

HUMOR AND THE PROBLEM SOLVING BEHAVIOR OF MARRIED COUPLES

by

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INTRODUCTION

Intimate relationships pose some of the greatest challenges any human can experience. Though necessary to our survival these relationships change constantly and in the process of change make great demands and can lead to tremendous problems for the people involved. When faced with those challenges and problems people must be able to change when necessary. To be successful in relationships individuals must be able to creatively adapt to new and different circumstances. But often, people feel "stuck" and unable to overcome a problem. The methods they have used to solve problems before might not work in the new situation. How do they creatively adapt to solve a difficult problem?

In this study I examined the effects of humor on the problem solving behavior of people, specifically, married couples. If couples had experienced humor prior to a problem solving discussion I believed that they would demonstrate less conflict behavior and be more satisfied with the decisions they made during their discussions than couples who had not experienced humor prior to problem solving.

Webster's Dictionary (1964) considers humor to be "the quality that makes something seem funny, amusing or ludicrous" and "the ability to perceive, appreciate or

express what is funny, amusing or ludicrous" (p. 708). This can involve an appreciation of jokes or other funny presentations, amusement at life's foibles, and a general ability to experience mirth. The reaction of the individual to humor can range from a light feeling of amusement to the expression of laughter.

Therapy and Change

Marriage and family therapy is based on the idea that if people want to change a problem in their lives, there must be a change in their relationships. Strategic marriage and family therapists often look for unusual ways to accomplish change, believing that such interventions will help to break up rigid sequences of interaction and allow family members to develop newer, more useful ways of behaving (Haley, 1976).

Within the strategic school humor is considered an important tool for the therapist. Many believe that if the therapist can look at very serious family problems and find a humorous element in them, then the therapist will not become caught in the hopelessness that the family may be bringing to therapy (Belson, 1988; Cade, 1982; Madanes, 1984). The strategic therapist will use her/his sense of humor as a means to facilitate the discovery of new ways for the clients to look at a problem and try to find solutions.

Similarly, there are therapists who believe that a major sign of success is when the client can find humor in a problem situation. Victor Frankl and Milton Erickson used paradox as a means to help clients develop a humorous outlook (Erickson, 1954; Frankl, 1960). Albert Ellis (1977) even suggested that the main reason people have problems is their "exaggerating the significance of things " (p. 3).

Humor, Therapy and Creative Thinking

How does humor help in therapy? Madanes believes that humor involves the ability to think at multiple levels and, thus, allows people to develop creative alternatives to their troubles (Madanis, 1984). Humor also allows people to distance themselves from a situation, thus enabling them to gain a new perspective on a difficult problem which might lead to different behavior or new thoughts or feelings about the problem (Cade, 1982; Watzlawick, 1978). The use of a joke or pun by the therapist may interrupt a pattern of thought or interaction and help reorganize thoughts or a situation in a new way (Erickson & Rossi, 1979) or activate unconscious resources that bring new information to light for the clients (Erickson & Rossi, 1976).

Creative thinking appears to be the likely connection between humor and effective problem solving that the strategic therapists seek. Those therapists seem to suggest that when the therapist injects humor into the therapy

process or when clients are able to find humor in a problem situation then the clients may be able to think creatively. This could occur when clients give up old, constraining ideas about the problem or when they discover new, helpful ways to approach the situation. Many therapists believe that those creative processes are related to the use of humor (Belson, 1988; Cade, 1982; Erickson & Rossi, 1976; Killinger, 1987; Madanes, 1984; O'Connell, 1987; Schiff, 1988; and Watzlawick, 1978).

There are different beliefs as to how humor might influence the creative process. Arthur Koestler (1964) suggested that the key in humor is "bisociation", a term he coined to indicate a process of thinking on more than one plane. Koestler wrote that this involves "perceiving of a situation or idea . . . in two self-consistent but habitually incompatible frames of reference" (p. 154). From this state, new ideas emerge that fit the situation in a new way. The individual is being creative. This is similar to Madanes' (1984) idea that when people experience humor they are able to think on multiple levels at the same time.

Koestler developed a wide ranging theory of creativity which has had a strong influence on the field of creativity. The element of bisociation, which he finds in humor, is also critical to the creative process according to his theory. In fact, it is the key to the creative process

(Koestler, 1964). Koestler maintained that the process and experience of humor is directly related to the creative experience. He believed that both creative thinking and humor require that ability to think on two incongruent levels at the same time. The realization of humor and the insight of the creative experience occur when the individual fits the two mutually exclusive levels together in a new way. Essentially, the "ha ha!" experience and the "aha!" experience are variations on the same theme.

Erickson and Rossi's (1976) suggestion that humor helps clients to activate unconscious resources is related to their work in hypnosis. Through hypnosis, clients are believed to be able to draw on information that is stored in the unconscious and bring it into full consciousness (Lankton & Lankton, 1983). Erickson and Rossi believed that the process of bringing unconscious information into consciousness could also be accomplished through the use of humor.

Watzlawick (1978), in attempting to explain the mechanism for this process, suggested that humor helps individuals to access the right hemisphere of their brains, thus bypassing the left hemisphere's logical sets, and allowing people to see new relationships in complex situations. Students of creativity have also considered the relationship between the left and right hemispheres of the

brain and the creative process. The left hemisphere of the brain is thought to be more logical and analytical in its thinking while the right cerebral hemisphere is believed to be more capable of recognizing relationships and being creative (Gazzaniga, 1985 and Williams, Stockmyer & Williams, 1984). Thus, various authors have suggested the importance of accessing the right cerebral hemisphere if creativity is to take place (Bogen & Bogen, 1976; Jausovec, 1985; Williams, Stockmyer & Williams, 1987).

It is doubtful that the actual mechanism of creativity is so simplistic since the research seems to indicate that there are, in fact, much more complex processes at work and that neither cerebral hemisphere has a monopoly on a particular type of thinking (Gazzaniga, 1985).

Nevertheless, the experience of humor and related laughter does have an impact on the activity of the brain that can be related to the creative process.

Research on the central nervous system indicates that cerebral behavior is modified by laughter. Fry (1986) and McGhee (1983) both referred to studies indicating greater right-brain/left-brain coordination during laughter. The studies they examined indicated that when people are laughing their brains seem to operate more efficiently and symmetrically. In other words, humor and related laughter would facilitate a more balanced cerebral activity that

would lead to creative thinking. This thinking, in turn, would produce different solutions to problems than the individual or couple might otherwise generate.

Whatever the reasons, however, research indicates that humor influences creativity. A study by Couturier, Mansfield and Gallagher (1981) indicated a strong relationship between humor and creativity among eighth graders. Ziv (1976) found that adolescents who listened to humorous record albums prior to testing scored higher than a control group on a measure of creative thinking.

Carnevale and Isen (1986) reported that watching humorous films can also lead to creative problem-solving behavior. In a series of studies they have consistently demonstrated that the humor experience facilitates people's problem solving ability and results in a smoother negotiation process producing less contentious tactics (Carnevale and Isen, 1986; Isen, Daubman and Nowicki, 1987). There is also considerable anecdotal evidence in the therapy literature that indicates the importance of humor in dealing with life's difficulties (Cade, 1982; Madanes, 1984; Watzlawick, 1978, 1983). Whether this involves the newly found ability to laugh at a previously paralyzing situation, thinking differently about a problem or developing new solutions to a problem, strategic therapists agree that humor is helpful for their clients.

Stimulating Creativity and Better Problem Solving

Although authors of programs designed to increase creative thinking use humor as a means to convey their message, there is no indication in the literature that the process and experience of humor is used as a means to elicit creativity. Rather, programs to increase creative thinking outline sets of cognitive exercises to be repeated routinely (e.g., Stein, 1974; Torrance, 1962) or information regarding creativity is related with the occasional use of jokes or cartoons, in the apparent belief that the use of humor in instructional materials facilitates learning (e.g., Williams & Stockmyer, 1987). Williams and Stockmyer designed their program to develop "right brain thinking" but missed out on one of the quickest ways to access that, humor and laughter. Programs to stimulate creative thinking have also focused on children in schools, undergraduate students or people in business. There is nothing in the literature to indicate that programs have been developed for adults in intimate relationships which is the domain of marriage and family therapy.

As indicated, studies that have used humor to facilitate creativity and problem solving have either used films (Carnevale & Isen, 1986; Isen, Daubman & Nowicki, 1987) or audio recordings (Ziv, 1982) of entertainers as stimuli. Workshop brochures indicate that individuals are

offering programs on how to use humor to stimulate creativity (Goodman, 1988) but no one is writing about it.

Programs for enhancing couples' problem solving generally involve skills training in communication, behavioral contract negotiation or specific problem solving behaviors. These programs have been developed primarily by behavioral marital therapists and are based on the idea that if couples use the skills taught then their relationships should improve (Ridley, Avery, Harrell, Leslie, & Dent, 1981). Studies that have been done of behavioral programs have indicated their ability to produce change. Researchers also indicate an unwillingness to state what generated the change (Jacobson, 1977) and a reluctance to suggest long range benefits (Ridley, et al., 1981).

The underlying assumption of behavioral training programs is that couples are lacking in certain skills and that training in those skills will assist them in their relationship. In contrast, strategic therapists assume that people have many skills available to them which they have not utilized and that the proper intervention will help them to access those resources (Haley, 1976; Lankton & Lankton, 1983). Given the material presented by the authors mentioned before, it appears that humor might serve as one such intervention.

JUSTIFICATION

While many therapists have written about the use of humor in therapy and its value for clients, their support for their contentions is all anecdotal. It seems that no one has examined the use of humor in therapy to see if, in fact, it has had any effect on a couple's abilities to deal with life problems. Therapists have suggested that humor loosens up people's rigid cognitive sets and allows them to solve problems in a more creative manner (Killinger, 1987). There have also been studies that demonstrate humor's ability to elicit higher levels of creative thinking (Ziv, 1976), more creative and efficient problem solving (Isen, Daubman & Nowicki, 1987), higher levels of positive negotiation behavior and mutual profit (Carnevale & Isen, 1986), increased attraction (Gouax, 1971), and lower levels of aggression (Baron & Ball, 1974). These studies have all been conducted in laboratory like settings and have measured responses to artificial situations and problems. Except for Carnevale and Isen's (1986) work on negotiation the rest of the studies involved individuals and did not examine relationships.

Similarly, it appears that no one has considered whether the humor experience will affect people's abilities to deal with "real life" problems within the context of their intimate relationships. Would the humor experience

actually produce a difference in the process of problem solving as well as its outcome? Would couples who had shared a humorous experience prior to problem solving demonstrate less conflictual problem solving behavior than those who had not and would they be more satisfied with their decisions than other couples who had not experienced humor? Prior to approaching this in a therapy setting, it would seem appropriate to determine if humor would have any effect on couple's problem solving at all. Thus, the purpose of this study was to demonstrate that couples' problem solving abilities can be enhanced through the humor experience.

RESEARCH HYPOTHESES

To examine the effects of humor on couples' problem solving the following hypotheses were considered:

1. Married couples who watch a humorous film prior to engaging in problem solving (treatment group) will exhibit less conflict behavior during a problem solving process than couples who do not watch a humorous film (non-treatment group).
2. Treatment group couples will be more satisfied with the decisions they have made during a problem solving process than non-treatment group couples.
3. Treatment group couples will exhibit more laughter during a problem solving process than non-treatment group couples.

4. Treatment group couples will be more satisfied with their decisions at high, moderate and low levels of conflict when compared to non-treatment couples.
5. Treatment group couples will laugh more than non-treatment group couples during problem solving behavior at all levels of conflict. Non-treatment group couples will laugh less the higher their level of conflict.

METHODOLOGY

Experimental Design

In this study I examined the effects of a humor experience on the problem solving behaviors of married couples and their satisfaction with their decisions. The specific humor experience was the viewing of a humorous videotape by the couples. Process was measured by observing the problem solving behaviors of the couples and recording the number of conflict and laughter behaviors displayed during a problem solving session. Outcome was measured by examining the couples' reports of the amount of satisfaction they had with the decisions they made during the problem solving process.

