

Interview

Research on the Role of Humor in Well-Being and Health

An Interview With Professor Arnie Cann

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Abstract

In this interview, Dr. Arnie Cann discusses his research and views on the ubiquitous role of humor in psychological health and well-being. The interview begins with Professor Cann recounting how he originally became interested in studying humor. He then reflects on the main findings associated with the wide variety of humor-related studies he has conducted over the years. In doing so, Dr. Cann provides suggestions and ideas for further research investigating the role of humor in health and well-being. Specific topic areas discussed include the use of humor in the workplace and other social domains, personality approaches to humor, humor and interpersonal processes, humor and psychopathology, and humor's role in dealing with stress and well-being. One of the prominent themes in this interview is the clear recognition of sense of humor as a multi-dimensional construct that includes various components that may either be beneficial or detrimental to well-being. A further important theme is the major distinction between humor as an inherent personality construct versus humor that results from exposure to stimuli (e.g., a comedy film). Comments are also provided by Dr. Cann on how the positive affect stemming from humor may be of particular benefit to the individual. Also discussed is the recent move to more fully integrate contemporary humor research with positive psychology approaches. The interview concludes with Dr. Cann providing several recommendations regarding future theorizing and research on the role of humor in psychological well-being.

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Nick Kuiper: First of all, I would like to welcome you to this interview for the special issue of *EJOP* on humor, well-being and health. We appreciate you taking the time to provide us with some comments on the humor research you have conducted over the past 25 years or so, and also your insights on how you see the field moving forward in the next several years. Perhaps we could begin by going back to the start. Some of your earliest work on humor pertained to the workplace. What was it that first piqued your interest in examining the role of humor in this context?

Arnie Cann: Nick, thanks for the opportunity to be part of this special issue. It has been gratifying to see the interest in humor research grow over the years, and to see humor appreciated, based on research findings, as part of healthy living.

My own path to becoming a humor researcher was unplanned, but grew out of my early experiences as a faculty member at UNC Charlotte. I was fortunate to be part of a group of colleagues who shared my view of the value of humor in life and at work. As you know, there can be the occasional frustration associated with being an academic; maybe a difficult student, or perhaps an administrative decision that perplexes you. As I'm sure is the case in other departments, we intentionally shared humor we encountered; like amazing student responses to essay questions, or humor we found in memos detailing policy. This intentional sharing evolved into creating our own fake 'memos' to express frustrations. For example, a posted 'memo' on official letterhead about Faculty Leave Policies indicated; "If faculty are not happy, they can leave!" Eventually we turned to professional satire, and published a number of humorous articles in the now defunct *Journal of Polymorphous Perversity*. All of these activities contributed to my own enjoyment of work and a high level of collegiality, so during a four year stint as chair of the department, I consciously tried to find a place for humor in my management activities. Of course, these activities were simply an expression of the personal styles of my colleagues and me, without any data-driven foundation. This changed when my colleague, Lawrence Calhoun, was asked to develop a continuing education session on stress reduction strategies as part of a series of workshops designed for emergency response personnel. After delivering that session a number of times, he suggested to the organizers that a session on using humor at work might also be useful. He proposed that we develop the program together, so we were forced to dig into the actual empirical findings on humor for the first time. Although we were able to put together a successful session, we both realized that the existing research on humor and psychological health was limited and lacking. Our personal experiences suggested clear health benefits due to planned humor exposure, but the data were not convincing. Thus, we began a secondary research program examining the potential benefits of humor. At that time we kept our regular research programs as well, so in the beginning the humor research was a side interest we returned to as new ideas took shape or we found students we could interest in humor research. Then, about 10 years ago, the department made a decision to develop our first doctoral program and to create a program with an emphasis on Health Psychology. At that time I made the decision to focus my own research more specifically on health-related issues, and to make humor a major part of the program. In some sense, I have been searching for evidence to support what felt very true for me; that humor plays a part in maintaining my well-being.



Dr. **Arnie Cann** is a Professor of Psychology in the Department of Psychology at the University of North Carolina Charlotte, North Carolina. Dr. Cann graduated from Indiana University in 1975 with a Ph.D. in Social Psychology and a further interest in studying Organizational Behavior. Since that time Professor Cann has had a long and illustrious career at the UNC Charlotte, with his research interests focusing on various aspects of health psychology, including humor, post-traumatic growth processes, gender roles and social relationships. Dr. Cann has been conducting psychological research on humor for well over two decades, with much of this work being quite relevant to the central topic of this special issue of EJOP, namely, the role of humor in well-being and health. In this context, Dr. Cann, along with many collaborators in the psychology department, has produced research papers on humor in the workplace, humor and depression, the role of humor in interpersonal attraction, humor's role in dealing with stress and negative life events, humor and person perception issues, humor and communication, humor, attachment and conflict styles, humor and relationship satisfaction, and humor's role in risk perceptions and behaviors.

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Nick Kuiper: How do you see this early work addressing the broader issue of humor's role in well-being and health?

