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What is This?

Attachment orientations and reactivity to humor in a social support context

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Abstract

In this behavioral observation study, we tested how individuals' use of affiliative and aggressive humor (observer rated) impacted their romantic partners' mood in a social support context. We also examined whether the attachment orientations of the humor-receiving partners moderated the humor effects. As predicted, support providers' use of affiliative humor predicted pre- to post-discussion decreases in support recipients' negative mood. Providers' use of aggressive humor predicted increases in recipients' negative mood. The deleterious effects of more aggressive humor were exacerbated in recipients who were more anxiously attached. Providers who used more affiliative humor were also more empathically accurate, and providers involved with more avoidantly attached partners and who used more aggressive humor were less judgmental and more validating of their avoidant partner's behavior.

When one person in a relationship tries to support another, is humor welcomed by or distressing to the support-receiving partner? Does a joke lighten the mood and facilitate the provision of support, or does it hinder support provision and generate negative emotions? The answers to these questions ought to depend on both the *type of humor*

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enacted by the support provider and the *personal characteristics* of the support recipient, reflecting a truly dyadic process and outcome.

Prior research has established that the expression of humor has important effects on personal and relational well-being. Humor, for example, can help people cope better with stressful situations and increase their positive affect (Abel, 2008; Martin, Kuiper, Olinger, & Dance, 1993). It can also lead people to believe they have greater mastery over life stressors (Martin & Lefcourt, 1983), report greater life satisfaction (Wanzer, Sparks, & Frymier, 2009), and experience improved physiological outcomes (Martin, 2002).

Past research has also confirmed that a partner's use of humor can affect an individual's own well-being. Humor is a desirable trait in potential mates (Sprecher & Regan, 2002), and it plays an important role in regulating established romantic relationships (Campbell, Martin, & Ward, 2008). For example, partners' greater use of humor is related to greater relationship satisfaction (e.g., Butzer & Kuiper, 2008; Carstensen, Gottman, & Levenson, 1995; Ziv & Gadish, 1989). During conflict resolution discussions, individuals whose partners are rated as displaying more affiliative humor—humor that enhances cohesiveness and reduces tension—report higher relationship satisfaction, more closeness, and experience better conflict resolution outcomes (Campbell et al., 2008). These findings suggest that some of the positive effects of humor that impact an individual's own personal outcomes, such as its link with better coping, could translate into a dyadic context in which humor is used to regulate a partner's distress to help them cope with a stressor more effectively.

Humor, however, is not always benevolent and does not always result in positive outcomes. In an early behavioral observation study, Cohan and Bradbury (1997) found that husbands who displayed more humor during highly stressful discussions with their wives were more likely to be separated from them 18 months later. In a retrospective self-report study, Butzer and Kuiper (2008) found that the use of negative humor differed in positive discussions compared to conflictual ones, and the effects also varied for individuals who scored high versus low on relationship satisfaction. Specifically, more satisfied partners reported using less negative humor in conflict interactions, whereas less satisfied couples reported using equal amounts of negative humor in both positive and conflictual interactions. In an excellent example of dyadic humor research, Campbell et al. (2008) found that the expression of aggressive humor during couple conflict discussions—humor that is manipulative, offensive, or disparaging—predicted negative outcomes for both the expresser *and* the recipient of aggressive humor.

Types of humor

Multiple typologies of humor use have been proposed to distinguish negative and positive forms of humor and the specific functions served by different types of humor. Thorson and Powell (1993), for instance, differentiate between humor that is used to reduce social tension versus humor that is used to cope better with a stressor. Using the Thorson and Powell typology in a self-report study of romantic couples, Barelds and Barelds-Dijkstra (2010) found no association between one's own humor use and relationship satisfaction, but the wives of husbands who reported using more humor in the relationship reported greater relationship satisfaction. In another self-report study examining perceptions of

humor in couples, Hall and Sereno (2010) distinguished between positive and negative humor. Positive humor involves silly or kind-hearted jokes, whereas negative humor entails racist, sexist, or inappropriate jokes. They found that men's use of positive humor was positively associated with the relationship satisfaction of their female partners. In another approach to differentiating types of humor, Martin and his colleagues have outlined four types of humor as part of the Humor Styles Model. Two types are associated with the self (self-enhancing and self-defeating humor) and two types are directed toward others (affiliative and aggressive humor; see Martin, 1996; Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003).

All of these approaches highlight the multidimensional nature of humor. However, prior research on humor in close relationships has been largely based on self-reports of one's own or one's partner's humor use (e.g., Barelds & Barelds-Dijkstra, 2010; Bippus, Young, & Dunbar, 2011; Butzer & Kuiper, 2008; Cann, Zapata, & Davis, 2011; see Campbell et al., 2008, for an exception). In the current study, we focused on Martin and colleagues' (2003) *aggressive* and *affiliative* types of humor for two reasons. First, as described above, aggressive and affiliative humor are theorized to be the most relational forms of humor because they tend to be directed at others rather than at the self, and both influence daily personal and relationship well-being (Campbell et al., 2008). Second, we wanted to extend the dyadic conflict paradigm used by Campbell et al. (2008) to a social support context. Campbell and his colleagues found that greater use of aggressive humor in a conflict discussion (rated by observers) was particularly deleterious, even more so than affiliative humor was beneficial. This suggests that an individual's sensitivity to his or her partner's use of aggressive humor may pose a special threat to relationship well-being and maintenance, and that the ability to minimize reactivity to aggressive humor could protect relationships. The research by Campbell and his colleagues demonstrates the importance of these particular types of humor to relationship well-being in conflict discussions. Little, if anything, however, is known about how these two types of humor operate in dyads within social support interactions. We suggest that the relevance of humor to personal coping (i.e., self-support) should extend to dyadic forms of coping, such as receiving support from one's partner. Documenting this was a primary goal of the current study.

Although displays of aggressive humor may be fairly common in conflict discussions, this should not be true for effective support discussions. Like effective support, affiliative humor is intended to reduce tension (Martin, 1996), and it is believed to be a component of good and effective social support (Rafaeli & Gleason, 2009). For this reason, we expected that affiliative humor and effective support provision would be positively associated. Conversely, the expression of aggressive humor, which involves disparaging or manipulating the partner, should increase tension in support recipients and hinder the support process. Accordingly, we expected that support providers who displayed more aggressive humor would be less likely to behave in a supportive manner.

