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## Stereotype reduction through humor and accommodation during imagined communication with older adults

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### ABSTRACT

Ageism can generate conflict and harm well-being. Our paper integrates the Aging Stereotypes in Interaction model with intergroup contact theory to predict how communicative elements mediate the effect of intergenerational contact on warmth and competence stereotypes of older adults as a group. Students ( $N = 288$ ) were randomly assigned to imagine having a conversation with an older adult in one of six experimentally manipulated contact conditions: a competent/incompetent older woman, a sociable/unsociable older woman, or a moral/immoral older woman. Participants' stereotypes of older adults were affected by the characteristics of their communication partner, and this effect was mediated by specific communication behaviors imagined by the participant for two of the three trait dimensions. For perceptions of competence, overaccommodation was the key mediator. For perceptions of sociability, the key mediator was humorous communication. These mediators represent an expansion in how we understand not just the outcomes of intergroup contact, but also the communicative mechanisms through which it occurs.

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Stereotypes; intergroup contact; imagined contact; humor; self-disclosure; overaccommodation; warmth; competence

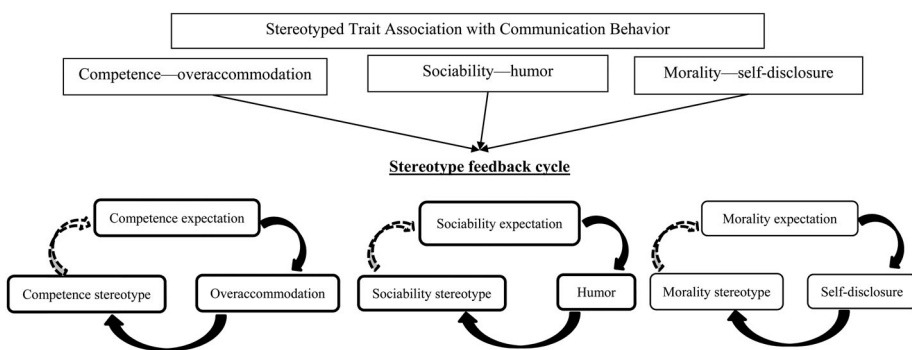
Ageism has deleterious effects not just upon its targets but also on the prejudiced themselves. People who feel negative about aging live an average of 7.5 years fewer than people who have positive attitudes about aging (Levy, Slade, Kunkel, & Kasl, 2002). Given its negative consequences, researchers have examined a variety of ways to reduce prejudice and stereotypes against the elderly. One effective strategy is to increase contact with older adults (Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006). Whereas age segregation is common and many young adults have relatively little interaction with older adults other than their grandparents (Hagestad & Uhlenberg, 2005), intergenerational contact can bring positive outcomes for both younger and older people, such as increasing positive attitudes toward older adults, decreasing anxiety during communication, and improving communication between grandchildren and grandparents (Abrams & Giles, 1999; Tam et al., 2006). Even *imagining* intergenerational contact can have positive effects for older adults (Abrams et al., 2008). We do not yet know

whether imagined intergenerational contact improves young people's perceptions of older people in a complementary manner, an issue explored in the current paper. We also extend existing research by examining how specific *types* of imagined communication dispel or reinforce stereotypical perceptions of older adults.

Much intergenerational communication research has focused on a single communicative behavior (overaccommodative speech: Hummert, Garstka, Ryan, & Bonnesen, 2004). More research is needed to examine additional communicative behaviors involved in intergroup contact (Harwood, 2010) as well as how various types of communication operate concurrently. Our study simultaneously examines three communication elements (overaccommodative speech, self-disclosure, and use of humor) that we will argue are theoretically linked to dimensions of older adult stereotyping. We contribute to theory by integrating a prominent model of intergenerational communication with intergroup contact theory and the stereotype content model (SCM). In doing so, we suggest that these communication behaviors mediate the effects of imagined contact, and thus result in positive or negative reinforcement cycles between communication behaviors, trait perceptions, and more general intergenerational attitudes (see Figure 1 for an outline of our core theoretical predictions). We begin by discussing the context of contact in our study, the models of intergenerational communication, and introducing theoretically related communication behaviors that may be involved in positive and negative feedback cycles related to these traits.

