

“Is This Even Relevant?” Investigating the Relevance of Antecedents to Trust in Ad Hoc Dyads

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Abstract

Trust is an important variable for effective ad hoc collaboration. As ad hoc collaborations become more prevalent, researchers and stakeholders will need to identify what features facilitate rapid and appropriate swift trust, particularly in contexts comprising salient risk and high stakes. The present work investigated the relevance and impact of antecedents to swift trust in ad hoc dyads. In a within-subjects experiment, we leveraged a vignette and assessed what antecedents were relevant and affected trust in ad hoc dyad formation. The results showed that antecedents varied in terms of their relevance and effect on trust. We discuss how these results align with extant research and implications for future research investigating swift trust in ad hoc collaborations.

Keywords: Trust, Swift Trust, Trustworthiness, Ad Hoc, Vignettes.

1. Introduction

Trust is “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party (Mayer et al., 1995, p. 712).” The literature has identified antecedents *to* and consequences *of* trust, the former of which are important for forming appropriate trust and the latter of which shape subsequent interactions (Colquitt et al., 2007). Meta-analytic data show trust amongst teammates facilitates better team performance (de Jong et al., 2016), making trust an important latent variable with implications for both basic and applied research.

As we move to an age where distributed work in occupational, education, and Defense contexts is

expected to be agile and spun up quickly, researchers need to consider what antecedents to trust are *relevant*. Trust formed between strangers assembled ad hoc might be influenced by different antecedents than trust formed in interpersonal relationships (Wildman et al., 2012). Researchers have investigated what antecedents are impactful on trust in early interaction and whether their influence diminishes compared to other cues over time (Jarvenpaa et al., 1998; Robert et al., 2009; van der Werff & Buckley, 2017). The present work, however, does not address trust development over time but instead focuses on the effects of antecedents on trust *very* early in an interchange (i.e., just as interaction is about to begin). Moreover, contexts in which risks and stakes are salient and high, respectively, need to be studied to determine whether the literature on trust is informative for characterizing contexts comprising ad hoc teams (Capiola et al., 2020). Literature on *swift* trust has existed since the mid-90s (Meyerson et al., 1996), and researchers have investigated swift trust development in virtual teams (Corbitt et al., 2004; Hung et al., 2004) and the meaningful antecedents to swift trust in computer-mediated ad hoc scenarios (Crisp & Jarvenpaa, 2013; Kanawattanachai & Yoo, 2002).

The present research followed on recent qualitative analysis of swift trust in fast-paced, time-constrained contexts (Capiola et al., 2020) with quantitative methods. We conducted an experiment investigating the relevance of antecedents *to*, and their differential effects on, anticipated trust in ad hoc collaborations. We leveraged a vignette depicting the formation of an ad hoc dyad. We selected key sample characteristics of antecedents to swift trust to provide quantitative support for the relevance and effect(s) of a subset of variables highlighted by Capiola et al. Our work provides potential independent variables and methods to pilot stimuli for use in research that explores swift trust in ad hoc dyads. In this paper, we provide a brief overview of

trust and swift trust, note the relevance of the present work, and report the method and results of an online experiment. We then summarize the implications of the results for future trust research on ad hoc collaborations.

1.1. Trust

Mayer et al. (1995) denote antecedents to and consequences of trust. Antecedents comprise general tendencies to trust others (i.e., trust propensity) and perceptions of the referent of trust (i.e., the trustee). These perceptions are described as ability (perceptions of the referent's task-based performance), benevolence (perceptions that the referent has the trustor's [i.e., the one who trusts] best interest in mind), and integrity (perceptions that the referent adheres to acceptable, consistent principles). Consequences describe risk-taking in relationships, the actual trust actions. For instance, if a trustor trusts a trustee to cover their presentation, the trust action is the trustor giving the trustee their presentation materials and notes. Antecedents predict trust, and trust predicts consequences; this latter relationship is moderated by perceived risk in the situation (see Colquitt et al., 2007).