Types of support

Like humor, not all types of support are beneficial. Indeed, a well-documented paradox exists within the support literature: while the perceived availability of support is consistently associated with benefits among support recipients, enacted support—actual support

transactions—often generate neutral or even negative outcomes (see Rafaeli & Gleason, 2009, for a review). One approach that clarifies when support is likely to be helpful and why it is sometimes detrimental is the concept of invisible support (Bolger & Amarel, 2007; Bolger, Kessler, & Zuckerman, 2000; Howland & Simpson, 2010). Individuals prefer to not receive support when they lack confidence in their ability to achieve a particular goal because receiving support may challenge their self-efficacy (Kappes & Shrout, 2011). Receiving support may also threaten the sense of equity or balance between partners within relationships (Gleason, Iida, Bolger, & Shrout, 2003). Given the problems associated with receiving direct support, support that is subtle, unobtrusive, and less overt may at times be more effective when it is given to support recipients. Invisible support is defined as assistance (either emotional or practical) that is subtle, unobtrusive, blurs the distinction between the roles of support provider and support recipient, and does not readily appear to be support (see Howland & Simpson, 2010). The benefits of receiving good invisible support—support that is offered, but goes unnoticed by the recipient—have been documented in diary studies (Bolger et al., 2000; Maisel & Gable, 2009), in experiments (Bolger & Amarel, 2007), and in observer-rated social interactions (Howland & Simpson, 2010).

We suggest that humor may have a unique association with invisible (compared to visible) support, and we know of no previous research that has investigated these possible links. Similar to invisible support, affiliative humor is intended to reduce tension and improve another person's mood, but it is not necessarily construed as support. Conversely, aggressive humor, which is often mean-spirited and derogatory, is by definition not supportive and may undermine any support that is provided. For this reason, we predicted that affiliative humor would be positively related to the provision of more invisible support, and that aggressive humor would be negatively related to the provision of more invisible support.

Visible support, in comparison, is overt, obvious, and clearly discernible as support, and it accentuates the different roles in which support providers and support recipients find themselves. Because humor is not likely to be automatically categorized as supportive or nonsupportive and the display of humor may even be viewed as inappropriate when clear, visible support is provided, we did not expect associations between humor use and the provision of visible support. That is, visible support should appear as support, whereas less obvious behaviors (such as humor) intended to improve other recipient outcomes (such as his/her mood) should be associated with invisible support.

A second important distinction is whether support is emotional or practical. Emotional support involves attempts by the provider to lessen a recipient's negative mood or emotional states associated with an event and, when possible, to enhance the recipient's positive mood and emotional state. Practical support entails attempts to provide aid or advice to the recipient, which then helps him or her to change the negative event immediately or in the future. These types of support are important to distinguish, both theoretically and empirically (Gleason & Iida, in press), but we expected the use of humor would be relevant to *both* emotional and practical support and, therefore, did not anticipate differences between them. Documenting a connection between invisible support – both emotional and practical – and humor use would not only establish the relevance of humor during the social support process; it would also broaden our understanding of invisible support. The use of humor by individuals is associated with an increased sense of mastery

(Martin & Lefcourt, 1983), and invisible support may operate in a similar fashion by protecting recipients' sense of competency and efficacy during support discussions.

Attachment orientations

Although the expression of more affiliative humor by support providers during support interactions should have a positive impact on the mood of support recipients, and the expression of more aggressive humor should have a negative impact on recipients' mood, individual differences are likely to moderate these effects. Adult romantic attachment orientations, which tap differences in expectations of support from partners along with feelings of being supported by them, should be especially relevant in support contexts and, thus, are excellent potential moderating variables (see Mikulincer & Shaver, 2003; Simpson & Rholes, 2012). People who are anxiously attached are sensitive to support-inconsistent behavior in support contexts (e.g., Collins & Feeney, 2000). As a result, they should react negatively when their partners direct aggressive humor toward them, especially in support situations. Indeed, recent evidence suggests that attachment orientations are associated with how humor is received in conflict interactions (Winterheld, Simpson, & Oriña, 2013). In this behavioral observation study, insecurely attached individuals reacted less favorably (i.e., laughed less, were angrier) when their partners directed more aggressive humor at them.

Anxiously attached individuals value relationships highly and want to feel more secure with their partners (Mikulincer, 1998). However, given the unpredictable care they have received (or perceive they have received) from past attachment figures, highly anxious people doubt their worth as relationship partners and worry that their partners might eventually abandon them (Bowlby, 1973). When their relationships are threatened, highly anxious people cue into what their partners are thinking and feeling, even if these insights might be negative with respect to themselves or their relationship (Simpson et al., 2011), they ruminate over worst-case outcomes (Mikulincer & Shaver, 2003), and they make negative attributions for their partners' ambiguous statements or actions (Collins, 1996). These chronic tendencies make highly anxious people sensitive to signs that their partners might be unhappy with them or their relationship. In fact, on days when they experience conflict with their romantic partners, highly anxious people rate their relationships as less satisfying and less likely to endure than less anxious (i.e., more secure) people do (Campbell, Simpson, Boldry, & Kashy, 2005). This heightened sensitivity to their partners' neutral or slightly negative actions should be most acute in situations when their partners really should be supportive, but instead react with aggression, hostility, or denigration toward them. Thus, we predicted that highly anxious support recipients would feel particularly bad when their partners display more aggressive humor in support interactions.

Avoidantly attached individuals, in contrast, focus much less on their partners and relationships, they are more emotionally distant (Mikulincer, 1998), and they value independence and autonomy rather than closeness and intimacy (Bowlby, 1973). This self-reliant focus stems in part from the rejection they have received (or perceive they have received) from prior attachment figures (Bowlby, 1973). When they feel threatened, highly avoidant people use deactivation strategies, which allow them to ignore or disregard their partners' negative self or relationship thoughts and feelings (Simpson et al., 2011) and

suppress normal accompanying negative emotions (Mikulincer & Shaver, 2003). These chronic tendencies make highly avoidant people less sensitive to cues that their partners may be unhappy with them or their relationship. However, in situations that pull for intimacy (such as when one is receiving support), highly avoidant people might actually prefer their partner's use of aggressive humor because such behavior may dampen or reduce emotional intimacy. However, given the absence of clear theoretical predictions or prior empirical findings, we did not derive hypotheses for how highly avoidant people would react to their partners' use of different types of humor.

