability to satisfy an individual's need for power including influential occupations and prestige possessions. Those high in the need for power are attracted to occupations in which they are in a position to direct others' behavior or influence them in some way such as business executives, professors, clergy, and psychologists (Reeve, 2001).

Individuals also develop some level of a desire for control (DC), the motivation to establish control over their own lives (Burger, 1992). When approaching a situation, high-DC individuals ask themselves whether or not they will be able to control what happens. People with high-DC prefer to make their own decisions and prepare for situations in advance (Burger).

Contrary to what people might assume, masochists exhibit many of the characteristics of a need for power (Reeve, 2001; Winter, 1973; Winter & Stewart, 1978) and a desire for control (Burger, 1992; Reeve). Spengler (1977) conducted a study of 245 West German men by sending questionnaires in response to advertisements placed by sadomasochists seeking partners, as well as distributing the questionnaires to members at cooperating sadomasochistic clubs. The study found the individuals were from a high social status and well educated. Spengler suggested that the results could have been biased because of selection variables. Those with more time and money would find it easier to spend time in the clubs, and the more educated could have been more motivated to participate in the study.

However, other researchers have reported similar findings. Scott (1997) found the female-domination subculture on the West coast, primarily studying groups in San Francisco, consisted of those who were more educated and from higher income and occupational brackets. Janus, Bess and Saltus (1977) interviewed 68 current or former call girls and 12 madams. Of the 4,587 clients of these sex workers, 60% were politicians or power brokers, the vast majority wanting "kinky" sex (p. 64). Prostitutes catering to clients from high-power occupations administered sexual domination more than any other service. Receiving flagellation and verbal and physical humiliation was a frequent preference of these clients. According to Diana (1985), clients of prostitutes frequently made requests for sadomasochistic activities such as bondage and humiliation. In addition, the majority (56.6%) of the clients in Diana's study were in white-

collar occupations, business, or were college students preparing for similar professions.

Moser and Levitt (1987) conducted a study of 178 men and 47 women contacted through sadomasochistic support groups in New York and San Francisco; they had answered affirmatively to defining at least part of their sexuality as SM (sadistic and masochistic). The remainder of the sample came from a survey printed in an SM-oriented magazine. Of the men in their sample, 70.2% were college graduates and another 24.7% had attended college. Of the women in their study, 38.3% had graduated from college, and 44.7% had attended college. Their yearly income was higher than the general population, 33.3% earning at least \$25,000.

Taylor and Ussher (2001) conducted a study of sado-masochists who also tended to belong to professional occupational groups. Sadomasochism appears more common among the more affluent and powerful than the poorer and more oppressed (Baumeister & Butler, 1997).

Masochists obviously are not opposed to accepting the responsibility that high-power occupations (e.g. business and politics) entail; masochists are quite capable of assuming control in at least one aspect of their lives. Scoville (1985) related the story of a woman who, in all situations aside from sex, refused to let other people make decisions for her. The paradox arises once again: how individuals with a high need for power and desire for control in their daily lives could relinquish all of the control to their sexual partners. Establishing power and maintaining control are personality characteristics that normally pervade all areas of one's life, social and personal (Reeve, 2001), however such tendencies do not seem to generalize to masochists.

At first glance, a person would not think someone who enjoys being tied up or forced to lick the boots of a prostitute had anything in common with high-DC individuals or possesses any need for power whatsoever. Sexual masochists may not have physical control, but their perceived amount of control may not be as absent as it initially appears. Perceived control relates to the beliefs and expectations one has about his or her ability to interact with the environment to create desired outcomes and prevent undesirable results. To have a perception of control, an individual must believe he or she is capable of obtaining the desired outcome and see the situation as predictable and responsive (Skinner, 1995). Skinner contrasts perceptions of control with personality traits because he considered perceived control as much more flexible and related to specific domains rather than an all-encompassing trait.

Taylor and Ussher (2001) drew from actual experiences of those actively involved in the SM lifestyle, and several participants argued that the submissive partner held the true power. One practitioner explained by saying, "I'm the one who decides what will happen...how it will happen...how far it will go. I call him master but it's my needs that are being met" (as cited in Taylor & Ussher, p. 299). Baumeister and Butler (1997) also supported this observation. Sadistic and masochistic (SM) scenes are often enacted for the masochist's pleasure; submissive partners often develop a detailed script of what they want to happen and are unsatisfied if their dominant partners do not stay within previously set limits. One bisexual male masochist explained limits:

...if I didn't want him to do something, I'd let him know. And he'd have to stop right there, because there's also, like, limits...you definitely have to have a limit, before you go further. So, if I don't like it, you're not going to go on (as cited in Weinberg, 1995a, p. 130).

Individuals acting out SM scenes and ignoring limits are seen as undesirable and shunned by the rest of the community. The amount of control a masochist exercises is "often a means to ensure that he or she will be able to experience the precise degree of apparent loss of control that is most stimulating and arousing" (Baumeister & Butler, p. 231).

Other researchers proposed a more equitable distribution in which "both parties should be in control" (Taylor & Ussher, 2001, p. 299). Weinberg (1995b) claimed a more realistic description of what really occurs if both submissives and dominants are involved in developing any particular scenario. More often than not, the SM activity is collaboratively scripted so neither party has complete control. A reasonable inference is that neither has a complete loss of control. The mere idea the individual is freely surrendering to the will of another may provide the outlet that person needs to fulfill the desire for control. A man may be tied on a bed, watching his partner advance with a flogger, but the illusion of control still exists in his mind; if he says "stop," and has taken the time to select an honorable partner, he can rest assured his request will be heeded. Such a sensational scenario suggests masochists may also exhibit many traits indicative of sensation seekers.

Sensation Seeking

Sensation seeking is a personality trait defined as "the seeking of varied, novel, complex, and intense sensations and experiences," and the willingness to take

physical, legal, financial and social risks for the sake of such experiences (Zuckerman, 1994). High sensation seekers are easily bored with routine and are continually in search of ways to increase arousal; the construct relates to how much change and variability an individual's central nervous system requires. Sensation seeking consists of four components measured by the Sensation Seeking Scale (Zuckerman, 1978). Thrill and adventure seeking relates to the individual's desire for physical risk taking including noncompetitive activities involving danger, risk, and personal challenge (e.g., bungee jumping, motorcycle riding, and scuba diving). Experience seeking deals with a person's desire to gain new experiences through the mind (e.g., nonconforming lifestyles and particularly with unusual people) and senses (e.g., art, travel, and recreational drug use).

One manifestation of the need for new experiences is sex; sensation seekers report a greater number of partners and frequency in sexual activity and report less of a relationship and emotional involvement for sexual interaction (Reeve, 2001). The disinhibition scale measures the individual's desire to be free in social interactions to pursue pleasure (e.g., the use of alcohol and participating in gambling, wild parties, and sexual variety). Boredom susceptibility deals with the individual's aversion to routine and monotony. When circumstances do not change, those high in boredom susceptibility become restless and intolerant (Reeve).

Much of the information regarding masochists reveals several characteristics of sensation seeking. Sensation seekers need stronger stimulation than those who are not high in the trait, and from studying masochists, Ellis (1995) concluded that pain acts as a powerful sexual stimulant because of its superior ability over all other methods to arouse emotion. Ellis went on to suggest masochists were a "slightly abnormal organism" (p. 40) who, for whatever reason (one of which may have been a congenital condition) have a balance of energy that is less favorable for ordinary courtship. Baumeister (1997) suggested some people may be attracted to masochism because they require an unusually strong stimulus to create a strong sexual response. As quoted in Taylor and Ussher (2001), one of their participants said it is the mental sensation that gives the rush, "a nice sharp pain [smiling]...kinda makes your senses stand on end...there's nothing like it" (p. 299). Ninety-five percent of Moser and Levitt's (1987) sample indicated that sadomasochism was as satisfying or more satisfying than "straight" sex, and 30% reported it was "essential to a gratifying sexual experience" (p. 331).

Experience seeking sensation seekers are drawn to more extreme activities, and Moser and Levitt's (1987) study, provides evidence for the types of activities masochists enjoy. Their sample consisted of people contacted through sadomasochistic support groups who answered affirmatively to defining at least part of their sexuality as SM and respondents of a survey printed in an SM-oriented magazine. The study reported the most common behaviors were spanking, whipping, and bondage by way of chains, rope, handcuffs, and gags. The study also found masochists were interested in exploring and enjoying a variety of sexual behaviors such as group sex and swinging more so than estimates of the general population, not unlike sensation seekers.

Masochists also exhibit the trait of boredom-susceptibility sensation seeking as described earlier. Litman (1997) described masochistic behaviors as a "creative and artistic effort" (p. 267) to fend off boredom. Many of Taylor and Ussher's (2001) SM'ers referred to conventional sexual relations as "vanilla" (p. 303) saying it is conformist, unadventurous, and uninteresting. A participant in Taylor and Ussher's study expressed boredom with the gay scene and discovered sadomasochism was like discovering a completely new life full of new people. Masochism is invigorating to some individuals, a needed escape from the monotony sensation seekers dread; it is dangerous and exciting, "just another aspect of living on the edge" (as cited in Taylor & Ussher, p. 305). Some researchers (Thornton & Mann, 1997) conclude ordinary sex is dull in comparison. Boredom may also provoke persons to use defense mechanisms such as fantasy to escape the ennui induced by common activities.

Fantasy Defense Mechanism

Inevitably, pressures and demands in life become too much to bear, and people must find a way to escape from their daily hassles and the stressors arising from numerous responsibilities, at least temporarily. One way to buffer themselves against overwhelming anxiety or stress is through the use of defense mechanisms. Three signs indicate the presence of a defense mechanism: (a) they are unconscious as opposed to reflective and intellectual; (b) they are used immediately, not deliberately; and (c) they alter the individual's understanding of reality through denial, distortion, or otherwise rearranging it so the reality is less threatening (Reeve, 2001).

One example of a defense mechanism is fantasy wherein the individual gratifies frustrated desires by imaginary achievements. Individuals use fantasy to meet needs for personal relationships and obliterate blatant

expressions of aggressive or sexual impulses (Valiant, 1977). Vaillant describes fantasy as one of the most immature defense mechanisms because the individual fails to recognize or to attempt to cope with external reality.

However immature it is to create another reality to which one can escape, some masochists have made the technique work remarkably well. A high degree of self-awareness can create anxiety and discomfort, particularly when required to make decisions under pressure, take responsibility for actions that may harm or disappoint others, or maintain a favorable public image. Pressures and demands can become overwhelming and oppressive and foster the desire to escape (Baumeister, 1988, 1997; Baumeister & Butler, 1997). High levels of esteem and responsibility can produce very complex selves, selves that can also be the most burdensome and drive individuals to seek more extreme forms of escape (Baumeister, 1988).

Donnelly and Fraser (1998) believe sex can be dangerous and guilt ridden, especially for many women because of the fear of pregnancy and the repression of female sexuality in Western culture. They claimed women seek masochism to punish themselves to alleviate the guilt they feel from having sex. A more positive way to explain masochistic desire may be that some people, not just women, use masochistic behaviors as a way of freeing themselves to experience sexuality without guilt. When a person is bound wrist and ankle to the bed he or she cannot carry much responsibility for what happens; masochism “gives you a chance to be sexual without any responsibility for your sexy feelings...it’s not my fault, Mommy” (Baumeister, 1988, p. 39).

Diana (1985) provided support for the assertion that men are in need of escape from daily lives as well. Married men often explained going to prostitutes because there was no risk of an emotionally involved love affair with a prostitute, which led to less guilt and feelings of betraying his marital commitments; “prostitution provides temporary relief from the obligations inherent in involved sexual and emotional relationships ... and expresses the need for at least occasional relief from customary male role obligations” (p. 191). Men and women may need some sort of relief from obligations and pressures they face every day though the reasons behind the motivation may differ.

Whatever instigates masochistic behavior, Baumeister (1988, 1997) proposes masochism as a way to escape from high self-awareness; an awareness of the

self as simply a physical body focused on immediate sensations or with an entirely new identity replacing the previous self with all its demands and pressures. Individuals temporarily ignore reality, choosing to create a new world in which they are free of responsibility and stress. Baumeister even compares the behavior with physical exercise, meditation, and other more common stress coping strategies, which allow an individual to escape from self-awareness. Masochism is essentially a cognitive deconstruction or mental narrowing as a way to make one’s normal identity “temporarily impossible to sustain” (Baumeister & Butler, 1997, p. 137). Masochists retreat into a fantasy world in which they have no demanding roles to fulfill and are free to experience physical sensation, blocking out guilt they might otherwise feel.

The main ingredients in masochism (pain, bondage, and humiliation) can make escape from self-awareness quite possible. Pain normally functions as a warning system, a signal to do something quickly before life and body are permanently damaged; it demands immediate attention. One’s full attention is focused on bodily sensations. Masochism works on the same principle. Pain is very effective at manipulating attention away from abstract, meaningful, or distant concerns (Baumeister, 1997). It blocks high level cognitions; knowledge of the surrounding world and one’s commitments in it is superseded by bodily pain. Any other thoughts or meanings cease to seem real (Baumeister, 1988). Bondage, accomplished with ropes, handcuffs, neckties or scarves, serves the same purpose — to render one helpless. The responsible, self-determined individual ceases to exist, focusing attention on a person’s vulnerability.

Many masochistic participants find vulnerability and fear very arousing (Taylor & Ussher, 2001). According to Baumeister (1988), loss of efficiency promotes primitive self-awareness. Loss of control leads to low-level cognition, reducing self-awareness and negative affect. When an individual is naked and dangling from chains, thoughts of tomorrow’s stressful business meeting fall to the back burner. Humiliation eradicates incompatible identities. For an individual to be fully exposed in front of others may be in stark contrast to conservative societal or parental messages. The ordinary identity, which would be embarrassed or even horrified, becomes inaccessible and is replaced by the knowledge of oneself as simply a body to be viewed and desired.

Use of one or any combination of these three practices allows the individual to escape to another realm. Baumeister’s (1988) analysis of several sets of letters with varying sample sizes (e.g., $n = 219$, $n = 178$) to a

sex-oriented magazine reporting masochistic practices found becoming a full-time slave, a complete escape into the stress-free world, to be a fantasy in 44% of the sample. Common SM terminologies, such as “scene” and “role play” also indicate its escapist role. A person involved in the masochistic lifestyle describes it “... like going on to a stage ... you can step out of yourself and pretend to be something you’re not” (as cited in Taylor & Ussher, 2001, p. 305). People do not actually change their identities, but they can fantasize about it as a form of wish fulfillment (Baumeister).

Empirical evidence may lend support to the view of masochism as a form of escapism. As previously cited, those involved in sadomasochism tend to be more educated and from higher occupational brackets (Baumeister, 1988; Baumeister & Butler, 1997; Moser & Levitt, 1995; Scoville, 1985; Spengler, 1977; Taylor & Ussher, 2001). Higher level occupations carry with them more responsibility and stress. Thus, these individuals may have greater need for some sort of relief. If this theory is accurate, there should be a greater number of submissives. Janus et al.’s (1977) investigation of prostitution provides some support. Requests to be the donor of flagellation or humiliation were minimal compared to requests to be the recipient.

Moser and Levitt’s study (1995) contained a dominance-submission continuum ranging from 0 (*exclusively dominant*) 6 (*to exclusively submissive*). Almost 44% were exclusively or predominantly dominant (rated as 0, 1, or 2 on the continuum), 42.5% were exclusively or predominantly submissive (4, 5, or 6), and 44.2% indicated components of both dominance and submission in their self-definition (2, 3, or 4). Only 8.6% were exclusively dominant and 7.5% were exclusively submissive. The dominance and submission lifestyle apparently allows individuals freedom to use the particular escape they need. Individual cases provide further support. For a couple who alternate dominant and submissive roles, normally neither of them want to assume the dominant role after a particularly demanding day at work (Baumeister, 1988).

