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Motivated Social Affordance Judgments of Humor Styles

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Abstract

Despite the ingratiating function of humor, not all humor is created equal. Individual differences in humor styles may inform perceptions of whether prospective group members afford affiliative opportunities, with affiliative humor being regarded as especially beneficial. In this research, we tasked participants with evaluating social targets espousing different humor styles to identify these targets' abilities satisfy and impede both affiliative and social goals (Study 1) while determining if individual differences in these motives foster heightened preferences (Study 2). Affiliative and self-enhancing humor afforded the most affiliative and self-protection opportunities, whereas aggressive humor afforded more threats. Additionally, higher need to belong heightened preferences for affiliative humor. Results provide evidence for assortative sociality in the identification of optimum group members based on humor displays.

Keywords

Humor styles, affiliation, self-protection, motivational trade-offs

Introduction

Successful navigation of group living requires identification of affiliative opportunities. From an affordance management perspective (Neuberg et al., 2020), the identification of affiliative opportunities from group members occurs through various physical and behavioral channels. With these channels as the basis of their heuristics, perceivers can then determine whether a social target would facilitate or impede a relevant goal

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(Zebrowitz & Montepare, 2006). These goals range across the domains of fundamental social motives, which include the basic needs to belong and protection from physical danger (Kenrick et al., 2010). Human perceptual systems have seemingly evolved to estimate the likelihood that another person would provide opportunities or threats to a perceiver (Neuberg et al., 2011). This could include estimating another's ability to protect or harm another (e.g., formidability inferences; Brown et al., 2022a; Lukaszewski et al., 2016) or tracking affiliative opportunities following social exclusion (e.g., smiling; Bernstein et al., 2008, 2010; DeWall et al., 2009).

A sense of humor is often regarded as desirable across various social contexts. The use of humor during interactions appears to have an evolutionary function in facilitating closeness, which could afford participants in humor exchanges more benefits to group living (Li et al., 2009). Nonetheless, humor's social benefit remains bounded to humor that conveys benevolence to the perceiver. Benign humor could implicate others as being physically safe and sufficiently friendly (Zeigler-Hill et al., 2013). Conversely, injurious humor could be socially harmful to the perceiver (Martin et al., 2012; Sacco et al., 2021; Veselka et al., 2010a, 2010b). Perceivers could use perceived humor styles of social targets as means to determine the extent to which they could optimize social opportunities and minimize potential threats in the context of group living (Martin et al., 2003). This research sought to identify how perceivers use humor styles as a heuristic for others' estimated capabilities to facilitate or impede social goals. For these studies, we focus on affiliation and self-protection motives.

Estimates of social affordances

Human evolution saw individuals consider the extent to which various group members could facilitate survival goals. This common occurrence would have led selection to favor perceptual acuity toward social targets whose motives could effectively facilitate survival for the perceiver (Neuberg et al., 2011). Inferences occur through behavioral and physical features, as perceivers estimate the probability of incurring benefits from an opportunity or costs from a threat based on heuristic associations between various features (Neel & Lassetter, 2019; Sng et al., 2020). Despite the veracity of many physical features in connoting the intentions of a social target (e.g., Haselhuhn et al., 2013), many such estimates remain imperfect and may not track actual intentions as accurately as behavior. Behavioral repertoires can often provide more direct signals of another's intentions from which perceivers could estimate the likelihood of another to facilitate or impede their social goals (e.g., Jordan et al., 2016).

Although many trait inferences from behavior could reflect a more unilateral signal value, the salience of the costs and benefits of a given behavioral repertoire may vacillate in domains. For example, although an aggressive person could impose costs on a friendship, associating with an aggressive person as a friend could afford the benefit of a coalitional ally willing to aggress against other interpersonal threats toward the perceiver (Krems et al., in press). This valuation of the potential costs and benefits of social targets fluctuates based on motivational states and whether that target would be

an opportunity or threat in a given domain (Lassetter et al., 2021; Neel & Lassetter, 2019). For example, exceptionally moral people are desirable as long-term mates because of the import of prosociality in that context (Bhagal & Farrelly, 2019), although such interest would not translate to short-term contexts because moral character has less relevance short-term mating goals that emphasize a mate similarly interested in promiscuity (Brown et al., 2020).