Trust works as a social heuristic (Kramer, 1999), which aids trustor decision-making. Trust reduces effort required from the trustor; when one trusts, they save resources (e.g., time, attention) by, say, *not* taking on a co-worker's responsibilities or monitoring a partner's actions (Mayer & Gavin, 2005). Appropriate trust in team-like interchanges leads to more fluid coordination and better performance (de Jong et al., 2016), and the extent to which teammates evidence consensus in their trust toward their team is positively associated with performance (de Jong et al., 2021). However, much of this work on trust focuses on organizational contexts with relatively stable teams (Colquitt et al., 2007) or leader-follower relations (Colquitt & Salam, 2012).

Other research has focused on contexts where partners assemble ad hoc, stakes are high, and risk is salient (Wildman et al., 2012). Trust in these contexts is termed *swift* trust (Meyerson et al., 1996). The antecedents to and consequences of swift trust are important to evaluate as collaborations are becoming more distributed and ad hoc. Therefore, understanding which antecedents to swift trust are (not) relevant informs communication best practices, occupational training protocols, and provides fodder for future research investigating trust in ad hoc interactions.

1.2. Swift Trust

Meyerson et al. (1996) described swift trust as trust formed between unknown experts assembled ad hoc. Since, researchers have investigated non-experts,

instead focusing on how swift trust develops quickly in students (Crisp & Jarvenpaa, 2013) or is calibrated in lab-based games (Schilke & Huang, 2018). One prevailing point in the literature is that swift trust is different from interpersonal (or organizational) trust (Meyerson et al., 1996), and some question whether perceptions of ability, benevolence, and integrity are predictive of *swift* trust (Robert et al., 2009). Schoorman et al. (2007) proposed some perceptions (i.e., integrity, ability) are more impactful on trust formation early in an exchange before a trustor can garner enough information to shape their perceptions that the trustee has their best interest in mind (i.e., benevolence). Social norms shape swift trust (Crisp & Jarvenpaa, 2013), and personality traits and general tendencies predict trust *before* relationships are established (Robert et al., 2009). Others have found integrity and benevolence to be strongly and weakly predictive, respectively, of team trust formed in early teamwork (Jarvenpaa et al., 1998). Qualitative work shows antecedents (i.e., ability, benevolence, and integrity) highlighted in the organizational trust literature are relevant in ad hoc teams (Capiola et al., 2020). Indeed, trust research that is *ad hoc* in nature suggests the effects of antecedents on trust-relevant criteria are impactful (Alarcon et al., 2021, 2022).

However, context is important, and relevant antecedents in laboratory studies might not translate into real-world collaborative scenarios. As such, Capiola et al. (2020) investigated the antecedents of swift trust in military operators working Intelligence-related jobs in multi-domain command and control (MDC2) contexts. Researchers interviewed subject-matter experts (SMEs) and asked them about an experience they had working in heterogeneous contexts comprising (un)familiar team members, both distributed and co-located, working under time and risk constraints. SMEs provided an overview of their team, their core task duties, and key players they worked with to accomplish a goal, ranking their teammates on a continuum of reliability.

Capiola et al. (2020) identified eight antecedents to swift trust via qualitative data analysis. Several antecedents were those identified by Mayer et al. (1995) (ability, benevolence, and integrity), while others emerged as unique antecedents (communication, mission focus, shared experiences/perspectives). Overarching sample characteristics—work ethic, leadership/mentoring—did not fall squarely into Mayer et al.'s classification and instead linked ability with integrity and ability with benevolence, respectively. Novel antecedents also emerged (self-awareness, calm). Capiola et al. (2020) concluded both swift trust and its antecedents were relevant in MDC2, and they called for future research to determine what antecedents are more/less important for determining swift trust as well

as expanding this effort to other contexts comprising salient risks and high stakes.

1.3. The Present Research

We contend trust antecedents are differently important in ad hoc dyad formation. Mayer et al. (1995) postulated some antecedents are more relevant at different times in an interaction, and past research has shown this to be the case (e.g., Jarvenpaa et al., 1998). For the present work, we investigated what antecedents are relevant for trust in ad hoc interactions when partnerships are first assembled.

