Trust as a decision under ambiguity: Does race matter?

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Abstract

This paper investigates the effect of ambiguity attitudes on trust decisions. Traditional trust games often conflate or overlook the distinct roles of risk and ambiguity, despite trust decisions frequently involving the latter. Using an extended trust game in the sense of Li et al. (2019) and data from 328 participants in South Africa, we investigate how ambiguity aversion and likelihood insensitivity shape trust behavior in a developing country context. Further, given findings of in-group bias in trust game decisions, including racial bias in studies in South Africa, we examine the interaction between ambiguity attitudes and race. Our findings reveal that ambiguity aversion significantly reduces the propensity to trust, while likelihood insensitivity does not have a notable effect on trust decisions. Moreover, while explicit racial bias is not observed—Black and White trustees receive comparable levels of trust—the negative association between ambiguity aversion and trust is only evident when respondents are paired with Black trustees. This pattern suggests a more nuanced form of racial bias, where ambiguity amplifies trust disparities. These insights highlight the need to integrate psychological and social dimensions into trust research and underscore the policy relevance of transparency in mitigating ambiguity, particularly in contexts where group identity may influence decision-making.

Keywords: trust, ambiguity aversion, likelihood insensitivity, racial bias, South Africa

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1. Introduction

Trust, defined as the belief in the trustworthiness of others (Gambetta, 2000), is a cornerstone of social capital and a driving force behind the effective functioning of societies and economies. It fosters cooperation, reduces transaction costs, and strengthens social cohesion, making it indispensable for the smooth operation of markets and institutions (Coleman, 1990; Dasgupta, 2009). Moreover, trust plays a critical role in resolving social dilemmas where individual rationality may conflict with collective welfare (Dasgupta, 2009). Specifically, trust minimizes dependence on costly enforcement mechanisms and legal contracts, thereby lowering transaction costs and facilitating economic growth (Knack & Zak, 2001; Algan & Cahuc, 2010). Higher levels of trust are also strongly associated with better governance, reduced corruption, and more resilient democratic institutions, further underscoring its critical societal importance (Posel, 2022).

The centrality of trust is reflected in its measurement through global surveys such as the World Values Survey and the General Social Survey, alongside extensive experimental research exploring trust behaviors. Survey-based measures capture generalized trust by offering insights into broad patterns across populations. Conversely, experimental methods, such as the trust game developed by Berg et al. (1995), provide controlled and incentivized environments to examine situational trust. Together, these complementary tools have significantly advanced our understanding of how trust facilitates cooperation and fosters social cohesion in diverse institutional and cultural contexts.

However, traditional trust games often conflate trust with risk attitudes, as participants must not only decide whether to trust but also evaluate the calculable risks associated with their decisions. Emerging evidence challenges the assumption that trust decisions in the trust game

are primarily influenced by risk attitudes. Decisions in trust games involve sending money without a guarantee of reciprocation, inherently making them risky. However, recent research suggests that the concept of risk might not fully capture the nature of trust decisions. Instead, these decisions often involve ambiguity, where the probabilities of different outcomes are unknown or poorly defined (Eckel & Wilson, 2004; Houser et al., 2010). Recent studies, such as Li et al. (2019), highlight that trust decisions frequently involve ambiguity—situations where probabilities of outcomes are unknown—rather than calculable risks. This distinction is vital for accurately modeling trust behavior and understanding the psychological mechanisms underlying trust-related decisions.

Ambiguity attitudes, comprising ambiguity aversion and likelihood insensitivity (the cognitive component of ambiguity attitudes), play a critical role in shaping trust decisions. Ambiguity aversion reflects a preference for known risks over uncertain outcomes, often resulting in more conservative decision-making. Likelihood insensitivity, on the other hand, captures individuals' difficulties in distinguishing between varying levels of uncertainty. These dimensions significantly influence trust-related behaviors, particularly in contexts where individuals must navigate incomplete or ambiguous information. Experimental measures emphasize situational decision-making, while survey-based measures, like the General Social Survey (GSS), capture broader, generalized trust shaped by cognitive and emotional factors.

This study examines how ambiguity aversion and likelihood insensitivity influence trust decisions in a unique developing country context: South Africa. As one of the world’s most diverse societies, South Africa’s history of systemic discrimination and persistent socio-economic inequalities provides a critical context for examining how trust interactions operate within multicultural and historically stratified settings.