Given the fundamental nature of affiliative and self-protection motives to facilitate survival, selection would have favored individuals capable of identifying those who would be inclusionary and physically safe, although one could take priority over the other. Affiliative motives refer to individuals' motivation to belong to social groups, whereas self-protection motives are people's motivation to avoid physical hostility. Whether an individual is interested in satisfying one of these motives, perceptions of their importance often fluctuate for perceivers based on relative salience of various concerns (Kenrick et al., 2010). Consequently, this fluctuation of salience could lead individuals to prefer people who could be costly if another motive were salient. For example, although extraversion is a desirable personality trait for its connotation of gregariousness and affiliative opportunities (Brown et al., 2019; Pollet et al., 2011), extraverted individuals are nonetheless more interpersonally dominant and could threaten goals in domains that prioritize physical safety (Rodriguez & Lukaszewski, 2020). This ambivalence for extraversion represents a tradeoff for whether the threats or opportunities are more salient to perceivers. Additionally, vigilance toward male faces as threatening are most apparent when self-protection motives are salient (Becker et al., 2010; Young et al., 2015).

Additional forms of interpersonal gregariousness could similarly provide an ambivalent signal to perceivers that implicate a social target as presenting both threats and opportunities. Individuals perceive those whose morality centers around caring as affording considerable affiliative opportunities (Brown, 2021). Nonetheless, these affiliative opportunities remain different from those related to physical safety because of the different benefits afforded by friendly people versus other desirable group members. A caring person would be less relevant to perceivers evaluating a social target for physical protection beyond the absence of harm infliction on someone. Who could actually protect a perceiver from danger? A bouncer for a nightclub would be seen as especially valuable to address outgroup threats, albeit less relevant in fostering a sense of belonging (Brown et al., 2022a; Lassetter et al., 2021). Some interpersonal benefits of group members could further threaten orthogonal goals. For example, despite the interpersonal protection that could be afforded by aggressive men, women down-regulate their interest in such behavioral repertoires when the threat of domestic violence is salient (Borras-Guevara et al., 2017; Snyder et al., 2011).

Social value of humor styles

The purpose of humor varies based on the goal of the humorist, which can manifest as individual differences in humor styles. Empirically, four distinct humor styles exist

along intrapersonal and interpersonal axes with benign and injurious intentions (see Table 1; Martin et al., 2003). The interpersonal styles are affiliative humor (benign), which serves to enhance social bonds not at the expense of a group member. Conversely, aggressive humor (injurious) serves to harm others to bolster oneself. Affiliative humor is a common strategy among extraverted individuals, whereas disagreeable individuals prefer aggressive humor (Greengross et al., 2012). In fact, this interest in aggressive humor corresponds with personality disorders and dark personality traits (Vernon et al., 2008; Vrabel et al., 2017; Zeigler-Hill et al., 2016).

Along intrapersonal dimensions are self-enhancing humor (benign) and self-defeating humor (injurious). Self-enhancing humor serves as a buffer from stressors while fostering high self-esteem, whereas self-defeating humor is typified by derogating oneself to gain affiliative opportunities despite its deleterious effects on self-esteem (Stieger et al., 2011; Vaughan et al., 2014; Zeigler-Hill & Besser, 2011). Individuals appear aware of the intentions of these different humorists, which leads to them developing implicit theories about their social value and how they could facilitate their goals (Kuiper et al., 2010; Zeigler-Hill et al., 2013). Indeed, benign humorists exhibit more desirable personalities, including heightened extraversion and agreeableness (e.g., Greengross et al., 2012; Veselka et al., 2010b). Given the considerable accuracy of trait inferences from perceivers (e.g., Back & Nestler, 2016; Borkenau & Liebler, 1992), it could be possible to develop heuristics of interpersonal behavior through humor styles.

This acuity toward the social affordances of humor styles can lead to the development of functional heuristics from which perceivers can shape expectations for how a social target could be an opportunity or threat to their social goals. Benevolent humor styles are desirable for both enduring friendships and long-term relationships due to evaluations of these individuals interpersonally warm (e.g., Brown et al., 2022b; Cann et al., 2016; Cann & Matson, 2014; DeLuca, 2013; Mendiburo-Seguel et al., 2015; Plessen et al., 2020; Veselka et al., 2010b; Zeigler-Hill et al., 2013). Conversely, despite their desirability in short-term mating contexts, aggressive humorists remain undesirable in long-term contexts and connote a detrimental workforce atmosphere in environments that favor interpersonal caution (Betz & DiDonato, 2020; DiDonato et al., 2013; Sacco et al., 2021). Such ambivalence could implicate aggressive humorists as threatening to other social goals. In fact, physical features connoting physical threat covary with expectations of aggressive humor (Brown et al., 2022c). Given these covariations between threat inferences and humor styles, it should follow that specific humor styles could afford opportunities and threats in affiliative and self-protection domains.