A posttest-only control group design was used in the study. This design, a form of a true experimental design, is appropriate when the researcher wishes to determine if an independent variable has produced differences in a treatment

group when compared to a non-treatment group. Huck, Cormier and Bounds (1974) state that when a true experimental design has been used "...and there is a difference in the data, then we can be relatively confident that the independent (treatment) variable was responsible for the observed differences" (p. 243). In particular, the posttest-only control group design "through the random assignment of subjects to the two groups, controls selection, history, maturation, and statistical regression. Furthermore, the threats of testing and instrumentation do not exist since none of the Ss is measured twice." (Huck, et. al., 1974, p. 251). With genuine randomness of assignment they believe this design to be "as good as, if not better than, the pretest-posttest design." (Huck, et. al., 1974, p. 253).

The data consisted of both self-report and observational measures (to be explained later). The self-report information allowed analysis of the subjects' subjective states related to satisfaction with decisions while the observational information was used to determine if there was a perceived difference in the interactive behavior of the couples in the study. Huston and Robbins (1982) suggest that self-report is the best method to measure subjective conditions because those conditions (opinion, belief, attitude, etc.) do not represent interpersonal

behavior. Furthermore, "the most straightforward method and the one least subject to bias is to ask the participants in the relationship to provide a rating or characterization of the subjective condition of interest." (Huston and Robbins, 1982, p. 916).

Observational data is also very useful when analyzing interpersonal relationships. Since this was a study of problem solving behavior as well as people's attitudes about that behavior an observational measure was necessary. Huston and Robbins (1982) state the importance of this approach.

Our general conclusion regarding the collection of data about interpersonal events is that some form of observation with concurrent recording is the method of choice. . . . Relationship properties are best measured by aggregating data obtained at the event level.
(p. 916)

Thus, the study used two methods of data collection. This provided a more thorough analysis of the experimental situation.

The Humorous Videotape

Carnevale and Isen, along with her colleagues, demonstrated that the viewing of a humorous film can elicit laughter and produce interesting effects on people's problem solving and negotiating behavior (Carnevale & Isen, 1986; Isen, Daubman & Nowicki, 1987). The specific film that they

used, "Gag Reel," was a five minute movie comprised of outtakes from the old "Gunsmoke" and "Have Gun Will Travel" television programs as well as skits from "The Red Skelton Show." In a telephone interview Alice Isen reported that the film's condition prevented good research and that with the proliferation of "Bloopers" programs it was losing its effect (Isen, 1989).

For this study, I developed a new humorous videotape. I asked adults for their recommendations of particularly funny scenes from movies and television programs and obtained copies of twelve scenes. Eighteen individuals of different ages ($M = 35.83$, range = 23 to 57) who were not part of the study viewed a tape of those scenes to determine whether or not they were, indeed, funny. These raters assessed the scenes on a five point "funniness" scale (see Appendix C, Videotape Pretest). Scenes selected had to achieve a mean funniness score of at least three ("funny"). Seven scenes with themes relating to marriage and parenthood were chosen for the final tape (Mean of Means = 4.21, range of Means = 3.06 to 4.89).

Copyright, Fair Use and Research

The Omnibus Copyright Revision of 1976 (Public Law 94-553) is the law governing use of all copyrighted materials in the United States. Use of scenes from movies or

television programs falls under that law. Specific use of copyrighted materials in educational research is covered by the section on "fair use."

Section 107. Limitations on exclusive rights: Fair use.

Notwithstanding the provisions of section 106, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include--

(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(2) the nature of the copyrighted work;

(3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4) the effect of the use upon the potential market for or value of the copyrighted work.

(p. 44)

Use of scenes from television programs or movies would fall within the Fair Use conditions as such use would meet all four conditions. First, the purpose was clearly for nonprofit, educational use. No fees were charged viewers. The tape was only viewed by participants in the study. Second, the nature of the material was appropriate because the material copied was not designed to be primarily marketed to an educational group such as a textbook would

be. Third, very short clips were taken from the movies (no longer than three minutes in length). Those would not constitute substantial portions of the whole work. Finally, it is doubtful that the viewing of these film clips by the couples involved in the study substantially affected the market for any of the movies. In fact, study participants wanted to know the names of the movies so they could rent the videotapes to watch. To avoid any possibility of potential liability for the University or myself, however, I requested permission for use of all materials using the letter in Appendix D.¹

Sample

Married couples were recruited for the study through advertisements in the local newspapers (see Appendix E) and through a snowball technique. The ads invited people to take part in a study of married couples and offered them a free short workshop in marriage enrichment as an incentive to their participation. The offer of the workshop should not have had an effect on the treatment outcome because couples in both treatment and non-treatment groups received the same offer and because the effects of positive affect induction seem to be time-limited in their effect on behavior (Isen & Gorgoglione, 1983).

Forty couples were contacted. Twenty-four consented to participate in the program (see Appendix F). I randomly

assigned them to either the treatment or non-treatment group with twelve couples in each group. Two couples did not show for their appointments and the tapes of two couples were lost due to equipment malfunction. Thus, ten couples were in each group.

Participants in the study usually had at least one spouse working in a "professional" occupation (university professor, attorney, accountant, etc.) and had an average combined annual income between \$30,000 and \$40,000. Although two older couples took part, most of the couples were in their thirties (husbands, $M = 39.6$, ranging from 27 to 66; wives, $M = 37.55$, ranging from 26 to 66). Most were in their first marriage (thirteen), sixteen had been married twelve years or less ($M = 10.55$, $SD = 10.55$, range = 1 to 45) and eleven had children (see Table 7, Appendix L).

Testing Instruments

All participants initially completed a short demographic questionnaire (see Appendix G) which included the global question regarding marital satisfaction from the Dyadic Adjustment Scale (DAS) (Spanier & Filsinger, 1983). Analysis has shown that the global question is highly correlated to the results for the entire instrument ($r = .95$) (Sporakowski, 1989). The marital satisfaction question served as a form of pre-test for the groups to measure their levels of marital distress. It was possible that viewing of the humorous videotape might fail to elicit the humor

response in a couple. This could have been due to a high level of marital distress that would cancel any effects the tape might have. The question regarding marital satisfaction was used to pick this up. It was also possible that viewing of the tape might have a positive effect on a distressed couple and result in less contentious problem solving behavior than might otherwise be expected. In this regard, their answers to the question and subsequent behavior would indicate the positive effects of humor.

The instrument used to generate discussion by the couples was Olson and Ryder's Inventory of Marital Conflict, Form A (Olson & Ryder, 1977). Olson and Ryder developed the Inventory of Marital Conflict (IMC) to measure the outcome and process of decision making, problem solving and conflict resolution behavior in married couples. The IMC has proven useful in a number of different studies to facilitate and measure marital interaction (Baucom, 1984; Birchler, 1975; and Vincent, Weiss, & Birchler, 1975). One of the strengths of the instrument is that it allows the couple to state if the situations are relevant to them. This can allow the researcher the chance to measure interaction that might be typical for the couple while affording the couple some safety in not having to discuss personally sensitive issues in a laboratory situation. Crump (cited in Schaap, 1984)

observed that the relevance of the task influences the interaction. A significant majority of the couples who have used the IMC have reported that the situations are relevant for them or other couples they know and they have enjoyed the interaction involved (Olson, 1984).

The IMC is intended to get couples to make decisions on nine different life-like problems. The forms contain six conflict situations and three non-conflict situations. The difference between the two is determined by the information that is given to the partners. In conflict situations the husband and wife are each given the same basic information. The husband's vignette is slanted to make the wife appear at fault and the wife's is slanted to make the husband appear at fault. In non-conflict situations they are given identical information.

Situation three from Form A is illustrative of a conflict situation.

(Husband's Version) A conflict has arisen between Jack and Colleen following a party with friends. During the party, Jack talked to another woman, resulting in his wife becoming very angry. Following the party, Colleen angrily accuses Jack of intentionally ignoring her for the entire evening and becomes argumentative.

(Wife's Version) A conflict has arisen between Jack and Colleen following a party with friends. During the party, Jack becomes involved with another woman and ignores his wife. Colleen feels hurt and attempts to discuss her feelings of being neglected but feels like she is not understood.

(Olson & Ryder, 1977)

The basic information in both vignettes is the same. The difference is in the interpretation of the situation as perceived by the partners. This seems to be a typical type of conflict that might arise between a wife and husband--a conflict based not so much on clear fault as on differing perceptions of a situation and resultant hurt feelings.

The Post Discussion Form of the IMC contains the outcome measure of the study. The purpose of this questionnaire is to gather information about the experience the couples have with the procedure and their satisfaction with the process and the decisions they made. Answers to question number four on this instrument served as the measure of satisfaction with decisions which was used in the statistical analysis.

Olson and Ryder (1977) developed the Marital and Family Interaction Coding System (MFICS) to accompany the IMC. The MFICS sets up coding categories for marital and family interaction. It is also designed to directly assess the responses to the IMC. The MFICS uses number codes which can be recorded on an IBM sheet. Scores can be totaled or broken down into conflict and non-conflict items (Olson, 1984). The behaviors of conflict and laughter which were examined in the study were measured by the MFICS.

Together the IMC and the MFICS present a combination of self-report and observational data. They are designed to be

used together and have been shown capable of distinguishing nine different styles of couple interaction across three dimensions--task leadership, conflict and affect (Miller, 1975). Interaction elicited by the IMC has also been shown to discriminate between distressed and non-distressed couples (Vincent, et. al., 1975)

Face validity for the IMC is very good. Reading the different problem situations, the reader can get the sense that these are real life problem areas. Discriminant validity for distinguishing between unique groups has been established for the IMC in several studies. Miller (1975) was able to identify nine separate styles of couple interaction. The homogeneity of these groups in terms of shared characteristics ranged from .81 to .94. Olson (1984) reports that "Preliminary studies of predictive validity by Miller have found a high rate of success in predicting interaction style from background characteristics," (pp. 2-3). Vincent, Weiss and Birchler (1975) were able to discriminate between distressed and non-distressed couples on positive behavior ($p < .025$) and negative behavior ($p < .05$).

The MFICS has demonstrated reliability as well. It has shown itself to be easy to learn and inter-rater reliability has averaged between .80 and .90 (Olson, 1984). Miller's analysis (cited in Olson, 1984) demonstrated inter-rater reliability coefficients ranging from .65 to .98 with a mean

of .89. In the same analysis and using the Spearman-Brown formula, split-half reliabilities ranged from .42 to .91 with a mean of .73.

I obtained permission to use both the IMC and the MFICS as indicated by the letter in Appendix H.

Data Collection Procedure

Couples came to the Center for Family Services of the Virginia Polytechnic Institute and State University for their participation in the study. I scheduled them to come in groups with each group consisting of two couples. Each couple went to a separate observation room at the Center. Data collection procedures were the same for both treatment and non-treatment groups. The only difference in the procedure was the viewing of the humorous videotape by couples in the treatment group.

I asked couples in the treatment group to watch a short humorous videotape before taking part in the problem solving procedure. I told them, "We are interested in how couples respond to humor and would like you to watch this humorous videotape." At the end of the discussion section of the study I asked them to rate how funny they thought the tape was using the "funniness" scale (see Appendix C, Videotape Rating Form). This provided a measure of whether or not the humor experience was induced.

Following their viewing of the tape I gave each spouse a copy of Form A (either the husband's or the wife's

version) of the Inventory of Marital Conflict (IMC) (Olson & Ryder, 1977), which consists of nine hypothetical problem situations that a married couple could face. I read to them the instructions for the individual portion of the IMC.

After the couples completed this part of the IMC, I read to them the instructions for the discussion session. The couples then took part in the interactive phase of the IMC (a fifteen minute period) during which time they discussed the different problem situations they had read and made a mutual decision in each of the two areas (solution and responsibility) for each problem situation. Their discussions were videotaped for later analysis.

