

ADVANCES IN GROUP PROCESSES

Edited by Will Kalkhoff, Shane R. Thye
and Edward J. Lawler

ADVANCES IN
GROUP PROCESSES

VOLUME 39

ADVANCES IN GROUP PROCESSES

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ADVANCES IN GROUP PROCESSES VOLUME 39

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PREFACE

Advances in Group Processes is a peer-reviewed annual volume that publishes theoretical analyses, reviews, and theory-based empirical chapters on group phenomena. The series adopts a broad conception of “group processes.” This includes work on groups ranging from the very small to the very large, and on classic and contemporary topics such as status, power, trust, justice, conflict, social influence, heuristics, identity, decision-making, intergroup relations, and social networks. Previous contributors have included scholars from diverse fields including sociology, psychology, political science, economics, business, philosophy, computer science, mathematics, and organizational behavior.

Several years ago, we added an editorial board to the series to broaden the review process and draw upon the collective expertise of some of the top scholars in the discipline. That board consists of Jessica Collett, Joseph Dippong, Ashley Harrell, Karen Hegtvedt, Will Kalkhoff, Jeff Lucas, Jennifer McLeer, and Jane Sell. This group of scholars has made the series better and we are grateful for their service, guidance, and advice.

Volume 39 opens with two chapters that focus on gender. First, in “Gender Dynamics in Human-AI Role-Taking,” Jenny Davis and her colleagues employ mixed methods and reveal that established gender differences in role-taking change, and are sometimes even reversed, for artificial intelligence (AI) narration as opposed to human narration. While participants, in general, tended to role-take more actively with human narrators than AI narrators, an interesting gender difference emerged. As past research would lead us to expect, women tended to role-take more actively with a human narrator; however, contrary to past work on gender and role-taking, men tended to role-take more actively with AI narrators. Given the increasing integration of AI into social transactions, this study has especially important practical implications for AI development. Second, in “Role Congruity in the Offender-Victim Dyad: The Effect of Gendered Expectations on Crime Clearance,” Tucker McGrimmon and Lisa Dilks use role congruity theory to guide a unique relational analysis of how the gender composition of the victim-offender dyad as well as the masculinization of certain types of crime affect “time to clearance” (i.e., the number of days between a criminal incident and an arrest). Most importantly, the approach taken by McGrimmon and Dilks helps make sense of conflicting results in past research on the role of gender in criminal justice outcomes. Looking to the future, the approach provides a useful template for sociologists and criminologists to explore how other relational differences in the victim-offender relationship “intersect” with gender to influence time to clearance and other important criminal justice outcomes.

The next three chapters in this volume focus on aspects of networks and exchange. In “How Exchange Forms and Patterns Affect Perceptions of Predictability, Fairness, and Group Identification,” Scott Savage, Jacob Apkarian, and Hyomin Park reveal how an “oversocialized” treatment of actor behavior in exchange relations can lead to misleading conclusions about the effects of the form of exchange on fairness perceptions. Using an experimental approach where they manipulate both the form of exchange (negotiated versus reciprocal) and the patterning of partner behavior (predictable/stable versus unpredictable/unstable), Savage and his colleagues show, most importantly, that the negative impact of negotiated exchange on fairness perceptions is actually overwhelmed when an exchange partner behaves in a predictable/stable manner. The chapter offers a fresh take on the mechanisms that can lead structurally disadvantaged actors to perceive unequal exchange relationships as nonetheless “just.” In “The Legitimacy of Power in Status-Differentiated Groups,” Jeffrey Lucas and his colleagues also focus on the nuancing effects of actor behavior, this time in connection with status, power, and legitimacy evaluations in exchange networks. They also provide us with a new, useful behavioral measure of legitimacy. Using a laboratory experiment, one of the study’s key findings is that the legitimacy evaluations of an exchange partner were “entirely driven” by the partner’s negotiating style (pro-group/unselfish versus selfish) and not their status. As with the chapter by Savage, Apkarian, and Park, the research conducted by Lucas and his colleagues reminds us that the patterned behavior of actors within power structures (i.e., how actors choose to use their power) has important consequences for outcomes that influence the stability of those structures, in this case legitimacy evaluations. Finally, in “Are the Benefits of Self-Complexity Conditional? Evidence for the Strengthening (and Weakening) Role of Multiplex Ties,” Kelly Markowski offers an innovative integration of social network analysis and identity theory that helps resolve mixed findings concerning the buffering role of self-complexity on the relationship between identity nonverification and distress. Self-complexity refers to having nonoverlapping meanings across multiple identities, such as when the adjectives a person uses to describe themselves as a professor are different from those they would use to describe themselves as a parent. Using egocentric network survey data from a nonprobability sample of US adults, Markowski shows how the buffering effect of self-complexity on distress depends on features of context – in this case on “multiplexity,” or whether an individual has interwoven role relationships (e.g., being friends with someone who is also a coworker). However, the results are not always the same across different identities: sometimes multiplex ties amplify buffering; sometimes they weaken it. Overall, the chapter highlights the often overlooked role of contextual factors in identity processes.

