

HUMOR: A MODERATOR BETWEEN SOCIAL CONFLICT
AND SOCIAL DISTRESS

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Distress

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ABSTRACT

Humor has long been regarded as a coping device that relieves stress. Prior research has focused on the association between humor, life stress and affect. This paper specifically looked at the association between humor-based coping, social conflict and social distress. Humor was measured by Martin and Lefcourts' Coping Humor Scale. Social conflict was defined as conflict with friends and family. Factor analysis for the dependent variable of social distress yielded two separate variables, distress in specific relationships (friends and family) and distress in general relationships (loneliness, general social situations, etc.). One hundred seventy-nine undergraduate college students (107 females, 72 males, 1 gender not specified) from a small midwestern university responded to a mailed survey. Three hypotheses were tested. First, as conflict in relationships increased, social distress would also increase; second, as humor-based coping increased, social

distress would decrease; and finally, humor would modify the association between social conflict and social distress. In other words, those persons reporting high scores on humor would report less social distress even when conflict was high. Multiple regression analyses confirmed the positive correlation between conflict and distress in specific relationships, and the negative correlation between humor and distress in both specific and general relationships. No moderating effects for humor were found. Because there were significant gender differences in scores for conflict and humor, with males reporting less conflict and more use of humor than females, multiple regression analyses were run separately for each gender. Results for males indicated significant positive correlations for conflict and both social distress variables and significant negative correlations for humor and both social distress variables. For females, however, only a significant positive correlation between conflict and distress in specific relationships was found. No moderating effects for humor were found for either sex. The results of this study provide partial support for the benefits of humor-based coping as a stress reliever.

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CHAPTER 1
INTRODUCTION

Purpose of the Study

The idea that humor plays a beneficial role in our lives is at least as old as the Bible itself. Proverbs (17:22) states that "a merry heart doeth good like a medicine." Few would argue that laughter makes us feel good. Cousins (1976) reported that his recovery from a life threatening collagen disease was in part due to using laughter. He found that watching comedies provided relief from pain and a drop in his sedimentation rate (an index of inflammation). Subsequent empirical studies confirmed Cousin's anecdotal account by finding that discomfort thresholds increase following laughter (Cogan, Cogan, Waltz, & McCue, 1987; Hudak, Dale, Hudak, & DeGood, 1991). Why humor seems to have salutary effects on both physiological and psychological processes has been the subject of numerous books and journal articles. Theorists have proposed many overlapping and complementary theories to explain what humor is, how it has developed and why it makes us feel good. Some studies, including the ones cited above, seem to confirm the benefits of humor for physical health, but its

benefits for psychological health remain elusive. This article will propose a specific psychological benefit for humor: it can be used to help cope with the stress of social conflict. This proposal is predicated on two theoretical assumptions: that humor acts biologically as a tension-release mechanism, and secondly, that through that mechanism, humor reduces the stress that often accompanies social interactions.

The remainder of this chapter will be devoted to a comparison of the different definitions of humor, a discussion of the various theoretical underpinnings of humor, a history of the development of humor instruments and a review of empirical studies of coping humor.

Definitions of Humor

In spite of the fact that many authors have written about humor, not all have proposed a definition of the term, instead relying on implicit understanding from their readers. As Keith-Spiegel (1972) observed,

And though we continue to use the word "humor" as if we all understood its meaning, every contemporary student of this label knows the twinge following the question, "Precisely what is humor anyway?". The definitions offered are almost as many as the theories themselves, and still we are unsure of the complete dimensions of the concept. (p. 14)

Like intelligence, humor appears to be a multidimensional concept (Lefcourt & Martin, 1986; Thorson, 1990) and

therefore any simple definition will necessarily miss part of the whole.

In an attempt to describe humor, some authors make use of alternate terms that all seem to fit under the umbrella term of humor. Keith-Spiegel (1972) culled twenty-five different adjectives from theoretical papers to describe humorous events, including satirist, witty, ludicrous and funny. Freud categorized all mirth producing events under three headings: wit and jokes as one category, comic as the second and a separate heading for humor (Freud, 1928/1959; Lefcourt & Martin, 1986). As conceived by Freud, jokes and wit are expressions of unconscious aggressive or sexual impulses that would otherwise be repressed. Comic refers to the non-verbal sources of mirth, such as slapstick comedy or the antics of the clown. Freud (1928/1959) reserved humor as a separate category, one of the highest and most mature of the defense mechanisms, "a rare and precious gift" (p. 221). According to Freud, humor occurs when the humorist, rather than perceiving an event as negative, alters his perspective and thereby avoids negative affect (Lefcourt & Martin, 1986).

Adding to the difficulty in definition is the fact that what makes one person laugh leaves another completely unmoved. Additionally, there is the ephemeral

quality of humor, for who has not experienced a humorous event only to find the humor evaporate with any attempt to explain the joke.

Some authors have avoided the difficulties described above by defining humor by its physiological response (Coser, 1959; Keith-Spiegel, 1972; Lefcourt & Martin, 1986; Porteous, 1989). As Porteous (1989) pointed out "despite its elusiveness in theoretical terms, humor is commonly and accurately identified by the occurrence of smiling and laughing" (p. 279). Yet this definition has its own difficulties. Humor can occur without laughter and laughter, such as that resulting from nervousness or tickling, can occur without humor (Keith-Spiegel, 1972; Lefcourt & Martin, 1986). Lefcourt & Martin (1986) proposed a definition that both distinguishes between humor and laughter and combines them:

Humor represents a rather complex, higher order cognitive-emotional process, whereas laughter is a reflex-like physiological-behavioral response.
(p. 3)

From a sociological point of view, authors have defined humor as any instance when the parties involved perceive that something humorous has occurred (Coser, 1959; Martineau, 1972).

The above definitions all seem to capture something of the essence of humor. A combination of them would result in the following definition: humor is a cognitive-

emotional appreciation, or use, of what is perceived to be ludicrous by those persons involved, usually accompanied by smiles or laughter. In the end though, this quote from Mindess (1971) may best explain humor,

Every theory or explanation, as a system of logic and language, is doomed to partial representation of a phenomenon like humor, for in essence the ludicrous spans the boundaries of reason and words as it emerges out of a deeper, prior realm of being. (p. 245)

Theories about Humor

In spite of Mindess' misgivings, there have been over 100 documented theories of humor in the literature (Graham, Papa, & Brooks, 1992), including one of his own (Mindess, 1971). Keith-Spiegel (1972) arranged theories from over 150 authors into 9 different categories. However, the approach an author takes to group existing theories often depends on the author's own school of thought, be it psychological, sociological or biological/evolutionary. For example, most psychologists now group the existing psychological theories of humor into three broad categories: arousal/relief, incongruity or superiority/disparagement.

Arousal/relief theories go back to 1649 when Descartes postulated that humor occurs when we realize we cannot be harmed by some evil (Berlyne, 1969). This category also includes Freud's theory of humor, which

suggests that the main function of laughter is to reduce tension or energy expenditure. Freud (1928/1959) theorized that humor allows us to deal with potentially overwhelming situations through a release of energy. In addition, it allows listeners to participate by sharing in the avoidance of negative affect. This shared avoidance occurs when the listener observes the humorist make light of a situation which would normally produce negative affect.

Incongruity theory posits that the essence of humor lies in bringing together two normally disparate ideas, resulting in a sudden shift in perspective (Frecknall, 1994; Mindess, 1971; Suls, 1977). Koestler (1964, pp. 87-96) created the term "bisociation" to explain that humor is a creative endeavor like that found in the arts and sciences. Humor occurs with the discovery of similarity in what are otherwise different concepts. This new perspective allows humorists cognitively to distance themselves from potentially threatening situations, thus avoiding feelings of anxiety and helplessness (Berlyne, 1969; Lefcourt & Martin, 1986).

Humor in superiority/disparagement theory was probably first explained by Aristotle, who felt that laughter is a negative response to a perceived weakness in others (Berlyne, 1969; Lefcourt & Martin, 1986). The

foremost proponent of this theory was Thomas Hobbes, who thought that humor occurs when humorists feel superior either to others or to their own previous naivete (Lefcourt & Martin, 1986). Establishing and maintaining reference groups through disparagement humor falls within this theoretical area (Frecknall, 1994; Martineau, 1972; Suls, 1977).

Within the sociological school of thought, the social theories of humor are all related by the social function humor serves. Sociologists have long noted that humor and laughter are social displays (Fine, 1983), rarely engaged in except in social situations or in response to media events such as newspaper cartoons or television or movie comedies (Keith-Spiegel, 1972; Provine & Fischer, 1989). Stephenson (1951) wrote that social humor is used to express approval or disapproval, relieve awkward or tense situations, develop common attitudes and indicate safety or friendship. Martineau (1972) proposed one of the first models of the social function of humor. He stated that humor can be used either as a lubricant to oil communication between groups and solidify relationships, or as an abrasive to control or disparage outgroups. When used as social lubricant, the humorist can reduce tension both by minimizing differences and redefining relationships.