We also explored two other behaviors that may co-occur with aggressive and affiliative humor in support contexts—how responsive providers were to their partners (support recipients), and how judgmental they appeared to be of them. We did so because individuals involved with avoidantly attached partners may find themselves in a difficult position when trying to give their avoidant partners the "right kind" of support. Support providers who have highly avoidant partners may need to intermix positive, neutral, and perhaps even some negative behaviors when providing support to keep their avoidant partners engaged and open to receiving the amount of support they want or need. If this is true, support providers who display greater aggressive humor toward highly avoidant support receiving partners may "balance" these negative actions by also being more responsive and less judgmental toward them.

The current study and hypotheses

Previous research has investigated the impact of humor in couples embroiled in conflict discussions (Campbell et al., 2008; Carstensen et al., 1995; Cohan & Bradbury, 1997), where affiliative humor should be—and often is—beneficial, and where aggressive humor should be—and often is—detrimental. In the current study, we videotaped romantic couples interacting in a support-provision task, where affiliative humor should be beneficial, appropriate, and consistent with supportive efforts made by support providers. Aggressive humor, however, is very inconsistent with the provision of support and, therefore, should hinder support-provision efforts. To our knowledge, this is the first behavioral observation study to investigate humor in a social support context.

During the videotaped discussions, one member of each couple (the designated "support recipient") disclosed something that he/she wanted to change about himself/herself, creating an opportunity for the partner (the "support provider") to respond supportively if he/she choose to do so. The support recipient completed pre- and post-interaction measures of his/her negative mood. Support and humor behaviors were then rated by trained observers, who coded each videotaped discussion for the support-providing partner's provision of invisible and visible support and for his/her use of both affiliative and aggressive humor.

We had four novel goals and five hypotheses. The first goal was to investigate humor in a support context, especially whether and the degree to which the use of certain types of humor were associated with the quality of support provision. We predicted that the use of more affiliative humor would be positively related to invisible, but not visible, support (H1). In contrast, we predicted that greater aggressive humor would be negatively associated with the provision of invisible, but not visible, support (H2). The second goal was to investigate the impact of affiliative and aggressive humor use on emotional well-being in a

different, less adversarial context than conflict resolution. We predicted that support recipients whose responding partners (i.e., support providers) used more affiliative humor during the support discussions would experience larger pre- to post-discussion decreases in negative mood (H3). Responders who displayed more aggressive humor, on the other hand, would produce larger pre- to post-discussion increases in negative mood in support recipients (H4). Our third goal was to test whether and the extent to which support recipients' attachment anxiety moderated the effects of support providers' aggressive humor use. We hypothesized that highly anxious support recipients would react more negatively than less anxious (more secure) recipients when their partners enacted more aggressive humor (H5). No predictions were derived for highly avoidant individuals, consistent with attachment theory (see Mikulincer & Shaver, 2003; Simpson & Rholes, 2012). Nevertheless, we tested for possible attachment avoidance effects in part to establish the discriminant validity of our hypothesized attachment anxiety effects. Our fourth goal was to explore how the use of aggressive and affiliative humor along with the attachment orientations of support recipients were related to other support provider behaviors in this support context, specifically how empathically accurate, judgmental, and responsive providers were in this context.

Method

Participants

Couples responded to flyers posted on a large university campus in the Midwestern United States and in the surrounding community (at coffee shops, community boards, etc.). The only selection criteria were that each couple had to be dating exclusively for at least 1 year and both partners had to be at least 18 years old. Couples from the university community as well as non-university-affiliated couples participated. A total of 86 heterosexual couples and one lesbian couple met the criteria for participation. Participants were 26.01 years old on average ($SD = 8.50$) and had been together for an average of 3.68 years ($SD = 3.04$). Of all the couples, 57% were cohabitating and 53% were engaged or married. The ethnic breakdown of the sample was 81% White, 8% Asian, 3.5% Hispanic, 3% Black, and 4.5% others. Each partner was offered either $25 or six extra credit course points (the latter option was available to only psychology undergraduates).

Procedure

Each relationship partner was individually and separately sent a link via e-mail to an online background questionnaire, which was completed from home. Each person was also e-mailed a unique password that was required to access the survey to minimize the chances that one partner completed the survey for both individuals. The e-mails also contained instructions that participants were supposed to complete the questionnaire privately and were asked *not* to share any of their responses or discuss the survey with their partners.

Approximately 1 week later, each couple came to the lab. The experimenter told the participants that they would have a videotaped conversation with their partner that would be rated by trained observers at a later point in time. The partners were then separated,

reported their current mood, and were asked to think about a topic for discussion according to the following instructions:

> Please describe something you would like to change about yourself. This change could be about almost anything, but here are some topics you might consider when thinking about the change you'd like to make (e.g., work, health, relationships with family or friends, etc.). The important thing is that, whatever you write down, it is something you want to change about yourself, and that it is NOT directly related to a problem in your relationship.

These instructions were designed to generate discussion topics that put one partner in a support-recipient role and allowed the other partner to provide support, however, she or he wished. The word "support" was never mentioned to recipients before the videotaped interaction, so recipients were not aware that the discussion was designed to place partners in opposing support roles. The topics chosen for discussion by recipients were diverse. Of them, 35% were school related or work related (e.g., "I would like to improve my self-discipline with regard to my writing"), 22% were personal-quality focused (e.g., "I would like to be less cynical"), 19% were health related (e.g., "I would like to be more physically active"), 16% concerned personal relationships (e.g., "I would like to spend more time with my friends"), and the remainder did not fit any particular category. One partner in each dyad was randomly assigned to discuss his/her topic and potentially receive support, while his/her partner could potentially provide support. Couples were then left alone for 7 min to discuss the recipient's topic. Immediately after the discussion, recipients reported their postdiscussion (Time 2) moods privately in a separate room. Couples were then thanked and debriefed.