The last three chapters in Volume 39 improve our understanding of social inequalities through important theoretical and methodological advances. In “Comparing Models of Second-Order Expectations,” Lisa Slattery Walker and colleagues overview three, alternative approaches to how second-order expectations give rise to participation inequalities in task groups. As opposed to first-order status expectations (i.e., an actor’s own, personal beliefs about their

ability relative to others in a task group), second-order expectations refer to an actor's beliefs about others' beliefs with respect to relative abilities. The authors carefully articulate points of agreement and disagreement across the three models of second-order expectations in terms of theory, experimental protocols, and empirical findings. In addition, and perhaps most importantly, the authors offer specific suggestions for future research that will help adjudicate among the models and, in so doing, clarify how second-order expectations operate in task groups. Next, in "Learning from Mistakes: How to Stage a Discussion Group Study," Robert and Ann Shelly draw on their many years of experience and offer an insightful historical overview of the role of "open interaction" discussion group data in research on status-organizing processes. They identify best (and worst) practices for the collection of such data and present a number of specific recommendations for planning and carrying out face-to-face studies. This is an important, nontechnical methodological contribution that will improve the quality and generalizability of discussion group data collected by expectation state researchers. As such, it will advance our understanding of how participation inequalities arise and are sustained in small task group interaction. Finally, in "Individualistic Values Moderate Neural Responses to Social Exclusion among African American Respondents: An fMRI study," Rengin Firat provides a cutting-edge demonstration of the use of neuroscientific methods within a neurosocial psychological framework. Using functional magnetic resonance imaging (fMRI), she reveals the brain's role in representing and supporting historically rooted reactions to, and agentic coping strategies for dealing with, social exclusion among African Americans. Firat's study sheds new light on how the members of an oppressed racial group attempt to manage ongoing experiences of racism and systemic exclusion. The study's theory and findings have broad, interdisciplinary relevance to basic and applied research on social inequalities and, in particular, on adaptive coping strategies among historically oppressed racial groups.

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GENDER DYNAMICS IN HUMAN-AI ROLE-TAKING

Jenny L. Davis, Daniel B. Shank, Tony P. Love,
Courtney Stefanik and Abigail Wilson

ABSTRACT

Purpose: Role-taking is a basic social process underpinning much of the structural social psychology paradigm – a paradigm built on empirical studies of human interaction. Yet today, our social worlds are occupied by bots, voice assistants, decision aids, and other machinic entities collectively referred to as artificial intelligence (AI). The integration of AI into daily life presents both challenges and opportunities for social psychologists. Through a vignette study, the authors investigate role-taking and gender in human-AI relations.

Methodology: Participants read a first-person narrative attributed to either a human or AI, with varied gender presentation based on a feminine or masculine first name. Participants then infer the narrator's thoughts and feelings and report on their own emotions, producing indicators of cognitive and affective role-taking. The authors supplement results with qualitative analysis from two open-ended survey questions.

Findings: Participants score higher on role-taking measures when the narrator is human versus AI. However, gender dynamics differ between human and AI conditions. When the text is attributed to a human, masculinized narrators elicit stronger role-taking responses than their feminized counterparts, and women participants score higher on role-taking measures than men. This aligns with prior research on gender, status, and role-taking variation. When the text is attributed to an AI, results deviate from established findings and in some cases, reverse.

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Research Implications: This first study of human-AI role-taking tests the scope of key theoretical tenets and sets a foundation for addressing group processes in a newly emergent form.