At the completion of the discussion I gathered the answer sheets and asked the couple to complete the Post Discussion Form of the IMC. I also asked the treatment couples to rate the humorous videotape using the "funny scale" (see Videotape Rating Form, Appendix C).

At the end of the data collection I talked with each couple about the purposes of the study, the research questions that were being examined and what I hoped to find. I offered all couples a copy of the final abstract of the results of the study and reminded them of the workshop that they were offered for participating. I also told them that I realized that discussion of the problem situations may have raised some questions for them about their own

relationships and if that had been the case, therapists at the Center for Family Services were available for counseling.

Data Coding and Analysis

I recruited and trained two graduate students to use the Marital and Family Interaction Coding System (MFICS). Those two observers viewed the videotapes of the discussion sessions and, using the MFICS, coded the problem solving behaviors demonstrated by the couples. Inter-rater reliability was checked by having the two observers each code the same sample videotape. Following training and during the rating period they were again checked on their coding of another videotape. Inter-rater reliability was .94 on the sample videotape and .89 on the later tape. Olson (1984) reported that the MFICS is relatively easy to learn and inter-rater reliability averages between .80 and .90.

I used the responses from question number four of the post-discussion questionnaire of the IMC to measure how satisfied the couples were with their decisions. The process measures of conflict and laughter were coded from the videotaped discussions using the MFICS. That information was used to perform the statistical analysis in reference of the research hypotheses listed above.

I compared couples across both treatment and non-treatment groups for their level of marital satisfaction as measured on the demographic questionnaire. This was used to determine if there were any major difference between the two groups. Random assignment to the two groups should have negated that possibility. The measure of funniness for the humor videotape was used to determine whether couples experienced the desired treatment effect.

Independent and Dependent Variables

The independent variable in this study was the viewing of the humor videotape.

The dependent variables were the amount of laughter and conflict during the discussion session of the IMC as measured by the MFICS and satisfaction with decisions as measured by the IMC. Couples' perception of relevance of the items on the IMC (Form A) was also considered to determine if the exercises were salient to them. This information served as another cross-check of the value of the study. As stated earlier, one of the purposes of the study was to determine if humor can have a positive effect on problem solving behavior in life-like situations. Previous studies have indicated the value of humor in artificial situations. If the situations were relevant and life-like to the couples and there were significant effects

from the treatment then the credibility of humor interventions should be enhanced.

The amount of conflict was chosen as a dependent variable because humor has been shown to facilitate successful negotiation through an increase in demonstrated positive behaviors and a decrease in contentious behaviors for treatment groups when compared to non-treatment groups (Carnevale & Isen, 1986). The amount of conflict can serve as a measure of the overall interaction and is useful in determining the general tone of the couples' problem solving. In addition, the use of humor has been shown to lead to less aggressive behavior in individuals (Baron & Ball, 1974).

Laughter during the discussion session, as measured by the MFICS, was a dependent variable in the study. Laughter characterizes the interactions of non-distressed couples (Baucom, 1984 and Schaap, 1984) and optimally intimate couples (Waring, 1988).

Couple satisfaction with their decisions as measured by the Post Discussion Form of the IMC was also a dependent variable in the study. Satisfaction with decisions should have indicated if the process was a fruitful one and led to useful decisions at the time, thus providing an outcome measure of the success of the problem solving.

Three levels of conflict (high, moderate and low) can be generated from data gathered through the MFICS. Levels of conflict served as a factor in two analyses of variance in the study. Olson (1984) defines the three levels of conflict as follows:

High Conflict--Both partners forcefully express their opinions on the proper resolution of the conflicts in the vignettes. In discussing the vignettes, the couple will sometimes restate their positions on the issue and will often relate this issue to their own relationship. This couple often disagrees on the resolution of the vignettes.

Moderate Conflict--The partners sometimes forcefully express their opinions on the proper resolution of the conflicts in the vignettes. In discussing the vignette, the couple will rarely restate their positions on the issue, but will sometimes relate this issue to their own relationship. This couple sometimes disagrees on the resolution of the vignettes.

Low Conflict--Partners seldom express their opinion on the proper resolution of the conflicts in the vignettes. In discussing a vignette, they will rarely restate their positions on the issue and will seldom relate this issue to their own relationship. This couple rarely disagrees in the resolution of the vignettes.

(p. 6)

Statistical Analysis

The MFICS and the IMC generate both individual and couple scores. Couple scores were used in the statistical analysis. Analysis of the data initially determined frequencies of behaviors for the couples. The two groups were then compared using one-way analysis of variance for each of the dependent variables. Interaction was examined using two other analyses. A 3 X 2 ANOVA was used to examine

three levels of conflict (high, moderate and low) by treatment or non-treatment with amount of satisfaction serving as the scores used in the analysis. Another 3 X 2 ANOVA was used to examine the three levels of conflict by treatment or non-treatment with amount of laughter serving as the scores used. Through the first analysis it could be determined if there was an interaction between the level of conflict in the situation and degree of satisfaction with decisions for the humor experience (treatment group) as compared to the non-treatment group. The second analysis of variance should have indicated whether there was a relationship between the amount of laughter and the level of conflict compared across treatment and non-treatment groups.

RESULTS

There were ten couples in both the treatment and non-treatment groups. T-tests were used to examine group differences in marital satisfaction and perceived relevance and realism of the case descriptions. No significant difference was found between groups in levels of marital satisfaction (see Table 1) indicating that the two groups were essentially equal in that respect. Both groups were also compared for their perceptions of the relevance of the case descriptions of the IMC to their own lives and the lives of other couples they knew. As before, no significant

differences were shown in those areas (see Table 1). In addition, both groups responded on the Post Discussion Form of the IMC that the cases described situations that were real problems for families (see Table 1) with no significant difference between the two groups. Thus, the two groups appeared to be equivalent both in terms of their level of marital satisfaction and in their belief that the testing procedure was relevant and realistic.

Insert Table 1 about here

Responses to the funniness rating scale (see Appendix C) indicated that the humor experience had been induced through the viewing of the videotape. Both husbands and wives rated the tape as very funny (husbands, $M = 4.11$, $SD = .74$, range 3 to 5; wives, $M = 3.66$, $SD = .82$, range 2 to 5).

One-way analysis of variance was used to determine if there were differences in the amounts of conflict and laughter demonstrated in treatment versus control couples and if there were significant differences in couples' satisfaction with the decisions they made during the problem solving process. The analysis indicated a significant difference between the two groups for their satisfaction with their decisions (see Table 2) demonstrating that

Table 1

T-Tests Comparing Treatment and Non-Treatment Groups for Similarity

Variable	Treatment Condition ^a		<u>t</u>	<u>p</u>
	Humor	No Humor		
Marital satisfaction			1.17	.26
<u>M</u>	5.53	4.98		
<u>SD</u>	.79	1.27		
Number of case descriptions ^b relevant to own life			1.29	.21
<u>M</u>	6.10	4.50		
<u>SD</u>	2.64	2.92		
Number of case descriptions relevant to lives of acquaintances			-.88	.39
<u>M</u>	8.40	8.40		
<u>SD</u>	4.17	4.72		
Realism of case descriptions			-.69	.50
<u>M</u>	1.50	1.70		
<u>SD</u>	.78	.48		

Notes

a

N = 10 couples in each group

b

1 = All seemed real, 5 = None seemed real.

Table 2

Analysis of Variance Results for Satisfaction with Decisions
Made During Problem Solving

<u>Source</u>	<u>df</u>	<u>Sum-Squares</u>	<u>Mean Square</u>	<u>F-Ratio</u>	<u>Prob>F</u>
Treatment	1	1.01	1.01	4.31	.0524
Error	18	4.23	.23		
Total (Adj)		5.24			

Treatment $M = 1.25$, $SD = .43$, Range = 1 to 2

Non-treatment $M = 1.70$, $SD = .54$, Range = 1 to 2.5

Note

Response possibilities were 1 = very satisfied,
2 = somewhat satisfied, 3 = slightly satisfied,
4 = not satisfied.

Table 3

Analysis of Variance Results for Amount of Involvement
During Problem Solving

Source	df	SS	MS	F	p
Treatment	1	.79	.79	4.80	.0419
Error	18	3.00	.16		
Total (Adj)		3.80			

Treatment $M = 1.90$, $SD = .46$, Range = 1.5 to 2.5

Non-treatment $M = 2.30$, $SD = .35$, Range = 1.5 to 3

treatment couples were more satisfied with their decisions than non-treatment couples. An additional one-way analysis of variance indicated that treatment couples were also more involved in the problem solving process than non-treatment couples (see Table 3). Analysis of variance for differences in the amounts of conflict and laughter between the two groups failed to produce significant results (see Tables 4 and 5, Appendix I).

Insert Table 2 about here

Insert Table 3 about here

A 3 (Levels of Conflict) X 2 (Treatment or Non-treatment) analysis of variance was conducted to examine differences in the amount of satisfaction with decisions in relation to the levels of conflict in the groups. No significant differences for main effects or interactions were found (see Table 6, Appendix I). Another 3 (Levels of Conflict) X 2 (Treatment or Non-treatment) analysis of variance also failed to demonstrate significance for main effects and interactions for amounts of laughter during the discussion session (see Table 7, Appendix I).

During the debriefing session, the couples were given the chance to ask questions or make comments about the procedure. Many commented that they believed the process to be useful in stimulating serious discussion without the risk of having to be too personal. One husband in the treatment group believed that the process went even further when he said, "We really enjoyed it. We needed to do some talking and this helped us."

At the workshop for the couples who participated in the study the results were announced, including the observation that the treatment couples had laughed less than the non-treatment couples. Comments were made by treatment couples that there was no need for them to joke or laugh during their discussions. They already felt relaxed and could get to work.

DISCUSSION

I wanted this study to be as realistic as possible within the context of a research setting. This was accomplished in that the married couples said that the situations they discussed were both realistic and relevant.

Couples who watched the humorous tape prior to their problem solving reported that they were more satisfied with their decisions than the other couples did. This seems to tell us that humor can serve an important function when problems appear. Even though a situation may be tough for a

couple to discuss, if they are able to use humor prior to their discussion they may be able to discover new, more satisfying ways to deal with the problem.

The conflict scores are also interesting. Humor did not produce a difference in the amount of conflict for the treatment group as was predicted. What happened may, in fact, be an even more important finding. While the treatment group demonstrated no difference in their amount of conflict, they reported that they felt more involved in the problem solving than the non-treatment group did. On the Post Discussion Form of the IMC couples can rate how involved they felt in discussing the cases that were relevant to their lives. The analysis of variance indicated that the treatment couples felt significantly more involved than the non-treatment couples in these discussions. This indicates that the change that occurred was not a change in the amount of conflict but was a change in the nature of that conflict.

To understand this it is important to keep in mind that conflict, per se, is not necessarily bad. Some may think that if there is a conflict something is wrong. Conflict just means that people with opposing viewpoints are working toward some form of resolution. The MFICS appears to be somewhat limited in assessing this. It is designed to measure conflict behaviors (as well as laughter) according

to frequency--how often they occurred. Although there are categories for such behaviors as raising a voice or criticizing a spouse, there is no provision in the instrument for any assesment as to the quality of the conflict. Thus, if a couple was engaged in a spirited discussion, freely disagreeing in an amicable fashion, they might rate as highly on an overall conflict score as would a couple who were arguing vehemently. That would not mean, though, that they were having as serious a problem resolving the issue as the other couple. It would mean that they felt free to disagree with each other without threat of reprisal.

In this regard, the MFICS appears to be limited in its application. Since the quality of the conflict became an important factor in the study, perhaps the MFICS, by itself, is not the best instrument for such research. While the MFICS could work very well with couples that exhibited overt conflictual behavior (e.g., angrily insulting each other and yelling) it seems limited in its sensitivity to the differential elements between a spirited discussion and a full-fledged argument.

