I’d rather call you dumb than shady, or wouldn’t I? Interpersonal trust in morality versus competence

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Chapter 1

A brief introduction to interpersonal trust

> *"Trust is the glue of life. It's the most essential ingredient in effective communication. It's the foundational principle that holds all relationships."*
>
> — Stephen M. R. Covey,
> *The Speed of Trust: The One Thing That Changes Everything*

Has a stranger ever approached you and asked to use your phone to make a call because theirs had died? Have you ever lent someone money who assured you they would pay it back later, when they could? Every day, we encounter situations like these that require trust—some so subtle they go largely unnoticed, like leaving one's belongings unattended at a café while stepping away for a moment. Others attract our attention in more significant ways, for example, political events covered by the media, such as Olaf Scholz (the then German Chancellor) formally asking the members of the federal parliament for their trust (which they had not expressed) on December 16, 2024 (Deutscher Bundestag, 2024) in a request known as a vote of confidence (*Vertrauensfrage*). Indeed, it may not be a coincidence that the right to seek the federal parliament's trust (and the specific designation chosen for this right) has been incorporated into the German constitution, given the essential role trust is believed to play in the stability of democracies (Fukuyama, 1995; Newton & Zmerli, 2011; Paxton, 2002; Uslaner & Brown, 2005) and the economic success of societies (Bjørnskov, 2012; Fetchenhauer & van der Vegt, 2001; Knack & Keefer, 1997; Zak & Knack, 2001). To be sure, though, trust is crucial,

not only on a societal level but also relates to successful collaborations in organizations (Dirks & Ferrin, 2002; Fulmer & Gelfand, 2012; Kramer, 1999) as well as relationships among individuals (Campbell et al., 2010; Rotenberg et al., 2005; Simpson, 2007) and their well-being (Barefoot et al., 1998; Chan et al., 2017; Giordano et al., 2019; Poulin & Haase, 2015).

Nevertheless, regardless of how big a decision and its consequences are, at its core, every trust decision involves a willingness to be vulnerable to another party's actions (Mayer et al., 1995). When trust is well-placed, it can be rewarding—for instance, when it saves us from the hassle of packing up all our belongings every time we need to use the restroom at a café, only to unpack them again afterward. However, when one returns to find their belongings have been stolen, it is clear that in that moment, it would have been better not to trust others. In other words, to trust someone is to take a risk. However, is that all it is—a mere gamble we are willing or unwilling to take? A plethora of observations suggests otherwise (see, e.g., Dunning et al., 2019; Johnson & Mislin, 2011).

Take the following situation: Imagine you are randomly paired with a stranger for a one-time, anonymous interaction. At the start, you receive some money ($5) and are free to decide whether to keep it and end the interaction (i.e., to distrust) or send it to the unknown person (i.e., to trust). In the latter case, the amount would be increased (by another $15) before it is passed to the unknown person. The stranger would then be free to choose whether to keep the full amount ($20) for themselves, leaving you with nothing, or to share the money equally between you ($10 each). What would you choose? Would you keep the money or send it to the stranger?

Across multiple scientific disciplines and variations of this game-theoretic paradigm, known as the trust game (Berg et al., 1995; Dunning et al., 2019), the research has consistently shown that people frequently place trust in strangers (i.e., actual behavioral trust), even in situations where it does not seem like the rational choice (Dunning et al., 2019; Evans & Krueger, 2016; Fetchenhauer et al., 2020; Fetchenhauer & Dunning, 2012). Naturally, expectations play a role: Individuals are more likely to trust others as their expectations of a positive return

increase (Dunning et al., 2019; Evans & Krueger, 2014, 2016). Also, albeit only to a very limited extent, risk-seeking individuals—those characterized by a greater willingness to take risks for a potentially greater gain over a certain but smaller gain—tend to trust more (Kanagaretnam et al., 2009). However, behavioral trust even goes beyond what would be supported by individuals' attitudes toward risks (Kanagaretnam et al., 2009) and expectations of others' trustworthiness (i.e., whether they would share the money equally), and thus whether their trust will be rewarded (Dunning et al., 2019; Evans & Krueger, 2014; Fetchenhauer & Dunning, 2009). What is more, although what people want to do is important—that is, their personal preferences on how to decide (Thielmann & Hilbig, 2017)—many still choose to trust even when they report that they do not necessarily want to take the risk (Dunning et al., 2014, 2019). Accordingly, trust can also hardly be compared to other gambling behaviors (Ben-Ner & Halldorsson, 2010; Eckel & Wilson, 2004; Houser et al., 2010).

What is it, then, that makes individuals *go beyond* what they want and give others the benefit of the doubt when it comes to actually trusting? Trust, it appears, also revolves around demonstrating respect for another person—an internalized norm that discourages openly questioning another's *moral character*. This seems to contribute to a phenomenon referred to as "principled trustfulness"—that is, excessive trusting given one's skepticism about others' morality (Dunning et al., 2014). In other words, this means that individuals might hesitate to pack away their belongings in a café when using the restroom so as to avoid signaling to the person sitting next to them that they think they might steal their things.

At the heart of this thesis is the observation that this factor, which we believe influences behavioral trust, actually addresses only one dimension of others' trustworthiness—that is, others' morality (see Chapter 2). Yet, when people decide whether to trust someone, it often hinges not on that person's intentions but rather on their ability to fulfill trust—that is, others' competence—for example, relying on our coworkers to complete tasks on time during a team project, trusting a physician to perform surgery successfully, or relying on a mechanic to correctly perform an oil change. Similarly, after the traffic-light coalition (*Ampelkoalition*) in

Germany failed and lost its majority in the federal parliament, Scholz's vote of confidence—as a means to dissolve the parliament—related more to his ability to push through legislative proposals than to his willingness to address important political issues and decisions. Although competence, alongside morality, is regarded as one of the two dominant dimensions in social judgment (e.g., Fiske, 2018), and although scholars, particularly in organizational psychology, differentiate these dimensions of trustworthiness (e.g., Mayer et al., 1995), a systematic comparison between trust in morality and trust in competence is missing (see, e.g., Evans & Krueger, 2009; Thielmann & Hilbig, 2015, also Chapter 2).

Thus, the questions arise: How do individuals approach situations that require trusting others' competence rather than their morality? Do they show excessive risk-taking, or do they let risk and reward dictate their decisions? Do they extend the benefit of the doubt to others in order not to hurt their feelings? Will individuals shy away from potentially signaling to others that they perceive them as incompetent, as a sign of respect, or not? The goal of this thesis is to reveal the answers to these questions.

Overview of the empirical research

This thesis guides us through four empirical projects comprising a total of ten quantitative studies and involving 9,855 recruited participants (7,935 as trustors) to investigate whether, akin to trust in others' morality, there is principled trustfulness in others' competence. It begins by establishing the methodological and empirical foundation of the general phenomenon under investigation (Chapters 2 and 3). More specifically, trust in competence was compared to trust in morality and risk-taking in lotteries under equal chances of reward. It then continues with an examination of individuals' expectations about others' emotional responses to trust and distrust (Chapter 4), and of the potential signals involved in the respective trust decisions (Chapter 5), with each of the following chapters addressing open questions and sequentially building on the findings from the preceding chapter.

In Chapter 2, Detlef Fetchenhauer, David Dunning, Daniel Ehlebracht, Thomas Schlösser, and I examined key findings in interpersonal trust research. We emphasized that

experimental social psychology has primarily concentrated on trust in morality while mostly neglecting trust in competence (e.g., Thielmann & Hilbig, 2015). This is also evident by the methods employed in experimental social psychology to investigate trust—the trust game—which only assesses behavioral trust in another's morality rather than their competence. Thus, in Chapter 2, we had two primary objectives. First, we introduced an equivalent game-theoretical method for exploring behavioral trust in competence: the competence game (see Schwieren & Sutter, 2008; Zheng et al., 2023 for related paradigms), in which participants could wager money on whether their interaction partner would pass a competence test (e.g., an intelligence test). Second, we determined whether individuals confronted with this competence game showed greater risk-taking behavior compared to situations that did not require signaling doubts about an interaction partner's traits, as is the case in traditional trust games. On the one hand, we argued that trust in competence might align with trust in morality, wherein individuals exhibit a tendency toward principled trust. This is supported by research suggesting that morality and competence are typically viewed as the two most important dimensions in self-judgment and social judgment, with both traits generally perceived as desirable (Wojciszke, 2005). Conversely, we also suspected that trust in competence may depend more on the objective likelihood of that trust being rewarded, for example, since a random encounter with a competent interaction partner is a matter of chance, given that being competent is less controllable than being moral in this context (Heider, 1958; Weiner, 1985). On the one hand, the results across all studies show that participants exhibited less trust in others' competence than in their morality under otherwise equal circumstances. On the other hand, participants were more inclined to take risks in competence games than in non-social lotteries. However, this was only the case when someone else's opportunity to receive a reward depended on it.

These results suggest that an individual's trust in competence could still be principled in some way, although to a much lesser extent than in trust games. However, this is likely to be not so much due to a reluctance to question another's competence but rather a distinct

prosocial motivation, such as avoiding leaving them empty-handed or an aversion to inequality (Choshen-Hillel & Yaniv, 2011; Kroll & Davidovitz, 2003). In Chapter 3, I built on this empirical result and tested whether a potential moral norm to trust in another's competence depended on the specific competence in question, as people perceive some competencies to be less important for themselves and, consequently, for their self-concept, than others (e.g., Crocker et al., 2002, 2003; Pelham, 1995; Pelham & Swann, 1989). By using a variety of competence games along with different competence tests, I replicated and extended the earlier findings. Individuals demonstrated a notably greater willingness to trust others' morality than their competence, while trust in competence mirrored risk-taking in lotteries, regardless of the competence dimension in the test.