Table 1. Humor styles along target dimensions (rows) and intentions (columns).

	Benign	Injurious
Interpersonal	Affiliative	Aggressive
Intrapersonal	Self-enhancing	Self-defeating

Current research

This research presents two experiments assessing the extent to which humor styles appear capable of facilitating or impeding social goals. Namely, we considered social the affordances of humor styles in affiliative and self-protection domains. Study 1 addressed the affiliative and self-protective threats and opportunities for each humor style, whereas Study 2 considered how individual differences in these motives fostered preferences for humor styles. Data, syntax, and materials are provided: https://osf.io/gnhk3/?view_only=78d98d9ceec434059a5ac7d6efb80bffb

Study 1

This study considered the perceived opportunities and threats for affiliation and self-protection. Given the generally heightened desirability and gregariousness of benevolent humor styles (Greengross & Miller, 2008; Zeigler-Hill et al., 2013), we expected affiliative and self-enhancing humor to afford the most affiliative opportunities to perceivers with the effect being larger for affiliative humor. We predicted similar opportunities in self-protective domains due to the lack of aggression in these humor styles. The exploitative intentions of aggressive humor further led us to predict that aggressive humor affords more affiliative and self-protective threats. Self-defeating humor should afford fewer opportunities than benign styles and fewer costs than aggressive humor. The interpersonal function of humor to strength certain social bonds led us to predict that these effects would be most apparent in affiliative domains (Li et al., 2009).

This study additionally considered perceptions of Big Five personality traits among humor styles. The general desirability of the benign humor styles led us to predict such humorists would appear higher in extraversion, agreeableness, conscientiousness, and openness to experience. These predictions are rooted in an interest of understanding how perceivers develop implicit theories of specific behavioral repertoires based on the actual personalities of humorists (Greengross & Miller, 2008; Veselka et al., 2010a; Zeigler-Hill et al., 2013). Among injurious humor styles, we predicted that aggressive and self-defeating humor would be more likely to connote neuroticism, although we predicted that self-defeating humor would be perceived as especially neurotic.

Method

Participants. We recruited 132 participants at a large public university in Southeastern U.S. completed for course credit (103 women, 29 men; $M_{Age} = 19.54$, $SD = 4.20$; 88.6% White). A sensitivity analysis indicated that we were adequately power for small effects in a 4×2 within-subjects experimental design with no predicted sex differences (Cohen's $f = .13$, $1 - \beta = .80$). No data were excluded. Data in this study are part of a larger dataset investigating perceptions of humor styles.

Materials and procedure. Participants evaluated four social targets who were in hypothetical psychological profiles. These targets appeared to participants as brief vignettes ostensibly written by a psychologist who provided personality assessments of four college students (for original vignettes, see Zeigler-Hill et al., 2013). This hypothetical scenario of the description afforded us the opportunity to present highly standardized stimuli to participants while potentially mitigating the influence of demand characteristics on a within-subjects basis (i.e., single psychologist making reports on four people with similar language).

Vignettes described four college students while providing a description of how this person uses humor; one vignette described each humor style. In fact, the names of these humor styles were explicitly mentioned in the vignettes. Each social target was represented by one of the four vignettes and an image of a middlingly attractive White man around college age (Minear & Park, 2004). Descriptions of each man's humor style were counterbalanced on a between-participants basis to reduce stimulus effects despite participants evaluating each of the four humor styles based on the vignettes. Our decision to focus exclusively on male targets was based on the fact that men's overt humor use is more prevalent in broader social contexts than women's (Greengross et al., 2020).

Trait inferences. Participants assessed the extent to which each target exhibited each of the Big Five personality traits using an other-report version of the Ten-Item Personality Inventory (Brown et al., 2022d). Two items comprised each of the traits (i.e., Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness). Items operated along 7-point scales (1 = *Strongly Disagree*; 7 = *Strongly Agree*). Split-half reliability analyses indicated that these two-item measures had adequate reliability for aggregation (Spearman-Brown coefficients were between .07 and .72).

Affordance judgments. Participants evaluated the targets on the extent to which each target afforded opportunities and threats in motivational domains. Specifically, they assessed these perceptions related to affiliative and self-protection goals with a trait inference assessment instrument for relevance appraisals (Lassetter et al., 2021). This instrument was developed by considering explicit stereotypes of different social groups and how they may vary across different contexts within a theoretical framework of the warmth-competency axes of the stereotype content model (Cuddy et al., 2009; Neel & Lassetter, 2019). These appraisals were assessed along three unique items for each target assessing the likelihood of a target being a threat or opportunity (1 = *Extremely Unlikely*; 7 = *Extremely Likely*). Each subscale had acceptable reliability across target categories, prompting aggregation ($as: .78-.96$). Table 2 provides example items.

