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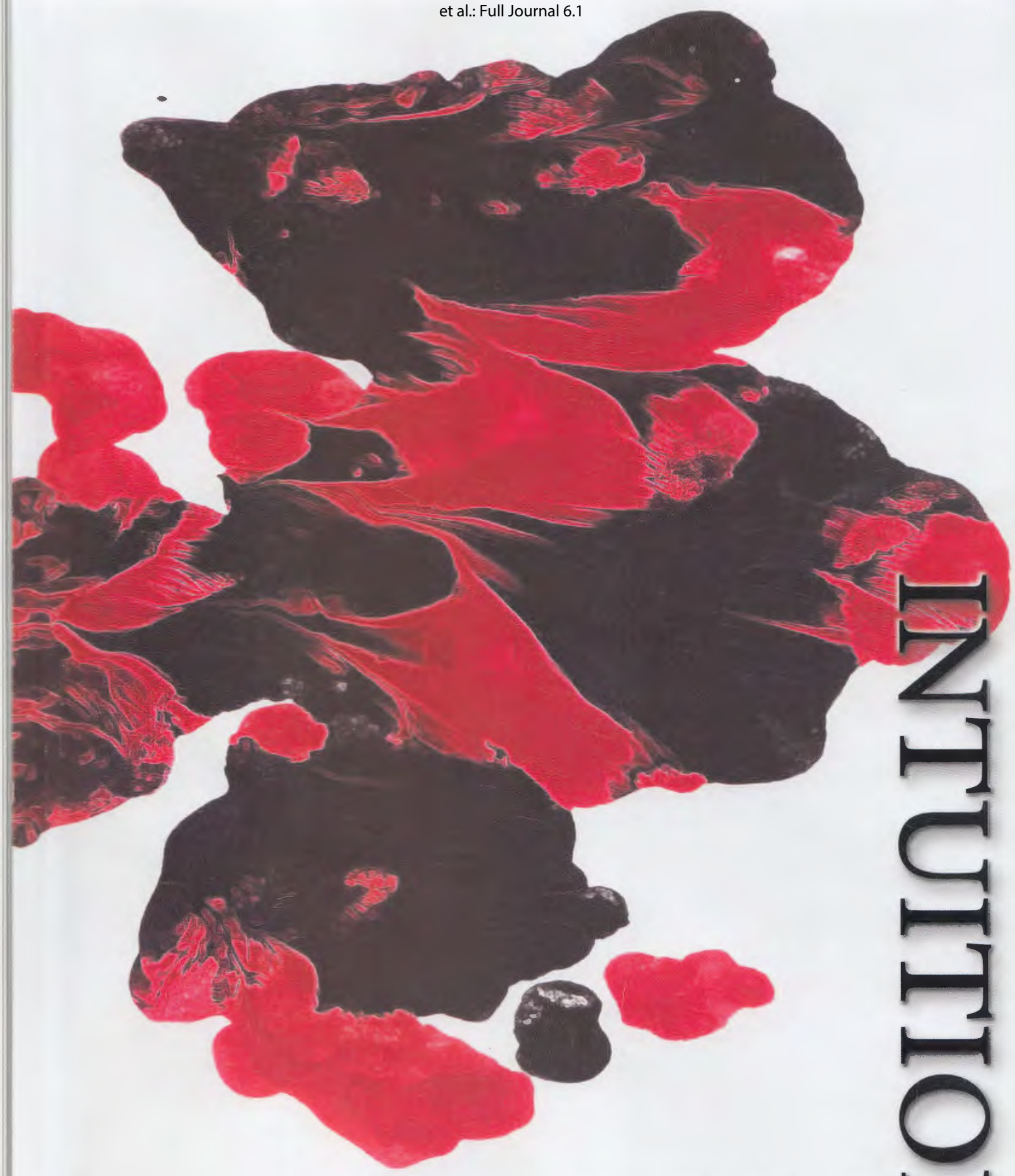

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Intuition would especially like to thank Julianne Holt-Lunstad for her guidance in developing this journal. The efforts of Mel Thorne, Linda Hunter Adams, and the Psychology Department faculty members who generously provided reviews are likewise appreciated.

Additional information can be found on our Web site at http://intuition.byu.edu

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From the Editor

Paige N. Vella

Intuition has come a very long way this past year. We have spent a lot of free time reorganizing the way the journal is run. Our hopes are that this reorganization will make the journal much more efficient for working with our authors and editors (both faculty and student alike). We also hope that with this newfound efficiency that we will be able to start producing two issues of the journal per year. As such, I would like to give a special thanks to my Co-Editor Rebecca Wallace who donated a large portion of her time and creativity to help with the reorganization of the journal.

I would like to recognize the two new Editors-in-Chief, Alixandra Lewis and Samuel Purdy, who have taken over the journal. These two have been creative and exemplary, and I believe they will be very successful in pushing the journal to be far better and more competitive than ever before. Furthermore, thanks to all of the other student editors who donated so much of their time to help review the many submission we received.

I would also like to thank all the authors for being patient and working so hard with us so that we were able to publish their work.

Thanks to the faculty members who took time out of their busy schedules to help as reviewers for the articles, and assisted us in narrowing down the submissions we received so that we could publish the very best of the articles we received.

Finally, I would like to give a special thanks to Dr. Julianne Holt-Lunstad, who is the faculty advisor for Intuition. Dr. Holt-Lunstad has been very resourceful to us as we have gradually improved the efficiency of running the journal. She also donated a large portion of her time to reviewing articles.

We hope that you enjoy reading this issue of Intuition, and we encourage all students to submit their best work for future issues!

Sincerely,

Paige N. Vella

Editor-in-Chief

Interview with Faculty

Interviews by Peter Clayson, Samuel Purdy, and Monica Shipp
Edited by Jennifer Christian and Julianne Dana

ABSTRACT *Psych Intuition interviewed Drs. Kirwan, Larson, Miller, Slife and Yamawaki in order to inform BYU students about their personal research interests. They gave advice on how to get involved in research and what they expect in a research assistant in order to disprove the notion of the "impossible research position."*

Research Focuses:

Dr. Kirwan: My research focuses on learning and memory. I'm particularly interested in what determines what we'll remember and what we'll forget. I use EEG, fMRI, studies with patients with brain damage, and cognitive studies with healthy younger adults (undergrads) as well as with healthy older adults.

Dr. Larson: The lab primarily looks at how people process their environment, like how you react when you make an error, how you react when someone else makes an error and you are watching them and then how you change your behavior. We look at everything from Obsessive Compulsive Disorder to Traumatic Brain Injury to help determine how people process their environment better.

Dr. Miller: I have several emphases in my research. In pigeon research, I am focusing on relative value of gains or losses in choice procedures. I investigate multiple procedures and various parameters in order to create a mathematical module of choice. I am hoping to soon begin work with rats that will focus on choice as well, but more molbdy – in the sense of local effects within a pattern of behavior. The focus in our human research is twofold: first, choice that is distributed over time in uncertain contexts and the relative values of gains and losses therein. The other emphasis is on assessment and the way the format of assessment items affects preparation for the assessment and performance on this assessment.

Dr. Slife: I do mostly theoretical research, meaning I answer questions that have to do with assumptions underlying psychotherapy. Right now, I'm working on two lines of thought. One is "what would psychology be if it was based on the assumption that God really matters?". If we made a different assumption, how would psychotherapy be different? How would our research be different? How would our study of human behavior be different if we made different assumptions that are more consistent with Christianity? The other line of thought I do is called 'relationality,'which is the notion that our relationships are more important than anything else. If we made that assumption, how would that change psychology? My work is to look at the foundations of the discipline and to compare them with things that a lot of us care about, like Christianity, and to say psychology is on the right track.

Dr. Yamawaki: I am conducting research about perceptions of attitudes towards victims of violence against women, such as domestic violence and rape; and I do that research cross-culturally. Another topic that I research is "attitudes towards mental health services" because a lot of victims tend not to seek help, I also do it cross-culturally. I am also very interested in individualism and collectivism; I am creating a scale and from now on I will use that scale and use archival data and analyze how they are related to collectivism and individualism.

How can students get involved with research on campus?

Dr. Kirwan: Talk to me. It's usually that simple. If you have an interest in cognition and cognitive neuroscience, we can usually find something for you to do in the lab.
Dr. Miller: I endorse the three steps recommended in the text books I use in my section of psychology 101. First, try to identify the interests that one has in research. Next, identify one or more members of the full-time faculty who are conducting research approximate to one's primary interest and approach those individuals by appointment. Having done some homework in terms of determining what research is underway, be prepared in advance with questions to learn more about what's taking place. Finally, apply to be part of a research team.
Dr. Slife: It would help if people could take a course or two from me, or at least have a course from somebody like Dr. Gantt or Dr. Reber. It helps to get a little bit of training before I could probably use you. But, if you have that training, what would matter is coming up and saying "hey could you use me, I'd love to get involved, and I'd love to volunteer".
Dr. Larson: Easiest way is to just to go ask professors. For my lab I like it when students have the initiative to come and talk to me and say "I'm interested, I like what you're doing". And then we interview them and go from there.
Dr. Yamawaki: The best way is to work with professors. Some of the classes that the psychology department offers make you do research; for example 302 and my gender class. That is the starting point but at the same time get involved with professors by being a research assistant and then do research with them and learn from them.

Why is it important for students to get research experience?

Dr. Larson: You won't get into graduate school without it. You have to have research experience and all the grad schools are looking for it. They kind of expect it out of BYU students quite honestly, just because BYU students have gained a reputation of being research savvy.
Dr. Slife: For lots of reasons. Number one, it helps to be conducting that kind of research just to know what it is. It's one thing to read about it in a text or maybe to be a participant in it, but it's another thing to actually conduct the studies. Number two, if you can get some good experience with a research professor who's publishing regularly, you can have a presentation on your resume or vita and that will help you get into graduate schools. You can have that on there forever for any kind of application for a job. Just getting the experience [prepares you] for graduate work [and] the kinds of things that psychologists do.
Dr. Yamawaki: By conducting research, you will be able to have updated information because most of the time, you are the one that is going to have to do literature reviews. The more practical part comes when you are applying to graduate school. You need to have research experience not as a participant, but rather as part of a research group. It is almost necessary for you to get into graduate school. Some people may get into graduate school without having that research experience, however, they still have to do research for their thesis or dissertation and knowing research methodology and statistics makes a huge difference.

How early in a student's academic career should they start getting involved with professors?

Dr. Kirwan: [The] more contact with your research advisor [the] better, and the more time you're involved in a project, the more likely you will be to see it all the way through (i.e., to publication). If you need a strong letter of recommendation for grad school from your research advisor, they need to know more about you than can be learned in one semester of your senior year.
Dr. Slife: Given that sometimes the work you do doesn't come to fruition for six months maybe to a year, it would be nice at the very minimum to start at the end of your junior year. I think the earlier the better, if you could start

working with someone when you were a sophomore you have more of a probability [of publishing].

What do you look for in a research assistant?

Dr. Kirwan: An interest in the basic research questions in the lab is essential. A pleasant, professional demeanor is also essential. Most of what undergraduate RAs do in my lab is run research subjects. You have to be able to communicate with people.

Dr. Larson: The biggest thing for me is reliability. I don't stress that you have research experience before; I'll teach you what I want you to learn. But I really want to make sure that you are reliable and diligent, that if I ask something of you you'll get it done, and you'll get it done when you say you'll get it done.

Dr. Miller: What I'm looking for is a student who can profit from the experience. But I don't place strict requirements or have some well defined expectations necessarily. I'm happy to join with any undergraduate student who is reliable, curious, and has a passion--or at least a potential passion--for the research that is taking place and is also sufficiently skilled socially to be a team player.

Dr. Slife: It would be nice if they can write, are bright, and are diligent and conscientious. I have so many projects in so many different areas that sometimes it's hard for me to know whether I'm coming or going. [I'm interested in] someone who is conscientious, someone who would say "Dr. Slife, we need to do this". Basically [I'm interested in] someone who takes responsibility and takes charge-- Someone who's organized and willing to organize.

Dr. Yamawaki: One, I look for motivation and two, why do they want to get involved? Three, maybe experience--whether they have taken 301 and 302, but sometimes I take RAs who don't have the coursework but they have a lot of motivation. Another thing that is very important to me is GPA; I want to get the best students.

What are the biggest mistakes students make when approaching you?

Dr. Larson: Don't assume I have a spot for you, know that you are being interviewed for that spot. And don't assume you'll be paid for that spot because you have to work your way up to be paid. Come in excited and willing to do research but don't assume much.

Dr. Yamawaki: Not knowing what they are getting into. For example, they don't know what I'm researching or doing, they don't know themselves what they want to do. These are very big no-no's because they tend not to last.

What are you planning for the near future?

Dr. Kirwan It looks like we'll soon start collecting fMRI and EEG data. I recently received a grant from the College of Family, Home and Social Sciences to do a pilot study looking at the correlation between brain volume and performance on certain memory tasks as people's age.

Dr. Larson: We've got several projects looking at people who have had traumatic brain injuries. We've got a couple projects looking at how the brain processes stimuli when you're obese. We've got some things going on looking at how the brain changes with pregnancy. We have a lot of studies we are excited about, a lot of things going on. I plan to teach a lot of classes and party on.

Dr. Miller: I'll be working with a new doctoral student come fall, and he may very well have some interest that will take us in a new direction. I'm working now with an ORCA grant student whose interest is in personal rules and due correspondence.

Dr. Slife: I'm headed for China [in May] for research along the theism line. I'm part of the delegation going to China to teach [their] faculty how to study religion. Five of us will each have five or six Chinese academics assigned to us. We'll go over there two or three times and they'll come over to the States two or three times. We'll end up with

a text written in Chinese on the psychology of religion. Religion has been very oppressed there and it's beginning to come out, so there's a lot of need to study it and make sense of it.

Dr. Yamawaki: I am suggesting to other researchers to consider ecological factors [that] may influence the concept of collectivism-individualism. So I ask, why don't we measure these ecological factors and use them to find differences in attitudes of perceptions? I want to pursue more within and between cultural variations, especially when it comes to attitudes toward mental health and violence against women. Within cultural variation may be able to tell us more than between-group differences without really measuring.

For more information on faculty research, visit psychology.byu.edu

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Factors that Affect Marital Satisfaction Across the Transition to Fatherhood

Brandon McDaniel, Sheila Lopez, & Erin Holmes

ABSTRACT *The purpose of the current study was to briefly explore what creates a better adjustment for men's transition to fatherhood in terms of expectations of the division of tasks, feelings of appreciation, feelings of support, and communication with spouse. The perceptions of marital satisfaction across the transition to fatherhood of 54 Brigham Young University (BYU) students were surveyed using an online questionnaire. Significant differences were found between fathers' expected division of child care tasks and how tasks were actually divided. Feelings of appreciation were related to fathers' involvement in childcare tasks. Communication and quality time with spouse were found to be the greatest determinates of marital satisfaction. It is concluded that communication is the greatest predictor of marital satisfaction.*

The research on men's marital quality across the transition to parenthood is limited. The current research trend has been to examine the couple as a whole across the transition. However, from our review of the literature, there is a noticeable difference between what is understood about women's and men's marital satisfaction during this adjustment. In this study, we explore the research that has been done on couples but focus primarily on the research that has been done specifically on men.

Marital Satisfaction

The birth of a couple's first child brings about more profound changes and challenges to the family unit than any other stage of life (Vessey & Knauth, 2001). This transition has been associated with a deterioration of couple communication, sexual intimacy, and overall marital satisfaction, while conflict also increases (Anderson, Russell, & Schumm, 1983; Glenn & Weaver, 1978; Cowan & Cowan, 1995; Belsky & Pensky, 1988). A major contributor to the dramatic changes accompanying parenthood is the increase in household labor and child care responsibilities (Levy-Shiff, 1994; Bond, Galinsky, & Swanberg, 1998; Cowan & Cowan, 1992).

However, there are groups of couples within the general picture of declining marital satisfaction that present more stable slopes of marital quality (Belsky & Hsieh, 1998; Kamp Dush, Taylor, & Kroeger, 2008; Anderson, Van Ryzin, & Doherty, 2008). The relationship between housework, child care responsibilities, and marital satisfaction suggests that some couples may negotiate changes across the transition to parenthood in a more satisfying way than other couples.

Gender Role Ideology

Gender role ideology can have a negative or positive effect on men's marital satisfaction across the transition to fatherhood. According to Lavee & Katz (2002), gender role ideology has been defined as an individual's beliefs and cultural norms. Generally, much of the conflict comes from traditionally defined gender roles, including beliefs about who should be the principal provider, who should care for the children, and who should do the housework (Vessey & Knauth, 2001; Lavee & Katz, 2002; Greenstein, 1996; Blair & Johnson, 1992). In fact, the perceived increase in responsibility to provide for their families was found to be a significant detriment to fathers' marital satisfaction (Grossman, 1987).

Lawrence, Rothman, Cobb, Rothman, and Bradbury (2008) found that husbands' sense of competence at family work, along with the wives' sharing of this view, was the most consistent predictor of husbands' perception of fairness in the relationship. Moreover, the more husbands thought their wives viewed them as competent, the more husbands contributed to housework and child care. While competence influences men's participation in housework, child care, and their sense of fairness, these factors do

not mediate men's perception of marital satisfaction; perceived fairness is only a mediating factor for women's marital satisfaction (Lavee & Katz, 2002; Robinson & Spitze, 1992). Thus, the values and beliefs that men hold about gendered behavior affect how they experience the transition to fatherhood.

Expectations

Expectations are closely aligned with one's gender role ideology, and it appears that couples who share the same values are more satisfied overall with their marriage (Wilcox, 2003). Harwood, McLean, and Durkin (2007) found that overall positive expectations about parenthood tended to create a more positive experience during the transition, confirming Palkovitz's (1984) finding that men who had a more positive attitude about their new role as a father were better able to adjust. One experience that shapes husbands' expectations about fatherhood is pregnancy planning (Lawrence et al., 2008). Lawrence et al. (2008) report that to the extent that couples do not plan their pregnancies, the husbands' marital satisfaction experiences a steeper decline over the transition (see also Feldman, 1987; Berman & Pedersen, 1987).