### *Intergroup imagined contact as a form of contact to influence prejudice*

Contact between groups typically has a positive influence on subsequent attitudes toward those groups (Allport, 1954; Pettigrew & Tropp, 2006). As might be expected, for contact to reduce prejudice it needs to be positive; negative contact has the potential to *increase* prejudice (Paolini, Harwood, & Rubin, 2010). Contact need not occur face-to-face; it is also effective when it occurs over the Internet (Walther, Hoyer, Ganayem, & Shonfeld,



**Figure 1.** Stereotype reinforcement model. This model presents how communicative behaviors mediate the effect of target expectation on stereotyping of older adults. Under different expected stereotypes (e.g., competent, sociable, and moral), communication behaviors (overaccommodation, humor, and self-disclosure, respectively) will mediate the relationship between trait valence and perceptions of older adults (e.g., when people communicate with older adults framed or perceived as incompetent, they will overaccommodate during conversation, which will reinforce their perceptions that all older people are incompetent).

2014), vicariously through media narratives (Joyce & Harwood, 2014; Ortiz & Harwood, 2007), or when it is imagined—the focus of the current project (Crisp & Turner, 2009).

There are two primary lines of research studying imagined communication: imagined interaction (Honeycutt, 2003) and imagined contact (Crisp & Turner, 2009). Imagined *interaction* research examines individuals' spontaneous thoughts about interpersonal communication with a real person, often occurring before an actual interaction with the person (Honeycutt, 2003). Research in that tradition is largely concerned with the content of such imagined interactions and how imagined communication is associated with real interpersonal communication. Imagined *contact* research typically involves imagined interpersonal communication between a research participant and a mentally constructed outgroup member. The goal of imagined contact research is to understand how imagining communication with an unknown outgroup member can influence attitudes toward members of that group as a whole. Our research is grounded in the imagined contact tradition.

The effect of imagined intergroup contact on attitudes may be due to priming effects (Turner, Crisp, & Lambert, 2007). During imagination, subtle cues or primes in our social environment activate associated knowledge structures in our minds. These knowledge structures can influence attitudes and behaviors. Imagined intergroup contact is defined as “the mental simulation of a social interaction with a member or members of an outgroup category” (Crisp & Turner, 2009, p. 234). A positive imagined contact experience elicits mental simulation of communication that is associated with successful intergroup interaction, such as disclosure or the use of humor. In addition, during imagined intergroup contact people engage in mental and emotional processes equivalent to processes in actual intergroup contact, such as reduced anxiety or increased desire for future contact. As a result, imagined intergroup contact can change attitudes based on age (Turner, Crisp, et al., 2007), religion (Turner & Crisp, 2010), and other stigmatizing characteristics (West, Holmes, & Hewstone, 2011).

Imagining a conversation with an outgroup member is relevant to our interests for three reasons. First, imagined contact manifests effects similar to those of real contact: it reduces prejudice and encourages effective communication between social groups (Turner & Crisp, 2010; Turner, Crisp, et al., 2007). Moreover, it does so even if opportunities for face-to-face contact are limited. Second, it facilitates clean and clear manipulations of the characteristics of a contact partner, allowing systematic examination of very specific dimensions of the contact experience. Third, imagined contact replicates processes of mental rehearsal and conversational planning more effectively than other forms of contact (e.g., mediated contact). Mentally *creating* a conversation that explicitly violates a pre-existing attitude involves more explicitly dissonant processing and, depending on how that individual responds to that dissonance, creates more chances for persuasive effects (Brehm & Cohen, 1962).

### ***Aging stereotypes in interpersonal communication***

The Aging Stereotypes in Interaction (ASI) model (Hummert, 1994) has been commonly used to explain the process of age stereotyping in interpersonal communication. This model is based on the central principles of communication accommodation theory (CAT) and the communication predicament of aging model (Ryan, Giles, Bartolucci, &

Henwood, 1986). Together, CAT and the predicament model describe a negative feedback cycle within intergenerational communication wherein communication is adjusted to the (stereotyped) negative characteristics of the interlocutor and the adjustments reinforce those negative perceptions (Giles & Gasiorek, 2013; Giles, Mulac, Bradac, & Johnson, 1987). Hummert's (1994) ASI model argues that, based on characteristics of the perceiver (e.g., previous intergenerational contact), the older target (e.g., his or her age), and situation (e.g., health-care context vs. not), people will generate negative *or* positive stereotypes of older adults. These two types of stereotypes drive younger adults' communication behaviors and further reinforce either the negative or the positive existing stereotypes in a positive or negative feedback cycle.