Results

Personality inferences. We identified inferences of personality traits by conducting five one-way repeated ANOVAs, one for each Big Five trait. Given that we predicted

several differences in personality inferences across humor styles that would make conservative analyses unnecessary, we used LSD tests for post hoc comparisons. Table 3 provides information on descriptive and inferential statistics. Each main effect was significant. As predicted, affiliative humor appeared most extraverted, agreeable, conscientious, and open to experience. This was followed by self-enhancing humor. Aggressive humor appeared more extraverted than self-defeating humor. Self-defeating humor appeared more agreeable, conscientious, and open. No differences emerged for affiliative and self-enhancing humor ($ps > .069$, $ds < 0.32$). All other differences were significant ($ps < .037$, $ds > 0.36$).

As predicted, aggressive humor appeared most neurotic, followed by self-defeating humor, then self-enhancing humor, and finally affiliative humor. The differences between aggressive and self-defeating humorists, and between affiliative and self-enhancing humor, were not significant ($ps > .107$, $ds < 0.29$). All other differences were significant ($ps < .001$, $ds > 0.57$).

Affordance judgments. We conducted two 4 (Target Humor Style: Aggressive vs. Affiliative vs. Self-Defeating vs. Self-Enhancing) \times 2 (Affordance: Threat vs. Opportunity) repeated-measures ANOVAs. One analysis was for affiliative affordances and one for self-protection. We addressed violations of sphericity with Greenhouse-Geisser corrections. We report interactive effects exclusively, given the ambiguity of

Table 2. Example items for affiliative and self-protection opportunities and threats in Study 1.

	Affiliative	Self-Protection
Opportunity	If you were to encounter this person, how likely is it that he would include you in social situations?	If you were to encounter this person, how likely is it that he would protect your physical safety?
Threat	If you were to encounter this person, how likely is it that he would socially exclude you?	If you were to encounter this person, how likely is it that he would endanger your physical safety?

Table 3. Trait inferences for the Big Five across humor styles in Study 1.

	Humor Styles				<i>F</i>	η_p^2
	Aggressive	Affiliative	Self-defeating	Self-enhancing		
Extraversion	4.61 (1.41)	5.18 (1.35)	3.69 (1.34)	4.92 (1.35)	33.44	.203
Agreeable	2.38 (1.21)	4.63 (1.20)	3.60 (1.22)	4.54 (1.22)	94.52	.419
Conscientiousness	2.81 (1.16)	4.51 (1.19)	3.70 (1.17)	4.33 (1.16)	60.83	.317
Neuroticism	5.33 (1.18)	3.71 (1.16)	5.27 (1.24)	3.96 (1.42)	62.73	.324
Openness	3.30 (1.10)	4.77 (1.13)	3.99 (0.97)	4.73 (1.21)	75.88	.356

Note. All main effects are significant at $p < .001$.

the main effects in these analyses that would rely on aggregations of subscales (for descriptive statistics, see Table 4).

Affiliation. A 2-way interaction emerged, $F(2.46, 319.77) = 170.05, p < .001, \eta_p^2 = .567$ (Figure 1). As predicted, aggressive humor afforded more threats to affiliation than opportunities for affiliation, $F(1, 130) = 186.51, p < .001, \eta_p^2 = .589$. Affiliative ($\eta_p^2 = .574$) and self-enhancing humor ($\eta_p^2 = .535$) afforded more affiliative opportunities than affiliative threats, which was further consonant with predictions. Self-defeating humor similarly afforded more affiliative opportunities than affiliative threats, albeit at a reduced magnitude compared to affiliative and self-enhancing humor ($\eta_p^2 = .414$), $F_s > 91.71, p_s < .001$

Viewed another way, two simple effects emerged comparing threats and opportunities separately, $F_s > 79.99, p_s < .001$. The effects for affiliative threats ($\eta_p^2 = .705$) and affiliative opportunities ($\eta_p^2 = .652$) were of similar magnitudes. As predicted,

Table 4. Perceived affiliative and self-protective threats and opportunities of each humor style.