By leveraging relevant antecedents, organizations can emphasize how to act in computer-mediated contexts, Defense can emphasize training regimens in online etiquette and empathy, and information systems researchers can work to emulate peer-to-peer interfaces that preserve proper trust between parties. Practically speaking, researchers need to use *relevant* trustworthiness manipulations in laboratory experiments, where parties assemble quickly and disassembled soon after task completion, to investigate the trust process more effectively. Ad hoc and distributed contexts impose unique opportunities and constraints. This research can suggest what types of information are valuable to present before ad hoc interactions commence to facilitate calibrated trust in subsequent collaborations. In ad hoc contexts, people may frequently interchange whom they collaborate with, and oftentimes, collaborations encompass more than just two people, making it quite cumbersome or impossible to ask them to evaluate their partner(s) on a large host of antecedents after every interaction. Further, attempting to provide an in-depth portfolio of each new partner before they work together would overwhelm any person. For these reasons, it is critical to prioritize which antecedents are most important for evaluation.

We interpret the trust process through the lens of Mayer et al.'s (1995) aforementioned model. Recently, Capiola et al. (2020) offered a graphic display depicting antecedents facilitating swift trust in ad hoc teams. As such, we are not suggesting a new framework; rather, we offer quantitative evidence that the relevant features identified in Capiola et al.'s qualitative analysis are context dependent and subsequently affect one's willingness to be vulnerable in an ad hoc dyad.

In the present research, we investigated the relevance of 36 antecedents to swift trust. First, we reviewed the antecedents identified in the literature and selected those appropriate for evaluation in reference to our vignette context (see subsection 2.3). Then, we created low and high levels of each to afford untrustworthiness and trustworthiness, respectively. By randomizing these levels in an online experiment, we

leveraged the power of a within-subjects design and interpreted the sample and effect sizes indicating what participants rated were relevant and meaningfully distinct antecedents to trust in ad hoc dyads, respectively. Hence, we hypothesized that the high level of each antecedent would lead to higher ratings of anticipated trust than the low level of that antecedent. However, the investigation of which antecedents were (ir)relevant and which levels evidenced greater differences between one another was data-driven and exploratory.

2. Method

2.1. Participants

We leveraged Amazon's Mechanical Turk (MTurk) to collect data. MTurk is an online platform where participants (i.e., MTurk workers) enroll in Human Intelligence Tasks (HITs) and are paid for their participation. Participants were able to complete the HIT at any time and remote location. We also used CloudResearch (Litman et al., 2017), a platform that integrates with MTurk and facilitates efficient online protocol launching and data collection.

We conducted a power analysis in G*Power 3.1.9.6 (Faul et al., 2009) to determine the sample size needed for an appropriately powered study. As we aimed to compare ratings of the low and high trustworthiness levels of each antecedent for all participants, we conducted an *a priori* power analysis for the difference between two dependent means (matched pairs) from the *t*-test family of tests. Assuming a medium effect size ($d_z = .5$), power = .8, and alpha = .05 with a two-tailed analysis (to remain conservative), we required 34 participants.

Assuming we would be unable to compare all participant responses based on their categorizing one or both antecedent levels as irrelevant, we sampled data from 50 participants (15 female) for \$2.00 remuneration. Participants were 23-70 years of age ($M = 40.98$, $SD = 11.7$). Most participants identified as Caucasian/White ($n = 29$), followed by Asian ($n = 5$), African American/Black ($n = 4$), Hispanic/Latino ($n = 2$), and Other ($n = 1$). Due to an error, our demographic survey was not assessed in the initial HIT. As such, we followed up with participants via their anonymous MTurk ID four weeks later to assess their demographics only. Participants were remunerated an additional \$1 for completing the demographics survey. Out of 50, 41 participants responded to the demographics survey. The study was approved by the Air Force Research Laboratory 711th Human Performance Wing Institutional Review Board (protocol # FWR20220029E, V1.01).