Negative stereotypes encourage age-adapted speech that reinforces negative outcomes for older adults' well-being and younger adults' perceptions of older adults. When younger adults communicate with older adults, they recognize older adults' age cues (e.g., gray hair, wrinkled skin, and repetitious verbal behaviors) and subsequently stereotype older adults as incompetent and dependent. Due to these perceptions, younger adults modify their speech (i.e., using overaccommodative or patronizing talk) in intergenerational interaction. These stereotype-based modifications reinforce negative aging stereotypes and constrain older adults' opportunities for satisfying conversation. Eventually, this behavior has a negative effect on older people's self-esteem and psychological well-being. On the other hand, positive stereotypes encourage appropriate communication behavior that reinforces positive outcomes for older adults' well-being and younger adults' positive perceptions of older adults.

Moving forward from the ASI, it is important to recognize that stereotypes have not only valence but also *content* (Fiske, Cuddy, & Glick, 2007). Positive stereotypes of aging include substereotypes of active older people and nurturing grandparent types. Similar differentiation is apparent in negative stereotypes (e.g., curmudgeons or the severely impaired: Hummert, 1994). These stereotypes reflect positive or negative perceptions, but also specific beliefs about the sociability, competence, and moral character of older adults. Beyond positive and negative feedback loops, we propose that specific stereotypical traits invoke feedback loops involving specific types of communication behavior.

### **An expanded SCM**

The SCM suggests that groups are stereotyped along two primary dimensions: warmth and competence (Fiske et al., 2007). Research on aging suggests that people view the elderly as warm but incompetent (Cuddy, Norton, & Fiske, 2005). Expanding on the SCM, Brambilla, Sacchi, Rusconi, Cherubini, and Yzerbyt (2012) suggested that the warmth dimension might be better classified in terms of two sub-dimensions: sociability (the willingness to connect with others) and morality (the perceived trustworthiness of social targets; for our purposes, we use *morality* and *trustworthiness* interchangeably).

Brambilla, Sacchi, Pagliaro, and Ellemers (2013) claimed that more positive perceptions of competence, sociability, and morality increase desire for future contact. Perceptions of warmth and competence traits are also linked to specific types of behaviors. For example, incompetence stereotypes lead to passive harm behaviors and warmth stereotypes lead to active facilitation behaviors toward outgroup members (Cuddy, Fiske, & Glick, 2007). In the current research, we integrate previous work on stereotype content, intergroup

contact, and models of intergenerational communication by proposing (a) that these stereotypic traits can actually lead to very specific types of imagined communication, and (b) that these forms of communication are involved in feedback loops as described in the ASI model (see above). Below, we propose hypothetical linkages between the three stereotypical trait dimensions and three communicative behaviors: overaccommodation, humor, and self-disclosure (Figure 1).

### ***Competence stereotypes and overaccommodation***

The ASI model supports the connection between competence stereotypes and an overaccommodative speech style (Hummert, 1994). Overaccommodation is communication that exceeds the recipient's desired level of adjustment and is often attuned to a stereotype rather than the partner's actual competencies (Ryan et al., 1986). Overaccommodation occurs in both social (Ryan, Hummert, & Boich, 1995) and medical settings (Ryan, Kennaley, Pratt, & Shumovich, 2000). It is often perceived as patronizing, and can involve the use of baby-like terms, increased volume, reduced speech rate, or high and variable pitch. Given the low competence stereotypes of older adults and the prevalence of overaccommodating speech toward older adults that parallels patronizing speech directed at other low competence groups (e.g., babies, people with mental disabilities, and non-native speakers; DePaulo & Coleman, 1986), we see a direct relationship between perceptions of competence and the use of overaccommodating speech.

Overaccommodation may reinforce stereotypes of older adults as a part of a negative feedback cycle. In interaction, when a younger person overaccommodates, the older person's communication is constrained, and he or she becomes less able to respond in a sophisticated or "competent" manner. As a result, incompetence perceptions will be reinforced and validated (Ryan et al., 1986). This feedback pattern may extend beyond the specific interpersonal interaction; people develop broad schemas that are consistent with their own specific behaviors (Yee & Bailenson, 2009). Imagined communication serves a rehearsal or schema-building function for social interaction (Honeycutt, 2003). As a result, perceptions about an outgroup that are brought into imagined contact may be reinforced. Alternatively, an imagined scenario that contradicts pre-existing stereotypes may change the existing perceptions—the typical intergroup contact effect (Pettigrew & Tropp, 2006). As a result, we hypothesize the following:

H1: Compared to imagining an incompetent older adult, individuals who imagine a competent older adult perceive older adults in general to be more competent. This effect is mediated through a reduction in imagined intergenerational overaccommodative behaviors with the older target.