But what about differences in the quality of the conflict? If a couple is freely disagreeing they may also be generating more potential solutions while exploring the problem more thoroughly. Killinger (1977) reported that to

be the case in individual therapy. She stated that individual therapy clients seem to be freed up by humor and able to examine their problems in much more depth. The reactions of the treatment couples seem to indicate that they experienced much the same effect. They reportedly felt more involved in the process. Thus, humor seemed to function as a catalyst to serious problem solving.

An additional factor to consider here was the content of the humorous videotape. The scenes which were chosen all related to marriage and having and caring for babies. These could be very salient topics for married couples and, although they may be considered funny, might have touched other personal issues that would have affected the outcome of the study. Since the videotape was related to marital issues, the humor in it may have helped free the couples to discuss issues more easily while the subject of the humor helped to focus their discussion. Humor used in therapy would, likewise, tend to be related to the issue at hand and, perhaps, it is that type of humor which is most useful for fostering serious discussion.

The laughter scores went in the opposite direction as predicted. The non-treatment group laughed more than those who had watched the tape. Within the non-treatment group the higher the level of conflict the more couples tended to laugh. To understand this we must consider some of the

functions of laughter. Usually we think of laughter as light-hearted and a way to express amusement. Laughter can also serve as a way to protect oneself. Therapists are familiar with clients who describe tragic situations and very serious problems and who laugh during much of the description. Sometimes when the therapist asks about this the client will say, "If I don't laugh, I'll cry." Laughter helps people talk about things that are difficult for them and can also help to soothe a tense situation. Kane, Suls and Tedeschi (1977) have noted that humor can be used during a discussion to determine whether or not it is safe to disclose information. Spouses in therapy will sometimes make remarks and laugh, then look at their partners to see if the remark has been accepted. If it has, then they may offer more information. If it has not then the remark can be discounted as a joke. Likewise, many potential insults in therapy are discounted as "just joking."

The couples who had watched the humorous tape apparently did not feel the need to engage in such behavior. They had already laughed together. In effect, the humorous tape seemed to have broken the ice for them while the non-treatment couples felt they must do that for themselves. Either way, humor seems to have value for couples during their problem solving discussions. At this

point, though, we do not know whether a general or more specific type of humor is more beneficial.

SUGGESTIONS FOR FUTURE RESEARCH

Humor can be useful in approaching problem solving. To fully understand those uses there will have to be more research. Future research could focus on the qualitative nature of conflict and laughter following a humor experience. Researchers could investigate in more depth how couples saw their discussions and how they felt about the outcomes by looking specifically at the amount of involvement couples experience in the problem solving process and the amount of satisfaction they have with their decisions. This could be done through detailed self-report measures with several open-ended questions or by interviewing the couples and asking for their impressions of the process. If the couples could view a videotape of their discussions and comment about the thoughts and feelings they had at the time they said something or laughed, an even more comprehensive analysis could be made.

Future research could also focus on the differences in the effects of different types of humor on problem solving. Would humor that is of a general nature and not related to the topic being discussed generate different effects than humor related to the topic?

Other studies could also benefit from more heterogeneous samples. The couples that came into this study varied in age, income and career but there seemed to be a clustering of professionals in the upper middle income bracket. The couples that participated in this study also did not report much marital distress. If we are to know the effects of humor in therapy, clinical studies will have to be conducted. Therapists seem to believe that humor is very helpful in therapy and the results of this study indicate that humor can facilitate problem solving. A next step could be to use humor interventions in therapy and study the results systematically both for immediate effects as were measured in this study and for more long range effects.

CONCLUSION

Humor has benefits for people involved in problem solving. This study seems to indicate that humor can help couples become more involved in their discussion process and feel more satisfied with the decisions they make when they are finished. Humor is not a panacea but if it can help people feel more relaxed about a tense situation and help them to be more focused and involved in their work it deserves serious consideration. Does humor really help people when they are trying to solve problems? Dr. Seuss may have summed it up best when he said, "If you can see things out of whack, then you can see things in whack."

FOOTNOTE

¹Pursuant to copyright permission agreements with studios, no copies of the treatment tape are to be left with the University since that would allow others to use the material without first obtaining copyright permission.

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APPENDIX A
REVIEW OF THE LITERATURE

REVIEW OF THE LITERATURE

Views on humor have differed through the ages. What may seem harmless fun to some can pose grave danger to others. Aristotle is reported to have written a brilliant treatise on humor except it apparently was lost through the ages (probably the Crusaders again) and no one really knows what it said. That has not kept people from referring to it, however. Those who do comment on it agree that if they had seen the work it would have had a primarily Freudian tone and would have defined humor as a wonderful tool for expressing displaced or projected aggression.

But pseudo-Aristotelian observations aside, there have been other challenges to the value of humor. In the Middle Ages physicians identified the location of the emotions by the corresponding organ in the body. Thus, the heart was the home of love and the spleen was the home for laughter. This association with the spleen and its bile led various writers to identify laughter as a low form of behavior and downright un-Christian. Robert Barclay in 1676 wrote that laughter and play were not lawful since they did not agree "with Christian silence, gravity and sobriety; for laughing, gaming, mocking, jesting, vain talking, etc., is not Christian liberty, nor harmless mirth" (cited in Goldstein, 1987). The Pilgrims in America likewise looked down upon

laughter and saw value in it only if it could be used to teach a moral lesson.

Lord Chesterfield advised his son to disdain laughter ". . . for true Wit or good Sense never excited a laugh since the creation of the world. A man of parts and fashion is therefore only seen to smile, but never heard to laugh." (quoted in Goldstein, 1987) This sort of sentiment was echoed by numerous men of piety and intellect through the following centuries. Religion and philosophy were not considered appropriate subjects for laughter because of their profound seriousness. To laugh at such matters was "criminal and indecent" (Meier quoted in Goldstein, 1987). Women and girls in Victorian England were not to laugh but could smile in deference or giggle (Goldstein, 1987).

Freud (1905/1976) wrapped the whole thing up by identifying hostile wit as the fulmination of repressed anxiety and aggression. Humor in general, and jokes in particular, were forms of aggression that were acceptable in society according to his psychoanalytic theory. Other psychoanalysts took that view and increasingly identified humor as primarily or exclusively indicative of underlying pathology.

In fairness, however, Freud also noted that humor had a valuable function as well. He believed that there was a liberating element to non-critical humor that allowed

individuals to rise above the pettiness of their own self-involvement and see themselves and others clearly (Freud in Goldstein, 1987). Quoting Jean Paul, Freud wrote that "Freedom produces jokes and jokes produce freedom" (Freud, 1905/1976).

Others have also noted the health-giving aspects of humor. The thirteenth century surgeon Henri de Mondeville suggested that laughter be used to help recover from surgery (in Moody, 1978). The French physician Joubert recommended laughter for its restorative properties and Herbert Spencer suggested that it served to release excess tension (cited in Goldstein, 1987). Prior to these observations, early Judaic teaching suggested that humor was valuable to the health of the individual. "A merry heart doeth like a good medicine, but a bitter heart drieth the bones." (Proverbs, 17:22)

Where are we to go with such contrary notions about the use or abuse of humor? Perhaps an examination of theoretical and empirical writing will help.

THEORETICAL APPROACHES TO HUMOR

The Psychoanalytic Approach

The basis for the psychoanalytic approach is found in two works by Freud. The first, Jokes and Their Relation to the Unconscious, was written in 1905. Freud had been developing his theory that repressed childhood sexuality manifested itself in later adult behavior. He was sensitive

to the sexual and aggressive imagery behind every form of human activity (Kline, 1977). In 1928 he wrote a paper entitled "Humor" which followed the full development of his theories. In both works, he pointed out the pathological functions that humor could serve but also noted that humor could be a sign of maturity in the individual. As mentioned before, Freud suggested that the ability to produce humor was a sign of mature, individual triumph and that humor itself served as one of the highest defense mechanisms (Freud, 1905/1976 and cited in Goldstein, 1987 and Killinger, 1987). Others have followed Freud's lead (Grotjahn, 1957 and Kline, 1977) and up until the last two decades humor was studied more for its connections to unconscious material than for any other value it might have.

Psychological Approaches

Psychological theorists have offered a number of different suggestions as to the function and value of humor. In one form or another they generally refer to the ability of the individual to better handle life's difficulties through the use of humor or by having a good sense of humor. Goodman (1983), Robinson (1983) and Ziv (1984) state that humor serves an adaptive function for the individual. Possessing a good sense of humor allows the individual to cope with difficulties whether they are mild, day to day hassles or major life traumas. In some

respects this brings us back to Freud's notion that humor is a sign of maturity for it would be the mature individual who could rise above the immediate difficulty and survive.

O'Connell (1987) suggests that humor is such a valuable resource because it helps to create a "natural high" in the individual. It achieves this by cutting through the mistaken assumptions that people hold as real and helping the individual to see more clearly. "Our errors of guilt-creating, distance-provoking, and negative discouragement (seen as 'reality' and 'human nature') disappear with blameless humor" (O'Connell, 1987).

Dixon (1980) maintains that humor helps individuals cope because its use reduces the stress in the person's life. Using a cognitive approach, Dixon suggests that having a good sense of humor, being able to see things in a humorous light and laughing help the individual to overcome stress. Safranek and Schill(1982) and Lefcourt and Martin (1986) share in this assessment and offer humor as a significant tool in stress reduction.

Humor has also been linked to overall feelings of emotional well-being and good moods (Mannell & McMahon, 1982) and to an enhanced quality of life (Goldstein, 1987).

Social Approaches

Sociological approaches to the study of humor have examined how humor serves to draw people together or set them apart. As the psychoanalysts have noted, jokes are social (Kline, 1977). They require another person to have their effect. If there is an aggressive element to the joke then that aggression is released either by directing it at another (or others) or by sharing it.

The use of aggressive humor can serve to draw people together into an exclusive group by creating a sense of "us" and "them" (Fine, 1983). By sharing a joke or story or by laughing at others who are different, people can develop a sense of groupness. Indeed, this has been the basis of derogatory ethnic jokes. By making fun of stereotyped differences of another economic, social, cultural, sexual, or racial group, people have been able to maintain the illusion of superiority. It is also seen in the development of junior high school and high school "cliques" and peer groups. "Jocks," "nerds," "preps," "hoods," "headbangers," "geeks," and countless other groups have been created in the minds of teenagers around the country to show how their group is "good" because it is not the same as the other "bad," "uncool" or "hopelessly out of it" groups. As Chapman (1983) notes, "laughter can reveal group

allegiances, communicate attitudes, and help in establishing and reaffirming dominance in a status hierarchy."

The power of humor in this regard is not lost on Hollywood. Teenage films from Beach Blanket Bingo to Revenge of the Nerds, Part II exploit these stereotyped differences and capitalize on people's willingness to laugh at them. In some respects this is unfortunate because, as Goldstein (1987) notes, humor can serve to drive a wedge between people if it is used inappropriately.

This is not to say that all aggressive humor does not serve some valuable function. Fine (1983) notes studies of Czech freedom fighters in World War II, concentration camp inmates and participants in the civil rights movement that indicated how humor helped those groups to develop a cohesion that was necessary to their survival. A friend of mine lived in England during "the Blitz" and spent much time in the bomb shelters while the Nazis tried to wipe out London. The shelters where there was the least worry and the greatest feeling of safety were those where the inhabitants joked about how stupid the Germans were trying to get to them as they stayed safely down below.

Not all social humor is necessarily aggressive, though. Much of the humor that people enjoy together is of a self-deprecating or "us-deprecating" nature. Individuals can tell jokes on themselves and recognize universal human

foibles in themselves. Fine (1983) has also noted how this form of humor helps to promote cohesion in a group. Whether it takes the form of good-natured ribbing of another, good fellowship or self-deprecation humor in this regard signals to the group that this is a safe place in which we are able to laugh at ourselves and share in this together.