2.2. Variables

2.2.1. Independent Variables. We selected antecedents inspired directly from the sample characteristics of swift trust antecedents identified by Capiola et al. (2020) in addition to generating a few of our own. We only chose those antecedents from Capiola et al. that seemed relevant for our vignette in subsection 2.3. We instantiated pairs of each antecedent to afford less or more partner trustworthiness. We did not evaluate antecedents that explicitly stated the partner was “(un)trustworthy” or noted “good/bad job performance” as these would reveal the purpose of the manipulation and could be conflated with *objective* partner performance, respectively. For the full list of antecedents tested in this experiment, see Table 1.

2.2.2. Dependent Variables. Participants chose whether each piece of information (i.e., antecedents) was relevant in making their decision to rely on their partner by answering the following question: “Is this information relevant for making your decision on whether you’d rely on your partner?” Participants selected “yes” or “no.” If participants selected “no,” then they received a new piece of information to rate. See Figure 1 for a sample relevance question.

"Your partner has a bad reputation."

Is this information relevant for making your decision on whether you'd rely on your partner?

Yes

No

Figure 1. Sample relevance question.

If participants selected “yes” to the relevance question, then they answered the following question on a subsequent page: “Please select the likelihood that you would rely on your partner based on that information alone.” Participants input their ratings on a 7-point scale (1 = *very unlikely* to 7 = *very likely*). See Figure 2 for a sample anticipated trust question.

You selected yes the information is important. Please select the likelihood that you would rely on your partner based on the information using the following scale:

Very unlikely

Unlikely

Somewhat unlikely

Neither likely nor unlikely

Somewhat likely

Likely

Very likely

Figure 2. Sample anticipated trust question.

2.3. Procedure

Participants who accepted the HIT were redirected to a Qualtrics survey. Here, they entered their Mturk worker ID, which was followed by the study explanation. Participants read that the researchers of the current study were interested in what influences people’s reliance on others immediately before they begin to interact. They were instructed to imagine themselves in a scenario where they were about to partner with someone whom they do not know and had not worked with before. In the scenario, they would receive information about that person right before starting to work together. To provide context, we asked participants to imagine a scenario in which they are a safety controller with requisite responsibilities. Due to increased security concerns, their management has opted to hire new employees to assist them. The vignette read:

“Imagine that you are a safety controller. You are in a private room monitoring the activity of visitors to a public venue. You are responsible for notifying security whether the venue is safe or unsafe. Via security equipment, you must closely monitor persons that enter and leave specific areas of the venue. In addition, you are responsible for decrypting audio information to pass along to other personnel in your organization. As the safety controller, it is important that you ensure security guards are quickly and accurately informed about a change in the safety level of the venue. Moreover, relaying pertinent information to the other safety professionals in your security organization helps them make informed decisions that have an impact on the overall safety of all persons at the venue. Due to increased security threats, the venue’s management has hired additional personnel to assist you as the safety controller. You find out that you will be partnered with

someone whom you do not know personally and have never worked with before. However, you are given very minimal information on this person by the venue's management, and you can use this information to determine how much you will rely on them in assisting you with carrying out the responsibilities of a safety controller."

After reading the vignette, participants received different pieces of information about their partner. Importantly, they were instructed to treat each piece of information as an independent aspect, i.e., each piece of information is the *only* information they receive about their partner before rating the information *relevance* and, if the information was relevant, the *likelihood of whether they would rely on a partner possessing that attribute*. We intentionally did not embellish the context of the vignette, nor the source or reinforcement of the antecedents. All levels of antecedent pairs were presented to each participant in a randomized order, and the scenario description and rating scale were available for reference throughout the study. Participants who

completed the study received their MTurk code to claim their payment. On average, participants took about 21 minutes to complete the study.

3. Results

Participants were removed from each analysis if they said one or both levels of each antecedent were irrelevant (i.e., answered "no" to the relevance question). Therefore, no subject was excluded based on completion time; if a subject rushed through the survey by responding 'no' to all relevance questions, then those responses on either level (low/high) were not included in the analysis. As such, there are different *df* for 36 paired-samples tests.