History further supports the need-for-escape contention. Masochism appears to be a primarily modern pattern. A variety of deviant sex practices have existed throughout ancient and medieval cultures, but there are almost no references to it prior to the Renaissance. Bullough (1976) makes one exception in which he suggests masochism was evident in ancient Greek religious ceremonies in the form of self-mutilation, but Baumeister (1988) argues that combining these activities is a mistake

because religion and sex are drastically different contexts and because masochists do not partake in self-mutilation. Literary discussions of masochism associated with sexuality first appeared in the 17th century with Sacher-Masoch, historian, novelist, and dramatist, whose various novels always included a whip scene (Bullough, 1976). Moreover, Tannahill (1980) found no reference to masochistic or sadistic activities in China until the latter 17th century.

Interest in flogging, whipping, spanking, and other physical punishment combined with sexual satisfaction was particularly associated with England and the English; numerous books were devoted to such subjects (Bullough; Tannahill). Not only did the English specialize in such erotic fiction, but they also had brothels with flagellation manuals written specifically for brothel proprietors or prostitutes who catered to such customers (Tannahill). Individualism was becoming a dominant pattern in Western culture at about the same time, encouraging people to be unique, autonomous and self-promoting (Baumeister, 1988, 1997; Baumeister & Butler, 1997; Gebhard, 1995). Increasing demands on individuality would also increase the burden of selfhood. The more demands a society places on individuals, the more they may be driven to find a way to escape in order to at least temporarily free themselves from these pressures.

Conclusion

Finding sexual pleasure in the bite of a whip, the cold steel of handcuffs, or the degradation of being forced to crawl on the floor like an animal often draws the interest of many people. These activities are the antithesis of normal human behavior that makes difficult explaining why a person would seek pain, bondage, or humiliation. I have proposed four theories to clarify this crux. In its most detrimental form, masochism is a manifestation of one’s wish to die (dual-instinct theory). In its most favorable variety, it serves as a coping mechanism (defense mechanism). Masochists do not seem to deny the existence of reality or their need to exert control over their environment (need for power and control); in fact, most have a host of daily responsibilities and continue to fulfill them. Masochism may simply provide a temporary escape for some people. Their sensation seeking traits (sensation seeking theory) drive masochists to find more extreme and unusual methods of escape than people not attracted to pain, bondage and humiliation.

In the context of the different possibilities for explaining that behavior, perhaps the most important observation is that not every theory is applicable to every

case of sexual masochism. Some individuals may be motivated toward the phenomenon from a perfectly healthy standpoint such as the need for power, desire for control, or need for escape. However, darker, unhealthier motivations such as a subconscious desire to end his or her life may drive others toward the same activities. When analyzing one case, we cannot overlook the second criterion in the DSM-IV-TR (American Psychiatric Association, 2000): the fantasies or behaviors must cause “clinically significant distress or impairment in social, occupational, or other important areas of functioning” (p. 573). The behavior alone does not constitute mental illness, and according to Spengler (1977), many individuals have no problem with masochism being a part of their sexuality. The vast majority of participants reported positive emotional reactions after sadomasochistic sex (i.e., 85% agreed to wanting to do it again, 79% agreed it was sexually satisfying, and 53% said they felt happy). The number of individuals who feel the opposite way is relatively low. Only 6% of Spengler’s participants reported having a bad conscience and agreed they needed to quit, and 4% reported regret or depression. Moser and Levitt (1987) found only 5.8% wished they were not into SM, and 5.1% believed SM could be best defined as a mental illness. As long as the behavior is not physically or emotionally destructive, sexual masochism appears to be a non-detrimental, if relatively rare, expression of sexuality that may provide individuals the opportunity to realize the same needs and motivations inherent in normal human functioning.

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Special Features

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In this volume, the Special Features section provides a forum for three types of essays that should be of considerable interest to students and faculty. As in past volumes, students have presented research that supports opposing positions about a controversial issue. Students have also written psychological analyses about popular drama.

Controversial Issues

Views expressed about controversial issues do not necessarily represent the authors' views. Three sets of essays address controversial issues. Allison Davis and Jeff Kalar discuss the insanity defense as used in courtrooms. Allison takes the position that the insanity defense provides an important judicial tool whereas Jeff suggests that the insanity defense, although good in theory, is bad in practice.

Amanda Lofgreen and Kara Biven disagree about the issue of homosexuals serving in the armed forces. Amanda reviews research that suggests homosexuality is compatible with serving in the military whereas Kara proposes that homosexuality can be debilitating for military organizations and their personnel.

Lindsay Osborne and Michael Odey argue about the influence of pre-trial publicity on fair and just courtroom decisions. Lindsay describes literature that defends pre-trial publicity as not exerting powerful influence on jurors, whereas Michael contends that there is a discernible cost to pre-trial publicity.

Psychological Analyses – Dramatic

Jaelyn Johnson describes several examples of obedience and conformity in American X. Jaysie Crawford provides an illustration of posttraumatic stress disorder in her description of Elizabeth Burrows's portrayed in the movie, Don't Say a Word. The behavior of Charles Foster Kane in Citizen Kane provides evidence for Supriya Bhatia's diagnosis of reactive attachment disorder. Erika Lawrence argues that the behavior of Tyler Durden in Fight Club is indicative of paranoid schizophrenia. Kavita Jagarlamudi supplies several incidents from Ordinary People that support a diagnosis of clinical depression.

There are a variety of issues that students can address for the next issues of the *Journal's* Special Features sections. At the end of this issue (pp. 68-70), you can read about three topical issues; Evaluating Controversial Issues, Conducting Psychological Analyses — Dramatic, and Conducting Psychological Analyses — Current Events.

Controversial Issues

Defending Insanity: The Necessity for the Insanity Defense in Today's Courtroom

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Since the time of Aristotle, the law has distinguished between those who are “insane” and not accountable for their actions, and those who are sane and culpable for their illegal activity (Elliott, 1996). If the law is to remain the pinnacle of fairness and reason, we must continue to acknowledge the impact of mental illness on behavior. In modern courts, the insanity defense accomplishes this goal. Though rarely used, the insanity defense is necessary for several reasons. First, guilt requires criminal intent, which means that the defendant understands the basic difference between right and wrong, and freely chooses to act wrongly. Diseases or dysfunctions of the mind can cloud judgment, making incarceration unjust and ineffective (Wrightsman, Neitzel, & Fortune, 1998). Second, individuals acquitted by reason of insanity are confined to institutions where they receive treatment for their illness. A person acquitted of crime because of insanity is only released from an institution if he or she is no longer considered mentally ill and dangerous (Ellsworth, 1980). He or she is generally held longer than individuals receiving a traditional prison sentence for a comparable crime (Monahan, 1977). Third, objective measures allow mental health professionals to assess

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mental functioning with reasonable accuracy, decreasing the chances of faulty acquittals. Most psychological inventories provide some means for assessing malingering, making defendants' successfully "faking" insanity difficult. Last, and perhaps most important, history has shown that the nature of the insanity defense is not static. It continually evolves with additions and revisions to ensure its validity. By expanding on these four points I intend to prove that the insanity defense is a necessary and just part of the criminal justice system and that it should not be abolished under any circumstances.

To find guilty and fully accountable for a crime, a person must possess criminal intent. Criminal intent requires that a person understand the difference between right and wrong and choose to act wrongly out of his or her own free will. However, diseases or dysfunctions of the mind can cloud an individual's judgment, making him or her unable to comprehend this basic difference (Wrightsmann et al., 1998). Based on this distinction, many modern courts have come to define insanity legally using the McNaughton rule. The McNaughton rule states that individuals are not liable for their actions if they are suffering from a defect in reason or mind that prohibits them from understanding that what they are doing is wrong (Wrightsmann et al., 1998). If an individual is incapable of determining the difference between right and wrong, punishment through imprisonment is not likely to be effective. Furthermore, if the illness is left untreated, there will be nothing to stop the individual from committing similar or worse crimes upon release. Because punishment alone is not likely to deter future criminal behavior, these individuals need psychological intervention, not prison, for rehabilitation.

Those who oppose the insanity defense often argue that individuals found not guilty by reason of insanity "get off easy." In reality, research has found the opposite. If acquitted, the individual is confined. The difference is that the confinement is to a mental health facility instead of a prison. Unlike prison, mental health facilities are required to provide treatment — not just custodial care (Ellsworth, 1980). Also, discharge from a mental health facility is not dependent on the passage of a specific amount of time, and there is no possibility for parole or early release for good behavior unless that good behavior is indicative of sanity. Boards regularly review commitments, and inmates are released only if they are no longer considered mentally ill and dangerous (Ellsworth, 1980). Although predicting dangerousness is controversial, studies have shown that clinicians tend to over-predict the likelihood of dangerous behavior, leading to longer rather than shorter commitments (Monahan, 1977). Thus, time

spent in psychiatric institutions is generally longer than a prison sentence for a comparable crime (Elliot et al., 1993).

To determine the adequacy of one's mental functioning, clinicians make decisions based on several objective measures and personal interviews. However, those who oppose the insanity verdict often argue that mental health professionals are not capable of determining if an individual is truly "insane." This conclusion is true, in part, because the term insanity is not psychological at all. It has evolved as a legal standard reserved for categorizing those who, because of a mental deficiency, appear to have no appreciation for right or wrong (Wrightsmann et al., 1998). A jury of the defendant's peers, not a psychologist, decides if an individual should be acquitted by reason of insanity.

To aid the court in its decision, mental health professionals act as expert witnesses. They testify to what they believe the defendant's state of mind was at the time of the crime. As evidence, many professionals rely on personal interviews and objective tests such as the Minnesota Multiphasic Personality Inventory and Millon Clinical Multitaxial Inventory to determine the defendant's level of functioning (Hess & Weiner, 1999). To ensure the accuracy of the test's results, most objective personality inventories provide some means for assessing whether a defendant is faking mental illness or malingering.

Clinicians developed other measures, such as the M test for schizophrenia, to recognize malingering related to specific disorders. The M test consists of three types of items: confusion items, items that are true indicators of schizophrenia, and items that are not true indicators of schizophrenia. Evidence indicates that the M test had an 82.6% classification accuracy in distinguishing between schizophrenic patients and students who faked schizophrenia (Rogers, 1988).

Another psychological test, the 16 PF uses the Faking-Bad scale to assess malingering. The Faking-Bad scale consists of 15 items chosen by participants who were instructed to give as bad an impression as possible. A cutting score of 6 is used to identify malingering (Rogers, 1988).

With increased understanding of mental illness, there has been an increase in the measures used for insanity acquittals. Since the McNaughton Rule dating back to 1843, the criteria for legal insanity has been repeatedly revised and tightened to guard against misuse and abuse.

This ongoing process has helped to keep juror's judgments accurate and acquittals rates low. The most recent example is the Insanity Defense Reform Act of 1984. This federal law replaced the American Law Institute's test, which had been in effect in federal courts since 1962. Under this new legislation, the burden of proof was switched from the prosecution to the defense, making it even more difficult to be found not guilty by reason of insanity (NGRI) (Finkel, 1989).

The most recent enactment, the guilty but mentally ill (GBMI) verdict, is intended to act as a middle ground between opposing sides of the debate. The GBMI verdict acknowledges the presence of mental illness, but holds offenders criminally responsible for their actions (Bumby, 1993). Contrary to common belief, statistics show that the number of insanity acquittals remains remarkably low. The insanity defense is attempted in only 0.9% of criminal cases, and of that 0.9%, only 26% of the pleas are successful (Circione, Steadman, & McGreevy, 1995).

In conclusion, I suggest that the insanity defense is perfect. What in the legal system is perfect? As a proponent of the defense, I am simply stating that morality requires that we acknowledge mental illness within the criminal justice system. Again, four main arguments for using the insanity defense persist. First, if an individual is incapable of determining right from wrong because of a mental defect or dysfunction, punishment through imprisonment is unjust and ineffective. Second, institutionalization resulting from an NGRI verdict is necessary for rehabilitation, and unlike a prison term, inmates are released only if they are considered no longer mentally ill and dangerous. Third, the measures used to assess mental functioning are quite accurate and difficult to deceive, thus decreasing the chances of faulty acquittals. Lastly, the definition of the insanity defense is not static. Its acceptance of revision has proved to be a major factor in its longevity. Ellsworth (1980) sums up the debate:

The insanity defense provides a safe corner in the free-will-determined criminal justice system, allowing that system to operate in the climate of psychological determinism so prevalent in society. Were that corner to be taken away, the result might be massive and detrimental to the very foundations of the criminal justice system and the operation of the law (p.110).

So what does the future have in store for the NGRI verdict? There is a high likelihood that the insanity defense will continue to undergo revision as our perception of mental illness advances, and the need for a middle

ground between opposing viewpoints intensifies. As for the entire abolition of the insanity defense, I agree with Monahan—not yet.

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Insanity Defense: Good in Theory, Bad in Practice

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In the courtroom, insanity is not a psychological term; it is a legal term. Nonetheless, the court calls upon

psychologists to evaluate and give testimony in cases in which the defendant pleads insanity. Most jurisdictions view insanity as derived from a mental illness that inhibits the defendant's capacity to appreciate the wrongfulness of an illegal act at the time it was committed or the inability to control one's own behavior.

There are primarily two legal standards for a plea of insanity in the United States, and the legal standard varies from state to state. The first standard, the *McNaughton* rule, focuses on cognition in addition to the presence of a mental illness, and asks jurors "to evaluate a defendant's ability to understand the nature and quality of the illegal act" (Pickel, 1998, p. 571).

The second standard, the American Law Institute (ALI) standard, is broader. The ALI standard takes into consideration mental illness, cognition, and free will by asking jurors to determine whether "a mental defect substantially reduced the defendant's ability either to realize that the act was wrong or to conform his or her behavior to the law" at the time of the act (Pickel, 1998, p. 571).

The rationale behind the insanity defense is that punishing a person for an illegal act is inappropriate if he or she did not understand that the action was wrong. More specifically, the court hopes to determine whether or not the individual possessed *mens rea*, or "guilty mind," at the time of the crime. If not, then there has been no criminal intent and punishment is not warranted. The legal system uses adjectives such as *deliberately*, *willfully*, and *knowingly* to establish intent, whereas the adjectives *carelessness*, *mistakes*, and *accidents* discredit intent. Furthermore, for an action to be intentional it must be voluntary (Wrightsmann, Nietzel, & Fortune, 1998). In theory, determination of intent seems straightforward. Practically speaking, however, determining retrospectively whether or not an individual possessed *mens rea* at a given time is difficult.

I will present three major flaws in the insanity defense. First, the legal definition of insanity is unclear and that lack of clarity leads to significant inequality in its application. Second, the insanity defense does not accomplish what was intended. Third, there are better alternatives than the status quo.

The primary flaw with the insanity defense is its imprecise definition as evidenced in the multiple rules, such as the *McNaughton* and the ALI rules, courts use to establish insanity. The ambiguity of the insanity defense allows jurors to bring their own preconceived notions into the courtroom. The courts assume that a juror will put

aside his or her stereotypes and prejudices when acting as a fact finder. However, results from many psychological studies have shown that jurors are not able to put aside their preconceived notions. As Pickel (1998) reported, "researchers have identified several variables that legally should not affect jurors' judgments in insanity cases but nevertheless do" (p. 571).

Factors that influence juror's judgments about insanity include the apparent level of planning in the crime, the quality of the prosecution's evidence, the defendant's behavior at the time of trial, and whether the crime was "oddly committed rather than committed in a typical manner" (Pickel, 1998, p. 571). According to Whittemore and Ogloff (1995), the mental state of the defendant at the time of the trial is another variable that should not, but does, influence jurors. The court asks jurors to consider only the mental state at the time of the criminal act, not at any other time.

Similarly, McGraw and Foley (2000) showed that "a defendant would be found more responsible if the outcome of the crime was more serious" (p. 171). To test this hypothesis, they presented a vignette to a group of university students and found that if all other variables were constant, participants were significantly more likely to plead insanity successfully if victims died versus being only wounded. These findings are in opposition to the intent of the insanity defense because confounding variables have no bearing on the defendant's *mens rea* at the time of the crime or on his or her ultimate legal standing.