In Chapter 4, Detlef Fetchenhauer and I took a preliminary step to explore the mechanisms behind the greater willingness to trust others' morality over competence. We also aimed to explain the tendency to trust others' competence more when it was the only way for them to receive a reward. As previously argued, distrust (arguably inevitably) sends a negative signal about our perception of another's morality or competence. Since both morality and competence are viewed as desirable traits (Wojciszke, 2005), distrust must evoke unpleasant self-conscious emotions and trust pleasant ones—an assumption that is supported by the research (e.g., Baer et al., 2021; Poggi & Errico, 2018; Schutter et al., 2021). However, since most people prefer to be viewed as moral rather than competent (Abele & Wojciszke, 2007; Goodwin et al., 2014; Van Lange & Sedikides, 1998; Wojciszke, 2005), individuals may have anticipated that their distrust in others' competence would be less unpleasant than their distrust in morality, ultimately resulting in a lower willingness to trust, as observed in Chapters 2 and 3. To test this, we 1) examined how participants expected to feel about being trusted and distrusted in their morality and competence, respectively. 2) We explored what individuals expected trust and distrust in morality and competence might feel like to their interaction partners and whether these expectations predicted trust behavior. Across three studies, the results indicated that distrust was perceived as unpleasant, while trust was perceived as pleasant. Strikingly, however, one's own competence—considerably more so than one's own morality

when being trusted or distrusted in one's morality—determined how being trusted and distrusted in one's competence was expected to feel. Additionally, participants mostly expected others to experience these emotions in a similar way and preferred to trust their interaction partners if they believed it would foster more pleasantness than distrust. This tendency partially explained the greater trust in morality compared to competence, as it fully accounted for participants' inclination to trust more in competence where it was the only means for someone else to receive a reward.

Thus, individuals did consider how their actions might make their interaction partners feel. However, this anticipation likely centered on the potential financial outcome for others rather than the signal their actions conveyed about others' assumed competence. Thus, in Chapter 5, Detlef Fetchenhauer and I conducted a final test to examine whether participants considered whether and what their actions might reflect about their perception of others. In doing so, we argued that trust in competence does signal one's perception of another's competence, although to a much lesser degree than trust in morality reflects one's perception of someone's morality. This is based on research showing that moral behaviors (particularly immoral behaviors) are typically seen as more diagnostic (i.e., indicative) of a person than acts of competence (particularly acts of incompetence) are (Wojciszke et al., 1993). The more diagnostic the behaviors are perceived, the greater the distrust and trust is likely to be considered a sign of how one perceives others' actual traits. If trust in competence was also somewhat concerned with avoiding questioning someone, then the relatively weaker insight that competence provides into a person's dispositions—compared to morality—might have resulted in the lower willingness to trust. Thus, in two studies, we asked participants to indicate how much they could discern about another person based on their decision in the trust game and based on their performance in the competence game. As expected, morality in the trust game was perceived to be more diagnostic than competence in the competence game. However, while participants placed greater trust in their interaction partners' morality when they saw others' morality as a strong indicator of their disposition, this was disregarded in the case of others' competence.

Finally, Chapter 6 offers a concise meta-analysis that highlights the consistent tendency to place more trust in others' morality over their competence, as observed in Chapters 2 through 5. Additionally, Chapter 7 presents an integrative discussion of the empirical research from Chapters 2 to 6 and outlines directions for future research.

Open science statement and contributions of the authors

All research presented in this thesis complies with the ethical standards of the APA Ethics Code and the guidelines of the German Psychological Society (DGPS). Informed consent was obtained from participants prior to their involvement, and participants could withdraw from the studies at any time without any explanation. Data collection was completely anonymous. Following open science practices, all data exclusions, experimental manipulations, conditions, and measures used in the studies have been disclosed. Sample sizes were determined prior to data collection (Simmons et al., 2012). All study materials and anonymized data are available via the Open Science Framework (OSF).

Chapter 2 is based on a research article co-authored with Detlef Fetchenhauer, David Dunning, Daniel Ehlebracht, and Thomas Schlösser that was submitted to and is currently under review in the *Journal of Behavioral Decision Making*.[1] Detlef Fetchenhauer is the main author of the manuscript. I prepared materials, conducted the studies, as well as analyzed and reported the data. Daniel Ehlebracht and Thomas Schlösser contributed to the analysis and reporting of the results. David Dunning, Daniel Ehlebracht, Thomas Schlösser, and I contributed to the theorizing and empirical study planning, as well as assisted in the preparation of

[1] This article was accepted for publication between the examination of this dissertation and its publication: Fetchenhauer, D., Dunning, D., Ehlebracht, D., Graczyk, T., & Schlösser, T. (2025). Behavioral trust in competence versus morality: Experimental evidence of differences and similarities. *Journal of Behavioral Decision Making*. https://www.doi.org/10.1002/bdm.70037

the manuscript. This research article serves as the foundation for the following research articles. Accordingly, they will be submitted as soon as the research article from Chapter 2 has been published.

Chapter 3 is based on a single-author article. A version of this article is planned for submission to *Frontiers in Psychology*. I designed and conducted the study, analyzed the data and wrote the manuscript.

Chapter 4 is based on a research article co-authored with Detlef Fetchenhauer. A version of this chapter is planned for submission to the *Journal of Economic Psychology*. I designed and conducted the studies, analyzed the data, and wrote the manuscript as the main author. Detlef Fetchenhauer advised on the experimental methods and preparation of the manuscript.

Chapter 5 is based on a research article co-authored with Detlef Fetchenhauer. A version of this chapter is planned for submission to the *Personality and Social Psychology Bulletin*. I designed and conducted the studies, analyzed the data, and wrote the manuscript as the main author. Detlef Fetchenhauer provided guidance on the manuscript's structure and preparation.

Chapter 2

Trust in competence: A hesitation to doubt? Or to risk?

"The best way to find out if you can trust somebody is to trust them."

— Ernest Hemingway,
Selected Letters 1917–1961

Let us briefly imagine a situation that many of us, especially those in densely populated cities, might relate to. After circling the block for what feels like forever, your friend finally spots a small parking spot. The best part is that it is basically directly opposite the flat. So, they pull up beside it, ready to parallel park. First attempt—angled all wrong. Second attempt—too far from the curb. Third attempt—close but still not quite in. Would you tell them to call it a day and drive off, or would you even consider offering to take over and park the car? Or would you hesitate to do this in order to avoid questioning their parking skills, while simultaneously risking the chance of them finding a new parking spot nearby, the longer they try? And if you offered to take over, do you think your friend would accept your offer and trust you to park, even though they think you might not be able to fit into the small spot and maybe scratch their car?

As noted in the introduction, this is what people tend to do when it concerns others' morality—they hesitate to openly question another's moral character, prompting them to trust

(Dunning et al., 2019). The situation above, however, exemplifies a trust situation that pertains to your friend's competence, not their moral character. And such a situation can also be modeled within a game-theoretic paradigm (e.g., Schwieren & Sutter, 2008). In Chapter 2 (and all subsequent chapters), we modeled trust in others' competence as a binary version closely resembling the trust game (see Chapter 1). For example, once again, imagine being randomly paired with a stranger for a single interaction. You receive a sum of money ($5) and can decide whether to keep it (i.e., to distrust) or to send it to the stranger (i.e., to trust). In the latter case, both of you end up with $10 each if the stranger answers at least five out of ten (e.g., intelligence) test questions correctly, but you both receive $0 if they answer fewer correctly. How would you choose in this situation compared to the trust game introduced before? Would you keep the money or send it to the stranger?

The question arises as to whether behavioral trust in competence is reflected by a hesitation to doubt another's competence, similar to trust in another's morality—resulting in excessive behavioral trust given somewhat pessimistic expectations. Alternatively, behavioral trust in competence may manifest as a regular decision made under risk, which individuals typically hesitate to undertake (Kahneman & Tversky, 1979; Kroll & Davidovitz, 2003). In the following chapter, we will explore where trust in competence fits between trust in morality, on one hand, and simple risk-taking decisions, on the other.[2]

[2] The research in the following chapter was funded by the Deutsche Forschungsgemeinschaft (DFG, DFG, German Research Foundation – 432688942) awarded to Detlef Fetchenhauer and Daniel Ehlebracht, as well as partially financially supported by a student grant from the Center for Social and Economic Behavior (C-SEB – Rd12-2021-StudAw-Graczyk) at the University of Cologne awarded to me. These organizations did not exert any influence on the research, reporting or publication process.

Introduction

Trust is vital for the functioning of social relationships (Simpson, 2007), organizations (Kramer, 1999) and societies at large (Knack & Keefer, 1997; Paxton, 2002; Uslaner & Brown, 2005; Zak & Knack, 2001). Consequently, in the last three decades, much research in judgment and decision making has been devoted to analyzing the antecedents and consequences of trust, focusing on the "trust game" (originally called "investment game," see Berg et al., 1995), in which participants choose whether to invest money in an anonymous stranger they will never meet who might return the money back with a profit, or might instead just keep all the money for themselves.

However, the trust game only measures trust in another person's moral character. The main question is whether the other person will make a choice that counters their own self-interest to benefit the person who favors them with trust or will act instead out of pure selfishness. Such questions in everyday life, of course, are of crucial importance, but they neglect another important dimension of trust, whether to rely on another person's competence (e.g., Zheng et al., 2023). To prove trustworthy, for example, a family doctor must not only have an attentive and generous disposition, but also knowledge of disease, diagnosis, and treatment.

In this paper, we aim to find how trust in another person's competence compares to trust in another person's morality. We therefore developed a new game theoretical paradigm (which we call the *competence game*), in which "Persons A" must decide whether to trust "Persons' B" ability to solve a certain task, and that otherwise mirrors the pay-off structure of ordinary binary trust games. We focused on two potential patterns people might show in their decisions in competence games. First, they might show "principled trustfulness" as they do in the traditional trust game, sending money to Person B out of an unwillingness to signal their distrust (see Dunning et al., 2019, for a review), even when they expect to lose money. Second, they might instead pursue trust in competence as a rational investment—thus risking trust only when expecting a positive material reward for such trustfulness. Thus, in four studies, we

compared trust behavior related to another's competence and another's morality, along with basic risk-taking, testing these two potential empirical outcomes against each other.

Trust in morality

Over the past few decades, studies of the trust game have produced vexing results that defy explanation, at least at first blush. In the binary version of this game, two people interact under conditions of total anonymity. Persons A are given, for example, $US5 that they can either keep for themselves or send to someone else (Person B). If Persons A send their money to Person B this amount is multiplied by 3 (thus, Persons B get $US15). In the next step then, Persons B are free to decide whether they keep all the $US15 for themselves or whether they split the money evenly between themselves and Person A (for overviews see Evans & Krueger, 2016; Johnson & Mislin, 2011; Thielmann & Hilbig, 2015). Although simple and spare, the trust game covers one central aspect of trust: by sending their money, Persons A makes themselves vulnerable to the preferences of Person B (see Mayer et al., 1995; Rousseau et al., 1998). Thus, the trust game does measure the trustfulness of Persons A and the trustworthiness of Persons B.