Emotion Work, Perceptions of Being Appreciated, and Support

Some evidence suggests that feeling emotionally cared for may play a large role in marital quality for husbands (Lawrence et al., 2008; Wilcox & Nock, 2006; Thompson, 1991; Goldberg & Perry-Jenkins, 2004; Hochschild, 1989b). Hochschild (1979) defines emotion work as "work done in a conscious effort to maintain the well being of a relationship" (p. 561). Wilcox (2003) found that men's emotion work in marriage and women's assessments of men's emotional attentiveness were two of the most important factors in predicting contemporary marital satisfaction and stability. Grossman (1987) would agree with this, citing that fathers who were more affiliative—in other words, those who showed more gestures of friendship and caring—were better able to adjust to fatherhood.

Studies have found that appreciation is a significant contributor to one's perceptions of marital happiness (Thompson, 1991; Hochschild, 1989b). Aligning with Thompson's (1991) research, Hawkins, Marshall, and Allen (1998) found that appreciation and listening were significant contributors. Palkovitz (1984), in his work on parental attitudes and father interaction, found that men who have strong social support networks feel that the transition to parenthood is easier. Also, men are better able to adjust to the father role when they feel that they have their wife's support.

Negotiations of Household and Child Care Tasks

There is also evidence that negotiations between partners over household and child care tasks may be an important predictor of marital quality. Mannino & Deutsch (2007) examined household labor and child care negotiations between parents with three- and four-year-old children, and found that these negotiations can be a significant contributor to marital conflict. Hawkins et al. (1998) also found that shared decision making in a relationship can contribute to overall marital satisfaction. Yet there has been little research examining these negotiations across the crucial transition to parenthood. Additionally, this research has focused more on the effect of these negotiations on women. Research is needed that examines men's experiences during this process.

The Present Study

The purpose of the current study was to briefly explore what creates a better adjustment for men during the transition to fatherhood, adding needed understanding of what specific factors such as met expectations, appreciation, communication, support and understanding have more prominent effects on fathers' marital satisfaction. This study looked at factors such as length of marriage and household income as predictors of men's ability to adjust well. In addition, this study aimed to determine what factors such as appreciation, understanding, support and marital satisfaction play a role in father's expectations of the division of household and childcare tasks as well as

father's involvement in these tasks. Differences between expectations of and involvement in household and childcare tasks were also examined. Finally, this study included one qualitative item to deepen our understanding of what father's feel most affects their marital relationship.

Based on the above research questions, we hypothesized that (1) fathers who felt that they were making a contribution to their family and felt that their wives appreciated and supported that contribution would have higher marital satisfaction, (2) fathers who were better able to communicate with their wives would be more satisfied with their marriage and (3) father's expectations about the division of household and childcare tasks would not match the way tasks were actually divided after birth.

Method

Participants

Fifty-four first-time fathers who had transitioned to parenthood within the last year responded to our survey. Participants were, on average, 24.91 years old (SD = 1.77) and had been married an average of 3.43 years (SD = .63). Most of the respondents were Caucasian (87%) with only their spouse living in the household (98%), worked full or part-time (82%), and had a household income of less than $50,000 (94%). All respondents were in their first marriage and had graduated from or were currently attending college.

Measures

This study examined a range of self-reported factors and their possible relation to fathers' marital satisfaction across the transition to parenthood. The 37 questions were divided into 13 sections, representing each factor or sub-factor mentioned in our above literature review.

Religious Attitudes. In order to assess the influence of religiosity, participants responded to three items (α = .97) including, "I look to my faith as providing meaning and purpose in my life," "My faith is an important part of who I am as a person," and "My faith impacts many of my decisions." Items were answered on a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree).

Marital Satisfaction. Marital satisfaction was assessed using items from the Quality of Marriage Index (QMI, Norton, 1983). The QMI is a six-item inventory (α = .98) that assesses marital satisfaction using broad items, such as "Overall I feel very satisfied in my marriage." Fathers reported their marital satisfaction on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Communication. Couple communication patterns were measured using one item from the RELATE assessment battery (Busby, Holman, & Taniguchi, 2001). Participants reported on the item "Overall, I feel that my spouse and I communicate well in our relationship." This response was based on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Expected and Actual Division of Household Labor. The expected and actual division of housework was examined using the scale developed by Cowan and Cowan (1992). Fathers rated what their expectations of the division of housework had been prior to the birth of their child and how the division actually is now using a six point scale (α= .67) ranging from 0 (we don't do this) to 5 (I always do this) with 1 being (my partner always does this). Some of these household tasks included "cooking and menu planning," "cleaning up after meals," "grocery shopping," "laundry: washing, ironing, and folding," and "vacuuming."

Expected and Actual Division of Child Care Tasks. Participants also responded to six items (α = .76) regarding their retrospective expectations before birth about the division of child care tasks after birth and then how the division actually is now using a six point scale ranging from 0 (We don't do this) to 5 (I always do this) with 1 being (my partner always does this). Items were derived from a similar scale used by Hawkins, Lovejoy, Holmes, Blanchard, & Fawcett (2008), and included tasks such as "changing diapers," "getting up at night with the baby," and "playing with the baby."

Appreciation. Felt appreciation was measured using a series of items (α = .84) including, "In general, how often do you feel appreciated in your relationship?" and "How often do you feel appreciated for the contributions you make to the family?" Items were asked on a 4-point scale (α = .90) ranging from 1 (Not at all) to 4 (All the time). In addition, items such as, "I feel supported by my extended family in my new role as a parent" and "The amount of appreciation I receive in my marriage is what I had expected to receive" were asked on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Procedure

Participants were recruited through email, announcements in college classes, and word of mouth. Each participant was given the link to the online survey

presented through Qualtrics and was asked to complete the questionnaire before a certain date. Initially, participants reviewed the informed consent form and agreed to participate in the study by selecting "yes" acting as their signature. Participants then answered the participation eligibility questions and a series of demographic questions. Next, the participants rated themselves and their relationship across 37 questions and responded to one qualitative item, "What do you feel affects the quality of your relationship with your spouse the most at this period in your life together?"

Analysis Plan

Descriptive statistics were analyzed in order to gain a greater understanding of what creates a better marital adjustment for men during the transition to fatherhood. Bivariate correlations were calculated to better understand intercorrelations among the study variables such as feeling positive about the birth. Regression analyses were performed to test the associations between support, appreciation and understanding on marital satisfaction. Further regression analyses were performed to test associations between appreciation, support, understanding, and marital satisfaction on fathers' participation in childcare tasks. Repeated measures MANOVAs were performed to determine if there was a difference between fathers' expectations of the division of household and childcare tasks and how household and childcare tasks were actually divided once the baby was born.

Finally, analysis of the qualitative question, "What do you feel affects the quality of your relationship with your spouse the most at this period in your life together?" was used to supplement and deepen findings identified from analyses of the quantitative questions. The qualitative item was analyzed using a grounded theory approach (Berg, 2001). This approach required an initial reading of all of the responses to the open-ended questions without prior ideas about themes. The initial read was followed by identification of salient themes. Themes that continued to recur were identified, coded, and then confirmed or disconfirmed through multiple readings of the qualitative responses.

Results

What factors facilitate a more positive adjustment to parenthood for new fathers?

When we examined differences between fathers' length of marriage and other factors, we found that those who were married less than three months and became pregnant ($M = 7.33$, $SD = 2.31$), as compared to those who had been married for at least 3 to 6 months before becoming pregnant ($M = 9.22$, $SD = .95$), felt significantly less positive about the birth of their child ($F(1, 52) = 4.35$, $p < .05$).

In regards to household income, those who made more money—in the range of $50,000 to $80,000 ($M = 9.39$, $SD = .84$) as compared to those who made less than $50,000 ($M = 8.73$, $SD = 1.45$)—felt more positively about the birth of their child ($t(51) = -2.085$, $p < .05$). Also, those fathers who reported the higher income ($M = 9.39$, $SD = 1.55$) felt more support from their spouse and extended family than did those who reported making less than $50,000 ($M = 8.14$, $SD = 2.56$; $t(47) = -2.124$, $p < .05$).

What factors predict better marital satisfaction for new fathers?

To explore predictors of men's marital satisfaction across the transition to parenthood, we ran a multiple regression analysis examining associations between marital satisfaction and appreciation, support, understanding, and communication. The model did not account for a significant amount of the variability in marital satisfaction ($F(3, 45) = .79$, $p = .51$). Of the individual factors in the full model, neither appreciation, neither support, nor understanding, was significantly related to marital satisfaction, which is likely why the overall model did not account well for variability in marital satisfaction. Communication, however, was found to be a significant predictor of marital satisfaction. Fathers who felt they communicated well with their spouse had higher overall marital satisfaction ($\beta = .82$, $p < .001$; see Table 1).

What factors affect new fathers' involvement in child care tasks?

To explore what factors affects fathers' involvement in childcare tasks we ran a multiple regression analysis examining the relationship between the division of childcare tasks and marital satisfaction, support, appreciation, and understanding. The model did

Table 3

Post-Hoc Tests of Difference between Expected and Actual Division of Childcare Tasks

Task	Expected Mean	Actual Mean	T-value
Feeding the baby	3.00	2.90	1.28
Changing diapers	3.78	3.49	2.60*
Getting up at night with the baby	3.43	3.14	1.60
Playing with the baby	3.76	3.96	2.85**
Giving baths	3.69	3.47	1.38
Taking the baby to the doctor	3.43	3.06	3.23**
Soothing baby when fussy	3.75	3.51	2.71**
Staying home with sick baby	2.86	2.73	1.47
Arranging childcare	2.39	2.33	.45

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

coded as quality time. These are two of the most salient themes encountered in participants' responses (See Table 4). It would appear that more than half of fathers were concerned with spending quality time with their wives. Many fathers spoke of how the amount of time that they could spend with their spouse had greatly decreased since the birth of their child Also, at least one in four fathers mentioned that communication issues had a significant impact on their relationship.

Discussion

Length of Marriage and Personal Attitudes

Other important factors that may be involved in father's marital satisfaction were encountered that were not hypothesized. Fathers who had been married for at least three to six months and became pregnant, as compared to fathers who were married for less than three months, felt significantly more positive about the birth of their child. In addition, we found that fathers with higher incomes felt more positively about the birth of their child. It is possible that fathers who have been married longer feel that they have more stability within their marriage and are more prepared for the transition to fatherhood than those who have only been married for a short time.

Table 4
What do you feel affects the quality of your relationship the most at this point in your life?

Category	N	%
Spend time together	23	58
Communication	11	28
Mentioned the baby specifically	7	18
Busy schedules	7	18
Work pressures	7	18
Personal attitudes	7	18
Assisting spouse with care tasks	5	13
Sleep	4	10
Physical Intimacy	3	8
Faith	2	5

**Responses coded into multiple categories (n = 40)

Additionally, fathers with higher incomes most likely feel more financially prepared for childbirth and are therefore more positive about having a child (Belsky & Rovine, 1990).

Support and Appreciation

We found that fathers who reported higher incomes felt more support from their spouse. It would appear that fathers feel more support from their spouse and are more satisfied in their marriage as they contribute to the temporal well-being of their family. It is possible that many of the fathers in our study—because of their faith—feel that it is their role to provide for their family (Wilcox, 2003), and the more effectively they accomplish this the happier they are in their family. In turn, this will result in higher marital satisfaction.

In contrast, we found that fathers who were more involved in childcare tasks felt less appreciated. It is possible that the fathers in this study maintained a very traditional gender ideology so they felt that it was primarily the mother's responsibility to care for the children. Therefore, they feel that they should receive more appreciation from their wife when they engage in childcare tasks, since they are assisting with her role (Hochschild, 1989).

Expectations

We found no difference between fathers' expectations and the way household tasks eventually were divided. However, we did find differences within their child care expectations: (1) fathers believed that mothers would feed the baby most of the time, but mothers tended to feed the baby almost all of the time; and (2) fathers believed that they would divide changing diapers, playing with the baby, giving baths, taking the baby to the doctor, and soothing the baby equally, but it turned out that mothers ended up doing these tasks more often. Therefore, our hypothesis was partially supported by our results.

There are a few potential explanations for these findings. It is possible that fathers feel that household tasks are the mother's role in the family, as was stated by Vessey and Knauth (2001) and Lavee and Katz (2002) and therefore there are no differences between the expected and the actual division of household tasks. However, with the childcare tasks it is possible that fathers feel less competent at these tasks and therefore, allow the mother to complete childcare tasks the majority of the time (Lawrence, et al., 2008). In addition, father's may have other demands competing for their time, such as school and the pressure to provide for their family, that intrude on their ability to be as involved in the care of their child as they would like to be (Cowan & Cowan, 1992).

Communication

We found that fathers who feel that they communicate well with their spouse are generally more satisfied in their marriages. Indeed, communication was the strongest predictor of fathers' marital satisfaction in this study. This supports our hypothesis, possibly because fathers feel more comfortable with their spouse when they are able to communicate clearly. Additionally, effective communication facilitates the resolution of conflicts and other factors that could possibly disrupt marital satisfaction (Boland & Follingstad, 1987). This view is supported by fathers' responses to our qualitative item, as most stated that spending time together and communicating were what affected their marital relationship the most at this time.

Limitations

Our study was limited because the sample size was small (n = 54), and we recruited through convenience sampling. Both of these factors lead to a lower ability to generalize outside of BYU students. More research should be done on fathers outside of the LDS faith. It is possible that fathers outside of the LDS faith will feel differently about the division of household labor and child care tasks across the transition to fatherhood. In addition, future studies may benefit from examining more extensive measures of marital satisfaction, enabling them to more

effectively measure the depth and complexity of fathers' marital satisfaction and relationships.

Conclusion and Practical Implications

In summary, we see that fathers' expectations did not match the actual division of child care tasks. In addition, fathers who contributed more financially to their families felt more appreciation from their spouse, and communication was the greatest predictor of a father's marital satisfaction. It is also interesting that when asked what affected their relationship with their spouse most at the current time many fathers mentioned quality time with their spouse. Future studies should focus on confirming this finding and on examining the ways that fathers are able to manage this time, both successfully and unsuccessfully.

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The Restored Gospel in Psychology

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ABSTRACT *Theism is largely absent from contemporary psychology (Slife & Whoolery, 2006). The root assumptions of control, predictability, biological determinism, and moral relativism inherent in many dominant psychological theories (Slife & Williams, 1995) exclude and contradict knowledge provided by the Gospel of Jesus Christ. It is impossible to fully incorporate Gospel doctrines into psychology while operating under these assumptions. Such truths cannot be added onto methods and theories that inherently oppose them. Thus, to be a theist in contemporary psychology, changes must be made at the very basic conceptions of human nature and behavior (Slife & Whoolery, 2006). Prerequisite to any psychological research, theories, or therapy should be the foundational knowledge of the relationship between the body and spirit, the importance of agency, and the Atonement and resurrection of Jesus Christ. Building psychology upon these doctrines more accurately captures the unique divine nature of each person, illuminates the significance of individual context, and provides a foundation of hope that can lead to truly transformative change.*

Although the modern conception of psychology as a natural science is relatively new, past philosophies demonstrate that the human mind has long been a focus of scholarly interest. However, contemporary psychology, driven by a desire for empirical evidence and technological results, has neglected the importance of theism to the study of the mind, deeming it irrelevant, unpredictable, and outside scientific control (Slife & Fischer, 2000). Psychologists cannot blend theism and secular science because many assumptions inherent in contemporary psychology are incompatible with principles of the Gospel of Jesus Christ. To be wholly theistic requires foundational changes. In order to best characterize human nature, theism should be rudimentary, not an extension of secular science (Slife & Whoolery, 2006). Specifically, research methods, modes of explanation and therapeutic practices should evolve from assumptions founded in Latter-day Saint (LDS) doctrines of the divine role of the body, the gift of agency, and the Atonement of Jesus Christ.

Nature of the Body

Revealed knowledge of the role of the body and spirit contradicts many psychological explanations and must be a basic assumption when characterizing behavior. Current deterministic and reductionistic psychological assumptions regard the body as a sufficient explanation of behavior but fail to incorporate the equally necessary component of spirit (Slife & Hopkins, 2005). Rather, as evidenced in the scriptures, because the combination of the spirit and body is an essential characteristic of every human being, both elements are requisite to an adequate conception of human nature. In the Council in Heaven we agreed to follow God's plan, which required coming to earth where our spirit and body became our soul (D&C 88:15). Created in the image of God (Ether 3:15), our bodies are temples that enable us to achieve exaltation. This combination of the spirit and body maximizes our divine potential by allowing us to develop moral character and receive a fullness of joy (D&C 93:34; Packer, 2000). Thus, the body and spirit shape human behavior and individual personality, acting as spiritual and physical reminders of the divine nature of each human being.

Minimizing the relationship between physical and spiritual aspects diminishes understanding of the divine origin of the body and ignores many of the unique capabilities of each person. For example, many psychologists question the origin and presence of "innate" qualities. The scriptures clearly outline some of these "innate qualities" as divinely inherited spiritual gifts (D&C 46:11-26). These spiritual gifts contribute to each person's unique divine nature and are key components of motivation and behavior. Accordingly, to understand human nature and behavior in a more comprehensive way, theistic psychology should equally consider the spiritual and physical.