Keywords: Role-taking; empathy; perspective taking; human-AI interaction; gender; human-machine interaction

Role-taking is the mental and affective process of placing the self in the position of another or others, understanding how those others will think, feel, and behave. Social psychologists conceive role-taking as a hallmark of selfhood, social interaction, and community social life (Cast, 2004; Davis & Love, 2017; Mead, 1934; Schwalbe, 1988; Turner, 1956). Although researchers have gained insight into the ways humans role-take with each other, less is known about how humans role-take with synthetic agents such as bots, voice assistants, and other machinic entities collectively referred to as “artificial intelligence” (AI).

Understanding how humans relate to AI is vital, as social interactions are increasingly AI inclusive (Fortunati & Edwards, 2020; Guzman, 2020; Joyce et al., 2021; Ladak, Wilks, & Anthis, 2021; Westerman, Edwards, Edwards, Luo, & Spence, 2020). Across courtrooms, workplaces, battlefields, and homes, AI are reshaping group processes within key institutions and interpersonal domains (Alsuliman, Humaidan, & Sliman, 2020; Angwin, Larson, Mattu, & Kirchner, 2016; Logan & Erskine, 2019; Strengers & Kennedy, 2020; Wilkinson et al., 2020). Core theories of social psychology can shed light on the nature of human-AI interaction, while the rise of AI presents a need and opportunity to test, expand, and adjust extant theoretical programs.

The present work investigates how people role-take with AI, theorizing this basic social process in a new, technologically entangled context. We ground the investigation in a vignette study, inviting participants to read and respond to first person textual narratives attributed to either human or AI targets, varied in their gender presentation based on assigned first name (“Rebecca”/“Rob”). Our attention to gender is motivated by its organizing function within social interaction (Eagly, 2013; Fisk & Ridgeway, 2018; Ridgeway, 2011; Ridgeway & Correll, 2004; Ridgeway & Smith-Lovin, 1999) and its predictive capacities in prior role-taking and related research (Cast, 2004; Hall, 1978; Hall, Gunnery, & Horgan, 2016; Love & Davis, 2014). Through gender, we can observe how human-AI relations align with and deviate from paradigmatic assumptions built on human interaction studies.

Results reveal stronger role-taking responses when narratives are attributed to humans compared to AI. They also show gender operating differently between conditions, as participants role-take with AI in ways that diverge from human-human interaction. We augment quantitative findings with exploratory analysis of two open-ended survey responses.

LITERATURE

Role-Taking

Role-taking has been integral to the field of structural social psychology since the concept was first theorized by George Herbert Mead (1934), advancing in recent years through empirical testing and theoretical refinement (Cast, 2004; Davis & Love, 2017; Love & Davis, 2014, 2021). This process of placing the self in the proverbial shoes of another involves cognitive, affective, and communicative elements by which people express, read, and respond to contextually situated social cues (Schwalbe, 1988). Although manifesting through interpersonal micro-interactions, role-taking is fundamentally social and structural, based upon subjects' recognition and understanding of interrelated role positions and the normative expectations about self and other(s) as role occupants within socially defined situations (Stryker, 1980; Stryker & Burke, 2000).

Role-taking is an umbrella construct made up of two interrelated dimensions: perspective taking and empathy. Perspective taking is the cognitive element and refers to recognition of others' thoughts and feelings (Batson, Early, & Salvarani, 1997; Chandler, 1973; Flavell, 1992; Galinsky & Moskowitz, 2000; Ladak et al., 2021; Piaget, 1928). Empathy is the affective element and refers to shared feeling – being moved by others' emotions (Davis, 2018; Decety & Jackson, 2004; Hoffman, 2001; Mehrabian & Epstein, 1972; Read, 2019). Together, these elements have been theorized as a “self-in-self” model of role-taking, made up of “mind-in-mind” (perspective taking) and “heart-in-heart” (empathy), conceptualized in the following definition:

Role-taking is the practice of placing the self in another's or others' positions. This includes discerning what others think and how they feel (perspective taking) and sharing in others' affective states (empathy). (Davis & Love, 2017, p. 167)

This definition, which we use in the present work, includes three base assumptions indicating that role-taking is *effectual*, *variable*, and *malleable* (Davis & Love, 2017), such that role-taking shapes social structures and interaction situations, varies between subjects and across circumstances, and is not intrinsic or fixed but can shift and change based on contextual factors and/or interventions.