According to a strict rational actor perspective, Persons B should never be trustworthy and Persons A therefore should not be trustful (Berg et al., 1995). Yet, empirical outcomes belie these expectations. Majorities of Persons A choose to trust, and vast majorities of Persons B reciprocate in return (Dunning et al., 2014, 2019; Evans & Krueger, 2016; Fetchenhauer & Dunning, 2009, 2010; Schlösser et al., 2016), violating the straightforward tenets of the rational actor model. More striking, these violations occur even though people hold expectations that are in line with that rational actor model. Indeed, most participants expect Person B to keep the money, and they forecast a negative return for any investment in that person they may make. To be sure, in doing so, they greatly underestimate the trustworthiness of others (Fetchenhauer & Dunning, 2009, 2010), as they more generally tend to underestimate others' willingness to be kind and helpful (Bohns, 2016). However, their subsequent trust behavior does not follow their expectations, even when clearly stated, as they frequently then choose to

trust the other person with their money. Ultimately, in trust games, people tend to be much more risk-taking than they are in other risky decisions with identical pay-off structures, incentives, and risks (Evans & Krueger, 2016; Fetchenhauer et al., 2020; Fetchenhauer & Dunning, 2009, 2012).

Thus, this previous work makes an important distinction between trust as cognition (i.e., Persons' A expectations about Persons' B trustworthiness) and trust as behavior (i.e., choosing to send the money) (Dunning et al., 2012). In most treatments of trust (e.g., Rousseau et al., 1998), cognition and behavior are considered equivalent. Positive expectations about Persons' B trustworthiness are a necessary condition for trust on a behavioral level—an axiomatic truth so assumed that it does not seem to require empirical confirmation (Bhattacharya et al., 1998; Lewicki et al., 1998; R. C. Mayer et al., 1995; Rempel et al., 1985). However, research shows that cognitive trust and behavioral trust are only weakly correlated (Dunning et al., 2014, 2017, 2019; Evans & Krueger, 2016; Fetchenhauer et al., 2017; Fetchenhauer & Dunning, 2009). Although many definitions of trust—for example, „*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 part*" (Mayer et al., 1995, p. 712)—refer to risk-taking as one of its central components (e.g., Mayer et al., 1995; Rousseau et al., 1998), neither individual risk attitudes nor behavior in other kinds of gambles predict the behavior of Persons A in trust games (Ashraf et al., 2006; Eckel & Wilson, 2004; Fetchenhauer & Dunning, 2012; Houser et al., 2010; Kanagaretnam et al., 2009).

In sum, trust in behavior appears importantly concerned with signaling one's respect to a potential trustee (Dunning et al., 2012, 2014; Evans & Krueger, 2016). People hold an internalized norm not to openly question the moral integrity of another person, and report becoming anxious at the prospect of doing so (Dunning et al., 2014; Fetchenhauer et al., 2020; Fetchenhauer & Dunning, 2009, 2012).

Trust in competence?

However, although Mayer et al. (1995) clearly distinguish between the morality (or benevolence and integrity) and competence (or ability) dimensions of trustworthiness, there is surprisingly little research as to when and why people trust if another person's *competence* is in question. This omission is a surprise. Humans perceive each other along two main dimensions—competence and morality (Martin & Slepian, 2017; Wojciszke, 2005), with the competence dimension referring to attributes like *smart*, *intelligent*, *skillful,* or *competent*, and the morality dimension referring to attributes like *warm*, *caring*, *fair,* or *loyal.* This idea is at the core of many theories of person perception, although these theories use different terms for these two dimensions: intellectually good–bad versus socially good–bad (Rosenberg et al., 1968), agency and communion (Gebauer et al., 2013; Helgeson & Fritz, 1999; Ybarra et al., 2008), competence versus morality (Wojciszke, 2005), or warmth versus competence (Fiske et al., 2002, 2007; Judd et al., 2005). Thus, based on the high relevance of these two distinct dimensions in person perception, they have been named the "Big Two" (Martin & Slepian, 2017).

Trust in competence plays a major role in diverse fields of human endeavor. For example, research about "epistemic trust" has shown that both children and adults regard the putative expertise of informants when evaluating the quality of information (McGinnies & Ward, 1980; Mills, 2013; Pornpitakpan, 2004; Shafto et al., 2012). Basic theories of persuasion, such as the Yale School, highlighted both dimensions in their analysis of what makes a good persuader. A credible source must be honest and fair on the one hand, coupled with being knowledgeable and intelligent on the other (Hovland et al., 1953).

The importance of competence has been acknowledged in applied fields like marketing (Doney & Cannon, 1997; D. Johnson & Grayson, 2005; Selnes, 1998; Swan et al., 1999), risk communication (Earle, 2010; Twyman et al., 2008) and for institutions (Earle & Siegrist, 2006). Trust in competence has also been investigated in relationships between medical doctors and their patients (Hall et al., 2001; Leisen & Hyman, 2004; Pearson & Raeke, 2000), as

well as for trust in politicians (Citrin & Green, 1986; Levi & Stoker, 2000) or psychology of law (Brodsky et al., 2010; Neal et al., 2012).

Further, theorists in organizational psychology make a clean distinction between trust in competence and trust in morality (Costigan et al., 1998; R. C. Mayer et al., 1995; McAllister, 1995). Specifically, Mayer et al. (1998) differentiate three factors of trustworthiness: ability, integrity, and benevolence, which are largely based on Aristotle's definition of the ethos of a speaker: intelligence, character (reliability, honesty), and goodwill (favorable intentions). In a similar vein, we differentiate between competence (ability) and morality, where the latter combines the dimensions of integrity and benevolence. Trust in competence is an important component of both trust in organizations (for a review see Fulmer & Gelfand, 2012; Kramer, 1999) as well as trust in leadership (Burke et al., 2007).

The competence game

To explore trust in competence, we developed a new game-theoretical paradigm. The competence game allows us to study competence like trust in morality (Schwieren & Sutter, 2008; Zheng et al., 2023). As in the trust game, two people interact with each other under total anonymity. Persons A receive money that they can either keep or send to Person B. If Persons A choose to send the money, the outcome of both players depends on whether Person B passes a certain performance. For example, both Persons A and Persons B attempt to solve 10 items on a standard intelligence test. They are then randomly assigned to be Person A or Person B. Persons A are given $US5 that they can keep or send to an anonymous Person B. If they send the money to Person B, there are two potential outcomes. If Person B has solved at least five items in that intelligence test, both persons go home with $US7.50. If Person B has solved fewer than five, both persons go home with nothing.

We argue that this game is an appropriate way to measure trust in another participants' competence. As in the trust game, trust in competence is a risky choice in which Persons A make themselves vulnerable to Person B. However, instead of making themselves vulnerable to Person B's morality, they do so to Person B's competence. When trust is warranted, Person

A is better off when trusting that other person. When trust is unwarranted, Person A is better off by keeping their money for sure. When playing both games with identical pay-off structures and chances to win for Person A, it is possible to directly compare the willingness to trust in both the trust game and the competence game. Additionally, it is possible to investigate whether people can accurately estimate the competence of their fellow participants and, thus, whether the trust they show behaviorally is grounded in a rational analysis of the situation. Most importantly, it is possible to measure whether people engage in "excessive" and principled trust on a behavioral level, even if they do not expect that person to solve the task at hand.

That said, we note a basic difference between trust games and competence games. In trust games, there is an indissoluble conflict of interest between Persons A and B, as a self-interested trustee will always keep all the money when being sent the money by Person A. Such a conflict does not exist in the competence game: both Persons A and Persons B profit if Person B can pass the criterion of competence. We argue that this difference aligns with many situations in real life. For example, both the pilot and the passengers of an airplane are interested in a safe landing.

Two predictive accounts for trust in competence

Given what the literature has shown about trust in morality, what are the predictions to be made about trust in competence? How will participants behave in the competence game as described above in comparison to trust games, or to risky, nonsocial gambles?

We assert that two perspectives are plausible.

The Respect Hypothesis

First, we can argue that trust in competence follows the same norms revealed in the work on trust in moral character, with people showing principled trustfulness. According to this perspective, people are averse to questioning the competence of another person and will shy away from openly signaling their skepticism about their other person's aptitude. Persons A will choose the risky option more often in competence games than their expectations would

suggest and in lottery paradigms with identical pay-off structures and chances of winning. Further, if Person B is allowed to state their preference Persons A will follow Persons' B request on whether to trust their competence independent from information about Persons' B objective level of competence.

This perspective follows from the observation that many competence-related traits (e.g., *intelligent, wise, mature, imaginative*), much like morality-related ones, are desirable relative to their opposites (Alicke, 1985; Anderson, 1968). Indeed, morality and competence are often cited as the two most important evaluative dimensions in self and social judgment (Cwalina & Falkowski, 2016; Wojciszke, 2005). Thus, people will avoid calling the intelligence and knowledge of another person into question.

The Rational Investment Hypothesis

However, trust in competence may differ from trust in morality, taking place more as rational investment. Accordingly, people make their decisions based on their objective chances of winning or losing money, the pay-off structure of a given competence game and their individual preference for risk-seeking. According to this perspective, behavior in competence games will more resemble behavior in non-social decisions under risk and uncertainty. Further, if Person B is allowed to state their preference Persons A will ignore it and will instead rely on Persons' B objective level of competence to make their choice.

This perspective follows from some crucial differences between morality- and competence-related traits. Morality-related traits are seen as under control of the individual. Whether a person is trustworthy, honest, or fair is their choice and an expression of their free will. Competence, however, is more uncontrollable (Alicke, 1985). Thus, trusting another person's competence is different from trusting morality in three different respects. First, people may learn to trust unproven morality in real life because it might prompt the person to act in a trustworthy way via reciprocity (Falk & Fischbacher, 2006). In contrast, trust in competence does not ensure adequate skill in the other person. Trusting another person's competence, then, opens the trustor to a lottery in that there is no guarantee that the other person can

reciprocate trust via skill and intellect, and people are typically averse to uncertainty and risk (Kimball, 1993; Morin & Suarez, 1983).