We conducted paired-samples *t*-tests in RStudio (RStudio Team, 2020) on all pairs of low and high trust antecedents using the "t.test" function in the *stats* package (R Core Team, 2020).

Table 1. Effects of antecedents on anticipated trust.

Antecedents	<i>M</i>(<i>SD</i>)	<i>t</i>	<i>df</i>	<i>d</i>
Reliability (integrity)		21.14	47	3.05
Is reliable	6.24(0.75)			
Is not reliable	1.61(1.20)			
Work ethic (ability & integrity)		13.03	42	1.99
Has a good work ethic	5.91(0.71)			
Does not have a good work ethic	2.29(1.49)			
Judgment (integrity)		20.83	41	3.21
Has sound judgment	6.09(0.71)			
Does not have sound judgment	2.00(1.24)			
Handles stress well (calm)		13.28	41	2.05
Handles stress well	5.91(0.80)			
Does not handle stress well	2.50(1.49)			
Motivated by mission success (mission-focus)		11.50	40	1.80
Is motivated for mission success	5.95(1.00)			
Is not motivated for mission success	2.33(1.49)			
Team player (benevolence)		13.90	39	2.20
Is a team player	5.81(0.98)			
Is not a team player	2.16(1.14)			
Rational (calm)		13.36	39	2.11
Is rational	5.56(0.80)			
Is not rational	2.02(1.44)			
Reasonable (calm)		14.56	38	2.33
Is reasonable	5.44(0.63)			
Is not reasonable	2.16(1.19)			
Rating*		18.44	37	3.00
Is highly rated	5.93(0.78)			
Is poorly rated	1.93(1.07)			
Learn from mistakes (work ethic; ability & integrity)		12.90	36	2.12
Is able to learn from their mistakes	5.61(0.94)			
Is not able to learn from their mistakes	2.14(1.06)			

Star-rating*		16.42	36	2.70
Is rated as 5 out of 5 stars	6.23(0.84)			
Is rated as 1 out of 5 stars	1.67(1.22)			
Experienced*		11.88	36	1.96
Is experienced	6.03(0.83)			
Is not experienced	3.18(1.36)			
Consistency (integrity)		12.84	36	2.11
Is consistent	5.78(0.72)			
Is not consistent	2.69(1.35)			
Has teammates' back (benevolence)		14.58	36	2.40
Has been shown to have their teammates' back	6.03(0.78)			
Has been shown to not have their teammates' back	2.07(1.61)			
Adaptable (ability)		11.67	36	1.92
Knows when to adapt	5.67(0.78)			
Does not know when to adapt	2.65(1.19)			
Does just the minimum (work ethic; ability & integrity)		10.30	35	1.72
Never does just the minimum	5.29(1.33)			
Always does just the minimum	2.44(1.47)			
Commitment (mission-focus)		13.77	35	2.29
Is committed	5.60(1.03)			
Is not committed	2.20(1.04)			
Reputation (ability)		14.29	33	2.45
Has a good reputation	5.82(0.76)			
Has a bad reputation	2.26(1.43)			
Push work off to others (work ethic; integrity & ability)		16.07	33	2.76
Does not push off work onto others	5.78(0.68)			
Pushes off work onto others	2.12(1.22)			
Looks out for others' best interest (benevolence)		12.35	32	2.15
Looks out for their partner's best interest	5.93(1.13)			
Does not look out for their partner's best interest	2.00(1.41)			
Prioritizing (leadership/mentoring; ability & benevolence)		14.48	31	2.56
Knows how to prioritize	5.79(0.58)			
Does not know how to prioritize	2.54(1.05)			
Takes shortcuts (integrity)		9.08	31	1.61
Does not take shortcuts	5.63(0.88)			
Takes shortcuts	2.74(1.23)			
Willing to help (benevolence)		13.22	31	2.34
Willing to help others	5.79(0.91)			
Is not willing to help others	2.13(1.04)			
Timely (work ethic; ability & integrity)		12.34	30	2.22
Is timely	5.34(0.87)			
Is not timely	2.51(1.08)			
Detail-oriented (ability)		9.92	30	1.78
Is detailed oriented	5.89(0.63)			
Is not detailed oriented	3.12(1.45)			
Proactive (work ethic; ability & integrity)		9.42	29	1.72
Is proactive	5.79(0.84)			
Is not proactive	3.03(1.34)			
Instincts (self-awareness)		9.08	29	1.66
Has good instincts	5.65(0.77)			
Does not have good instincts	2.91(1.46)			
Loyalty (integrity)		13.22	27	2.50
Exhibits loyalty	5.62(0.78)			