### ***Sociability stereotypes and humor***

Humor has received limited attention in the field of communication (Lynch, 2002). Within the intergroup context, humor can be negative; people use disparaging humor to highlight group identity and superiority of ingroup members (e.g., racist or ageist jokes: Abrams & Bippus, 2011). However, our study focuses on the positive side of humor: humor that makes social situations more enjoyable (Martin & Kuiper, 1999), increases identification and social cohesiveness (Meyer, 2000), relieves anxiety, increases positive affect (Booth-Butterfield & Booth-Butterfield, 1991; Meyer, 2000), and enhances

the likeability of a communicator (Butzer & Kuiper, 2008; Maki, Booth-Butterfield, & McMullen, 2012). Each of these variables plays an important role in the success of intergroup contact. Identification with the older person in an interaction may lead to young adults adopting more inclusive perceptions of older adults and reduce stereotypes of older adults in general. More positive interactions with more likeable partners lead to more positive attitudinal outcomes. Reducing intergroup anxiety has been found to be one of the strongest mediators of intergroup contact's effects (Pettigrew & Tropp, 2006). Hence, humor should enhance the effects of contact. Specifically, we argue that it can be linked to stereotype reduction such that young adults who engage in humorous interactions with an older person will emerge with a greater sense of older adult sociability.

Sociable characteristics indicate an interactive, outgoing personality; thus, the presence of humor in communication is strongly tied to perceptions of sociability. Humor should also be linked to the feedback circles in Figure 1. For instance, people anticipating a conversation with a sociable older adult may be more likely to expect humor and use it themselves. On the other hand, an individual expecting an unsociable conversational partner may not imagine humor as a salient communication strategy. As a result, we hypothesize the following:

H2: Compared to imagining an unsociable older adult, individuals who imagine a sociable older adult perceive older adults in general to be more sociable. This effect is mediated through an increase in imagined humorous communication with the older target.

### *Morality stereotypes and self-disclosure*

Social penetration theory proposes that, as two people interact with each other, communication moves from relatively superficial levels to a deeper, more personal level and this process occurs primarily through self-disclosure (Altman & Taylor, 1973). Moreover, this increase in intimacy requires increased levels of risk for the participants involved. Thus, individuals should be more willing to disclose to trustworthy recipients. An association between self-disclosure and trust has been demonstrated in a wide range of contexts: internet surfers' perceptions of online sources (Joinson & Paine, 2007); relationships between long-distance couples (Jiang & Hancock, 2013); and between adolescent children of alcoholics and adult strangers (Tinnfält, Eriksson, & Brunnberg, 2011).

This proposition extends to the intergroup context. Self-disclosure is an important mediator between intergroup contact and attitudes toward outgroup members (Harwood, Hewstone, Paolini, & Voci, 2005; Manzi, Brambilla, Regalia, & Voci, 2009). Similarly, Turner, Hewstone, and Voci (2007) demonstrated that self-disclosure enhances outgroup attitudes via intergroup trust. Thus, both disclosure and trust mediate intergroup contact effects, and the interpersonal literature cited above suggests that trust and disclosure are intimately connected. Via similar feedback processes already discussed, we suspect that an encounter with an older adult presented as moral or trustworthy will lead to expectations (and imagination) of more disclosive behaviors. These behaviors and their imagined reciprocation should generalize to perceptions of older adults as more trustworthy. In contrast, contact with an untrustworthy older target should minimize the young adult's desire to engage in disclosure, and do little for perceptions of older adults in general as a trustworthy group. Therefore, we hypothesize that:

H3: Compared to imagining an untrustworthy older adult, individuals who imagine a trustworthy older adult perceive older adults in general to be more trustworthy. This effect is mediated through increased imagined self-disclosure with the older target.