Motive	Affordance	Humor Styles			
		Aggressive	Affiliative	Self-defeating	Self-enhancing
Affiliative	Threat	5.42 (1.46)	2.49 (1.33)	2.72 (1.38)	2.59 (1.29)
	Opportunity	2.57 (1.24)	5.13 (1.22)	4.66 (1.30)	4.97 (1.24)
Self-protection	Threat	4.02 (1.46)	2.07 (1.20)	2.20 (1.18)	1.99 (1.02)
	Opportunity	2.50 (1.11)	4.38 (1.37)	3.91 (1.53)	4.36 (1.36)

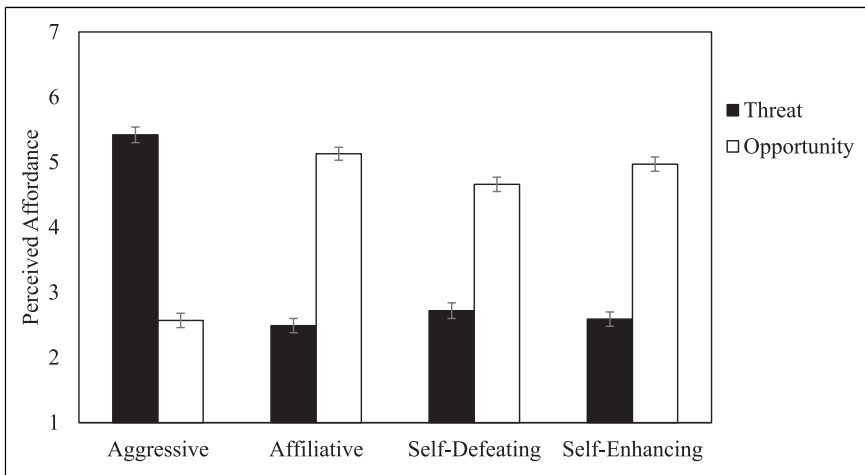


Figure 1. Perceived affiliative threats and opportunities for target humor styles (with standard error bars).

aggressive humor appeared most threatening to affiliative goals, followed by self-defeating humor, then self-enhancing humor, and finally affiliative humor. The differences between aggressive humor and the other styles were significant ($ps < .001$, $ds > 1.90$). No other differences emerged in this comparison ($ps > .123$, $ds < 0.28$). Affiliative humor afforded the most affiliative opportunities, as predicted, followed by self-enhancing humor, then self-defeating humor, and finally aggressive humor. The difference between affiliative and self-enhancing humor was not significant ($p = .199$, $d = 0.13$); all others were ($ps < .015$, $ds > 0.42$).

Self-Protection. A 2-way interaction emerged, $F(2.65, 344.93) = 113.50$, $p < .001$, $\eta_p^2 = 0.466$ (Figure 2). As predicted, aggressive humor afforded more threats to self-protection than opportunities for self-protection, $F(1, 130) = 69.37$, $p < 0.001$, $\eta_p^2 = .348$. Affiliative ($\eta_p^2 = .534$), and self-enhancing humor ($\eta_p^2 = .585$) afforded more opportunities for self-protection than threats to self-protective goals, further consonant with predictions. Self-defeating humor similarly afforded more self-protection opportunities than threats at a reduced magnitude ($\eta_p^2 = .429$), $F_s > 97.82$, $ps < .001$.

Viewed another way, two simple effects emerged comparing threats and opportunities separately, $F_s > 59.52$, $ps < .001$. Effects for self-protection threats ($\eta_p^2 = .582$) and self-protection opportunities ($\eta_p^2 = .588$) had similar magnitudes. Aggressive humor appeared most threatening to self-protection goals, as predicted, followed by self-defeating humor, then affiliative humor, and finally self-enhancing humor. Differences between aggressive humor and other styles were significant ($ps < .001$, $ds >$

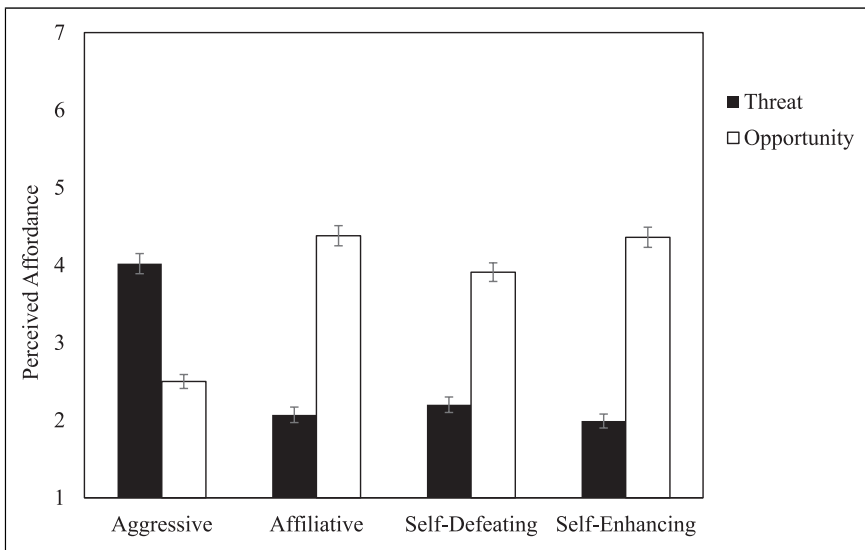


Figure 2. Perceived self-protective threats and opportunities for target humor styles (with standard error bars).