Let's examine this finding more closely. Assume that assailant X stabs a victim in the heart, and the victim dies, whereas assailant Y stabs a victim two inches away from the heart and the victim simply needs stitches. As McGraw and Foley (2000) found, the chance outcome of death versus a flesh wound had a statistically significant impact on a jurors' perceptions of the mental state of the perpetrator. Whereas assailant X was significantly more likely to plead insanity successfully because of the more serious outcome, is his or her *mens rea* any different from that of assailant Y? No. Is the ability of the defendant to appreciate the nature and quality of the act any different? No. Therefore, the outcome of the offense should not affect jurors' judgments, although in fact, it does.

Even though the court's definition of insanity is too vague, a more specific definition is not the answer either. Empirical evidence indicates that instructions to jurors have little or no bearing on the verdict (Ogloff, 1991). Finkel and Handel (1988) also found that "mock jurors make discriminative verdicts among insanity cases, but

different insanity instructions to the jury do not account for those differences” (p. 75). In other words, Finkel and Handel found no differences in the verdicts reached by mock jurors who received legal instructions and those who received no instructions. This finding suggests that jurors ignore the law and base their decisions on their own preconceived notions; a more specific definition of insanity would not reduce the variability among verdicts.

The second major flaw with the insanity defense is that it does not accomplish what was intended. As explained previously, the intent of the insanity defense is to separate those individuals for whom a mental illness inhibited mens rea when breaking the law from those who willfully carried out their actions. A study by Moskowitz, Lewis, Ito, and Ehrmentraut (1999) compared the MMPI-2 profiles of civilly committed patients to patients who had been acquitted based on the insanity defense at three state psychiatric hospitals in Virginia. Civilly committed patients were generally (a) mentally ill and (b) potentially dangerous to themselves or others. Legally insane individuals are generally (a) mentally ill and (b) have already committed a violent act.

If individuals acquitted based on an insanity defense, also known as NGRIs (not guilty by reason of insanity), were significantly mentally incapacitated, then a person would expect to see similar MMPI-2 results between the two groups. In fact, their results indicated “significantly different mean MMPI-2 profiles, with NGRIs reporting less pathology overall compared to civil inpatients” (p. 659). This outcome suggests that legally insane defendants actually possess less pathology than civil patients, the opposite of what logic would suggest. One plausible interpretation of these findings is that many patients classified as insane actually exhibited less mental illness than their civil counterparts, and they simply took advantage of a loophole in the legal system to avoid prison.

The third major flaw with the insanity defense is that there are better alternatives than the current system. First, many people advocate making prisons more like state hospitals in terms of therapy and rehabilitation. Although controversial historically, recent findings support the value of rehabilitating criminal offenders (Palmer, 1991). Many psychologists appreciate the value of therapeutic intervention for all criminals, not just those who are labeled “insane.” Second, some individuals have proposed providing a third verdict choice for jurors, such as diminished responsibility (DR). In fact, some states currently allow a verdict of guilty but mentally ill.

These options provide a middle ground between the inflexible extremes of “guilty” and “not guilty.” Finkel and Duff (1989) empirically tested the diminished responsibility plea to see if jurors would either overuse or misuse this option because these are the two main arguments against DR. They reported “mock jurors used the DR verdict selectively (no exclusive use found), discriminately (significant case-by-case differences), and appropriately (consistent with their construals and judgments of the cases)” (p. 235).

Psychologists can appreciate the scientific objectivity behind diagnosing depression, schizophrenia, or obsessive-compulsive disorder. Similarly, lawyers can examine the facts and determine whether or not a law was broken. However, attempting to evaluate someone’s thought process, motivation for an action, or level of cognition during an action fundamentally different. Psychology and the law do not mesh on these issues. According to Ziskin (1995), there is no psychological test that indicates whether a person knew if his or her action was wrong, and any psychological testimony on the subject is nothing more than speculation. The problem is further compounded by delegating the ultimate judgment to 12 people of various backgrounds, chosen randomly to sit in judgment of another person.

If a person violently breaks the rules that society has established for the greater good, even if not of his or her own volition, that person needs to be segregated from society. For example, if a person has a propensity for murder but lacks the ability to appreciate the nature and quality of the act, then for the greater good of society that person needs to be sequestered. Prisons exist not only for punishment, but also for the protection of the innocent.

The current insanity defense is flawed. Courts ask jurors to answer an unanswerable question. The entire process surrounding the insanity defense is fraught with stereotypes, prejudices, and other biases that have no place in the courtroom. Moreover, in spite of the previously cited empirical research, the legal system fails to address these problems. The crux of the issue is that the legal system is asking psychologists to provide legal proof for a question that is ambiguous from a psychological perspective. Ultimately, definitively determining whether a person was or was not legally insane is impossible.

Ambiguity in the legal definition of insanity contributes to this problem, but refining the definition would be futile because, as many studies have shown, jurors

ignore explicit instructions and rely on their preconceived notions (Finkel & Handel, 1988). Although there are certainly instances in which perpetrators commit an illegal act, and they do not have the capacity to appreciate the wrongfulness of the act fully, or to stop themselves from committing the act, courts do not identify these individuals with any consistency. Finally, better alternatives exist. There are far too many problems with the insanity defense to justify its continued use. When it comes to the insanity defense, justice is not blind.

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Homosexuality is Compatible With Serving In the Military

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The topic of homosexuality is a common topic in American culture. President Clinton's "Don't ask, don't tell" policy allows homosexuals to serve in the military; however, they are not allowed to reveal their sexual orientation. Many people are wary of the integration of homosexuals into the military. There is a concern that heterosexuals would not be able to overcome their prejudice against gays, and as a result, military units would not be able to function in an essential close-knit and productive way.

Ironically, those beliefs and the "Don't ask, don't tell" policy may actually strengthen prejudice against homosexuals. Herek and Capitano (1996) found that heterosexuals had more favorable attitudes toward homosexuals if they had experienced interpersonal contact with gay men and lesbians. Evidence indicates that greater contact was associated with more favorable the attitudes. Regular interactions between heterosexuals and homosexuals force heterosexuals to focus on features other than the sexual orientation of gays, and they begin to see behaviors that are inconsistent with their stereotypes, thus, creating positive attitudes. These findings suggest that heterosexuals and openly gay persons can form close relationships in American society and in the military (Herek & Capitano, 1996). The findings also suggest that prejudice in the military can be overcome by more interactions with openly gay individuals. However, the military's policy of discouraging homosexuals to be openly gay may only serve to perpetuate this prejudice (Herek & Capitano, 1996).

There is much prejudice and harassment in the military that is based on sexual orientation. At a news briefing, Frank Rush (2000), Deputy Undersecretary of Defense, stated that 80% of military personnel had heard offensive speech, including derogatory names or jokes, regarding homosexuals in the last 12 months. Rush also stated that 37% of the military personnel reported that they had seen harassment based on homosexual orientation. Even more disturbing, 1.9% of military personnel surveyed said their commanding officer either does or would tolerate harassment based on homosexuality. The Servicemembers Legal Defense Network found 15 actu-

al or attempted witch hunts even though these are strictly forbidden under the “Don’t ask, don’t tell” policy (“Military and gays,” 1995). The Network also reported a total of 340 less serious instances of the military violating the policy. There are training programs designed to educate military personnel, however, the reduction of prejudice has to start at the top. The leadership must maintain a high level of order and discipline in the military services for these beliefs to decrease (Rush, 2000).

The “Don’t ask, don’t tell” policy has other adverse effects on homosexuals. The military prohibits homosexuals from revealing important personal information that can cause them distress and unnecessary isolation (Kavanagh, 1995). A homosexual in the military has to constantly monitor himself or herself to avoid revealing his or her sexual orientation. As a person might expect, homosexuals tend to distance themselves from heterosexuals so they do not have to live a lie. This distance makes difficult the forming of friendships between homosexuals and heterosexuals (Kavanagh, 1995).

The “Don’t ask, don’t tell” policy is harmful to homosexuals, and it denies heterosexuals privileges as well. Because homosexuals are prohibited from disclosing their sexual orientation, overcoming prejudice is almost impossible. Heterosexuals are not able to get to know homosexuals as individuals and are unable to build positive relationships with them (Kavanagh, 1995). Also, heterosexuals may experience coldness and aloofness on the part of homosexuals (both in the military and in everyday life) because homosexuals cannot reveal their orientation (Kavanagh, 1995).

Davis (1993) compared the integration of gays in the military to racial integration in the military. In the 1950’s, racial integration was a controversial topic, and many people thought that it would disrupt the morale, good order, and discipline of the military. Currently, the military includes people of different races and those with different cultures, religions, socioeconomic statuses, and education. “Those who view the military community as incapable of integrating gays may be overlooking the highly diverse character of the military and its demonstrated capacity to integrate individuals from highly diverse backgrounds” (Davis, 1993, p. 26).

Examining how other countries have handled the issue of gays in the military demonstrates that integration can and does work. Many countries, from Australia to Holland, allow homosexuals in the military to be open about their sexuality, and they report having few problems (“Private’s Privacy,” 1995). In 1995, the United

States and Britain were the only two countries in NATO that ejected homosexuals from the military (“Private’s privacy,” 1995). However, Britain has since lifted its ban and left the United States as the only NATO ally that discriminates against homosexuals in the military (Russel, 2000).

Now is the time to act. A growing trend in the United States is that Americans are becoming more accepting of gays. A poll conducted by Yankelovich Partners, Inc. (Moniz, 1999) showed an increase from 1994 to 1998 in the number of Americans who said they wanted homosexuals as friends. The military is also becoming more accepting of gays. In 1993, the percentages of those who opposed or strongly opposed the idea of gays in the military were 77% for Army men and 34% for Army women. However, the numbers in 1998 showed a dramatic decrease with 52% for Army men and 25% for Army women (Moniz, 1999).

The “Don’t ask, don’t tell” policy allows gays to serve in the military; however, it reinforces prejudice by making people feel that there is something wrong with being homosexual. The military provides many opportunities for interactions between homosexuals and heterosexuals that would reduce prejudice (Kavanagh, 1995). For example, military personnel share common goals, which provides opportunities for modest intimacy, and people in the same rank have equal status. If the military would take advantage of those situations, prejudice could dwindle (Kavanagh, 1995). Hopefully, with an increasing acceptance of homosexuals within society and increasing research support for the positive aspects of contact between heterosexuals and homosexual, military officials will eventually allow gays to serve openly in the military.

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Homosexuality's Debilitating Effects

on the Military

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Civil rights have long been the focus of the American society which considers equality and fairness the ideal and goal. However, when referring to soldiers' rights in the military, the ultimate goal of the military must be considered. For all functional purposes, the military is concerned with safety and protection of the American people and the United States and not with equality. This particular branch of the government does not and should not be held to the same rules as that of other facets of society. Hence, if there is any question as to whether or not homosexuals should be allowed to join the military, the answer lies within the assessment of whether they pose a threat to the efficacy of the military with regard to safety for its members, cohesion, retention, and safety of the American people.

More recently, however, the debate over homosexuals in the military has become a question of civil rights and whether the rights of the minority should impinge on the rights of the majority. Some opponents point out that the close quarters soldiers must keep would result in an invasion of privacy if homosexuals were allowed to join the military. However, this particular argument makes up only a small piece of the puzzle; there are several arguments supporting the view that homosexuals should not be allowed into the military because their behavior is incongruent with the ideals of the military and that such behaviors place others at risk.

One of the prominent arguments against allowing homosexuals to join the military openly is the increased medical risks to those people who must go through rigorous training and bloody combat with homosexuals. Numerous studies reveal that homosexuals, on average,

report having more non-monogamous sexual encounters and, thus, leading more promiscuous lifestyles than heterosexuals. A study performed by Blumstein and Schwartz (1990) that found 79 % of homosexual men reported having had sex with someone other than their partner within the previous year in comparison to 11 % of heterosexual men. Thus, there is an immense difference between the promiscuous behavior of the American population, as a whole, and that of homosexuals.

This increase in promiscuity and anonymous sexual experiences leads to an increased risk of infection with blood-borne pathogens along with numerous sexually transmitted diseases. A survey conducted by the American Public Health Association found that approximately 78 % of homosexuals have had a sexually transmitted disease at some point (Rueda, 1982), and according to the CDC, nearly two-thirds of the cases of AIDS are the result of homosexual contact (CDC, 1992).

The results of a U. S. Army survey showed that "80 % of soldiers who tested positive for the HIV virus admitted to contracting the virus through homosexual contact" (Ray, 1993, p. 55). Because of the increased risk of homosexuals contracting a sexually transmitted disease or blood-borne pathogen, such as HIV, there is also an increased risk of those people infected with blood-borne pathogens transmitting the disease to others. Because of the physical nature of the activities involved in military training and service, people are continually receiving lacerations from rigorous activity or, in the worst case scenario, major wounds from war situations placing military personnel at higher risk for blood exposure and transfusions. Thus, having homosexuals in the military becomes a question of safety for the military personnel who are uninfected.

In addition to the medical risks imposed on those military personnel forced to serve with homosexuals, there are potential financial costs incurred when homosexuals serve in the military. Because HIV and sexually transmitted diseases are difficult to combat, the goal is prevention. Yet, increasing risks of infection of military members requires an increase in the regular testing of its members for blood-borne pathogens because these diseases have an incubation period in which the disease cannot be detected by medical testing. This increase in testing for the military's members would create a large financial strain on the military's budget (Ray, 1993).

Many people suggest separating homosexuals from heterosexuals much like gender segregation. If the military were to allow homosexuals to serve openly within

the military, separate housing and bathing or showering facilities would have to be built for both homosexual men and lesbians. This construction and consequent separation would be financially taxing on military budgets (Gomulka, 1998). A question that should be asked is whether spending millions of dollars on housing for a small subgroup of the population is a productive use of military funds when those funds could be used for training opportunities, education, or military supplies.

Aside from the financial costs that could be incurred by allowing homosexuals to serve openly in the military, there is the risk of weakening the effectiveness of the military by including members who have higher rates of suicide, depression, alcoholism, and drug usage. The rates for attempted suicide are five times higher in homosexual men than in heterosexual men (Cochran & Mays, 2000). In addition, approximately 25 to 33 % of homosexuals are thought to struggle with alcoholism (Kus, 1987). Thus, if the military is to take on responsibility for military personnel who are prone to suicide and alcoholism, it risks the expense of training military personnel who may end their own lives. Along with the possible financial strain of military personnel who may not be productive, there is also the risk of putting the morale of the military in jeopardy by including people who engage in behavior incongruent with military expectations.

If homosexuals are going to join the ranks of the military openly, there is the concern about anti-gay violence. Despite the existence of laws against these types of acts and strict enforcement of them, we live in a sexually conservative, homophobic society. Pratarelli and Donaldson (1997) studied whether education regarding the origin of homosexuality and sexual orientation affected people's attitudes toward homosexuality, when attitudes about being in close proximity to homosexuals were initially negative. Despite education about the origins of homosexuality, the attitudes of the people in the study did not change and in some instances became more negative. The main concern of those participating in the study was whether they would be in close proximity to homosexuals for any amount of time.

Because of the close quarters and amount of time spent together between military personnel, one concern is that the instance of violent acts against homosexuals may increase if gays are allowed to serve openly because of the apparently unchanging, negative attitudes of heterosexuals. This probable increase in anti-gay violence jeopardizes the safety of the homosexual men and women who want to join the ranks of the military and thus is inconsistent with the goal of safety. In addition, this

affect of increased hostility toward homosexuals within the military is, again, detrimental to the cohesion of the military itself where homosexuals and heterosexuals would be at odds with one another.

Last, but not least, there is the question of recruitment and retention within the military if homosexuals are allowed to join openly. A study by Estrada and Weiss (1999) found attitudes toward homosexuals in general was slightly negative among the American population and attitudes toward homosexuals in the military was more negative. As a result, if homophobic heterosexuals are forced to occupy close quarters with homosexuals, many of our military personnel will discontinue service and enlistment for new recruits will decline (Gomulka, 1998).

The backbone of the arguments favoring the continuation of the ban against homosexuals in the military rests on the behavioral risks and characteristics associated with homosexuality and not the biological aspect of it. Thus, banning homosexuals from participating in the military is a protective function to ensure the safety of the military's members and maintenance of its core goals.