Arnie Cann: Although Lawrence and I were initially led to examine humor in the workplace because of the opportunity to educate emergency response personnel to the potential value of humor in dealing with their highly stressful jobs; we never really saw our questions as limited to or particular to the workplace. Given our personal journeys around humor and our systematic efforts to use humor in our own lives, we began by asking some very basic questions about how exposure to humor might provide a psychological boost or emotional advantage. We reasoned, as had others, that the positive emotions associated with successful humor could simply counteract the negative emotions associated with stress and depression. We also felt that the sharing of humor contributes to building relationships. Obviously, dealing effectively with the stress that life brings you and developing a social support network you can rely on when you face threats are very basic elements in establishing and maintaining well-being in all aspects of life. In the first few studies on humor from our lab, we were asking questions about humor as an experience. We simply presented humor (or some control stimulus) to see if exposure to humor could counteract negative emotions associated with disturbing events. One of our first efforts (Mussman, Clontz, Cann, & Calhoun, 1993) compared two groups of borderline depressed individuals, one group watched videotaped humor for 20 minutes once a week for three weeks, while the other watched neutral videos. The humor group showed a greater decline in depression scores over time. From there we moved to creating distress in the lab, and using humor to either inoculate against the stress or counteract the stress. In the end, the results all supported the value of humor to minimize the negative impact of the laboratory stressors. Both humor before or after a stressor restored the participants to a better emotional place (Cann, Calhoun, & Nance, 2000; Cann, Holt, & Calhoun, 1999). It's no surprise that humor makes you feel good, but carefully collected data still are required. In retrospect, I wish we had stayed focused on the impact of humor exposure as a strategy for promoting well-being, since it avoided many of the complications associated with an emphasis on sense of humor as the underlying factor. In my more recent work I have tried to return to these roots.

At about the same time we were looking at humor exposure as a strategy to promote emotional well-being, Lawrence and I also began a second line of humor research looking at humor's role in relationships. Even back then, the literature had consistently shown that a sense of humor was almost universally seen as a highly desirable quality. We assumed that most people would judge another's sense of humor to be especially good based on how the other person reacted to their own humor efforts. After all, just about everyone believes they have an above average sense of humor, so their appreciation of a joke must mean it's truly funny. We had participants in this study (Cann, Calhoun, & Banks, 1997) indicate their attitudes on a series of issues and then select a joke they liked and share it with 'another' person in the next room, via an intercom. The other person did not exist, but

Dr. **Nick Kuiper** has been a professor in the Department of Psychology at the University of Western Ontario since 1978. During this time, he has published numerous articles and chapters on the self-reference effect, depression and anxiety, psychological well-being, humor, and several other topics of interest. Most of his current research pertains to various facets and implications of humor. This interest in studying humor began in the early 1990's, with a special emphasis on personality and social psychological aspects of laughter and humor. Much of this work has focused on individual differences in sense of humor, with implications for stress, coping, psychological well-being, physical health, and social interactions. Further work has examined humor use in romantic relationships, the potential links between humor use and bullying in middle childhood, cross-cultural patterns in humor, the implicit theories of humor that individuals develop about themselves and others, and the potential links between various humor styles and different forms of anxiety.

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a taped response indicated both laughter and an expressed appreciation of the joke or a neutral response. Once the participant was given the opportunity to see the other person's supposed attitudes, we asked for a rating of initial attraction. The other person who laughed was liked more even when other evidence indicated a lack of similarity on most attitudinal issues. Given the extensive literature on how important attitude similarity is in first impressions, this seemed like a dramatic impact for a single joke. In our minds, this demonstrated how powerful shared humor appreciation could be in helping to form relationships. Shared humor can help to form bonds even with people who are not like you, and those bonds should protect well-being. We saw these two lines of research as validating how humor can provide both intra and interpersonal benefits; humor to generate positive affect and humor to build relationships both enable greater well-being.

Nick Kuiper: Over the years you have followed up this early work on humor with more recent studies on humor in the workplace. As part of this work, you recently developed and published a *Humor Climate Questionnaire* for assessing humor in the workplace. Could you briefly describe what the goal of this questionnaire is, and why you saw a need to develop this instrument?

Arnie Cann: Once again, the recent notions about how humor affects outcomes in the workplace were partially the result of my personal work experiences. As I mentioned earlier, we had created a work environment in the Psychology Department in which humor was a common and salient part of our interactions and our culture. Over time, and under different departmental leadership, however, the degree to which humor was supported and encouraged seemed to change. In my mind, the whole climate of the department felt like it had been affected, and the absence of regular humor seemed to be part of that unwelcomed shift. I began to explore how humor might be recognized as a factor in assessing organizational climate. It turns out that even though some existing instruments designed to measure organizational climate included as many as 17 separate factors, none of them considered humor to be a part of organizational climate worth capturing. While the notion of a humor climate, or culture, was mentioned in some qualitative studies of organizations, the focus of most of the research in organizations seemed to be on individual differences in humor styles or humor use. Most studies tended to look at whether actual or perceived differences in how humor was used by employees or leaders were related to work variables? The only place I found a mention of humor as an element in the construct of organizational climate was in a measure looking more narrowly at the creative work climate; what type of climate fosters creative work ideas. I was convinced that differences in humor sharing and support were also a part of humor's impact and that these extended beyond individual differences in sense of humor.