## Method

A total of 320 undergraduate communication majors from a university in the Southwestern US participated in this study. Participants received extra credit in exchange for their involvement. Thirty-two students were excluded from the sample (16 participants did not want their data used, 9 participants were in a course on aging and communication and hence were not “naive” subjects, 6 participants were over the age of 25, and one participant rated her own English language competence as below the mid-point of a self-rated language competence scale). A total of 288 students were included in the analysis (68% female, 32% male; 76% White/Caucasian, 16% Latino/Hispanic, 3% Asian/Asian-American, 3% Black/African-American, and 1% others). The average age was 20.27 years (SD = 1.29).

## Procedure and measures

In a posttest-only experimental design, participants were randomly assigned to imagine having a conversation with one of six older women (presented as competent vs. incompetent/sociable vs. unsociable/moral vs. immoral); sample sizes in individual cells ranged from 43 to 51. Our imagined contact manipulation had four stages. First, participants received the following instruction:

Imagine you are traveling on a plane. When you board you discover that you are sitting next to an elderly woman (about 70–75 years old). Imagine that this woman is [participants read one of the following options: 1) sociable and friendly, 2) unsociable and unfriendly, 3) competent and intelligent, 4) incompetent and unintelligent, 5) trustworthy and sincere, 6) untrustworthy and insincere]. Please close your eyes and picture this elderly woman in your head.

In the next step, participants were given the following prompt to increase the vividness of the imagined outgroup exemplar, “Please briefly describe the person in your imagination. What does the person look like (hair color, appearance, etc.)?” Next, the participants took one minute to imagine the contact situation through the following prompt: “Now, imagine that you start a conversation with this woman. Please take a minute to imagine what this conversation would be like. It may help to close your eyes while imagining the conversation.” Then, the participants filled out another open-ended question that asked the following: “Please briefly describe your conversation with this elderly woman (e.g. How do you feel? What did you talk about? How long was the conversation?)” The function of these open-ended responses was to reinforce the imagination task. Finally, participants completed a questionnaire in regard to their behaviors during the imagined conversation and attitudes toward aging. A separate analysis of independent portions of this data set is reported in Harwood et al. (2015).

We held the sex of the imagined interaction partner constant to avoid any confounding effects of sex. We chose a female older adult for two reasons. First, much of the literature on intergenerational contact focuses on older women—the US population contains more



older women than older men (Harwood, 2007), making them a more salient outgroup exemplar. Second, the majority of our participants were female and we wanted to reduce the number of participants for whom the context could be perceived as both intergenerational and cross-sex. An analysis of our data showed no moderating effects of participant sex, so we do not consider that variable further.

Our study is similar in certain ways to traditional vignette studies of intergenerational communication (e.g., Ryan et al., 2000); however, our goals are somewhat different. Whereas traditional vignette studies present *third parties'* communication and examine *interpersonal* evaluations of that communication, our work asks people for their *first-person* cognitive construction of communication given a particular scenario, with the goal of examining effects on stereotyping at the *group* level. Our measures are discussed next.

### **Overaccommodation**

Using a previously validated measure (Harwood, 2000), participants were asked to report whether (during the imagined interaction) they (1) spoke louder than normal, (2) spoke slower than normal, and (3) made allowance for the elderly woman's age. Responses were made on 5-point Likert scales (1 = *strongly disagree*; 5 = *strongly agree*;  $M = 3.03$ ,  $SD = 0.85$ ,  $\alpha = .68$ ).

### **Humor**

We measured humor using items developed by Treger, Sprecher, and Erber (2013). Participants were asked to report whether they (1) made their partners laugh often, (2) used a lot of humor, (3) tried to be funny, and (4) wanted to make their partners smile, during the imagined contact. Responses were made on 7-point scales (1 = *not at all*; 7 = *very much*;  $M = 3.36$ ,  $SD = 1.39$ ,  $\alpha = .84$ ).

### **Self-disclosure**

Using previously validated items (Miller, Berg, & Archer, 1983), participants reported whether (in the imagined conversation) they shared information about (1) things I have done which I feel guilty about, (2) things I would n't do in public, (3) my deepest feelings, (4) what I like and dislike about myself, and (5) my worst fears. Responses were made on 5-point scales (1 = *not at all*; 5 = *completely*;  $M = 1.40$ ,  $SD = 0.68$ ,  $\alpha = .89$ ).