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Pretrial Publicity Fails to Exert a Powerful Influence on American Citizens

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News and information are increasingly available to the American public. With the touch of a button, people can easily and quickly acquire information about everything from recent weather conditions to the latest current events. Even if a person chooses not to follow local or national news, news commentators may interrupt regularly scheduled programming with a special report.

The public, including potential jurors, can hardly escape media coverage surrounding high profile crimes, specifically the apprehension of a suspect, complete with the conclusions of newscasters and legal experts. Some people believe these images and opinions influence viewers' attitudes and convictions and can ultimately affect how they perform on a jury (Vidmar, 1997). However, the legal system has implemented several safeguards whose effectiveness the psychological literature cannot empirically dispute. Although pretrial publicity may give potential jurors a one-sided view of a case, the effects of such publicity in no way compare to the personal biases Americans hold. These personal biases have a far greater bearing on juror decisions than any information about a particular case gathered from reading newspapers or watching the news (Vidmar, 1997).

Freedom of the press is guaranteed by the Constitution, and psychological research is unable to demonstrate that this right should be ignored (Otto, Penrod, & Dexter, 1994). My contention is that media coverage of current events does not destroy the ability of an individual to receive a fair trial.

Our judicial system does not allow the media to release any and all information it wishes, especially prejudicial information. Courts have placed clear restrictions on what journalists can report and print. The American Bar Association, as well as the United States Justice Department, have established guidelines concerning types of information that should not be offered to the press before the trial (24th International Congress, 1998). As a result of *Gannett Co. v. DePasquale* (1979), the press can be excluded from pretrial hearings in which the most prejudicial evidence is introduced (as cited in Wrightsman, Nietzel, & Fortune, 1998). In addition, courts may prohibit the press from publishing material if there is evidence that the right to a fair trial will be compromised (Wrightsmen et al., 1998).

If a trial receives an overabundance of publicity, there are several legal safeguards to reduce potential prejudice among possible jurors. A judge can order a continuance, thereby lengthening the time between the initial exposure to the information and the trial, to reduce the affect of pretrial publicity (Wrightsmen et al., 1998). Lawyers can import jurors from a jurisdiction that has not received the same media exposure or conduct an expanded *voir dire* (i.e., jury selection process). During an expanded *voir dire* a judge may increase the number of jurors who attorneys question and allow more thorough, individual questioning (Wrightsmen et al., 1998).

Finally, a change of venue has proven to be one of the most effective safeguards against juror bias in cases of pretrial publicity (Studebaker, Robbenolt, Pathak-Sharma, & Penrod, 2000). Venue refers to the county or jurisdiction in which a trial takes place. If the court determines that a defendant will be unable to receive a fair trial in the jurisdiction where the crime was committed, the defense attorney may apply for a change of venue, or location. For example, the bombing of the Federal building in Oklahoma City created massive publicity. Christina Studebaker and her colleagues at the University of Nebraska-Lincoln performed a content analysis that examined the amount of news coverage in Oklahoma City, as well as three other areas, which were being considered as trial venues (Studebaker et al.). They concluded that there had been less media coverage in Denver, Colorado, suggesting that a venue change to Denver was appropriate and would eliminate juror bias (Studebaker et al.). The Federal Judge followed their recommendation and moved the case to Denver. However, extensive pretrial publicity was not the only source of potential bias among the citizens of Oklahoma City (Studebaker et al.). Because the people "in the Oklahoma venues were more likely to know someone who was killed or injured in the

bombing,” Oklahoma respondents were more likely to report “feelings of anger,” which could influence a juror’s decision more than trial facts (Studebaker et al., p. 331).

This conclusion is not unique to the Oklahoma City bombing case. Although pretrial publicity may seem to be the reason behind venue changes and expanded *voir dire*, there is another force at work - prejudice. Prospective jurors’ beliefs also come from their own prior experience or personal biases and often overshadow the trial facts (Vidmar, 1997). Even if jurors are not consciously biased against a defendant, there may be something about the trial that does not fit with their preexisting ideas or schemas about society (Carlson & Russo, 2001). One example of this phenomenon, known as belief in a just world, is often apparent in rape cases. Even though a woman is not responsible for being raped, that such a heinous act could occur does not sit well with jurors. Jurors often shift at least some of the blame to the woman: she must have asked for it; she must have dressed inappropriately; it must be her fault because if she did not ask for it then something like that could happen to anyone (Wrightsmen et al., 1998). Jurors may distort or ignore certain case facts to create a situation that better coincides with their belief in a just and fair world (Carlson & Russo, 2001).

Vidmar (1997) explained that a person may hold two types of prejudice: specific and generic. Specific prejudice is “juror prejudice that is specific to the defendant or other parties associated with a trial” (Vidmar, p. 6). Generic prejudice, however, has nothing to do with trial details or the identity of the defendant or victim. Rather, the juror looks at the situation and lumps the defendant or type of case into a certain category, allowing stereotypes to replace case facts as the determining factor in making judgments about a defendant’s innocence or guilt (Vidmar). This generic prejudice poses the real threat to a fair trial, not pretrial publicity (Doppelt, 1991).

The media may assist in development of juror bias because the “literature tends to indicate that coverage of (certain topics) has affected public attitudes and perceptions” (Vidmar, 1997, p. 8). However, the media’s influence is minimal compared to other sources. Otto, et al. (1994) asserted that current survey research has failed to find a clear link between pretrial publicity and jury decision-making. They suggest, as others have, that jury members may be able to set aside pretrial publicity. Although jurors may form negative opinions of one of the parties, they may be more influenced by trial evidence than forms of pretrial publicity. Even in their own

experiment, Otto and her colleagues found that although pretrial publicity may influence a juror’s pretrial verdict:

None of the five pretrial publicity manipulations (statements regarding the defendant’s character, weak inadmissible statements by a neighbor of the defendant, a prior police record for the defendant, mention of the defendant’s low-status job, and strong inadmissible statements by a neighbor of the defendant) had significant direct effects on the mock jurors’ post trial verdict (Otto et al., p.465). The experiment showed that jurors were most likely to ignore character pretrial publicity in the light trial evidence, strongly suggesting that its negative influence was weakened as a result of trial facts.

Although Steblay, Besirevic, Fulero, and Jimenez-Lorente (1999) found strong evidence for the media’s influence on jurors’ initial judgments, they failed to link prejudgment to the final verdict. Vidmar (1997) reported that jurors were more likely to be influenced by their “interactions with empathy for the victim, development of initial hypothesis about the evidence, perceptions of the credibility of civilian and expert witnesses ... or more likely, some combination of the above” (p. 8). Furthermore, prejudices based on race, religion, sex, nationality, or any other characteristic that places a defendant or witness into a certain group distort the attitudes with which the juror interprets evidence and decides the case. Some jurors may simply be predisposed to convictions and decide that a specific crime should be vindicated regardless of additional outside information (Vidmar).

In any event, the perception that the media can bias jurors should not be used to curtail the public benefits of free speech. According to Tyler (1990), the United States Constitution states that Congress shall make no law ... abridging the freedom of speech, or of the press ... (U.S. Const. Amend. I). The law prohibits courts from dictating what people say or print. Amendment VI further states: “In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury ... (U.S. Const. Amend. VI). Once again, the Constitution supports publicity, declaring trials as public domain in order to insure their fairness. In addition, psychological research consistently finds that public trials maintain confidence in the judicial system by allowing citizens to recognize the judiciary as a legitimate body (Tyler).

The argument for the right to pretrial publicity is based on four very strong points: safeguards exist that are often used by courts to reduce potential bias that may be caused by the media; other sources of potential bias outside the media may have a greater biasing potential; there

is limited evidence for the impact of pretrial publicity on prospective jurors; and we have a need to maintain our Constitutional rights and confidence in our judicial system.

Each day human beings make hundreds of decisions; decisions may consist of a career path or whether or not to have “fries with that.” Numerous factors are involved in making these decisions. A legal verdict is far more complex, and believing that censoring the news will somehow produce unbiased jurors is naive. Even without the publicity, people in the jury pool carry with them personal beliefs to which both sides are subjected. There is no need for additional restriction of the media; prejudices will prevail regardless of the trial details that find their way into the press.

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The Costs of Our Biases: Pretrial Publicity

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Since the advent of the Internet, the rising popularity of Hollywood courtroom dramas, and real courtroom trial shows, the public is increasingly exposed to the workings of the courts. However, media intrusion can jeopardize essential justice. Although media advocates try to justify press coverage of public trials, their reasoning is overshadowed by their selfish motives and their frequent misrepresentations of the system. In addition, pretrial publicity is a problem that already crowded courts are not equipped to handle. This essay will describe the research findings that juror's attitudes and decisions are influenced by pretrial publicity. Moreover, that the use of legal safeguards intended to prevent the negative effects of pretrial publicity are costly, ineffective, and poorly executed will become clear.

Because the law is complex, accurately capturing its intricate nature is nearly impossible for the media. Proponents of media presence claim that they educate the public and ensure proper justice. However, the media focuses on specific cases to attract interest and higher ratings. For example, the media commonly reports on high profile/celebrity cases, government wrongdoings, outrageous sentences, and controversial social issues (Greek, 2001). These cases are intended to touch the public's emotions and increase network ratings (Clark, 1994). Yet, journalists, who do not possess any legal education and who lack knowledge and understanding of the law, often do the reporting.

These entertaining cases may peak people's interests, but they only show certain facets of the justice system. For instance, 80% of all cases are plea-bargained and those rarely receive media attention, thus giving a false impression of the actual workings of the system (Wrightsmann, Nietzel, & Fortune, 1998). *Trentonian* newspaper publisher, H.L. Schwartz III, summed it up best saying, “The judge has to look out for the guy's rights, but we [the press] don't” (Fair Trial, Free Press?, 1995, p.8). This example demonstrates the dangerous code of ethics that the media employs when covering the vast majority of cases.

Most of the general public's knowledge about the courtroom comes from Hollywood exaggerations and biased journalism (Greek, 2001). As a result, the *venire*, or jury pool, can be a cesspool of biases. The justice system has a responsibility to filter out potentially biased jury members to guarantee the defendant's right to a "fair and impartial trial" (Wrightsmen, et al., 1998). But, because most citizens are uneducated in the law, incriminating media reports may be highly influential to the community. The phrase "innocent until proven guilty" is unique to the American justice system.

When the media leaks sensitive information to the public, stories become misconstrued, and the public may consider defendants "guilty until proven innocent". Although some researchers claim the general, personal biases Americans hold, called generic prejudices, are more influential than any direct media publicity, these generic prejudices are further enhanced by mass media coverage (Vidmar, 1997, 2002).

Results from recent studies have demonstrated the potential biasing impact of pretrial publicity on an integral part of the judicial process, the *venire*. Brusckhe and Loges (1998) reviewed federal murder trials and found that pretrial publicity had an impact on juror attitudes during the guilt-determining phase of the trial. Their study also found that pretrial publicity was harmful during the sentencing-phase, with sentence length differing most between those cases with no publicity and those with 1 to 10 articles written about the case. These results show the danger of even one piece of pretrial publicity, which can create a bias so strong that true justice is circumvented (Brusckhe & Loges).

An earlier study validated those findings and demonstrated a clear link between pretrial publicity and the ultimate trial outcome (Stebly, Besirevic, Fulero, & Jimenez-Lorente, 1999). Thus, one small article published in the middle of a newspaper can potentially form a bias so strong that a jury may be unable to set aside a bias during the trial and eventually compromise a defendant's constitutional right.

Prejudicial pretrial publicity may not always be detrimental to the defendant and may in fact bias the jury in favor of the defendant. For example, the prosecution falsely accused Steven Titus of rape, and he enlisted the support of journalists to spread his story of eyewitness misidentification. Data from mock jurors regarding an unrelated case three months prior to the Titus articles, during the publication of the articles, and three months after the publications (Greene & Loftus, 1984) found that

jurors who considered the case during the time that the Titus articles were published had about half the number of guilty verdicts as the group who considered the case three months before the media release. Many jurors stated that the Titus articles raised their awareness about sentencing an innocent person. Interestingly, the jurors who considered the case three months after the Titus articles were published were as likely to reach a guilty verdict as the first group. These results demonstrate that during a period of intense media publicity, many jurors can be significantly influenced during a trial depending on the type of bias (Greene & Loftus). Additional research has replicated these findings in civil cases (Bornstein, Whisenhunt, Nemeth, & Dunway, 2002). All of these findings have dangerous implications for the U.S. justice system.

Nonetheless, the justice system has identified potential safeguards/remedies for the problems created by pretrial publicity. However, some psychologists criticize the remedies as ineffective and unreliable (Hans, 1999). There is evidence that judicial instructions may be somewhat ineffective and ultimately rely on the timing of the instructions (Bornstein, et al., 2002). Data show that even with clear instructions from the judge, jurors still retain and are influenced by pretrial material (Bornstein, et al., 2002; Lieberman & Arndt, 2000;).

Continuance or trial delay, a technique for reducing the effects of pretrial publicity, simply puts off the problem. A judge's gag order only applies to the participants in the case and not to the media (Hans, 1999). Even with a thorough *voir dire* (i.e., jury selection) detecting juror biases is difficult (Dexter, Cutler, & Moran, 1992). Jury importation and sequestration is costly and usually has no effect on the verdict. A change of venue seems to be the most effective safeguard, although it is rarely used because of excessive cost, the overworked court system, the burden of proof put on the defense, and the sensitivity of change of venue surveys (Posey & Dahl, 2002; Stebly, et al., 1999; Studebaker, Robbennolt, Pathak-Sharma, & Penrod, 2000). Studebaker and Penrod (1997) noted that the reasons these safeguards fail is because they each try to remove the bias *after* it has been created by pretrial publicity. Pretrial publicity safeguards have been, in part, challenged by the growing speed, abundance, and ubiquity of mass communication (Studebaker & Penrod).

Several U.S. Supreme Court cases have examined the issue of pretrial publicity and the infringement of constitutionally guaranteed due process. *Irwin v. Dowd* (1961) examined juror prejudice found during *voir dire*;

Rideau v. Louisiana (1963) discussed denial of due process to refuse a request for change of venue because of an impartial jury; and the *Sheppard v. Maxwell* (1966) decision stated that the courts must take significant steps to ensure that a defendant's rights are not violated (as cited in Studebaker & Penrod, 1997). These cases from the 1960's foreshadow the media problems faced today and serve as precedence in future cases (Studebaker & Penrod).

In addition to past Supreme Court cases, the American Bar Association (ABA) created MR 3.6 Model Rules of Professional Conduct, which states:

A lawyer shall not make an extra judicial statement that a reasonable person would expect to be disseminated by means of public communication if the lawyer knows or reasonably should know that it will have a substantial likelihood of materially prejudicing an adjudicative proceeding (as cited by Studebaker and Penrod, p.430).

The Supreme Court ruled on the constitutionality of MR 3.6 in *Gentile v. State Bar of Nevada* (1991), in which the verdict, though vague, held that the state may constitutionally restrict attorney speech if it will cause a prejudicial effect (Day, 1993). In practice, however, much pretrial coverage is released in violation of the ABA rules meant to protect the defendant's constitutional rights (Bruschke & Loges, 1998).

The court system is already burdened and the media's presence simply causes more delay. The media's justification for its presence (i.e., public education and to insure justice) is not in keeping with the way it exercise these freedoms. Their focus is more on entertainment and ratings that propel trial publicity, causing courts to spend more time and consideration on security, prevention, and resolution of any obstructions of justice. Furthermore, studies have shown the effects, negative or positive, of pretrial publicity and how it affects the opinions of jurors, essentially jeopardizing the trial, and most notably, the final verdict. Because the law acts doctrinally, previous cases hold precedence and have shown that pretrial publicity is a continuing problem. The psychological literature seems to indicate that pretrial publicity is a dangerous enemy of the justice system, and the system may not be capable of handling it.

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Psychological Analyses – Dramatic

Obedience and Conformity in *American History X*

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In the movie *American History X* (Morrissey & Kaye, 1998), the topics of obedience and conformity are readily apparent. The movie begins with a flashback of the Vinyard family, which gives viewers a sense of what this family has experienced. Derek, the Vinyard's oldest son, was the leader of a local white supremacist group called the Disciples of Christ (DOC) in their hometown of Venice Beach, California. The first scene occurred at night when Danny Vinyard alerted his brother Derek to a situation in the front yard of their house. Two Black men were breaking into Derek's truck, which his deceased father gave him. Derek raced to the front door, gun in hand, and within minutes shot and killed both men. He was arrested for voluntary manslaughter and subsequently convicted. His younger brother, Danny, had not seen him for more than three years.