Second, if a person violates trust in morality, the attribution for that violation lies with the other person—they are responsible for being untrustworthy when they could have avoided it. In a competence task, if a person fails a task another person's decision assigned them to do, the responsibility for the failure is shared by the trustor who put the person up to it. Third, people may wish to avoid the potential of embarrassing other people by placing them in a position where they could fail.

Finally, although both competence and morality are central dimensions of human judgment, there is evidence that most people wish more to be considered moral than competent (Allison et al., 1989; Landy et al., 2018; Strohminger & Nichols, 2014; Van Lange & Sedikides, 1998). Thus, to the degree that people might have an intuition about this effect, it might be easier to signal one's doubts about another person's competence than to signal one's doubts about another person's morality.

Summary

Both accounts, trust in competence as a matter of respect as well as trust as a matter of rational investment, appear plausible. Thus, we did not want to make specific predictions as to which of these two perspectives might be correct, but rather tested both of them in the remainder of this present manuscript.

Overview of studies

In four studies, we examined whether trust behavior in the competence game aims to signal respect to one's interaction partner or represents a rational decision governed by expectations of risk and reward. To do so, in Studies 1 to 3, we compared behavior in competence games with that in trust games. Additionally, in Studies 2 and 3, we compared behavior in competence games with risk-taking in nonsocial lotteries. Additionally, in Study 3, we used a

paradigm in which not only the participants, but also another person was attached to the outcome of participating in a lottery. In doing so, we aimed to answer whether participants in competence games show risk-taking behavior similar to their level of risk-taking in lotteries, or whether they show an excess of risk-taking when compared to situations where they do not have to signal their doubt about an interaction partner's morality or competence?

Finally, in Study 4, we played competence games and gave participants information about the performance of their interaction partner in an earlier test. Independently, we also gave them information on whether their interaction partner wanted them to trust or not to trust in their competence. In this way, we could gauge how much weight participants gave to their partner's preferences (as they should if under principles of interpersonal respect) versus their own self-oriented chances of economic gain (as they should under a rational investment model). Thus, we could put the respect and rational investment hypotheses under a direct competitive test.

The data reported in this manuscript and the corresponding materials are available at: https://osf.io/g298s/?view_only=3a9559775470 46e1adb5441276bc03d1. The studies presented were not pre-registered. We report all measures, manipulations and exclusions (sample sizes were determined before data collection).

Study 1

The goal of Study 1 was to compare choices in the standard trust game (TG) with our newly developed competence game (CG), seeing whether people differed in their perceptions of the trustworthiness of Person B and their decisions to trust.

Method

Sample. A total of 337 students were recruited in July 2019. Excluded were 21 participants who made at least one mistake answering six control questions, resulting in a final sample of 316 participants (165 women, 147 men, 4 diverse or unspecified) aged between 18 and 53 years (M = 23.35, SD = 4.21). For this sample size, a sensitivity analysis for a two-tailed McNemar's

test (α-error = .05, 1 – β-error = .80) and a proportion of discordant pairs of 32% indicated a minimum detectable *OR* = 1.80.

Procedure. After providing a personal code word, participants completed a general knowledge quiz with a €50 grand prize that would be raffled among the best contestants. The quiz comprised ten multiple-choice questions (e.g., "Which is the official language of Guatemala? A) French, B) English, C) Dutch, D) Spanish") answered in no more than three minutes. No aids were allowed. Participants then learned that they would take part as Person A and Person B in two different decision-making situations, each involving two interaction partners and that their behavior (either as Person A or Person B) in only one of these situations would involve real-life monetary consequences. Participants faced both games in a random order (i.e., either starting with the trust game or the competence game, followed by the other game respectively).

In the trust game, Person A was endowed with €5 and presented with two alternatives: Alternative 1 was to keep the €5, resulting in a payoff of €5 for Person A and €0 for Person B. Alternative 2 was to send the €5 to Person B. If Person A chose this, the €5 was supplemented by another €10 before being delivered to Person B. Person B could, in turn, choose between two alternatives: Alternative 1 was to keep all €15 and send no money back to Person A. Alternative 2 was to split the money evenly, sending €7.5 back.

Participants were asked to estimate which percentage of Persons B would decide to keep the €15 for themselves or send €7.5 back to Person A, respectively, if Person A chose to send their €5 to Person B. The latter percentage was used as a measure of participants' cognitive trust in others' morality (i.e., their expectations of others' trustworthiness), as in previous research (e.g., Dunning et al., 2014; Fetchenhauer & Dunning, 2009), with participants informed that another €50 would be given to the participant with the closest estimate, thus incentivizing accuracy. Participants then indicated their decision to send or keep their €5 as Person A, assessing their trust at the behavioral level. Finally, participants made their decision as Person B, serving as a measure of behavioral trustworthiness.

The competence game was introduced exactly like the trust game, including the basic set-up of the game and the alternative choices of Person A (i.e., keeping or sending the €5). However, in the event that Person A decided to send their €5 to Person B, payoffs would depend on the number of questions Person B had previously answered correctly in the general knowledge quiz: If Person B answered fewer than five questions correctly, the money was lost and both Person A and Person B would leave the game with €0. If Person B answered five or more questions correctly, both interaction partners would receive a payoff of €7.5.

After this game description, participants estimated the percentage of participants missing or meeting the specified competence criterion (which was incentivized the same way as in the trust game) and served as a measure of cognitive trust in others' competence. Finally, to measure behavioral trust in others' competence, participants indicated their decision in the position of Person A.

After the completion of both games, participants indicated their basic sociodemographic data and student status, were thanked, and received an instruction sheet explaining the payout procedure.

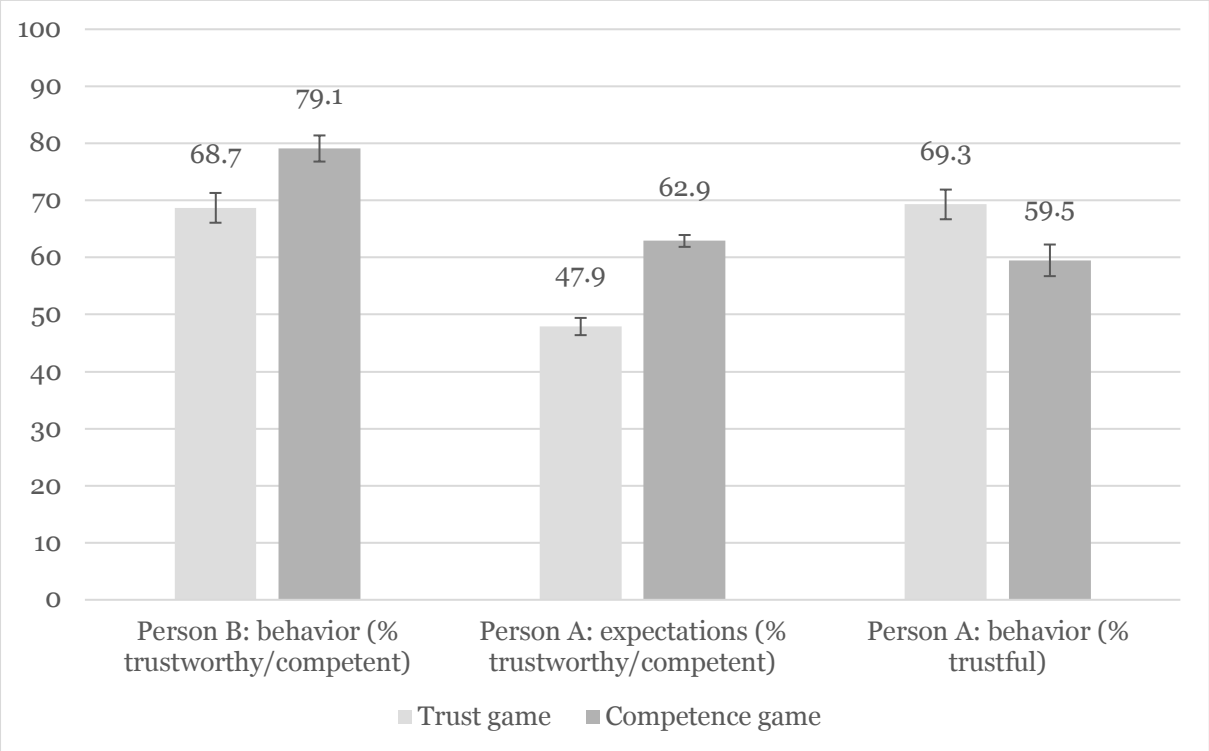
Results and discussion

Overall, it would have been profitable to trust Person B. In the trust game, 68.7% of Persons B split the money evenly with Person A, indicating high levels of trustworthiness, and 79.1% of Persons B answered five or more questions correctly in the competence game and thus, passed the criterion set for competence.

Did their peers, however, trust them? It appears that they did not, at least cognitively. On average, participants estimated that only 47.94% (SD = 26.89) of Persons B would give back money in the trust game and only 62.92% (SD = 18.52) would pass the general knowledge test, respectively. Thus, both trustworthiness in the trust game, $t(314) = -13.71$, $p < .001$, $d = -0.77$, 95% CI [−0.90, -0.65], and skill in the competence game, $t(314) = -15.50$, $p < .001$, $d = -0.87$, 95% CI [−1.00, -0.74], were considerably underestimated.

However, what about trust in terms of behavior? Once again, participants appeared to trust too little, but behavior did not necessarily follow these expectations. Even though participants more optimistically forecast that Person B would pass the test in the competence game than would return money in the standard trust game, $t(314) = 8.42$, $p < .001$, $d = 0.47$, 95% CI [0.36, 0.59], their behavior showed the exact opposite pattern, in that they chose to trust their peers less in the competence game than they did in the standard trust game. Overall, only 59.5% of the participants trusted in the competence game, whereas 69.3% chose to trust in morality (see Figure 1).

Figure 1. *Actual and expected trustworthiness and competence as compared to trust in morality vs. trust in competence*



Note: Error bars depict standard errors.