Whereas Martineau's theory was primarily directed towards group humor, others have proposed theories about the individual's use of humor. For example, humor can be used to cope with highly charged interpersonal situations, defusing them by allowing the expression of sentiments that otherwise might be socially unacceptable (Oring, 1994). Under the guise of humor, the unacceptable can be covertly agreed upon and as a result, tensions reduced. More specifically, gallows humor, humor in the face of death, can be used to probe the attitudes of others. When others laugh, it indicates an acceptance of the humorist's point of view (Kane, Suls, & Tedeschi, 1977), and defuses and minimizes shared fears (McCarroll, Ursano, Wright, & Fullerton, 1993; Thorson, 1985). Workers who handled bodies after violent death reported that use of humor within their work groups was an important tension reducer (McCarroll, et al., 1993). In fact, humor and laughter are not used randomly in conversations, but rather are strategically placed or withheld to convey support or derision (Fine, 1983). Frecknall (1994) designed a qualitative study to identify the patterns of humor in everyday life. He found that humor fosters closeness with others, presents a different perspective and helps to cope socially by taking the edge off potentially stressful events. Other authors have

noted that humor reduces social distance (Coser, 1959, 1960; Mindess, 1971), asks for or lends support (Coser, 1960), provides a sense of social control (Fine, 1983; McGhee, 1993) or a means of self-disclosure (Kane, et al., 1977), or, in the case of infants, reinforces caregiver support (Porteous, 1988; Sroufe & Waters, 1976).

And finally, within a biological/evolutionary school of thought, Fry (1994) reviewed studies on the physiological theories of humor, particularly the effects from laughter. He found that laughter has a beneficial effect on most of the major biological systems in the body, including respiratory, immune, endocrine, cardiovascular and the central and autonomic nervous systems (Berk, et al., 1989; Fry & Savin, 1988; Hudak, et al., 1991; Lefcourt, Davidson-Katz, & Kueneman, 1990). Fry believes that humor is a genetic biological trait, a coping strategy that has evolved because it provides humans with a physiological buffer for stress. Dixon (1973) also recognized that humor has a biological genesis but emphasized the learning component of humor. According to him, humans developed a cognitive response to the types of stressors most commonly encountered in the modern world rather than the physical fight or flight response of our ancestors.

Fry (1994) pointed out that it is difficult to separate out the social and relief functions of humor when discussing the biological functions of humor. For example, the environment for the production of laughter and humor is a social milieu, in which laughter is frequently followed by greater social animation that in turn often sets off greater bouts of laughter. Likewise, Dixon (1973) stated that the learning reinforcements for humor come from the pleasure produced in the reduction of stress, the display of social approval and social control. Many authors have pointed out the tension relieving properties of humor (Kane, et al., 1977; Lefcourt & Martin, 1986; McGhee, 1993). Sroufe and Waters, (1976) studied the development of smiles and laughter in infants and concluded that neither the social functions (caregiver reinforcement) nor the tension-release functions of humor can be considered dominant, since both are part of an integrated process that contributes to the cognitive-affective development of the infant.

The psychological, sociological and biological/evolutionary schools of thought have developed their theories of humor depending on how their disciplines have traditionally studied humans. However, by combining these points of view the author grouped the

various theories into two main categories, the conditional and functional. The conditional perspective contains those theories that explain what makes an event funny. Therefore the superiority/disparagement and incongruity theories belong here, since both attempt to explain humor by describing under what conditions humor occurs. The biological, social and arousal/relief theories belong in the functional perspective, since all explain humor by the function it performs. A joke, adapted from Mindess (1971) may serve to illustrate these various theories and their relationships:

Three men lay dying on a hospital ward. Their doctor, making rounds, went up to the first and asked him his last wish. "My last wish," he murmured, "is to see a priest and make confession." The doctor assured him he would arrange it, and moved on. When the second patient was asked his last wish, he replied, "My last wish is to see my family and say goodbye." The doctor promised he would have them brought, and again moved on. He asked the third patient the same question. "And what is your last wish?" "My last wish," came the feeble, hoarse reply, "is to see another doctor."

What makes this joke funny, the conditions under which it produces humor, is that it both disparages the medical profession (Mindess, 1971) and through our identification with the third patient, makes us feel superior to the first two. Therefore it satisfies the conditions for superiority/disparagement theories. It also contains a surprise ending, different from our expectations (Mindess, 1971) and therefore satisfies the conditions

for incongruity theories. From a functional perspective, as we read the joke, tension builds as a response to the stress of the as-yet unknown punch line. The punch line releases that tension. The social function is served if we are with others and they also think the joke is funny. It can then provide a shared environment; it may even break social barriers or make already close persons feel closer. And biologically, with the release of tension comes the physiological effects that release entails.

This one joke illustrates all the theoretical categories mentioned. This is not to suggest that all types of humor would do so, but it does point out how difficult it is to talk of one theory without mentioning the others.

Humor Instruments

Given that humor is such a complex construct, Lefcourt and Martin (1986) found that some early researchers avoided an attempt at a definition and simply asked respondents to rate their own sense of humor. However, Allport (1961, pp. 292-294) found that 94% of his subjects rated their own sense of humor as average or above average, a statistical improbability. Clearly, since sense of humor is so highly prized, responses can be affected by social desirability.

Up until the 1970's, most research was concerned with the passive process of perceiving and responding to humor (Goldstein & McGhee, 1972; Graham, et al., 1992; Lefcourt & Martin, 1986). These studies focused on what factors made people laugh, and in the 1960's, how those factors were related to personality traits (Korotkov, 1991). However, researchers assumed the responses were representative of individual differences in humor appreciation and not some other factor associated with the content of the jokes or cartoons (Lefcourt & Martin, 1986). Also, since humor is affected by the social relevance of the times (Fine, 1983), the stimuli were quickly outdated (Lefcourt & Martin, 1986).

It wasn't until the 1970's and 1980's that efforts were made to develop psychometrically sound instruments (Korotkov, 1991) that attempted to assess a more generalized concept of humor (Lefcourt & Martin, 1986). One of the first of these instruments was the Sense of Humor Questionnaire (SHQ) developed by Svebak (1974). He reasoned that humor involves three factors and developed his questionnaire accordingly with three subscales: the ability to appreciate humorous messages, the tendency to enjoy or dislike comical situations, and a tendency to permit or suppress emotional impulses of joy. Although the scale avoided the problems inherent in asking

subjects to rate specific stimuli, Lefcourt and Martin (1986) found the third subscale lacked internal reliability with alphas below the .25 level, while the first two subscales were .59 and .65 respectively.

Martin and Lefcourt (1984) were responsible for much of the humor research done in the 1980's. Because they could not find any general humor measures other than that by Svebak, they developed the Situational Humor Response Questionnaire (SHRQ).

The SHRQ is a 21 item scale that asks subjects the extent that they would laugh or smile in a variety of everyday situations (Martin & Lefcourt, 1984). Thus the scale quantified the behavioral responses (laughs or smiles) to humor. In this way the authors hoped to avoid the social desirability factor present when subjects are asked about their own traits. Over a series of studies, alpha reliabilities ranged from .70 to .85. Test-retest coefficients were in the .70 range (Lefcourt & Martin, 1986). The authors measured validity by frequency and duration of laughter and smiles when relating some humorous event that had occurred to them, plus peer rating for their humorousness. They found all were significant except for smile frequency. Social desirability correlations were nonsignificant (Lefcourt & Martin, 1986; Martin & Lefcourt, 1984).

All of the above instruments primarily record a passive appreciation of humor rather than an active participation in humor production. Yet for humor to be effective as a coping mechanism to relieve stress, active humor, where the humorist creatively responds to an event with humorous remarks or actions, is more effective than passive humor (Lefcourt & Martin, 1986; McGhee, 1993; Thorson & Powell, 1993c). Active humor seems to be a natural method for coping (Mindess, 1971). In a study of Israeli soldiers, humor producers were rated as better able to cope with stress than were passive recipients of humor (Bizi, Keinan, & Beit-Hallahmi, 1988). Therefore, Martin and Lefcourt (1983) developed the Coping Humor Scale (CHS). The CHS is a seven-item scale in which subjects are asked to what degree they actively use humor to cope in stressful situations. For example, one of the questions is "I usually look for something comical to say when I am in a tense situation." Alphas have been reported ranging from .56 (Thorson & Powell, 1991) to .76 (Simon, 1990) and test-retest correlations at 4 weeks and 12 weeks at .92 (Trice & Price-Greathouse, 1986) and .80 (Overholser, 1992) respectively. A factor analysis by Korotkov (1991) combining 7 different humor scales found that the CHS loaded at .73 on one factor only, labeled as beliefs about humor in self or others. Validity studies

have included correlations of .64 with peer ratings of sense of humor (Martin & Lefcourt, 1983), spousal ratings of general humorousness for husbands and wives at .20 and .38 respectively (Lefcourt & Martin, 1986) and decreased stress levels for dental surgery (Trice & Price-Greathouse, 1986). They did not report on correlations with social desirability.