While Derek was in prison, Danny followed in his big brother's footsteps: shaving his head bald, getting DOC and swastika tattoos, and spouting White power hate rhetoric. The movie focused on the events of only one day: the day that Derek was released from prison and reunited with his family. Derek was paroled with a full head of hair and a new outlook on life because of experiences he had in prison and the Black friends that helped him. He was determined to undo the damage he had caused. Danny got a chance to analyze and interpret all of Derek's actions and their implications by writing a paper for the principal of his school, Dr. Sweeney. This story was told through Danny as he wrote his paper about Derek, his actions, and their consequences.

This movie portrayed many psychological concepts, including conformity, obedience, prejudice, aggression, and group polarization. During one flashback, Derek, Stacy (Derek's girlfriend at the time) and Danny were standing in the parking lot in front of a local grocery store. What followed was an illustration of the basic conditions that are present when conformity occurs as demonstrated by Solomon Asch (as cited in Myers, 1999) and is also a prime example of intergroup prejudice and aggression. Derek, Danny and Stacy stood on one side while about a half dozen White, middle class youths stood across from them in a half circle.

Derek began lecturing the group about how millions of dollars each year are spent on minorities who only want to exploit the country, and how illegal immigrants are being put into prisons while United States citizens pay for the foreigners' incarceration with American tax dollars. He pointed out that Americans were suffering because the minorities were stealing their jobs. He pointed out that the grocery store used to employ mostly White neighborhood kids until it was taken over by a Korean who fired the Whites and hired cheap immigrant help. This scene also portrayed an example of the in-group/out-group concept. This concept suggests that a person will favor a member of his or her own group, based solely upon their group membership (Myers, 1999). Derek then led the group to raid the store violently and harass the foreign employees.

Whether knowingly or not, Derek used the conditions that increase conformity: Derek, Stacy, and Danny served as the three people needed to be present and unanimous in their views. Derek lectured in a way that made others feel incompetent (e.g., reminding them of their unemployment), and the actions of everyone in the group were very observable. Derek tried to promote prejudiced feelings within the group by pointing out the differences in values, beliefs, and norms between their group and the immigrants (i.e., using symbolic threats that indicated that the out-group threatened the in-group's way of life) and by emphasizing the threat the immigrants placed on their survival, freedoms, and power (i.e., using realistic threats that suggested that the out-group endangered the existence of the in-group) (Bizman & Yinon, 2001). Derek had intentionally picked people who had lost their jobs to minorities and who were therefore frustrated, hoping to heighten their already present aggression. Lastly, Derek modeled aggression by leading the raid in the store. Conformity was evident in the behavior of the others who followed his example.

Another scene provided an example of social learning. In a flashback of the family sitting around the kitchen table, a younger Derek started a conversation about his great Black teacher at school, Dr. Sweeney, and how he was learning about Black culture in his class. His dad expressed disdain for this information and outlined his qualms about affirmative action. He explained to Derek that, because of affirmative action, he had “two Black guys” covering his back on his job at the firehouse instead of the “two best guys.” The father told Derek not to “feed into” Black culture. Derek overtly agreed with his father’s prejudice views. Derek admired his father and was; therefore, more willing to model his beliefs, which is an example of social learning. Interestingly, this social learning paralleled that based on Danny’s admiration for Derek because Danny followed in Derek’s footsteps while Derek was in prison.

These feelings and prejudices were further enhanced by the confirmation bias when a Black person, while doing his job in a low income, minority neighborhood, later murdered their father. In psychology, if a person believes in something (e.g., Derek believes that Blacks are bad) and then something happens to affirm that belief (e.g., his father being murdered by a Black man), then the strength of that belief is enhanced. These feelings were what lead Derek to take a stand against Black people and become the leader of the DOC.

Group polarization occurs when personal beliefs are intensified because of membership in a group with similar beliefs (Myers, 1999). This concept is also demonstrated in *American History X*. The racist group members all agreed with White supremacy because that was the basis for belonging. They had no reason to believe that their views were not correct because all of them believed in the same thing, and they were isolated within their group. As part of their functions, they regularly expressed their racist beliefs. They fed off each other’s acceptance of the racist beliefs and were cut off from the rest of the population. This isolation from other people and the merging of their gang with other White supremacist groups further strengthened their opinions and lead to the extreme behavior that is depicted throughout this movie.

According to Bizman and Yinon (2001), the only way to remedy prejudice is to take the people who identify strongly with the prejudiced group and create a subordinate group for them. The theory emphasizes that an alternative group with a positive message will influence the person away from the prejudiced group. *American History X* showed this phenomenon when Danny and Derek were reunited. Danny realized when Derek was

released from prison that their family unity was becoming increasingly important. Having the Vinyard family back together created a positive subordinate group to which both Danny and Derek could belong. Unfortunately, this solution came too late for Danny.

As many social psychologists have shown and what is learned from *American History X* is that groups can have a powerful effect on people’s behavior. The writers, producers, and directors of this movie were accurate in portraying how conformity, group polarization, and obedience can lead to aggression and prejudice. The overall theme that ended this movie was that Danny’s transformation was too little and too late to save him. However, viewers can learn from the lessons of the characters in this movie.

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Presence of Posttraumatic Stress Disorder in *Don’t Say a Word*

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“I’ll never tell.” These words, when spoken with an eerie edge, send shivers down the spine. They were the tagline for the motion picture *Don’t Say A Word* (Berman, Downer, & Fleder, 2001). The movie focused on a young woman, Elisabeth Burrows, who was in a mental hospital. The movie depicted several examples of Elisabeth suffering from posttraumatic stress disorder (PTSD). By looking at examples from the movie and seeing how they relate to criteria in the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association (APA), 2000), viewers can see how this diagnosis is an appropriate.

For 10 years, Elisabeth was diagnosed with several psychological disorders and had been in and out of psychiatric wards. The lead character, psychiatrist Dr. Nathan Conrad, believed that most of the diagnoses were the result of Elisabeth's mimicking the behaviors of other patients. Mimicking allowed her to stay in the hospital, which provided her protection from the men who killed her father. But of all the disorders assigned to her, Conrad believed only the symptoms of PTSD were real.

To understand why Elisabeth could have PTSD, I will describe the disorder. The DSM-IV-TR (APA, 2000) lists posttraumatic stress disorder as a particular type of anxiety disorder. To be diagnosed as suffering from PTSD, an individual must first have "... been exposed to a traumatic event ... that involved actual or threatened death or serious injury ... and [a] response [that] involved intense fear, helplessness, or horror" (APA, p. 467). This traumatic event usually entails a threat to one's life or to a family member or friend. Second, the exposure to the trauma must be "persistently re-experienced" (DSM-IV-TR, 2000, p. 468). A person could have dreams or nightmares connected to the trauma or even flashbacks and recurring memories. Third, one must have "persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness" (APA, p. 468). The person may lose joy in activities he once enjoyed and will often isolate himself from others. Fourth, "persistent symptoms of increased arousal" must be present (APA, p. 468). People with this disorder often experience exaggerated responses, hyper alertness, and trouble sleeping or concentrating. Finally, these symptoms must be persistent for "more than one month" (APA, p. 468).

Elisabeth Burrows fit the diagnosis of PTSD. When she was very young, she witnessed the death of her father when some men pushed him in front of a subway train. The men had been after a jewel that he had stolen from them. Her father was placed in a coffin and sent by ship to a remote island. Unbeknownst to the crew, she boarded the boat and watched her father's burial. The next day she was discovered wandering by herself around the island. This type of experience would be traumatic for almost everyone. Elisabeth was a candidate for PTSD not only because her life was in danger, she also witnessed the termination of her father's life.

Throughout the movie, the audience can see Elisabeth's flashbacks. At first they were of her father, many of them centering on him inserting the stolen jewel into her doll, which she later put in his coffin. When Conrad began to ask her about the situation concerning her father's death, she tried to evade his questions. For

several years, she avoided talking about what happened, which had helped her push the incident out of her mind. The flashbacks became more vivid as she opened up to Conrad. To help her come to terms with her father's death, Conrad took Elisabeth to the places she had avoided. When she was taken to the island where her father was buried, she began to trace the numbers that were carved into her father's coffin. As a child, she repeatedly ran her hands along the numbers while she was on the boat that carried her father to his resting place. These flashbacks made it clear to the audience that she had been reliving the event and therefore fulfilled another criterion for a diagnosis of PTSD.

Another way she showed avoidance was that she has stayed in mental hospitals for many years. By making herself appear to be mentally unstable, she did not have to deal with the situation or its implications in her life. She did not have to grow up or take responsibility for her life because she had hospital staff to take care of her, and she would not have to return to the places that reminded her of her father. In addition to displaying avoidance, Elisabeth showed other qualities that would identify her as suffering from PTSD.

Elisabeth demonstrated symptoms of increased arousal and anxiety while in her hospital room. The audience knows that she violently assaulted an orderly and that it took five men to stop her. When Conrad first encountered her, she was on the edge of her bed and was very tense. Elisabeth was unresponsive to the doctor and did not acknowledge his presence when he entered the room. As he searched for the reason behind the attack on a man who put her in the mental hospital, Elisabeth refused to give him any information. She showed signs of increased arousal throughout the film. When Conrad asked Elisabeth about her father's death, she became very irritated and shouted at him to leave her alone.

Finally, Elisabeth also fit into the last category for PTSD because the duration of her symptoms was longer than one month. She had been tormented by her father's death for more than 10 years.

By analyzing scenes from the movie, viewers can find evidence supporting a diagnosis of PTSD for Elisabeth. She exhibited the symptoms and met the criteria of all five categories of the disorder. Elisabeth experienced a trauma that endangered her life, continued to relive the event through flashbacks, purposely avoided the people and places that reminded her of her father's death, exhibited signs of increased stimulation, and her symptoms were persistent for more than one month. The

nature of her father's death left Elisabeth a very disturbed young girl. Though she exhibited the symptoms of several disorders, Conrad realized that only her PTSD was genuine. The audience can concur with his diagnosis.

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Analysis of Reactive Attachment Disorder in *Citizen Kane*

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A once powerful newspaper tycoon sits alone in one of the many rooms of his unfinished mansion. He gazes into a snow globe and utters his final word "Rosebud" (Welles, 1941). The glass globe falls to the ground and shatters. What is the importance of this man's last words? This question is the essence of *Citizen Kane*. The investigation of this question reveals a stolen childhood and the creation of a ruthless man who demands love. The character Charles Foster Kane, in the movie *Citizen Kane*, struggles with the psychological implications of his childhood.

A brief look at Charles' childhood shows a young boy playing in the snow with his sled. Inside his house, his parents are signing their son over to the care of Thatcher & Company Bank, the company that is also in charge of their recent inheritance. Shortly thereafter, Charles is told he will be going on a trip with Mr. Thatcher and staying with him in the future. When Charles asks his mother if she is coming with them and why he has to go, he receives only a vague response in reply. This one scene affects all subsequent events. Charles' rise and fall from power, his failed marriages, his extramarital affair, his need to be loved and obeyed by everyone, are all results of this severed bond and the effect of Reactive Attachment Disorder (RAD).

The American Psychological Associations' (APA) *Diagnostic and Statistical Manual of Mental Disorders* (1994) defined RAD as "markedly disturbed and developmentally inappropriate social relatedness in most contexts, beginning before the age of five years" (APA, p. 118). The child may be classified as having the inhibited type, which is "persistent failure to initiate or respond in a developmentally appropriate fashion to most social interactions," or a disinhibited type that is characterized by "the failure/inability to discriminate in their social interactions (e.g., excessive familiarity with relative strangers or lack of selectivity in choice of attachment figures)" (APA, p. 116). Furthermore the child must have experienced pathogenic care, as evidenced by at least one of the following: "persistent disregard of basic emotional needs and stimulation, persistent disregard of basic physical needs, and repeated changes of primary caregiver that can prevent from normal formation of stable attachments" (APA, p. 118).

Attachment and bonding with a sensitive and responsive caregiver is extremely important in the course of normal development. Research has shown that compromised attachment in early childhood is likely to compromise an individual's psychosocial development (Bowlby, 1988; Luecken, 2000). Attachment is the feeling children have toward their parents or caregiver directly or through symbolic transitional objects, such as teddy bears or blankets (Gelder, Gath, Mayou, & Cowen, 1996). Bonding is the feeling the parents or caregivers have toward their children. The combination of these elements help children understand that they are cared for and worthy of attention and affection, as well as help them create positive expectations for future relationships (Hanson & Spratt, 2000). The movie suggested that Charles' childhood did not consist of these elements. If at one time Charles had been attached to either of his parents, the trauma of their subsequent abandonment surely impaired this relationship. One argument is that Charles had a symbolic attachment to his mother through a transitional object, his sled "Rosebud" (Welles, 1941). In terms of bonding, the flat affect of his mother's face when she signed over her son to the bank and her lack of emotion as she told Charles his fate indicated possible inadequacies in this relationship.

The DSM-IV (APA, 1994) diagnosis of RAD states that the child exhibits these problem behaviors before the age of five years. The movie's script does not permit a determination about whether Charles demonstrated these behaviors prior to five years of age. Charles seemed to demonstrate the characteristics of the disinhibited type of RAD. If a person suffering from RAD is left untreated,

the disorder follows a continuous course (i.e., the individual continues to approach relationships in the same disturbed way throughout his or her life) (APA). This pattern may be the case with Charles, because even as an adult he “lacks selectivity in choice of attachment figures” (APA, p. 116) as demonstrated by his extramarital relationship with Susan Alexander, a talentless opera singer. In addition, throughout his life, he consciously or unconsciously strives to make himself known to the public, to persuade them to love him, which might illustrate “excessive familiarity with relative strangers” (APA, p. 116).

The final criterion for diagnosis of RAD is the child’s exposure to pathogenic care. His mother’s and Mr. Thatcher’s disregard for Charles’ emotional needs demonstrated pathogenic care. For example, when Charles was told he was going with Mr. Thatcher, Charles got upset and pushed Mr. Thatcher to the ground. Mr. Kane stated that Charles needed a good “good thrashing” (Welles, 1941). Mrs. Kane responded by stating that she wanted Charles to go where his father would not be able to touch him. This comment implies that when Charles lived with his parents he may have been abused, and by definition, children who have experienced abuse or neglect meet criteria for pathogenic care. However, if Mrs. Kane and Charles were in an abusive relationship, this behavior may have been the cause for Mrs. Kane’s insensitive and unemotional behavior. Nevertheless her behaviors may still indicate an impaired bonding relationship with Charles. All through his life Mr. Thatcher, whose strict and exacting style would not fulfill a child’s basic emotional needs, frequently criticized Charles. Consequently, the three parental figures in Charles’ life subjected him to pathogenic care and disappointments.

Charles Foster Kane attempted to regain the love he never received from his parents or caregivers. His efforts caused him to possess many things, but he never really felt as though he has anything of value. Charles pursued relationships with the hope that he would be loved, and this type of relationship included his relationship with the public. Charles wanted to be loved, but he never wanted to give love. These psychosocial impairments haunted Charles throughout his life, demonstrating that RAD can be severely debilitating. Charles’ impairment was clear. He was able to find relationships, but he never understood the nature of what it was to love. With his final word, “Rosebud,” Charles tried to salvage some of the memories of his mother before her abandonment. Charles tried to regain his lost childhood, and in his final moments, he tried to hold the one thing he remembered that brought him real joy.