Human Agency

Crucial assumptions of pragmatism and the belief that human behavior can be controlled and predicted underpin both biological determinism and most conceptions of the scientific method, and exclude agency (Slife & Williams, 1995). According to the assumption of biological determinism, genetically structured brain mechanisms and chemical states regulate and dictate behavior, which is reduced to a matter of stimulus-response conditioning induced by the environment (Malott, 2007). Determinists believe that "what we do is caused both by our nature (our biology) and our nurture (our behavioral/learning history)" and that any other view is "out of date and meaningless" (Mallott, 2007, p. 158). Humans have little control over their choices or real power to change because their circumstances and responses are dictated by their biology. Further, central to this conception of the scientific method is the assumption that human behavior is predictable and controllable because it is governed by universal natural laws. The unique context or personality of each person falls secondary to scientifically invoked principles of behavior. Under these premises, the only limitation to fully understanding human nature is to discover these universal laws (Slife & Williams, 1995). Such views seek to replace the ability to choose, eliminating the fundamental principles of agency and spirituality. Because the non-existence of agency is a basic assumption, agency cannot be appended to research or therapy based on these ideas.

The unique LDS perspective on the premortal existence and purpose of life provides an essential understanding of the role of agency from which any study of human behavior must originate. Joseph Smith taught that agency is a gift from God that facilitates independent thought and action (The Church of Jesus Christ of Latter-day Saints, 2007), fostering the development of personality. Modern revelation teaches that agency is an inherent quality of eternal intelligences and is central to God's plan (Kendrick, 1996). This teaching clarifies that humans have the power to act for themselves and for the future to achieve eternal exaltation (D&C 58:26-28, 101:78), meaning action is not solely determined by past stimuli and conditioning history. Rather, opposition provided by Satan enables the use of agency and facilitates feelings of joy and sorrow necessary for progression (2 Nephi 2:11). Without agency man "would be no better than a mechanical contrivance...could not have acted for himself, but in all things would have been acted upon" (Smith, 1954, p. 49). The ability to act allows man to gain knowledge, experience joy or sorrow, and work to achieve eternal life (D&C 42:61). Because the ability to act is central to earthly existence and eternal happiness, it must also be central to any psychology sensitive to the Gospel of Jesus Christ.

Gospel teachings also elucidate the nature of limitations to agency. Based on assumptions of control and predictability, psychologists often reduce events that appear outside of human control to biological or environmental processes. From this perspective, spirituality and moral agency are not thought to account for psychological disorders in which environmental or electrophysiological processes limit behaviors. Attributing susceptibilities or tendencies to genetics or biological causes and eliminating the power of choice "runs counter to the most fundamental premises of the gospel of Jesus Christ" (Oaks, 1987, p. 94). Granted, the Gospel does not offer a ready explanation for every consequence or disorder. However, it teaches that individuals can have some control or participation in their own life events (Kendrick, 1996).

To apply psychology and conduct therapy or research productively it is essential to view agency as an unqualified divine gift restricted by freedom based on an individual's context (Oaks, 1987). Freedom can be qualified in this life but restriction of freedom does not eliminate agency (Oaks, 1987). For example, if a child is mentally handicapped due to its mother's decisions during pregnancy, the child's freedom is limited mentally due to the actions of another. Fortunately, from a Gospel based perspective, the child can still live a happy life and make choices in the context of their disorder. Thus, through agency life has meaning because each person, based on their unique circumstances, has the ability to make choices and then face the consequences.

Any psychological framework excluding human agency opposes these fundamental doctrines. Without agency, there is no place for the existence of happiness or the potential for meaningful and self-motivated change. Therapy then becomes a setting where therapists manage their client's biology or reinforcement history rather than a process that allows clients to recognize and utilize their agency. Because agency is essential for eternal salvation any study, explanation of behavior or therapeutic

proach must include agency at its most basic levels.

The Atonement of Jesus Christ

The contemporary psychological perspective necessi- es an amoral existence without need for an atonement, imately eliminating hope and the potential for genuine nge. Whether an action is correct or incorrect, it is ermined outside of personal control. Consequently, orality is irrelevant and change is limited (Judd, 2005; illiams, 2005). Without distinct moral choices or the pe that comes through repentance, accountability is necessary. Instead, knowledge is obtained passively, aning progression towards eternal exaltation is ntingent upon chance alone. Under these conditions, an nement is neither pertinent, effective, nor meaningful.

Alternatively, belief in the atonement and resurrection f Jesus Christ are fundamental because they include orality and provide hope and an eternal perspective ecessary for agentic change (Mormon 9:13; 2 Nephi 26-27). The gift of agency is central to God's plan ecause it is contingent upon moral responsibility. The ility to choose between moral opposites is meaningful ecause it necessitates accountability, making each person sponsible for their own actions (Articles of Faith 2; 2 Corinthians 5:10). The Atonement is, therefore, vital ecause it provides redemption from sin through the ility to repent. It is powerful in psychology because it is effective in any context and accounts for limited eedom, providing hope that anyone can change or ercome challenges through Christ. This hope is a powerful motivator that can provide a unique eternal perspective to enhance therapy. The repentance process also expands agency, facilitates personal growth, and increases knowledge because it is sustained by individual effort. Any characterization of humans or attempt to improve life that is not centered on the Atonement is limited in its ability to heal (Gantt, 2003).

The doctrine of the resurrection is also fundamental to an adequate psychology because it provides the potential for physical and spiritual perfection. Christ's resurrection shows that the infirmities of the flesh, such as mental and biological disorders, can and will be overcome. Joseph F. Smith (1954) explained that all the temptations and infirmities of the flesh increase our appreciation of the Atonement and prepare us to become perfect like God. He explained the consequence of materialistic philosophies prevalent in contemporary psychology, stating that "it has become quite popular...for men of wisdom to deny the literal resurrection of the body. [This] doctrine... is fundamental... it cannot be spiritualized or dissolved" (Smith, 1954, p. 265). Every being achieves physical perfection through the resurrection, eliminating determinism. It is also significant that the resurrection "cannot be spiritualized" (Smith, 1954, p. 265), meaning it is a real and physical process that cannot be reduced to a subjective theoretical experience. Minimizing the power of individual change through Christ eliminates the cornerstone of the LDS religion (Ephesians 2:20) and limits the effectiveness of psychology.

Conclusion

Including theism, particularly as articulated in the LDS understanding of the restored Gospel, can improve the success and development of psychology only if it is foundational in our theories, research, and both methodological and therapeutic practices. The Gospel perspective enhances the ability of psychologists to help others through the Atonement. Moral agency replaces determinism, illuminating the importance of context and individual worth. The LDS viewpoint also reveals the importance of the combination of the body and the spirit in understanding divine nature and behavior. To live the Gospel fully, the spiritual and secular cannot be compartmentalized. Although theism does not provide every answer, it provides fundamental truths upon which psychology can and must be redefined. Although it may be unpopular and involves significant changes, truly being a theist in psychology requires a serious re-evaluation of and critical reflection on the contemporary psychological perspective. Conforming to current assumptions and fully maintaining Gospel truths is impossible; such knowledge cannot be ignored or added to faulty assumptions. Doing so diminishes the effectiveness of psychology and perpetuates a discipline based on limited assumptions.

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Flirting with Psychology: A Measure of Flirtation

Peter Clayson and McKenna Dutcher

ABSTRACT *Flirtation is an indicator of romantic interest that is frequently researched; however, there is no current psychometrically-validated self-report measure of flirtation. To meet this need, the I'm Too Flirtatious Scale (I2FS), a 10-item measure of flirtatious non-verbal behaviors, was developed using a 4-point Likert scale and administered to a convenience sample of 150 students at Brigham Young University. The I2FS had high internal consistency (α = .82), but a relatively low content validity ratio (all items ≥ .20). Principle component analysis revealed one primary factor corresponding with flirtatious nonverbal behaviors. Taken together, the I2FS provides a relatively homogeneous and psychometrically-valid measure of flirtation.*

Flirtation expresses sexual interest and often represents the beginning of a sexual pursuit (O'Farrell, Rosenthal, & O'Neal, 2003). Both men and women perceive these types of social interactions differently; what may be a casual interaction to one may be perceived as flirtation or sexual harassment to another (Henningsen, Henningsen, & Valde, 2006). The beginnings of these interactions seem to stem more from nonverbal communication than from direct verbal cues; as a result, this study will focus on nonverbal communication to probe flirtatious interactions (Grammer, Kruck, Juette, & Fink, 2000). It is important to know not only what people perceive as flirtation, but also to understand how people flirt, in order to appreciate avenues of communication within courtship.

Research consistently describes flirtation as the degree to which one utilizes suggestive haptic (i.e., tactile) interaction or other nonverbal messages to communicate a desire for increased relational intimacy (Abrahams, 1994). Suggestive haptic interaction is defined as touching an individual to convey a sexually provocative message of interest and attraction. Suggestive nonverbal communication is defined as messages intentionally sent through appearance, mood setting, and body language, with the intention to communicate a desire for increased personal intimacy.

Many scholars assert that there is no nonverbal communication more powerful than touch and that touch is the predominate language of flirtation (Thayer, 1986; Lee & Guerrero, 2001; Quiles, 2003; Renninger, Wade, & Grammer, 2004; Ryan & Mohr, 2004; Henningsen et al., 2006). Burgoon, Walther, and Baesler (1992) noted that not only is touch highly arousing, but also that it is "one of the most provocative yet least understood" nonverbal behaviors (p. 237). Both sexes perceive suggestive physical contact, even forms of physical aggression or force, such as playful shoving, punching, throwing, slapping, and inflicting pain, to be a method of flirtation (Ryan & Mohr, 2005). Because touch conveys messages of affection, love, and flirtation, it is used to foster positive relationships (Lee & Guerrero, 2001).

Although touch is the most powerful form of nonverbal communication, individuals use other nonverbal cues when flirting, such as eye contact, facial expressions and nodding. For example, Renninger et al. (2004) found that males were less likely to approach the other sex to make sexual advances without first being cued by facial expressions. Similarly, Moore (1985) observed that initial courtship was cued by behaviors such as glancing, primping, smiling, nodding, and leaning forward. Indeed, one study found nonverbal communication to be the key in maintaining the attention and interest of the other sex during courtship (Grammer et al., 2000; Renninger et al., 2004). Female nonverbal behavior directs courtship settings and male responses, while male nonverbal behavior is used to display aspects of himself, such as his status, health, strength, and intelligence (Grammer et al., 2000; Renninger et al., 2004).

There is no consensus in the research literature as to how flirtation should be measured, and to date, no research has constructed and psychometrially-validated a self-report measure of flirtation. For example, Downey

and Vitulli (1987) investigated the likelihood of male and female college students to reciprocate and pursue flirtatious cues by using a self-report questionnaire involving hypothetical situations. Expounding upon this research, O'Farrell et al. (2003) examined the correlation between relationship satisfaction and responsiveness to a non-mate's flirtation using videotaped self-introductions. In 1994, Abrahams examined the perceptual dimensions with which men and women judge flirtation episodes involving both nonverbal and verbal cues using a self-report questionnaire involving hypothetical situations. As can be seen from these studies, flirting can be measured through vignettes, coded videotapes, and assessments of personal interactions; however, no research has constructed a reliable self-report measure of flirtation. The purpose of this study, therefore, was to create a measure of flirtation and test its factor structure, internal consistency, and validity to determine its utility for use in future studies quantifying flirtatious behaviors.

Method

Participants

Participants consisted of a convenience sample of 150 single Brigham Young University (BYU) students. The sample included 64 males between the ages of 18 and 26 years (M = 21, SD = 2.16) and 86 females between the ages of 18 and 54 years (M = 19, SD = 3.94). Both sexes were equally represented, $\chi 2$ (1, N = 150) = 3.23, p = .07. The questionnaire was administered via an online third-party website called Qualtrics (www.qualtrics.com) to participants from a BYU Psychology 111 course or from a networking website: Facebook (www.facebook.com).

Item Construction

The I'm Too Flirtatious Scale was created from an item pool of 30 questions. Ten items were selected from the 30-item pool based on the content validity ratio (CVR), calculated with the relevancy ratings of 21 panelists in an undergraduate psychological testing course (see Appendix A for the final questionnaire). Items with a CVR > .20 were included (see Table 1). Items were rated on a 4-point Likert scale ranging from 1 (strongly agree) to 4 (strongly disagree). Five items were negatively worded and reverse scored to control for agreement bias. Item presentation was also randomized to control for order effects.

Table 1
Content Validity Ratio

Item	CVR
Touch arm during conversation	0.70
Dress to impress	0.30
"Footsies"	0.20
Romantic Atmosphere	0.40
Body language as sexually attractive	0.70
Cuddling	0.30
Arm around the shoulder	0.20
Touch the lower back	0.20
Stand closer	0.90
Body language to get attention	0.70

Statistical Analysis

Cronbach's alpha was used to ascertain the internal consistency of the questionnaire (Cronbach, 1951). The factor structure of the I2FS was examined using principle components analysis. We selected factors based on inspection of the eigenvalues, examination of the scree plot deflection, and interpretability. Pearson bivariate correlations were used to identify relationships among questions to clarify the factors of the factor analysis. All data were analyzed using SPSS 16.

Table 2
Component Matrix

Item	Component 1	Component 2	Component 3
Touch arm during conversation	0.67	0.10	0.18
Dress to impress	0.65	-.31	-.29
"Footsies"	0.43	0.09	0.71
Romantic Atmosphere	0.77	0.19	-.02
Body language as sexually attractive	0.61	-.50	-.03
Cuddling	0.38	0.62	-.29
Arm around the shoulder	0.51	-.01	0.47
Touch the lower back	0.67	-.40	-.17
Stand closer	0.73	0.03	-.16
Body language to get attention	0.67	0.39	-.16

Results

Factor Structure

Principle components analysis revealed three factors with eigenvalues greater than 1 (eigenvalues = 3.87, 1.11, and 1.01) that accounted for 59.84% of the variance (see Tables 2-3). This three-factor solution was inconsistent with the deflection in the scree plot that indicated only one primary factor (see Figure 1). Given that two of the factors had eigenvalues just over one, that the deflection in the scree plot indicated one primary factor, and that all of the items had primary loadings on the first factor except the cuddling item (see Table B2), we interpreted these results to indicate there is only one primary factor that accounted for 38.72 % of the variance in the I2FS and appeared to correspond with overall nonverbal flirtatious behaviors.

Reliability

Cronbach's alpha indicated the test's internal consistency was highly reliable ($\alpha = .82$; see Table 4). A Pearson bivariate analysis revealed 37 of 45 correlations were significant, indicating a strong linear relationship between the majority of test items ($p < .05$; see Table B5).

Validity

One item had very high content validity ($\geq .90$) as measured by the CVR, three items had adequate content validity ($.70 \geq .79$), and six items had low content validity ($\leq .59$; see Table 1). Forty-nine percent of participants correctly identified the construct being measured (i.e., flirtation), indicating that the test had low face validity.

Discussion

Due to the absence of a psychometrically-validated measure of flirtation, we created the I2FS and examined its psychometric properties and factor structure. The I2FS had high internal consistency and reliability. Principle component analysis and examination of the scree plot deflection revealed that the I2FS consisted of one primary factor. This factor (nonverbal communication) had a high correlation between the items. This suggested that the majority of the variance between test items captured the broad domain of nonverbal communication well. However, test items did not discriminate between the domains of haptic interaction and nonverbal cues. Although haptic interaction is inherently a part of nonverbal communication, more pellucid items could result in greater discriminability between these two hypothesized factors.

A potential variable that may have influenced ratings on the I2FS is attraction. Individuals may be more likely to flirt with those to whom they are attracted. As a result, the relationship status of participants may also be

Table 3
Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% Variance	Cumulative %	Total	% Variance	Cumulative %
Touch arm during conversation	3.87	38.72	38.72	3.87	38.72	38.72
Dress to impress	1.11	11.10	49.78	1.11	11.10	49.78
"Footsies"	1.01	10.07	59.84	1.01	10.07	59.84
Romantic Atmosphere	0.84	8.43	68.27			
Body language as sexually attractive	0.77	7.73	76.00			
Cuddling	0.63	6.26	82.26			
Arm around the shoulder	0.51	5.06	87.32			
Touch the lower back	0.48	4.76	92.08			
Stand closer	0.43	4.33	96.41			
Body language to get attention	0.36	3.59	100.00			

Extraction Method: Principal Component Analysis

% = Percentage

a limitation, because individuals in relationships may be less likely to flirt due to relationship commitment. We did not include a measurement of how attraction can influence nonverbal behaviors and the level of participant involvement in current relationships, which may have resulted in inaccuracies in the findings.

Another source of error may have been the non-expert panelists for the CVR. Panelists consisted of students from an undergraduate psychological testing course who, while probably periodically engaging in flirtatious activities, are not experts in the field. These student panelists rated few items as essential, which may be largely attributed to the conservative nature of not only the religious university but also the panelists previous exposure to the construct. In addition, the sexually themed items possibly led some panelists to feel uncomfortable, which also may have biased responses.

Despite these sources of error, the I2FS represents the

Table 4
Cronbach's Alpha

Cronbach's alpha	Cronbach's alpha standardized	N
0.82	0.82	10

first empirically supported measure of flirtation; therefore, it is worthwhile to improve this measure. This scale only sampled Brigham Young University students; further studies must be conducted to improve external validity. After further developing the I2FS, it may be used in studies of sexual harassment. Instigators of sexual harassment may not recognize their actions as sexual advances, but rather as flirtatious. However, increasing the number of questions and editing of the established questions would further discriminate between the two domains of haptic interaction and nonverbal communication. It may also be requisite to add more questions to assess further domains incorporated by flirtation, such as verbal communication.

The aim of the I2FS was to measure flirtation accurately and reliably. The I2FS proved to be highly reliable. Further research is necessary not only to validate this measure, but also to incorporate more domains into the hypothetical construct of flirting, such as attraction and relationship status, giving a broader analysis of flirtation.

Appendix A

I'm Too Flirtatious Scale

Demographics

What is your sex? Male Female
What is your age?
What year are you at Brigham Young University?
What is your major?