Because the CHS is an attempt to measure a very specific aspect of humor, critics could argue that alpha and validity correlations should be higher. It may be that this aspect is more complex than any instrument is able to report. Yet according to Thorson and Powell's (1991) factor analysis,

The Coping Humor Scale indeed does seem to assess that which it is designed to measure and may be useful in those situations where the use of humor as a coping mechanism needs to be measured. (p. 701)

These same two authors made the point that even with the combination of all three of the last measures discussed, there still would not exist an all encompassing measurement of humor. Therefore they developed the Multidimensional Sense of Humor Scale (MSHS; Thorson & Powell, 1993a). Factor analysis yielded four factors: social production of humor, coping humor, humor appreciation, and attitudes towards humor, resulting in a Cronbach alpha of .91. Unfortunately there have been no published studies of validity ratings.

In summary, researchers have a long tradition of attempting to measure humor. Many agree that humor is used to cope with stress and some agree that the CHS measures that aspect as well as can be at this time. Even authors who have developed a competing scale suggest that one way to confirm results of their coping humor subscale would be to use the CHS (Thorson & Powell, 1993b). Therefore, this study used the CHS to measure respondents use of coping humor in stressful situations.

Empirical Studies of Coping Humor

Although authors from many theoretical backgrounds have argued in support of humor as a coping strategy, it wasn't until Martin and Lefcourt (1983) developed the CHS that it could be studied empirically. Since then researcher have published over 20 studies using the CHS.

As part of the research to develop the CHS, Martin and Lefcourt measured mood disturbance, operationalized as a combination of depression, anxiety, anger, tension and confusion. To measure stress, they used a life events checklist and analyzed only those events that were evaluated as negative. They found no main effect for humor but did find an interaction with negative events. In other words, those with high humor scores had less mood disturbance as negative life experiences increased

than did those with low humor scores.

Martin and Dobbin (1988) were interested in the physiological benefits of coping humor when associated with negative events. They looked at the relationship between reports of daily hassles and CHS scores taken at one time, and secretory immunoglobulin A (S-IgA) levels taken one and a half months later. S-IgA is an index of immune system functioning, a gamma globin present in saliva, which acts as a primary defense against respiratory and gastrointestinal infections. They found a significant interaction, with humor scores moderating the deleterious effects of hassles on S-IgA. Those persons scoring lower on the CHS showed a negative relationship between hassles and S-IgA while those with high humor scores showed no relationship. In other words, high humor individuals reported no effect from hassles whereas low humor individuals showed a lowered immune response.

In a field experiment, patients undergoing dental surgery who engaged in more laughing and joking and had higher CHS scores reported a less stressful experience than did those patients who used humor less (Trice & Price-Greathouse, 1986).

Other authors explored the relationship between humor, positive and negative events, and affect (Kuiper,

Martin, & Dance, 1992; Martin, Kuiper, Olinger, & Dance, 1993). On the first day, subjects completed the CHS and also reported all the positive and negative events that had occurred over the past month. For the next two weeks, subjects recorded their daily positive and negative moods. There was a significant interaction between humor, events and affect. Those persons scoring low on coping humor reported a decrease in positive affect as negative events increased, while those persons scoring high on coping humor reported increased positive affect even with an increase in negative events. High humor individuals also reported more positive affect when reporting more positive events whereas positive events did not change positive affect in low humor subjects. The results indicated that low humor individuals were unable to benefit from positive events. They seemed to appraise events differently from high humor subjects. Another study examined this in more detail (Kuiper, Martin, & Olinger, 1993; Martin, et al., 1993). This study found that when the stressor was an exam, low humor students emphasized the importance of poor performance and downplayed the importance of good performance. They also used poor past performance to raise their expectations on future exams and lowered them when past performance was good. High humor subjects reacted in the

opposite manner, de-emphasizing poor performance and lowering expectations on the next exam, while placing importance on good past performance and consequently raising expectations for the next exam. Again it appeared that low humor subjects were unable to benefit from positive events and instead adopted a self-defeating coping strategy.

In spite of results from the above studies which point to enhanced coping abilities for subjects who use humor in stressful situations, results from humor research in general have been far from unequivocal. Using a different life events instrument, Nezu, Nezu and Blisset (1988) measured the moderating effects of humor on depression and anxiety. They found evidence that humor had a moderating influence on depression but not on anxiety. Those persons with high scores on humor who were under high levels of stress reported lower depression scores than those persons with low humor scores and high levels of stress. Other studies reported a direct relationship between humor and depression (Deaner & McConatha, 1993), humor and perceived stress (Kuiper, et al., 1993), but no moderating effect on life stress (Porterfield, 1987).

It may be that coping humor is sensitive to different situations and therefore different instruments

have the potential for tapping somewhat different uses of humor. Kuiper & Martin (1993) found differing results for depression when using different depression measures. They reported a correlation between coping humor and depressive personality as measured by an adjective checklist but no correlation between coping humor and depressive affect as measured by the Center for Epidemiological Studies depression scale (CESD).

Some researchers have considered the impact humor has on social situations and have tried to focus on those variables. Hampes (1992) studied the relationship between intimacy and humor. He found that high humor individuals also scored high on intimacy measures and hypothesized that persons who use humor in intimate relationships are better able to handle the stress that relationships entail. Other studies have shown that high humor individuals report more sociability and a greater satisfaction with their social roles (Kuiper & Martin, 1993; Kuiper, et al., 1992; Martin, et al., 1993).

Gender Differences

Although many studies have reported no gender differences in the use of humor for coping (Deaner & McConatha, 1993; Porterfield, 1987; Simon, 1990), other studies have found that gender does indeed play a role in

humor utilization. Rim (1988) reported a significant difference in CHS scores between males and females, with men reporting a greater use of humor for coping. Thorson and Powell (1993c) found no significant age or gender differences for their four factor MSHS scale as a whole, but did report that females had significantly higher scores on coping humor ($r(426) = .11, p < .05$) and significantly lower scores on the production of humor to achieve social goals ($r(426) = -.14, p < .01$). Overholser (1992) reported no gender differences on CHS scores but did find that, (a) coping humor scores had a direct effect on loneliness for males with no effect for females, (b) had a direct effect on depression for females only, and (c) moderated the impact of stress on depression for females only. White & Winzelberg (1992) found that high scoring females on coping humor reported less anxiety and recorded lower heart rates both before and after a stress test than did lower scoring females but found no significant results for coping humor in males.

And finally, one study looked specifically at the stress caused by conflict between partners in marriage (Lefcourt & Martin, 1986). The researchers presented each couple with 3 scenarios and gave each partner different instructions to ensure conflict. Men and women

used humor differently. Women used humor to soften aversive situations and were generally more satisfied with their relationships the more they used humor. Humor was positively associated with mastery for women only. Men, on the other hand were less satisfied with their relationships the more they used humor. The authors theorized that humor may be seen as an appeasement gesture, and that women may be more satisfied in that role than are men.

Summary

Despite the fact that theories about humor have been proposed since Aristotle, there is still little agreement on what the concept means. Depending on their school of thought, psychologists, sociologists and biologists/evolutionists have all proposed their own theories of humor. This author grouped these often overlapping theories into two main categories, the conditional and functional perspectives.

The conditional perspective contains those theories that explain under what conditions humor occurs. For example, humor may occur because it allows us to feel superior to others or even our own former selves, or because it provides us with a point of view different than expected. The functional perspective explains humor

by describing its various functions. For example, it performs a social function by providing a shared experience that may serve to bring persons closer. It also functions as a cognitive response to stress rather than the physical fight or flight response of our ancestors. And finally and most importantly, it functions as arousal/relief, providing a release from stress, a tension reducer, that allows us to deal with what might otherwise be overwhelming situations. This final function, that of stress reliever, runs as an undercurrent in all of the other theories, since regardless of why an event is funny or whether it evolved from earliest times, humor often releases tension. And since humor usually takes place in a social situation, it can and often does provide a relief from tensions that social situations entail. This combination of the arousal/relief theory and the social theories of humor provides the theoretical basis for this paper. Although humor of any kind can provide that relief, active humor, where the humorist creatively produces humor, is more effective as a stress reducer than is a passive appreciation of humor.

In recognition that active humor functions as a tension reducer, Martin and Lefcourt (1983) developed a specific instrument, the Coping Humor Scale to measure

what effect active humor has on coping with stress. Various studies have shown that individuals who rate themselves high on coping humor report less perceived stress, greater intimacy, more defusing and minimizing of shared fears, and more sociability. Results are less clear when considering the empirical studies on the direct relationship between active humor and psychological distress, or active humor as a moderator between life stress and psychological distress. These studies primarily measured stress by life event scales or general hassles. The dependent variables ranged from general mood or general affect measurements to specific measures such as depression or anxiety. Some studies showed humor as a moderator while others reported humor as having a direct effect on the dependent variables but no moderating influence on stress. Some studies have reported no gender differences either in humor scores or the relationship between humor and affect; others have found higher humor scores for females on the CHS, lower humor scores for females on the coping humor scale of the MHSH, a direct effect for humor on loneliness for males but not females and greater marital satisfaction correlated with higher uses of humor for females but not for males.