1.37). No other differences emerged in this comparison ($ps > .089$, $ds < 0.19$). Affiliative humor afforded the most opportunities for self-protection, followed by self-enhancing humor, then self-defeating humor, and finally aggressive humor. The difference for affiliative and self-enhancing humor was not significant ($p = .883$, $d = 0.02$). All other differences were significant ($ps < .007$, $ds > 0.47$).

Discussion

Results provided consistent evidence for benign humor as affording social opportunities to perceivers, although affiliative and self-enhancing humor were perceived as affording similar levels of these opportunities. Such a similarity could reflect previous research demonstrating a general desirability of benign humor styles (Zeigler-Hill et al., 2013), given the various associations between these styles and socially desirable personality traits (Greengross & Miller, 2008; Martin et al., 2003; Veselka et al., 2010a; Zeigler-Hill & Besser, 2011). Indeed, these affordance judgments covaried with inferences of benign humor as connoting extraversion, agreeableness, conscientious, and openness to experience in this study. These findings suggest that benign humor styles could provide opportunities to affiliate with prosocial conspecifics with fewer exploitative intentions. Additionally, the injurious humor styles appeared more neurotic to perceivers, which could have been a perception that could undermine their prospective opportunities as someone disinterested in affiliation or potentially prone to aggression.

The effect size for affiliative motives was larger than for self-protective motives. This difference could reflect an awareness of the concomitant personality inferences of benign humor. The heightened extraversion of affiliative humor would connote affiliative opportunities (Pollet et al., 2011), but the heightened dominance among extraverted individuals could implicate them as affording greater costs from this dominance, especially from extraverted men (Rodriguez & Lukaszewski, 2020). The inferred threat of aggressive humor in self-protective domains could similarly reflect the relatively greater extraversion of aggressive humor than self-defeating humor that could suggest participants considered a tradeoff. This discrepancy in effect sizes could further reflect an understanding of humor's primary role in affiliative decisions that would implicate it as less relevant in self-protective domains (see Li et al., 2009). That is, how group members construct humor could be irrelevant to perceptions of a social target's ability to harm a perceiver physically. This possibility led us to conduct a subsequent study considering chronic activation of affiliative and self-protective motives in shaping interpersonal preferences beyond simple affordance judgments (i.e., personality inferences).

Study 2

Judgments of humor styles facilitate specific motivational goals. Chronic activation of these fundamental motives could similarly influence interpersonal preferences for humor styles. Within affiliative domains, perceivers would likely prefer those whose

behavior connotes benevolent intentions and a genuine interest in affiliation (Brown, 2021; Brown & Sacco, 2017; Pickett et al., 2004). The affiliative benefits of benign humor led us to predict that heightened affiliative motives would foster interpersonal preferences for these humor styles. The greater relevance of affiliative humor to affiliative goals led us to predict effects would be larger for affiliative humor. We had additionally predicted aggressive humor would be more aversive to affiliative individuals.

Individuals additionally vary in motives to avoid safety threats, which informs interpersonal preferences. For example, individual differences in dangerous world beliefs foster perceptual acuity toward cues to trustworthiness in the service of identifying potentially hostile group members. This concern over hostility additionally fosters aversion toward facial features connoting exploitative intent and non-normative behavior (Brown et al., 2017; Murray & Schaller, 2012). We predicted that chronically activated self-protective motives would foster aversion toward aggressive humor, given its generally exploitative nature, with the effect being larger than for affiliative motives. Additionally, the interest in cues to affiliative intent led us to predict such motives would foster a preference for affiliative humor, albeit at a reduced magnitude from affiliative humor.

Method

Participants. A sample of 231 participants from a large public university in Southeastern U.S. completed this study for course credit (177 women, 51 men, 3 unidentified; $M_{Age} = 18.95$, $SD = 2.13$; 78.3% White). A sensitivity analysis indicated that we were adequately powered to detect medium effects for a one-way within-subjects design using two continuous moderators (Cohen's $f = 0.22$, $1 - \beta = .80$). No data were excluded. Because Studies 1 and 2 were related and collected in direction succession of each other (i.e., within 1 month), our recruitment procedure for this study precluded participation in both studies.