Relational Approaches

What is it about humor and laughter that is significant for the study of couples? A number of writers have examined the relational aspects of humor and laughter and suggest that these two elements are very important to the formation of any intimate relationship.

One of the earliest communicative experiences that people have involves laughter. The process of attachment which bonds infants to their parents is largely accomplished through a process of play, smiling and laughter between the caregiver and the baby (Bowlby, 1969). Watching a mother and an infant the observer can see the back and forth, reciprocal nature of the relationship that is fostered through smiling, giggling and laughing. This play is important because through it the baby attaches to the one with whom s/he shares the laughter and smiling and, thus, survives (Bowlby, 1969 and Holland, 1982).

As we grow older that same ability to laugh and share mirth with others helps us to develop relationships. Many people have heard someone say that the reason they like their boyfriend or girlfriend is because that partner makes them laugh. We tend to feel liked when we can make others laugh and those who make us laugh and feel pleasure are attractive to us (Ziv, 1984).

Attraction is the key factor here. Several studies of attraction have found humor to be a primary factor in the process. Mettee, Hrelec and Wilkens (1971) in a study of undergraduate students' rankings of two different speakers found that their liking of the speakers increased significantly when they told jokes and were humorous. It is assumed that attraction is facilitated by positive affect in the individual. Griffitt commented that "It appears then that when one is feeling good his response to others will be more positive than when he is feeling bad" (cited in Gouax, 1971, p. 39). Based on this concept Veitch and Griffitt (1976) studied the attraction of undergraduate students to "the stranger," an imaginary person described to them on a sheet of paper. Students were exposed to good news or bad news on the radio to induce a positive or negative affective state. Those who were feeling the positive affect rated "the stranger" as significantly more attractive than the other group did. Gouax (1971) conducted a study of female

undergraduate students and their attraction for "the stranger." He found that when positive affect had been induced through the use of humor the students rated "the stranger" as significantly more attractive than those who were in a control condition or a state of induced negative affect.

It is not just the telling of jokes that makes people more attractive, however. Kane, Suls and Tedeschi (1977) see humor as a means of self-disclosure. By joking about possibly embarrassing subjects and noting another's response, an individual can judge whether it is safe to go ahead with self-disclosure and make her/himself more vulnerable in a situation. If the other is willing to similarly joke about the situation by telling a story about her/himself, then there is an indication that this can be a safe relationship. In this sense, the humor serves to disclose information and to ask the underlying question of, "How much can I open up to you?"

To the extent that humor allows self-disclosure, intimacy in the relationship is facilitated. As people get to know each other and reveal more of themselves to the other they become closer. Waring (1988) has observed that couples who have achieved "optimal intimacy" are characterized by a shared sense of humor. Research indicates that humor does, in effect, facilitate intimacy.

Alford (1981), in his study of joking relationships in families and among friends and peers, suggested that the primary significance of joking relationships is that they allow people to express feelings of interpersonal intimacy within dyadic relationships. In fact, extreme forms of joking were found to be significantly and positively correlated with high intimacy ratings (Alford, 1981). Both Schaap (1984) and Revenstorf and Halweg (1984) have found through analysis of couple interaction that non-distressed couples use significantly more humor and laughter in their interactions than do distressed couples.

Kane, Suls and Tedeschi (1971) provide an overview of why humor is so important to relationships.

Given the advantages of being liked it is understandable why persons engage in considerable effort to get others to like them. With regard to humour, a cheerful demeanour is an invitation to interaction. Ready humour indicates a spontaneity and joy in relating to others, indicates a willingness to explore alternatives with others prior to making serious overtures, reveals an ability to see through pretensions and the deceptions of others, and conveys the goodwill and benevolence of the source. A jovial person is often perceived as a socially sensitive person, who is personable and fun to be with. In a very real way humour breaks down affectations and conveys a basic honesty in a relationship. Thus, much fun can be generated in an interaction where the parties want each to like the other(s). (p. 16)

O'Connell (1987) maintains that humor breaks through boundaries and destroys artificial barriers between people. He sees humor as a means for making connections between people by eliminating imaginary differences and hierarchies.

"There is no solid separateness of impermeable boundaries in the real universe of the humorist. . . Naming and separating represent the original sin for the humorist. . . The laughter of the humorist is directed toward this arbitrary labeling seen as 'reality' by the superserious, humorless power seekers. . . The humorous perspective requires a sense of purposive belonging in an interacting, expanding universe of positive meanings" (O'Connell, 1987).

O'Connell sees a good sense of humor as being characteristic of a mature individual who is able to develop healthy, intimate relationships with others.

It appears that humor can serve a number of functions. It can help the individual cope with life difficulties and stress, enhance the quality of his/her life, demonstrate emotional maturity, and help achieve a natural high. Humor can also serve the social function of bringing people together into groups, developing group identity, defining others as non-group members, and enhancing group cohesion. At the dyadic level humor can facilitate attraction toward another, allow self-disclosure in a safe context, enhance intimacy, and break down boundaries between people. Can humor serve the couple in other ways once they are together?

HUMOR AND PROBLEM-SOLVING

Therapeutic Approaches

The field of psychotherapy has traditionally not held humor in very high regard. Psychoanalysts have regarded it as a form of defense and displaced aggression. Clients who would joke were considered to be covering up difficulties or revealing unconscious material through those jokes. The analyst was not to attempt to use humor because to do so would damage the therapeutic relationship. Kubie (1971) wrote a paper describing "The Destructive Potential of Humor in Psychotherapy" which warned therapists away. Kubie feared that if the therapist used humor it could block free associations and confuse clients as to therapist intent. Furthermore, the analyst could be caught up in the same exhibitionistic, narcissistic type of repressed aggression that she/he was supposed to help the analysand overcome. Kubie was concerned that inexperienced therapists would use humor at the client's expense; only the most experienced analysts should attempt it and then only when the client had made sufficient gains that a very gentle comforting humor could be accepted.

There were, however, some hardy souls attempting to demonstrate the therapeutic potential of humor. Among those was Victor Frankl who developed the idea of paradoxical intention. Frankl proposed that when a client came to

therapy with a symptom, the therapist could encourage the client to demonstrate the symptom there in the therapy room (Frankl, 1960). When clients state that they are struggling with a symptom that is beyond their conscious control it is paradoxical that a therapist should ask them to consciously create the symptom. The therapist, in effect, asks the person to do that which they say they have no control over. This creates a state of mutually exclusive logical levels intersecting which Koestler (1964 & 1978) saw as the essence of humor and creativity. Frankl's hope was that the client, in being expected to do that which could not be done, would make the logical/creative leap that humor would require and would be freed from the symptom through laughter (Frankl, 1960).

In one of his most famous cases to illustrate this point, Frankl wrote of a man who came to him paralyzed with fear that he might have a heart attack. This fear had become so great that the client was having difficulty accomplishing anything or being able to travel at all. Frankl spoke to him about the difficulties thus created and suggested that it could not be a very rewarding life. He then requested that the man attempt to have a heart attack so that he might finally be free of this fear. The client complied and tried to experience a heart attack in Frankl's office. As he became more frustrated in the

attempt he eventually burst out laughing and, reportedly, his fear disappeared (Frankl, 1960).

It is important to note that Frankl's approach to humor and that of the other therapists that will be listed was not one in which the clinician would attack, chide or make fun of the client's insecurities. Rather, they saw humor as a means to connect with their clients and as a valuable resource that their clients had available for their own use.

Milton Erickson also advocated the use of humorous approaches to people's difficulties. Erickson wrote many case studies throughout his career and they often involved interventions that led clients to experience the frustration and release of humor. Erickson, like Frankl, used paradox in his work and would ask people to do that which they said they could not control (Erickson, 1954). In one case, Erickson worked with a young couple who discovered on their wedding night that they were both bed wetters. He told them that before they went to bed they should each wet the bed purposely. While they did not seem pleased at the time and probably did not find the situation funny when they first attempted to comply, when they returned for the next session they both saw it as very amusing and the symptom disappeared (Erickson, 1954).

Erickson also developed other interventions that modified the context in which symptoms were experienced and thus changed the client's perception of his/her plight. He would ask client's to experience their symptoms on alternating days or at different times of the day than usually occurred. Working with an agoraphobic man (Haley, 1973), Erickson asked the client to travel from his house to a spot one yard short of the point where his agoraphobia would overwhelm him. The man decided that he could no longer live this way and began driving out into the desert, certain that he would die. When he did not, he experienced the release of his symptom. By placing symptoms into a directly paradoxical context or a context which offered multiple confusing interpretations of the symptom, Erickson hoped to activate the client's unconscious resources and, through humor, extinguish the symptom.

This approach is not far away from the psychoanalytic view of humor as a sign of the truly mature individual. Freud and others were puzzled somewhat that clients, when they experienced insight or were relieved of a problem, would burst into laughter (Freud, 1905/1976). This laughter came to be seen as a sort of cathartic release that allowed clients to move above their problems through the process of being able to laugh at themselves in a non-demeaning way.

Strategic therapists are probably those most associated with humorous interventions. Since that approach draws primarily from Erickson's work this is not too surprising. Jay Haley (1976, 1981 & 1984), Cloe' Madanes (1980 & 1984), Paul Watzlawick (1978 & 1983), and many others (Belson, 1988; Cade, 1982; Fisch, Weakland & Segal, 1982; and Young, 1988) have written about the therapeutic uses of humor by the therapist and how incorporating the client into that humor can produce change.

Within the strategic school there is a respect for the use of humor as an important tool for the therapist. Many believe that if the therapist can look at very serious family problems and find a humorous element in them, then the therapist will not become caught in the hopelessness that the family may be bringing to therapy (Belson, 1988; Cade, 1982; Madanes, 1984). The strategic therapist will use her/his sense of humor as a means to discover new ways to look at a problem and try to find solutions. This is much the same as the creative process von Oech (1983) suggests to his corporate clients. By being willing to look at situations in the most absurd ways possible and by asking questions that violate all the "correct" rules, von Oech sees people as being freed to discover new possibilities--they are being creative.

How does humor help in therapy? Madanes believes that humor involves the ability to think at multiple levels and, thus, allows people to develop creative alternatives to their troubles (Madhanes, 1984). Humor is also believed to allow people to distance themselves from a situation, thus gaining a new perspective (Cade, 1982 and Watzlawick, 1978). The use of a joke or pun by the therapist may interrupt a pattern and help reorganize a situation in a new way (Erickson and Rossi, 1979) or activate unconscious resources that bring new information to light (Erickson and Rossi, 1976). Watzlawick suggests that humor helps individuals to access the right hemisphere of their brains, thus bypassing the left hemisphere's logical sets, and allowing people to see new relationships in complex situations (Watzlawick, 1978).

Killinger (1987) sees very real value to humor in therapy. She believes that humor helps clients to engage in positive self-exploration. Killinger's doctoral dissertation (cited in Killinger, 1977) is one of the few empirical studies of humor in therapy. Employing content analysis of therapy sessions, she analyzed therapist intent and outcome through the use of humor. She found that "the use of humour seems in most instances to stimulate positive client discussion of the topic, and positive client feelings towards the therapist predominate" (Killinger, 1977).

Killinger also suggested that the proper use of humor occurs when the therapist is mature and demonstrates sensitivity for the client. Citing Heath she explains that "The aspects of maturity that are of special relevance to humor are the ability of mature individuals to laugh at themselves, accept their own limitations and those of others, and view their personal weaknesses from a humorous standpoint" (Killinger, 1987). The mature therapist uses humor to focus, in a supportive way, on the client's difficulties and to convey genuine interest, support, and concern. Used properly, humor is seen as a means to release the client's felt constriction.

When clients experience emotional difficulties or feel "stuck" in a situation, they are often unable to problem-solve effectively and seem incapable of laughing at themselves or their situation. Consequently, they perceive their environment as overwhelmingly serious and stressful. The element of surprise in humor, coupled with its unpremeditated quality, encourages a progressive shift in focus. This shift may then serve to unlock or loosen the rigid, repetitive view that individuals often hold regarding their particular situation.