Of course, by the time we began looking at humor climate, research on humor had benefitted from the structure provided by [Martin and colleagues \(2003\)](#) Humor Styles Model; incorporating the adaptive and maladaptive humor uses and forms in a single model. In thinking about humor climate, we wanted to capture both the positive and negative presence of humor in an organization since the impact would likely be very different. Although there has always been an awareness that some forms of humor could be detrimental to the individual experience and group process, rather than beneficial, the literature too often used measures that failed to distinguish good and bad humor. When humor was observed in the workplace, all humor was often assumed to be equivalent in its potential impact. In developing the Humor Climate Questionnaire (HCQ), we also wanted a measure that captured variance beyond that associated with individual differences, and an instrument that distinguished forms of humor that were likely to support versus detract from workplace well-being. The idea was to identify how a humor climate can vary based on how humor is shared and supported, and what forms the humor takes. After discussions with some colleagues in organizational science, the goal also became to create a brief measure, one that could easily be used in applied

research. After a couple of iterations, the four factors we identified were Positive In-group Humor, humor shared to support each other within a work group, Negative In-group Humor, humor used to tease or make fun of others in the work group, Negative Out-group Humor, insulting or demeaning humor directed outside the work group at upper management or authority, and Supervisor Support for Humor, a sense that the leader of the group encouraged humor in the group. We've used the HCQ in a couple of studies (Blanchard, Stewart, Cann, & Follman, 2014; Cann, Watson, & Bridgewater, 2014), and the results are promising. When we controlled for the individual differences in participants' humor styles, using the Humor Styles Questionnaire, we found that the HCQ explained additional variance in many job related variables (satisfaction, commitment, sense-making, identity, etc.). There also was evidence that positive and negative humor play very different roles and can have opposing effects, so attention to the styles of humor being shared, and the targets of the humor, are important. Hopefully, now that the scale is published, others can see if humor as part of the climate helps understand other outcomes and how humor may be a factor in healthy workplaces.

Nick Kuiper: What are some of the further uses you would see for the Humor Climate Questionnaire? For example, how would you see it being used in future research on humor in the workplace to foster better health, interpersonal relations and communications in a business or work context?

Arnie Cann: A question to address might be whether a humor climate characterized by positive humor is associated with greater creativity when other individual difference variables are controlled. We also could evaluate possible interventions to improve the humor climate by tracking scores on the HCQ over time. Going back to my desire to refocus on humor exposure as a variable, one way to enhance the humor climate may be to systematically bring more humor into the workplace. This type of intervention does not depend on any specific skill or quality associated with the leader or the employees, it could be a humor intervention focused on changing the climate by increasing exposure to humor from multiple sources. To the extent that a positive humor climate fosters greater commitment to and identity with the organization, and is predictive of job satisfaction, and that exposure to humor can counteract stress, these are all aspects of enhancing well-being in the workplace. A workplace with a positive humor climate should be a healthier place to work both in terms of lowered negative emotions and in terms of better interpersonal relationships.

Nick Kuiper: When examining humor in the work place or in an organizational context, what would you see as the most important research findings that have emerged over the past decade? What kinds of issues do you think are still the most important to tackle, with respect to finding out more about how humor may impact on well-being and health in a work setting?

Arnie Cann: I think there are areas where progress in understanding humor at work is being made. First, there is a growing appreciation for the distinctions that must be recognized about different uses of humor. Positive uses of humor, to build relationships, to decrease stress, or to increase positive affect are not at all the same as humor used to criticize or to try to gain power or status within a work group. Recent studies have been more likely to acknowledge the need to distinguish good and bad humor. A recent meta-analysis by Mesmer-Magnus, Glew, and Viswesvaran (2012), for example, specifically calls on researchers to be more aware of the good and bad humor that takes place at work and to pay attention to both forms. Second, the range of outcome variables being considered also has been expanding. While early research tended to focus of work-stress, job satisfaction, or perceived leader effectiveness, recent studies have begun to consider broader effects like commitment, identity, sense-making, and well-being. These are all different ways in which psychological health might be impacted at

work. Third, there is a growing recognition that a structure or a theoretical model is needed to guide the research. Almost all of the studies in the recent meta-analysis consider humor as an individual difference variable. Either the participants report on their own humor styles or humor preferences, or they provide perceptions of others', usually the leaders', humor styles. In measuring these differences in humor styles, a wide variety of individual difference measures have been used across different studies, and they are quite variable in what they actually assess about humor styles. This issue is certainly not unique to the study of humor at work, but it does reflect a general vagueness in conceptualizing humor as a variable. The few studies that have looked at actual humor events at work have generally been in qualitative studies, usually focused on a specific work group. We need a theoretical framework for guiding the research that considers both the role of individual differences in humor styles and the impact of exposure to actual humor at work.

Nick Kuiper: When talking about “sense of humor”, humor investigators have clearly shown that this construct is multi-dimensional and can be divided up in many different ways. One way, for example, has been to distinguish between humor appreciation (the ability to enjoy or appreciate humor in one’s environment) versus humor generation (the ability to generate humorous or witty comments in response to various interactions with one’s environment). Another way is to consider different styles of humor, with some of these personal humor styles being more adaptive (e.g., affiliative or self-enhancing humor) and others being more maladaptive (e.g., aggressive or self-defeating humor). Could you provide some examples from your own work that has identified these different components of “sense of humor?” How do these different components make a substantial difference when thinking about how humor relates to health and well-being?

Arnie Cann: I don’t think there is any question that any effort to define sense of humor as a one-dimensional construct will be destined to fail to adequately capture the construct. However, finding the single best model of sense of humor to use as the foundation for a measure may prove to be quite elusive. When we began our humor research in the late 80’s, we looked at the available measures designed to capture sense of humor and found all of them to be lacking in some way. We did include some of these measures in early projects, but they added little to our findings and in some cases produced counterintuitive results. We were in the process of trying to conceptualize a better way to get at sense of humor, one that incorporated good and bad humor uses, when I got a grant proposal to review for a funding agency. The proposal described the work that would ultimately result in the Humor Styles Questionnaire. I was sufficiently impressed by the logic of the HSQ that I decided to put aside my own efforts and wait for it to be available. Although it still may not capture all the elements of a sense of humor, the HSQ provided a model to distinguish humor uses in what seemed like valuable ways. The adaptive versus maladaptive dimension and the self versus other dimension seemed applicable to important distinctions I saw in the potential role of humor in well-being.