More specifically, of the 316 participants, 153 (48.4%) trusted and 62 (19.6%) distrusted in both games. Notably, of 101 (32.0%) remaining participants showing inconsistent behavior across the two games, 66 (20.9%) only trusted in the standard trust game and not more than 35 (11.1%) only trusted in the competence game (see Table 1), $\chi^2(1) = 8.91$, $p = .003$, $OR = 4.11$, 95% CI [2.48, 6.80].

Table 1. *Trust game and competence game decisions crosstabulation*

			CG decision		
			distrust	trust	total
TG decision	distrust	count	62	35	97
		% of total	19.6%	11.1%	30.7%
	trust	count	66	153	219
		% of total	20.9%	48.4%	69.3%
total		count	128	188	316
		% of total	40.5%	59.5%	100.0%

Further, analyses showed that trust in morality (b = 0.04, *Exp(B)* = 1.04, p < .001, 95% CI [1.03, 1.05]) and competence (b = 0.06, *Exp(B)* = 1.06, p < .001, 95% CI [1.05, 1.08]) significantly related to expected trustworthiness and competence. However, a significant interaction effect showed a stronger relation in the competence game, b = 0.03, *Exp(B)* = 1.03, p = .015, 95% CI [1.01, 1.05]. Analyses without the exclusion of participants showed no structurally different results.

In sum, participants underestimated Persons' B trustworthiness in the trust game, yet a majority of Persons A went ahead to trust Person B at a behavioral level. A similar pattern emerged regarding the competence game. However, although Persons A were more optimistic about Persons' B competence than they were about their moral character, more participants sent their money to Person B in the trust game than in the competence game. Thus, as in previous research, participants demonstrated principled trustfulness in the trust game. As participants additionally considered their expectations more regarding another's competence, the data from Study 1 indicate that such principled trustfulness is at least considerably weaker in the competence game.

Study 2

Study 2 was a replication and extension. One could argue that the competence criterion of Study 1 might not have been of any relevance to Person B (e.g., who cares about the official language of Guatemala?). Thus, Persons A might not have felt Persons' B self-esteem was in jeopardy, and so keeping the money showed no disrespect toward them. Therefore, in Study 2, we used questions that were obviously similar to those administered in psychometric intelligence testing (Gibbons & Warne, 2019). The trait of intelligence is highly self-relevant to most people, and so it is an issue that people would be more motivated to respect in others (Wojciszke, 2005; Wojciszke et al., 2011).

We also compared trust behavior with the willingness to take non-social gambles with identical potential outcomes. In this way, we could better gauge whether people approach trust in competence like they would an investment that involved only nonsocial prospects and risks. Also, in Study 1, participants were asked to estimate the trustworthiness of Persons B. These estimates may have been influenced by their willingness to trust Person B on a behavioral level. To avoid such ambiguities, in Study 2, we experimentally fixed the likelihood of winning at either a high or low level. Therefore, participants as Person A took part in a 3 x 2 between-subjects experimental design. The first experimental factor was the type of game they faced: trust game (TG) vs. competence game (CG) vs. lottery-game (LG). The second factor referred to the probability of a beneficial outcome (i.e., "winning") for Person A: 32% vs. 68%.

Method

Sample. A total of 2001 participants were recruited via the online crowdsourcing platform Prolific in June 2020. A subsample containing 1101 participants (642 women, 449 men, 10 diverse or unspecified) aged between 18 and 78 years (M = 34.16, SD = 12.42) was recruited to take part as Person B.

After excluding 50 participants who answered at least one comprehension question incorrectly, 850 participants were assigned to the role of Person A (501 women, 342 men, 7

diverse or unspecified), aged between 18 and 82 years (M = 34.07, SD = 12.55). For this sample size, a sensitivity analysis for a two-tailed binary logistic regression (α-error = .05, 1 – β-error = .80, $Pr(Y=1|X=1)$ H_0 = 0.43, π = 0.33) indicated a minimum detectable OR = 1.44. As Person A, participants received a flat payment of £0.50, whereas those as Person B, participants received a flat payment of £0.25 in the trust game and £0.75 in the competence game. Additionally, participants received variable bonus payments according to outcomes in the games.

Procedure. The trust game and competence game were presented in a similar way to Study 1, the only notable exception consisting of a slight modification of the magnitude of incentives if Person A trusted Person B. The initial endowment for Person A of £2 was quadrupled when sent to Person B, who could either divide the £8 evenly or keep the entire amount. The competence game again replicated the incentives in the trust game, leading to a payout of £4 for both players if Person B passed the competence criterion. In the lottery-game, participants received the same initial endowment of £2. If they bet the money, they could either win £4 or go home empty-handed.

Before making decisions, all Persons A were truthfully informed about the probability of interacting with a trustworthy or competent Person B or drawing a winning ticket in the lottery, respectively. In the trust game and competence game, they received the information that Person B had already made their decision (TG) or taken part in the test (CG) in advance, and learned that 32 (vs. 68) out of 100 people assigned to the position of Person B had decided to split the money or passed the test. In the lottery-game, they learned that either 32 or 68 out of 100 lottery tickets were winning tickets. Thus, across all three games, we systematically manipulated participants' objective probability of receiving £4 when deciding to risk their initial endowment. Thus, across three games, we manipulated participants' probability of receiving £4 when risking their endowment. In the 68% condition, the expected value was £2.72, higher than the risk-free payout of £2. In the 32% condition, the expected value was £1.28, lower than the initial endowment.

Whereas the proportion of winning tickets could easily be manipulated in the lottery-game, we used a more complex procedure to avoid deceiving participants in the trust game and competence game. For the 300 Persons A in each of the two games, we needed another 300 Persons B as interaction partners. Of these 300 participants, 150 had to be trustworthy or competent and 150 had to be untrustworthy or incompetent, respectively, allowing us to build another two subsamples with 150 participants each: One containing 48 (32%) trustworthy/competent and 102 (68%) untrustworthy/incompetent interaction partners and the other vice versa. Hence, for each of the two games, we had to keep recruiting participants until obtaining at least 150 trustworthy/competent and 150 untrustworthy/incompetent eligible Persons B.

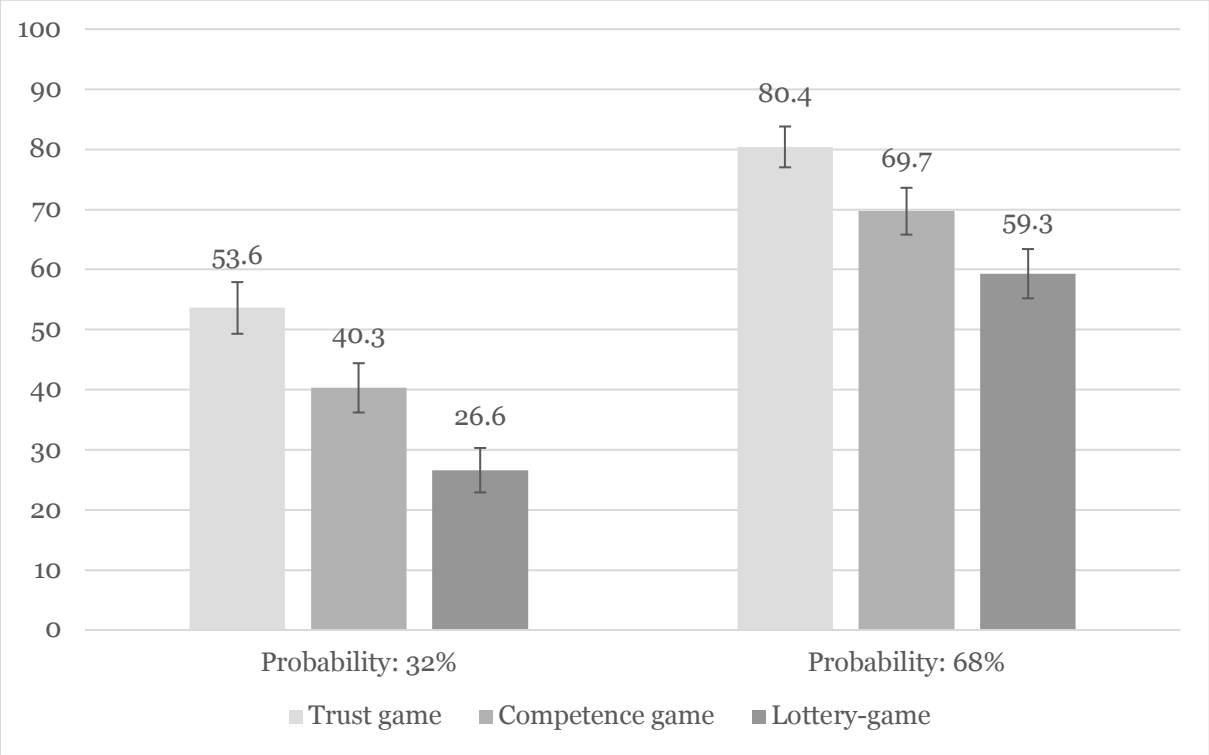
To avoid any deception, Persons B in the trust game or competence game were informed that they would participate in two games, but that only one of the games would be played for real money. The first game was the trust game or competence game, the second game was a coin toss game, allowing participants to bet their money in a fair virtual coin toss. Consequently, we built the final samples of Persons B by assigning trustworthy/competent and untrustworthy/incompetent participants to the respective games until the required quotas were met, with excess participants assigned to the coin toss. In practice, we recruited 350 participants as potential Persons B in the Competence Game (155 incompetent and 195 competent) and 751 as potential Persons B in the Trust Game (152 untrustworthy and 599 trustworthy).

Results and discussion

Given a 32% chance of a beneficial outcome, 40.3% of participants chose to trust in another person's competence, whereas 53.6% decided to put their trust in another's moral character. In contrast, only 26.6% of the participants in the lottery-game were willing to bet their endowment on a 32% chance of doubling it, despite the identical structure of incentives for Person A. However, when the chance of achieving a beneficial outcome rose to 68%, a majority of 69.7% of all participants decided to trust in competence, and 80.4% decided to trust

in morality. At these high odds of winning, 59.3% of the participants parted with their money in the lottery-game (see Figure 2).

Figure 2. *Share of Persons A who parted with their money by game and objective probability of success*



Note: Error bars depict standard errors.