Questions

In my interaction with a person of interest, I often touch his or her arm during conversation.
Strongly Agree Agree Disagree Strongly Disagree

When I dress in the morning, I do NOT use my clothing to impress a person of interest.
Strongly Agree Agree Disagree Strongly Disagree

When under a table, I playfully rub the leg of a person of interest with my foot ("Footsies").
Strongly Agree Agree Disagree Strongly Disagree

I do NOT create a romantic atmosphere when with a person of interest.
Strongly Agree Agree Disagree Strongly Disagree

I use body language to project myself as being sexually attractive.
Strongly Agree Agree Disagree Strongly Disagree

I do NOT enjoy cuddling with a person of interest.
Strongly Agree Agree Disagree Strongly Disagree

I intentionally place my arm around the shoulder of a person of interest to communicate my interest in him or her.
Strongly Agree Agree Disagree Strongly Disagree

I do NOT touch the lower back of a person of interest to convey messages of attraction.
Strongly Agree Agree Disagree Strongly Disagree

I stand closer to those to whom I am more attracted.
Strongly Agree Agree Disagree Strongly Disagree

I do NOT use body language to get attention from a person of interest.
Strongly Agree
Agree Disagree Strongly Disagree

What do you think this questionnaire is trying to measure?

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The Long-term Effects of Short-term Psychotherapy on Depression: A Review of the Literature

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ABSTRACT *As depression is one of the most prevalent challenges to mental health today, there is a need for still further research in this subject that has already received so much attention. There is a particular need for longitudinal studies of depression to determine the efficacy of psychotherapy as treatment. Additionally, there is a promising possibility for research into brief periods of treatment. Some of the psychotherapy literature focusing on the overlap of these two fields is examined. While many studies indicate that therapy brings about a decrease in depression symptoms, which is then maintained for as long as two years, there is another segment of the literature which emphasizes the likelihood of relapse over a longer time span. The limitations of these studies are examined. Of special interest is the most recent literature, indicating that therapy as brief as a single day can bring about a long-lasting decrease in symptoms.*

Debilitating and destructive, psychological depression is one of the most common mental health concerns today (Murray & Lopez, 1996). As such, it is also one of the most commonly studied. Anecdotally, a recent search for "depression" as a major subject heading in the psycINFO database for sources published within the last ten years yielded 34,492 results- more than "schizophrenia" (22,153), "anxiety" (16,725), "eating disorders" (4,801), and "Freud" (2,431). Clearly, depression and its treatment is a thriving source of research in psychology. One of the most interesting areas of study which has yet to be fully examined is the interaction between a short period of psychotherapy treatment for depression and a long-term follow-up period. Within this investigation, we will discuss several specific methods and applications of depression treatment research which warrant further investigation.

While antidepressant pharmaceuticals are the most common form of treatment for depression, there is currently significant controversy over their usefulness in effecting a meaningful change in depressive symptoms. As one researcher stated, "Outcomes for individuals taking antidepressants appear poor on the whole" (Hughes & Cohen, 2009, p. 17). With this doubt in psychopharmaceuticals, psychotherapy is one of the principal remaining alternatives for the treatment of depression. This status creates the need for additional research into the effectiveness of these traditional "talk" therapies; this review aims to contribute to that examination.

While the general study of depression is important and much needed, there is a specific advantage to longitudinal studies of those treated by psychotherapy. Although there is extensive literature on the treatment of depression, the disorder has a long-term rate of relapse as high as 80% (Judd, 1997), creating a need for the study of depression long after treatment has ended. While an individual may feel that he or she has been 'cured' of depression after a given amount of therapy, there is a probable chance of further depressive episodes. Because of this possibility of future relapse, the results of any study of depression can be generalized only as far as the period of that study's follow-up data. By tracking depression assessment data across time, it is possible to measure what might be called the true effectiveness of a given therapy, rather than only the reduction of depressive symptoms while the patient is currently receiving counseling. Thus, there is an important place for long-term studies of depression treatment outcomes in the scholarly research.

In addition to studying the longevity of conventional therapy, there is a potentially rewarding area of current research into the effectiveness of specifically short-term therapy. From a research standpoint, limiting psychotherapy to fewer sessions allows a researcher to more easily study the effects of a given methodology while limiting the possible confounding factors which come into play in any long-term treatment. Short-term therapy may also be seen as desirable by those seeking it, allowing them less time away from everyday life and the possibility of rapid relief from symptoms. Some of the

potential benefits of short-term treatment, as studied in longitudinal research, will be examined in this review of the literature.

While psychotherapy has considerable promise as a treatment for depression for the reasons given above, therapy also has numerous drawbacks. Depending upon the specific therapeutic ideology and mental health care provider, psychotherapy can be both time consuming and, unless obtained from a free clinic, quite expensive; this may mean that therapy is available only to those who can afford the cost and time away from work. Additionally, there is a strong public tendency to avoid seeking out mental health care (Collins, Westra, Dozois & Burns, 2004); therefore, those who participate in studies which recruit through existing counseling centers may not be representative of the population as a whole. This limitation in the generalizability of many depression studies indicates that results must be viewed with caution.

Despite the abundance of studies on depression, there are still significant doubts that draw into question the usefulness of their methodologies for the body of psychological research. Longitudinal studies involving therapy, for instance, have attrition rates as high as 45% (Brown, Elliott, Boardman, Andiappan, Landau, & Howay, 2008). While some of this can be explained by the difficulties of tracking participants over a year or longer, this attrition rate introduces possible confounding factors for any results reached. For example, it is possible that a given subset of the participants, such as the extremely depressed, might be less willing than other groups to continue in a study for a long period of time. Uncertainties such as this raise questions about the legitimacy of these studies' findings. The most significant unanswered question about depression research is that of psychotherapy's long-term effectiveness. Some studies indicate that the gains made in therapy are kept as long as two years (Brown et al., 2008; Cross, Sheehan, & Khan, 1982; Gilboa-Schechtman & Shahar, 2005). While this demonstrates a certain effectiveness of psychotherapy, additional research suggests that relapse into a serious depressive episode commonly occurs after this two year period. (Kennedy, Abbott, & Paykel, 2003; Yiend, Paykel, Merritt, Lester, Doll, & Burns, 2009). Clearly, fundamental difficulties such as these must be understood in order to draw any meaningful conclusions about the efficacy of psychotherapy as a treatment option for depression.

To attempt a reconciliation of these various and conflicting studies on the effectiveness of depression treatment, several overlapping areas of research must be studied. In this review, we will look at the combination of two such areas- the application of short-term psychotherapy to depression, and the long-term effects of this treatment.

In order to get an in-depth look at the advantages and issues involved in the combination of short-term treatment and long-term follow up, Cross, Sheehan, and Khan's pioneering 1982 study can be used as a base from which to examine the body of literature as a whole. We will see that there are serious limitations and challenges facing the scientist intent on performing any longitudinal study, especially one assessing psychological change. Following Luborsky, Singer, and Luborsky's (1975) conclusion that long-term data from studies of insight-oriented therapy was "either absent or too brief to catch the long-term benefits" (p. 1,005), Cross et al. set out to empirically measure the effects of two different methods of therapy on depression. While they were not the first to raise the issue of the importance of long-term data on the effectiveness of psychotherapy, their study was one of the first to provide that data. In the study, the severity of participants' depression was rated using various assessment tools before therapy, immediately after their twelve weekly sessions of therapy, four months after the conclusion of therapy, and one year after the conclusion of therapy. Participants were treated in an existing city clinic, using independent therapists. While the study was initially performed to compare the differences in efficacy between behavioral and insight therapy, Cross et al.'s findings are most notable for our purposes in that they demonstrate that a period of therapy of only three months can bring about a significant change in symptoms, and that those gains made in therapy are kept, with largely no degradation, over a period of twelve months. We will now examine these first findings in light of later studies of depression which also involve a brief period of therapy (for our purposes, no longer than four months) and a long term follow up period (at least one year).

There is significant support for Cross et al.'s principle claim that the gains made in therapy are not lost over time. In Gilboa-Schechtman and Shahar's (2006) study, we see these same results with an added area of emphasis. After 12-15 sessions of Cognitive Behavioral Therapy (CBT), conducted across four months, the participants'

mean score on the Beck Depression Inventory (BDI) was reduced from 27.71 to 7.85, with a higher score indicating greater severity of symptoms. While this is encouraging by itself, what is most interesting is that their follow-up analyses at 12 and 18 months after the completion of therapy show that there was essentially no increase in BDI score. This indicates that the state of the participants' depression was much the same a year and a half after treatment as the day they walked out of their last session. This finding is echoed in various other literature. Fleming & Thornton (1980) demonstrated this same efficacy of treatment in a group setting, although over a much shorter time span; others show nearly identical reductions in depressive symptoms over one year (Ward et al., 2000), two year (Brown et al., 2008), and three year periods (Corney & Simpson, 2005). The fact that these studies have achieved such similar results while taking place across a wide spread of time adds support to Kennedy et al.'s (2003) statement that "the long-term outcome of depression... does not appear to have changed in the last 20 years" (p. 827). Like Cross et al.'s work, these studies demonstrate that the decreases in depression symptom severity brought on by psychotherapy are kept over time, with very little degradation.

One of the most intriguing findings across many of these studies is that the specific methodology used in psychotherapy had no influence on the efficacy of treatment. While numerous studies (Brown et al., 2008; Cross, Sheehan, & Khan, 1982; Gilboa-Schechtman & Shahar, 2005) demonstrate that there are significant effects of psychotherapy which can last as long as two to three years, it was found that those changes were not dependent on the specific method of therapy used. Across all of the studies examined, CBT, general practitioner care, non-directive counseling, insight therapy, and specific Banduran methods of therapy were all measured against at least one other method, and no study found any method to be significantly more effective than another (Cross et al., 1982; Fleming & Thornton, 1980; Ward et al., 2000). What is most intriguing about these findings is that those suffering from depression who saw their general practitioner made the same reductions in depressive symptoms as those treated by a trained psychotherapist. This is in opposition to Brown et al.'s (2008) finding that those who had sought out general practitioner care before attending a CBT workshop were no better off than those who had not. These findings may suggest that different subsections of the depressed population are helped by different methodologies. More research is required, however, to determine if this is the case and, if so, which methodologies are most effective for each population.

Other important factors on the effectiveness of therapy are the conditions at the beginning of a period of treatment. (Gilboa-Schechtman & Shahar, 2005).Gilboa-Schechtman and Shahar found that those who made the quickest gains at the start of psychotherapy treatment were also those who kept those gains over time. This may allow clinicians to gauge the worth of a method of therapy very quickly for each client, before a great deal of time is invested in a treatment that will not be effective. This finding highlights an important inconsistency in the research, however. While Gilboa-Schechtman and Shahar found that the speed of uptake in psychotherapy was an important predictor of long-term symptom reduction, others have found that "greater severity of illness was the most consistent predictor of poor outcome" (Kennedy et al., 2003, p. 827). In contrast to both of these studies, another has found that "quality of interpersonal relationships is the best pretreatment predictor of long-term changes" (Hoglend, 2003, p. 271). While each of these findings reflect a specific ideology and may not be in direct opposition to one another, there is a clear need for a definitive study of the different predictors of later success in treatment.

While the studies examined so far show very promising results of the longevity of treatment effects up to three years, there are other areas of research indicating that depression is still a significant threat to wellbeing at this stage. There are longitudinal studies gathering data for as long as 23 years which conclude that periods of serious relapse are extremely likely (Dunner et al., 2007; Kennedy et al., 2003; Yiend et al., 2009). The principal finding of studies with follow-up periods longer than two years is that the rate of relapse among those who recover from their depression is very high: 64% (Yiend et al., 2009) and 67% (Kennedy et al., 2003) in two methodologically sound studies. As Kennedy et al.'s analysis states, "the vast majority of those who have had an episode of severe depression will ultimately suffer a recurrence" (p. 835). Kennedy et al. found that the average time to a recurrence of depression was 2.5 years, just longer than the follow-up period for many of the studies examined previously. Twenty-five percent of those tracked relapsed within 12 months. As Yiend et al. summarize, "the course of primary care depression appears worse than suggested by

previous, shorter follow ups. Our data suggest that long term risk of a recurrence may be high, but with recurrence delayed" (p. 79).

While the findings of the Dunner et al, Kennedy et al., and Yiend et al. studies are relevant to an interest in the long-term effects of psychotherapy on depression, it is important to note that their populations and methodologies are quite different from the studies previously discussed. These three studies were not explicitly short-term in their period of treatment, differing significantly from the short-term treatment studies. Also, the Dunner et al, Kennedy et al., and Yiend et al. studies involved groups of the chronically and severely depressed, which may be subgroups too specific to generalize out to the population of depressed persons as a whole. If the populations involved were the same as studies involving short-term periods of treatment, it seems that certain conclusions of these studies would have been detected in the body of work first examined. For example, the average treatment time to recovery was 10.3 months (Yiend et al., 2009), and relapse was found to be most likely within six months of recovery (Dunner et al., 2007); these findings stand in direct opposition to studies of short-term treatment, indicating that different populations were being studied. The greatest difference in these long-term treatment studies is that psychopharmaceutical antidepressants were used by a subset of the research participants; these medications function completely differently from psychotherapy as a treatment for depression. Despite these dissimilarities to research involving short-term treatment, the results of these long-term treatment studies are useful in understanding the longitudinal outlook for the sufferer of depression, even if the two groups may not be directly comparable.

While the results of the studies examined thus far demonstrate compelling conclusions, there are significant difficulties with conducting any longitudinal study of depression that must be taken into account when interpreting the research. One of the most important to address is the possibility of confounding effects or hidden variables in the data. Perhaps the prime demonstrators of the effects of therapy are the differences in pre- and post- treatment scores on measures of depression, such as the frequently used BDI. However, the worth of these data must be paired with the samples from which they are drawn, and those sample sizes are often quite limited. The sample sizes in the studies discussed range from 181 (Corney & Simpson, 2005) to 30 (Cross et al., 1982). These low sample sizes make detailed analyses difficult, and may mask meaningful conclusions which might otherwise be made. Additionally, logistical constraints force most studies to track participants only once every 4-12 months. This often yields only 3-5 data points for any measure used. With assessments of progress so infrequently done, virtually all research reviewed was unable to track short-term or dynamic changes in depression. Overall, longitudinal studies are severely limited in generalizability by the small amount of data generated from their samples.

One of the prime contributing factors to this low sample size is also the source of the most troublesome confounding factor in longitudinal depression research. Nearly every study began with a substantially higher subject size, but after tracking participants over time, there was a very high degree of drop out, many as high as 45% (Brown et al., 2008). While this is unfortunate because of the difficulties in calculating statistics which participant drop out entails, it also indicates a more troubling possibility. Because the cause of participant attrition is not completely known, it leaves room for numerous factors which could cause alternate explanations for any conclusion drawn. While some researchers create statistics including presumed data from previous participants (none of these studies were used in this literature review), the characteristics of those who drop out of studies are not known. Brown et al.'s (2008) data indicate that those with the highest BDI scores at three months after treatment later dropped out, while those with the lowest BDI scores at twelve months later did so. While it may be that the severely depressed are more likely to end participation in studies, it could also be that those who become so healthy that they no longer think of themselves as depressed end participation. Essentially, the characteristics of those who opt out of studies or cannot be found for follow-up are not known, so no conclusions can be drawn about these missing data.

The limitations of the short-term treatment of depression and longitudinal follow-up are significant, and must be taken into consideration. These problems, paired with the inexperience of the therapists used in psychotherapy research, prompted the psychiatrist Irvin Yalom (2002) to state that "it is not hard to understand why such research has, at best, a most tenuous connection with reality" (p. 33). Despite these imperfections in the research, however, there is still much to be gained through an examination of their results. When considering research, each of the areas studied show promise in new

methods for application in the treatment of depression, as well as in creating interest in new areas of investigation. Here, we will examine the combination of two such areas, including some of the most up-to-date research available- the long-term effects of short-term therapy on depression.

Brown et al.'s 2008 paper holds an interesting position in the psychological literature because it demonstrates the extreme in brevity of treatment, limiting it to just a single day of group cognitive-behavioral techniques, while tracking participants across a two year period, and showing promising results. To understand how this study is an enmeshment of the two separate factors we have previously discussed, we will examine the authors' methods. As previously stated, Brown and her colleagues held but a single day of cognitive behavioral therapy, which they labeled a "self confidence workshop." The label was chosen to avoid the stigma held by many people against seeking out professional help for mental health problems. Previous research had shown that when workshops or group therapy sessions were truly labeled as treatment for depression, attendance was low, and the majority of those present had previously sought out mental health care (Watkins et al., 2000). This change in phrasing was made to get a more representative sample of the population. The extreme briefness of the treatment also facilitated its image as a more culturally acceptable option by potential participants. More importantly, however, it facilitates an examination of the advantages and challenges of very brief psychotherapy in their most distilled form.

What differentiates Brown and her co-author's (2008) study from others that focus on very brief periods of therapy is their extensive follow-up. Measurements of depression were gathered from each participant before the workshop, and then at 3, 12, and 24 months following. There are two very striking aspects of these data. First, there were statistically significant reductions in depression, as measured by the BDI, as well as other measures, with only a single day of CBT techniques. Among those designated as "depressed," the mean initial BDI score was 24.34. Three months after the workshop, the mean BDI was reduced to 15.31. This is quite encouraging, as it adds support to the worth of these single-day workshops as tools to lessen the pain of depression. More striking still, however, is that after 24 months, the mean BDI score for that same depressed group was 15.77, virtually the same result from 21 months earlier. A prominent advantage of Brown et al.'s methodology is their application of psychotherapeutic techniques to a large group simultaneously, creating a cost-effective method of treatment for one of the most common threats to public health. While the data is quite recent and therefore unverified by repeated testing, initial analyses are encouraging, and at the very least demonstrate that further research is required to validate this potentially effective and far-reaching method of depression treatment. This study echoes the work of earlier researchers (Brown et al., 2008; Cross, Sheehan, & Khan, 1982; Gilboa-Schechtman & Shahar, 2005) on the efficacy of psychotherapy when treating depression, while expanding it into new areas and applications. If further research supports the assertion that extremely brief periods of treatment administered in a large group setting can affect an enduring reduction in depressive symptoms, there are far-reaching public-health and research possibilities.