Rather than critiquing survey-based measures, this study underscores their complementarity with experimental approaches. Survey measures, as discussed by Dohmen et al. (2011), capture generalized trust and provide valuable insights into broad behavioral patterns. In contrast, experimental methods deliver precise observations of situational trust under controlled and incentivized conditions. Together, these methodologies address different dimensions of trust and offer a more holistic understanding of its role in social and economic interactions.

Recent studies have further explored the role of ambiguity attitudes in trust decisions. Li et al. (2019) argue that ambiguity attitudes must be accounted for in trust games, as these decisions involve ambiguity rather than pure risk. Their findings indicate that ambiguity-averse individuals are less likely to trust, emphasizing the need to incorporate ambiguity attitudes into analyses of trust behaviors.

Despite these advancements, a notable gap remains in understanding how ambiguity attitudes interact with socio-demographic factors such as race in shaping trust decisions. Research has shown that race and social identity significantly influence trust behaviors, often reflecting broader societal biases and historical contexts (Fershtman & Gneezy, 2001; Posel, 2022). However, the role of ambiguity attitudes in moderating race-based differences in trust has yet to be thoroughly investigated.

The motivation for this research lies in addressing this gap by examining how ambiguity attitudes interact with race to influence trust decisions. Following Li et al. (2019), we hypothesize that ambiguity attitudes play a more critical role in trust decisions than previously recognized. Moreover, we propose that these attitudes may help explain biases observed in trust behaviors. By incorporating measures of ambiguity aversion and investigating their interaction with race, this study aims to provide a comprehensive understanding of trust dynamics. Specifically, we hypothesize that ambiguity-averse individuals are less likely to trust

and that this effect is moderated by the race of the trustee, potentially acting as a channel for bias.

This investigation is particularly relevant in contexts with historical racial tensions, such as South Africa, where racial identities have been shown to significantly impact trust behaviors (Burns, 2006, 2012; Posel, 2022). Trust is not only an economic matter but also deeply intertwined with social identities and historical contexts. Research has demonstrated that individuals are more likely to trust those who share similar social identities and that historical prejudices can persistently shape trust levels (Fershtman & Gneezy, 2001; Posel, 2022). Understanding trust in such contexts requires a multifaceted approach that accounts for both psychological attitudes toward ambiguity and the socio-historical impact of race.

Our research bridges this gap by examining how ambiguity aversion interacts with racial biases in trust decisions. Specifically, we investigates how the race of the trustee moderates the relationship between ambiguity attitudes and trust, building on prior findings that emphasize the importance of social identity in economic interactions (Fershtman & Gneezy, 2001). These interactions are particularly salient in South Africa, where trust behaviors often reflect the country's complex historical and social context.

2. Methodology

2.1 Participants

We conducted an experiment with 328 respondents through an online research provider (TGM Research) in South Africa. Given our interest in race-based differences in trust, we targeted a sample of approximately half Black and half White respondents (in our final sample, 141 respondents were White and 183 were Black, with the remaining 4 respondents reporting other races). 152 respondents reported their gender as male, with 176 reporting gender as female.

2.2 Experimental design

Our experiment approach closely follows that of Li *et al.* (2019), detailed in their paper. Respondents make decisions similar in principle to the Berg *et al.* (1995) trust game. The structure of typical experiments in the style of Berg *et al.* (1995) allows the sender/trustor to choose an amount from an endowment to transfer to the receiver, following which the receiver can return some of the (usually doubled or trebled) transfer. In Li *et al.* (2019), and in our paper, the trust decision is instead a binary choice between a "distrust" allocation of money between the decision maker ("trustor") and another player ("trustee"), such that both receive (in local currency) ZAR100; and a "trust" decision where the trustor agrees to abide by the trustee's chosen allocation of a larger total amount. The trustee chooses between 3 possible allocations, although this choice will only be salient if the trustor agrees to abide by it by choosing to trust.