To test whether these differences between the six experimental conditions were statistically significant, we conducted a binary logistic regression with Person A's decision as the dependent variable and the two experimental factors as predictors (for details, see Table 2). Adding an interaction term between game type and probability of winning did not yield a significant increase in model fit, $\chi^2(2) = 0.23$, $p = .891$. We selected the competence game as the reference category and found that Persons A exhibited a significantly higher propensity to send their endowment to Person B in the trust game, *Exp(B)* = 1.75, $p = .002$, whereas they were less likely to bet their money in the lottery-game, *Exp(B)* = 0.58, $p = .002$. We also found that raising the objective probability of a beneficial outcome from 32% to 68% was associated with a significant increase in the odds of Person A parting with their endowment, *Exp(B)* = 3.66, $p < .001$. Analyses without the exclusion of participants showed no structurally different results.

Table 2. *Binary logistic regression analysis of Person A's decision as a function of game type and objective probability of success*

						95% C.I. for Exp(B)	
Predictor	*B*	*SE*	*Wald*	*df*	*Exp(B)*	*Lower*	*Upper*
Game type: Trust game	0.56	0.18	9.32	1	1.75**	1.22	2.51
Game type: Lottery-game	-0.54	0.18	9.17	1	0.58**	0.41	0.83
Probability: 68%	1.30	0.15	75.58	1	3.66***	2.73	4.90
Contant	-0.43	0.14	8.91	1	0.65**		
Model χ^2	113.34						
df	3						
p	< .001						
-2 Log likelihood	1057.09						
Nagelkerke R²	0.17						

Note: The competence game and 32% probability of a beneficial outcome served as reference categories. Two-tails *p < .05, **p < .01, ***p < .001

Thus, irrespective of the probability of a beneficial outcome, Persons A were more inclined to trust in others' morality rather than their competence and even less willing to gamble on a random chance. Likewise, irrespective of the type of game, higher odds of a beneficial outcome increased the willingness to invest the endowment. Thus, as in Study 1, participants showed a strong degree of principled trustfulness in the trust game – even when the chance of approaching a trustworthy Person B was only 32% a majority went for the risky option (the expected value of taking the risky option being £1.28 as compared to £2.00 when choosing the safe option). The tendency to trust in the other person's competence was significantly weaker, although it was higher than in the lottery paradigm. In Study 3, we will investigate whether this actually indicates at least some level of principled trustfulness.

Study 3

So far, one could argue that our results were at least partly driven by a motivation of Persons A to avoid letting Person B go home empty-handed rather than a motivation not to question Persons' B competence. In both the trust game and the competence game, the only way for Person A to give Person B the chance to also earn some money and avoid an inequality of outcomes (Bolton & Ockenfels, 2000; Fehr & Schmidt, 1999) was to send money. The absence of such a motivation in the lottery paradigm might explain the lower level of risk-taking in Study 2.

To avoid such a confound, in Study 3, we first added an additional lottery condition in which the outcome of another person depended on the willingness of Person A to gamble or to choose the safe option, respectively. The payoff structure of this extended lottery-game exactly mirrored that of the competence game. Second, we varied the outcome of Persons B in case Person A did not send the money. Thus, in all paradigms involving another person, we added a condition in which Person B got the same amount of money as Person A in case Person A decided not to choose the risky option.

Method

Sample. A total of 1758 participants were recruited via Prolific in January 2021, using similar selection criteria as in Study 2. A subsample containing 357 participants (196 women, 157 men, 4 diverse or unspecified) aged between 18 and 73 years (M = 34.22, SD = 12.19) was recruited to take part as Person B.

After excluding 69 participants who answered at least one comprehension question incorrectly, 1332 participants were assigned to be Person A (822 women, 504 men, 6 diverse or unspecified) aged between 18 and 80 years (M = 36.17, SD = 13.23). A sensitivity analysis for a GZLM with multiple Bonferroni-adjusted group comparisons in a full factorial model—that is, 3 x 2 between-subjects design (see below)—(α-error = .003, 1 – β-error = .80, $Pr(Y=1|X=1)$ H_0 = 0.63, π = 0.166) indicated for a sample size of N = 1132 a minimum detectable OR = 2.01 or ΔPr = 0.14. As Person A, participants received a flat payment of £0.50; for Person B, participants received a flat payment of £0.25 in the trust game and £0.75 in the competence game. Additionally, participants received variable bonus payments according to their choices in one of the games.

Procedure. Participants as Person A were randomly assigned to one of seven conditions in a between-subjects design. Overall, there were four different games: the trust game (TG), competence game (CG) and extended lottery-game (ELG), all of which involved an interaction partner (Person B), and the lottery-game (LG) introduced in Study 2. Similarly, we duplicated the incentive structure from Study 2: the initial endowment of £2 for Person A was quadrupled when sent to Person B, who could either split the £8 evenly or keep the whole amount in the trust game. Sending the money in the competence game could lead to a £4 payout for both players if Person B met the competence criterion or nothing if Person B did not succeed. The extended lottery-game, new for Study 3, exactly replicated the monetary outcomes of the competence game for both Person A and Person B, while simultaneously using the same lottery mechanism to determine the outcome of the game. That is, the only difference between the competence game and the extended lottery-game was the fact that random chance rather than

Person B's competence decided whether both players left with £4 or £0 each if Person A decided to part with their initial endowment. The games used the same structure of incentives as those in Study 2, with one crucial difference: For all games involving an interaction partner (i.e., TG, CG and ELG), we systematically manipulated whether Person B started with no endowment or whether they too received an initial endowment of £2 (as did Person A).

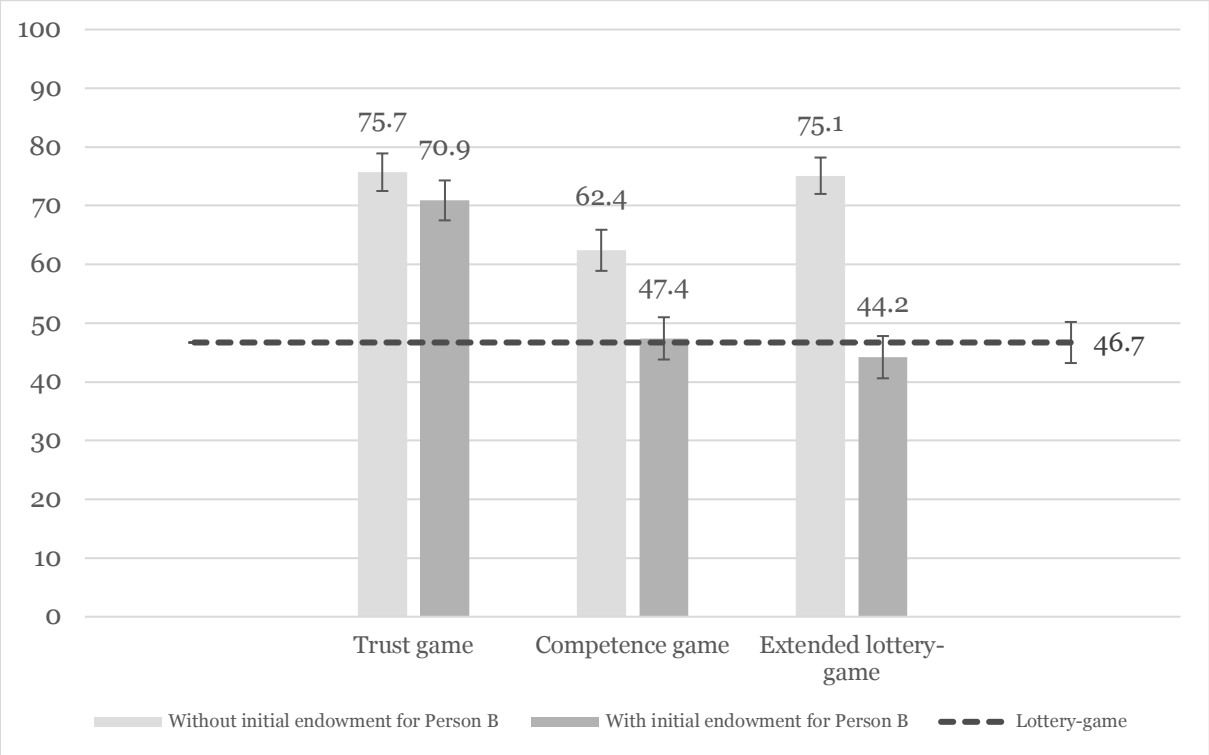
Overall, this resulted in a 3 (TG vs. CG vs. ELG) x 2 (£0 vs. £2 initial endowment for Person B) factorial between-subjects design with the "regular" lottery-game serving as an additional reference point. For all participants, the probability of a beneficial outcome for Person A was set to a fixed 45%. To avoid recruiting a needlessly large number of participants only serving as Person B in the trust game, competence game or extended lottery-game, we informed participants playing Person A that only every fifth participant would receive real money according to their decision. Participants playing Person B were split into two subgroups, with their questionnaires each containing two games. Participants in the first group took part as Person B in the trust game and in the extended lottery-game. Similarly, those in the second group took part as Person B in the competence game, which included similar intelligence test questions as in Study 2, and the extended lottery-game. All participants in the position of Person B were truthfully informed that they would receive real money only in one of the two games. After reaching the required quota of trustworthy/untrustworthy and competent/incompetent Persons B, all remaining participants in either subgroup were assigned to participate as Persons B in the respective extended lottery-game conditions. In practice, to ensure every fifth of the 200 Persons A in the trust games and competence games had an interaction partner, 40 Persons B each (18 trustworthy/competent, 22 untrustworthy/incompetent per condition) were assigned. The remaining 197 Persons B not needed for these quotas participated in one of the two extended lottery-game conditions.

Results and discussion

We conducted a stepwise binary logistic regression with Person A's decision as the dependent variable and game type (trust game vs. competence game vs. extended lottery-game),

endowment (endowment vs. no endowment for Person B) and interaction terms between game type and endowment as predictors. Overall, the estimated model was highly significant, $\chi2(3) = 78.25$, $p < .001$, *Nagelkerke* $R^2 = .09$ (see Model 2 in Table 3). Figure 3 highlights the result of Study 3.

Figure 3. *Share of Persons A, who parted with their money by the game and presence of an initial endowment for Person B*



Note: Error bars depict standard errors.