(Killinger, 1987, p. 30)

Again, it is the liberating, freeing aspect of humor that is seen as helpful in therapy.

Mindess (1971) sees humor as a liberating approach to life. For him, humor becomes a way of life, a frame of mind, a means to perceive life that allows people to develop objectivity and freedom from the self-imposed constrictions that have cut them off from their natural, spontaneous

selves. This is very similar to O'Connell's perspective that humor destroys boundaries and allows people to experience a connection with others (O'Connell, 1987):

Research

While there is a great deal of anecdotal information on the value of humor in psychotherapy there is little research to back it up. Some of the strongest research on the value of humor comes from the medical profession. Since the publication of Norman Cousins's book Anatomy of An Illness in 1979 there has been much speculation on what humor does for the individual. The book told of the author's remarkable cure from ankylosing spondylitis through laughter and maintaining a hopeful outlook. This account has led to many people believing that a good laugh is as good as a pill any day. What does research say?

Is Laughter the Best Medicine ?

Various studies have been undertaken to examine the relationship between humor and health and the results have consistently shown that having a good sense of humor and laughing are wonderful for the body. McGhee (McGhee, 1983) and Fry (Fry, 1986) have surveyed the research on humor and health and listed study after study extolling the benefits of "a merry heart."

Fry divides the effects of humor physiology into various bodily functions. Laughing, according to the research Fry examines, affects brain function, the

circulatory system, the respiratory system, the cardiac system, the central nervous system, and the skeletal muscular system.

Catecholamine production is stimulated in the brain during laughter. Catecholamines help to improve alertness and memory. Adrenalin production also increases during laughter. Adrenalin is important to the immunological system, helping to fight off infection and disease. Circulation increases during laughter and the clotting of the blood decreases. There is, thus, a positive effect on blood pressure and a decrease in the minor clotting that can occur under prolonged periods of stress and which can lead to thrombosis or stroke (Selye, 1956; Pelletier, 1977).

The respiratory system is affected in a unique way that may seem odd at first. During hearty laughter there is much more expiration than inspiration of air. We exhale more. Also, the carbon dioxide content of that exhaled air increases as laughter continues. The result of this is that the "residual air" which builds up in the lungs is cleared out. The residual air holds significantly more waste products than the air of normal exhalation. The effect of laughter is, interestingly, the same effect that respiratory therapy seeks to achieve and is afforded the person with considerably more comfort, if not outright enjoyment (Fry, 1986).

Heart rate also increases during laughter, thus providing exercise for the cardiac muscles. Much has been written of the values of cardiac exercise both in lessening the incidence of coronary heart attack and in rehabilitating the coronary victim. One can also keep in mind that many have experienced heart attacks while attempting exercise through running, tennis and other aerobic enterprises but the incidence of heart attack during laughter is almost nil (Fry, 1986).

The muscles of the body are stimulated during hearty laughter and, as laughter continues and increases, more muscle groups become involved at increasing rates. After this stimulation there is a relaxation phase that is particularly restful. Cousins (1979) described this by-product of humor as being one of the most important for his recovery. He wrote that he was able to experience two hours of pain-free sleep after a session of belly laughter in what was otherwise a pain-wracked existence. Significantly, the more times he laughed, the longer his sleeping episodes became (Cousins, 1979). Fry believes that exercise through laughter can provide people with all the benefits of other sorts of exercise and is available to anyone, no matter how infirm or bedridden (Fry, 1986). Humor exercise is also available to anyone at any time of the day.

As mentioned before, there is much research on the effects of humor on people's ability to handle stress. Various studies have indicated that humor moderates both general stress and the effects of specific stressful events. Whether the theorist believes that laughter serves as a cathartic release, as a means of rising above a problem through maturity or as a way to put distance between oneself and a problem, research shows the stress-reducing effects of humor and laughter.

Humor and Creativity

Many authors suggest that an individual is able to benefit from humor because there is a connection between humor and creativity. Whether describing the importance of a sense of humor to their own creative endeavors (Flynn, 1984), suggesting that personal development requires a good sense of humor (Arnold, 1962) or identifying a sense of humor as an attribute of the creative individual (Getzels & Jackson, 1962) there seems to be general agreement among the students of creativity that humor plays an important role. Indeed, Getzels and Jackson (1962) and Torrance (1962) believe that humor pervades all activities of the highly creative.

Interestingly, while there seems to be a consensus that humor and creativity are linked, there is little study of how the humor process can assist creativity. Most research

on creativity and humor is correlational in nature and seeks to establish that creative individuals have a good sense of humor (Couturier, Mansfield & Gallagher, 1981 and Getzels & Jackson, 1962).

Couturier, Mansfield and Gallagher (1981) had eighth grade boys and girls complete two humor tests plus the Remote Associates Test (RAT), The Barron Welch Revised Art Scale (two measures of creativity) and the Lunzer Quiz (a measure of formal operational thought). They found significant correlations between sense of humor as measured by the tests and formal operational ability. They also found a significant correlation between humor and creativity as measured by the RAT. The authors discussed the results of the tests in terms of the children's ability to handle lack of closure and its relation to creativity.

It seems likely that acceptance of lack of closure is similarly related to the understanding of verbal word play humor. Perhaps the successful S realizes that there is an initial, obvious answer to the problem which "makes sense," but he has the ability to hold his answer in abeyance while he considers other unusual possible answers. Some of the possibilities appear to be nonsense on the surface, but they are the correct answer because they force an entirely new perspective upon the original problem.

(Couturier, et.al., p. 225-226).

Hauck and Thomas (1972) studied elementary school children to determine if there was a relationship among humor and intelligence, creativity, and intentional and incidental learning. Intelligence scores were obtained from the Lorge Thorndike Intelligence Test and creativity was

measured by the Torrance Tests of Creative Thinking. The students were divided and were given an exercise in which they were to take common objects (e.g., shoe, hat, glove) and write a few sentences associating two of them for some use. One group was instructed to tell how the objects could be used humorously; another how they could be used in an unusual but non-humorous way; and the third group was asked to state common uses for the items. The authors found high correlations between humor and intelligence ($r = .91$) and humor and creativity ($r = .89$) with a low correlation between intelligence and creativity ($r = .29$). They suggest that "the high correlation between sense of humor and creativity supports the conclusions of Getzels and Jackson and of Torrance that humor is characteristic of highly creative individuals" (Hauck & Thomas, 1972).

Treadwell (1970) conducted a study of undergraduate students using a Cartoons Test, a humor self-report (measuring both appreciation and use), the RAT, the Gestalt Transformations test (measuring ability to redefine or reorganize thought), and a scoring system for the TAT called Need for Variety. Subjects were instructed to write humorous captions for eleven original cartoons and complete the other instruments. Scores were analyzed for correlation and it was found that all three measures of humor correlated significantly with the measures of creativity. This was a

pilot study for use of the Cartoons Test and the author writes that there needs to be more work to establish its validity but the connection between humor and creativity was once again made.

While the connection between a sense of humor and creative abilities seems demonstrable, is it possible that humor can actually stimulate creativity? Ziv (1976) conducted an experimental study of tenth grade students using the Verbal Test, Forms A and B, of the Torrance Tests of Creative Thinking. Utilizing a Solomon Four Group design with pre- and post-tests, Ziv had the treatment group listen to a humorous recording then measured their creative responses with the Torrance. Analyses of variance found the treatment groups to be significantly higher on creativity scores than control groups [$F(1, 278) = 14.5, p < .001$] and that on the three specific measures of creativity--fluency, flexibility and originality--the treatment groups scored significantly higher. Ziv notes the connection of this treatment with other programs to help develop divergent thinking.

One of the new trends in education tries to make teachers aware of the importance of encouraging and rewarding divergent thinking in their pupils. Divergent thinking can certainly be helpful in the educational process in such instances as problem solving and all types of activities including self-expression. Many books were recently written on ways of fostering creativity or divergent thinking. To our knowledge, no mention is made of the possible use of humor as a triggering factor. Discriminate use of

humor by a teacher, and his acceptance of such expression by his pupils, can contribute to the creation of a more relaxed atmosphere. Laughter, accepted and shared in the classroom, could possibly bring forth free, less conventional forms of expression on the part of the students.

(Ziv, 1976, 320-321)

Ziv sees humor and laughter as facilitators for creative thought and problem-solving. This brings us to those studies which examine humor and its relationship to problem-solving.

Humor and Problem Solving

Again, there is not a great deal of research in this area. Studies that have been done have produced some fascinating results, though. Smith, Ascough, Ettinger, and Nelson (1971) examined the effects of humor on anxiety and task performance with undergraduate psychology students. They divided their subjects into three groups of high, moderate and low anxiety and gave the treatment groups a test containing humorous items. Control subjects took a similar test without the humorous questions. Using an analysis of variance they found that "high-anxious subjects in the humorous test condition not only performed at a significantly higher level than did the high-TAS subjects in the nonhumorous condition, but they also equaled the performance level of the low-anxious groups" (Smith, Ascough, Ettinger, & Nelson, 1971). They believe that "the affective state evoked by the humorous item content was incompatible with and served to inhibit anxiety sufficiently

so that the latter did not deleteriously affect ongoing task-oriented behavior" (p.245). This, of course, is a measure of humor as a part of the task itself. What if humor is separate from the task?

Alice Isen and her colleagues have conducted a series of experiments over the years that have examined the effects of positive affect on problem solving. Isen and Means (1983) conducted a study of undergraduates to determine the influence of positive affect on their decision-making strategies. Subjects performed a perceptual motor skills task and were then asked to select one of six fictitious cars which differed across nine dimensions. Those in the treatment group were told that they had performed in the ninety-seventh percentile on the motor skills task before they began the decision-making task. The other group received neutral feedback. While the two groups did not differ in the choices they made, treatment subjects were less likely than control subjects to review information they had already considered, were more likely to ignore information they believed irrelevant and made decisions much more quickly. The authors concluded that positive affect helped subjects make their decisions in a more efficient manner.

Considering the influence of positive affect in a different manner, Isen and Gorgoglione (1983) examined the

use of four different affect induction procedures. They looked at the Positive Velten condition of the Velten Mood Induction Procedure in which affect is induced by having subjects read fifty statements designed to induce elation, affect induced by having subjects watch a five minute comedy film entitled "Gag Reel" which was composed of "bloopers" from the "Gunsmoke" television series and a skit from "The Red Skelton Show," negative affect induced by a film entitled "Run" which shows a man running away from something unseen until he falls into his grave, and a no-manipulation control situation. Looking at level of affect induction and extent over time, the authors found that the humorous condition produced positive affect and had a more sustained effect than the Positive Velten condition. They concluded that humor appears to elicit a strong immediate effect as well as a more sustained response than the other procedures (Isen & Gorgoglione, 1983).

In a series of four experiments to test the effects of positive affect on problem solving Isen, Daubman and Nowicki (1987) examined how subjects performed on Duncker's candle task and the Remote Associates Test. Subjects were treated either by receiving a small bag of candy as a gift or by viewing the "Gag Reel" film. In two experiments they were asked to complete the candle task in which they were given a candle, a box filled with tacks and a book of matches. They

were instructed to affix the candle to a corkboard wall in such a way that it would burn without dripping wax onto the table or floor beneath it. They were given ten minutes to solve the problem. In the other two experiments subjects were asked to complete part of the RAT. Treatment groups watched the film or received the candy. Affect was measured in all cases to determine if a positive mood had been induced. In their summary of the experiments they note that subjects exposed to the humorous treatment performed significantly better than did those in the other conditions.

More to the point "it may be specifically humor, and not positive affect more generally, that gives rise to improved creative problem-solving" (Isen, Daubman & Nowicki, 1987, p. 1124).

While this indicates the value of humor for the individual, how does this translate for relationships? Baron and Ball (1974) examined how humor mitigated aggression between individuals. Subjects were given either humorous cartoons or nonhumorous cartoons to read and were then given a chance to administer electric shocks to individuals who had previously provoked them. They discovered that while subjects intent to harm their tormenter did not lessen, their behavior did and they delivered significantly fewer shocks after exposure to the nonhostile cartoons. They did not see this as a case of emotional release, either.