Measures and observational coding

Attachment. As part of the online questionnaire, each partner completed the Adult Attachment Questionnaire (Simpson, Rholes, & Phillips, 1996), a well-validated measure that assesses thoughts and feelings about romantic partners in general on two dimensions: *attachment avoidance* and *attachment anxiety*. Sample items for attachment avoidance include "I'm not very comfortable having to depend on other people" and "I don't like people getting too close to me." Sample items for attachment anxiety include "I often worry that my partner(s) don't really love me" and "I often want to merge completely with others, and this desire sometimes scares them away." These items were responded to on 7-point Likert-type scales, anchored 1 = *I strongly disagree* and 7 = *I strongly agree* (αs = .79 for avoidance and .83 for the anxiety).

Negative mood. Negative mood was assessed immediately before and immediately after each discussion by an adapted version of Lorr and McNair's Profile of Mood States (1971; Cranford et al., 2006). The negative moods were: anger (*angry, resentful, and annoyed*), anxiety (*on edge, anxious, and uneasy*), and sadness (*sad, hopeless, and discouraged*). Cronbach's αs for the prediscussion and postdiscussion moods ranged from .69 to .86.

Table 1. Coding definitions and examples of humor.

Aggressive humor	Affiliative humor
• Uses humor to put down, disparage, or criticize the partner • Uses humor in sarcastic or ridiculing ways • Uses humor to tease the partner in an offensive manner • Uses humor in an offensive way • Is oblivious to or does not seem to care about the detrimental effects of his/her humor • Uses humor that seems inappropriate to the situation • Uses humor to manipulate his/her partner by implying a threat to ridicule him/her • Uses humor in a way to make himself/herself appear superior to the partner	• Uses humor to enhance his/her relationship with the partner and reduce interpersonal tension • Tells funny stories about himself/herself to make the partner laugh (so he/she does not take herself/himself too seriously), yet still maintains self-acceptance • Easily and spontaneously thinks of witty comments when talking with the partner • Laughs and jokes often during the interaction • Does not seem to be working hard to make the partner laugh • Seems to enjoy making the partner laugh

Examples	
• The recipient was concerned with improving her performance in classes. The provider responded, "Yeah, ooph, you've got some work to do in that class" (laughing) and later, "Hah, well there's your problem. Do you WANT to get good grades?" (+2.13 *SD*s) • The male recipient is concerned with forming and maintaining friendships while away at school. The female provider said, "Well, if it makes you feel better, I don't like your friends either" with slight laughter." When he mentions one friend, she replies with, "And we all know how much we like [friend's name]" laughing in a sarcastic tone (+ 2.45 *SD*s)	• The recipient wants to change the way she responds to others' disappointment that they are not having a wedding, and asks for a "tagline" they can use. The provider says, "It's her fault! It's his fault!" while pointing fingers in opposite directions and smiling, implying they should just blame each other. He then suggests, while smiling, "Can't we just say, 'because that's the way we want it, gosh darn it!'" (+2.31 *SD*s) • The recipient wants to change how she manages her time. The provider laughs and says, "Well, how many people do you know who say 'I LIKE schedules'?," followed by warm laughter (+1.99 *SD*s)

Observer-rated aggressive and affiliative humor. Four trained coders independently watched and rated each couple's discussion for the provider's use of aggressive and affiliative humor. The humor-coding scale was adapted from Campbell et al. (2008), which is based on the self-report Humor Styles Questionnaire (Martin et al., 2003). We adapted certain scale items for the current study. For example, the item "be oblivious to (or not care about) the detrimental effects of their humor." was reworded "Is oblivious to or does not seem to care about the detrimental effects of his/her humor." The exact definitions of *aggressive* and *affiliative* humor are given in Table 1. Each coder made a global rating of humor on the item "To what extent did the responder use aggressive [or affiliative] humor in their interaction with their partner?" Ratings were made on 7-point scales,

anchored 1 = *none* and 7 = *a lot*. Coders were trained to rate humor as affiliative or aggressive based on how it was directed toward the recipient: Did the humor appear to have affiliative or aggressive aims in terms of relating to the recipient? It was possible, of course, for a support provider to use aggressive humor targeted at a third party (e.g., making fun of a political candidate); however, if such humor was used to make the recipient laugh or reduce the tension, it was considered to serve affiliative goals rather than aggressive ones. See Table 1 for examples of each type of humor observed in this sample.

To avoid order effects, the videotapes were viewed by coders in a staggered fashion. Averaged coders' ratings resulted in a single score reflecting each responder's use of aggressive and affiliative humor (aggressive humor α = .93; affiliative humor α = .85).

Observer-rated invisible and visible emotional and practical support. A different set of eight observers then independently rated each interaction for specific visible and invisible support behaviors. "Visible" and "invisible" support tend to be orthogonal to the type of support coded (emotional vs. practical support; see Howland & Simpson, 2010). Accordingly, each type of support was coded for its amount of invisibility and visibility (e.g., *visible emotional support* and *invisible emotional support*). The definitions of *visible* and *invisible* support and *emotional* and *practical* support used by coders are given in Table 2. It is important to emphasize that only support behaviors were coded as emotional/practical invisible/visible support. That is, a behavior first had to be considered supportive before it was rated for its degree of visibility or invisibility. For example, if a support provider's behavior appeared to be conversational and blurred the roles of provider and recipient, it was not automatically deemed invisible support. Any non-supportive conversational behavior displayed by providers was *not* coded within our support-coding scheme.

Because all coders viewed all interactions, their ratings of support visibility and invisibility were relative to all other interactions. To avoid order effects, the videotapes were viewed in a staggered fashion. Support providers were coded on four items, each pertaining to one of the four support categories (e.g., "To what extent did this person provide *visible emotional* support?"). All items were rated on 7-point scales, anchored 1 = *none/very little* and 7 = *a lot*. Averaged observers' ratings resulted in one score for each provider for each support category. Observers' ratings were reliable (α = .77 for visible emotional support; α = .77 for invisible emotional support; α = .84 for visible practical support; α = .75 for invisible practical support).