Table 3. *Stepwise binary logistic regression analysis of Person A's decision as a function of game type and presence of an initial endowment for Person B.*

	Model 1					Model 2				
				95% C.I. for *Exp(B)*					95% C.I. for *Exp(B)*	
Predictor	*B*	*SE*	*Exp(B)*	Lower	Upper	*B*	*SE*	*Exp(B)*	Lower	Upper
Trust game	0.64	0.16	1.89***	1.38	2.59	0.30	0.24	1.03	0.64	1.65
Competence game	-0.20	0.15	0.82	0.61	1.09	-0.60	0.22	0.55**	0.35	0.85
Endowment for both	-0.76	0.13	0.47***	0.37	0.60	-1.34	0.22	0.26***	0.17	0.41
Trust game x Endowment for both						1.10	0.33	2.99***	1.58	5.66
Competence game x Endowment for both						0.73	0.30	2.08*	1.15	3.76
Constant	0.79	0.13	2.20***			1.11	0.17	3.02***		
Model χ^2	66.05					78.25				
df	3					5				
p	< .001					< .001				
-2 Log likelihood	1434.20					1422.00				
Nagelkerke R²	0.08					0.09				

Note: The extended lottery-game and payout regime, including no initial endowment for Person B, served as reference categories. Two-tails *p < .05, **p < .01, ***p < .001

Using sequential Bonferroni-adjusted pairwise comparisons (see Table 4), we found that behavior in the trust game remained virtually unchanged by whether Person B had an endowment (75.7% vs. 70.9%), $p = 1.00$. In contrast, trust in the competence game declined sharply if Person B received an initial endowment (62.4% vs. 47.4%), $p = .022$. The same decline was also observed in the extended lottery-game (75.1% vs. 44.2%), $p < .001$.

Table 4. *Binary logistic regression with Person A's decision as a function of game type and presence of an initial endowment for Person B with sequential Bonferroni-adjusted pairwise comparisons excluding the non-social lottery*

				95% Wald CI for Difference	
I	J	*MD* (I-J)	*p* (seq. Bonferroni)	Lower	Upper
TG (w/o initial endowment for Person B)	TG (w/)	0.05	= 1.00	-0.07	0.16
	CG (w/o)	0.13	= .033	0.01	0.26
	CG (w/)	0.28	< .001	0.14	0.42
	ELG (w/o)	0.01	= 1.00	-0.08	0.09
75.7%	ELG (w/)	0.31	< .001	0.17	0.46
TG (w/ initial endowment for Person B)	TG (w/o)	-0.05	= 1.00	-0.16	0.07
	CG (w/o)	0.09	= .387	-0.04	0.21
	CG (w/)	0.24	< .001	0.10	0.37
	ELG (w/o)	-0.04	= 1.00	-0.15	0.07
70.9%	ELG (w/)	0.27	< .001	0.13	0.41
CG (w/o initial endowment for Person B)	TG (w/o)	-0.13	= .033	-0.26	-0.01
	TG (w/)	-0.09	= .387	-0.21	0.04
	CG (w/)	0.15	= .022	0.01	0.29
	ELG (w/o)	-0.13	= .038	-0.25	0.00
62.4%	ELG (w/)	0.18	=.003	0.04	0.32
CG (w/ initial endowment for Person B)	TG (w/o)	-0.28	< .001	-0.42	-0.14
	TG (w/)	-0.24	< .001	-0.37	-0.10
	CG (w/o)	-0.15	= .022	-0.29	-0.01
	ELG (w/o)	-0.28	< .001	-0.41	-0.14
47.4%	ELG (w/)	0.03	= 1.00	-0.08	0.15
ELG (w/o initial endowment for Person B)	TG (w/o)	-0.31	< .001	-0.46	-0.17
	TG (w/)	-0.27	< .001	-0.41	-0.13
	CG (w/o)	-0.18	< .003	-0.32	-0.04
	CG (w/)	-0.03	= 1.00	-0.15	0.08
75.1%	ELG (w/o)	-0.31	< .001	-0.45	-0.17
ELG (w/ initial endowment for Person B)	TG (w/o)	-0.31	< .001	-0.46	-0.17
	TG (w/)	-0.27	< .001	-0.41	-0.13
	CG (w/o)	-0.18	< .003	-0.32	-0.04
	CG (w/)	-0.03	= 1.00	-0.15	0.08
44.2%	ELG (w/o)	-0.31	< .001	-0.45	-0.17

If Person B did not receive an initial endowment, more Persons A were willing to risk their money in the extended lottery-game than in the competence game (75.1% vs. 62.4%; p = .038), whereas there was no significant difference between the extended lottery-game and the trust game (75.1% vs. 75.7%; p = 1.00). However, as in the studies before, fewer participants exhibited trust in another's competence than in another's moral character (62.4% vs. 75.7%; p = .033).

Turning to the endowment condition, participants were not more likely to risk their money in the extended lottery-game than in the competence game (44.2% vs. 47.4%; p = 1.00), whereas in both the competence game and extended lottery-game fewer participants parted with their money than in the trust game (70.9%), both p < .001. Conducting further sequential Bonferroni-adjusted pairwise comparisons, including the non-social lottery as a reference (see Table 5), revealed that, in both the competence and the extended lottery-game, participants' willingness to risk their money was reduced to no higher level than their general risk-taking (46.7%, both p = 1.00). Analyses without the exclusion of participants showed no structurally different results.

Table 5. *Binary logistic regression of Person A's decision as a function of game type and presence of an initial endowment for Person B with sequential Bonferroni-adjusted pairwise comparisons including the non-social lottery*

				95% Wald CI for Difference	
I	J	*MD* (I-J)	*p* (seq. Bonferroni)	Lower	Upper
TG (w/o initial endowment for Person B) 75.7%	TG (w/)	0.05	= 1.00	-0.08	0.17
	CG (w/o)	0.13	= .043	0.00	0.26
	CG (w/)	0.28	< .001	0.14	0.42
	ELG (w/o)	0.01	= 1.00	-0.08	0.09
	ELG (w/)	0.31	< .001	0.17	0.46
	LG	0.29	< .001	0.15	0.43
TG (w/ initial endowment for Person B) 70.9%	TG (w/o)	-0.05	= 1.00	-0.17	0.08
	CG (w/o)	0.09	= .542	-0.04	0.22
	CG (w/)	0.24	< .001	0.09	0.38
	ELG (w/o)	-0.04	= 1.00	-0.15	0.07
	ELG (w/)	0.27	< .001	0.12	0.41
	LG	0.24	< .001	0.10	0.38

CG (w/o initial endowment for Person B) 62.4%	TG (w/o)	-0.13	= .043	-0.26	0.00
	TG (w/)	-0.09	= .542	-0.22	0.04
	CG (w/)	0.15	= .027	0.01	0.29
	ELG (w/o)	-0.13	= .050	-0.26	0.00
	ELG (w/)	0.18	= .003	0.04	0.33
	LG	0.16	= .018	0.02	0.30
CG (w/ initial endowment for Person B) 47.4%	TG (w/o)	-0.28	< .001	-0.42	-0.14
	TG (w/)	-0.24	< .001	-0.38	-0.09
	CG (w/o)	-0.15	< .027	-0.29	-0.01
	ELG (w/o)	-0.28	< .001	-0.42	-0.14
	ELG (w/)	0.03	= 1.00	-0.08	0.15
	LG	0.01	= 1.00	-0.09	0.11
ELG (w/o initial endowment for Person B) 75.1%	TG (w/o)	-0.01	= 1.00	-0.09	0.08
	TG (w/)	0.04	= 1.00	-0.07	0.15
	CG (w/o)	0.13	= .050	0.00	0.26
	CG (w/)	0.28	< .001	0.14	0.42
	ELG (w/)	0.31	< .001	0.17	0.45
	LG	0.28	< .001	0.14	0.42
ELG (w/ initial endowment for Person B) 44.2%	TG (w/o)	-0.31	< .001	-0.46	-0.17
	TG (w/)	-0.27	< .001	-0.41	-0.12
	CG (w/o)	-0.18	= .003	-0.33	-0.04
	CG (w/)	-0.03	= 1.00	-0.15	0.08
	ELG (w/o)	-0.31	< .001	-0.45	-0.17
	LG	-0.03	= 1.00	-0.13	0.08
LG 46.7%	TG (w/o)	-0.29	< .001	-0.43	-0.15
	TG (w/)	-0.24	< .001	-0.38	-0.10
	CG (w/o)	-0.16	< .018	-0.30	-0.02
	CG (w/)	-0.01	= 1.00	-0.11	0.09
	ELG (w/o)	-0.28	< .001	-0.42	-0.14
	ELG (w/)	0.03	= 1.00	-0.08	0.13

In sum, providing interaction partners with an initial endowment to avoid inequality aversion did not significantly reduce trust in morality but did reduce risk-taking in the competence game to the level observed in non-social gambles. If no initial endowment for interaction partners was provided, participants rather bet their money on a social gamble than trust in the competence of their interaction partners. This pattern suggests that trust in morality is not based on concerns of outcome inequality (e.g., leaving Person B empty-handed) but is more consistent with concerns about avoiding disrespect. In contrast, these results speak

against the same explanation for the competence game, in that giving Person B their own endowment led to less trust in their competence. Thus, once again, we found principled trustfulness in the trust game, but no signs of principled trustfulness in the competence game.

Study 4

In the first three studies, we did not find much evidence for "principled trustfulness" in circumstances involving competence. In contrast to trust games involving morality, Persons A in competence games did not care about what signal they were sending to Person B, as they were more likely to keep their money for themselves. Their decisions were also more likely to be influenced by other factors, such as whether the other person had already received a monetary endowment or not.

However, this pattern might be due to one major difference in the pay-off structures of both games. In the trust game, it is always in the interest of Person B to have money sent to them, independent of Persons' B trustworthiness and independent of whether they have the same initial endowment as Person A or not. The competence game is more complex. For example, if Persons A trusts in the competence game, not only will Person A lose if they take the risky option and Person B did not pass the competence criterion, but Person B will as well. If Person A does not only want to maximize their own monetary outcome but also considers Persons' B interest, they must confront the following questions: 1) Is Person B actually competent? 2) Does Person B *perceive* themselves to be competent? 3) Which degree of risk-proneness or risk-aversity does Person B bring to the situation? Does Person B want to take a risk or do they rather want to play it safe and feel relieved for not being responsible for their joint monetary outcome? And 4) would Person B feel offended if Person A does not trust their competence, thus allowing or disallowing doubts about Person B's competence?