Our work on how sense of humor is related to the experience of stressors focused on the differences identified by the HSQ (Cann & Etzel, 2008; Cann, Stilwell, & Taku, 2010). For example, we found that only the self-directed humor styles were related to how people perceived stressors in their lives, both those stressors in the immediate past and expected future stressors, and how stressors were related to well-being. The other-directed humor styles explained little variance in the reports of stress. Additionally, the distinction between adaptive and maladaptive humor styles was critical, since the tendency to use self-defeating humor was associated with higher perceived stress and lowered well-being, while self-enhancing humor was predictive of more optimistic perceptions of stress and higher well-being. At the same time, our research looking at sense of humor and relationship satisfaction found that only the other-directed styles were relevant (Cann, Zapata, & Davis, 2009, 2011). Once again, the ad-

aptive-maladaptive styles had opposing relationships with satisfaction; higher satisfaction with affiliative humor and lower satisfaction with aggressive humor, supporting the importance of looking at the good and bad sides of humor. Obviously, looking only at whether humor is used with high or low frequency would have missed these very critical differences.

I think that developing easily used and meaningful measures of some of the other distinctions that may well exist is proving much more difficult. There have been a number of efforts to identify and capture differences in humor appreciation and humor creation, but those distinctions have not had nearly the same impact on understanding humor as a factor in health. It may well be that we want to revisit the ideas behind the Situational Humor Response Questionnaire (SHRQ), but without a focus on laughter. The SHRQ tried to quantify how likely a person was to laugh in a variety of situations. Maybe there is a way to capture how much humor a person experiences across situations, whether they laugh or not. Being someone who has a humor filled day may be the best indicator of how humor supports good health.

Nick Kuiper: What are some of the major limitations, both conceptually and in terms of assessment, of current work on different facets or components of sense of humor? What kinds of issues need to be addressed in future work, particularly with respect to how these components of sense of humor relate to health and well-being?

Arnie Cann: It's interesting that you ask this question because my son, who has been a recent collaborator, and I have been having lengthy discussions about this issue. To really understand what it means to have a sense of humor may mean rethinking what we mean by 'sense'. What we have been talking about is how there may not really be a useful simple distinction between adaptive and maladaptive humor that is meaningful. For example, when you look at the humor that is out there and is the common fodder of comics, the abundance and popularity of the so-called 'maladaptive' forms of humor imply that it must be the case that these styles of humor have some useful and adaptive role in social life. Comics rely heavily on aggressive and self-defeating humor styles. In fact, as we have tried to develop materials for some of our studies, we have had trouble finding comics who tend to use more affiliative styles of humor.

At the same time, the adaptive styles of humor may not always be socially or personally desirable and appropriate. To have a true "sense" of humor may require knowing how to match the context with the humor style. This is something others have noted as well, but the research has not emerged to validate these assumptions. In describing the foundation for the HSQ, [Rod Martin and his coauthors \(2003\)](#) talked about the fact that aggressive humor can be adaptive when it is presented and perceived as gentle teasing. In the right context, humor that attacks or demeans can signal closeness between people that confirms a safe relationship. Willibald [Ruch \(2013\)](#) has recently identified a use of humor that he calls corrective, which involves ridicule to encourage positive change. [E. O. Wilson \(2012\)](#), the sociobiologist, suggests a term 'leveling', to describe humor used to prevent an undesirable group member from gaining too much power in a social group. In these cases, aggressive humor is adaptive and can have positive consequences for the user and the group. The same arguments about context can be applied to the other humor styles. Using self-defeating humor to present oneself in a self-deprecating manner can be highly adaptive. For those in power, the ability to engage in self-deprecating humor is likely to make them seem more 'like the rest of us' and more likeable. Use this style excessively, or in the wrong context, and it's maladaptive. Affiliative humor is often highly adaptive, but using humor when the context calls for a serious consideration of issues can seem dismissive and might escalate rather than reduce conflict. Some people may avoid dealing with serious interpersonal issues by trying to humorously deflect or redirect discussions. When dealing with potential

personal threats, a self-enhancing humor style can allow for a creative and humorous reappraisal leading to less distress, but others have argued that using humor when assessing risks also could lead to a failure to take the risks seriously and, therefore, lead to decisions that expose you to greater risks. So, any style of humor can be used as an adaptive or a maladaptive response to a situation, and a true 'sense' of humor may involve recognizing what humor will be best for a given context.

If this is to be a useful model for understanding humor, as a context-dependent response, then asking people to describe the frequencies with which they use each style or how well the style characterizes their typical humor uses may be missing important variability. The four humor styles still represent a valuable distinction, but they can only be judged as adaptive or maladaptive based on when they are used. Does the humor fit the context in a way that is adaptive? Is the person using humor in a way that makes sense for their own or others' well-being? This approach obviously adds a layer of complexity to the study of humor, but a full appreciation for the ways that humor can enhance our lives, or diminish our lives, may require seeing humor in context to decide if it makes sense. Some promising strategies that might allow for a better understanding of how the 'sense' in sense of humor plays a role involve the daily diary methods that have begun to be used. I know Rod Martin and his students have been exploring these strategies, and diary studies are becoming more prevalent in other research areas. These approaches should provide a richer context for understanding whether humor is being used adaptively or maladaptively to affect well-being.