Observer-rated provider responsiveness and judgment. The same eight coders then rated each provider's degree of responsiveness on a coding scheme based on Reis's (2003) Perceived Partner Responsiveness Scale (PPRS). These items reflected how caring, validating, and understanding each provider was observed to be in each interaction (see Table 2; α = .82 for men and women). The degree to which support providers appeared judgmental was coded on one item ("Overall, to what extent did any support come across as judgmental?"), which was rated on 7-point scales, anchored 1 = *none/very little* and 7 = *a lot* (α = .80 for men and women).

Table 2. Definitions of support and responsiveness used by the coders.

Invisible support	Visible support
• Provider deemphasizes the roles of supporter and supported, more equal and conversation-like • Provider uses self or a third person as an example and a way to provide support—draws the focus away from the partner and his/her "problem" • Support is under the radar—this is support in disguise • Support is indirect, not readily recognizable as support • Draws focus away from the partner's limitations or how upsetting/stressful it is from the person	• Provider emphasizes the role of supporter and supported, and keeps these roles distinct • Provider focuses on the partner and his/her problem and draws attention to the partner/problem • Support is overt and feels very "supportive" • Support is direct and quickly recognizable as one person providing support to another • Focuses on the partner's limitations and how upsetting/stressful the issue is

Emotional	Practical
• Support that tries to make the person feel better. This includes offers of reassurance, positive feedback, expressions of concern, etc.	• Support that tries to fix the problem. This includes advice, information, offers to help directly, suggestions for courses of action, etc.

Partner responsiveness
• *Understanding:* The person listens attentively to his/her partner; gathers information about the problem; tries to "get the facts right"; demonstrates comprehension and understanding (an awareness of thoughts and feelings expressed by his partner); asks relevant questions; summarizes or paraphrases what his partner says; and voices understanding. • *Validation:* The person values and respects his/her partner; communicates acceptance, respect, and support for his/her views or positions; focuses on the "best side" of his/her partner; expresses understanding of why the issue is important or significant; takes his/her partner's side or agrees with him/her; offers reassurance; offers perspective or elaboration of possible consequences; offers encouragement; and validates his/her emotions, his/her efforts, and/or his/her identity (e.g., "See, you're a great at XXX!"). • *Caring:* The person expresses love and affection for his/her partner; shows concern; offers support; offers help; attempts to lift his/her mood or extend his/her positive mood; emphasizes joint outcomes (e.g., "We'll get through this together"); shows involvement; expresses sympathy; and expresses empathy (e.g., "I'm so happy for you"; "That makes me angry, too"; "I'm sorry that happened").

Support provider empathic accuracy. Immediately following each videotaped interaction, support providers and recipients also engaged in the standard lab paradigm used to assess empathic accuracy developed by Ickes, Stinson, Bissonnette, and Garcia (1990). First, support recipients viewed the videotape of their interaction, marking the times when they recalled having a *specific* thought or feeling. Recipients then described the thought or feeling in 2–3 sentences. Immediately following the recipient's viewing, support

providers then viewed the videotape with a list of times their partners had noted. At each time point, providers were asked to describe what they believed their partners were thinking or feeling at that moment. A different group of trained coders then rated the degree to which each provider's guess of each recipient's thought or feeling was an accurate description of the recipient's actual listed thought or feeling, resulting in a score of 0 (*essentially different content*), 1 (*similar, but not the same content*), or 2 (*essentially the same content*). The proportion of possible accuracy points was then calculated for each provider for each coder, with the mean of these proportions representing the final empathic accuracy score. For example, if a recipient listed 12 thoughts or feelings (with 24 possible accuracy points) and the provider was given eight accuracy points, the accuracy score assigned by that coder was .33, and the overall accuracy score was the mean of all the coders' individual accuracy scores.

Discriminant validity measures. Four variables were assessed for discriminant validity purposes. Some of these measures might correlate moderately with either romantic attachment orientations or the display of (or responses to) certain types of humor. Recipients' relationship quality and neuroticism were assessed in the online background questionnaire completed prior to the lab visit. Relationship quality was assessed by participants' reports on the Perceived Relationship Quality Components Scale (PRQC; Fletcher, Simpson, & Thomas, 2000). The PRQC contains items such as "How connected are you to your partner?" and "How content are you with your relationship?," which are answered on 7-point scales, anchored 1 = *not at all* and 7 = *extremely* (αs = .91 for men and .94 for women). Neuroticism was assessed by the abbreviated Big-Five Inventory (Goldberg, 1990). Participants answered items such as "I remain calm in intense situations" and "I get nervous easily" on 7-point scales, anchored 1 = *disagree strongly* and 7 = *agree strongly* (αs = .82 for men and .74 for women). The importance of the discussed topic (reported by the recipient) was assessed before each interaction by the item "How important is it to you to make this change?," which was rated on 7-point scales, anchored 1 = *not at all important* and 7 = *extremely important*. Recipients also rated their partners' (the support providers') responsiveness immediately following their interaction on the PPRS (Reis, 2003), which contains items such as "My partner usually values and respects the whole package that is the 'real me'" and "My partner usually seems interested in what I am thinking and feeling," which were answered on 7-point scales, anchored 1 = *not at all true* and 7 = *completely true* (α = .95 for men and women).

Results

Descriptive statistics and correlations among the main variables are shown in Table 3. Preliminary analyses indicated that affiliative humor was fairly normally distributed, but aggressive humor was positively skewed. Thus, we log transformed the ratings of aggressive humor. However, the results were nearly identical when aggressive humor was analyzed in either the log transformed or its natural metric. We report the results of the log-transformed measure below.