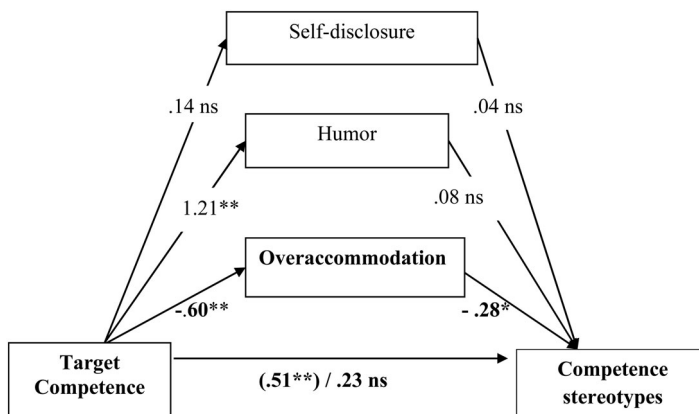
### **Stereotypes of older adults**

Using validated items (Brambilla, Hewstone, & Colucci, 2013), participants rated elderly people as a group on traits related to trustworthiness (honest, sincere, trustworthy;  $M = 4.92$ ,  $SD = 0.92$ ,  $\alpha = .91$ ), sociability (friendly, warm, likeable;  $M = 4.44$ ,  $SD = 0.94$ ,  $\alpha = .96$ ), and competence (intelligent, competent, skillful;  $M = 4.08$ ,  $SD = 0.92$ ,  $\alpha = .92$ ). To frame the questions, participants were asked to "Think about *elderly people* (people over 65) in general. How would you rate elderly people as a group on each of the following traits?" Ratings were performed on a 7-point scale (1 = *not at all*; 7 = *extremely*).

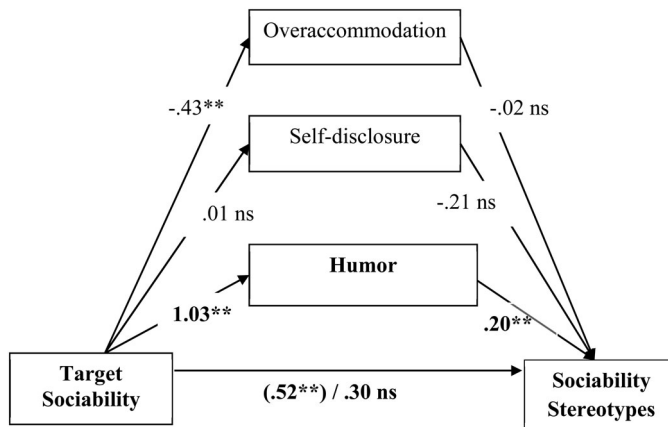
## Results

Our three hypotheses focus on the indirect path from the trait manipulation *through* participants' communicative behaviors with imagined older adults, *to* participants' stereotypes of older adults. Specifically, each of our three hypotheses represents an indirect effect of three different imagined contact manipulations (H1 the manipulation of (in)competence; H2 the manipulation of (un)sociability; H3 the manipulation of (im)morality) on their respective stereotypes. Although we predicted that a specific communication behavior would serve as the mediator for each of these hypotheses, we included all of the behaviors (overaccommodation, humor, and self-disclosure) as parallel mediators in each case, so that we could distinguish the unique effects of a particular communication behavior over and above the others. Analysis used the SPSS INDIRECT macro (Preacher & Hayes, 2008) to do bootstrapped mediation tests of the indirect path; when the bootstrapped confidence interval for the indirect path does not contain zero, this indicates significant mediation. Because of the way in which contact was manipulated, analyses of each hypothesis involved only a third of the sample: analyses reported below involve only those subjects involved in (respectively) the (in)competence manipulation, the (un)sociable manipulation, and the (im)moral manipulation. All regression coefficients reported are unstandardized.

H1 was supported (Figure 2). Overaccommodation significantly mediated the effects of target older adult competence on the perceived competence of older adults as a group, indirect effect  $B = .17$ , 95% CI for indirect effect [.02, .43]. This multi-mediator model included other communication behaviors (humor and self-disclosure) as parallel mediators, but *only* overaccommodation was a significant mediator. As shown in Figure 2, an



**Figure 2.** Multi-mediation model: competence-overaccommodation. Among all three mediators, as predicted, only overaccommodation mediates the effect of target older adult competence on the perceived competence of older adults as a group. A competent (vs. incompetent) older adult target significantly and negatively influenced overaccommodation, and overaccommodation significantly and negatively influenced the perceived competence of older adults as a group ( $N = 99$ ), 95% CI for indirect effect [.02, .43], overall  $R^2 = .11$ . While the total effect (the effect without the mediators) of target competence on competence stereotyping of older adults was significant ( $B = .51$ ,  $p < .01$ ), the direct effect of target competence on competence stereotypes was not significant after accounting for the mediators ( $B = .23$ ,  $p > .05$ ). All coefficients are unstandardized. \* $p < .05$ , \*\* $p < .01$ .