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Paranoid Schizophrenia in the Movie

Fight Club

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The movie *Fight Club* (Milchan & Fincher, 1999) at first appears to be about two men who became friends and created an underground boxing club known as Fight Club, as well as an organization called Project Mayhem, which specialized in vandalism. Later viewers learn there were not two men, but one deeply, psychologically disturbed individual. However, there is some debate about the diagnosis of the main character, or narrator, should be. One view is that he has dissociative identity disorder. First, he seems to have two different personalities; one as the narrator and the other as Tyler Durden. Second, Tyler does things about which his other personality is unaware. However, this diagnosis does not fit all of his symptoms. The movie shows much verbal and physical interaction between the narrator and Tyler, and this interaction is not found in dissociative identity disorder according to the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association (APA), 2000). The interaction the narrator has with Tyler is better explained as visual and auditory hallucinations coupled with delu-

sions that Tyler is a real person with whom the narrator can interact. These observations point toward a diagnosis of schizophrenia, specifically, paranoid schizophrenia.

The first criterion in the DSM-IV-TR (APA, 2000) for a diagnosis of schizophrenia, is the presence of two or more of the following active phase symptoms present for a significant portion of time during a period of 1-month: delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior, or negative symptoms. The narrator has both delusions and hallucinations, satisfying this diagnostic criterion. The hallucinations begin simply as brief visual flashes, but they become longer and more complex throughout the course of the movie until they are a stable combination of auditory and visual hallucinations with which the narrator has both verbal and physical interaction. Careful observations during the beginning of the movie reveal brief flashes of Tyler on the screen. For instance, viewers can see Tyler on one occasion when the narrator is standing at the copy machine in his office and again during the narrator's initial visit to a support group for men with testicular cancer.

Later the hallucinations become more stable and Tyler proceeds on the moving sidewalk at the airport, no longer a brief flash across the screen. On an airplane ride, the visual hallucinations are combined with auditory hallucinations, and the narrator begins having a conversation with Tyler whom the narrator believes is sitting next to him. Eventually the interaction is no longer limited to being verbal, and it becomes physical as Tyler and the narrator begin to fight outside of a bar. The interaction continues even after the narrator realizes that Tyler is an hallucination, and he gets beaten severely by Tyler when he tries to stop the detonation of a bomb that Project Mayhem has placed in the building of a credit card company. The narrator knows that Tyler is a hallucination, but he still sees Tyler and struggles with him physically even though the security camera shows that the narrator is the only person present.

Stemming from his hallucinations, the narrator has a set of delusions about Tyler. For instance, he believes that Tyler is a real person with whom he has a close relationship and that he and Tyler created Fight Club. The narrator also believes that Tyler is having a relationship with a woman named Marla Singer whom the narrator met at some support groups and whom he claimed to dislike. His delusions about Tyler lead him to become jealous of Tyler because Tyler seems to be getting all of the credit for Fight Club, even though the narrator believes that they set it up together. The narrator gets upset because

Tyler sets up Project Mayhem, and he believes that he, the narrator, is being left out of everything related to the club and project. The delusions begin to break down by the end of the movie when the narrator realizes that Tyler is only a hallucination and, therefore, did not do any of the things the narrator thought he did.

Another criterion for a diagnosis of schizophrenia according to the DSM-IV-TR (APA, 2000) is social or occupational dysfunction, which the narrator seems to fit as well. The narrator shows a drop in his level of self-care, which can be seen in his appearance at work with blood stained clothes, no tie, and numerous cuts and bruises. While he still has a job, he also seems quite antagonistic toward his coworkers, especially his boss. The narrator is about to be fired when he frames his boss for beating him up and walks away with a lot of equipment and a year's pay. The narrator's interpersonal relationships are also dysfunctional. He did not seem to have many relationships before his hallucinations developed, but his relationship with Marla is very turbulent because he thinks that she is having the relationship with Tyler. The narrator does not act to maintain the relationship with her, since he does not know it is really him she is dating, and so he is even hostile toward her at times.

The third criterion in the DSM-IV-TR (APA, 2000) is that continuous signs persist for at least six months with at least 1 month of symptoms from the first criterion (e.g., delusions and hallucinations). Although there is no specific length of time mentioned in the movie, such an inference is reasonable. The symptoms occurred for a long enough period of time to allow Tyler to set up Fight Club in many cities and to organize and execute all of the activities of Project Mayhem. These are very complex tasks that would have required extensive planning and time to organize and complete.

The narrator seems to fit the other three criteria required for a diagnosis of schizophrenia. These criteria (APA, 2000) are that the symptoms are not caused by schizoaffective disorder or a mood disorder with psychotic features, the effects of a substance or a general medical condition, or a history of a pervasive developmental disorder. First, there is no indication that he has schizoaffective disorder or mood disorder because he does not seem to be suffering from major depressive or manic episodes. The narrator may have some symptoms of major depression such as insomnia, but whether or not this behavior is still a problem is questionable because Tyler acts when the narrator believes himself to be asleep. The narrator also shows no other symptoms of depression. Secondly, nothing in the movie suggests that

drugs or medication are at fault. The doctor the narrator sees refuses to give him anything for his insomnia so he has no medication from that visit. There is no mention of a general medical condition that would explain his condition either. Finally, the narrator shows no signs of a pervasive developmental disorder as he functions quite normally cognitively.

Not only does the narrator meet the criteria for schizophrenia, he can be further classified as having paranoid type schizophrenia. According to the DSM-IV-TR (APA, 2000), paranoid type schizophrenia has two criteria and the narrator meets them both. The first criterion is the presence of delusions or auditory hallucinations with which the individual is preoccupied. The narrator has both visual and auditory hallucinations of Tyler with accompanying delusions. He believes they are living together and have a very close relationship. The amount of time spent with Tyler would constitute preoccupation.

The second criterion is that disorganized speech, disorganized or catatonic behavior, and flat or inappropriate affect are not present. The narrator is coherent in his speech and there are no signs of disorganized behavior or catatonia. In fact, he is able to function well enough to organize and lead the men involved with *Fight Club* and *Project Mayhem*. In addition, his affect is appropriate; he seems to respond normally to emotional stimuli. For example, when his friend Robert is shot, he is visibly upset about Robert's death and angry that the members of *Project Mayhem* want to bury him in the backyard.

Although some of the narrator's symptoms may not fit within the diagnosis of schizophrenia, such as Tyler taking actions of which the narrator is unaware, most of his symptoms are consistent with this diagnosis. He fits all of the criteria in the DSM-IV-TR (APA, 2000), especially the pronounced auditory and visual hallucinations with accompanying delusions. Furthermore, his delusions and hallucinations as well as his lack of disorganized speech, disorganized or catatonic behavior, and flat or inappropriate affect qualify him for further classification as suffering from paranoid schizophrenia. In the end, the two men whose relationship forms the core of the movie turn out to be one man suffering from a very serious disorder.

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Depression in *Ordinary People*

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The movie *Ordinary People* (Schwary & Redford, 1980) tells a story about ordinary people trying to deal with extraordinary circumstances. Calvin Jarret, a wealthy lawyer, lives with his wife, Beth, and son, Conrad, in a suburban Illinois town. Beth and Calvin have lost one son to death in a horrible boating accident and lost another to depression. Conrad, after the death of his brother Buck, found himself unable to cope with everyday life. He felt guilty for surviving. The movie begins after Conrad has returned from his stay in a hospital where he was sent for treatment after he tried to commit suicide. The story follows Conrad's attempt to return to living a normal life, although he continues to struggle with depression.

The American Psychiatric Association's *Diagnostic Statistical Manual of Mental Disorders* (2000) states that lifetime risks for depression vary from 10 to 25% among women, whereas men have a lower risk that varies from 5 to 12%. A depressed person experiences emotional, behavioral, cognitive, and even physical symptoms. For example, many depressed people feel sad, unproductive, and riddled with headaches. Moreover, most depressed people frequently have negative thoughts about themselves (Comer, 2001).

Depressed behavior can be effectively explained by Aaron Beck's cognitive theory of depression (Beck, Rush, Shaw, & Emery, 1979). Beck's theory hypothesizes that an individual's negative and distorted thoughts are responsible for both the development and maintenance of depression. These distortions are a result of a depressed individual's use of flawed schemas to understand the various experiences in his or her life. The faulty schemas are unconscious automatic thoughts, which are generally negative preconceptions. These preconceptions tend to strongly influence the emotions and actions of depressed people because these negative feelings have a tendency to beget more negative feelings, thus creating a vicious cycle. Furthermore, depressed individuals selec-

tively discern and process knowledge regarding themselves, their world, and their future in a negative and distorted manner. Beck refers to these three negative categories of thought as the cognitive triad (Beck et al., 1979). Depressed people also employ specific fallacies in their thought processes. Beck classifies these typical fallacies as overgeneralization, arbitrary inferences, personalization, and selective abstraction (Beck et al., 1979).

Conrad's experiences of negative thoughts about himself illustrate a part of the cognitive triad. For example, after he quit the swim team, he was reluctant to tell his parents because he expected them to react with great anger and disappointment. He felt like a failure, and he assumed that if he told his parents they would say he was a failure. He could not image a positive situation in which his parents would support and try to understand his decision.

The cognitive triad also includes negative thoughts about events. Conrad assumed that all events would have a negative outcome and only cause him more grief and pain. This condition occurred when Conrad and his therapist, Dr. Berger, discussed Conrad's decision to quit the swim team. Conrad was tempted not to quit because he focused more on the negative aspects of quitting. He feared he would appear foolish because he had begged for a second chance to be on the swim team. Berger pointed out that Conrad should focus more on the fact that he would feel better after he quit, thereby putting a more positive spin on the consequences.

The final component of the cognitive triad concerns negative thoughts about the future. Conrad reached a low enough point to attempt suicide, which is a clear indication that he was experiencing negative thoughts about the future. The future looked so bleak and the memories of the loss of his brother were so painful that Conrad felt that life itself was not worth enduring.

One of the numerous cognitive fallacies that Conrad employed was overgeneralization — a tendency to draw broad conclusions from a single insignificant situation, thus degrading their overall self-esteem (Comer, 2001). For instance, when Conrad became interested in his classmate, Jeannine Pratt, he immediately assumed that she was not interested in him. He finally got the nerve to ask her out, and she agreed. On the date, she momentarily ignored him and paid attention to some other guys from their school. Conrad interpreted this action as an indication that she was not interested in him. Although his interpretation was untrue, Conrad had difficulty relinquishing his negative view. In reality, her attention was

momentarily distracted because she was nervous about the date with Conrad.

Conrad also engaged in arbitrary inference. People who demonstrate this fallacy jump to negative conclusions based on little evidence or in fact evidence to the contrary (Comer, 2001). One negative instance becomes generalized to all experiences. For example, when Conrad quit the swim team, he had an argument with Lazenby, one of his classmates. Lazenby questioned Conrad's motives for quitting, and Conrad justified his actions by saying that swimming was boring. Conrad snapped at Lazenby because he thought that Lazenby was looking down on him for quitting the team.

When Lazenby left, Conrad rationalized his reaction by concluding that Lazenby was really Buck's friend. Conrad jumped to negative conclusions about the validity of his friendship with Lazenby without any substantial evidence. In reality, the situation was quite the contrary; Lazenby was a friend of both Buck and Conrad. Another instance of Conrad using arbitrary inference occurred on his date with Jeannine. On the date, Jeannine tells Conrad that she is not very good at bowling. Conrad initially interpreted her comment as meaning that she no longer wanted to be on the date because she questioned the activity that they are about to do. He automatically jumped to this negative conclusion when he should have realized that Jeannine simply was concerned because she was not a good bowler and did not want to be embarrassed in front of him.

Personalization is another skewed type of thinking that Conrad displayed. Personalization occurs when all failures and mistakes are attributed to personal failure rather than level of difficulty or a hindering outside source (Comer, 2001). Conrad's self-worth is threatened by his constant assumption that bad things will happen to him as a result of who he is. One example of personalization occurred as a result of Conrad's feelings that Buck was good and he was bad. He believed his parents did not have the capacity to love him in the same way that they loved Buck. He recalled all the honors that Buck received as a child and of how proud his parents were of Buck. Conrad believed that he had not made his parents proud because he was not as talented as his brother. Only toward the end of the movie did Conrad realize how his father truly felt about him and his brother. Calvin reveals that Conrad was the good kid and that he never had to worry about Conrad the way he had to worry about Buck.

Another example of personalization was the result of Conrad's feeling that Buck's death had to be someone's

fault. Specifically, Conrad thought that the death was his fault. Berger explained to Conrad that he must realize that the death of his brother simply happened and that he needed to stop blaming himself for surviving the accident.

A final fallacy that Conrad illustrated when interacting with his environment was selective abstraction, focusing on one or two particulars as opposed to the whole general picture (Comer, 2001). For instance, Conrad assumed that he was the only one who mourned Buck's death. However others, such as Lazenby and his family, mourned as well. Lazenby revealed to Conrad that he, too, missed Buck. Conrad had been so focused on his own grief and problems that he failed to notice that people around him also mourned.

In an attempt to work through all these issues, Conrad went to Berger for therapy. Berger employed some of the techniques of Beck's cognitive therapy. Beck's theory provides a cognitively based treatment for depression. Generally this form of treatment encompasses a short-term use of varied techniques and strategies intended to recognize, challenge, and adjust a depressed individual's dysfunctional thought processes (Beck et al., 1979). The purpose of therapy is to help people create new schemas by focusing on the information in the present and disregarding previous distorted notions. Therapy attempts to reduce the negative self-talk through a process known as cognitive restructuring (Beck et al., 1979).

One specific technique Beck uses involves testing negative schemas to show that they are not absolute truths but hypotheses to be tested. Beck's therapy encourages individuals to act upon something that they expect to have a negative outcome. If this outcome does not occur, the individual then reevaluates the situation and his faulty expectations (Beck et al., 1979). Berger used this tech-

nique when he was discussing the possibility of Conrad quitting the swim team. Conrad could only think about all the negative aspects of leaving the team. He assumed that everyone would be upset with him and that he would look foolish. Berger emphasized that he should not think about what everyone else would think but rather about how much happier quitting would make him feel. Berger convinced Conrad to quit the team. When Conrad quit, the outcomes were not as bad as he thought they would be, thus challenging his negative thoughts about events. The application of these cognitive restructuring techniques reduces the various cognitive and emotional symptoms associated with depression.

Beck's theory provides a useful framework for understanding the irrational cognitive operations in depressed young adults. Conrad experienced many negative and distorted cognitive processes, which were strongly associated with his expression of maladaptive attitudes and pessimistic feelings toward the future. With Beck's cognitive therapeutic techniques, people similar to Conrad, in the movie *Ordinary People*, (Schwary & Redford, 1980) can recover from depression and begin to live normal, productive lives.

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Psychologically Speaking: Promoting Undergraduate Research

Panel Discussion Held at the 72nd Annual Convention of the Rocky Mountain
Psychological Association Park City, Utah, on April 5, 2002.

Featuring:

Dr. Jane Halonen	James Madison University
Dr. Charles Brewer	Furman University
Dr. Paul Bell	Colorado State University
Dr. Rick Miller	University of Nebraska at Kearney

With questions and comments from members of the audience including:

Dr. Barney Beins	Ithaca College/APA Education Directorate
Dr. William Wozniak	University of Nebraska at Kearney
Dr. Marty Fallshore	Utah Valley State College
Dr. Susan Becker	Mesa State College
Dr. Robert Rycek	University of Nebraska at Kearney

Miller: Welcome to our panel on promoting undergraduate research. This will be an informal discussion. We have no set agenda. We'll talk about a variety of issues, and I invite you to jump in at any time. If you have a question or a comment, you don't need to wait until the end. We hope that this will be a dialogue.

Let me introduce the panel. First, there is Charles Brewer, who was introduced in the previous session as "the legendary Charles Brewer." Sitting next to Charles is the renowned Jane Halonen whom you also met in the earlier session. Paul Bell and I are the other panelists. Paul is a distinguished professor and textbook author from Colorado State University, and I am a teacher at the University of Nebraska at Kearney.

We are here because we all have a great interest in promoting undergraduate research. Let's begin with why we think undergraduate research is important. Shall we start from left to right, or ladies first, or some other plan that gets me off the hook for the time being?

Why is Undergraduate Research Important?