All of the negative mood measures were highly correlated (*r*s ranged from .46 to .75 at Time 1 (preinteraction) and from .71 to .83 at Time 2 (postinteraction)). Thus, we

Table 3. Correlations and descriptive statistics for the predictor and outcome variables.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Aggressive humor, $M = 2.03$ (1.54)									
2. Affiliative humor, $M = 3.09$ (1.26)	−.36*								
3. Recipient anxiety, $M = 2.74$ (1.11)	.13	−.19							
4. Recipient avoidance, $M = 3.07$ (.99)	.04	−.09	.10						
5. Invisible emotional support, $M = 4.26$ (.79)	−.59*	.41*	−.01	.04					
6. Invisible practical support, $M = 4.31$ (.73)	−.53*	.42*	−.05	.08	.79*				
7. Visible emotional support, $M = 4.16$ (.71)	−.41*	.36	.02	.06	.68*	.52*			
8. Visible practical support, $M = 4.61$ (.91)	−.08	.10	−.31*	.13	.09	.35*	.33*		
9. Negative mood T1, $M = 1.87$ (.95)	.02	−.07	.36*	.14	.13	.12	.09	−.09	
10. Negative mood T2, $M = 1.81$ (1.03)	.35*	−.33*	.34*	.07	−.11	−.20	−.05	−.31*	.52*

Note. M: scale mean values; values in parentheses are *SD*s.
*$p < .01$.

averaged all the mood items to form a single negative mood index at each time point. There were no significant gender effects, including gender interactions, so gender is not discussed further, and gender was not included in the models presented below.

H1 and H2: Humor and support

The first two hypotheses were tested using multiple regression analyses in which each couple was the unit of analysis (Kenny, Kashy, & Cook, 2006). All independent variables were grand-mean centered, and all dependent measures were kept in their original metric.

To test for associations between humor use and invisible support, we ran two regression models—one for affiliative humor and one for aggressive humor (H1 and H2, respectively). Each set contained one model that tested associations between emotional support and humor and another model testing practical support and humor. In these models, both invisible and visible support and their interaction term were entered as predictor variables. No significant effects were found for visible support or its interaction with invisible support. However, consistent with H1, providers' use of affiliative humor was positively associated with both invisible emotional and invisible practical support ($b = .17$, $p < .05$, partial $\eta^2 = .06$ and $b = .22$, $p < .001$, partial $\eta^2 = .17$, respectively). Consistent with H2, providers' use of aggressive humor was negatively associated with

both invisible emotional and invisible practical support ($b = -.19$, $p < .001$, partial $\eta^2 = .23$ and $b = -.24$, $p < .001$, partial $\eta^2 = .29$, respectively). These results indicate that both types of humor play an important role in support processes.

H3 and H4: Humor and recipient negative mood

The next regression models treated each discloser's Time 2 negative mood score as the dependent measure. Including Time 1 mood as a predictor variable with Time 2 mood as the outcome allows one to assess changes in mood (see Cohen & Cohen, 1983). Recipients who benefit the most from their support-providing partners' humor attempts should report larger postdiscussion declines in negative mood.

Consistent with previous research (e.g., Campbell et al., 2008), we predicted that providers who used more affiliative humor would have partners who reported significantly larger decreases in negative mood (H3). We also predicted that providers who used more aggressive humor would have partners who reported significantly larger increases in negative mood (H4). A separate regression model was run to test each hypothesis. Each model included recipients' Time 1 mood and providers' humor score (affiliative or aggressive) and their interaction as the predictor variables. The results were consistent with both hypotheses. Recipients whose partners were rated by coders as displaying more affiliative humor during their support discussions reported significant pre- to post-discussion declines in negative mood ($b = -.33$, $p < .001$, partial $\eta^2 = .19$). Conversely, recipients whose partners were rated as displaying more aggressive humor reported significant pre- to post-discussion increases in negative mood ($b = .52$, $p < .01$, partial $\eta^2 = .12$).

H5: Anxious attachment and aggressive humor

We also hypothesized that the effect of providers' use of aggressive humor on recipients' negative mood should depend on recipients' degree of attachment anxiety. Specifically, recipients' attachment anxiety should increase their reactivity to their partners' aggressive humor, exacerbating its negative impact.

To test this hypothesis, we ran a regression model in which providers' aggressive humor, recipients' Time 1 mood, recipients' attachment anxiety and avoidance, and all two-way interactions were entered as predictor variables. Once again, recipients' Time 2 mood was the dependent measure. The results supported our hypothesis. As predicted, an interaction between providers' aggressive humor and recipients' attachment anxiety significantly predicted changes in recipients' negative mood ($b = .71$, $p < .001$, partial $\eta^2 = .29$). Specifically, the largest increases in negative mood occurred during discussions in which providers displayed greater aggressive humor and recipients scored higher in attachment anxiety (see Figure 1). The simple slope for recipients high in attachment anxiety was significant as predicted ($t\,[87] = 5.90$, $p < .001$), revealing that highly anxious recipients experienced *much worse* outcomes when their partners displayed more aggressive humor. However, the slope for recipients low in attachment anxiety was significant in the *opposite* direction ($t\,[87] = -1.95$, $p = .05$), indicating that less anxious (i.e., more secure) recipients experienced *improved* outcomes when their partners
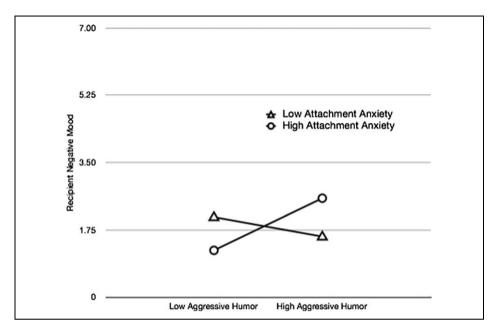
Figure 1. Attachment anxiety and reactivity to aggressive humor. The statistical interaction between observer-rated aggressive humor and recipient attachment anxiety, predicting recipients' T2 negative mood, controlling for their T1 negative mood. *High* = one standard deviation above the mean; *low* = one standard deviation below the mean.

displayed greater aggressive humor. As anticipated, no significant effects emerged for avoidant attachment (see Table 4 for a summary of these results).

Exploratory analyses: Humor, attachment orientations, and other provider behaviors

To explore how recipient attachment orientations impact associations between humor use and other provider behaviors, we next ran models identical to those described for H1 and H2, but replacing the support outcomes with the behaviors of interest. These behaviors were: (1) the empathic accuracy scores and (2) the coder ratings of the responsiveness subscales (understanding, caring, and validation), and how judgmental support providers were observed to be. In both cases, effects emerged for avoidance, but not for anxiety.