Because role-taking is variable and malleable, we follow Schwalbe (1988) in conceptualizing role-taking as a *propensity*, rather than an ability. Everyone has the capacity to role-take but vary in their proclivity to do so (Ickes, Gesn, & Graham, 2000; Weisz & Zaki, 2018; Zaki, 2014).¹ Research shows that role-taking variations are not random but fall along status lines. In particular, those with higher status within the social structure (e.g., men, white people, those in leadership positions) role-take less actively compared to their lower status counterparts (Dietze & Knowles, 2021; Galinsky, Magee, Inesi, & Gruenfeld, 2006; Love & Davis, 2021; Thomas, 1972; van Kleef et al., 2008; Zaki, 2018).

Gender is a key factor through which status and role-taking converge, with research showing that women disproportionately and asymmetrically attend to the thoughts and feelings of others, whereas men are less inclined (Cast, 2004;

Hall et al., 2016; Hochschild, 1983; Love & Davis, 2014; Van der Graaff et al., 2014). This feminized role-taking (dis)advantage emerges across lab studies (Hall, 1978; Love & Davis, 2014; Stinson & Ickes, 1992), field studies (Shen, 2015; Tavakol, Dennick, & Tavakol, 2011), workplace settings (Mast & Latu, 2016), and domestic spheres (Cast, 2004; Noller, 1984; Thomas, 1972). Gender is thus an established and highly predictive variable in role-taking and related research, and the prism through which we observe human-AI interaction in the present work.

Human-AI Interaction

AI technologies are diffuse in contemporary societies. They serve as decision aids in medical (Alsuliman et al., 2020; Wilkinson et al., 2020), judicial (Angwin et al., 2016), and military contexts (Logan & Erskine, 2019); provide companionship and care (Pfadenhauer & Lehmann, 2021; Sparrow & Sparrow, 2020); and enter the home via “smart” devices such as Amazon’s Alexa, Apple’s Siri, and Google’s Nest (Shank, Wright, Lulham, & Thurgood, 2021; Strengers & Kennedy, 2020). These hybrid socialities occupy the interdisciplinary fields of human-computer interaction, human-machine interaction, and human-AI interaction, which together reveal trends of social psychological relevance. This includes insights into empathy, perspective taking, and gender – variables we unite in our study design.

One key finding from the literature is that humans can and do form social bonds with AI and respond to them emotionally (Edwards, Edwards, Westerman, & Spence, 2019; Edwards, Edwards, Spence, & Westerman, 2016; Shank, Graves, Gott, Gamez, & Rodriguez, 2019; Strengers & Kennedy, 2020; Weizenbaum, 1966; Westerman et al., 2020; Wilson, 2011). This underpins studies that show AI’s empathic cues increasing humans’ sense of connection with synthetic partners (McStay, 2018; Niculescu, van Dijk, Nijholt, Li, & See, 2013; Pelau, Dabija, & Ene, 2021), and engineering initiatives to enhance human-AI collaboration by inbuilding perspective taking displays (Berlin, Gray, Thomaz, & Breazeal, 2006; Labash, Aru, Matiisen, Tampuu, & Vicente, 2020; Trafton et al., 2005). AI has also been deployed in education and child development, utilized to improve children’s perspective taking skills and empathic responses (Pashevich, 2021; Wood, Dautenhahn, Robins, & Zaraki, 2017). Building on this work, we unite perspective taking and empathy as constituent parts of the structural role-taking process, driving our first research question:

RQ1. Do participants role-take more actively with human or AI narrators?

RQ1a. Do participants perspective take more actively with human or AI narrators?

RQ1b. Are participants more emotionally moved by human or AI narrators?

Because of its centrality to role-taking processes, we are also interested in how human-AI role-taking is modulated by gender, a variable that has equally high purchase in extant AI studies.

Gender figures prominently in human-AI research, focusing on the effects of AI gender assignment upon humans’ perceptions, attitudes, and behaviors. Based

on a range of visual (feminine/masculine physical features), voice (feminine/masculine vocals), labeling (e.g., she-bot/he-bot) and naming (e.g., Olivia/Oliver) manipulations, findings in human-AI studies largely coincide with normative gender expectations. For example, participants in experimental settings evaluate feminized AI as warm and communal compared to masculinized AI, which are perceived as more competent and agentic (Borau, Otterbring, Laporte, & Fosso Wamba, 2021; Eyssel & Hegel, 2012). People also perceive feminized AI as more human-like, trustworthy, and likable (Borau, Otterbring, Laporte, & Fosso Wamba, 2021; Kim, Cha, & Ji, 2021), resulting in greater willingness to adopt feminized AI technologies for interpersonal tasks and to engage with them more openly than with masculinized versions (Toader et al., 2020). Our second and third research questions follow from and build on these findings, testing the effects of gender on role-taking across human-human and human-AI conditions.