Does not exhibit loyalty	2.31(1.40)			
Fairness (integrity)		11.76	27	2.22
Is fair	5.59(0.92)			
Is not fair	2.00(1.17)			
Even-tempered (calm)		8.06	27	1.52
Is even-tempered	5.50(0.88)			
Is not even-tempered	2.66(1.49)			
Others before self (benevolence)		9.42	25	1.85
Puts others before themselves	5.59(1.19)			
Does not put others before themselves	3.21(1.45)			
Delegation (leadership/mentoring; ability & benevolence)		6.13	24	1.23
Knows how to delegate	5.32(1.08)			
Does not know how to delegate	3.07(1.51)			
Confident in abilities (ability)		7.39	23	1.51
Is confident in their abilities	5.46(0.88)			
Is not confident in their abilities	2.81(1.31)			
Adopts common strategy*		5.40	16	1.31
Always adopts a common strategy	4.92(1.10)			
Never adopts a common strategy	3.26(1.25)			
Independent (ability)		1.63	14	0.42
Is independent	4.57(1.56)			
Is not independent	3.67(1.46)			
Claims to be an expert (ability)		0.53	7	0.19
Claims to be an expert	5.06(1.20)			
Does not claim to be an expert	4.27(1.27)			

Note. M = mean; SD = standard deviation; df = degrees of freedom; t = t -statistic; d = Cohen's d ; * = antecedent generated by research team. Parenthesized words note the antecedent and overarching samples characteristic that the particular low and high trustworthiness manipulations are linked to in Capiola et al. (2020).

For expedient calculation of Cohen's d , we used the "ttest" function in *lessR* (Gerbing, 2021). The full list of antecedents, their levels, and corresponding t -statistics, degrees of freedom (df), and Cohen's d based on the planned comparisons between untrustworthy and trustworthy levels can be found in Table 1.

Except for "(does not) claim to be an expert" and "(not) independent," each comparison had a $p < .001$, largely supporting our hypothesis. Any antecedents with df lower than 33 were not considered further as they did not meet our estimated sample size calculated *a priori* (though their d s were still quite large). Still, it is interesting to note that one or both levels of 17 antecedents were considered irrelevant by at least 16 people in our sample, demonstrating the importance of piloting manipulations of trustworthiness to ensure their relevance in a context of interest.

Overall, we identified the antecedent "Your partner is (not) reliable" as the most relevant antecedent with meaningfully distinct levels, $t(47) = 21.14$, $p < .001$, $d = 3.05$. Though "Your partner (does not have) has sound judgment" was a close contender, $t(41) = 20.83$, $p < .001$, $d = 3.21$, the lower df indicated eight participants felt at least one level of the antecedent were not relevant for deciding to rely on an ad hoc partner. Moreover, the

difference in effect size between the "is (not) reliable" and "has (does not have) sound judgment" pairs was small ($\Delta d = .16$), thus identifying "(not) reliable" as the most important antecedent evaluated.

4. Discussion

After identifying theoretically relevant trustworthiness manipulations and analyzing participant ratings, "Your partner is (not) reliable" demonstrated a robust difference between low and high levels and resulted in the fewest *irrelevant* ratings. Indeed, the effect size was very large, and all but two participants rated both levels of this antecedent as relevant for deciding whether they would rely on a partner. It is possible that (un)reliable was noted as most relevant and showed the second strongest effect size because the dependent variables assessed relevance and likelihood of relying. Still, there were quite a few robust effect sizes that resulted from the planned contrasts, and we think future research could implement several of these manipulations in subsequent experiments to investigate the effects of trustworthiness manipulations on criteria of interest in ad hoc dyads.