Perhaps the reason for such confusing and often

contradictory results lies in the heterogeneous nature of the measures used as predictive of stress. Both stress and dependent distress instruments may need to be more discrete. In keeping with the social theories of humor, which posit that humor is primarily a social tool, humor may be more effective as a stress reducer when the stress is a social stressor resulting from interpersonal conflict. Social stressors may be more amenable to the moderating affects of humor than are less interpersonal stressors. It may also be that outcome measures that look specifically at social distress would demonstrate a greater relationship with humor than do other general measures of distress.

The present study sought to examine active coping humor as it functions to reduce stress resulting from conflict in interpersonal situations. Three hypotheses were tested: First, there would be a significant positive correlation between interpersonal conflict and social distress; second, there would be a significant negative correlation between humor and social distress; and finally, humor would modify the relationship between interpersonal conflict and social distress. In other words, when interpersonal conflict was high, high scorers on coping humor would show less social distress than low scorers.

CHAPTER 2

METHOD

Subjects

Participants were 179 college students (107 females, 72 males, 1 gender not specified) from a small midwestern university who voluntarily responded to a mailed survey. Ages ranged from 18 to 48 with a mean age of 22 ($SD=6.26$). The sample comprised 22% freshmen, 21% sophomores, 29% juniors, and 28% seniors. Ninety-three percent of the students were white and 84% were single.

Procedure

Fifty male and fifty female students were randomly chosen from computer registration lists for each of the four undergraduate classes. The resultant sample of 400 students was sent a 4 page survey (see Appendix A) along with a letter (see Appendix B) that described incentives to participate in the form of different cash and merchandize, ranging from a t-shirt or a 10 dollar gift certificate up to 50 dollars in cash. A week later, a reminder letter was sent (see Appendix B). Participants could either return their entries by mail, or, to ensure anonymity, could place their survey and drawing slip (see

Appendix B) into separate boxes located at both the student union and the university counseling center. One hundred and seventy-nine surveys were returned for a 45% return rate. Return rates by class and gender are presented in Table 2.1.

TABLE 2.1
Class Sizes and Survey Return Rates by Class

Class	Tot in Class	Surveys Sent	Surveys Rtrnd	% Rtrnd	% of Class
FRESHMEN	1839	100	39	39%	2.1%
M	984	50	14	28%	1.4%
F	855	50	25	50%	2.9%
SOPHOMORES	1152	100	38	38%	3.3%
M	623	50	14	28%	2.2%
F	529	50	24	48%	4.5%
JUNIORS	1303	100	49	49%	3.8%
M	692	50	21	42%	3.0%
F	611	50	28	56%	4.6%
SENIORS	1772	100	50	50%	2.8%
M	866	50	23	46%	2.7%
F	906	50	27	54%	3.0%

Measures

This study was part of a larger project conducted to assess student counseling needs and preferences. The complete survey included questions about student counseling concerns, attitudes and preferences, plus

questions about social support, humor and conflict. Only the subset of survey questions germane to this study will be described below.

Social Relationship Distress

Participants first completed the Survey of Student Needs (SSN; Gallagher, Golin, & Kelleher, 1992). The SSN consists of a series of questions meant to assess the personal, career and learning needs of students. The personal needs questions address problems with depression, self-defeating habits, drinking habits, sexual identity, etc. Career needs contain questions about selecting a major, choosing a career, job search strategies, etc. Learning needs involve questions about reading skills, test taking strategies, etc. An earlier version of the SSN had a test-retest coefficient of .94 (Gallagher, et al., 1992). The SSN as devised by Gallagher consisted of 42 items. The author of this study identified 7 items addressing social distress in interpersonal relationships. Because social distress was of primary interest in this study, three more items addressing stress in relationships with roommates, other friends, and spouse/significant other augmented this scale. Thus, participants answered a total of 45 SSN items, 10 of which dealt specifically with social

distress. Respondents were asked to rate their level of concern on each item using a 6 point scale (0=None/Not Applicable to 5=Strong Concern).

Interpersonal Conflict Scale

Interpersonal conflict was measured using a modified version of the Social Conflict Scale developed by Lepore (1992). The original scale had a set of 6 questions about conflict with roommates and an identical set of questions about conflict with friends. For example, "You fought with a friend." and "You fought with a roommate." or "You felt like screaming at a roommate." and "You felt like screaming at a friend." Internal consistency for roommate and friend scales were reported at .88 and .92 respectively. Because the current study proposed to examine conflict in a variety of interpersonal relationships, conflict with family members was added. To keep the length of the questionnaire similar to the original, this study combined friends and roommates for the first set of 6 questions and created an identical set of 6 questions about conflict with family members. For example, "You fought with a roommate or friend." and "You fought with a family member." Additionally two other questions from Lepore's original scale about general anger were included. Because all conflict questions

centered around persons known to the respondent, the scale defined interpersonal conflict as conflict within specific relationships. Respondents rated the frequency of conflict experienced in the preceding 2 months using a 5 point Likert scale (1=Never to 5=Very Often).

Coping Humor Scale

The seven item Coping Humor Scale (Martin & Lefcourt, 1983) asked respondents to rate on a 4 point Likert scale (1=Strongly Disagree to 4=Strongly Agree) items assessing how they use humor or feel about the use of humor in coping with problem situations. An example of use of humor is "I can usually find something to laugh or joke about even in trying situations." A question that exemplified values about use of humor is "I must admit my life would probably be easier if I had more of a sense of humor." Cronbach alpha reliability correlations have ranged from .56 (Thorson & Powell, 1991) to .76 (Simon, 1990) with test-retest correlations at 4 weeks and 12 weeks at .92 (Trice & Price-Greathouse, 1986) and .80 (Overholser, 1992) respectively. Validity studies have included correlations of .64 with peer ratings of sense of humor (Martin & Lefcourt, 1983), spousal ratings of general humorousness for husband and wives at .20 and .38 respectively (Lefcourt & Martin, 1986) and decreased

stress levels for dental surgery (Trice & Price-Greathouse, 1986).

CHAPTER 3

RESULTS

Factor Analysis

Factor analyses were performed on the total 45 item SSN and the 10 items identified by the author as interpersonal relationship items in order to determine if subsequent analyses should be based on total scale scores or subset scores.

To identify the factor structure of the SSN, a principal components factor analysis restricting factors to 2, 3, 6, and 12 factors was run on the entire 45 items (42 original plus 3 added items). Items loading at or above .40 were used to define each factor. No clearly meaningful factor structure emerged in any of the solutions.

Because one of the stated goals of this study was to employ a discrete variable of social distress, the author subjected the 10 items from the SSN identified as interpersonal relationship items to an unrestricted principal components factor analysis. The results, as presented in Table 3.1, indicated there were two relationship factors, distress in specific relationships which accounted for 40.3% of the common variance, and

distress in general relationships, accounting for 14.2% of the variance. All items loaded at .57 or above, except for relationships with faculty members, which loaded at .40.

Table 3.1
Items for the Social Distress Scale Factors

Factor 1: Distress in Specific Relationships		
Item No.	Item	Loading
06	Coping with a broken relationship	.57
39	Relationships with family	.75
43	Relationships with roommates	.66
44	Relationships with other friends	.71
45	Relationship with spouse or significant other	.79

Factor 2: Distress in General Relationships		
Item No.	Item	Loading
02	Coping with loneliness	.63
05	Relationships with faculty members	.40
11	Meeting people to date	.72
15	Overcoming shyness	.80
22	Discomfort in social situations	.71

All subsequent analyses employed these two factors as the dependent measures of social distress in interpersonal relationships.

Factor Reliabilities

Table 3.2 contains Cronbach's alpha coefficient of reliability for each of the scales used in this study. An alpha of .67 for the CHS falls within the range

reported in the literature. An alpha of .89 for the Interpersonal Conflict Scale is consistent with that reported by Lepore (1992) for the original Social Conflict Scale.

Table 3.2
Reliability Alpha Coefficients

Scale	Alpha
Distress in Specific Relationships	.78
Distress in General Relationships	.75
Interpersonal Conflict Scale	.89
Coping Humor Scale	.67

Alphas of .78 and .75 for the social distress factors are adequate for the purposes of this study, particularly because each consists of only 5 items.

Descriptive Statistics

Table 3.3 contains the means, standard deviations and ranges for the two resultant factors of social distress, distress in specific relationships (distress/s) and distress in general relationships (distress/g). The table also contains descriptive statistics for the Interpersonal Conflict Scale and the Coping Humor Scale.

Table 3.3
Means and Standard Deviations for
all Variables (n=179)

Variables	Mean	SD	Range
DISTRESS/S	9.25	6.20	0-25
DISTRESS/G	10.17	5.40	0-22
CONFLICT	29.58	8.73	14-60
HUMOR (CHS)	19.48	2.85	13-27

Total mean scores for the CHS in the literature fall within the range of 19.46 to 21.1 with standard deviations ranging from 3.0 to 3.56 (Kuiper, et al., 1992; Lefcourt & Martin, 1986; Thorson & Powell, 1991).