**Figure 3** Multi-mediation model: sociability–humor. Among all three mediators, as predicted, only humor mediates the effect of target older adult sociability on the perceived sociability of older adults as a group. The target older adult’s sociability significantly and positively influenced humor, and the positive association between humor and the perceived sociability of older adults was significant ( $N = 94$ ), 95% CI for indirect effect [.07, .46], overall  $R^2 = .15$ . While the total effect (the effect without the mediators) of target sociability on sociability stereotypes was significant ( $B = .52, p < .01$ ), the direct effect of target sociability on sociability stereotypes was no longer significant when also considering the mediating variables ( $B = .30, p > .05$ ). All coefficients are unstandardized. \* $p < .05$ , \*\* $p < .01$ .

imagined competent older adult target was overaccommodated significantly less, and overaccommodation in the imagined interaction was associated with less competent perceptions of older adults in general.

H2 was supported (Figure 3). Humor significantly mediated the effects of the imagined older adult target’s sociability on the perceived sociability of older adults as a group, indirect effect  $B = .21$ , 95% CI for indirect effect [.07, .46]. As above, this multi-mediator model included other communication behaviors (overaccommodation and self-disclosure) as parallel mediators, but only humor was a significant mediator. Imagining a more sociable older target led to more use of humor in the imagined interaction, and more use of humor was associated with increased perceptions of older adult sociability.

H3 was not supported. Self-disclosure did not mediate the effects of the target older adult’s morality on perceived morality of older adults as a group, 95% CI for indirect effect [−.13, .02]. Target older adult morality did not influence self-disclosure ( $B = .10, p > .05$ ) and self-disclosure did not influence perceived morality of older adults ( $B = −.13, p > .05$ ).

## Discussion

The present study advanced our knowledge of how communication behaviors influence perceptions of older adult stereotypes regarding competence and sociability. Participants’ stereotypes of older adults as a whole are affected by the characteristics of their communication partners, with those effects being carried through specific communication behaviors enacted with the partner. We showed that a negative stereotype (“older adults are

incompetent”) is enhanced when people use overaccommodating speech with an incompetent partner. Similarly, a positive feedback cycle existed for perceptions of sociability and humorous communication. The effects of these communication behaviors only corresponded to changes in a theoretically connected stereotypical trait. For example, as shown in Figure 2, humor does not significantly mediate the effects of a competent partner on perceptions of older adult competence. In what follows, we discuss how these findings contribute to the ASI and intergroup contact theoretical frameworks, as well as the implications for applied intergroup communication.

Through integrating the ASI model into intergroup contact we were able to highlight the importance of communication within intergroup contact, which is not extensively addressed in the current contact literature. In addition, our current research goes beyond the ASI model’s positive or negative feedback cycles through integrating concepts from both contact theory and the SCM. Communication is a complex and dynamic human behavior, and as such our model ties specific traits to specific communication behaviors and specific stereotyping outcomes. This more nuanced view of communicative/attitudinal feedback cycles has several implications. First, it highlights the role of expectations and self-fulfilling prophecies in intergroup communication. If we believe that older people are incompetent, or Asians are unsociable, or homeless people are untrustworthy, we may act in a way that both reinforces our own mental model and elicits feedback that confirms it (Word, Zanna, & Cooper, 1974). Perhaps more important, given that our respondents’ *imagined* intergroup encounter, we demonstrate that this effect does not occur solely through behavioral confirmation processes (Snyder, Tanke, & Berscheid, 1977), but also through something closer to self-perception processes (Bem, 1972; Yee & Bailenson, 2009). That is, the partner was not able to literally confirm the participants’ expectations in the paradigm we used, and the mechanism we demonstrate operates through the participants’ own imagined behaviors, not those of the partner. Future work should examine the specific content of the communication occurring in more detail. Specifically, for instance, target competence elicited humor in our study, even though humor did not lead to increased perceptions of older adult competence (i.e., humor was not a mediator in this analysis). The kind of humor associated with a competent target might perhaps operate at a more intellectual and less simply “funny” level than humor associated with sociability. Hence, although we think we have moved the literature toward a more detailed understanding of the role of specific communication behaviors, we acknowledge that the details of communication’s content still have many layers yet to be revealed.