RQ2 asks whether masculine or feminine targets elicit different role-taking responses from the participants in our study, and *RQ3* asks how participant gender identity affects variation in role-taking outcomes.

RQ2. How does gender of the narrator figure into human-human and human-AI role-taking?

RQ2a. Do participants perspective take more actively with feminine or masculine narrators across Human and AI conditions?

RQ2b. Are participants more emotionally moved by feminine or masculine narrators across Human and AI conditions?

RQ3. How does participant gender figure into human-human and human-AI role-taking?

RQ3a. Do self-identified women or men perspective take more actively across Human and AI conditions?

RQ3b. Are self-identified women or men more emotionally moved across Human and AI conditions?

The above reviewed literature empirically documents perspective taking, empathy, and gender in human-AI relations. However, these factors remain siloed from each other and generally undertheorized. We bring them together in the present work, anchored by role-taking processes. This approach not only gives clarity to human-AI studies, but also advances social theory through an interaction context that echoes, but does not replicate, human-human relations (Guzman, 2020).

METHODS

To investigate human-AI role-taking, we devised a vignette study using a between-subjects experimental design, giving participants a short fictive story ostensibly authored by either a human or AI, with either feminine or masculine gender presentation based on the narrator's first name ("Rebecca" – feminine/ "Rob" – masculine). After reading Rebecca's or Rob's story, participants indicated what they believed the narrator was thinking and feeling and reported how

emotionally moved they were by the narrator's story. Our minimal gender manipulation – gendered naming – isolates the variable of interest and draws on participants' own inferences about gendered social categories.

Participants were recruited from the crowdsourcing research platform Prolific. Crowdsourcing platforms offer greater demographic diversity than traditional university samples (Aguinis, Villamor, & Ramani, 2021) and can be utilized for theory testing (Manago, Mize, & Doan, 2021), as we have done in the present work. Although our primary analysis is a quantified test of specific research questions, we supplement these findings with qualitative inquiry into two open-ended responses. This supplementary analysis gives texture to the quantitative findings and provides fodder for future research developments.

Stimuli

Each participant was randomly assigned to read one of two fictive texts, which we created for the purpose of this study. Both stories are about a low-wage worker who is dissatisfied with their job and concerned about the looming prospect of losing that job due to restructuring at their company. The stories are written from a first-person perspective and run ~300 words. One story is set in a customer service call center and the other is set in an aged care facility. These settings were selected because of their current and future integration of human and AI workforces (Wirtz et al., 2018), thus making them grounded in reality and socially relevant.

Each participant received a single written narrative with the author randomly labeled as either human or AI and given a gender-signifying name. This was communicated to respondents at the top of the narrative text via a short preamble displayed in bold:

Human Condition:

Below is Rebecca's/Rob's story of work in the customer service/aged care industry.

Please read Rebecca's/Rob's story and answer a few questions.

AI Condition:

Rebecca/Rob is an Artificially Intelligent agent (AI). Below is Rebecca's/Rob's story of work in the customer service/aged care industry. Please read Rebecca's/Rob's story and answer a few questions.

The purpose of the stimuli was to evoke role-taking responses from which we could measure the effect of attributing the story to a human versus AI, and measure how these effects vary based on gendered naming of the narrator and gender identity of the participant. For this reason, we devised scenarios that would be emotionally evocative, believable as a human, and plausible as an AI. We tested various iterations of the scenarios with undergraduate and graduate students and through a pilot test on Prolific.² Full narratives are presented in Appendix 1.