Correlations and Multiple Regression

Correlations for all variables entered into the regression equations are presented in Table 3.4. As expected, the results indicated a strong correlation between the two dependent variables of distress in specific relationships and distress in general relationships ($r(178) = .51, p < .001$). The results also indicated a weak negative relationship between the two predictor variables of conflict and humor ($r(178) = .14, p < .05$), indicating that those persons who use humor more report experiencing less conflict.

Results confirmed the first hypothesis with respect to distress in specific relationships ($r(178) = .32, p < .001$). However, there was no significant

relationship between conflict and distress in general relationships ($r(178) = .09, p > .05$).

Table 3.4
Intercorrelations Between all Variables for
($n=178$)

Variables	DISTRESS/S	DISTRESS/G	CONFLICT
1.DISTRESS/S	1.00		
2.DISTRESS/G	.51***	1.00	
3.CONFLICT	.32***	.09ns	1.00
4.HUMOR (CHS)	-.19**	-.16*	-.14*

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

The second prediction that, as use of coping humor increased, distress in social relationships would decrease was confirmed for both distress in specific relationships ($r(178) = -.19, p < .01$) and distress in general relationships ($r(178) = -.16, p < .05$).

To test the third hypothesis, that humor would moderate the relationship between social conflict and social distress, a separate hierarchical regression was run for each dependent variable, i.e., distress in specific relationships and distress in general relationships. Conflict was entered first, followed by humor, sex, the interaction of conflict and sex, the interaction of humor and sex, with the interaction of conflict and humor entered last. The results are presented in Table 3.5.

Table 3.5
Hierarchical Multiple Regression Analyses for Distress in Specific and General Relationships with Conflict, Humor and Sex.

Variables	R	Cum R2	R2 Chg	F Chg
<u>dep=DISTRESS/S</u>				
1. Conflict	.32	.10***	.10	20.75***
2. Humor (CHS)	.35	.13***	.02	4.18*
3. Sex	.36	.13***	.00	.22ns
4. ConflictxSex	.37	.14***	.01	1.68ns
5. HumorxSex	.38	.14***	.01	1.34ns
6. ConflictxCHS	.38	.14***	.00	.61ns
<u>dep=DISTRESS/G</u>				
1. Conflict	.09	.01ns	.01	1.36ns
2. Humor (CHS)	.17	.03ns	.02	4.02*
3. Sex	.21	.04*	.01	2.71ns
4. ConflictxSex	.27	.07**	.03	5.48*
5. HumorxSex	.27	.07*	.00	.17ns
6. ConflictxCHS	.27	.07*	.00	.02ns

*p<.05; **p<.01; ***p<.001

Interpersonal conflict explains a significant amount of variance in distress in specific relationships (R^2 change=.10, $p<.001$) with humor adding another 2% to the explained variance (R^2 change=.02, $p<.05$). Neither sex nor any of the interactions added significantly to the variance. Thus, the predicted moderating role for humor (as measured by conflict x CHS), was not supported.

Humor accounted for a significant amount of variance (R^2 change=.02, $p<.05$) in general relationship

distress (R^2 change=.01, $p>.05$). The interaction between sex and conflict accounted for an additional 3% of the variance (R^2 change=.03, $p<.05$). None of the other variables added significantly to the variance. The humor X conflict interaction was not significant.

Gender Differences

The interaction between sex and conflict found in the multiple regression presented in Table 3.5, and previous research indicating gender differences in use of humor (Overholser, 1992; Rim, 1988; Thorson & Powell, 1993c; White & Winzelberg, 1992) suggested that gender effects warranted further study.

T-tests (Table 3.6) indicated a significant difference between males and females for both conflict and humor, with females reporting more conflict ($t(176)=3.65, p<.001$) and less use of humor to cope ($t(176)=-3.72, p<.001$).

Table 3.6
Means and Standard Deviations for all Variables for

Variables	<u>Females</u>		<u>Males</u>		$t(176)$
	Mean	<u>SD</u>	Mean	<u>SD</u>	
DISTRESS/S	9.80	6.50	8.49	5.72	1.39ns
DISTRESS/G	10.11	5.46	10.40	5.27	-.35ns
CONFLICT	31.43	8.76	26.74	7.94	3.65***
HUMOR (CHS)	18.85	2.63	20.42	2.94	-3.72***

*** $p<.001$

There were no gender differences in either distress in specific relationships ($t(176)=1.39, p>.05$) or distress in general relationships ($t(176)=-.35, p>.05$).

Results from a Fisher z test indicated no significant differences in correlations between genders (Table 3.7).

Table 3.7
Intercorrelations Between all Variables for
FEMALES ($n=106$) and MALES ($n=72$)

Variables	DISTRESS/S	DISTRESS/G	CONFLICT
1.DISTRESS/S	1.00		
2.DISTRESS/G Female	.54***	1.00	
Male	.48***	1.00	
3.CONFLICT Female	.26**	.01ns	1.00
Male	.41***	.28**	1.00
4.HUMOR (CHS) Female	.11ns	-.14ns	-.14ns
Male	-.26*	-.22*	-.03ns

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

Separate multiple regressions further examined gender. Table 3.8 and Table 3.9 contain the results for females and males respectively.

For females, conflict predicted 7% of the variance in distress in specific relationships (R^2 change=.07, $p<.001$). There were no other significant predictors. Therefore humor did not add significantly to the variance in distress in either dependent variable and had no moderating effect.

Table 3.8
 Hierarchical Multiple Regression Analyses Between
 Distress in Specific and General Relationships with
 Conflict and Humor.

FEMALES

Variables	R	Cum R ²	R ² Chg	F Chg
dep=DISTRESS/S				
1. Conflict	.26	.07**	.07	7.65**
2. Humor (CHS)	.27	.07*	.00	.53ns
3. ConflictxCHS	.28	.08*	.00	.32ns
dep=DISTRESS/G				
1. Conflict	.01	.00	.00	.01ns
2. Humor (CHS)	.14	.02	.02	2.18ns
3. ConflictxCHS	.16	.03	.00	.46ns

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

Table 3.9
 Hierarchical Multiple Regression Analyses Between
 Distress in Specific and General Relationships with
 Conflict and Humor.

MALES

Variables	R	Cum R ²	R ² Chg	F Chg
dep=DISTRESS/S				
1. Conflict	.41	.17***	.17	14.28***
2. Humor (CHS)	.50	.25***	.08	6.98*
3. ConflictxCHS	.50	.25***	.00	.22ns
dep=DISTRESS/G				
1. Conflict	.28	.08*	.08	5.92*
2. Humor (CHS)	.36	.13**	.05	4.24*
3. ConflictxCHS	.38	.14*	.01	.80ns

*p<.05; **p<.01; ***p<.001

The results for males are stronger, but still do not

support a predicted moderating role for humor. Conflict predicted 17% of the variance in distress in specific relationships (R^2 change=.17, $p < .001$), with humor adding another 8% to the variance (R^2 change=.08, $p < .05$). As stated, there was no interaction. Conflict also explained 8% of the variance in distress in general relationships (R^2 change=.08, $p < .05$), with humor adding another 5% (R^2 change=.05, $p < .05$). Again, there was no interaction.

CHAPTER 4

DISCUSSION

Previous studies have reported inconsistent results when exploring the direct effects for humor on affect and the role humor has in moderating the impact stress has on affect (Kuiper, et al., 1992; Martin & Lefcourt, 1983; Overholser, 1992; Porterfield, 1987). This paper suggested that one reason for these inconsistencies may be the general nature of the stress instruments used, i.e., the fact that these measures have assessed a variety of personal and impersonal life stressors. Because humor usually occurs in interpersonal social situations (Fry, 1994), the author hypothesized that the moderating role for humor might be stronger if the stressor were also interpersonal. Therefore, this study limited stress to stress caused by conflict in interpersonal situations, specifically conflict with friends, roommates or family members. In other words, conflict was defined primarily as conflict within specific relationships.

For the same reasons, the author also used a dependent variable that would measure interpersonal social distress rather than a general measure of affect.

A factor analysis of the social distress items yielded two factors, distress in specific relationships involving roommates, friends and family; and distress in general relationships including loneliness, overcoming shyness, and discomfort in social situations, all of which measure behavior in less personal social situations but are still interpersonal measures of distress.

The first hypothesis predicted a significant positive correlation between interpersonal conflict and social distress. The results partially supported this prediction. Conflict was positively related to distress in specific relationships, but not related to distress in general relationships. This may not be surprising since conflict was defined as conflict within specific relationships (family and friends). Therefore, the higher the level of conflict with family and friends, the greater the distress in relationships with family and friends. Because these results are correlational, no direction can be inferred. Thus it is also possible to interpret these results as higher distress in relationships with family and friends fuel conflict with those same persons. Concerns about a relationship could create a situation in which conflict more easily occurs.

The multiple regression results were consistent with the simple correlations in that conflict predicted

distress in specific relationships but not in general relationships. In other words, conflict with family and friends contributed to the variance in distress in relationships with family and friends, but not to distress in general social situations. These results seem to suggest that individuals contain conflict within the same social sphere in which it occurs; they do not allow conflict with known persons to spill over into general social situations. Individuals are able to differentiate between the sources of stress and contain the consequences accordingly.