"In view of the fact that the cartoons employed were clearly of a nonhostile nature, it appears inappropriate to interpret the observed reduction in aggression as an instance of 'hostility catharsis.' Rather, it seems more reasonable to attribute this finding to the elicitation, by the cartoons, of responses or emotional states incompatible with anger or overt aggression."

(p.32)

They also note that in previous studies in which subjects had been exposed to hostile cartoons, they became more aggressive.

Carnevale and Isen (1986) examined the influence of positive affect and visual access on the development of integrative solutions in negotiation. Subjects were asked to complete a negotiation task that involved setting prices for three items while maximizing profit for mythical companies to which they were assigned. Dyads were formed in which one subject served as the buyer and the other as the seller. Each was given a profit sheet to guide them in their negotiating. Profit sheets were opposed to each other in that the highest profit price for the buyer would result in the lowest profit for the seller and vice-versa. Positive affect was induced through the use of humorous cartoons. Analysis was based on the level of mutual profit and the contentiousness of the negotiation tactics used by the two. In the positive affect state it was found that profits were significantly higher than in the control state

and that there was much less use of contentious tactics (Carnevale & Isen, 1986).

What this seems to indicate is that humor can serve to facilitate a less hostile and more mutually productive problem solving situation in a dyad. While these were not married couples that were considered, it might be possible that intimate relationships could benefit from the use of humor as a precursor to settling a conflict or solving a problem in that the partners might be more capable of moving in a positive direction.

Humor and the Problem Solving Process

How is it that humor would achieve this? What is it about humor and laughter that would facilitate better problem-solving among couples? Re-examining some of the material previously cited brings out a number of reasons.

First is the fact that humor tends to bring people together. It makes individuals more attractive to each other (Kane, Suls & Tedeschi, 1977) while breaking down artificial boundaries and allowing each person to approach the other more honestly (Kane, et. al., 1977; O'Connell, 1987). Furthermore, couples who are able to joke and play with each other also experience greater intimacy which should facilitate their trust in the problem solving situation (Alford, 1981 and Waring, 1988). Thus, the couple

could feel more comfortable in the situation, knowing that this is a safe place to work things out.

The evidence from physiological studies seems to indicate that humor and laughter assist thinking. There are those that believe that the creative process is facilitated when the individual is able to access the right hemisphere of the brain (Jausovec, 1985 and Williams, Stockmyer & Williams, 1987). Both McGhee (1983) and Fry (1986) have found evidence indicating that the two cerebral hemispheres function symmetrically when a person is engaged in hearty laughter. If that is the case, then a good belly laugh would tend to lead to more "synchronous" thinking by allowing the person to more fully access the right hemisphere. Fry (1986) has also indicated that catecholamine production in the brain increases when a person is enjoying humor and laughing. Through the improved alertness and memory that would be a by-product of the catecholamines an individual might be able to think in a more focused and creative way.

Koestler (1964) offered the concept of "bisociation" to explain the process of humor believing it was essentially the same as the creative process and allowed the individual to think more creatively. The strategic therapists offer some possible cognitive explanations for the effects of humor on problem solving. Erickson and Rossi (1976, 1979),

Watzlawick (1978) and Cade (1982) all see the humor experience as allowing the individual to access resources that might not otherwise be available to him/her. Madanes (1984) believes that humor lets the person think on multiple levels at the same time. Essentially, what they are all saying is that humor facilitates a more complex cognitive process than might otherwise be available to an individual and that within that process a person can think of new ways to approach a situation that might not have been apparent before.

Isen and her colleagues support this contention when they write that it is the context that is created through humor that seems to contribute to the ability to solve a problem.

Possibly it is through creating a complex cognitive context that positive affect promotes creative problem solving. . . it seems that increasing complexity of cognitive context might influence interpretation and organization of stimuli and promote creative responding.

For persons who are feeling happy, the complex context arises from the fact that positive feelings cue and facilitate access to positive material in memory . . . combined with the fact that positive material is more extensive and diverse than other material . . . Thus, a person who is feeling happy has more ready access to a large and diverse set of cognitive material, and this constitutes a complex cognitive context.

(Isen, et. al., 1987, p. 1124)

They are suggesting that the creation of the complex cognitive context allows the individual to draw on greater

resources, thus helping the person to engage in more effective problem solving.

MARITAL PROBLEM SOLVING PROGRAMS

Much of the work that has been done on problem solving in marriages has come from the behavioral school of therapy. It is usually based on exchange theory and, specifically, the work of Thibaut and Kelly (1959; Kelley & Thibaut, 1978).

Behavioral marital therapy is based on the assumption that couples are lacking in certain skills and that training in those skills will assist them in their relationship. The three areas most commonly taught for problem solving are communication skills, behavioral contracting and specific sequential problem solving skills. Once couples learn these skills their marriages should improve.

The underlying assumption of this type of skills training involves the idea that, if couples learn to genuinely express their feelings and attitudes in a nonthreatening way and can effectively listen and be accepting of their partners' feelings, then together they should be able to demonstrate positive interpersonal skills. These skills should thereby provide the foundation for satisfactory relationship functioning in that they may be used to solve important relationship issues.

(Ridley, Avery, Harrell, Leslie, & Dent, 1981, p. 23)

One of the first significant studies in the area was done by Jacobson (1977) who worked with ten couples to teach them problem solving skills and contingency contracting over a period of ten weeks. After dividing the couples into a treatment group and a waiting list control group, Jacobson

used direct observation and self report to examine subjects' abilities to solve their marital issues. A pre-test, post-test design using analysis of variance showed treatment couples performing significantly better than the other group on all measures. Jacobson cautioned that it was unclear why the positive changes occurred, suggesting that the nonspecific variables (e.g., therapist-client relationship) which are inherent in therapy might have produced the change.

Ridley, Avery, Harrell, Leslie, and Dent's (1981) study of problem-solving training for premarital couples produced similar results. Couples were assigned either to a training group or to a relationship discussion group for eight weeks. At the end of the eight weeks the treatment group was able to demonstrate much higher levels of functioning in the skill areas that the treatment program covered. They were able to communicate more effectively and engage in a step-wise problem solving process. The authors did not conduct a follow-up of the program, however, to determine if the skills learned actually helped the couples in the long run. They suggest that further research needs to be done to determine the long range effects of such programs.

ANALYSIS OF MARITAL PROBLEM SOLVING

The analysis of marital problem solving has ranged from self report measures of partner behavior and behavioral

checklists (Jacobson, 1977; Jacobson, et. al., 1984; and Stuart, 1980) through measures of marital satisfaction (Baucom, 1984; Jacobson, 1977; and Jacobson, Follette & Elwood, 1984) to direct observation of spousal interaction (Jacobson, 1977; Olson & Ryder, 1970; Revenstorf, Hahlweg, Schindler, & Vogel, 1984; Schaap, 1984; Weiss, 1984; and Wieder & Weiss, 1980).

To adequately examine marital problem solving it would seem appropriate to look at the actual problem solving behavior of the couple to see if the desired effects of an intervention have actually occurred. To that end there are coding systems that are designed to help the researcher sort out what happens during a couple's interaction. Hops, Wills, Patterson, and Weiss (1972) developed the Marital Interaction Coding System (MICS) to do just that. It consists of 28 behavior codes that can be noted by an observer watching a live interaction, viewing a videotape or listening to an audiotape. Frequencies can then be generated and analyzed. This program has been used in many studies (Schaap, 1984 and Wieder & Weiss, 1980).

Because of the large number of categories in the MICS researchers often collapse the codes into two general areas that are regarded as important in marital interaction research, positive and negative behaviors (Baucom, 1984; Revenstorf & Hahlweg, 1984; Schaap, 1984; and Weiss, 1984).

This allows the researcher to consider the specific behaviors of the couple and the broader tone of the interaction. Because of the number of categories and the complexity of the technique, observers must undergo considerable training and the coding itself can be very time consuming (e.g., twenty-four hours of coding for one hour of tape) (Margolin & Wampold, 1981; Weiss, 1973; and Wieder & Weiss, 1980). This measure also relies on the couple to generate their own problems to solve--the researcher must ask them to pick something that is important to them and discuss it.

Olson and Ryder (1970) developed the Inventory of Marital Conflict (IMC) to measure the outcome and process of decision making, problem solving and conflict resolution behavior in married couples. The IMC has two different forms, A and B, which can be used together or in a pre-test/post-test design. Each form has nine problem situations that a couple can discuss. The husband and wife receive differing perspectives on each problem which they read separately, deciding upon one of two solutions. They then are asked to discuss the problem situations and decide together what should be done. For each situation they are asked to decide upon a solution and who is most responsible for the situation, the husband or the wife.

The IMC has been used in a number of different studies to facilitate and measure marital interaction (Baucom, 1984; Birchler, 1975; and Vincent, Weiss, & Birchler, 1975). One of the strengths of the instrument is that couples can state if the situations are relevant to them. This can allow the researcher the chance to measure interaction that might be typical for the couple while affording the couple some safety in not having to discuss personally sensitive issues in a laboratory situation. Crump (cited in Schaap, 1984) has observed that the relevancy of the task influences the interaction. A significant majority of the couples who have used the IMC have reported that the situations are relevant for them or other couples they know and they have enjoyed the interaction involved (Olson, 1984).

Olson and Ryder (1970) developed the Marital and Family Interaction Coding System (MFICS) to accompany the IMC. The MFICS is a system much like the MICS in that it sets up coding categories for marital and family interaction. It is also designed to directly assess the responses to the IMC. Where the MICS uses letter codes, the MFICS uses number codes which can be recorded on an IBM sheet. Scores can also be totaled or broken down into conflict and non-conflict items (Olson, 1984).

Together the IMC and the MFICS present a combination of self-report and observational data. They are designed to be

used together and have been shown capable of distinguishing nine different styles of couple interaction across three dimensions--task leadership, conflict and affect (Miller, 1975). Interaction elicited by the IMC has also been shown to discriminate between distressed and non-distressed couples (Vincent, et. al., 1975).

APPENDIX B
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REFERENCES

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APPENDIX C
FUNNINESS SCALE

APPENDIX C

VIDEOTAPE RATING FORM

Please rate the videotape you viewed on the following scale. The dots on the scale represent varying degrees of funniness. Please circle the dot that corresponds to your opinion of the tape.

.
Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny

VIDEOTAPE PRETEST

I want to know if people find these film clips funny. The dots on the scale represent varying degrees of funniness. Please circle the dot that corresponds to your opinion of each segment of the videotape.

Steve Martin--Marriage proposal

.

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Steve Martin--Walking

.

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Dudley Moore--Monologue

.

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Finding a baby

.

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Diapering a baby

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Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Natural childbirth

.

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Delivering a baby

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Wedding vows

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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"I stopped taking the pill"

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Woody Allen--Talking it over

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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"The possessed date"

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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Peter Sellers bloopers

Not at all Funny	Somewhat Funny	Funny	Very Funny	Extremely Funny
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APPENDIX D
REQUEST TO USE COPYRIGHTED MATERIAL

APPENDIX D

Request for Permission to Use Videotaped Material

May 1, 1989

Permissions Department
Universal Studios
Hollywood, CA

Dear Permissions Department:

I am a graduate student in Family and Child Development at Virginia Polytechnic Institute and State University. I am working on my dissertation project which is a study of the effects of humor on the problem-solving behavior of married couples. I wish to show the couples humorous clips from movies and television programs that will produce laughter.

One sequence I would like to use is from Universal Studios' movie, All Of Me, starring Steve Martin and Lily Tomlin.

Title: All Of Me

Scene: The scene I would like to use begins when Steve Martin's character is hit on the head with the bowl containing Lily Tomlin's soul. The scene continues through his trying to gain control of his body with two different minds operating different sides of the body. It ends before he enters the men's room.