The top three most relevant trust antecedents, sorted by greatest *t*-value and *df*, were reliability, sound judgment, and work ethic. The first two are noted in Mayer et al. (1995) as examples of perceived integrity (pp. 717, 722). Integrity is a key antecedent to trust in early relationships (Schoorman et al., 2007; c.f., van der Werff & Buckley, 2017). Indeed, (in)consistency showed a robust effect size as well. Although Mayer et al. (1995) focused on organizational contexts specifically in their model, the present vignette (i.e., security operations) is an organizational context, albeit one in which stakes are high and vulnerability toward a partner is part and parcel with job duties. Our findings overlap with the swift trust literature in that a third-party cue conveying one's reliability and judgment—before being perceived first-hand—is something distributed ad hoc collaborators could leverage to shape early trust beliefs (Crisp & Jarvenpaa, 2013).

Capiola et al. (2020) describe the work ethic antecedent as overlapping conceptually with Mayer et al.'s (1995) integrity and ability factors, demonstrating the cognition-based antecedents to trust are most relevant in ad hoc contexts prior to affect-based trust being established (see also McAllister, 1995; Tomlinson et al., 2020). This is evident in the present work, as (not) learning from mistakes, (never) doing just the minimum, and (not) pushing work off to others were interpreted as overlapping cognition-based antecedents and demonstrated meaningful differences in the criterion. Still, adaptability and reputation are sample characteristics of ability, which is meaningful in early trust formation (Jarvenpaa et al., 1998; Schoorman et al., 2007), separate from integrity.

Being a team player and having teammates' backs are examples of benevolence, which some have argued is less relevant before relationships are established (Jarvenpaa et al., 1998; Mayer et al., 1995); however, the present data show robust effect sizes, supporting Capiola et al.'s (2020) qualitative data that benevolence is relevant MDC2 contexts. On this note, (not) handling stress, being (ir)rational, and (un)reasonable were all examples of calmness. Based on relevance ratings and effect sizes, we think future work should investigate the effect of perceived calmness on swift trust. Mission-focus (in terms of motivation and commitment), though potentially an attribute of integrity, may too be relevant in and of itself in ad hoc dyad formation, and future work may contrast its effects with integrity manipulations on trust criteria in other contexts.

Finally, our research team generated generic (star) ratings and experience antecedents, and we found some variance in relevance and effect size. This shows the set of antecedents from Capiola et al. (2020) is not exhaustive of what antecedents shape swift trust in ad hoc dyad formation, and researchers should not shy

from tailoring their own meaningful trustworthiness manipulations for investigating contexts of which they are most interested; however, we suggest proper data-driven evaluation of those manipulations beforehand. Future work might investigate what demographics have more familiarity with online ratings (e.g., Uber, Yelp) and thus respond differently to ratings and experience. In summary, the strength of these effects, coupled with data on their relevance ratings, show trust antecedents—particularly integrity—are relevant in ad hoc dyads.

4.1. Implications

The results of the current research provide quantitative evidence to support the qualitative findings from Capiola et al. (2020). Specifically, we showed a select number of antecedents to swift trust in ad hoc teams are relevant and have a meaningful impact on anticipated trust in a scenario described as having salient risk and high stakes. Moreover, the current process of evaluating antecedents has value for identifying *irrelevant* antecedents to swift trust in ad hoc contexts. This may vary across contexts and samples, demonstrating the value of evaluating manipulations before conducting studies. Indeed, researchers ought to pilot their manipulations in contexts of interest to ensure robust and relevant effects on swift trust formation in ad hoc dyads. Such a strategy is not only a reasonable step in strong research design, but it also affords transparency for other researchers working to build their own studies investigating the effects of independent variables on dependent variables. We invite researchers to leverage our findings in their future work and to further pilot test this non-exhaustive list of antecedents to trust, adding other antecedents that may be more appropriate in other contexts. Other factors like roles (Robert et al., 2009) and norms (Crisp & Jarvenpaa, 2013) may affect category-based presumptions of trustworthiness early in an interchange (Kramer, 1999), and the effects of specific sample characteristics of ability, benevolence, and integrity from Mayer et al.'s (1995) model on trust should also be explored further (Butler, 1991; Capiola et al., 2020).