Nick Kuiper: Let's talk a bit about some of your other studies that pertain to the issue of how humor may be related to stress and personal well-being. Underlying this work is a major distinction between humor that an individual might be exposed to (for example, watching a comedy film) versus humor that is a personality characteristic or trait (for example, having a "good sense of humor"). Perhaps you could begin by commenting on the usefulness of this basic distinction in humor theory and research, while also highlighting some of your major findings in this domain. How has this aspect of humor been involved in your work on humor, health, and well-being?

Arnie Cann: As I indicated earlier, I realized recently that I had strayed away from the initial focus of my humor research, which involved looking at the effects of exposure to humor. In considering humor exposure as a strategy, the logic was to take advantage of the positive affect, or mirth, which is the result of what most people would say, is successful humor. Remember that our entry into humor research came out of our work with emergency response workers. In the workshops we were encouraging them to bring humor to work to share, and to find ways to make humor part of their daily activities. We were encouraging humor acts that anyone could participate in, regardless of their own sense of humor or skill at generating humor. It seemed like a good idea to check for ourselves if this humor exposure strategy was actually effective. The challenge with taking this approach to humor and health is finding a generally effective humor stimulus, since individual differences likely meant that the same humor was not always equally funny for all people. In those early studies, we developed the stimuli by using videos of stand-up comics, but sampling from a variety of comics and creating a compilation, to try to have instances of humor that would appeal to as wide an audience as possible. We reasoned that the humor generated positive affect would counterbalance negative affect associated with potential stressors and minimize the potential psychological harm. Those early studies provided support for these ideas in that exposure to humor either before or after a stressor resulted in some emotional benefits and reduction of negative affect. The literature on the effects of positive affect, which has grown considerably since the time of our first studies, still often relies on exposure to humor to generate positive affect. Based on the now quite extensive literature on positive affect, we know that inducing even temporary positive affect can have many beneficial effects beyond simply counteracting negative

affect. Those experiencing positive affect generate more positive thoughts, are more cognitively flexible, and can be more creative. In our article for this issue, we use the Broaden and Build process as a model for appreciating the role of humor in well-being. Positive affect can be viewed as a resource, such that having a more stable positive affect can both protect and promote well-being. A good sense of humor would be one factor in helping to build that positive affect resource, but regular exposure to events generating mirth also could be an avenue worthy of serious attention.

In a manuscript currently under review, we've returned to a consideration of the impact of humor exposure, but now with a greater appreciation for the different humor styles. In two studies we exposed people to humor that had been pretested to reflect either affiliative humor or aggressive humor. In the first study, people rated target people who revealed their favorite jokes or humorous statements. If being funny is the goal of humor, then the style of humor might not matter so long as you are being funny. However, there also might be valuable information revealed by apparent humor styles. So, we were asking, "Would the style of humor used, or the funniness of the humor, be the relevant factor in affecting the perceptions?" What we found was that even though both sets of jokes, reflecting affiliative and aggressive styles, were rated as equally funny, the perceptions of the target varied based on the humor used. Having a preference for aggressive humor, even funny aggressive humor, led to more negative evaluations. In the second study we returned to clips of stand-up comics as the humorous stimuli. We created clips that were pretested to be equally funny, but which were characterized by affiliative or aggressive styles. Participants watched the video clips and then indicated their current affect and rated the videos. All participants rated the aggressive humor as more 'disturbing', and for women, they reported higher levels of negative affect and lower levels of positive affect after the aggressive humor. So, now we see how even humor exposure may require a nuanced appreciation of humor. Not all funny humor has the same psychological impact. We hope to build on these findings in some of our next work.

Nick Kuiper: How might humor as an event that someone is exposed to potentially interact with "sense of humor" as a personality trait, particularly in the context of psychological well-being and health? How might such interactions be investigated in future work in this domain?

Arnie Cann: This question really depends on understanding what is meant by sense of humor, or at least what aspect of sense of humor will be considered. As you mentioned earlier, some views of sense of humor include humor appreciation as a dimension, and earlier definitions have included dimensions like 'metamessage sensitivity' to suggest that a good sense of humor may make people more sensitive to potentially subtle humor they encounter. A recently published scale claims to measure the need for humor as a separate individual difference distinction. Early research looking at personality and responses to humor also suggested that what type of humor you prefer may vary with other personality traits. So any possible interactions might be quite complex. Logically, it seems that at a global level, having a good sense of humor across multiple dimensions would mean that you are more likely to find ways to make humor a part of your life and to take the time to acknowledge and enjoy humor. Using the HSQ, one would think that people who scored generally higher would be demonstrating a greater focus on humor as a part of their daily lives. Consistent with this possibility, [Gil Greengross and colleagues \(2012\)](#) found that professional comics tended to score higher than a sample of college students on all 4 HSQ dimensions. If this is the case, then those with a good sense of humor across multiple dimensions would be experiencing more humor and building up a more stable positive affect as a resource for facilitating well-being.