Number of Copies: Three, to be shown to married couples in three separate rooms at the same time.

Extent of Use: These are to be shown to ten to twelve married couples. Four showings for each of the three tapes.

Permission to use this scene would greatly help my work. Please sign this permission form and return it in the enclosed self-addressed stamped envelope.

Sincerely yours,

Permission granted by

Tracy A. Strombom

Conditions (if any) _____

APPENDIX E
RECRUITMENT ADVERTISEMENTS

APPENDIX E

RECRUITMENT ADVERTISEMENTS

FREE WORKSHOP FOR MARRIED COUPLES

Would you like to have more fun in your marriage? We are offering a free workshop on the subject to couples who are willing to take part in a study of marital relationships. If you are interested, please call Center for Family Services, Virginia Tech, 231-7201.

FREE WORKSHOP ON IMPROVING A MARRIAGE

If you would be willing to take part in a research study of marriages, we will provide you with a free three hour workshop on how to put more fun into your marriage. Please call Center for Family Services, Virginia Tech, 231-7201.

LOOKING FOR MORE FUN IN YOUR MARRIAGE?

You will receive a FREE three hour workshop on how to put more fun into your marriage if you will take part in a study of marital relationships. We only ask for an hour of your time in exchange for three of ours. Please call Center for Family Services, Virginia Tech, 231-7201.

APPENDIX F
COUPLE'S CONSENT TO PARTICIPATE

APPENDIX F

COUPLE'S CONSENT TO PARTICIPATE

COUPLES STUDY

This is an invitation to participate in a study of couples. I am examining how couples discuss problems in their relationships. In exchange for your participation I am providing a free three hour program on how to increase enjoyment in your marriage.

I would like you to participate in the study. If you decide to participate you will be asked to provide me with some general background information and to take part in a discussion of typical situations that a married couple might face. You will not be asked to discuss anything personal. The discussions will be videotaped for the study. Anything you say during your participation in the study will be confidential. In any reports of the results the identities of all participants will not be revealed. You do not have to answer a question if you do not wish to and you can discontinue participation in the program at any time.

Your contribution is very important if the results of the study are to be meaningful. If you have any questions concerning any aspect of the study please contact me:

Tracy A. Strombom, M.A.
Work ext. or
Home

Your signatures below indicate that you have read the information above and have decided to participate. You will be offered a copy of this form to keep.

Tracy A. Strombom, M.A.

APPENDIX G
DEMOGRAPHIC QUESTIONNAIRE

APPENDIX G

COUPLE # _____

BACKGROUND INFORMATION

Male _____ Female _____

Age_____

Last Grade Completed_____

Occupation_____

Combined annual income range

- _____ Under \$10,000
- _____ \$10,001 to \$20,000
- _____ \$20,001 to \$30,000
- _____ \$30,001 to \$40,000
- _____ \$40,001 to \$50,000
- _____ Over \$50,000

Length of time married _____

Is this your first marriage? _____

How many children do you have from this marriage? _____

How many children do you have from any previous marriages? _____

The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy", represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

.

Extremely Unhappy Fairly Unhappy A little Unhappy Happy Very Happy Extremely Happy Perfect

APPENDIX H
PERMISSION TO USE THE IMC AND MFICS



UNIVERSITY OF MINNESOTA
TWIN CITIES

114

Family Social Science
290 McNeal Hall
1985 Buford Avenue
St. Paul, Minnesota 55108
(612) 625-7250

PERMISSION TO USE FAMILY INVENTORIES

I am pleased to give you permission to use the instruments included in **Family Inventories**. You have my permission to duplicate these materials for your clinical work, teaching, or research project. You can either duplicate the materials directly from the manual or have them retyped for use in a new format. If they are retyped, acknowledgements should be given regarding the name of the instrument, developers' names, and the University of Minnesota.

If you are planning to use **FILE**, **A-FILE**, and **F-COPES**, you need to obtain separate permission from Dr. Hamilton McCubbin. His address is 1300 Linden Drive, University of Wisconsin, Madison, WI 53706.

Separate permission is also required to use the **ENRICH** inventory in either clinical work or research. This is because the inventory is computer scored and is distributed through the **PREPARE/ENRICH** office. For your clinical work, we would recommend that you consider using the entire computer-scored Inventory. We are willing, however, to give you permission to use the sub-scales in your research. We will also provide you with the **ENRICH** norms for your research project.

In exchange for providing this permission, we would appreciate a copy of any papers, thesis, or reports that you complete using these inventories. This will help us in staying abreast of the most recent development and research with these scales. Thank you for your cooperation.

In closing, I hope you find the **Family Inventories** of value in your work with couples and families. I would appreciate feedback regarding how these instruments are used and how well they are working for you.

Sincerely, ^

David H. Olson, Ph.D.
Professor

DHO:vmw

FAMILY INVENTORIES PROJECT (FIP)
Director: David H. Olson, Ph.D.

APPENDIX I
ANALYSIS OF VARIANCE RESULTS

Table 4

Analysis of Variance Results for Conflict During Problem Solving

Source	df	SS	MS	F	p
Treatment	1	151.25	151.25	1.12	.3050
Error	18	2441.70	135.65		
Total (Adj)		2592.95			

Treatment $M = 1.25$, $SD = .43$, Range = 23 to 50

Non-treatment $M = 1.70$, $SD = .54$, Range = 19 to 65

Table 5

Analysis of Variance Results for Laughter During Problem Solving

Source	df	SS	MS	F	p
Treatment	1	252.05	252.05	2.21	.1544
Error	18	2052.50	114.03		
Total (Adj)		2304.55			

Treatment $M = 14.10$, $SD = 8.06$, Range = 5 to 30

Non-treatment $M = 21.20$, $SD = 12.77$, Range = 6 to 50

Table 6

Analysis of Variance Results for Satisfaction with Decisions
by Treatment Group and Level of Conflict

Source	df	SS	MS	F	p
Treatment	1	.7561	.7561	2.84	.1140
Level of Conflict	2	.4863	.2431	0.91	.4236
Interaction	2	.3145	.1572	0.06	.9428
Error	14	3.7250	.2661		
Total (Adj)	19	5.2375			

Term	n	M	SE
Grand Mean	20	1.48	
Treatment			
1 (Humor)	10	1.25	.16
2 (No Humor)	10	1.70	.16
Level of Conflict			
1 (Low)	7	1.43	.20
2 (Moderate)	6	1.25	.21
3 (High)	7	1.71	.20
Interaction: Treatment X Level of Conflict			
1,1	5	1.30	.23
1,2	3	1.00	.30
1,3	2	1.50	.37
2,1	2	1.75	.37
2,2	3	1.50	.30
2,3	5	1.80	.23

Table 7

Analysis of Variance Results for Laughter by Treatment Group
and Level of Conflict

Source	df	SS	MS	F	p
Treatment	1	196.14	196.14	1.84	.1959
Level of Conflict	2	18.71	9.36	0.09	.9163
Interaction	2	520.55	260.27	2.45	.1225
Error	14	1488.47	106.32		
Total (Adj)	19	2304.55			

Term	n	M	SE
Grand Mean	20	17.65	
Treatment			
1 (Humor)	10	14.10	3.26
2 (No Humor)	10	21.20	3.26
Level of Conflict			
1 (Low)	7	16.71	3.90
2 (Moderate)	6	15.33	4.21
3 (High)	7	20.57	3.90
Interaction: Treatment X Level of Conflict			
1,1	5	19.20	4.61
1,2	3	8.67	5.95
1,3	2	9.50	7.29
2,1	2	10.50	7.29
2,2	3	22.00	5.95
2,3	5	25.00	4.61

APPENDIX J
DEMOGRAPHIC INFORMATION

Table 8

Demographic Information for Education and Income

Question	Response Ranges					t	p
Education ^a	HS	AA	BA	MA	PhD		
T Husbands ^b	2	1	3	3	1	-.32	.75
NT Husbands	1	0	4	3	2		
T Wives	1	2	4	2	1	-.73	.48
NT Wives	2	1	3	3	1		
Income Range ^c	10-20	20-30	30-40	40-50	50+		
T Couples	1	3	2	3	1	-1.50	.15
NT Couples	0	1	5	1	3		

Notes

All n's for individuals are 10. All n's for couples are 20

^a HS = High School, AA = Associate of Arts, BA = Bachelor of Arts, MA = Master of Arts, PhD = Doctor of Philosophy.

^b T = Treatment, NT = Non-Treatment

^c All amounts are in thousands of dollars.

Table 9

Demographic Information on Previous Marriages and Number of Children

Question	Answer Ranges			
	Yes	No		
First Marriage				
Treatment Husbands	7	3		
Treatment Wives	6	4		
Non-Treatment Husbands	8	2		
Non-Treatment Wives	8	2		
Number of children	1	2	3	4
from this marriage				
Treatment Couples	1	1	1	1
Non-Treatment Couples	1	3	1	0
Number of children from				
previous marriage				
Treatment Couples	0	2	0	0
Non-Treatment Couples	0	0	1	0

Note

All n's for individuals are 10. All n's for couples are 20.

APPENDIX K
RESPONSES TO THE POST DISCUSSION FORM
OF THE IMC IN PERCENTAGES

Table 10

Responses to Post Discussion Form of the IMC in Percentages

Question	Answer Range			
	Very	Somewhat	Slightly	Not at all
Enjoyable discussion? ^a				
T Husbands	40	60	0	0
T Wives	80	20	0	0
NT Husbands	40	50	10	0
NT Wives	20	60	20	0
How personally involved in discussion?				
T Husbands	30	60	10	0
T Wives	20	60	20	0
NT Husbands	10	60	20	10
NT Wives	20	30	50	0
Did spouse react as you expected?				
T Husbands	80	20	0	0
T Wives	90	10	0	0
NT Husbands	80	20	0	0
NT Wives	80	20	0	0

Note

All n's are 10.

^a

T = Treatment, NT = Non-Treatment.

Table 10 (continued)

Responses to Post Discussion Form of the IMC in Percentages

Question	Answer Range				
	Very	Somewhat	Slightly	Not at all	
Is this technique useful for couples?					
T Husbands	60	40	0	0	
T Wives	50	50	0	0	
NT Husbands	10	70	0	20	
NT Wives	10	60	30	0	
	All	Most	Some	Few	None
Were the situations realistic?					
T Husbands	70	20	0	10	0
T Wives	60	30	10	0	0
NT Husbands	70	20	10	0	0
NT Wives	30	50	20	0	0

Note

All n's are 10.

^a

T = Treatment, NT = Non-Treatment.

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the scanned document**

HUMOR AND THE PROBLEM SOLVING BEHAVIOR OF MARRIED COUPLES

by

Tracy Allen Strombom

Committee Chair: Victoria R. Fu

Family and Child Development

(ABSTRACT)

The study was designed to measure the effects of a humorous experience on the problem solving behavior of married couples. Twenty married couples were randomly assigned to either a treatment or non-treatment group. Treatment couples viewed a humorous videotape prior to completing Olson and Ryder's Inventory of Marital Conflict (IMC). All couples were videotaped during their discussions of the IMC case situations and the tapes were later coded using Olson and Ryder's Marital and Family Interaction Coding System (MFICS). Data from the MFICS and the Post Discussion Form of the IMC were used in the statistical analysis.

Couples who watched the tape prior to problem solving reported significantly higher levels of satisfaction with their decisions than couples who did not experience humor. They also reported a significantly higher level of involvement in discussing case situations that were similar to their own experiences than did the non-treatment group.

It was predicted that treatment couples would experience less conflict and laugh more than non-treatment couples. This did not happen. It was also expected that there would be an interaction between the level of conflict that couples exhibited with the treatment condition and that the interaction would affect amounts of satisfaction and laughter. This did not demonstrate significance.

The findings suggest that married couples can benefit from the use of humor prior to problem solving. They appear to be more focused in their efforts and to experience higher levels of satisfaction with the results.