The options available to the trustee are: (i) a "reciprocate" allocation beneficial to both players in comparison to the "distrust" allocation (ZAR150 each); (ii) a "middle" allocation beneficial to the trustee without disadvantaging the trustor relative to the "distrust" amount (ZAR180 for the trustee and ZAR100 for the trustor); and (iii) a "selfish" allocation which enriches the trustee while disadvantaging the trustor (ZAR220 for the trustee and ZAR80 for the trustor). We follow Li *et al.* (2019) in measuring ambiguity attitudes (ambiguity aversion and ambiguity-generated likelihood insensitivity) in the context of these simplified trust game decisions.

Before proceeding with the main part of the experiment, we include a comprehension and attention check question to ensure that respondents understand the trust tasks. As in Li *et al.* (2019), our respondents made decisions as a trustor and as a trustee, and also reported their beliefs about their partner's decisions as trustor and trustee. As explained to participants, respondents were paid according to one of their decisions and, where relevant, the associated

decision of their partner. Since the partner demographics were fixed, we chose individuals matching those demographics to play the role of each of the two partners described in the game.

Given our interest in race-based differences and discrimination in trust games in South Africa, we included a partner race treatment as part of our experiment. Specifically, respondents were given limited demographic information about the player they had been partnered with. This included noting the partner's race as either Black or White, where respondents were randomly assigned to see one of the partner descriptions. Other demographic information was held constant between the two descriptions so that only race varied, allowing us to infer that any differences in decision making towards the two described partners could be attributed to their race. This allowed us to see whether the decision maker's race, the race of their partner, or the interaction between their own race and that of their partner, impacted the likelihood to trust. We then consider whether ambiguity attitudes help to explain any differences in trust decisions.

Baillon *et al*. (2018) note that in order to measure ambiguity aversion, it is necessary to elicit and control for likelihood beliefs in the events being considered. This allows calibration against a benchmark of ambiguity neutrality. This is the approach followed in Li *et al.* (2019) and the approach we also follow. As a starting point, Baillon *et al.* (2018) require 3 mutually exclusive and exhaustive non-null events. In the case of our experiment, and that of Li *et al.* (2019), these events refer to the 3 possible trustee decisions, henceforward denoted as R (Reciprocate i.e. 150,150); M (Middle i.e. 100,180) and S (Selfish i.e. 80, 120). Recall that the trustor chooses between a division of (100,100) or a decision to trust, and therefore to abide by the trustee's choice between the 3 options above. Baillon *et al.* (2018) follow Dimmock *et al.* (2016) in using matching probabilities to measure ambiguity attitudes. The matching probability of any event *E* is defined as "Receiving Euro 20 under event *E* is equivalent to receiving Euro 20 with probability *m"* (Baillon *et al.*, 2018 p. 1842).

If a decision maker is ambiguity neutral, the sum of the matching probability for an event and its complement will be 1. For an ambiguity averse decision maker, this sum will be less than 1, where the difference from 1 indicates the degree of ambiguity aversion. The average ambiguity aversion for a decision maker can then be calculated by eliciting matching probabilities for events (in our case R, M and S) and their complements (in our case M ∪ S; R ∪ S; and R ∪ M); and then taking the average of the difference between 1 and the sums of the matching probabilities of the single (s) events and their complements (c). Writing $m_i = m(E_i)$, and $m_{ij} = m(E_{ij})$, we then have $\text{Avg}m_s = (m_r + m_m + m_s)/3$ for the average single-event matching probability, and $\text{Avg}m_c = (m_{ms} + m_{rs} + m_{rm})/3$ for the average composite-event (complement) matching probability. This allows us to define the ambiguity aversion index (*b)* as:

$$b = 1 - \text{Avg}m_s - \text{Avg}m_c.$$

In addition to aversion to ambiguity, research has shown a second component of ambiguity attitudes, referred to as insensitivity. This defines the way people perceive ambiguity in decision situations. Insensitivity results in reduced tendency to act based on beliefs, as people treat different likelihood levels similarly. Again following Baillon *et al.* (2018) and Li *et al.* (2019), we define the ambiguity-generated insensitivity index *(a*) as:

$$a = 3 \times (1/3 - (\text{Avg}m_c - \text{Avg}m_s)$$

An ambiguity neutral decision maker would have $\text{Avg}m_s$ as 1/3 and $\text{Avg}m_c$ as 2/3, meaning that both indexes would be zero. An ambiguity averse person would have lower matching probabilities, giving a higher ambiguity index, indicating the premium such a decision maker would pay to avoid ambiguity. A decision maker who does not distinguish between likelihoods of composite and single events at all would have the maximum insensitivity index of 1 (consider, for example, the decision maker who interprets all uncertainties as 50-50).