Materials and procedure. Participants evaluated the same social targets as Study 1 represented by vignettes and faces. However, these evaluations were based on the extent to which they would like to work with each target on an interdependent task as a proxy for interpersonal liking (Brown et al., 2018). Responses to this single-item assessment operated along a single item (1 = *Not at All*; 7 = *Very Much*).

Participants additionally reported their individual differences in two chronically activated social motives. Namely, they responded to measures of Need to Belong (NTB) to assess chronic activation of affiliative motives (Leary et al., 2013) and Belief in a Dangerous World (BDW) to assess chronic activation of self-protection motives (Altemeyer, 1988). Measures demonstrated adequate reliabilities ($\alpha s > .75$). NTB is a 10-item scale (1 = *Strongly Disagree*; 7 = *Strongly Agree*).¹ BDW is a 12-item scale (1 = *Strongly Disagree*; 5 = *Strongly Agree*).

Results

We used a one-way custom repeated ANCOVA. NTB and BDW were moderators to test for interactive effects in one model considering for within-subjects factors and continuous moderators. The main effect was significant, $F(2.67, 605.96) = 4.88, p = .002, \eta_p^2 = .021$. Participants liked self-enhancing humor most ($M = 5.10, SD = 1.33$), followed by affiliative humor ($M = 4.71, SD = 1.37$), then self-defeating humor ($M = 3.13, SD = 1.31$), and finally aggressive humor ($M = 1.87, SD = 1.24$). All differences were significant ($ps < 0.001, ds > 0.28$).

A 2-way interaction emerged with Humor Style and NTB, $F(2.67, 605.96) = 4.83, p = .004, \eta_p^2 = .020$. This prompted us to conduct four bivariate correlations for NTB with each target. As predicted, a positive correlation for affiliative humor indicated that greater NTB was associated with more interest in the target using affiliative humor. Correlations for other humor styles were not significant. Subsequent sign tests considering the differences in magnitudes of correlation coefficient found there was no difference between the magnitudes of affiliative and self-enhancing humor ($Z = 1.64, p = .101$). However, as expected, affiliative humor's effect was significantly different from aggressive humor ($Z = 3.25, p = .001$) and self-defeating humor ($Z = 2.29, p = .022$). No interactive effects emerged for BDW, $F(2.67, 605.96) = 0.65, p = .582, \eta_p^2 = .002$ (see Table 5).

Discussion

Greater need to belong heightened preferences for affiliative humor. A level of domain-specificity emerged in these findings, as affiliative humor was the only benign humor style more desirable among dispositionally heightened affiliative motives. This granularity could suggest that self-enhancing humor's affiliative opportunities may be less direct compared to affiliative, given that affiliative humor is specifically interpersonal. However, the magnitudes of effects for affiliative and self-enhancing humor were not significantly different, suggesting an overall desirability of self-enhancing humor relative to other humor styles in satisfying affiliative goals. This similarity could reflect that perceivers generalize benign humor as unilaterally desirable regardless of the target because the happiness conveyed through these styles is especially vivid (Becker & Srinivasan, 2014).

Unexpectedly, dangerous world beliefs did not predict any preferences for humor styles. The lack of effect for aggressive humor could be based on its overall

Table 5. Bivariate correlations between NTB and BDW with each humor style.

	Aggressive	Affiliative	Self-Defeating	Self-Enhancing
NTB	-.07	.23*	.02	.08
BDW	-.01	-.07	-.06	-.11

Note. NTB = Need to Belong; BDW = Belief in a Dangerous World. * $p < .001$.

undesirability, thus creating a floor effect. Chronic activation of dangerous world beliefs could have similarly led individuals to view potential costs in affiliative humor despite salient benefits (i.e., physical dominance; [Martin et al., 2012](#); [Rodriguez & Lukaszewski, 2020](#)). The fact that humor use seems to have evolved for affiliation could render its signal value in non-affiliative domains less apparent for those specifically seeking protection.

General discussion

Across both studies, hypotheses were largely supported. The most consistent findings occurred in assessing the signal value of affiliative humor in affording benefits in affiliative domains. These findings align with research suggesting the overall desirability of affiliative humor, given its association with personality traits considered desirable ([Greengross & Miller, 2008](#); [Martin et al., 2012](#); [Zeigler-Hill et al., 2013](#)). Such covariation could speak to a function of affiliative humor insofar as providing an ingratiating opportunity for perceivers. Namely, perceivers could recognize affiliative humor as affording the opportunity to develop social ties without concerns of exclusions due to their potential interest of inclusivity with others that would be highly desirable among those motivated to belong to groups (see [Brown & Sacco, 2017](#)).