The second hypothesis predicted a significant negative correlation between humor and social distress. The results confirmed this hypothesis. As use of coping humor went up, distress in both specific and general relationships went down. These results are consistent with the social theory of humor, which posits that humor is used to foster closeness, lubricate communication and solidify relationships (Martineau, 1972; Oring, 1994; Stephenson, 1951). These results could also indicate that fewer concerns over relationships with friends, family and others nurtures situations in which the use of humor flourishes. The association may be reciprocal; humor encourages closeness and closeness in turn encourages humor.

Humor also predicted a decrease in distress in both specific and general relationships. It seems that humor has a positive effect on all social relationships. These results are consistent with empirical evidence that humor is used to help cope socially by taking the edge off potentially stressful events (Frecknall, 1994).

The third hypothesis predicted that humor would moderate the relationship between conflict and social distress. Specifically, this hypothesis predicted that when interpersonal conflict was high, high scorers on coping humor would show less social distress than would low scorers. However, contrary to prediction, humor did not provide a moderating role. Consequently, there is no evidence to support the supposition that measurements of interpersonal conflict and social distress would be more sensitive to a moderating role for humor than more general measures of life stress and affect. Rather, the results of this study are consistent with other studies which used general measures of stress and affect and failed to find a moderating role for humor, but did find a direct relationship between humor and the dependent variables (Deaner & McConatha, 1993; Porterfield, 1987).

One possible explanation for why humor did not provide the predicted protection from the adverse effects of conflict may be that the humor was not shared. It is

impossible to tell from the survey if the person with whom the respondent was having conflict shared in the humor. Much of the research on the social uses of humor indicate that humor is a useful coping tool when individuals experience a stressful event and the subsequent humor together, such as emergency disaster personnel (McCarroll, et al., 1993), nurses (McGhee, 1993), or paramedics (Rosenberg, 1991). Perhaps the act of sharing in the humor is the needed variable that allows coping humor to function as stress reliever in social interactions. When the humor is not shared, as may be the case in individual conflict, the moderating affects of humor are lost.

Another possible explanation for the lack of evidence that humor can mitigate the effects of stress may be that another variable is at work in addition to the high or low use of coping-based humor. It may be that type of humor is more critical than quantity of humor. The CHS was not designed to differentiate between the various types of humor, but rather quantifies the subjects' agreement or disagreement with statements regarding the efficacy of coping humor. Thus, "I usually look for something comical to say when I am in a tense situation." could refer to humor used as a hostile counter attack or could refer to a request for support.

Some authors have suggested that a primary function for humor is to promote conflict (Martineau, 1972; Stephenson, 1951) and to relieve aggressive impulses (Freud, 1928/1959). Humor as counterattack can as easily be used to escalate conflict as humor meant to request support can be used to defuse it. Different uses of humor could easily confound the results when looking only at quantity of humor. For example, some high humor scorers might escalate conflict while others might defuse it. Conversely, some low scorers on the CHS could either escalate or defuse conflict. The slight negative correlation between humor scores and conflict suggests more defusing than escalating, but the correlation is not strong (and disappears completely when examined by gender) so the effects of another variable cannot be ruled out.

This study also explored gender as a separate variable. Results indicated that females report more conflict than males but that males are more globally affected by conflict than are females. For males, conflict in specific relationships predicted distress in both specific relationships and general relationships. Females, on the other hand, reported only an increase in distress in specific relationships as conflict increased. Females contained conflict within the sphere in which it

occurred. Conflict for males spilled over into general social behavior, as denoted by distress concerning shyness, loneliness and general social situations. A possible interpretation for these results may be provided by a study that examined evidence from four large surveys indicating that women are better able to recognize and translate their problems into psychological distress than are men (Kessler, Brown, & Broman, 1981). This problem recognition may both explain why women report higher levels of conflict and why they are able to keep both conflict and distress within the same domain.

Gender results for humor reveal that humor plays a much larger role in alleviating social distress for males than for females. Although humor was predictive of both social distress variables in the combined sample, when segregating the predictions by gender, humor was only significantly predictive for males. It may be that using humor is more socially acceptable for males. McGhee (1979) found that from an early age males are more likely to initiate and use humor than are females, and hypothesized that males are reinforced for being comedians, while females are not. Because this study found no significant difference in reported social distress between the sexes, women perhaps use other coping methods to relieve the stress of interpersonal

conflict. One study (Pennebaker, Kiecolt-Glaser, & Glaser, 1988) has found psychological benefits in disclosing traumatic events. Perhaps women discuss their social conflicts with others rather than using humor to cope.

A limitation of the current study is the exclusive use of self-report measures and the lack of counterbalancing. Since the complete survey was rather long, fatigue cannot be ruled out and may have affected those answers occurring towards the end of the survey. The generalizability of the results are also somewhat limited by the college sample. It is possible that age and experience might modify respondents' reaction to conflict and subsequent use of humor.

Future research needs to be done to extend our understanding of conflict and the possible role that humor may play in alleviating the distress experienced from that conflict. Research should expand the definition of conflict. Specifically, the construct of interpersonal conflict should include conflict in general social situations to understand better the specific and global consequences of stress caused by interpersonal conflict.

Questions about the use of humor should address not only the quantity of humor used, but whether it is shared

or not, and the type, intent and consequence of the humor. Specifically, is the humor hostile or aggressive, or is the humor meant to elicit support or approval from the other party? Does the humor escalate conflict or does it serve to defuse the situation?

Because of the differences found between males and females in this study and others, future research should include an analysis by gender. Specifically, research should examine if gender makes a difference in reported levels of conflict. Is there really a difference in conflict experienced or is it a result of problem recognition? It would also be useful to examine possible gender difference in response to interpersonal conflict. Would females indicate another method for dealing with conflict than use of humor? Would the type of humor used be different between the genders? Some authors contend that males make more use of hostile humor than do females (Apte, 1985, pp. 207-209) but that differences between the sexes is evaporating the more females see their sex roles as equal to men (McGhee, 1979).

The next step might be to test conflict and humor in a general population with different ages and socioeconomic backgrounds. It would be critical to include a measure to assess type, intent and consequence of humor. Taking these steps would extend the

generalizability of the results and address the important question of a confounding influence from another variable.

In summary, this study explored what role humor-based coping plays in protecting the individual from the adverse effects of individually experienced conflict in interpersonal social situations. Results suggested that individuals who use more humor experience less social distress. However, no evidence was found that humor moderates the impact of interpersonal conflict on social distress.

APPENDIX A
Survey of Student Concerns and Problem-Solving
Styles

Please rate your level of concern in each of the following areas (continued):

	5	4	3	2	1	0
	Strong		Moderate		Some	None/Not
	Concern		Concern		Concern	Applicable
Improving my reading skills.....	<input type="checkbox"/>					
Discomfort in social situations.....	<input type="checkbox"/>					
Finding greater purpose in life.....	<input type="checkbox"/>					
Concern about sexual functioning.....	<input type="checkbox"/>					
Peer pressure to drink to excess.....	<input type="checkbox"/>					
Conflicts over values, morals, and religious beliefs.....	<input type="checkbox"/>					
Controlling anxiety and nervousness.....	<input type="checkbox"/>					
Learning test taking strategies.....	<input type="checkbox"/>					
Time management skills.....	<input type="checkbox"/>					
Concern about career choice.....	<input type="checkbox"/>					
Job search strategies.....	<input type="checkbox"/>					
Controlling my weight.....	<input type="checkbox"/>					
Fear of failure.....	<input type="checkbox"/>					
Understanding the changing roles and expectations for men and women.....	<input type="checkbox"/>					
Problems with recurrent headaches or stomach problems.....	<input type="checkbox"/>					
Anxiety about AIDS.....	<input type="checkbox"/>					
Concerns about sexual identity.....	<input type="checkbox"/>					
Coping with prejudice.....	<input type="checkbox"/>					
Relationships with family.....	<input type="checkbox"/>					
Problems controlling temper.....	<input type="checkbox"/>					
Becoming more assertive.....	<input type="checkbox"/>					
Adjusting to campus culture and norms that are different than my own.....	<input type="checkbox"/>					
Relationships with roommates.....	<input type="checkbox"/>					
Relationships with other friends.....	<input type="checkbox"/>					
Relationship with spouse or significant other.....	<input type="checkbox"/>					

Please indicate how the following items best describe you *since the beginning of last summer*:

	5	4	3	2	1
	Very				
	Often	Often	Sometimes	Rarely	Never
You fought with a roommate or a friend.....	<input type="checkbox"/>				
You were upset with a roommate or a friend.....	<input type="checkbox"/>				
You had a disagreement with a roommate or a friend.....	<input type="checkbox"/>				
You felt like screaming at a roommate or a friend.....	<input type="checkbox"/>				
You became openly angry in your room or home.....	<input type="checkbox"/>				
You got so angry that you threw things.....	<input type="checkbox"/>				
You and a friend or roommate criticized each other.....	<input type="checkbox"/>				
You and a roommate or friend had to iron out differences.....	<input type="checkbox"/>				
You fought with a family member.....	<input type="checkbox"/>				
You were upset with a family member.....	<input type="checkbox"/>				
You had a disagreement with a family member.....	<input type="checkbox"/>				
You felt like screaming at a family member.....	<input type="checkbox"/>				
You and a family member criticized each other.....	<input type="checkbox"/>				
You and a family member had to iron out differences.....	<input type="checkbox"/>				