Because human-AI pairings are novel within the structural social psychology paradigm, we are interested in the nature of these interactions, rather than the

particularities of specific interactions in context. As such, our experimental task is artificial by design, enabling us to test the relationship between AI, gender, and role-taking dynamics under controlled and simplified conditions. That is, our primary goals are theoretical rather than descriptive, making artificiality an integral and advantageous element of the study design (see [Martin & Sell, 1979](#); [Webster & Sell, 2014](#)). Part of this artificiality is an exaggeration in our stimuli of AI's current expressive capacities.³ It is this exaggeration that brings theoretical processes to the fore, renders them observable, and thus begins to reveal abstract principles at work. By uncovering abstract principles, this study sets the stage for application and adjustment across the myriad situations in which humans and AI meet. Findings are especially relevant (though not exclusively so) to domains in which AI are explicitly gendered, as is common with commercial chatbots, digital assistants, smart home devices, and care bots programmed with human traits. Across such cases and beyond them, role-taking will figure into interaction processes between humans and these social machines.

Variables

Our main dependent variable is Role-Taking, constituted by measures of Perspective Taking (thinking with the other) and Empathy (feeling with the other). Our independent variables are Condition (AI Narrator = 1, Human Narrator = 0), Narrator Gender (Feminine/Rebecca = 1, Masculine/Rob = 0), and Participant Gender (self-identified women = 1, self-identified men = 0). Condition and Narrator Gender were randomly assigned. Participant Gender was self-ascribed.

Perspective Taking. We conceptualize Perspective Taking as the degree to which participants consider the thoughts and feelings of the narrator, operationalized by coding open responses to the prompt “What do you think Rebecca/Rob was thinking and feeling when sharing this story?”. Through the pilot test, we identified theoretically relevant indicators of perspective taking, which we combined into a single scale. Each item on the scale receives a binary score for Yes (1) or No (0) based on its presence or absence in the participant's response:

- (1) Participant attempts to perspective take (Y = 1, N = 0)
- (2) Participant provides more than two descriptors of what the narrator is thinking/feeling (Y = 1, N = 0)
- (3) Participant attributes reasons and/or motivations (e.g., “Rebecca feels unappreciated because her colleagues ignore her. She is looking for validation”) (Y = 1, N = 0)
- (4) Participant relates to the story (e.g., “I've felt this way...” “A lot of people feel this way...”) (Y = 1, N = 0)

Final scores range from 0 to 4, with high scores indicating more active perspective taking and low scores indicating less active perspective taking.

A score of 0 indicates that the participant did not attempt to perspective take with the narrator. Scores of 0 reflect respondents who indicated that they did not believe the narrator was/could be thinking or feeling due to AI status. Scores >0 reflect perspective taking by degree. Responses were coded independently by two research assistants. Interclass correlations show high intercoder reliability on the scale as a whole ($ICC = 0.882$), and moderate to high intercoder reliability for each item (attempts: $ICC = 0.870$, descriptors: $ICC = 0.921$, reasons: $ICC = 0.718$, related: $ICC = 0.662$).

Empathy. We conceptualize Empathy as the degree to which a participant is moved by the narrator's story, operationalized by the participant's self-rating when asked "On a scale from 1–10, how emotionally moved were you by Rebecca's/Rob's story?" (Not emotionally moved = 1, Extremely emotionally moved = 10). High scores indicate a high empathic response, low scores indicate low (or no) empathic response. As with Perspective Taking, the low point on our Empathy scale (Empathy = 1) allows participants to indicate an absence of empathic response, with scores >1 reflecting degrees of empathy.

Attention Checks

A consideration in crowdsourcing studies is the possibility of inattention, as researchers cannot control the context in which participation takes place. We thus conducted attention checks to assure data quality. At the end of the study, each participant was presented with two multiple choice questions. The first asked "What industry did Rebecca/Rob work in?" to which the respondent should indicate either customer service or aged care, depending on their randomly assigned stimulus. The second question asked if the narrator was a human, a cat, an artificially intelligent robot, or a Martian. The participant was prompted to select the correct descriptor, ensuring survey responses were based on the assigned condition. We dropped all cases that did not answer *both* questions correctly.

Analysis

We use t-tests to look for significant differences between the AI versus Human conditions and MANOVAs to test the interrelated effects of AI and gender – gender assigned to the narrator and participants' self-identified gender – on role-taking processes. We supplement these quantitative findings with a qualitative exploration into unstructured responses from participants in the AI condition. There are two places in which participants write-in a response, including the Perspective Taking question (which we coded and quantified as described above) and a follow-up question to our single item Empathy measure, asking participants to explain their self-rating ("Please explain your last response"). We treat these qualitative responses as exploratory data aimed at generating initial insights and motivating future research questions.