Through an examination of a selection of the depression literature, it has been seen that a brief period of psychotherapy can bring about a significant reduction in depressive symptoms. These impacts appear to be consistent for as long as three years with almost no degradation of treatment outcomes, although a segment of the research casts into question its effect thereafter. This benefit from therapy appears to occur regardless of the specific ideology behind the psychotherapy. While studies which track participants for as long as 20 years demonstrate the longevity and probability of relapse with depression, this research involves populations and methodologies significantly different from those in studies focusing on treatment methods; these limitations prevent very long-term studies from invalidating findings that support the efficacy of psychotherapy as treatment. While longitudinal research of depression treatment is informative, it also includes many inherent difficulties, such as low sample sizes and a high rate of participant attrition. Of special interest in the research are results which indicate that treatment as brief as a single day can cause a lasting reduction in depression. While all of these studies have notable limitations, the research indicates that psychotherapy is a valid method for the treatment of depression. Although all elements of the long-term effects of short-term treatment are not known, there is strong support to suggest that psychotherapy can significantly reduce depressive symptoms, and those gains can be retained for at least two years.

Although this review has attempted to summarize and synthesize research from several areas of study, it is important to state that the field of depression research, and even the realm of specifically short-term psychotherapy treatment, is much too large to be accurately contained within the findings of this literature review. While it is the hope of the author that the findings herein might be useful in highlighting areas of interest in the literature and to further future research, the relatively narrow scope of this study must be taken into account as well.

Despite the promising findings in many of the studies examined, there are still many areas which call for further investigation. Studies have found numerous predictors of cure to be the most useful, without reaching any consensus. If there is no single best predictor of psychotherapy outcome, who is best helped through therapy, and who is not? Do the differences in the psychotherapy ideology used truly have no effect, or are the different methodologies helping separate groups of participants? Most importantly, the true long-term effect of short-term therapy has yet to be decisively concluded. In order to do this, very well controlled studies with follow-up periods over five years and minimal participant drop-out are needed. These studies have shown that there is the real possibility for change in psychotherapy; we must now discover how to make that change as permanent as possible.

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Eye Movement Desensitization and Reprocessing: A New Therapy for the Treatment of Dissociative Identity Disorder

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ABSTRACT *Eye movement desensitization and reprocessing (EMDR) is a new type of therapy that has been shown to be helpful in the treatment of various psychological disorders. Some of these include body dismorphic disorder, phobias, low self-esteem, and chronic phantom limb pain (Brown, McGoldrick, & Buchanan, 1997; Jongh1 & Broeke, 1998; Maxwell 2003; Schneider, Hofmann, Rost, & Shapiro, 2008). In addition, because EMDR has been found to be specifically helpful in the treatment of anxiety based disorders like post-traumatic stress disorder (PTSD), it could also aid in the treatment of dissociative identity disorder (DID). EMDR may help to quickly integrate disturbing memories that cause personality fragmentation; however, further research should be conducted in order to fully establish this hypothesis.*

Formerly known as multiple personality disorder (MPD), dissociative identity disorder (DID) is defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM- IV- TR; 4th ed., text revision, American Psychiatric Association, 2000) as a disorder

> characterized by the presence of two or more distinct identities or personality states [alters] that recurrently take control of the individual's behavior accompanied by an inability to recall important personal information that is too extensive to be explained by ordinary forgetfulness. (p. 484)

Dissociative identity disorder is regarded as one of the more severe dissociative disorders (Cardeña, 2000). While many people believe the client to be plagued by a different number of separate personalities within his self, the client is actually unable to integrate a single consistent identity. Therefore, alternate personalities are not separate individuals, but rather separate psychological structures (Kluft, 1996).

The different personalities, or alters, in DID are known to behave dramatically different than the host (dominant) personality. They can have different personality affect, handwriting, speaking accent, likes and dislikes, physical characteristics like facial expressions and posture, and even Electroencephalogram (EEG) recordings (Bowman & Coons, 2000; Braun 1986; Cardeña, 2000; Kluft, 1996; Pais, 2009). The different alters may also call themselves by another name than the host, and be a different age, gender, and/or different sexual orientation (Braun, 1986). The host, on the other hand, is generally subdued, depressed, and more quiet than the alters (Kluft, 1985).

Research has shown that DID can result from disturbing experiences during childhood. These can include but are not limited to extreme stress, inadequate nurturing, and childhood sexual, emotional, or physical abuse (Pais, 2009). Furthermore, symptoms of DID can be intrusive in a person's daily life. These symptoms can include amnesia for any amount of time, and the dissociative symptoms of depersonalization and derealization. Depersonalization is characterized by a detachment from the body during which the patient may experience the feeling of watching a movie of himself or being in a dream (Hunter, Sierra & David, 2004). Derealization, on the other hand, is detachment from the surrounding environment. The patient can experience this as if his or her surroundings are fake, changing size or shape, or as if he or she is on a stage (American Psychiatric Association, 2000; Hunter et al., 2004; Spiegel & Cardeña, 1991).

Although many articles and studies have corroborated the existence of DID as a true disorder, there are have been many critics of its concept. These debates have sparked a controversy that many psychologists and psychiatrists alike have contributed to. For example, Piper and Merskey (2004a, 2004b) argue that the diagnosis of DID is not reliable and that much of its supporting evidence is illogical. Despite these arguments, DID has been shown to meet all criteria for its inclusion in the DSM- IV-TR (2000) and none for its exclusion (Gleaves, May, & Cardeña, 2001).

Treatment of DID

There are different options when treating DID; however, the main goal of all treatments should be personality integration. Although psychotherapy is intensive and can last from five to seven years, it is the most used method to treat patients with DID (McGreggor, 1986). In most cases, the following treatment procedures are used in combination with psychotherapy instead of being the sole treatment for DID.

Hypnosis is a commonly used technique in most, if not all, stages of the treatment of DID. Kluft (1982) suggests that hypnosis can be useful for integrating personalities, contacting alters, reducing anxiety, and creating 'safe places', among others (Kluft, 1999; as cited in McGreggor, 1986). Another treatment is pharmacotherapy. Kluft (1999) addresses the issue that many DID patients have co-morbid disorders, therefore pharmacotherapy is a successful supplement to treatment. When prescribing medicine, the doctor should have the goal to treat the common symptoms found among alters (e.g. depression; Hart, Kolk, & Boon, 1998, p. 272; Loewenstein, 2005). In addition, EMDR is a new type of treatment that has shown promising results when treating DID.

EMDR

Eye movement desensitization and reprocessing (EMDR) is a relatively new type of treatment used primarily to treat anxiety-based psychological disorders. While the most common type of disorder treated with EMDR is post-traumatic stress disorder (PTSD; Boudewyns & Hyer, 1996; Ironson, Freund, Strauss, & Williams, 2002; Korn & Leeds, 2002; Yehuda, 2002), it has been suggested that this new treatment may also work for DID (Sieks & Sikes, 2003). Regardless of what disorder EMDR is applied to, a standard protocol must be followed in order to achieve the best results. This protocol can be slightly modified, however, to account for differences across disorders (Twombly, 2005, p. 88).

Eye movement desensitization and reprocessing is a treatment that, perhaps because of its complexity, has been shown to not only be useful for PTSD, but also for other disorders as well. This type treatment was first discovered by Francine Shapiro in 1987 when she noticed that quick movements of the eyes decreased the intense emotions that came about at the thought of disturbing images or memories (Maxfield, 2007). Because of its ability to lessen the intensity of the emotions that these memories cause, EMDR has been established as an efficient treatment for PTSD (Cahill, 1999; Korn & Leeds, 2002; Yehuda, 2002). It is a complex therapy that involves different aspects of various therapeutic orientations, for example, cognitive behavioral, interpersonal, experiential, psychodynamic, and physiological therapies (Shapiro, 2001, 2002; Shapiro & Maxfield, 2002; as cited in Maxfield, 2007, p. 6). Perhaps because EMDR involves all of these schools of thought, research has suggested that this treatment is at least somewhat successful when treating anxiety disorders such as body dismorphic disorder, phobias, low self-esteem, and chronic phantom limb pain, among others (Brown, McGoldrick, & Buchanan, 1997; Jongh1 & Broeke, 1998; Maxwell 2003; Schneider, Hofmann, Rost, & Shapiro, 2008). However, only a relatively small amount of studies have been directed at studying the effect of EMDR as a treatment option for DID (Lazrove & Fine, 1996; Powell & Howell, 1998; Young, 1994).

To successfully employ EMDR and avoid over-stimulating the patient (which can further deteriorate his condition), the therapist must understand all phases of treatment (Kluft, 1999). Shapiro describes these eight phases of the standard EMDR protocol: 1) client history and treatment planning, 2) preparation, 3) assessment, 4) desensitization, 5) installation, 6) body scan, 7) closure, and 8) reevaluation. Briefly stated, the standard EMDR protocol for the treatment of PTSD requires the therapist to encourage the client to recall a traumatic memory and remember the negative feelings felt while focusing on the therapist's hand as it moves across the client's field of vision. The client must then rate the memory a 0-1 (lowest rating of distress) on Wolpe's (1973; as cited in Cahill, Carrigan, & Frueh, 1999) Subjective Units of Discomfort Scale (SUDS), which may require more than one set of eye movements. Once the memories are less aggravating to the patient, the installation of positive beliefs about oneself can begin. This is done by again instructing the client to remember the traumatic memory, but this time to think of a positive belief about himself or about the memory (e.g. 'I am strong', or 'It wasn't my fault'; Shapiro, 2001). Shapiro suggested that every client will need a different number of phases and sessions per phase before completing treatment. If the clinician

feels that the client is still plagued by previous disturbing thoughts, they must be addressed fully before therapy can be ended. While this is true for patients with PTSD, clients with DID may need even more modifications from the original protocol.

Although EMDR has been useful for some patients, many critics do not accept it as a new form of therapy, instead they regard it as a variant of regular exposure therapy. In a meta-analysis, Davidson and Parker (2001) found that EMDR was more effective than no treatment and than therapies not using exposure techniques. However, they did not find it to be more effective than other exposure-based treatments. Namely, it is argued that the eye-movements are of no additional necessity during therapy. However, Lee, Taylor, and Drummond (2006) found that the process of 'distancing from the trauma' during EMDR, which may be partly assisted by the eye-movements, was associated with more improvement. Even still, EMDR may be promising if, without the eye-movements, it still is more efficacious than regular exposure treatments (Rogers & Silver, 2002, p. 56). Further research is needed to explore this claim.

EMDR for the Treatment of DID

In addition to EMDR's success for PTSD and other disorders, it may also be successful for DID because DID can "best be understood as [an] extreme variant of complex post-traumatic stress disorder" (Herman, 1992, p. 126). Dissociative identity disorder is thought to be a variant of PTSD because both disorders are caused by extreme traumatic events in a person's past that significantly interfere with their present daily life. In addition, EMDR is effective in processing and integrating memories, and because alters in DID come about from traumatic memories that are not integrated, EMDR can help in the treatment of DID (Lazrove & Fine, 1996).

While EMDR has been shown to be a successful treatment for PTSD (Cahill, 1999; Korn & Leeds, 2002; Yehuda, 2002), its use for treating DID is not well established. There are only a few journal articles (Lazrove and Fine, 1996; Paulsen, 1995; Twombly, 2000; Young, 1994) that discuss the use of EMDR as a treatment for DID. When EMDR has been used, however, it has been combined with other procedures (e.g., hypnosis or medicine), which prevent the researcher from fully understanding what treatment accounted for the effects on the patient. Furthermore, protocols have been deviated so far from Shapiro's (2001) original protocol, that some argue that these cannot be called EMDR sessions (Young, 1994). The development of a standard EMDR protocol for treating DID is needed in order to fully research the impact that this promising treatment option has on the healing of the patient with DID.

Modifications to the PTSD protocol have been made, however, that may prove beneficial in the treatment of DID. Paulsen (1995) has suggested some modifications to the PTSD protocol in order to treat DID with EMDR. Her theoretical modifications still need more empirical studies to test whether they can be fully successful in therapy. These modifications first start with the therapist informing the patient and the alters of the procedure. Consent to use this type of treatment is also inquired of the alters (Lazrove & Fine, 1996; Paulsen, 1995). Because the patient and his alters will rexperience traumatic memories and emotions, it is useful to start the work of processing these memories with older alters and not children, as well as starting out with memories that are least traumatic (Lazrove & Fine, 1996). If child alters exist, it is useful to work with older alters first because they can show the child alters that treatment is safe and can also coach and encourage them when they are working through memories themselves (Paulsen, 1995). Alters can either work through traumatic memories one by one, or, if a few alters are relevant to the memory being worked through, they can also all look through the eyes of the patient and work through the memory together (Paulsen, 1995). Lazrove and Fine (1996) disagree with the latter process of having many alters work through memories at the same time, however, because it may cause too much emotion and further re-traumatize the patient. Further research is needed to verify this claim. When all traumatic memories have been worked through, the possibility of fusion of alters into one whole personality is explored, and in most cases alters will cooperate in this goal (Paulsen, 1995). When using EMDR for fusion, the personalities are instructed to all look through the eyes of the patient and attend to the therapist's hand moving while repeating positive statements about themselves as one unit (Paulsen, 1995).

Eye-movement desensitization and reprocessing is a relatively new therapy that has been shown to be helpful in the treatment of a variety of disorders (Brown,

McGoldrick, & Buchanan, 1997; Jongh1 & Broeke, 1998; Maxwell 2003; Schneider, Hofmann, Rost, & Shapiro, 2008). Specifically, EMDR is helpful in the treatment of anxiety based disorders like PTSD and DID (Boudewyns & Hyer, 1996; Ironson, Freund, Strauss, & Williams, 2002; Korn & Leeds, 2002; Sieks & Sikes, 2003; Yehuda, 2002). Although EMDR shows promise in the treatment of people with DID, further research needs to be conducted in order to establish a standard protocol to use with this disorder.

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Perceived Aggression of Gender

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ABSTRACT *The purpose of this study was to explore the perception of aggression for males and females related to physical and relational aggression. Physical aggression is more common in males and relational aggression is more common in females. These differences have promoted stereotypes of appropriate actions for men and women. Identifying the inequalities that individuals have when judging between the sexes is important in trying to create equality and fairness within society. One hundred ninety-three individuals were given one of four scenarios. The scenarios involved either physical or relational aggression between two men or two women. Results generally indicated that women were rated more harshly than men regardless of aggression type and that relational aggression was rated more harshly than physical aggression. We conclude that the societal expectation that women are more passive and the emphasis on reputation within society were influencing factors in these results.*

Aggression is everywhere, in the news, in movies, in magazines, and in books. But our current focus on aggression is not original. Physical and verbal aggressions have always been a part of society and therefore there are many social norms that have developed. Society has deeply ingrained ideas of what is acceptable when it comes to aggression, especially involving gender. These ideas are introduced at a young age, as gender roles are normally set early in life (Condry & Ross, 1985). And from this young age there is a clear difference in types of aggression between sexes.

Stereotypically, men display aggression through violent fighting while women display aggression through gossip social rejection. These two forms of aggression are categorized into physical and relational aggression. Physical aggression "physically hurts or threatens another person" (Lips, 2008). Alternatively, relational aggression "hurts or threatens another person by damaging his or her relationships" (Lips, 2008). Although both genders engage in both forms of aggression, research has supported the stereotype of men as physically aggressive and women as relationally aggressive. Studies show that men participate in more physical aggression than women (Zeichner, Parrott, & Frey, 2003). Studies also suggest that women are just as relationally aggressive as men are physically aggressive (Zeichner, Parrott, & Frey, 2003).

If men are physically aggressive and women are relationally aggressive, what has contributed to this dichotomy? Research shows that children are influenced in their aggression choices by the teachings of society. Boys are expected to be physically aggressive (Zeichner, Parrott, & Frey, 2003). This self fulfilling prophesy is compounded as studies show that boys are even encouraged in their rough and tumble play (Condry, 1985). Girls, on the other hand, are discouraged from this type of play (Condry, 1985). Physical aggression is simply not seen as socially acceptable for girls and from a young age, girls learn to gain the power that comes with physical aggression in another way. A recent study revealed that girls who spread rumors about other girls have more social power (Liu & Kaplan, 2004), and that spreading rumors increases their status in groups (Eagly & Steffen, 1986). Female bullies who use this type of aggression are surprisingly popular among their peers (Liu, 2004). Just as men use their strength to intimidate and control others, girls use their words. And just as girls are discouraged from being physically aggressive, boys are discouraged from being relationally aggressive. Boys are far less likely to relationally aggress against another boy because it is not in line with social norms (Eagly & Steffen, 1986). Society has defined the acceptable forms of aggressive for males and females. This definition has influenced behavior but also people's perception of aggression.

A study performed by Condry and Ross (1985) sought to understand the influence of gender on the amount of perceived aggression. They showed a video of two ambiguous children playing in the snow and asked observers to rate the level of perceived aggression when

one child pushed the other. When a boy aggressed toward another boy, it was rated as significantly less aggressive compared to when a boy aggressed against a girl or if a girl aggressed against another girl. Condry and Ross determined that these results occurred because people expected boys to be more aggressive and therefore judged them less harshly. In a similar study it was found that physical aggression involving two males is consistently viewed as more justified or appropriate when compared to females (Covne, 2008). The same actions are judged differently depending on gender likely because of gender stereotypes and societal stigmas.

Research involving the effect of gender on the perception of aggression is important in recognizing these unfair bias and stereotypes. This study will gather data on societal perceptions of the different types of aggression as related to gender. Prior studies on perception of aggression have focused on mainly physical aggression. This study will seek to provide the needed data on relational aggression while also gathering more data on physical aggression and then comparing the two. Prior research has shown that there are differences in how people judge aggressive acts based on gender and prior research also shows that physical aggression is more common and more expected among men while relational aggression is more common and more expected among women.