Perceiving more ambiguity results in events being perceived similarly, and therefore a higher insensitivity index.

Our matching probabilities used to generate these indexes are elicited following the method used in Li *et al.* (2019). That is, respondents responded to 24 decision situations presented in 6 blocks, with 4 decisions for each of the 6 events of interest: the 3 single events $\{E_r, E_m, E_s\}$ and the 3 composite events $\{E_{rm}, E_{rs}, E_{sm},\}$. For each event, respondents had to choose between Option 1, an ambiguous prospect paying R150 if the trustee partner chose e.g. option R (and 0 otherwise); and Option B, a risky prospect paying R150 with a given probability (e.g. 50%) and 0 otherwise. The probabilities for Option B then varied, increasing where the decision maker chose Option A, and decreasing where the decision maker chose Option B, in order to be able to infer the matching probability for the event (in this case, matching probability m_r for event E_r).

3. Results

3.1 Data and Initial Relationships

We summarize the data in Table 1, which records our main variables of interest: whether the respondents chose to trust (i.e., to abide by their partner's chosen allocation); whether the respondents proposed an equal split in their role as trustee; whether they believed their partner chose to trust; whether they believed their partner proposed an equal split as trustee; and the General Social Survey (GSS) trust measure.

The descriptive statistics highlight notable patterns in trust behaviors across different groups. Respondents exhibited variation in trust decisions based on demographic characteristics, including race and gender. For instance, Black participants demonstrated a slightly lower propensity to trust compared to White participants, consistent with prior findings in contexts marked by socio-economic disparities (Posel, 2022; Burns, 2012). Male participants, on

average, were more likely to trust than female participants, a trend observed in both the experimental trust game and the survey measure.

The correlation analysis between the GSS trust measure and the experimental trust game measure reveals a moderate positive relationship. Survey-based measures, such as the GSS, capture generalized trust—a broad sense of trust in others—while experimental trust games provide insights into situational trust under controlled, incentive-compatible conditions (Johnson & Mislin, 2011). While both measures capture important dimensions of trust, their moderate correlation suggests they are complementary rather than interchangeable tools for studying trust behaviors.

Table 1: Descriptive comparisons

	n	Trusted	Proposed equal split	Believe partner trusted	Believe partner split equally	GSS Trust
White DM	141	**0.59****	0.74	0.48	43.94	4.08
		(0.49)	(0.44)	(0.50)	(28.81)	(2.17)
Black DM	183	0.47	0.67	0.46	46.14	4.42
		(0.50)	(0.47)	(0.50)	(26.87)	(2.51)
Same race as partner	159	0.54	0.71	0.42	46.77	4.43
		(0.50)	(0.45)	(0.50)	(28.09)	(2.38)
Not same race as partner	169	0.5	0.69	**0.51***	43.71	4.12
		(0.50)	(0.46)	(0.50)	(27.33)	(2.37)
Black partner	164	0.53	**0.74***	**0.52***	43.53	4.35
		(0.50)	(0.44)	(0.50)	(27.65)	(2.35)
White partner	164	0.51	0.65	0.42	46.86	4.19
		(0.50)	(0.48)	-0.5	(27.73)	(2.41)
W DM, W partner	68	0.6	0.71	0.37	47.75	4.16
		(0.49)	(0.46)	(0.49)	(29.36)	(2.23)
W DM, B partner	73	0.58	0.78	**0.59*****	40.39	4
		(0.50)	(0.42)	(0.50)	(28.03)	(2.13)
B DM, W partner	92	0.45	0.63	0.46	46.78	4.26
		(0.50)	(0.49)	(0.50)	(27.04)	(2.57)
B DM, B partner	91	0.49	0.71	0.46	46.04	4.64
		(0.50)	(0.45)	(0.50)	(27.24)	(2.48)
Male DM	152	**0.58****	0.72	**0.52***	45.52	**4.51****
		(0.50)	(0.45)	(0.50)	(27.50)	(2.30)
Female DM	176	0.47	0.68	0.43	44.91	4.06
		(0.50)	(0.47)	(0.50)	(27.95)	(2.42)