Halonen: Undergraduate research. I have to go with a personal story. I was the quintessential undergraduate who wanted to help people. I saw no relevance of

Richard Miller was primarily responsible for editing the transcript from the panel discussion.

research to helping. You have probably seen one or two of these kinds of folks in your classes. That was me. Fortunately, the faculty that I worked with in my undergraduate program were much smarter than I and said: “Jane, at least pretend that you like research if you are serious about graduate school.” So I did, and I was able to do some research, but I never caught fire with it. Now, I have since because I have had the good fortune of finding content areas that are interesting. But I think that kind of represents the challenge of training 25 or maybe even 30 years ago. That research was seen as the preserve of graduate students and their very important faculty. And undergrads, unless you were in an honors program or you were proven “good material”, you really didn’t have access to undergraduate opportunities.

I think it’s critically important because it really is the way students end up catching fire. If they get those opportunities to design, build, run... there’s nothing more exciting than having an undergraduate run an F test that’s significant and watching them understand what that means. Things are so much better now. Research institutions are now holding symposiums on undergraduate research. Across the land there’s a recognition that this is where our scholars will come from. And I simply think that we are doing a better job of helping students get excited about research as powerful problem solving. So I think that is why this is an important topic for us to take on.

Brewer: Unlike Jane, I never wanted to help people. I was fortunate to attend an undergraduate institution of which you have never heard—a small liberal arts college in Conway, Arkansas called Hendrix College. Intellectually, I caught fire when I took General Psychology in my sophomore year with Professor John P. Anderson. I got the clear message that psychology is a science and, if you want to become a psychologist, you must first be a scientist. I probably imprinted on Dr. Anderson, because I still follow his example. In fact, I conducted three independent research projects as an undergraduate, so research was not new to me when I got to graduate school. In recent years, more undergraduates are involved in meaningful research. Large research universities are now recognizing that our students from good liberal arts college have a real leg up when they get to graduate school. Our students have learned that, all other things being equal, which they never are, three things will distinguish them from other applicants. They are research, research, and

research. Undergraduates who want to get admitted to good graduate programs should do research.

I tell students in my Experimental and Statistical Methods course that learning to do research is like learning to drive a car. You can read every book that has ever been written on how to drive an automobile, but you don’t learn how to drive one until you actually drive one. Learning to do research is the same. You don’t learn how to do research until you do research. Conducting meaningful research is one of the most important things undergraduate psychology majors can do. Why? Often students fail to relate things they learn in separate content courses, so they never see that courses are related to one another. Students finally see how all the separate pieces fit together when they start conducting research. So, I say, do more research!

Miller: Like Jane, I started out wanting to help people. I spent the summer between my freshman and sophomore year at the University of Washington on a WICHE scholarship in social work, which placed me in agencies, several agencies, none of which seemed to know what they were doing. I saw people trying to apply knowledge that just wasn’t there. So, the thing that spurred me to research was the desire to actually know what one should do. It was years later that I realized that research was contingent and transient as well, but at the time the motivation was that we needed answers. We were doing things that we didn’t understand.

After that summer, I did my first undergraduate research project at the beginning of my sophomore year and a second project in my junior year. The first project was published some years later, when I was flying for the U. S. Navy. My professor needed a publication for tenure. He thought that this was a great project that we had done. He ended up publishing it in a journal. I have never claimed that research project on my resume, because it was so awful. But, the value of it was that I got hooked. The idea that I could ask a question and would be the first person in the world who would know the answer and could then share that answer with everyone else. That was fascinating to me and I think it is fascinating for many undergraduates. Do research because you can set the question. You can find out what’s going on. It’s exciting. It’s lifelong. Yes, it will get you into graduate school. Yes, it is a valuable in terms of learning methodological skills and research ethics. But all that aside, it’s just an exciting endeavor in and of itself.

Halonen: Did the people who taught you research skills talk to you about research in that way? Or is that something that you ultimately concluded that grew out of your own experiences?

Miller: Out of my experience. When I went to school, there were no other undergraduates at our institution that did an empirical research project. Years later it became a regular part of their program, but at that time it wasn't done. I'm old, guys, and the dinosaurs and I were in school together. Undergraduate research was not normative.

Bell: Unlike Dr. Miller, I'm not old, and I don't know so much that I wanted to help people as much as I wanted to change society. I suppose that helping people was a part of that, but I'm an Aquarius, and I just thought that I could promote societal change.

The reason I know about Dr. Brewer's Hendrix College in Conway, Arkansas, is because I went to a sort of sister school called Southwestern University in Georgetown, Texas. People have started to hear about Southwestern because they have started doing research there. When I was a student there were two faculty in the Psychology Department and that was it. Neither one of them did research so the students didn't do research. That was a real problem. My advisor told me I should go down the road to the University of Texas and take a course in Experimental Psychology if I wanted to go to graduate school. I never did that, but I still got into graduate school. That was thirty years ago. All of the graduate students were doing research and we regularly used undergraduates as assistants in our research. Undergraduate involvement was pretty limited to just being an assistant who helped collect the data. They didn't even get into the informative stages of the experiment; they didn't help with the analysis. They got a footnote in a journal article that got published, but they didn't get an authorship or a conference presentation.

Today, the standard, at least at Colorado State, is that undergraduates should be involved in the informative stages if at all possible, understanding the data, and getting their names on the publication. I think that is probably a really good model. As coordinator of our Applied Social Psychology graduate program, I can assure you that if an undergraduate wants to get into a graduate program other than a PsyD program at a professional school, they really do need to be participating in research. You can have great GRE

scores and a great GPA and say that this is really what you want to do, but the competition will be people who maybe don't have quite as high a GPA or GRE, but have actually done what you say that you want to do. They have done research in an area that is of interest to them and they are appreciated if their research skills are a good match to the graduate program that they are trying to get into. Since I have tenure I can say that the one place that you really do not need research experience is a PsyD program at a professional school. However, to get into a PsyD program in a graduate department at a regular university typically requires that you be familiar with research fundamentals and preferably have research experience.

Miller: We have been looking at placement of our graduates recently and we find that for admission to a PhD program, undergraduate research experience, particularly if it leads to publication of that research in the Psi Chi Journal or other journal is a better predictor of success than GPA. It's not so much that it is a better predictor of getting accepted, but it's a much better predictor of getting support, e.g., fellowships, assistantships, and scholarships.

Why don't we talk about how to structure the undergraduate curriculum so as to promote undergraduate research? When I went to school there was no formal program and it was the occasional student who said I'd like to do this and the professor said ok that will be all right. That would be the minimalist's view of a program. What are some other ways?

Structuring the Curriculum to Promote Undergraduate Research

Brewer: I know how we do it at Furman. We consider undergraduate research as programmatic research. In my Experimental and Statistical Methods course, students conduct a full-fledged research project that involves data collection and analysis as well as reporting the entire project in appropriate APA style and format. For the second project in this course, each student submits a proposal for an experiment of their very own. When preparing their proposals, students will have covered analysis of variance and related matters. This proposed experiment is one that students may actually conduct in a later content course, such as Social, Learning, or Memory and Cognition. Faculty members are eager to provide advice and guidance, because these proposals may

become students' actual experiments in these advanced content courses. My students often appear in later courses with their proposed projects in their briefcases. Experiments in these courses are often expanded into Independent Research projects for which students receive four hours of credit. So, a productive and diligent undergraduate may get hooked on a particular area of research and produce two or three posters and maybe an oral presentation or two. Students who are especially assiduous may have a publication or two "in press" by the time they get to graduate school. If students develop this kind of programmatic research, they are much more likely to (a) become engaged with the science of psychology and (b) to do something that is truly productive in expanding our knowledge. That's the way we do it, and this approach has served our students very well indeed.

Wozniak: How much detail do you expect in that proposal?

Brewer: Good proposals are similar to proposals for master's degree theses. They include a review of the pertinent literature and theories, specific hypotheses, design, method, data analysis, and interpretation. These are fairly sophisticated projects for undergraduates.

Halonen: I would echo that the developmental nature of what you are doing is important. I think that it is probably also important to add that our approach reflects the context of James Madison University. We have a huge department, 43 people, and the undergraduate contingent is probably 30 or 31 of those. We have adopted the framework of novice to expert so that students in the freshman and sophomore years can have the kind of data collection experiences, similar to what you were talking about, at one level. Then they can join a research team where they can experience greater independence and even then, we really try to assemble teams that cut across programs. We have faculty who are very concentrated on research programs and, based on the number of projects they supervise, they may get course release time.

Our undergraduate director writes a newsletter in which he advertises research opportunities, so students will contact professors about their interests. The culture really drives home the importance of this, and again, this is open to all students not just honor students. Then we also have a group that does

just honors work or will do special lab research as their capstone requirement.

We support this in a way that I see happening all over the country, which is to have scholarship or symposia days in which you have posters or oral presentations to give students practice with what the professional side is like. Sometimes that leads to regional conferences, sometimes to national conferences, and that is pretty exciting.

I would share the latest version of our research experiment, which I am really excited about. In the fall, we are going to have a psychology learning community at JMU. Out of the 500 people that want to be psychology majors in the incoming class, please God don't let them all come, we are going to pull out 25 students who have good math scores, work with them, put them right into a methods class, not an intro class. They will also be taking a college success class where they will be learning specific strategies. We are going to be selecting the community for diversity and creativity. We are anticipating that this will jump-start the number of students who catch fire about research.

Miller: Is this a residential community?

Halonen: Yep. They will be living together, taking the college success class, the methods class that has statistics integrated first semester, same thing second semester, taught by the same person, who's research is in student achievement and motivation. So that becomes his lab for the kind of research that he's going to do. We are just really excited about what this may be able to do.

Bell: We are looking at 1000 psychology majors out of 20,000 undergraduates, which is a relatively large percentage of the campus. We only have about 29 full time faculty, so I'm envious.

Halonen: Some days I'd give you a couple.

Bell: We'll trade! Our honors program does require Senior theses, so we do get our honors students involved in research early on. Most of them become undergraduate teaching assistants for Frank Vattano in their freshman and sophomore year, and do research right after that. I shudder to think about 1,000 students, many of whom don't have math skills, trying to conduct research. I think that may be a disservice to research. I think that the psych major

is such a flexible thing that gets you into so many different kinds of careers that, I'm not sure that getting everyone into research is the right thing professionally. Adjustments should be made for someone who should really not go that way.

Halonen: Like helping people?

Bell: Yeah, like helping people. Or at least create a placebo for people who want help.

Wickelgren: I'm from an undergraduate college and we have around 24 students in our research methods sections that need to be supervised and they take several methods courses.

Brewer: Class size is a critical concern. The maximum number in the course that I mentioned is 12, so I have half as many as you. I can't imagine doing what I do with 24 students in the class. On second thought, I can imagine it, because I did it with 30 students in the olden days.

Bell: That was part of what generated my thinking. I'm not sure that we should put everyone in research. In our program in the department we have almost 30 faculty, add about 100 graduate students to this, 80 of whom are probably active on campus doing an internship, or other stuff. If you think about 1,000 majors and eighty graduates with 30 faculty, that's more than 10 undergraduates per graduate student, so even if you use a model that pairs up undergraduate students with a graduate students, the numbers make it very difficult to create a quality educational experience. Nevertheless, it is a good model and we have faculty who take about 10 undergraduates per semester and put them on a research team. They meet at least once a week, if not more often, and talk about various projects that they are designing. They talk about things like how to get in the door and get students involved, very much involved, in the data collection, and the write up, and get their names out on publications. Faculty at our institution are rewarded for teaching undergraduate courses and for supervising graduates who are doing the research; few undergraduates are directly supervised in research by faculty. I can tell you this, if we get an applicant for our graduate program and they are from the University of Nebraska at Kearney or Furman, we know the kinds of experiences they have and they will go up in the rankings. There is no question about that. We know what kind of background they have and we know they are going to do well.

Brewer: On a much smaller scale, Ithaca College uses research teams. Perhaps Barney Beins will comment on this approach.

Beins: It's the ideal curriculum. Our Psychology majors start out with a course in general experimental, which is intro with a two hour weekly lab. Then they do statistics and research methods, after which they do three semesters of research in a team setting with the same professor. We have each wave of students serve as a mentor to those students coming in for the next semester. A lot of students take the option of doing a fourth and fifth semester on research. So in the end, students have to take eight quantitative or empirical courses as part of their major and it starts with the first semester and works its way up. Then they can do others if they want. It's marvelous. Students who are marginal in the first semester of research, by the time they get to the third semester are wonderfully confident. Paul, I agree that you don't want to direct them all to research. They can use their skills in other ways when they get out of that.

Fallshore: How do you handle transfer students?

Beins: Actually, it works out wonderfully. The students come in as freshmen majors since they are usually done with all of their general studies requirements. We have typically three-hour courses, and they need 42 credits for the major. A non-transfer student is typically done with all but about one or two courses by the first semester of their junior year. They go at it whole-heartedly. If someone comes in their junior year, they can take almost all psychology courses and can do it. Even though it's packed, it works very well.

Miller: We use the traditional system at UNK that requires students to take a course in statistics and a course in experimental psychology in their sophomore year. However, our approach to experimental psychology is a little different. Bill Wozniak, for example, often sets up several research projects, that are group projects, but not canned projects. In fact, the projects tend to be cutting edge. It's very risky because he has no idea what the data is going to look like and if the study is going to work. Students get very frustrated when they put in lots of effort and "O gosh, why didn't we find what we thought we were going to find. I thought that was the point. You hypothesize and you have findings that support the hypothesis?" They learn early on about an important

aspect of research, that it is not just confirmation of your ideas.

In the junior and senior year, all of our mainstream courses, whether it's memory and cognition, biopsychology, social psychology, or physiological psychology, have an optional lab connected to the course. Students need to take two of these prior to graduation but they are allowed to choose the area depending on their interests. So if they are interested in biopsychology and physiological psychology, those are the two labs they take. In those labs, they will do either an independent or a team research project. Teams usually are limited to two or maybe three people. The actual project and team composition is selected based on interest. So they've gotten the group experience in experimental, and two independent studies in their areas of interest. After that, if they are still interested, and we still have some that are, they'll do an independent study or a lab apprenticeship.

Departmental Resources Needed to

Support Undergraduate Research

Beins: The panel has described several different models that all seem to work. Say something about the level of resource commitment on the part of the department. How do you manage that, because it's not cheap.

Miller: It's not cheap, that's true. Part of what makes it manageable for us is that we are teaching the labs in our area of interest. In any given semester that we teach a lab, we might have two sections of with 7 or 8 people in it, so we might be teaching 16 students. So we are not engaging 24 to 48 students in research. I don't know how you do that. Still, even for us it's a cost because we do not get rewarded as faculty for that time. In fact, the workload credit we get for labs is less than one for a one hour lab course. So, yeah, you definitely take it out of your hide.

Wozniak: One aspect that makes the task manageable has to do with overlap between teaching and scholarship. The faculty member can reap benefits in terms of developing their own area of research while mentoring undergraduate student research. Out of those labs come not only student publications, but also a number of faculty co-authored publications. In order to do research at an undergraduate institution, the lab courses provide a real advantage.

Working With the IRB

Bell: I have a question for those who do this intense undergraduate research. At our institution, one of the real crises that we are facing is the IRB. Our human research committee is taking six months sometimes to approve a study that has gotten federal funding provided. Sometimes, for undergraduates, it takes an entire semester to get it through the committee. What do we do?

Miller: I'm the director of the IRB and Bob Rycek is the deputy director of our IRB, and at the University of Nebraska at Lincoln, they did the same thing. They put the head of the IRB in the Psychology Department because it is so labor intensive in psychology, particularly if you are doing undergraduate research. Most of the undergraduate protocols come as exempt by federal guidelines, and we turn them around in a day. Not only our department, but everything at the university. The federally funded stuff takes a month. We have never had anything take six months.

Rycek: One goal in our department is to have a human subjects committee prior to submission to the IRB. Student research is first reviewed by the faculty member, then by a "gang of four" faculty who comprise our committee and then it is sent to the IRB. The review process within the department takes a few days but then the IRB can approve very quickly and few protocols come back to us for revision, unlike the protocols from some departments whose faculty are less conscientious. In those cases, the process can drag on for several weeks, with most of the time spent in having the student revise the protocol.

Halonen: How do you train the faculty who are on this review board?