For empathic accuracy, the only significant effect was found for affiliative humor. Support providers rated as engaging in more affiliative humor when providing support were also more empathically accurate with respect to their partner's thoughts and feelings during the discussion ($b = .028$, $p < .05$). However, no interactions between humor use (affiliative or aggressive) and attachment orientations predicted providers' empathic accuracy.

For provider responsiveness, the interaction between recipient avoidance and provider aggressive humor was the only significant effect. It revealed that providers who

Table 4. Attachment and aggressive humor predicting T2 negative mood.

Predictor	b (SE)
Intercept	1.87 (.09)**
Negative mood T1	.75 (.11)**
Aggressive humor	.36 (.14)*
Recipient anxiety	.03 (.08)
Recipient avoidance	−.01 (.09)
Aggressive humor × negative mood T1	−.13 (.20)
Aggressive humor × recipient anxiety	.71 (.14)**
Negative mood T1 × recipient anxiety	−.29 (.09)**
Aggressive humor × recipient avoidance	−.22 (.15)
Negative mood T1 × recipient avoidance	.08 (.11)
Recipient avoidance × recipient anxiety	−.04 (.08)

SE: standard error.
*$p < .05$; **$p < .01$.

had more avoidant support receiving partners and who used more aggressive humor were more validating (but not more understanding or caring; $b = .35$, $p < .001$; see Figure 2). The same interaction pattern also emerged for how judgmental providers were rated as being, such that providers who had more avoidant receiving partners and who displayed more aggressive humor were rated as being less judgmental ($b = −.42$, $p < .001$; see Figure 3). These findings suggest that the partners of avoidant individuals may use aggressive humor to temper their supportive behaviors, which might otherwise increase intimacy in this situation and make highly avoidant support recipients feel uncomfortable. Alternatively, the partners of highly avoidant people may use a combination of positive and negative behaviors in support provision contexts to keep their avoidant partners engaged and receptive to at least some level of support.

Discriminant validity tests

Reactions to partner humor might also be affected by recipients' level of neuroticism (Karney & Bradbury, 1995), relationship quality (Campbell et al., 2008), perceptions of general partner responsiveness (Reis, Clark, & Holmes, 2004), or the importance of the issue being discussed. Indeed, attachment anxiety scores are moderately correlated with neuroticism (Brennan & Shaver, 1992) and relationship quality (Simpson, 1990), so it is important to distinguish any effects that emerge within a support context from those involving perceptions of general partner responsiveness. To discount these possible confounds, we reran all of the regression models reported above, statistically controlling for each of these variables in turn. Nearly all estimates for all hypotheses remained stable and significant (all p values <.05) when we controlled for each discriminant variable in each regression analysis.[1] The effects reported above, therefore, are not attributable to variance associated with these four potential confounds.
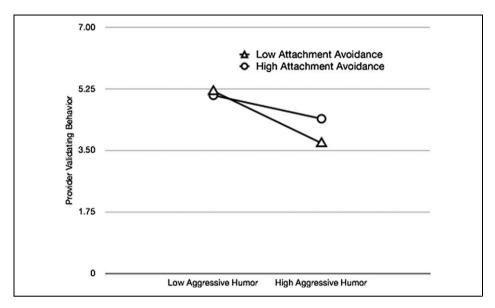
Figure 2. Attachment avoidance and aggressive humor predicting support providers' validating behavior. The statistical interaction between observer-rated aggressive humor and discloser attachment avoidance, predicting observers' ratings of how validating support providers appeared to be. *High* = one standard deviation above the mean; *low* = one standard deviation below the mean.

Discussion

Prior research on social support suggests that while support can sometimes reduce a partner's distress, there are no guarantees. In fact, in many instances, the provision of social support is ineffective or even harmful to partners and their relationship (Rafaeli & Gleason, 2009). Hence, we are still in search of a clearer understanding of what specific components of support are most beneficial to recipients. We propose that our understanding can be appreciably clarified by adopting a dyadic approach to support processes, especially one that incorporates individual differences such as attachment orientations.

The current research focuses on one important set of behaviors that is highly relevant to and an important component of support—the different types of humor used by support providers. Humor has been conjectured to be an important—and perhaps an essential—part of effective support provision in close relationships (Campbell et al., 2008; Winterheld et al., 2013). However, few, if any, studies have documented how humor functions in actual support discussions between romantic partners. The findings of this research begin to fill this gap in our knowledge by identifying how two central types of humor—aggressive and affiliative—operate in spontaneous social support interactions that were rated by trained observers. We found that having a partner who displays more affiliative humor during a support discussion results in less negative affect in support recipients, whereas having a partner who uses more aggressive humor generates more negative affect
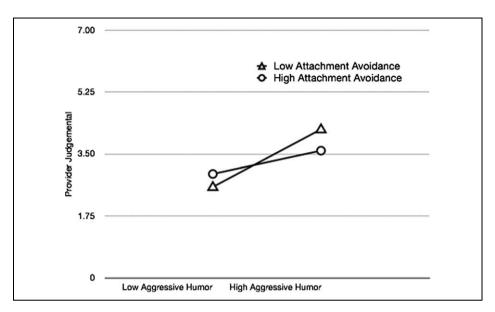
Figure 3. Attachment avoidance and aggressive humor predicting support providers' judgmental behavior. The statistical interaction between observer-rated aggressive humor and discloser attachment avoidance, predicting observers' ratings of how judgmental support providers appeared to be. *High* = one standard deviation above the mean; *low* = one standard deviation below the mean.

in support recipients. Establishing this association prompts one to ask what is similar about affiliative humor and support, particularly invisible support? And how do these behaviors similarly affect support recipients' mood? Future research needs to clarify the links between these behaviors.

Our findings also compliment earlier ones found with conflict resolution interactions. Importantly, however, support contexts are very different than conflict contexts, particularly with regard to the appropriate "use" of certain forms of humor. Whereas aggressive humor is consistent with the display of certain conflict behaviors and emotions (such as aggression and anger), it is markedly inconsistent with the presumed goals of social support (to relieve the stress or negative affect of one's partner and/or to improve his or her state). For this reason, the display of aggressive humor may be particularly diagnostic of the underlying motives of individuals who use this form of humor in support provision situations. Many of these individuals may harbor mixed motives when it comes to providing support, knowing that they should offer their partners support in light of the situational norms, but perhaps resenting having to give support to them. Establishing these effects in a support context extends our understanding of the role that humor plays in interpersonal relationships and lays the groundwork for further exploration of these dynamics.