This information has contributed to our hypothesis, as we expect that acts of aggression that violate social norms will be rated more harshly than aggressive acts that comply with social norms. Therefore, we hypothesize that people will perceive physical aggression between women and relational aggression between men as more aggressive, more surprising, and more inappropriate. Furthermore, physical aggression between men and relational aggression between women will be viewed as less aggressive, less surprising, and less inappropriate in accordance with existing social norms.

Method

Participants

One hundred ninety-three participants from BYU read one of four scenarios involving aggression and responded to seven questions. Of all respondents, 106 were female, 81 were male and 3 chose not to identify their gender. One hundred seventy-five participants were single and 15 were married. Participants included 97 freshmen, 40 sophomores, 34 juniors, 20 seniors, and 2 of unknown grade level.

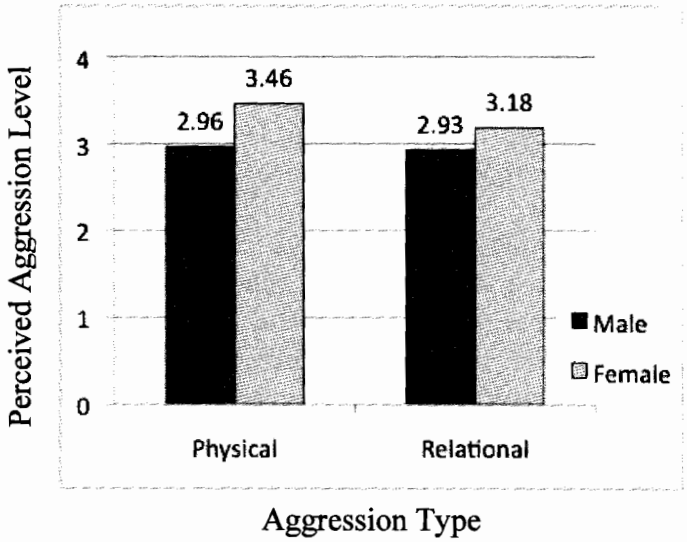
Design Type and Rationale

There were two independent variables manipulated in this research study: 1) the gender of the characters in the scenario and 2) the type of aggression expressed (physical or relational). The dependent variables were the respective scores given in response to questions relative to each scenario. Questions included how surprised an individual was, how inappropriate they thought the action was, and how aggressive they felt the scenario was. In addition, filler questions were used to decrease face validity. Four alternate forms of the aggression scenario were given randomly to participants, with each participant only evaluating one scenario. The four scenarios differed in the gender of the interactors and the type of aggression. This experimental design was selected to ensure that participants would not be able to review all of the scenarios before responding to the questions. Scenarios were written to avoid bias by using gender neutral terms.

Description of the Measure

The responses were measured using a 4-point Likert scale; 1 was consistently the null hypothesis while 4 correlated with rejection of the null. Some of the questions were reverse scored and four of them were filler questions designed to decrease face validity. No pre-existing scales were used.

Figure 1
How aggressive was this reaction?



All four aggression scenarios were identical, except for the independent variables of gender of the aggressor and aggression type. Therefore, two forms portrayed physical aggression, with one being female-on-female and the other male-on-male. The other two forms portrayed relational aggression, with one female-on-female and the other male-on-male as well (see Appendix B). Physical aggression scenarios portrayed either a male or a female becoming upset about an advance of a same gendered peer on the significant other of the character. They aggressively responded by shoving the other character to the ground. In the relational aggression scenario, the same incident occurred and the character responded by spreading a rumor that the other person had a serious drug problem.

Test Administration

The test was administered online. Participants were Brigham Young University psychology undergraduate students. Participants first responded to demographic questions about age, gender, class standing, and marital status. Next, participants read their randomly assigned aggression scenario and responded to the questions.

Statistical Procedure

Means were taken for each question and within and between each condition. Using the gender of the participants and the type of aggression read by the participant as independent variables, factorial analysis of variance was used to find significance within the data. Each question asked in response to the scenarios was treated as a separate dependent variable in the running of statistics.

Results

Each set of data was analyzed according to the independent variables of gender of the aggressing characters and the type of aggression; significant results were found with all three questions as dependent variables. Means were taken for clarification and comparisons and factorial analysis of variance was used to establish significance. The question "How aggressive was this reaction?" showed a significant difference ($F[1,183]=11.64$, $p=.001$) in the ratings of male and female characters. The female ($M=3.33$) characters were rated as significantly more aggressive than male ($M=2.93$) characters (see Figure 1). When asked "How appropriate was the response?", participants showed a significant difference when rating types of aggression ($F[1,184]=71.90$, $p<.001$), rating relational aggression ($M=3.56$) as far less appropriate than physical aggression ($M=2.78$; see Figure 3). The question "How surprised was the response" revealed a significant difference in the ratings of character gender and aggression type. Participants rated female aggression ($M=2.63$) as more surprising then male aggression ($M=2.25$; $F[1,184]=12.56$, $p=.001$; Figure 4). Additionally, relational aggression ($M=2.63$) was rated as significantly

Figure 2
*How inappropriate was this reaction?**

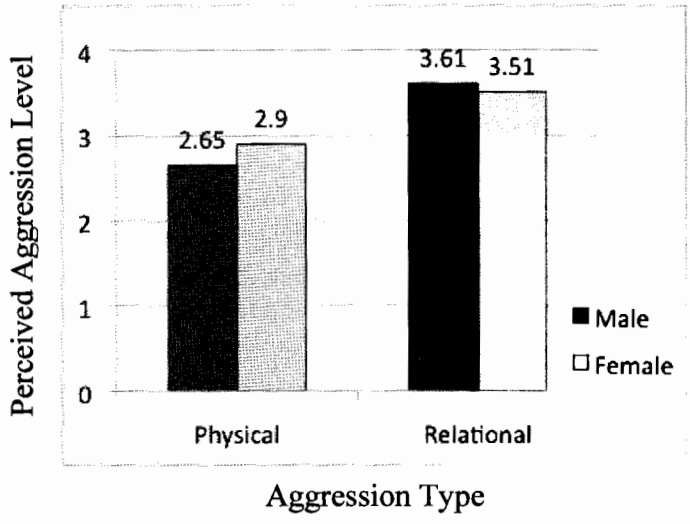
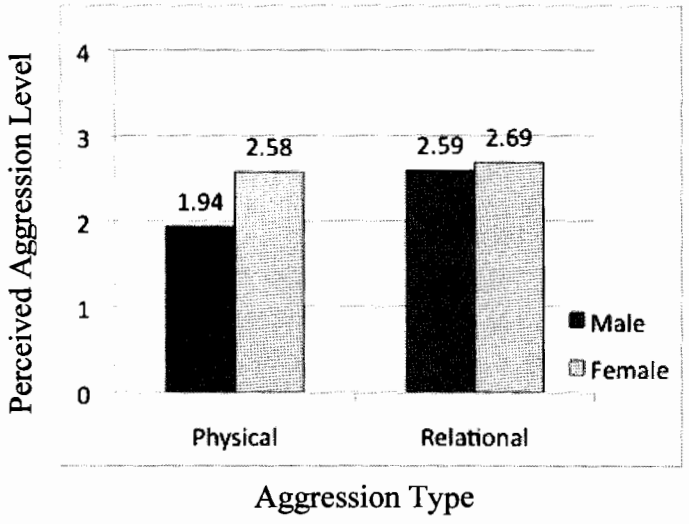


Figure 3
How surprised were you by this reaction?



**This item was reverse scored.*

more surprising than physical aggression (M=2.27; F[1,184]=12.41, p=.001; see Figure 4). There was also an interaction between character gender and aggression type (F[1,184]=6.24, p=.013; see Figure 4), participants being similarly surprised by relationally aggressive actions of male and female characters, while women taking part in physical aggression were substantially more surprising to participants than men doing the same.

Discussion

The purpose of this study was to explore the perception of aggression for males and females as it relates to physical and relational aggression. Our hypothesis that relational aggression would be viewed as more surprising, more aggressive, and more inappropriate when performed by a male as compared to a female and that physical aggression would be viewed as more surprising, more aggressive, and more inappropriate when performed by a female as opposed to a male, was not supported. Our expectation that relational aggression would be viewed as more aggressive for males and that physical would be viewed as more aggressive for females was contrary to our findings.

When asked "How aggressive was the reaction," individuals rated women as significantly more aggressive regardless of the type of aggression. We expected women to be rated as more aggressive for physical aggression but not relational aggression, as relational aggression is in line with social expectations. However, upon further thought, this idea that women would be viewed as more aggressive than men regardless of aggression type is in line with other social stigmas. There is a societal expectation that women be kinder, more docile, more passive, and more loving then men. Women are supposed to be gentle in all situations, and although relational aggression may be common for females, that does not mean that it is more acceptable for women to be mean. In looking at the media, physical aggression is often seen as heroic and positive. On the other hand, relational aggression is almost exclusively portrayed as negative. A backstabbing gossiper is never a heroin, but a gun toting martial arts master is often a hero. Therefore, women are judged harshly not only for violating social norms and being physically aggressive, they are also judged harshly for acting as expected and being relationally aggressive. Women can't be physically aggressive because that is not ladylike and polite but they also shouldn't be relationally aggressive because that is not ladylike and polite, although it is expected. Men on the other hand can be physically aggressive because it is manly and tough but can't be relationally aggressive because it is not nice.

Abstaining from both physical and relational aggression would of course be optimal for both sexes and should be viewed as equally aggressive regardless of gender. But, because of our society's double standard for men and women, women are held to a much higher moral standard than men when it comes to expressing their feelings through aggressive acts and therefore the same aggressive acts are viewed as much more aggressive for women than for men regardless of their compliance with social norms.

The question, "How appropriate was the reaction" revealed more surprising results, as relational aggression was viewed as more inappropriate regardless of gender. Compliance or violations of societal expectations were irrelevant, as rumors were considered much more offensive than pushing. As mentioned above, the glorification of physical aggression in the media could be a contributing factor. Gossip and rumors are almost never portrayed as positive actions; yet punching and hitting are portrayed in both a positive and negative way. Participants may have viewed a push in defense of one's significant other to be a positive act of physical aggression. And perhaps rumors are seen as so inappropriate because of their long lasting consequences. One can quickly recover from a fall to the floor but the damage of a ruined reputation can last for years. Our society is very focused on image and damage to that image is seen as extremely offensive and as this research suggests even more offensive then physical violence.

Scores for "How surprising was the reaction" were contrary to our hypothesis yet consistent with our other results in that relational aggression was generally found more surprising. For men there was a significant jump in amount of surprise from physical to relational aggression (see Figure 3). This is likely attributed to the societal norm that men be protective and physically aggressive. Physical aggression between two males is seen as more justifiable (Covne, 2008). Relational aggression, on the other hand, is not expected for males and is therefore seen as more surprising. However, women are more relationally aggressive than men yet participants were still more surprised by female relational aggression than female

physical aggression, although the difference between the two was not nearly as substantial. This may be due to the serious nature of the scenario's rumor, as having a drug problem is a serious personal fallacy. Additionally, the expectation that women be more passive may also have been a contributing factor. It seems as though there is a double standard in that men are expected to be protectors and women are expected to be peacemakers.

The findings of this study do have limitations. The largest limitation was a non-representative sample. The test participants were all BYU students mostly in their late teens and early twenties. Also, because the vast majority of students at BYU are Latter-day Saints, it can be assumed that most participants were LDS. It is therefore unknown if these results can be transferred to the larger population. In addition, there were only four scenarios with only two specific types of aggression: shoving or spreading a rumor about drug use. Future research could be done to show if different scenarios would produce the same results. The form of relational aggression was fairly extreme; having a serious drug problem is a major personal and social problem. The extreme nature of this rumor may have influenced results. However, these limitations only provide a platform for future research.

In future research, more scenarios with varying levels of relational and physical aggression would allow researchers to see if results are similar with scenarios of different intensities. This study could be replicated on other campuses and with other populations to provide a more representative sample.

The findings of this test of perception of aggression were not consistent with our hypotheses, but provided many significant findings that provided further insight into the stereotypes and gender expectations within society. The test explores a relatively new subject area and has high external validity. The findings have helped to demonstrate the stereotypes and double standards present in our society. Knowledge of these false perceptions allows for often harmful gender expectations and socialization to be identified and hopefully minimized.

Scenarios

Scenario 1

Natalie is at a party with her boyfriend Tom. Stacy, who knows Natalie is dating Tom, comes up and puts her arm around Tom and invites him to leave the party with her. Natalie walks over to Stacy and shoves her to the ground.

Scenario 2

Nate is at a party with his girlfriend Olivia. Brain, who knows Nate is dating Olivia, comes up and puts his arm around Olivia and invites her to leave the party with him. Nate walks over to Brian and shoves him to the ground.

Scenario 3

Natalie is at a party with her boyfriend Tom. Stacy, who knows Natalie is dating Tom, comes up and puts her arm around Tom and invites him to leave the party with her. To get back at Stacy, Natalie tells everyone at the party that Stacy has a serious drug problem.

Scenario 4

Nate is at a party with his girlfriend Olivia. Brain, who knows Nate is dating Olivia, comes up and puts his arm around Olivia and invites her to leave the party with him. To get back at Brain, Nate tells everyone at the party that Brian has a serious drug problem.

Questionnaire

1. How appropriate was Natalie's response?
   Very Appropriate----Appropriate----Inappropriate----Very Inappropriate

2. How surprised are you by Natalie's response?
   Very Surprised----Surprised----Not Surprised----Very Unsurprised

3. How aggressive was Natalie's response?
   Very Aggressive---Aggressive---Not Aggressive---Very Unaggressive

4. How likely is it that such a scenario would happen at BYU?
   Very Likely---Likely---Unlikely---Very Unlikely

5. How likely is it that such a scenario would happen in colleges other than BYU?
   Very Likely---Likely---Unlikely---Very Unlikely

6. How likely would you be to intervene in this situation?
   Very Likely---Likely---Unlikely---Very Unlikely

7. Should people intervene in this situation?
   Absolutely Yes---Yes---No---Absolutely No

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The Impact of French Titles on Food Preference

Megan Bartlett, Ashley Hipps, Samuel Purdy, and Drew Tycksen

ABSTRACT *The purpose of this study is to examine the effect of food nomenclature on perceived desirability of various food items. Both understanding how to make menu items more desirable and increasing efficiency in food marketing is invaluable for corporations and businesses looking to bring in new customers and increase profits. Two hundred twelve participants were given one of two surveys evaluating desirability of ten food items entitled either in French or English. In addition to five demographic questions, participants were asked how much they would be willing to pay for, how likely they were to buy, and how delicious they expected the different food items to taste. Independent samples t-tests found a significant difference in the amount individuals were willing to spend on foods with French titles. The results of this study suggest that restaurant owners can charge more for menu items with French nomenclature without losing sales.*

All people, whether they are aware of it or not, are influenced simply by how everyday food items are named (Luomala,2007). In general, food items and dishes are classified by composition and place of origin. Food naming follows a simple pattern, such as listing the featured ingredients and the cooking method, or naming the food after a particular place. In the English language, it is common practice to "borrow" liberally from other foreign languages in creating an optimally appealing menu. This concept is demonstrated in restaurants and food marketing campaigns. Understanding how nomenclature contributes to food preferences is crucial to corporations in learning optimum strategies to bring in new and loyal customers. The purpose of this study is to investigate the effect of food nomenclature on perceived desirability of food.

Menu optimization has been a frequent topic of both commercial and academic study. Research has shown that displaying the country of origin (Luomala, 2007), nutritional information (Kozup, Creyer, & Burton, 2003), and price of food dishes (Di Monaco, Ollila, & Tuorila, 2005) influences consumer choice and appreciation of food items. Although the main function of a menu is to inform, studies have shown that American writers will make the whole menu in untranslated text, in order to leave it up to servers and waiters to describe the menu entries, thus changing the entire purpose of the menu from informing to impressing the customer (Zwicky & Zwicky, 1980). The findings of these studies are important to restauranteurs and food marketers who make their living persuading customers to make purchases, and organizations that seek to promote healthy eating and nutrition. The findings of this research will add one more piece in our understanding of variables that influence our spending and eating habits. Because of the customary association of France and fine food, we will be using the French language as a comparison. We hypothesize that food items presented with non-English (French) titles will be perceived as more desirable than the same dishes with English titles.

Method

Participants

Surveys were administered to 212 students at Brigham Young University (BYU), 90 male students and 122 female students. Over 90% of the participants described their ethnicity as "white". Ninety-seven percent of the participants were native English speakers. Only eight of the participants spoke French. Students were recruited from various BYU undergraduate psychology classes through the SONA system.

Procedure

Participants were randomly assigned to one of two tests (E or F). Both tests contained five demographic questions: age, gender, ethnicity, native language, and secondary languages. Each test contained titles and descriptions of

Table 1
A comparison of French to English titles used

Number	English Title	French Title
1	Peach Tart	Tarte Aux Pêches
2	Casserole-roasted Chicken	Poulet en Cocotte Bonne Femme
3	Tuna Steaks	Thon À La Provençale
4	Pork and Cabbage	Porc Braisé aux Choux Rouges
5	Open Faced Omelet	Pipérade
6	French Onion Soup	Soupe À L'Oignon
7	Crepe Cake	Gâteau de Crêpes à la Florentine
8	House Green Beans	Haricots Verts à la Maître d'Hôtel
9	Mediterranean Beef Stew	Boeuf À La Catalane
10	Steamed Lobster	Homard aux Aromates

the same ten food items; Test E contained items with titles and descriptions written in English, and Test F contained items with titles in French and descriptions in English. All the menu items were taken from a cookbook entitled Mastering the Art of French Cooking (Childs, 1961). Participants were asked three questions about each of the ten food items. The first question was "How much would you be willing to pay for this item?" and was rated on a 5 point Likert-type scale in three dollar increments with 0-3 being the lowest and 12-15 being the highest. The second question was "How likely would you be to purchase this item?" and was rated on a Likert scale from 1 (very unlikely) to 4 (very likely). The third question was "How delicious do you expect this item to taste?" and was rated on a Likert scale from 1 (not delicious) to 4 (very delicious).