Below are a list of statements about your relationships with family and friends. Please indicate how much you agree or disagree with each statement as being true:

	4	3	2	1
	Strongly Agree	Agree	Disagree	Strongly Disagree
My friends respect me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My family cares for me very much.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am not important to others.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My family holds me in high esteem.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am well liked.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can rely on my friends.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am really admired by my family.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am respected by other people.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am loved dearly by my family.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My friends don't care about my welfare.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Members of my family rely on me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am held in high esteem.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can't rely on my family for support.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
People admire me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel a strong bond with my friends.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My friends look out for me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel valued by other people.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My family really respects me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My friends and I are really important to each other.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I belong.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I died tomorrow, very few people would miss me.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't feel close to members of my family.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My friends and I have done a lot for one another.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate how much you agree or disagree with each of the following statements:

	4	3	2	1
	Strongly Agree	Agree	Disagree	Strongly Disagree
I often lose my sense of humor when I'm having problems.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have often found that my problems have been greatly reduced when I tried to find something funny in them.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually look for something comical to say when I am in a tense situation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I must admit my life would probably be easier if I had more of a sense of humor.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have often felt that if I am in a situation where I have to either laugh or cry, it's better to laugh.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can usually find something to laugh or joke about even in trying situations.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It has been my experience that humor is often a very effective way of coping with problems.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you were to want help or information about any of the above issues or concerns, how would you prefer to obtain this information? (Please check all that might apply.)

- Individual Counseling
 -Workshops
 -Audio cassette tapes
 -Telephone taped messages
-Group Counseling
 -Printed materials
 -Videotape presentations
 -Discussion in academic courses

Please check the box that you feel most closely represents your views:

People who go to counseling are:

Weak - Can't Solve Own Problems					Strong- Not Afraid to Talk to Others
5- <input type="checkbox"/>	4- <input type="checkbox"/>	3- <input type="checkbox"/>	2- <input type="checkbox"/>	1- <input type="checkbox"/>	

Counseling is a process where people:

Work out their own problems				Have someone else tell them what to do
5- <input type="checkbox"/>	4- <input type="checkbox"/>	3- <input type="checkbox"/>	2- <input type="checkbox"/>	1- <input type="checkbox"/>

Counseling would be easiest for me if:

I knew the counselor				I didn't know the counselor
5- <input type="checkbox"/>	4- <input type="checkbox"/>	3- <input type="checkbox"/>	2- <input type="checkbox"/>	1- <input type="checkbox"/>

Counseling would be easiest for me if:

It was more convenient on campus		It's OK where it is		It was more remote - such as off campus
5- <input type="checkbox"/>	4- <input type="checkbox"/>	3- <input type="checkbox"/>	2- <input type="checkbox"/>	1- <input type="checkbox"/>

Counseling would be easiest for me if:

We met in a formal office				We met informally -not in an office
5- <input type="checkbox"/>	4- <input type="checkbox"/>	3- <input type="checkbox"/>	2- <input type="checkbox"/>	1- <input type="checkbox"/>

Counseling would be easiest for me if:

The counselor was of my own sex				The counselor was of the opposite sex
5- <input type="checkbox"/>	4- <input type="checkbox"/>	3- <input type="checkbox"/>	2- <input type="checkbox"/>	1- <input type="checkbox"/>

Please indicate your prior experience with counseling:

High School College Other Never been to counseling

Do you have any thoughts as to what UW-Stout services such as the University Counseling Center, might do to better help students (such as different locations, expanded times, special programs, etc.), or other suggestions?

Thanks for giving us your valuable time. Please return your completed survey and your signed entry form either by mail in the enclosed envelope, or to either of the collection points on campus: Memorial Student Center Information Desk or University Counseling Center (410 Bowman), at any of the dates and times listed in the accompanying letter.

APPENDIX B

Cover letter, Instructions, Reminder letter

September 27, 1995

XXXXXXXXXX
XXXXXXXXXX
XXXXXXXXXX

Dear XXXXXXXX:

You are one of 400 students randomly selected to take part in a survey of UW-Stout student concerns and problem-solving styles. Student Affairs offices will use your answers as they plan improvements for campus services. We recognize you and your fellow students should receive the best services possible for your tuition dollar; therefore your input is critical.

The survey should take about ten minutes of your time. We would like to show you our appreciation for completing the survey (and add a little excitement) by giving you a **chance to win one of several prizes, including cash and merchandize** from local stores. Prizes are listed below and the entry form and instructions are attached. The final deadline for all entries is Friday, October 6th. Winners will be notified the following week.

Sincerely,

Susan Erickson, Special Research Assistant
Student Affairs, Bowman Hall 410
232-2468

PRIZES

- \$50 cash prize
- \$25 cash prize
- three \$15 cash prizes
- \$10 off pizza (Ted's Pizza)
- \$10 gift certificate(Books Plus)
- NFL "JAM" Boree Kit (\$22 value) The Log Jam
*(includes NFL t-shirt, NFL Schedule,
drawing for trip to Las Vegas, etc)*
- \$10 gift certificate (Sahron's Cheese & Gifts)
- Homecoming t-shirt(Silver Dollar Saloon)

Remember: Deadline is Friday, October 6th!

ENTRY FORM AND INSTRUCTIONS

- Read and sign the *Entry Form* at the bottom of this page
- Complete the *Survey of Student Concerns & Problem-Solving Styles*

IF RETURNING BY MAIL

- Put *Entry Form* in small envelope
- Put small envelope and completed *Survey* in the enclosed return envelope
- Drop return envelope in campus mail (saves your tuition dollar!) or in any U.S. mail box. (We will file each separately to ensure your anonymity.)

IF RETURNING IN PERSON

- Take your *Survey* and *Entry Form* to either the Memorial Student Center Service Desk or the University Counseling Center (Bowman 410) at the dates & times listed below.
- Put completed *Survey* in the RETURN SURVEYS HERE box, and signed *Entry Form* in the RETURN ENTRY FORMS HERE box.

Student Center Service Desk
Mon - Fri, 9:00 a.m. - 7:30 p.m.
Oct. 2nd - Oct. 6th

University Counseling Center
Mon - Fri, 7:45 a.m. - 4:30 p.m.
Oct. 2nd - Oct. 6th

The *Survey* and the *Entry Form* must be returned at the same time. All entries must be received or postmarked by 7:30 p.m. on October 6th.

ENTRY FORM

I understand the basic objectives of the study and the potential benefits of this study to UW-Stout students. I understand there are no anticipated risks in this study, and my responses will remain anonymous.

Please sign your name

Student ID
(needed to locate you if you are a winner)

Note: Questions or concerns about participation in this study or subsequent complaints should be addressed first to the researcher, Susan Erickson, 410 BH (232-2468) and second to Dr. Ted Knous, Chair, UW-Stout Institutional Review Board for the Protection of Human Subjects in Research, 11 HH, UW-Stout, Menomonie, WI 54751, (715) 232-1126.

October 2, 1995

XXXXXXXXXXXX
XXXXXXXXXXXX
XXXXXXXXXXXX

Dear XXXXXXXXX:

This is just to remind you to complete your *Survey of Student Concerns & Problem-Solving Styles* if you have not yet done so. The deadline for entry into the drawing is 7:30 pm on October 6th. If you have misplaced your materials, you can obtain an additional set at the reception desk at the University Counseling Center, Bowman Hall 410.

If you have already completed your survey, thank you very much. Your information will be very useful as we upgrade services available to UW-Stout students.

Thank you for your help.

Sincerely,

Susan Erickson, Special Research Assistant
Student Affairs, Bowman Hall 410
232-2468

Remember: Survey return deadline is Friday, October 6th!

REFERENCES

- Allport, G. (1961). Pattern and growth in personality. NY: Holt, Rinehart & Winston.
- Apte, M. L. (1985). Humor and Laughter. Ithaca, NY: Cornell University Press.
- Berk, L. S., Tan, S. A., Fry, W. F., Napier, B. J., Lee, J. W., Hubbard, R. W., Lewis, J. E., & Eby, W. C. (1989). Neuroendocrine and stress hormone changes during mirthful laughter. American Journal of the Medical Sciences, 298(6), 390-396.
- Berlyne, D. E. (1969). Laughter, humor and play. In G. Lindzey & E. Aronson (Eds.), Handbook of Social Psychology: Vol 3. The individual in a social context (pp. 795-852). Reading, MA: Addison-Wesley.
- Bizi, S., Keinan, G., & Beit-Hallahmi, B. B. (1988). Humor and coping with stress: A test under real-life conditions. Personality and Individual Differences, 9(6), 951-956.
- Cogan, R., Cogan, D., Waltz, W. & McCue, M. (1987). Effects of laughter and relaxation on discomfort thresholds. Journal of Behavioral Medicine, 10, 139-144.
- Coser, R. L. (1959). Some social functions of laughter. Human Relations, 12(2), 171-182.
- Coser, R. L. (1960). Laughter among colleagues. Psychiatry, 23, 81-95.
- Cousins, N. (1979). Anatomy of an illness. NY: W. W. Norton & Co.
- Deaner, S. L., & McConatha, J. T. (1993). The relation of humor to depression and personality. Psychological Reports, 72, 755-763.
- Dixon, N. F. (1973). Humor: a cognitive alternative to stress? In C. D. Spielberger & I. G. Sarason (Eds.), Stress and anxiety: Vol 7. Conceptual issues in stress research (pp 281-289). Washington: Hemisphere Publishing Corp.