Miller: There is training available on the NIH web-site, which is rather good. All our IRB members have gone through that self-paced training. It's all there you just click through, read, and respond. It's a good thing to do. It really gives you guidelines as to how you should treat various kinds of cases. I would recommend that. We also provide a training session for all newly hired faculty. In addition, I have from time to time provided a training session for all of the students in a research methods course, especially for those courses outside of our department.

Wozniak: We go through the IRB for the projects in our experimental psychology class. We have our human subject pool coordinator who is an advanced undergraduate student, come in and talk about all of the problems that are tied nicely into the chapter on ethics. So students get trained as well as faculty early on.

Halonen: We are about to have an IRB meltdown on our campus because the IRB has defined any data gathering exercise as "perky." That includes classroom assessment.

Miller: There are federal guidelines that say it shouldn't. In fact, the federal guidelines suggest that if you do something in class as an exercise, and it turns into data, that is the only case in which you can file a protocol after the fact. You don't have to file ahead of time for that.

Halonen: Well, this is a challenge when you have an IRB chair who has figured out that this is a neat way to build an empire, and bragging about how the turnaround time is really good. We get things back in three weeks. Three weeks! In terms of student projects, that just kills student. It's bad, and that's just part of it. I mean one of the challenges is that this is a person who considers himself to be trained in psychology and goes beyond giving the thumbs up or the thumbs down, he gives advice on methodology, design, spelling, and grammar. So, OK now we know why it is taking three weeks.

Miller: It is tempting as an IRB director to give advice on methodology. It's not necessary, although, if you go to the NIH website, one of the things they suggest is don't waste people's time. I sometimes provide methodological suggestions as a postscript. It is not part of the requirement to re-file. It is just "here is a suggestion." We had a protocol recently from the biology department that was examining the effectiveness of St. John's Wort. The researcher was looking at stress reduction. Their initial testing, to create a baseline, was planned for the middle of a participant's menstrual cycle. Then they were going to do re-test five weeks later and see whether the depression had lessened after St. John's Wort. I suggested that: "if you are going to test in the middle of a menstrual cycle, you might want to re-test in the middle of a menstrual cycle." They took that advice.

Bell: At our institution, if you wanted to do that type of research you would have to have a ten page consent form.

Miller: Well, this one was three, given all of the possible side effects. Ever try to get through a school board or state agency? Three months is heaven, sometimes "ever" is heaven. Getting into the public schools, unless you are in an education program and are perhaps teaching at the school already, and you want to do this and you know the principal, it is very difficult. State agencies and public schools have cumbersome approval processes.

Helping Students to Become Excited

About Research

Halonen: One of the reasons I asked you, Rick, earlier about whether somebody taught you to be excited or did you learn from experience to be excited is that I do think that has become a kind of paradigm shift that has happened. I see the most successful researchers, the people who do the best teams, are individuals who really help students get past their fear about research, the stage, I love this stage. It's like "all the important stuff has already been found, so how can you possibly ask me to come up with a new idea?" I'm sure that is a predictable developmental stage. I think that a researcher who has the fire can open the door, get them excited that they will be the first person in the universe to have that answer. To have someone say that to an undergraduate, I think would ignite the process. But I see a lot of research programs where the work is a chore. Statistics is statistics, and at many places Methods, is the weeding-out course. So much negative baggage gets attached to research, it's understandable that we see a great divide between the miraculous students that catch fire and the rest of the folks who think that research is just a burden that you have to do.

Becker: The question that I have is related to the excitement issue. I teach the research methods course as the students final course, the one where they have to do the research project. They are required to use our subjects pool. We sort of get by the IRB because we have an intradepartmental IRB that is allowed to approve projects as long as they only use our subjects pool. The question that I have is, given that all of them want to do something regarding schizophrenia or depression, how do you keep that interest and excitement and still try and challenge them to do a research project on ordinary college students. How do you do that?

Halonen: Well, you find schizophrenic college students. Seriously, when students come and talk with

me about ideas and they propose a grant idea, that at least says that they have caught fire, and I want to reinforce that it is great that they have caught fire? I then ask them to just think about some of the practical issues involved. I try to turn it into a problem that they can reason their way through and usually they will come up with, oh yeah, I guess I only have eight weeks left in the semester, and I guess I won't be curing schizophrenia in that time. I think it harkens back to understanding developmentally that it's appropriate for them to come with a huge idea. Then it becomes your job to say, "Great, ok now how might there be a glimmer that would fit into this little window that we've got? Is there something that would work in that little window? Is there something about college students and this population that you are interested in looking at? Is there any way that we can do a simulation?" I think it becomes a mentor's challenge to preserve the excitement within realistic parameters so they aren't completely frustrated.

Miller: In our lab courses, we will often start out just talking about possibilities without actually designing a study. I try to guide the students to topics in which there are a lot of unanswered questions. It becomes a little more manageable if you start out with the topics that you know have unanswerable questions and there is as available methodology.

Brewer: I've heard the expressions "catching fire" and "excitement" a lot in our discussion. Let me tell you that I have had very few clever ideas in four decades of teaching, but this is one. On the first day of my Experimental and Statistical Methods course when I talk briefly about their data-collection experiment and their proposals, I take in a stack of reprints from professional journals. The stack is about six inches high. Each reprint has at least one co-author who started out in this very class. I then flip through the stack of reprints and mention the journal in which the article was published, the article's title, and the names of student co-authors who recently graduated or who are still in our program. My present students will recognize certain of these former students and may even know some of the co-authors. Then, I ask in my most excited way: "Which of you will have reprints in this stack three or four years from now?" I answer my own question by saying that I hope every one of the students will have a reprint in my stack for future classes. Knowing certain of these former students who published articles in professional journals, the present students begin to think,

"If they can do it, so can I." Students leave that first class meeting a little intimidated but energized beyond belief. They all are thinking about winning a Nobel Prize. You can't imagine what a motivator that first lecture is.

Miller: One additional point is how to provide ongoing motivation beyond the initial stage. I find that students are usually very excited at the beginning of a project, the idea stage. There are a couple of little points at which faculty need to intervene. One has to do as the data collection drags on and on, and a number of subjects don't show up for their appointments, and that gets very frustrating. You are going to need to be there to sort of re-motivate at that point. The other point is when you complete the project, and you didn't find anything, students react with much more disappointment at that than most faculty members do. Most faculty members are used to that in their research. The trick is to make the null results as exciting as the question was when they started out.

Rewarding Faculty Who Promote Undergraduate Research

Halonen: I think that it is important to figure out who the people are who will be the igniters, the ones who love to research, the ones that are publishing, the ones who find that thrill. Next, look at ways to create incentives, perhaps by using re-assigned time. If a faculty member is supervising a research team and the research team is productive, attach something important prestige wise, salary wise, computer wise, something to it that designates that this is an important value. Yes, that can create some turmoil, but the key is that if you can get departments to agree this is an important goal for undergraduates, then it is reasonable to take the next step and allocate some of our resources toward that. The challenge, I think, is trying to figure out a system that is equitable. I have some faculty that have seventeen research teams running at one time and others that say they are stressed if they are doing one project.

Brewer: I have two quick reactions. First, a commitment to undergraduate research is central to our program, and we don't hire people who do not share this commitment. Over a period of years, then, we get a cadre of people who join your faculty because they want to conduct collaborative research with undergraduates. Second, Furman has a banking system whereby faculty members get teaching credit for

supervising students' projects in a formal course called Independent Research. For example, after I supervise four such projects in whatever period of time, I get my teaching load reduced by one four-hour course. We believe that supervising four Independent Research projects is about as demanding in time and effort as is teaching one four-hour course.

Miller: I don't think any of my faculty are involved in undergraduate research for financial reasons. But, the university did set up a way of recognizing and rewarding people involved with undergraduate research. We have a research mentoring award. We have a student research day in about three weeks that will involve 300 student poster presentations across all disciplines. In a way it is an accumulation. Some of these will be presenting posters based on papers that they have read at a conference earlier in the year. Others perhaps will only present here. At that time, a faculty member from each undergraduate college will be recognized with the mentor award, which includes money, a certificate, and a handshake from our Vice Chancellor for Academic Affairs. It's a model that some might want to take back to their school as a way of saying that undergraduate research is important it's worth promoting and worth rewarding.

Showcasing Undergraduate

Student Research

Rycek: In addition to the regional conferences, some of which are student friendly, we have a series of undergraduate research conferences that are really good avenues for undergraduates to get to see what other undergraduates are doing, for instance, the Great Plains Students' Psychology Convention, the National Conference of Undergraduate Research, and so on.

Miller: One of the differences between that kind of a conference and a regional conference is that at some of the student conferences, the presentations are judged. At the Great Plains convention, there will be at least two faculty members in the back filling out a sheet that provides the presenter with feedback about what was good and what could be improved. There are also awards given in each session. The best paper and the second best paper from that session will get a certificate. So there is immediate recognition. Students have that, and the feedback, which is very valuable. Thus, someone other than the faculty advisor will have read or listened to the students' presentation and provided useful suggestions.

Beins: I tried to count the number of undergraduate research conferences in psychology. I know I missed quite a few, but I counted more than 25, and that does not include local university events.

Brewer: Allow me to add one final point about conferences. Furman students seem to be reassured by the label "student research conferences." Knowing that all presenters will be students makes such conferences a lot less threatening, even though Furman students are not easily threatened. Student research conferences can be a good warm-up for a professional conference at the regional or national level. Hence, your students may benefit from presenting first at a conference for their peers.

Invitation to Contribute to the Special Features Section—I

Undergraduate students are invited to work in pairs and contribute to the Special Features section of the next issues of the *Journal of Psychological Inquiry*. The topic is:

Evaluating Controversial Issues

This topic gives two students an opportunity to work together on different facets of the same issue. Select a controversial issue relevant to an area of psychology (e.g., Does violence on television have harmful effects on children?—developmental psychology; Is homosexuality incompatible with the military?—human sexuality; Are repressed memories real?—cognitive psychology). Each student should take one side of the issue and address current empirical research. Each manuscript should make a persuasive case for one side of the argument.

Submit 3-5 page manuscripts. If accepted, the manuscripts will be published in tandem in the Journal.

Note to Faculty:

This task would work especially well in courses that instructors have students debate controversial issues. Faculty are in an ideal position to identify quality manuscripts on each side of the issue and to encourage students about submitting their manuscripts.

Procedures:

1. The postmarked deadline for submission to this Special Features section is December 1, 2004.
2. All manuscripts should be formatted in accordance with the APA manual (latest edition).
3. Provide the following information:
 - (a) Names, current addresses, and phone numbers of all authors. Specify what address and e-mail should be used in correspondence about your submission,
 - (b) Name and address of your school,
 - (c) Name, phone number, address, and e-mail of your faculty sponsor, and
 - (d) Permanent address and phone number (if different from the current one) of the primary author.
4. Include a self-addressed stamped envelope of proper size and with sufficient postage to return all materials.
5. Send three (3) copies of the a 3-5 page manuscript in near letter quality condition using 12 point font.
6. Include a sponsoring statement from a faculty supervisor. (Supervisor: Read and critique papers on content, method, APA style, grammar, and overall presentation.) The sponsoring statement should indicate that the supervisor has read and critiqued the manuscript and that writing of the essay represents primarily the work of the undergraduate student.

Send submissions to:

Dr. Richard L. Miller
Department of Psychology
University of Nebraska at Kearney
Kearney, NE 68849

Invitation to Contribute to the Special Features Section—II

Undergraduate students are invited to contribute to the Special Features section of the next issue of the *Journal of Psychological Inquiry*. The topic is:

Conducting Psychological Analyses – Dramatic

Submit a 3-5 page manuscript that contains a psychological analysis of a television program or movie. The Special Features section of the current issue (pp. 50-58) contains several examples of the types of psychological analysis students may submit.

Option 1—Television Program:

Select an episode from a popular, 30-60 min television program, describe the salient behaviors, activities, and/or interactions, and interpret that scene using psychological concepts and principles. The presentation should identify the title of the program and the name of the television network. Describe the episode and paraphrase the dialogue. Finally, interpret behavior using appropriate concepts and/or principles that refer to the research literature. Citing references is optional.

Option 2—Movie Analysis:

Analyze a feature film, available at a local video store, for its psychological content. Discuss the major themes but try to concentrate on applying some of the more obscure psychological terms, theories, or concepts. For example, the film *Guess Who's Coming to Dinner?* deals with prejudice and stereotypes, but less obviously, there is material related to attribution theory, person perception, attitude change, impression formation, and nonverbal communication. Briefly describe the plot and then select key scenes that illustrate one or more psychological principles. Describe how the principle is illustrated in the movie and provide a critical analysis of the illustration that refers to the research literature. Citing references is optional.

Procedures:

1. The postmarked deadline for submission to this Special Features section is December 1, 2004.
2. All manuscripts should be formatted in accordance with the APA manual (latest edition).
3. Provide the following information:
 - (a) Names, current addresses, and phone numbers of all authors. Specify what address and e-mail should be used in correspondence about your submission,
 - (b) Name and address of your school,
 - (c) Name, phone number, address, and e-mail of your faculty sponsor, and
 - (d) Permanent address and phone number (if different from the current one) of the primary author.
4. Include a self-addressed stamped envelope of proper size and with sufficient postage to return all materials.
5. Send three (3) copies of the a 3-5 page manuscript in near letter quality condition using 12 point font.
6. Include a sponsoring statement from a faculty supervisor. (Supervisor: Read and critique papers on content, method, APA style, grammar, and overall presentation.) The sponsoring statement should indicate that the supervisor has read and critiqued the manuscript and that writing of the essay represents primarily the work of the undergraduate student.

Send submissions to:

Dr. Richard L. Miller
Department of Psychology
University of Nebraska at Kearney
Kearney, NE 68849

Invitation to Contribute to the Special Features Section—III

Undergraduate students are invited to contribute to the Special Features section of the next issue of the *Journal of Psychological Inquiry*. The topic is:

Conducting Psychological Analyses – Current Events

Submit a 3-5 page manuscript that contains a psychological analysis of a current event. News stories may be analyzed from the perspective of any content area in psychology. The manuscript should describe the particular event and use psychological principles to explain people's reactions to that event.

Example 1: Several psychological theories could be used to describe people's reactions to the destruction of the World Trade Center on September 11, 2001. Terror management research has often shown that after reminders of mortality people show greater investment in and support for groups to which they belong and tend to derogate groups that threaten their worldview (Harmon-Hones, Greenberg, Solomon, & Simon, 1996). Several studies have shown the link between mortality salience and nationalistic bias (see Greenberg, Simon, Pyszczynski, & Solomon, 1992). Consistent with these findings, the news reported that prejudice towards African Americans decreased noticeably after 9/11 as citizens began to see all Americans as more similar than different.

Example 2: A psychological concept that could be applied to the events of September 11 would be that of bounded rationality, which is the tendency to think unclearly about environmental hazards prior to their occurrence (Slovic, Kunreuther, & White, 1974). Work in environmental psychology would help explain why we were so surprised by this terrorist act.

The analysis of a news event should include citations of specific studies and be linked to aspects of the news story. Authors could choose to apply several psychological concepts to a single event or to use one psychological theory or concept to explain different aspects associated with the event.

Procedures:

1. The postmarked deadline for submission to the next issue's Special Features section is December 1, 2004.
2. All manuscripts should be formatted in accordance with the APA manual (latest edition).
3. Provide the following information:
 - (a) Names, current addresses, and phone numbers of all authors. Specify what address and e-mail should be used in correspondence about your submission,
 - (b) Name and address of your school,
 - (c) Name, phone number, address, and e-mail of your faculty sponsor, and
 - (d) Permanent address and phone number (if different from the current one) of the primary author.
4. Include a self-addressed stamped envelope of proper size and with sufficient postage to return all materials.
5. Send three (3) copies of the a 3-5 page manuscript in near letter quality condition using 12 point font.
6. Include a sponsoring statement from a faculty supervisor. (Supervisor: Read and critique papers on content, method, APA style, grammar, and overall presentation.) The sponsoring statement should indicate that the supervisor has read and critiqued the manuscript and that writing of the essay represents primarily the work of the undergraduate student.

Send submissions to:

Dr. Richard L. Miller
Department of Psychology
University of Nebraska at Kearney
Kearney, NE 68849

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