Benign humor appeared especially advantageous across both studies, with effects for affiliative and self-enhancing humor being similar. These findings may suggest a degree of empirical overlap between benign intentions in one's humor insofar as perceivers recognize neither humor as indicative of exploitative intentions ([Zeigler-Hill et al., 2013](#)). Nonetheless, the specifically interpersonal nature of affiliative humor facilitated greater desirability of the humor relative to self-enhancing humor. This distinction could suggest a more specific interpersonal signal value of self-enhancing humor that is less apparent with the extant measures in these studies. Indeed, results in Study 2 suggest that self-enhancing humor was most desirable. This discrepancy in findings could suggest a particular social value of self-enhancing humor. The potential connotation of psychological health self-enhancing humor could lead perceivers to view it as conducive to providing more benefits for group living (e.g., [Frederickson, 2013](#); [McGrath & Brown, 2020](#)). Future research would benefit from identifying the functional bases of preferring self-enhancing humor.

Unlike the relative similarity of the benign humor styles, injurious humor styles appeared to operate more independently from each other in these studies. One explanation is that aggressive humor explicitly connotes an intention to induce costs on perceivers, whereas the potential costs of self-defeating humor could be less direct. Self-defeating humor attempts ingratiation with group members at the expense of their own wellbeing, albeit in a manner that could be considered neurotic and potentially "cringe-inducing" ([Atkinson, 2015](#); [Martin et al., 2012](#)). Self-deprecation is most effective among individuals exhibiting relatively high-status, as it may demonstrate modesty that is less apparent among low-status humorists ([Greengross & Miller, 2008](#)).

Additional research could consider traits exhibited by self-defeating humorists while tasking evaluations of their costs and benefits.

Limitations and future directions

Several limitations in these studies provide several opportunities for future research. Effects in Study 2 are based on dispositional motivations to affiliate. Additional work could specifically assess a causal link between affiliative motives and humor style preferences through temporal activation of affiliative motives based on what should be preferred in a given domain (DiDonato & Jakubiak, 2016). These studies could render exclusionary experiences salient, which have previously been shown to heighten perceptual acuity toward affiliative opportunities, before tasking participants with indicating their interest in various humor styles (Bernstein et al., 2010; Brown et al., 2019). Additionally, future studies could identify whether acute activation of safety concerns elicits different effects from dangerous world beliefs based on previous work demonstrating preferences toward group members who could afford protective benefits to perceivers (Sacco et al., 2015).

Despite a relatively consistent body of research investigating humor styles broadly, recent endeavors have begun to consider more nuance in the production of humor and the concomitant signal value it produces. One avenue through which research has expanded is consideration of comic styles, or the manner in which individuals attempt to ingratiate through the content of their humor (Heintz & Ruch, 2019; Mendiburo-Seguel & Heintz, 2020; Ruch et al., 2018). Future investigations could consider the granularity of these styles to contextualize our effects based on the objective of the humor.

Another limitation for this research is its reliance on Western samples. Future research would benefit from explicitly considering responses across various cultures. Although humor styles demonstrate considerable cross-cultural invariance that could suggest similar evaluations of different humor styles (Jiang et al., 2020), the display rules of a given culture could shape perceptions in their own right (Matsumoto, 1990). For example, Japanese samples consistently report an interest in downplaying their presentation of positive emotions compared to American and Canadian samples (Safdar et al., 2009). Within Chinese samples, the explicit interest in self-deprecation to demonstrate social desirability could implicate a self-defeating humorist as more desirable (Cai et al., 2011; Hepper et al., 2013). However, the negative emotions associated with self-defeating humor could similarly elicit aversion from Eastern cultures whose norms value restrictiveness (Moran et al., 2013). The value of affiliative humor could additionally fluctuate based on the extent to which extraversion is desirable in a given ecology due to its association with disease transmission (Schaller & Murray, 2008).

Conclusions

The social function of humor in ingratiation positions it as critical to many social interactions. The current research provided evidence for various humor styles in

shaping perceptions of a humorist as capable of affording more social opportunities. Namely, humor with benevolent intentions is especially desirable, whereas injurious intentions appear aversive.

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

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Note

1. One reverse-scored item for NTB negatively loaded in the reliability analysis, which prompted us to remove it from the final composite. Nonetheless, inclusion of the removed item did not meaningfully influence results.

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Author Biographies

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