A recent study by [Leist and Müller \(2013\)](#) that we cite in our contribution to this special issue used the HSQ to see if they could identify clear humor profiles, based on patterns of responses across the four humor styles. They found some people who scored high across the board, and other who tended to score high on the adaptive, but not the maladaptive styles. However, when they looked at life satisfaction as an outcome, these two groups did not differ. Obviously, this did not look at actual reactions to humor, but it does suggest that all humor styles may have some value and may allow you to appreciate more forms of humor. Having said all this, research has not provided clear empirical bases for making predictions about reactions to humor and sense of humor. My son and I presented a poster earlier this year in which we looked at whether or not a person's HSQ scores would predict their ratings of jokes that had been pretested as reflecting affiliative, aggressive, or self-defeating humor ([Cann & Cann, 2014](#)). In other words, would your humor style predict the type of humor you enjoyed most, or would humor ratings be independent of style? Overall, humor styles did not predict ratings of the jokes. There was evidence that aggressive jokes were rated funnier by those who reported a greater aggressive style, but an affiliative style actually was negatively related to ratings of the affiliative jokes. So the evidence is unclear at best and any interactions may require looking at humor types and specific dimensions of humor, or creating a truly global assessment of sense of humor.

Nick Kuiper: As we learn more about how humor may play a role in well-being and health it becomes possible to think about potential ways to “teach” individuals how to use humor in a positive adaptive manner to manage stress. What is your take on the current state of empirically-based research on teaching individuals to use humor effectively? Are we now at the point where such applications are justified? Or is it still the case that we are relying too much on anecdotal evidence about the effectiveness of teaching humor as a coping technique?

Arnie Cann: A theme that has run through my own research over the years, and to some extent through our conversation, is that sense of humor and humor exposure can both provide avenues for managing stress and strengthening relationships. When considering sense of humor, or humor style, the evidence suggests that the self-enhancing humor style, focused on using humor to cope, is the dimension of sense of humor worth training. Even in our contribution to this special issue, it is the self-enhancing humor style that is related to building positive affect, resilience, and well-being. So, if we are going to teach a specific skill within the global construct of sense of humor, using humor to cope would be the target that makes the most sense. I am aware of only very limited research that has tested empirically the potential for teaching this skill. The interventions reported have usually been based on [McGhee's \(1999\)](#) humor skills training program, originally proposed in the 90's, which involves trying to help participants develop a playful attitude, but also to appreciate humor as a coping strategy. A recent study by [Crawford and Caltabiano \(2011\)](#) found evidence supporting the effectiveness of the humor training. They used McGhee's program over an 8 week training period, and then did follow-up measures 3 months later. On most measures, the humor group appeared to be doing better. They reported higher positive affect, lower negative affect, higher optimism and self-efficacy, and lower levels of stress and depression. More research is still needed to replicate these results and look at even longer term outcomes, but these results are encouraging. One issue to be considered is whether it is the humor that matters in this training, or if learning any new skill for dealing with threats would be as useful as a cognitive behavior therapy intervention.

A part of [McGhee's \(1999\)](#) program also involves exposure to humor. In addition to including some humor in the exercises and as supplements to the exercises, participants are encouraged to seek out humor they especially enjoy. This advice is exactly what we were telling the emergency response personnel back at the beginning of our humor journey. The central idea behind this intervention strategy is to try to understand what humor you like

and become an active seeker of that humor. Rather than wait for the humor to find you, or rely on a personality trait that may be less than ideal, be a humor seeker. So, regardless of the specific skills associated with coping through humor, becoming aware of your own humor preferences, and actively seeking exposure to that humor, could be a strategy for helping to manage stress. While our initial logic was that the positive affect would temper any negative affect, we now know that regular experiences of positive affect can represent a resource that strengthens resilience in general, and promotes well-being. The Broaden and Build theory provides the framework for appreciating how regular humor exposure could be a strategy for managing stress independent of any specific skill in reappraising threats.

In summary, I would say that we are ready to evaluate strategies for teaching people how to use humor to manage stress, build relationships, and enhance well-being. There are strategies that seem to make sense within existing theories; some supportive evidence for their effectiveness already exists, so let's get more data to validate these promising ideas.

Nick Kuiper: Social relationships are also a very important aspect of well-being and health. In your research you have conducted several studies that have looked at various aspects of social relationships and communication that bear on humor, well-being and health. Can you tell us a bit about this research and what you consider the major findings to be?

Arnie Cann: Sure, I've mentioned some of these studies in passing, and the same themes run through the research on humor in relationships and our research on humor and distress. We began just asking the question about how humor and sense of humor are perceived socially. One of our earliest studies revealed that discovering a shared appreciation for humor was a powerful factor in increasing attraction to a stranger, overwhelming even differences on many attitudinal issues. Given the consistent findings over many studies that attitude similarity on social issues was a reliable predictor of initial attraction, the fact that having someone like a single joke you told overcame attitudinal dissimilarity on a majority of the issues presented was impressive. Finding humor that can have general appeal, and sharing that humor, should be a valuable social lubricant. At the same time, another message from this research is, laugh at the humor of others and you become much more attractive. This is probably of no surprise to most people with any social skills, but the strength of the effect is still impressive. Like my joke and other differences can be forgiven!

In a later study ([Cann & Calhoun, 2001](#)) we simply described someone as having a good, defined as above average, or bad, defined as below average, sense of humor, and found that an above average sense of humor led participants to assume the person would have many other highly desirable qualities. For example, believing someone has an above average sense of humor was associated with an image of a friendly, interesting, creative, imaginative, extraverted person who also was less likely to be neurotic. Sense of humor clearly is assumed to have broad connections to other characteristics. As we began to focus our research on differences in humor styles, we wanted to see if the maladaptive styles, at least as general behavioral tendencies, were, in fact, dysfunctional or hazardous to relationship health. In a couple of different studies we looked at how your perception of your partner's humor style was related to your relationship satisfaction. In each case, the distinctions captured by the HSQ were critical. Not all humor is good, and humor that is other-directed matters most in how other people close to you respond to your humor uses. Affiliative humor predicts higher relationship satisfaction, while aggressive humor has a negative relationship with satisfaction. The two self-directed humor styles were essentially irrelevant to satisfaction. Of course, now we also know, based on our later work, ([Cann & Matson, 2014](#)) that only affiliative humor is pre-

dictive of global ratings of sense of humor, so an affiliative humor style is what people imagine when they think of a good sense of humor.