The purpose of the study was to determine whether foods with French titles are more desirable than foods with English titles. The rationale for choosing the questions is that people would be more likely to purchase, pay more for, and rate foods as more delicious if they were more desirable.

Surveys were administered to participants online.

Results

Two different sets of independent samples t-tests were administered: one analyzing all the food items together, the other analyzing each food item individually. In the first test, a significant difference was found (t(df) = 2.43) with how much an individual was willing to pay for a food (See Table 2). Differences were found not to

Table 2
Analysis of perceptions of all food items

	Language	Mean	Significance	T
How much would you be willing to pay?	English	21.6000	.016	-2.428
	French	23.7822		
How likely would you be willing to purchase?	English	22.8545	.445	-.765
	French	23.2871		
How delicious do you expect the item to taste?	English	24.5364	.458	-.743
	French	25.0495		

be significant between English and French titled foods within the measures of how likely they were to purchase the food and how delicious they expected the food to taste.

Further independent sample t-tests, administered to determine if there were significant differences between each individual food item, found that eight of the ten food items were rated significantly different with respect to how much an individual was willing to pay for the food item (see Table 4). Only one item was found to be more delicious when titled in French.

Table 3
A comparison of percieved deliciousness between genders

Gender	Language	Mean	F	Significance
Male	English	25.620	2.877	.091
	French	25.282		
Female	English	23.633		
	French	24.903		

Additionally, a two-way analysis of variance was run to determine the main effects of gender and whether the food titles were administered in English or French. These tests discovered that men rated food significantly more delicious than their female counterparts regardless of the variable of language (see Table 3).

Discussion

Limitations

While some significant findings came as a result of this study, some limitations of the study should be pointed out. As a byproduct of any survey method used to gather data, our study was somewhat lacking in external validity. While the task asked the participants to imagine how they would expect certain menu items to taste and how likely they would be to order it, they were not in a restaurant setting. There is a possibility that the participants' opinions of the different food items would have been different if they had been hungry with the expectation of ordering something to eat.

Another limitation is the inexact results that we gathered about the amount participants would be willing to pay for each menu item. Participants rated French titled food items on average .22 points higher on the five point Likert scale in response to "How much would you be willing to pay for this item?" than the English counterparts. Each point on the scale represented a $3 range of values. It is impossible from our scale to determine an exact amount more participants would be willing to pay for French titled food, though an estimate increase of $0.66 ($3*.22) could reasonably be concluded.

Application

The significant relationship found between French titles and participants' willingness to pay more for a menu item would be an important consideration for restaurateurs. These findings would suggest that restaurants could charge more for a menu item than they currently are if they change the title to French, and not worry about losing sales because of the higher price.

Restaurants can apply these findings in another way. Men were found to find all menu items more delicious than women, and there is a high correlation between how likely a person is to purchase a food item if they thought it would be delicious. These findings suggest that men might be more willing to try new food items. New menu items and higher priced menu items may be sold to male patrons easier than female patrons.

Further Research

The largest opportunity for further research that this study suggests is a more externally valid study of the impact of menu titles on food preference. Such a field study would need to be conducted in an atmosphere where participants were already expecting to purchase food.

Our study also compared very straightforward English titles to French. Many restaurants use more flowery language in their menu descriptions. Further studies could compare these more stylized menus to French, or English menus to other languages.

Table 4
Analysis of perceptions of individual food items

Food Item	Question	Language	Mean	Significance	t
Peach Tart	How much would you be willing to pay?	English	1.35	.013	-2.510
		French	1.56		
	How delicious do you expect the item to taste?	English	2.49	.009	-2.632
		French	2.79		
Casserole-roasted Chicken	How much would you be willing to pay?	English	2.55	.000	-3.943
		French	3.02		
Tuna Steaks	How much would you be willing to pay?	English	2.30	.036	-2.116
		French	2.68		
Pork and Cabbage	How much would you be willing to pay?	English	2.39	.002	-3.126
		French	2.88		
Open Faced Omelet	How much would you be willing to pay?	English	1.48	.016	-2.433
		French	1.69		
French Onion Soup	How much would you be willing to pay?	English	1.93	.575	.562
		French	1.86		
Crepe Cake	How much would you be willing to pay?	English	2.08	.011	-2.555
		French	2.44		
House Green Beans	How much would you be willing to pay?	English	1.30	.002	-3.181
		French	1.57		
Mediterranean Beef Stew	How much would you be willing to pay?	English	2.31	.290	-1.062
		French	2.44		
Steamed Lobster	How much would you be willing to pay?	English	3.92	.147	1.457
		French	3.63		

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Abstracts from the 2010 Mary Lou Fulton Mentored Research Conference

The Annual Mary Lou Fulton Mentored Research Conference is a full day event designed to showcase mentored student learning. It is an opportunity for students to present and explain their research to the public and their peers. The sixth annual conference took place on April 8th, 2010, and students from all departments in the College of Family, Home, and Social Sciences were invited to participate. Abstracts of the presenting undergraduate psychology students are featured here in Intuition.

A Correlation Study with College GPA, Sleep and Exercise

Andrew Curzon, Lilian Cancado, Sydney Memmott
Mentor: Scott C. Steffensen, PhD

Abstract: The purpose of this study was to find relationships between college GPA and frequency of exercise and sleep.We hypothesized that participants who exercise more during the week and get more hours of sleep each night would have a higher college GPA.A survey was conducted online through Qualtrics with 251 participants. We found that the frequency of exercise each week had no effect on college GPA while amount of sleep each night did effect college GPA somewhat; however, after running a regressionon our data there was no significant findings to be found between GPA and sleep and exercise.

Abuse History and Therapy Participation Among Men and Women in Methadone Maintenance Treatment

Alexandria Kunzler, Sasha Mondragon, Amy Welsh
Mentor: Scott Baldwin, PhD

Abstract: The differences between men (N = 26) and women's (N = 27) self-reports of abuse and recorded therapy participation were examined among clients in a methadone maintenance treatment program. Results indicate that women report significantly more abuse. We found no significant difference in therapy participation between men and women.

Are You A Major Dater?: A Correlational Study of Single BYU Students' Dating Preferences Based on Major

Allison Peet, Giles Christman, Ashley Getz, Shirley Grover, Charles Mills, Sara Skousen
Mentor: Witold Simon, PhD

Abstract: Our study examines the relationship between men and women's preferences for dating people within certain undergraduate majors. Additionally, we asked our participants to rate, on a Likert scale, the level of importance on twelve qualities for a potential dating partner. These two were both measured on a survey thatwas administered through BYU Sona Systems. We hypothesized that women would prefer to date men whose majors are more paternal and have high financial earning potential, whereas men would prefer to date women whose majors focus on maternal based areas such as family and home economics. No other study has focused on a correlation between dating preference and the undergraduate major of their potential dating partners. We conducted our research through a convenience sampling of young, single adults from Brigham Young University (N=246). We analyzed our results using Chi-square to examine the major choices of our participants, and an independent t-test to examine the significance between male and female ratings on the Likert scale questions. Our results yielded significant results and supported our hypothesis that women gravitate towards men with high earning potential while men gravitate towards women with home and family emphasis. We also found that whereas some qualities such as earning potential are important to women, this does not hold true for both sexes. Though religion was a potential focus of our study, we were unable to find a significant diversity, so this could be a topic for future study. Given the

results of our study, future BYU students may consider pursuing one of the more preferred majors in order to increase their chances of being a potential dating partner.

Benefits and Applications of Journaling: Exploring the Lower Boundary for Effective Dosage in Non-clinical Populations

Ryan Hunsaker
Mentor: Patrick Steffen, PhD

Abstract: Written expressions of emotion have been shown to produce favorable outcomes in both spheres of physical health and mental health. Although scientists have identified to some degree what the effects of journaling are, much less is known regarding exactly when this impact is most likely to occur. Several studies have shown clinically significant benefits for brief journaling interventions but the long-term benefits and the lowest dosages necessary for these benefits are debatable. The current study provides an opportunity to assay the therapeutic effects of a brief journaling intervention. The author proposes that a 15-minute journaling intervention will lead to significant health benefits, which will still be apparent after two weeks.

Brigham Young University Student Perception of Medical Practitioners Based on Gender

Curtis Pearson, Ryan Jury, Charity Kemp, Benjamin De Jesus, Alex Hamner
Mentor: Patrick Steffen, PhD

Abstract: Gender bias is a problem within the medical field, even to the extent of affecting patients' care. At the U of U Medical School in 2001 BYU graduates were involved in gender bias. The female medical students complained of sexist remarks towards their role as a Doctor. Studies have shown repeatedly that patients prefer a certain type of gender when choosing a physician. Physician gender attributes also contribute to the type of care that patients perceive they will get. Also, the patients perceptions of the physician's ability determine whether they follow the physicians counsel or not. Other research has shown that there is a general bias in the medical field based on the gender of a chosen physician. We hypothesize that BYU students have gender bias in the way they choose a physician and follow their counsel.

Classical Music and Its Effects on Verbal and Nonverbal Memory Performance

Clarence Holbrook, Emily Hadlock, Jentri Rasmussen
Mentor: Erin D. Bigler, PhD

Abstract: This study examined the Mozart effect by testing the impact of classical music on verbal and nonverbal memory. The Rey-Auditory Verbal Learning Test (RAVLT) first assessed verbal memory. The subjects were then asked to complete the Rey-Osterrieth Complex Figure Test (ROCFT) to study non-verbal memory. A composite cognitive score was created by equally weighting the 30-minute recall scores of the RAVLT and the ROCFT; this score was then turned into a percentage. The results from the one-way and two-way ANOVAs showed no statistically significant difference between the group with classical music and the group without. Therefore, the presence of classical music did not have a significant effect on composite cognitive performance, so the null hypothesis was not rejected. One of the limitations to this study was that the sample size was not large enough to be representative of the population and was also biased in that the participants were highly educated and 92.9% white. A larger, unbiased sample size could provide further insight into the Mozart effect and future research should be conducted.

Consistency of temperament of in group-housed infant rhesus monkeys (Macacamulatta) during the first months of life

Joshua William Kirton, Daniel Blocker, Kfir Orgad
Mentor: James Dee Higley, PhD

Abstract: While a wide number of studies have assessed temperament as a predictor of future personality or behavior, few studies have assessed its interindividual stability over the first few months of life in nonhuman primates. This laboratory study examined temperament in group-housed infant rhesus macaque (Macaca mulatta) assessing interindividual consistency from the second through fifth months of life using objective behavioral

measures. Stability of temperament was measured by correlating (Pearson Product-Moment tests) individual differences in the frequency of 25 behaviors over months 2-5 of life in 88 mother-reared subjects. Two 5-minute sessions were recorded for subjects each week and the mean for each month was the dependent variable. Results: Eleven behaviors exhibited a statistically significant consistency across at least three of the four months measured, with a significant positive r-value between .204 and .601. Statistically significant consistency was found for maternally-oriented behaviors of contact cling, mutual ventral, approach by infant, and leave by infant. This maternally-oriented trait may reflect maternal treatment, as well as temperament because receive groom by mother, and restrain by mother were also consistent across months. Consistency was found for the behaviors characteristic of activity including locomotion, environmental exploration, and inactivity. Consistency was also found in socialize with others, and anxiety-like self-directed behavior. This study suggests that objective measurements of temperament in infant rhesus monkeys are consistent across time and possibly situation.

Differential Effects of the Discrete Options Multiple Choice Test Format on Test Takers Assesment and Scores

Ryan Funk, Tamarin Hooper, Emily Hadlock, JeLyn Whicker, Derek Estes
Mentor: Harold Miller, PhD

Abstract: The discreet options multiple choice test format has potential to bring a new level of fairness to testing. The purpose of this study was to investigate the effect of this new test format on participants study time. On two separate experiments, participants scored significantly lower than the comparison group and showed now significant difference on total study time.

Does Gender and Marital Status Affect Student Anxiety in School?

Christian Briggs, Zachary Elison, Monica Gonzalez
Mentor: Scott C. Steffensen, PhD

Abstract: School related anxiety and stress is a common psychiatric issue for college students. In recent years, heart rate variability (HRV) has been utilized as a noninvasive and informative way to evaluate autonomic activity by recording electrocardiogram or pulse waves.In past studies, decreased autonomic responsiveness in correlation with task performance has served as a sign of psychological dysfunction (Shinba, 2008). Gender studies have indicated that women are substantially more likely to develop stress disorders and exhibit higher levels of anxiety in clinical testing (McLean, 2009; MacSwain, 2009). Despite these various studies in gender, little research has been done to indicate differences in gender and marital status and school anxiety. We hypothesize that single women will experience the most dramatic decrease in HRV potentially indicative of higher levels of school anxiety

Drama, Drama, Drama

Trace W Lund, McKenzie Gibson, Megan Pixton, Brandon Chandler
Mentor: Robert Ridge, PhD

Abstract: The purpose of this study was to explore the perception of aggression for males and females related to physical and relational aggression. Physical aggression is more common in males and relational aggression is more common in females. These differences have promoted stereotypes of appropriate actions for men and women. Identifying the inequalities that individuals have when judging between the sexes is important in trying to create equality and fairness within society. One hundred ninety-three individuals were given one of four scenarios. The scenarios involved either physical or relational aggression between two men or two women. Results generally indicated that women were rated more harshly than men regardless of aggression type and that relational aggression was rated more harshly than physical aggression. We conclude that the societal expectation that women are more passive and the emphasis on reputation within society were influencing factors in these results.

Effects of Mood on Error Processing

Alexander Gray
Mentor: Michael J. Larson, PhD

Abstract: Significant amounts of data demonstrate that affective traits play a role in error-related negativity (ERN, a negative potential recorded from frontal medial scalp sites) generation. However, conflicting data exists describing the role of affective states in ERN generation. One-hundred one (44 male, 57 female, ages 18-49 years) students participated in a mood-induction task followed by a Flanker task while electroencephalogram data was collected. Analyzed event-related potentials revealed that mood-induced affective states do not modulate ERN amplitudes F(1.33, 0.27). These findings contradict the hypothesis that anxiety and sad mood states correspond to pronounced and attenuated ERN amplitudes, respectively. Yet, these findings suggest that mood states must be related to the task to make error commission significant and to motivate greater vigilance.

Effects of Relationship Status on GPA

Emily Albright, Chanel Carlile, Janae Kirkendall, Allyson Webber
Mentor: Scott C. Steffensen, PhD

Abstract: Research on the effect of Relationship Status on GPA is very limited. Some studies find that individuals who date more frequently tend to have lower grades than those who don't. Other studies have found that relationships can have a positive or a negative effect on GPA depending on other factors. However, most studies find that Relationship status doesn't have an effect on GPA. We hypothesize that Single and Married individuals will have higher GPA's than their dating counterparts. We further hypothesize that Single and Married people will also be more consistent in their academic achievement and that those who are happy will have higher GPA's.

Evidence Based Recreational Therapy at a Psychiatric State Hospital

Trisha Markle, Preston Johnson, Peter Clayson, Ashley Maag, Ruth Ng, ChaNa Sok
Mentor: Gary Burlingame, PhD

Abstract: The use of evidence-based practice (EBP) has been a growing trend in the psychological-services field. Most disciplines have accepted this shift to EBP, however, there are a handful of programs and disciplines that have not. The recreational therapy program at the Utah State Hospital is one such program that had not yet embraced an evidenced-based practice. This 12-week study attempts to mend this gap by measuring the improvement of 19 adult patients at the Utah State Hospital along 6 constructs while they participated in off-campus recreational activities. These constructs include therapeutic progress, psychiatric symptoms, motivation, proactivity, coping behaviors, and emotional support. No statistical significance was found between the pre and post-test scores for any of these constructs over the 12-week period. Several reasons exist to account for these findings: the measures may not have been sensitive to change, the measures may not have been valid, or recreational therapy is not an effective tool in improving the aforementioned constructs in a hospital setting. There is a need for more research in this area to determine if the lack of significance is due to the aforementioned factors or if they are due to a lack of effectiveness of recreational therapy.

Facebook and Self-worth

Dallin Bywater, Chelsey Tautkus, Paul Moss, Dana Kearnes, Ashley Bell, Chris Wei
Mentor: Patrick Steffen, PhD

Abstract: "Facebook," the relatively recent Internet boom, has become increasingly popular in the past few years, particularly among college students who spend an average of 30 minutes per day on its pages. The online networking site features a database where people can store pictures of themselves, friends, and others in their own "profile" after which their online "friends" can browse them and make comments. Facebook also allows its users to post their thoughts, feelings, and even favorite videos

to their profile for others to see. With 85% of all college students being active users of Facebook, one can be sure that their friends will see the posted information. Facebook is an easy way to find approval through social gratification. Whether it is an issue of self-worth or of narcissism, some people need social gratification, and these people seek activities that can either be physically or mentally harmful to their welfare. Social networks on the Internet, such as Facebook, are usually a less harmful way to gain social gratification. In fact, in a survey, Twenge found that 57% of the young people reported believed that their generation uses social networking sites for self-promotion, narcissism and attention-seeking purposes. Therefore, through the Internet, a person with low self-worth can broaden their social circle, and begin to believe that their online friends care for them. It is already known that self-worth can be easily manipulated and diminished by disparagement. In response to this disparagement, one will then seek social gratification from their peers, which will work to bolster their damaged self-worth. One of the easiest ways for these disparaged people to seek social gratification is through Facebook use. However, it is not yet known if a decrease of self-worth leads to an increase in Facebook usage; if this relationship indeed exists, then we may be able to understand more about the link between self-worth and social networking. For example, it is possible that poor mental health causes people to more intensely use Facebook. Testing our theory adds to our understanding of how external validation of self-worth relates to Facebook usage. We have hypothesized that decreasing self-worth will cause intensity of Facebook usage to increase.