Second, our research shows that expectations can be manipulated, suggesting that *rehearsal* of intergroup communication may be very important. We used guided imagined contact scenarios to manipulate expectations of an outgroup individual regarding their sociability, trustworthiness, and competence. As a result of this manipulation, individuals imagined very different communication partners, and adopted different communication styles. This compensation led to altered perception of the outgroup as a whole. Although this research does not address the longevity of this effect (a goal for future research), these results suggest a short-term effect that might be used to great effect in conjunction with face-to-face intergroup communication. For example, intergenerational counselors could have people mentally practice an interaction via imagined contact before engaging in the “real deal.” These guided imagined communications could encourage rehearsal of a

specific behavioral repertoire to be used in a subsequent real interaction (Honeycutt, 2003). Such a strategy could also *discourage* certain behaviors known to exacerbate stereotypes, and encourage more helpful behaviors. For example, guiding people away from overaccommodating behaviors could help avoid having an interaction that reinforces stereotypes of incompetence. Given the potential of this approach, future research should focus more longitudinally on connecting the ideas of stereotypical expectations, communicative rehearsal, and the content of subsequent face-to-face communication.

Whereas overaccommodation and humor demonstrate the hypothesized effects, self-disclosure did not mediate the relationship between morality perceptions of the imagined older adult and broader perceptions of outgroup morality. This is surprising given that we know self-disclosure can work as a mediator between the effects of contact and perceived outgroup variability (Harwood et al., 2005). The lack of effects in our study may be due to specifics of our study design. Trust and self-disclosure are long-term responses to relationship development, whereas humor and overaccommodation are immediate conversational responses that do not require relational development. In our study, relationship development could not be truly reciprocal as the conversational partner was imagined and the scenario was framed as a conversation with a stranger. Reciprocity is necessary for increased intimacy (Altman & Taylor, 1973), and as a result, participants probably did not reach a point of feeling sufficiently close to and trusting of their imagined partner to engage in deep self-disclosure. Relatedly, our measure of self-disclosure represented fairly risky types of self-disclosure, which are unrepresentative of the types of self-disclosure observed early on in most relationships (Berger & Bradac, 1982). The mean ( $M = 1.40$ ) of our self-disclosure measure supports this argument: we may have had a floor effect on this variable, with relatively little variation above the low end of the scale. Future research should look at longer periods of rehearsal, or toward other types of communication associated with trust and morality. A re-test of the related hypothesis, but focusing on openness more generally, rather than risky or painful self-disclosure would be worthwhile.

Our study included three communicative behaviors; future research should explore additional forms of communication. For competence-related perceptions, likely candidates include advice-seeking and -receiving, information-seeking, and problem-solving. For morality/trustworthiness perceptions, we might anticipate that general cooperation and willingness to express emotions might be important, as well as self-disclosure in more long-term relationships. We tend to avoid expressing emotions to those we do not trust (Simpson, Collins, Tran, & Haydon, 2007). For the sociability dimension, communication behaviors like rapport and synchrony may function similarly to humor. Finally, although we intentionally chose elements of verbal communication for this study, future research might also examine imagined nonverbal communication (e.g., eye contact for trust and smiling for sociability).

In conclusion, we have demonstrated that (1) the ASI model functions with imagined contact; (2) the effects of the ASI model vary not only by valence but also by the specific trait-related content of stereotypes; and (3) imagined intergroup contact's effects are tied to the reinforcing role of the specific communicative behaviors imagined during the interaction. Our research adds theoretical strength and nuance to both the ASI perspective and the imagined contact perspective. Together, these research findings suggest a way to integrate a number of theories that are ultimately concerned with the same topic: changing intergroup, specifically intergenerational, attitudes and behaviors. More broadly, the

paper demonstrates the connections between specific trait perceptions and communication behaviors that we believe have implications beyond the intergroup context. Even in romantic relationships, friendships, and family contexts, it is likely that our trait perceptions influence our communication styles, which subsequently influence our expectations for future interaction. Our work suggests a paradigm for integrating such ideas with examination of uses of humor, disclosure, and other forms of communication in the broader realm of interpersonal communication.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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