In one of these studies we had both members of romantic couples participate (Cann, Zapata, & Davis, 2011). This allowed us to see if one partner's perceptions of the other's humor style matched. Do we see in our partner the humor styles they claim to be using? We also wanted to see which humor style ratings best predicted relationship satisfaction; our perceptions of our partner or our partners' self-reports. In general, there was low agreement between your self-ratings and your partner's ratings of your humor style; usually less than 10% shared variance across the humor styles. And in predicting relationship satisfaction, your perception of your partner's humor style typically explained about twice as much of the variance in satisfaction than did your partner's self-rated humor style. This is not surprising, since the relationships' literature often finds that our perceptions of our partners are what seem to matter most in how we judge and experience our relationships. The message is that if you are perceived to have a positive humor style in your other-directed humor, your felt relationship satisfaction, and your partners' reported satisfaction will be higher. Good shared humor strengthens relationships and having strong social connections should support well-being. The study I mentioned earlier, that is under review right now, also suggests that being funny is not the key to using humor to build relationships. Remember we found humor that was equally funny had very different effects on evaluations when it was affiliative rather than aggressive. Funny aggressive humor associated with another person did not lead to positive evaluations. So when people claim that they like someone because he or she makes me laugh, it may be the case that they are remembering only the good humor, not the funny bad humor. I do think that humor as a relationship builder and supporter needs to be seen as a way to enhance resilience by providing social support. Having someone there to help you manage stress may be as important as having an ability to cope at the individual level using humor.

Nick Kuiper: To what extent has your recent work on post-traumatic growth processes also involved looking at humor use (either as an event experienced by the individual or as a personality attribute)? What types of extensions of this work can you see in the future that might relate to humor, well-being and health?

Arnie Cann: Up to this point the two research areas how remained mostly independent, although they both reflect our interest in positive psychology processes. One difficulty with doing research on the effects of traumas is that we have trouble getting the pre-trauma measures that would allow us to identify useful predictors of distress and growth. We would love to use the HSQ to identify individual differences that exist before encountering the stressful event, to see if adaptive humor predicts greater growth or if maladaptive humor inhibits growth. We are beginning to look at transformative life events more broadly, to see if growth is experienced through the same processes after non-traumatic but transformative experiences. We are planning research that would target people who choose to experience challenging or similarly transformative events, like pilgrimages, so that we can follow them through the whole experience and track changes over time. Although not exactly the same as an unexpected trauma, these chosen challenges still might be an avenue to recognizing qualities predictive of growth that otherwise might be missed. In that research, we will be including measures to identify differences in humor styles, as well as other qualities associated with resilience and positive perspectives.

In an ongoing study, we do hope to determine if how humor might be present in the cognitive work used to process a trauma and determine if humor facilitates growth. For her dissertation, one of our current doctoral students is looking at expressive writing as a strategy for dealing with the emotions associated with highly stressful events. Expressive writing has often been shown to assist in coping with stressful events by reducing the associated

emotional distress. Her goal is to see if a directed form of expressive writing can also be used to facilitate posttraumatic growth by encouraging attention to positive changes. Since participants in this research will be writing multiple times about their thoughts concerning their stressful experience, we are hoping to examine the text for instances of humor. Outcome measures will include psychological distress and posttraumatic growth, so perhaps we will be able to connect the use of humor and the style of humor with both symptom reduction and increased growth. As we refine the PTG model, we hope to identify where in the processes leading to growth humor could be especially beneficial. Since we believe that intrusive thoughts about the stressful event interfere with the deliberate processing that can foster growth, humor could easily help to temper those intrusive cognitions.

Nick Kuiper: One of the themes evident in several of the studies in the present special issue on humor and health is a move towards more fully integrating theory and research on positive psychology with work on humor. How might this additional focus on the strengths of the individual and notions of resilience add to our understanding of humor's role in well-being and health?

Arnie Cann: I think your recent article on humor and resilience, and I hope our article in this issue, (I have not seen the other contributions to the special issue, so there may be more examples) have begun to link together some of the areas of research that are relevant to defining the role that humor can play in supporting well-being. There are a number of streams of research that appear to be converging based on a foundation personal strengths, resilience and positive affect. In each of these broad areas of positive psychology, humor is obviously a factor worth examining. The emerging research on character strengths recognizes sense of humor as a relevant quality contributing to well-being. Humor in this model is considered broadly, and includes liking to joke and also sharing humor with others. The research on the many psychological health benefits of stable happiness suggests a major place for humor either as an individual difference variable that allows you to maintain a happier perspective or as an event that one can choose to include in one's life to help maintain higher levels of happiness.

As we indicate in our contribution to this special issue, we see the Broaden and Build Theory as a potentially useful framework for integrating these areas of research and for understanding how humor and sense of humor can both be a part of building and maintaining a stable positive affect that ultimately facilitates creative, flexible thinking, and contributes to building resilience for healthier responses to threats that might lower well-being. Replacing negative thoughts with positive thoughts, by developing a playful attitude that enables you to face threats with a bit of humor, or simply finding humor in everyday events, allows you to build up stable positive affect as well as prevent potential negative affect. Learning to seek out humor that fits your style is a skill that is easily developed and could have significant benefits by enhancing happiness and supporting positive affect. Extending the notion of resilience to an interpersonal resource, not merely an intrapersonal resource, is an important perspective to consider; share the good humor you find, and you are strengthening social bonds so that you will have the social resources and support when you need it.