4.2. Limitations and Future Research

This study has limitations. We leveraged a vignette for participants to place themselves in a role and rate the relevance and likelihood that information would lead them to rely on an ad hoc partner. Thus, we cannot wholly generalize our findings to team-based (i.e., three or more parties) interactions and study contexts. The present research did not investigate the contextually specific ways that antecedents were perceived by a trustor in a trustee. We simply evaluated participants'

perceived relevance and likelihood that they would trust others if these features were present. Future research should investigate what specifically triggers these perceptions of a trustee from the perspective of the trustor in an ad hoc interaction. As noted earlier, we did not use an exhaustive list of antecedents, and others are surely more relevant in other contexts. However, we do propose that the scenario we leveraged is a representative example of those with salient risk, high stakes, and possesses a situation in which ad hoc dyad formation would be shaped early on before the situation gets underway. The “venue’s management” served as a third party relaying minimal information about the referent of trust (i.e., new partner). Future work may manipulate facets of the third party to investigate (in)direct effects of trust transfer from one party to the other in ad hoc dyad formation and early interaction; these data may contrast with those observed with stable dyads (Ferrin et al., 2006).

It is unclear how our results would change if participants could lose resources (e.g., money, job tenure)—thus increasing perceived risk—and whether their decision to trust resulted in a positive or negative outcome. Our results may be bolstered or dampened as perceived risk moderates the trust and risk-taking behavior relationship, and outcome feedback influences subsequent antecedents to trust (Mayer et al., 1995; Schoorman et al., 2007). Future research should investigate these effects. Relatedly, future work could assess a risk-taking measure like “based on the antecedent you found most relevant and led to the greatest (least) likelihood you would rely, would you like to work with this individual in the dyadic task described?” The decision to (not) interact would assess risk-taking.

“Team player” and “has teammates’ back” were benevolence-related antecedents and likely conferred affect-based trustworthiness (Capiola et al., 2020). However, overall, the present work investigated more cognition-based antecedents to trust. Past work does note cognition-based antecedents may be more relevant than affect-based antecedents in ad hoc interchanges, at least at first (Jarvenpaa et al., 1998; Kanawattanachai & Yoo, 2002). Post-hoc, we note that several other benevolence-related antecedents indeed had *df* below 33, evidencing a high proportion of the sample noted one or both levels were not relevant for trust in this context. Future work may examine affect-based antecedents on trust outcomes in a replication and extension. Comparing the main and mediating effects of cognition- and affect-based trust(worthiness) aligns with applied efforts in organizational psychology investigating the trust process through a social exchange lens (Colquitt et al., 2012) and should be expanded to ad hoc dyads.

Finally, most of the antecedents that we evaluated were based on the work of Capiola et al. (2020). What we can conclude is that many antecedents are relevant in the ad hoc task we have presented, and they are statistically different in terms of their effect on anticipated trust. Future work ought to leverage these antecedents and test their effects in other ad hoc contexts resembling the core areas they have been generated from (i.e., heterogeneous, distributed ad hoc teams) and were evaluated as being relevant (i.e., ad hoc dyads about to collaborate in high stake/risk contexts).

4.2. Conclusions

Ad hoc collaboration is part of work. To facilitate collaboration in these contexts, identifying what leads to appropriate trust is key. We conducted a quantitative investigation of antecedents to trust identified in a recent cognitive task analysis (Capiola et al., 2020). The results showed variation in relevance and the effect of antecedents on trust, with the highest relevance ratings and largest effect sizes attributed to integrity-based antecedents dovetailing with the foundational trust work (Jarvenpaa et al., 1998). We identified robust manipulation(s) for use in future research and evidenced the value of piloting stimuli for research exploring swift trust in ad hoc dyads. Future work should investigate other contexts, with varying perceived and actual risk, and antecedents to trust.

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