We also tested a novel hypothesis derived from attachment theory. Specifically, we predicted and found that anxiously attached support recipients reacted particularly negatively when they received aggressive humor from their partners. These effects, in fact, were large. Receiving clearly negative feedback from one's partner, such as being

the brunt of aggressive humor during what should be a nice supportive discussion, ought to be especially disturbing to highly anxious people, given their deep-seated concerns about not receiving adequate support and possibly losing their partners. Indeed, highly anxious disclosers reported sharp increases in negative mood when their partners directed more aggressive humor at them.

This moderation effect may reflect a stable behavioral pattern or cycle commonly experienced by highly anxious individuals and their romantic partners. Highly anxious people tend to engage in excessive reassurance seeking, a behavioral tendency that involves persistently seeking confirmation of one's worth and value, even when reassurance has already been amply provided (Shaver, Schachner, & Mikulincer, 2005). Over the course of their relationships, the partners of highly anxious individuals are likely to provide huge amounts of reassurance, even in situations when it is neither needed nor justified, which their partners should find exhausting and depleting. Katz and Beach (1997), for example, have found that women's excessive reassurance seeking predicts strong relationship dissatisfaction in their romantic partners. The partners of highly anxious individuals should respond to excessive support seeking by withdrawing or feeling frustrated, which may be expressed in occasional outbursts of aggressive humor. And these frustrations may peak precisely when their highly anxious partners need support the most—in support provision situations. Understanding the role that humor assumes in these behavioral patterns in couples could provide valuable information for clinicians interested in altering these behaviors, which may be particularly important to address in situations in which anxiously attached partners really need strong support.

We also found that less anxiously attached individuals, who are more likely to be securely attached, reported *improved* outcomes when their partners directed *more* aggressive humor at them during the support discussions. Though not predicted, this result is consistent with Murray and Holmes' (2009) model of mutual responsiveness, which posits that individuals who hold a more positive view of themselves and their partners (i.e., securely attached persons, who trust their partners more) should be motivated to establish stronger emotional ties with their partners, especially when their partners behave badly. Indeed, when people who have more positive views of themselves and their partners are asked to recall times when their partners behaved negatively or thoughtlessly toward them in the past, these individuals report feeling even closer to their partners (Holmes & Rempel, 1989). Moreover, when they request large sacrifices from their partners during videotaped discussions and their partners fail to accommodate their requests, individuals who hold more positive views of themselves and their partners perceive their partners as more accommodating than trained observers do, and they report pre- to post-discussion increases in how much they trust their partners (Shallcross & Simpson, 2012). Consistent with these theoretical and empirical findings, we suspect that less anxious (more secure) individuals were more motivated to work extra hard to improve, smooth over, and see the best in their partners during the support discussions, particularly when their partners displayed more aggressive humor.

In exploratory analyses, we also found some interesting effects involving attachment avoidance in support recipients. Specifically, support providers involved with highly avoidant receiving partners and who displayed more aggressive humor toward them

were also rated as being more responsive toward them. Paralleling this pattern, support providers who had highly avoidant receiving partners and who displayed more aggressive humor were also rated as being less judgmental toward them. We suspect that the partners of highly avoidant people may receive less feedback and may need to tread carefully in support provision situations (see Collins & Feeney, 2000). It is conceivable that the partners of highly avoidant people use more aggressive humor to temper or downplay their supportive behaviors, thereby preventing too much intimacy in the interaction and minimizing the chances that their avoidant partners will feel uncomfortable (Bowlby, 1973). Accordingly, the partners of highly avoidant people may need to blend positive, neutral, and perhaps some negative behaviors in support provision contexts in order to keep their avoidant partners engaged and open to receiving the amount of support they are willing to accept.

Alternatively, to the extent that avoidant people place less value on their partners' direct and explicit support attempts (based in part on the generally negative views they have of romantic partners), highly avoidant partners should respond better to validating messages and not being judged when they are receiving support. If so, support providers in the current study may have been "performing" to the expectations of their highly avoidant partners. These and other potential explanations that are needed to be tested in greater detail in future research.

Finally, we found that support providers who displayed more affiliative humor when giving support were also more empathically accurate. This suggests that the adept use of affiliative humor may depend in part on support providers knowing what support recipients are actually thinking and feeling just before affiliative humor overtures are made. In fact, a large part of the "success" of affiliative humor may hinge on knowing exactly when the partner will or will not be receptive to "inside jokes" or good-hearted banter intended to ease tension or put a difficult situation into a broader, more balanced perspective.

In conclusion, humor can have beneficial or deleterious effects on personal and relational well-being, depending on how it is conveyed and who the recipient is. The current research contributes to the broader literature on humor by demonstrating how humor can be used to help romantic partners cope in a supportive context. In addition to the important role that humor assumes in self-coping, affiliative humor also plays a pivotal role in the provision of effective social support. Furthermore, the ability to buffer oneself from the potentially caustic effects of occasional aggressive humor from one's partner may be critical to both personal well-being and good relationship maintenance. Further research is needed to clarify the specific circumstances in which aggressive humor tends to be used in support contexts, particularly when it has deleterious effects on support recipients. We have shown here that attachment security appears to buffer the negative impact of aggressive humor in less anxious support recipients.

It is important to note that we examined only two types of humor in this research—affiliative and aggressive humor—primarily because these types of humor are displayed more often in relationship settings and they tend to have significant effects on relationship functioning (Campbell et al., 2008). Additional research needs to investigate other types of humor, which could have different effects on support processes. In addition, we focused exclusively on humor enacted by the support provider, not the support recipient; we did not

code or consider the impact of recipient humor. Finally, in addition to advancing our basic understanding of attachment and humor use in support provision situations, the current findings may be useful in marital or couples therapy, where support dynamics play a critical role in improving and maintaining psychological and physical health.

Authors' note

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Note

1. The association between affiliative humor and observer-rated emotional invisible support became marginal when controlling for relationship quality ($p = .06$).

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