Note: Wilcoxon rank-sum tests: ***p<0.01; **p<0.05; *p<0.1

3.2 Regression Results

Table 2 presents the results of binary logistic regressions estimating the determinants of trust decisions in the experimental trust game. In Column (1), ambiguity aversion emerges as a significant predictor of trust, with a coefficient of -0.71, indicating that higher ambiguity aversion substantially reduces the likelihood of trusting. This finding aligns with the results of Li et al. (2019), reinforcing the robustness of ambiguity aversion as a key determinant of trust across different contexts. In contrast, likelihood insensitivity does not exhibit a significant relationship with trust decisions, suggesting that motivational factors, rather than cognitive differentiation of ambiguity, play a more critical role in shaping trust behavior.

Column (2) introduces the trustee's race as a treatment variable and interacts it with ambiguity aversion. The results demonstrate that the negative effect of ambiguity aversion on trust is primarily driven by decisions involving Black trustees. This pattern remains robust in Column (3), which includes demographic controls, confirming the stability of the interaction effect.

Figures 1 (Appendix 2) illustrates the predicted probabilities of trust decisions as a function of trustor race. The results indicate that Black trustors consistently exhibit lower levels of trust compared to their White counterparts, highlighting a significant racial disparity in trust behavior.

Figures 2.a and 2.b (Appendix 2) further examine the role of ambiguity aversion by presenting predicted probabilities of trust decisions, disaggregated by trustee race. These visualizations reveal a pronounced interaction effect: the negative relationship between ambiguity aversion and trust is particularly strong when the trustee is Black. This pattern is observed in both ingroup trust decisions (Figure 2.a) and outgroup trust decisions (Figure 2.b), suggesting that ambiguity aversion exacerbates racial disparities in trust perceptions.

Table 2: Logistic regression for decision to trust

	Dependent variable:		
	Decision to Trust		
	(1)	(2)	(3)
a.aversion	-0.71**	0.08	0.22
	(0.29)	(0.46)	(0.47)
a.insensitivity	0.11	0.06	0.12
	(0.22)	(0.22)	(0.23)
Black partner		0.01	0.02
		(0.23)	(0.23)
male			0.32
			(0.24)
Black			-0.48
			(0.29)
age			-0.004
			(0.01)
happiness			0.04
			(0.05)
a.aversion:Blackpartner		-1.33**	-1.44**

		(0.61)	(0.62)
Constant	-0.02	-0.03	-0.10
	(0.20)	(0.23)	(0.61)
Observations	328	328	328
Log Likelihood	-224.02	-221.59	-218.21
Akaike Inf. Crit.	454.04	453.18	454.41
Note:	*p<0.1; **p<0.05; ***p<0.01		

Table 3 extends the analysis by presenting regression results for responses to the General Trust Survey. The findings indicate that ambiguity aversion is strongly and negatively associated with generalized trust (coefficient: -1.07 in Model 1), consistent with its observed effect in the experimental trust game. However, likelihood insensitivity, which captures cognitive differentiation of ambiguous events, is only weakly significant in the survey context (coefficient: 0.67 in Model 3). This discrepancy suggests that the cognitive processing of ambiguity plays a more prominent role in introspective, hypothetical scenarios than in real-world, incentivized decisions.

Robustness checks, including analyses that exclude participants with monotonicity violations, confirm the consistency of these results. These additional analyses, detailed in the appendix, reinforce the reliability and validity of the findings.

Table 3: What is the general trust survey measuring?