LDS Doctrine and Perfectionism

Brittany Mealey, Jeffrey Bernhardt, Michael Davison, Andrea Riggs, Camilla Phillips
Mentor: Patrick Steffen, PhD

Abstract: Perfectionism has become a topic of widespread interest within the social sciences. Many of the studies testing and measuring perfectionism have been associated with constructs such as need achievement and level of aspiration. Though it has been found that there may be links between religiosity and perfectionism (Edgington et. al, 2008; Zohar et. al, 2005), only a small amount of studies have actually researched if and how perfectionism is affected by religiosity.

Marcia's Identity Statuses in Comparison with Time Management Habits

Anu O'Neill, David Rackham, Mary Finley
Mentor: Scott C. Steffensen, PhD

Abstract: This study found that time management correlates with Marcia's Identity Status theory. Marcia's Identity Status reflects on the four different levels of identity: achievement, foreclosure, moratorium, diffusion.Identity can consist of things such as reasons for going to school, what career they want and knowing what accomplishments they are working towards. Identity and time usage are related because as a person know what is important to them they know how they want to use their time.We are hoping to see the strength of identity in how time is allocated.

Marital Quality and Risk Factors for CHD

Rebecca Wallace, Nicole Barber, Bryan J Jensen, Paige Vella
Mentors: Julianne Holt-Lunstad, PhD, Patrick R. Steffen, PhD, Jonathan Sandberg, PhD

Abstract: Epidemiological research indicates that marriage may significantly protect individuals from various causes of morbidity and mortality including cardiovascular disease. There is also growing evidence that marital quality may be equally if not more important than marital status. While married individuals have greater health benefits relative to unmarried individuals, unhappily married individuals may be worse off than unmarried. For instance, marital distress has been associated with a 2 to 3 fold increase in the risk of heart disease11 and for recurrent coronary events.

Measuring Recovery: Initial and Validity Mea-

sures for the NAMI Recovery Indicators

Ben Gardner, Julie Garcia, Jason Katzenbach
Mentor: Robert Gleave, PhD

Abstract: Recently, the direction of consumer mental health care in the United States has shifted in terms of its approach to recovery. In this sense, recovery is not thought to be a complete amelioration of symptoms, but rather the acquisition of meaningful relationships, independent living, and fulfilling work. In response to these changes the Utah division of the National Alliance for the Mentally Ill (NAMI-Utah) conducted consumer focus groups for the purpose of developing a tool to track consumer outcomes according to this new conceptualization of recovery. The focus groups generated 10 recovery indicators based on recovery as it has been defined by the Substance Abuse and Mental Health Services Administration. Initial validity statistics comparing this measure to the Outcome Questionnaire – 45, a gold standard measure of outcome, will be presented.

Media Increases Narcissistic Tendencies in College Students

Megan Sheldon, Melanie Johnson, Brady Morris, Brittany Stevenson, Lauren Checketts, Lena Mavromatis
Mentor: Patrick Steffen, PhD

Abstract: In the recent decade, society has seen more and more cases of narcissistic entitlement (NE). An increased emphasis on celebrity worship, material wealth, physical appearance, media styles, and attention seeking in recent years may account for this shift in NE. NE occurs when people believe themselves to be entitled to certain privileges and have an obsessive self-love rooted in an insecure self-esteem. Individuals with NE may also be more prone to go into debt than those without it because they feel entitled to certain things even though they may not be able to afford them.

Moral Conceptions and Parent-Adolescent Congruence: What does it mean to be a moral person?

Ryan James Funk
Mentor: Sam Hardy, PhD

Abstract: Conceptions of what it means to be a moral person differ from parent to child. This study concerns the areas of congruence between parents and children over moral trait clusters and investigates the extent to which they overlap. Results showed all clusters for within subject correlations to be significantly correlated, 58.5% of adolescent-mother correlations, 29.2% of adolescent-father correlations, and 75.6% of father-mother correlations were significantly correlated.

Non-target Incidental Memory and Associated Factors

Sean Peterson
Mentor: Erin Bigler, PhD

Abstract: Students want to learn what is on the test, but professors want students to learn all the curriculum, tested or not. One compromise is through non-target incidental memory, which acts like peripheral vision, so that even though some material is emphasized, surrounding material is also processed and learned. Using a novel verbal memorization test, the current study found a significant amount of incidental memory that did not vary with year in school or sex. Therefore, "teaching to the test" does not necessarily block all learning of other material: some of it is automatically learned as well.

Note-Taking Method Affects Immediate and Delayed Recall

Keith Lowell, Meagen Jensen
Mentor: Erin Bigler, PhD

Abstract: Note-taking and its effect on memory is the topic of much research. Past research has generally found that note-taking improves performance. The current study examined the effect of note-taking method on immediate and delayed recall. We hypothesized that hand-written

note-taking would yield better tests results than mental note-taking. The study consisted of 18 undergraduate psychology students enrolled in the same psychology class at a major, private university (Brigham Young University). Participants watched a short video clip and then completed an immediate 30-question test and a similar 48-hour delay test to assess recall of both audio and visual information. No significant statistical effects were found, but overall, hand-written note-takers performed slightly better than those who were not assigned to take notes. A larger sample size, yielding greater statistical power, and different test evaluation methods would improve the current study. Better understanding of how note-taking improves memory could better assist the student in retaining information.

Pornography Addiction: Shedding Light on Internet Help Resources

Joshua Ruchty
Mentor: Sam Hardy, PhD

Abstract: This is a preliminary outcome study of the Candeo online recovery program for pornography addiction. An online survey was completed by 211 (M age = 37.30, SD = 12.14; 98% male; 86% European American) individuals enrolled in the Candeo program. The survey included questions regarding the helpfulness of other treatment options compared to Candeo, self-reports of psychological (e.g., obsessive sexual thoughts) and behavioral (e.g., pornography use) aspects of recovery prior to Candeo and currently, and overall self-perceptions of the extent to which they had recovered prior to Candeo and currently. On average other treatments were rated as less helpful than Candeo. Participants showed significant improvements in all aspects of recovery but one (exhibitionism) – when comparing retrospective and current ratings. Further, there were some links between changes in psychological aspects of recovery and changes in pornography and masturbation frequency. In short, some evidence was found for the potential utility of the Candeo program for aiding recovery from pornography addiction.

Preference vs. Convenience: A survey of motivation behind food selection at the BYU Cougareat

Authors Chad Halverstadt. Michelle Brown, Mindy Petitta
Mentor: Scott C. Steffensen, PhD

Abstract: The purpose of this study was to evaluate whether or not convenience (shorter lines, efficiency, etc.) was the most significant factor in determining where students choose to eat within the BYU Cougareat. With a demographic ranging from freshmen to graduate students, we found that when convenience is compared to other factors such as preference, price, customer service, and health there was no overwhelming evidence showing that convenience was a significant factor in where students chose where to eat.

Schizophrenia and Error Processing: A Meta Analysis

David Rackham
Mentors: Scott Baldwin, PhD, Michael Larson, PhD

Abstract: The Error-Related Negativity (ERN) is a response-locked Event-Related Potential component, which peaks approximately 50 ms after the commission of an error. Several theories have emerged to explain the changes that occur in ERN amplitude across pathology groups. None of these theories conclusively explain all of the results that have been found, however it appears that the ERN is implicated in a performance monitoring system of the anterior cingulate cortex. Using meta-analytic techniques, this study determined the overall effect size of ERN amplitude for individuals with schizophrenia. A thorough search found eight studies that met the inclusion criteria. Using a random effects analysis a large overall effect (d = .64) was found. Existing literature suggests that schizophrenic symptoms may be related to a reduced ability to self-monitor. The results found in this study lend support to this assertion, and establishes the changes in ERN amplitude found in schizophrenia groups as both reliable and large in effect, suggesting the ERN as a possible marker of schizophrenia. This suggests a significant impairment of self-monitoring for individuals with schizophrenia. Future research should be conducted to

determine ERN amplitude differences between disorganized and paranoid subtypes of schizophrenia.

Self-esteem and Gender Confirmation Bias

Trisha Lynn Cornelsen, Natalya Skabelund, Micaela Metcalf, Kelsey Howell, Alexander Aggen
Mentor: Patrick Steffen, PhD

Abstract: None avaliable.

Social Versus Memory Demands On Cognitive Set Shifting

Oliver H Johnston, S. White, A. Clawson, E. Krauskopf, M. South
Mentor: Mikle South, PhD

Abstract: Ozonoff (1995) reported that children and adolescents diagnosed with high-functioning autism performed better on the Wisconsin Card Sort Test (WCST), a test of set shifting and perseveration, when it was administered by computer than by a human. Ozonoff suggested that social demands may interfere with cognitive tasks although executive functions may be largely intact in autism; and that variables related to task administration play an important role in understanding cognitive dysfunction in autism. Despite inconsistency in the results across executive function studies in autism, task administration variables are rarely discussed. Objectives: We aimed to replicate and extend the Ozonoff study by comparing person-administered (Person Only, PO), and computer-administered (Computer Only, CO) versions of the WCST and by adding a third condition: we videotaped a person administering the task and showed the administration on computer (Person-Computer, PC). In accordance with Ozonoff's hypothesis, we expected that performance on the PC version would fall between the CO condition (best) and the PO condition (worst) for autism relative to controls. Methods: We tested 45 children and adolescents diagnosed with autism spectrum disorders (ASD), 15 in each test condition. ASD was diagnosed by an expert rater based on information from the standardized ADOS-G clinician observation and SCQ parent checklist; Verbal and Full Scale IQ were above 80 for all participants. An age-, sex-, and IQ-matched comparison group (n = 45) also completed the task. The PO version was administered using standard instructions (Heaton, 1993). The CO and PC conditions were presented using our own E-Prime-based software program. The card stimuli on the CO version were identical to those used in the actual card set, and the young adult male shown in the PC version used the actual cards. We made one modification to the CO task compared to standard commercially-available versions: in order to simulate the lag time that accompanies the human administrator reaching for the card deck and raising it to show the participant, we added a short (2 second) video of a point-light display of a rotating circle or square in-between each trial. Total time from the end of one trial to the possibility of making the next choice was about 4 seconds in all three conditions. Results: There was no significant main effect of diagnostic group for the person-only condition. However, both computer-based versions were significantly more difficult for the ASD group: repeated measures ANOVA demonstrated significant group x condition interactions showing increased perseverative errors and fewer completed categories for the autism group. Conclusions: We suggest that perhaps the improved performance on the computer version in the Ozonoff (1995) study arose because there was less lag time between choices, so that the ASD participants had less chance to lose the context of their previous choices in informing their next choice. In the present study, participants may have been distracted by the short videos that played in-between choices, thereby losing that context, possibly due to working memory difficulties. We discuss the results in terms of information complexity, social interactions, and neural connectivity.

Spirituality and Error Processing

Angelica Marcine Mamani
Mentors: Patrick Steffen, PhD, Michael Larson, PhD

Abstract: Hundreds of articles have been published in psychology journals investigating spirituality and its uses in therapy and as a coping mechanism. However little research has been done on the effect of spirituality and neurological processes. Inzlicht et. al. (2009) asserted that both belief in God and high religious zeal were correlated with smaller ERN amplitudes. However in Inzlicht's study only those who were highly zealous spiritually

and if the participants believed in God. Nothing about the components of spirituality were examined. In order to fully assess the components of spirituality the Spirituality Assessment Inventory (SAI) was administered and the various subscales analyzed. We suggest that individual components of spirituality will significantly correlate with the ERN more than the holistic belief in God.

Stability of Aggression Across Maturation in Rhesus Macaques (Macaca Mulatta)

Katherine Taylor, J. L. Cameron
Mentor: James Dee Higley, PhD

Abstract: Current studies on the continuity of aggression and its relationship to testosterone in non-human primates include small subject groups in uncontrolled environments. The present study evaluated aggression levels across the pubertal period (ages two and three) in 101 male rhesus macaques during the two-minute stare epoch of the Human Intruder Paradigm, as well as explored the relationship between plasma testosterone levels and aggression at age three in 49 subjects. Analyses revealed that while there was a strong positive correlation between aggression at age two and aggression at age three, there was no significant relationship between testosterone levels and aggression. Implications, limitations, and further directions are also discussed.

Stress of Male Spouses Left Behind

MacKenzie Foster Jones, Jeannie Kirk, Preston Johnson, Joshua Brading, Amelia Hunter, Evan Collett
Mentor: Witold Simon, PhD

Abstract: With an increasing number of women serving as active-duty soldiers in the military today, the result has been an increase in numbers of male spouses being left behind. It is surprising that current literature does not address the concerns surrounding husbands of deployed soldiers more often. A Likert-scale survey was used to compare male and female spouses' feelings in a hypothetical situation where they were to be left behind while their spouse was deployed to a combat area. Using a Bivariate correlation and T-test, the collected data from 89 women and 43 men was analyzed. The results concluded that males demonstrated higher levels of emotional stress concerning marital issues. These findings suggest that there is a potential need for more social support for males in this situation.

The Effect of Media on People's Perceptions of Anabolic Steroids

Kevin Paulsen, Benjamin Stocking, Shane Sobrio, Scott Fischbuch
Mentor: Scott C. Steffensen, PhD

Abstract: The main purpose of this study is to see how much of an effect positive and negative media has on the use of anabolic steroids. Different forms of media have been known to sway public opinion on several controversial topics of the day. By introducing both positive and negative articles regarding the use of anabolic steroid and surveying the effect it has on people's opinions, we hope to be able to gauge the effect media has on people's opinions

The Effect of Positive Affect on Memory

Jenna Gardner, Jeremy Ashworth, Brittney Rasmussen
Mentor: Erin D. Bigler, PhD

Abstract: The study of adolescents' attachment to parents and its relation to adolescents' well-being has received increasing attention in recent years. But the mechanic in this relation and even in the whole working pattern is still not very clear---not only in western background, but also in eastern culture. This study examined how parenting dimensions (authoritative, psychological control, and overprotecting) relate to adolescent outcomes (self-esteem, autonomy, and peer relationships) by way of parent-teen attachment, among Chinese families.

The Effects of Music on Memory Retention

Taylor N Scott, Meghan Dixon, Katie Wiscombe
Mentor: Erin D. Bigler, PhD

Abstract: Popular belief indicates that music aids in memory retention. Given this background, it was hypothesized music would not influence retention on a standard clinical measure of short-term memory retention. There were 37 participants in the experiment. Of those participants, 13 were in the experimental group and 24 were in the control group. The participants performed the RAVLT to test memory retention and the ROCFT was used as an interference. There was no significant difference found between memory retention scores of the RAVLT during the music or silence condition. The nonsignificance could have been attributed to the small sample size. Results of this study demonstrate that if scores from the RAVLT with music are to be used in future research, then factors such as type of music and volume level should be taken into account.

The Influence of Individual Perception of Student Loans on Financial Knowledge

Kristen Butler, Jared Dickerson, Joshua Drean, Jaclyn Pingel
Mentor: Scott C. Steffensen, PhD

Abstract: Students very rarely have the opportunity to learn about finances in high school and rarely take the opportunity in college. Many students learn through trial and error as the beginning of college often follows the beginning of debt in the form of student loans. Using data from 97 BYU students this study tests student's perceived knowledge, and financial understandings of student loans, against their actual knowledge. This study found that having a loan influenced student perceptions of loans and those students with loans more commonly answered correctly on factual knowledge questions. Gender also played a role in that males were more likely to know about interest rates whereas females better understood the process of taking out a loan.

2011 SUBMISSION GUIDELINES

Call for submissions for the Fall 2011 issue of
Intuition: BYU Undergraduate Journal of Psychology

Submissions must adhere to the following guidelines:

- The author (or first author) must be an undergraduate psychology major/minor at a BYU campus during the time he or she wrote the submitted work.
- Articles submitted for publication cannot have been accepted for publication elsewhere.
- Articles must be at least 1,000 words in length and must conform to APA style.
- An electronic copy of all articles must be submitted (see below for further directions). Preferred format for the electronic copy is Microsoft Word. All graphics or photos must be of high resolution (300 dpi).

Types of submissions

- Brief and extended reports of theoretical development or original research (or both). We accept submissions from any field of study in psychology.
- Creative works (visual media for potential cover art, and personal narratives related to research experience).
- Topical reviews, book reviews, and essays (reviews must be of recent publication and noteworthy).

Important Information

- Submissions are accepted and processed year-round. The submission deadline for the Fall 2010 volume is January 15, 2011.
- Those who wish to submit manuscripts, reviews, or creative works to be considered for publication should send an e-mail, with an electronic copy of their work attached, to byupsychjournal@gmail.com with the subject line: 2011 SUBMISSION: TITLE OF WORK
- Submissions will undergo a basic process of revision before an offer of acceptance is extended.
- If your submission is accepted, you will be expected to work in collaboration with our editorial board. Publication in the journal is ultimately contingent upon your willingness to contribute to the revising and polishing of your own work.
- Any questions, comments, or concerns should be directed to the Editor-in-Chief at byupsychjournal@gmail.com

Additional information can be found on our website at http://intuition.byu.edu

Swiss psychologist Hermann Rorschach \ˈrȯr-, shäk\ first introduced the Rorschach inkblot test in his book **Psychodiagnostik** in 1912. The Rorschach was devised to study personality and to diagnose psychopathology. This projective test consists of 10 inkblots that patients are asked to interpret. The method most commonly used in the United States was developed by John. E. Exner. His method scores patients' responses according to what the perception was, where the perception was seen on the inkblot, what feature of the inkblot determined the response, to what extent the response matched the inkblot's properties, and how frequently the perception is seen in a normative sample. Because the Rorschach is still one of the more popular psychological assessments used in the U.S. today and it cannot be made public, we have created our own inkblot.

So... what do you see?