Fine, G. A. (1983). Sociological Approaches to the study of humor. In J. H. Goldstein and P. E. McGhee (Eds.), Handbook of humor research: Vol 1. Basic Issues (pp. 159-181). New York: Springer-Verlag.

Frecknall, P. (1994). Good humor: A qualitative study of the uses of humor in everyday life. Psychology, 31(1), 12-21.

Freud, S. (1959). Humor. In J. Strachely (Ed.), Sigmund Freud: collected papers (Vol 5, pp. 215-221). New York: Basic Books, Inc. (Original work published 1928).

Fry, W. F. (1994). The biology of humor. Humor, 7(2), 111-126.

Fry, W. F. Jr., & Savin, W. M. (1988). Mirthful laughter and blood pressure. Humor, 1(1), 49-62.

Gallagher, R. P., Golin, A., & Kelleher, K. (1992). The personal, career, and learning skills needs of college students. Journal of College Student Development, 33, 301-309.

Goldstein, J. H., & McGhee, P. E. (1972). An annotated bibliography of published papers on humor in the research literature and an analysis of trends: 1900-1971. In J. H. Goldstein and P. E. McGhee (Eds.), The psychology of humor (pp. 263-267). New York: Academic Press.

Graham, E. E., Papa, M. J., & Brooks, G. P. (1992). Functions of humor in conversation: conceptualization and measurement. Western Journal of Communication, 56, 161-183.

Hampes, W. P. (1992). Relation between intimacy and humor. Psychological Reports, 71, 127-130.

Hudak, D. A., Dale, J. A., Hudak, M. A., & DeGood, D. E. (1991). Effects of humorous stimuli and sense of humor on discomfort. Psychological Reports, 69, 779-786.

Kane, T. R., Suls, J., & Tedeschi, J. T. (1977). Humour as a tool of social interaction. In A. Chapman & H. Foot (Eds.) It's a funny thing, humour (pp. 13-16). New York: Pergamon Press.

Keith-Spiegel, P. (1972). Early conceptions of humor: varieties and issues. In J. H. Goldstein and P.

E. McGhee (Eds.), The psychology of humor (pp. 3-39). New York: Academic Press.

Kessler, R. C., Brown, R. L., & Broman, C. L. (1981). Sex differences in psychiatric help-seeking: Evidence from four large-scale surveys. Journal of health and social behavior, 22, 49-64.

Koestler, A. (1964). The act of creation. London: Hutchinson.

Korotkov, D. (1991). An exploratory factor analysis of the sense of humour personality construct: A pilot project. Personality and Individual Differences, 12(5), 395-397.

Kuiper, N. A., & Martin, R. A. (1993). Humour and self-concept. Humor, 6(3), 251-270.81-96.

Kuiper, N. A., Martin, R. A., & Dance, K. A. (1992). Sense of humour and enhanced quality of life. Personality and Individual Differences, 13(12), 1273-1283.

Kuiper, N. A., Martin, R. A., & Olinger, L. J. (1993). Coping humour, stress, and cognitive appraisals. Canadian Journal of Behavioral Science, 25(1), 81-96.

Lefcourt, H. M., Davidson-Katz K., & Kueneman, K. (1990). Humor and immune-system functioning. Humor, 3(3), 305-321.

Lefcourt, H. M., & Martin, R. A. (1986). Humor and life stress: Antidote to adversity. New York: Springer-Verlag.

Lepore, S. (1992). Social conflict, social support, and psychological distress: evidence of cross-domain buffering effects. Journal of Personality and Social Psychology, 63, 857-867.

Martin, R. A., & Dobbin, J. P. (1988). Sense of humor, hassles, and immunoglobulin A: Evidence for a stress-moderating effect of humor. International Journal of Psychiatry in Medicine, 18(2), 93-105.

Martin, R. A., Kuiper, N. A., Olinger, L. J., & Dance, K. A. (1993). Humor, coping with stress, self-concept, and psychological well-being. Humor, 6(1), 89-104.

Martin, R. A., & Lefcourt, H. M. (1983). Sense of humor as a moderator of the relation between stressors and moods. Journal of Personality and Social Psychology, 45, 1313-1324.

Martin, R. A., & Lefcourt, H. M. (1984). Situational humor response questionnaire: Quantitative measure of sense of humor. Journal of Personality and Social Psychology, 47, 145-155.

Martineau, W. H. (1972). A model of the social functions of humor. In J. H. Goldstein and P. E. McGhee (Eds.), The Psychology of humor (pp. 101-125). New York: Academic Press.

McCarroll, J. E., Ursano, R. J., Wright, K. M., & Fullerton, C. S. (1993). Handling bodies after violent death: strategies for coping. American Journal of Orthopsychiatry, 63(2), 209-214.

McGhee, P. E. (1979). Humor, its origin and development. San Francisco: W. H. Freeman & Co.

McGhee, P. E. (1993). How humor helps nurses manage job stress. The Journal of Practical Nursing, 37-40.

Mindess, H. (1971). Laughter and liberation. Los Angeles: Nash Publishing.

Nezu, A. M., Nezu, C. M., & Blissett, S. E. (1988). Sense of humor as a moderator of the relation between stressful events and psychological distress: A prospective analysis. Journal of Personality and Social Psychology, 54, 520-525.

Oring, E. (1994). Humor and the suppression of sentiment. Humor, 7(1), 7-26.

Overholser, J. C. (1992). Sense of humor when coping with life stress. Personality and Individual Differences, 13(7), 799-804.

Pennebaker, J. W., Kiecolt-Glaser, J. K., & Glaser, R. (1988). Disclosure of traumas and immune function: Health implications for psychotherapy. Journal of Consulting and Clinical Psychology, 56, 239-245.

Porteous, J. (1988). Humor as a process of defense: the evolution of laughing. Humor, 1(1), 63-80.

Porteous, J. (1989). Humor and social life. Philosophy East and West, 39(3), 279-288.

Porterfield, A. L. (1987). Does sense of humor moderate the impact of life stress on psychological and physical well-being? Journal of Research in Personality, 21, 306-317.

Provine, R. R., & Fischer, K. R. (1989). Laughing, smiling, and talking: Relation to sleeping and social context in humans. Ethology, 83, 295-305.

Rim, Y. (1988). Sense of humour and coping styles. Personality and Individual Differences, 9(3), 559-564.

Rosenberg, L. (1991). A qualitative investigation of the use of humor by emergency personnel as a strategy for coping with stress. Journal of Emergency Nursing, 17(4), 197-202.

Simon, J. M. (1990). Humor and its relationship to perceived health, life satisfaction, and morale in older adults. Issues in Mental Health Nursing, 11, 17-31.

Sroufe, L. A., & Waters, E. (1976). The ontogenesis of Smiling and Laughter: A perspective on the organization of development in infancy. Psychological Review, 83(3), 173-189.

Stephenson, R. M. (1951). Conflict and control functions of humor. American Journal of Sociology, 56, 569-574.

Suls, J. (1977). Cognitive and disparagement theories of humour: a theoretical and empirical synthesis. In A. Chapman & H. Foot (Eds.) It's a funny thing, humour (pp. 41-45). New York: Pergamon Press.

Svebak, S. (1974). Revised questionnaire on the sense of humor. Scandinavian Journal of Psychology, 15, 328-331.

Thorson, J. A. (1985). A funny thing happened on the way to the morgue: Some thoughts on humor and death, and a taxonomy of the humor associated with death. Death Studies, 9, 201-216.

Thorson, J. A. (1990). Is propensity to laugh equivalent to sense of humor? Psychological Reports, 66, 737-738.

Thorson, J. A., & Powell, F. C. (1991). Measurement of sense of humor. Psychological Reports, 69, 691-702.

Thorson, J. A., & Powell, F. C. (1993a). Development and validation of a multidimensional sense of humor scale. Journal of Clinical Psychology, 49, 13-23.

Thorson, J. A., & Powell, F. C. (1993b). Relationships of death anxiety and sense of humor. Psychological Reports, 72, 1364-1366.

Thorson, J. A., & Powell, F. C. (1993c). Sense of humor and dimensions of personality. Journal of Clinical Psychology, 49, 799-808.

Trice, A. D., & Price-Greathouse, J. (1986). Joking under the drill: A validity study of the coping humor scale. Journal of Social Behavior and Personality, 1(2), 265-266.

White, S., & Winzelberg, A. (1992). Laughter and stress. Humor, 5(4), 343-355.