	Dependent variable:			
	General Trust Survey			
	(1)	(2)	(3)	(4)
trusted	0.61*			
	(0.32)			
trustee		-0.26		
		(0.23)		
a.aversion			-1.07***	-0.67*
			(0.39)	(0.37)
a.insensitivity			0.56	0.67*
			(0.43)	(0.40)
pa-pc			0.29	0.21
			(0.35)	(0.32)
male				0.73**

				(0.32)
Black				0.25
				(0.39)
Black partner				0.50
				(0.31)
age				0.02*
				(0.01)
happiness				0.37***
				(0.08)
Constant	3.71***	4.43***	3.75***	-0.26
	(0.24)	(0.36)	(0.26)	(0.81)
Observations	189	189	174	174
R^2	0.02	0.01	0.05	0.23
Note:		*p<0.1; **p<0.05; ***p<0.01		

3.3. Discussion

The findings of this study provide robust evidence that ambiguity aversion significantly reduces trust, demonstrating a consistent pattern across both experimental and survey measures. This result aligns with the broader literature on decision-making under ambiguity, which posits that individuals who are averse to uncertainty are less likely to engage in trust-based interactions, as the inherent unpredictability of such interactions amplifies their discomfort (Tversky & Fox, 1995). The consistency of this effect across different measurement contexts—experiments, which capture real-time, incentivized decisions, and surveys, which reflect introspective and hypothetical judgments—underscores the robustness of ambiguity aversion as a psychological barrier to trust. This convergence across methodologies strengthens the validity of our findings and highlights the pervasive influence of ambiguity aversion on trust behavior.

By replicating and extending the work of Li et al. (2019), who demonstrated the negative impact of ambiguity aversion on trust in experimental settings, this study contributes to the literature in two key ways. First, it validates their findings in a developing country context, highlighting the empirical regularity of these interactions across diverse cultural and

institutional settings. Second, it reveals context-specific nuances, such as the role of racial biases, which were not explored in the original study. These extensions underscore the generalizability of Li et al.'s findings while enriching our understanding of how local factors, such as racial bias, can shape trust behavior.

A key contribution of this study is the identification of racial biases as amplifiers of the relationship between ambiguity aversion and trust. Specifically, ambiguity-averse individuals are less likely to trust Black trustees, suggesting that stereotypes and prejudices may exacerbate the psychological discomfort associated with ambiguity. This finding resonates with the work of Fershtman and Gneezy (2001), who documented the pervasive role of racial biases in economic interactions, and Buchan et al. (2002), who demonstrated how cultural and racial variations shape trust behavior. The interplay between ambiguity aversion and racial biases underscores the complexity of trust as a social phenomenon, highlighting how cognitive and social factors interact to influence decision-making.

While ambiguity aversion consistently predicts lower trust across both experimental and survey measures, the effects of likelihood insensitivity—a related but distinct cognitive bias—are more context-dependent. Likelihood insensitivity emerges as significant only in the survey context, reflecting the introspective and hypothetical nature of survey-based trust measures. This divergence suggests that likelihood insensitivity may play a more prominent role in abstract or hypothetical decision-making, whereas ambiguity aversion operates more universally across both real-time and hypothetical contexts. These findings underscore the importance of aligning measurement tools with specific research objectives and caution against overgeneralizing results obtained from a single methodological approach.

From a policy perspective, addressing ambiguity aversion and its interaction with racial biases is critical for fostering trust in diverse societies. Increasing transparency in economic and social

interactions can mitigate the negative effects of ambiguity aversion by reducing perceived uncertainty and creating a more predictable environment for trust to flourish. For example, clear communication of rules, expectations, and outcomes in institutional settings can help ambiguity-averse individuals feel more secure in their interactions. Additionally, educational programs and interventions aimed at promoting inter-group understanding and challenging stereotypes can play a vital role in building inter-racial trust.

4. Conclusion

Traditional trust games measure trust but often conflate it with risk attitudes, overlooking the uncertainty inherent in trust decisions. Trust frequently involves ambiguity, where the probabilities of outcomes are unknown. This study explores how ambiguity aversion and likelihood insensitivity influence trust decisions and how these effects vary with the race of the trustee, replicating and generalizing the findings of Li et al. (2019) to a developing country context.

The findings reveal that ambiguity aversion significantly reduces trust, demonstrating a consistent pattern across both experimental and survey measures. This result aligns with the broader literature on decision-making under ambiguity, which posits that individuals who are averse to uncertainty are less likely to engage in trust-based interactions, as the inherent unpredictability of such interactions amplifies their discomfort (Tversky & Fox, 1995). The consistency of this effect across different measurement contexts—experiments, which capture real-time, incentivized decisions, and surveys, which reflect introspective and hypothetical judgments—underscores the robustness of ambiguity aversion as a psychological barrier to trust. This convergence across methodologies strengthens the validity of our findings and highlights the pervasive influence of ambiguity aversion on trust behavior.