In many of these examples, there might not be a simple direct path from sense of humor or humor exposure to well-being; instead researchers need to look for the variables through which humor is mediated, or variables that moderate the effects of humor. A good sense of humor may help to build character strength that protects well-being. Including humor in your life in a planned way could support happiness as a stable experience, and enhance well-being. Employing humor to maintain positive affect can provide a resource that supports resilience, and indirectly support well-being. While at some level the role of humor in health seems obvious, the precise mechanisms still need to be identified. A quote often found in writings about humor is from Proverbs: "A merry heart doeth good

like a medicine: but a broken spirit drieth the bones”, but to appreciate the processes through which humor works to ‘doeth good like a medicine’, we need to consider the more complex connections among all of these different processes and variables that make humor potentially valuable in supporting psychological health.

Nick Kuiper: In this interview we have talked about a number of different themes and issues that bear on the role of humor in well-being and health. Are there any further themes or suggestions that you might wish to comment on, for readers interested in examining these issues from a psychological perspective?

Arnie Cann: I think there are three recommendations or pieces of advice I would put on the table. First, I think we need to move beyond looking at sense of humor as a personality difference that can be assumed to capture the many ways in which humor is used in context. As I indicated earlier, it may not be sufficient to try to categorize humor uses or styles as adaptive or maladaptive, since any form of humor might be an adaptive or maladaptive response to a specific situation. The truly good sense of humor must include having a sense of when to use humor, when to avoid humor, and what style of humor is appropriate now. I hope that the diary studies or other methods that allow researchers to record humor as it is used in context will provide a better understanding of what constitutes a real ‘sense’ of humor. Given that humor is typically used and enjoyed in social context, we need to be working toward understanding the real impact of humor in context. Although we often assume that being funny and having a good sense of humor are virtually the same, I think the real definition of a good sense of humor and the ways in which humor can affect health are more complex.

A second suggestion I would make is to look more carefully at how exposure to humor can be part of a plan for maintaining well-being. Although there is clear value in looking at humor from a personality perspective, since stable individual differences will impact outcomes generally, we also need to see humor as an experience that can be employed to provide benefits and contribute to health. Building on the research on happiness, are there benefits that can be gained simply by making an effort to bring humor into your life on a regular basis. Happiness researchers have shown that expressing gratitude, counting one’s blessings, and other small acts contribute to happiness, it seems likely that actively seeking humor and systematically exposing oneself to humor also could support happiness. While there are many examples of programs that claim humor therapies are useful, we need better data on just what impact humor exposure can have on psychological health when people are in control of their humor experiences.

Thirdly, we need to consider how humor can contribute to resilience at an interpersonal as well as an intrapersonal level. Humor as a source of interpersonal resilience may be a bit more difficult to document, but it may be just as valuable. It is easy to see how using humor as a coping strategy can help individuals reappraise threats and more efficiently cope with challenges. The use of affiliative humor, to build stronger relationships, and the sharing of good humor to help others cope, may be equally as important in insuring well-being when faced with threats. In the early years of humor research, there was often a complaint that people were not taking humor research seriously. I believe we have moved past that point, so that people appreciate the potential benefits of humor both personally and socially. The next step is to provide a theory or broader framework for integrating humor with other variables that contribute to well-being.

Nick Kuiper: I want to thank you for sharing your comments and views with us. I understand that you may be retiring in the next few years and then passing the “mantle of humor research” on to your son. Can you briefly tell us what kinds of humor research your son is engaged in?

Arnie Cann: My wife and I have joked in the past about feeling okay about retirement if we can replace ourselves first. My wife is a civil engineer and also was on the faculty here at UNC Charlotte. Our younger son followed that career path as well. Although he had no interest in a faculty position, he has finished his training and is employed as a civil engineer. My wife has now retired. Our older son, Adam, did not take a direct path to psychology, so I have had to be more patient, but he eventually found his way and, in the process, found humor research to be a real attraction. Now I just have to wait for him to finish and take my place.

Adam and I have worked together on a couple of projects where I could take advantage of his skill in writing for a general audience. So, his first involvement in the psychology of humor field was as a coauthor of a chapter for a book applying psychology to the television show *House*. Our chapter focused on the psychology of humor in *House*, and he made it much more readable. As a graduate student defining his own research agenda, his current interests include looking at how people use humor to achieve specific personal or social goals. As part of that, he has been studying how leaders might use humor in dealing with subordinates. He also is beginning some research on the subtle roles of humor in advertising. I am pleased that he will be part of a research era in which humor research is taken seriously and humor is appreciated as a valuable tool for achieving psychological health. I am working on staying out of his way, but also anticipating my retirement once my replacement is ready!

Nick Kuiper: Any final comments?

Arnie Cann: Well, I have found being interviewed a bit painful, but also very useful, since it has forced me to look back at my journey as a humor researcher and consider how I ended up where I am today. In thinking about some of your questions, I began to more fully appreciate how the field has grown since I first entered it. A lot of this is due to leaders in the field like you who promote humor research by taking on tasks like this special issue, so thanks! I have benefitted in my own research from the work of many people who helped make humor research a serious endeavor by approaching humor as a topic with important implications for health and well-being. Thanks to all of them as well.

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