However, while ambiguity aversion consistently predicts lower trust across both experimental and survey measures, the effects of likelihood insensitivity—a related but distinct cognitive bias—are more context-dependent. Likelihood insensitivity emerges as significant only in the survey context, reflecting the introspective and hypothetical nature of survey-based trust measures. This divergence suggests that likelihood insensitivity may play a more prominent role in abstract or hypothetical decision-making, whereas ambiguity aversion operates more universally across both real-time and hypothetical contexts.

This study employs both experimental and survey-based measures of trust, offering a comprehensive evaluation of how ambiguity attitudes influence trust. The incentivized trust game captures situational trust, while the General Trust Survey reflects broader, generalized trust tendencies.

The findings have significant implications for fostering trust in diverse societies. Addressing ambiguity aversion through increased transparency in social and economic interactions can mitigate the negative effects of ambiguity aversion by reducing perceived uncertainty and creating a more predictable environment for trust to flourish. For example, clear communication of rules, expectations, and outcomes in institutional settings can help ambiguity-averse individuals feel more secure in their interactions. Additionally, educational programs and interventions aimed at promoting inter-group understanding and challenging stereotypes can play a vital role in building inter-racial trust. By addressing both the cognitive and social dimensions of trust, policymakers can create more inclusive and cooperative societies.

Future research should explore these interactions in diverse, real-world settings to validate and extend the results. Additionally, examining other psychological factors, such as cognitive biases or emotional responses, could further enhance our understanding of trust behaviors.

This study contributes to the growing literature on trust by integrating psychological and social dimensions. It underscores the critical role of ambiguity aversion and racial biases in shaping trust decisions, offering actionable insights for policymakers and researchers.

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Appendix1

In eliciting matching probabilities, we note that a number of our respondents showed multiple violations of monotonicity (consider a case where a respondent reports an implied matching probability for a union of 2 events that exceeds that for one of the single events included in the union). As a robustness check, we repeat our analysis from Table 2 excluding those with 2 or more monotonicity violations. This reduces our sample size, resulting in the significance of our main results dropping below the 5% threshold. Nonetheless, the directional results are consistent with our main findings, and results remain significant at the 10% threshold.

Table 4: Logistic regression for decision to trust, excluding monotonicity violators

	Dependent variable:		
	Decision to Trust		
	(1)	(2)	(3)
a.aversion	-0.64*	0.18	0.40
	(0.36)	(0.60)	(0.62)
a.insensitivity	0.08	-0.03	0.06
	(0.37)	(0.37)	(0.38)
Black partner		-0.15	-0.18
		(0.30)	(0.31)
male			0.47
			(0.32)
Black			-0.61
			(0.39)
age			-0.005
			(0.01)
happiness			0.08
			(0.07)
a.aversion:Blackpartner		-1.36*	-1.58**
		(0.77)	(0.79)
Constant	0.17	0.26	-0.01
	(0.24)	(0.28)	(0.82)
Observations	189	189	189
Log Likelihood	-128.23	-126.53	-122.88
Akaike Inf. Crit.	262.46	263.06	263.76

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix 2:

Fig.1: Trust decision by trustor race

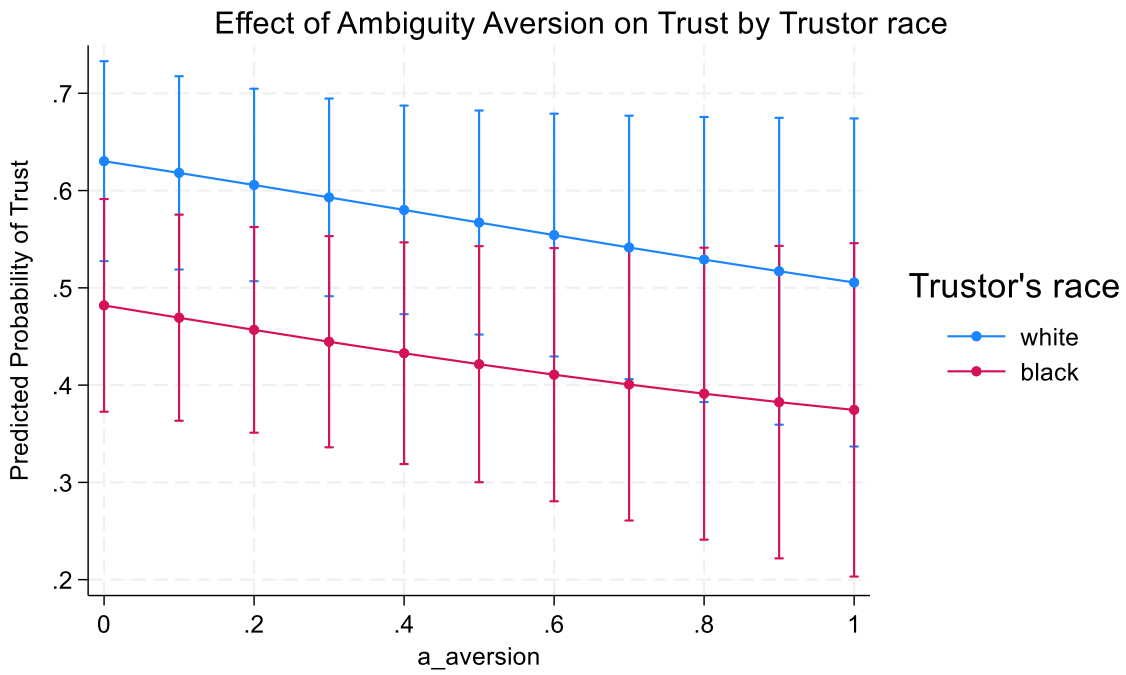

Fig.2.a Trust decision by trustee's race-in-group trust (both trustor and trustee are black race)

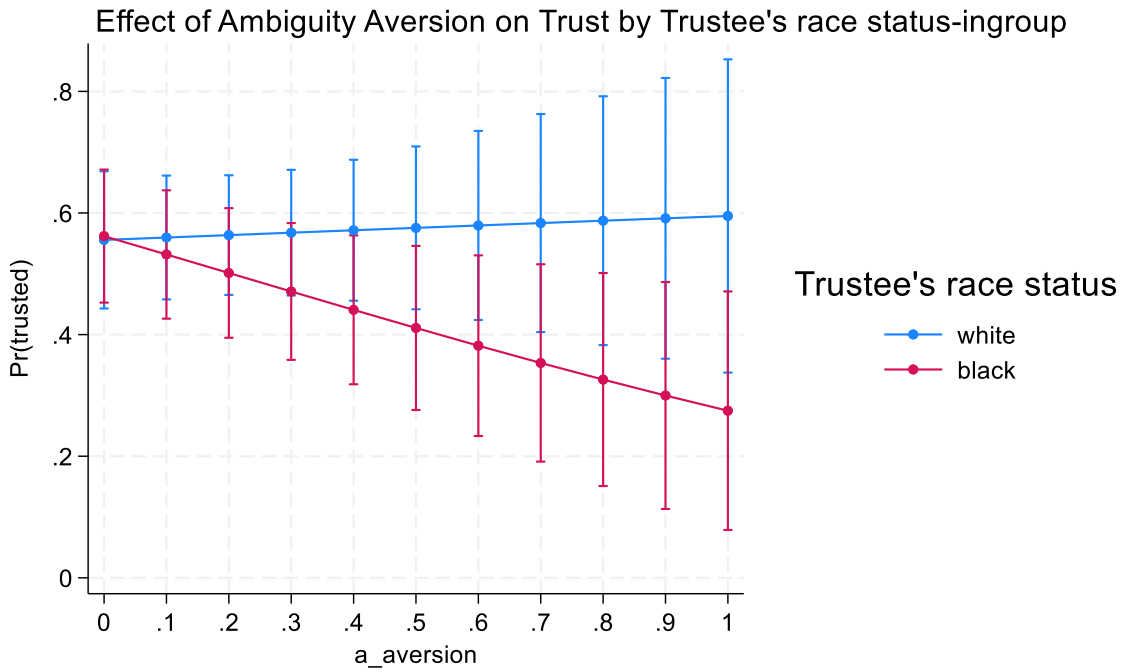

Fig.2.b. Trust decision by trustee's race-outgroup trust (black trustor and white trustee)