Persons A must give a speculative answer to all these questions if they want to incorporate Persons' B interests into their decision whether to trust in Persons' B competence on a behavioral level. What if we removed these uncertainties in Persons' As calculations? We could then see how much weight Persons' As were giving to them.

We therefore conducted another study in which we let Persons B indicate whether they wanted Person A to take the risky option and trust in Persons' B competence. We also gave Persons A information about whether their specific interaction partner had passed a similar competence test before. If Persons A were solely self-interested, they should only regard the information according to what it implied about the competence of Person B. If instead their decision were at least partly driven by considerations of Person B's self-views, they should also give weight to the preferences of Persons B.

Method

Sample. A total of 1051 participants were recruited via Prolific in June 2022, using similar selection criteria as before (excluding participants who participated in similar studies). A subsample containing 150 participants (71 women, 76 men, 3 diverse or unspecified) aged between 19 and 76 years (M = 37.52, SD = 14.27) was recruited to take part as Person B. The remaining 901 played Person A. Excluding 62 participants who answered at least one comprehension question incorrectly resulted in a final sample of 839 Persons A (415 women, 414 men, 10 diverse or unspecified) aged between 18 and 80 years (M = 40.09, SD = 14.51). For this sample size, a sensitivity analysis for a two-tailed binary logistic regression (α-error = .05, 1 – β-error = .80, $Pr(Y=1|X=1)$ H_0 = 0.55, π = 0.33) indicated a minimum detectable OR = 1.53. As Person A, participants received a flat payment of £0.81, whereas in the position of Person B, participants received a flat payment of £1.70. Additionally, participants could receive variable bonus payments from the games.

Procedure. To avoid recruiting a large number of participants as Person B, we adopted the same procedure as in Study 3. That is, we informed participants in the position of Person A that only every tenth participant would receive real money according to their decision. Participants in Person B's position engaged in a competence game and then a coin flip, knowing they would receive real money in only one game. After meeting the required quota of Persons B to meet the information given about them for every tenth Person A in each condition, the remaining participants were assigned to the coin flip. The competence game was presented as

in previous studies, including an initial endowment for Person B (see Study 3). The initial endowment for both players was £2, and now (to increase trust levels) the potential win for both players was £5 if Person B met the competence criterion or £0 if they did not.

Participants playing Person B started by completing an IQ test with a total of 20 questions, similar to those administered in Studies 2 and 3. Participants could earn one lottery ticket for a grand prize of £50 for each correctly answered question. After completing the test and reading the specifics of the competence game, participants were truthfully informed that the test at the beginning of the questionnaire consisted of two equally difficult sets of 10 questions and that one of these sets would be relevant to this decision-making situation. Then, a subset of randomly assigned Persons B (119 participants) was given the opportunity to express their preferences regarding Persons A decisions in this situation (either "I want Person A to keep the £2" or "I want Person A to send the £2 to me"), however, without knowing about their result on either of the two tests. The remainder were used as interaction partners for Persons A in control conditions without information about Persons' B preferences.

Participants as Person A were randomly assigned to one of nine conditions in a 3 x 3 between-subjects experimental design. The first experimental factor determined the information provided about Person B's objective competence in the equally difficult test: no information (control) vs. incompetent vs. competent. That is, Persons A received either no information *or* they were told that their assigned interaction partner answered fewer than *or* at least 5 out of questions correctly in the equally difficult test unrelated to this situation. The second factor referred to Person B's preference regarding Person A's decision: no information (control) vs. request to trust vs. request no trust. This information was delivered in random order after participants read through the specifics of the competence game (see above). They were truthfully informed that their interaction partner made their request without knowing the outcome of either test.

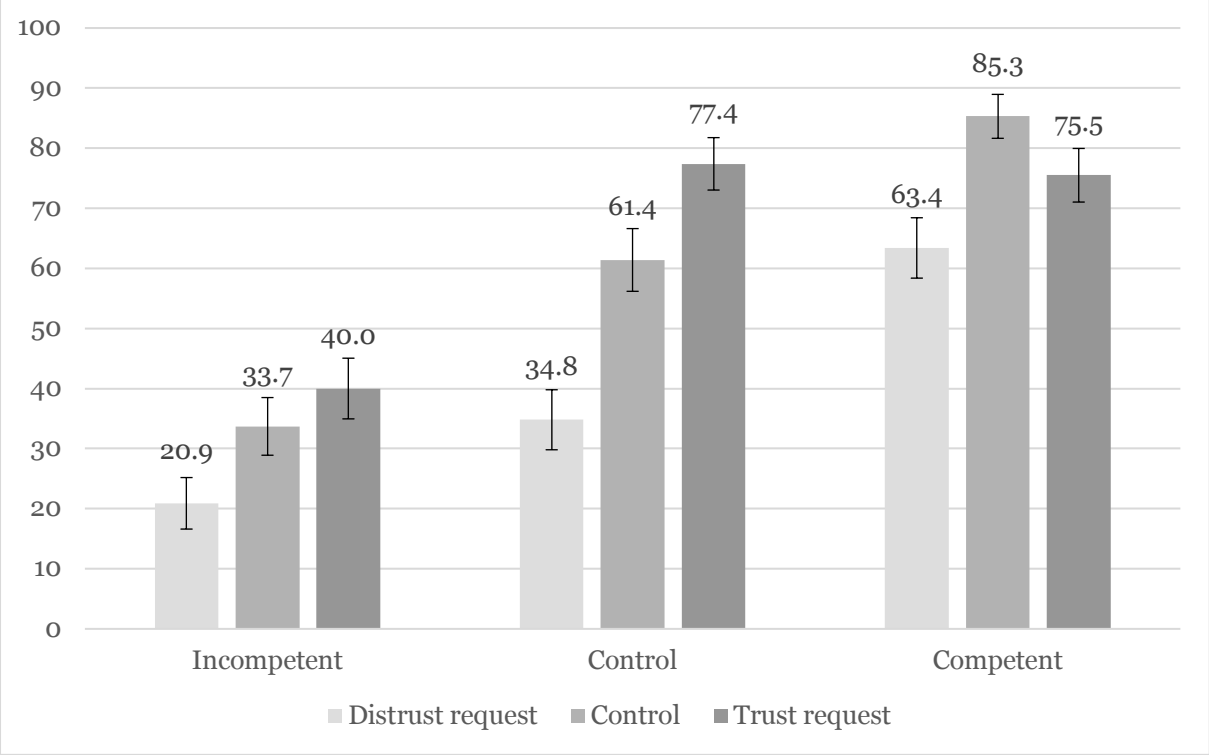
Participants then proceeded to make their decision as Person A (either keep or send the £2 to Person B). For exploratory purposes, participants were asked to assess what decision

was in the interest of Person B and their own and to state reasons for their trust decision (Persons A) or request (Persons B). These variables are not reported in the analysis below.

Results and discussion

In total, 54.7% of the participants were willing to trust in Person B's competence. When given a competent interaction partner, 74.8% trusted, whereas 57.9% of the participants trusted if there was no information, and only 31.7% if Person B was described as incompetent. If Person B stated a preference for Person A to trust, the money was sent in 64.2% of cases and 59.8% if there was no stated preference. If Person B stated a preference not to send money, Person A trusted in only 39.9% of all cases. Figure 4 illustrates the structure of our results.

Figure 4. *Share of Persons A, who parted with their money by Person B's preference and competence in an equally difficult task*



Note: Error bars depict standard errors

We conducted a binary logistic regression predicting Person A's decision. The estimated model was highly significant, $\chi^2(4) = 155.99$, $p < .001$, *Nagelkerke* $R^2 = .23$ and predicted 70.4% of the decisions correctly, an increase of 15.7 percentage points over the empty model, with interaction terms between Persons' B competence and preferences in the second step yielding a significant increase in the model fit, $\chi^2(4) = 11.51$, $p = .021$. Using the no information conditions as reference categories, we found significant main effects of Persons' B objective competence, *Exp(B)* = 3.64, $p < .001$, and incompetence, *Exp(B)* = 0.32, $p < .001$, as well as Persons' B distrust request, *Exp(B)* = 0.34, $p < .001$, and trust request, *Exp(B)* = 2.16, $p = .020$, on Persons' A decisions to trust. Table 6 depicts the results of the analysis.

We conducted two further logistic regressions to get a more comprehensive picture of the results, one investigating the effect of the trust request when no objective competence information was given (for details, see Table 7) and one when it was (see Table 8). The binary logistic regression predicting Person A's decision and the trust request as categorical predictor—if no objective competence information was given—was highly significant, $\chi^2(2) = 36.01$, $p < .001$, *Nagelkerke* $R^2 = .17$. As before, compared to the no request condition, a request to trust yielded a significant increase in the odds of sending the money, *Exp(B)* = 2.16, $p = .020$, whereas a request not to trust was associated with a significant decrease in the odds of sending the money, *Exp(B)* = 0.34, $p < .001$.

Table 6. *Stepwise binary logistic regression analysis of Person A's decision as a function of Person B's objective competence and preference*

	Model 1					Model 2				
				95% C.I. for *Exp(B)*					95% C.I. *for Exp(B)*	
Predictor	*B*	*SE*	*Exp(B)*	Lower	Upper	*B*	*SE*	*Exp(B)*	Lower	Upper
Incompetent	-1.17	0.18	0.31***	0.22	0.45	-1.14	0.31	0.32***	0.18	0.58
Competent	0.81	0.19	2.26***	1.55	3.27	1.29	0.36	3.64***	1.79	7.42
Distrust request	-0.96	0.19	0.38***	0.26	0.55	-1.09	0.31	0.34***	0.18	0.62
Trust request	0.20	0.19	1.23	0.85	1.77	0.77	0.33	2.16*	1.13	4.13
Incompetent x distrust request						0.44	0.46	1.55	0.63	3.78
Incompetent x trust request						-0.50	0.45	0.61	0.25	1.46
Competent x distrust request						-0.11	0.48	0.89	0.35	2.27
Competent x trust request						-1.40	0.50	0.25**	0.09	0.66
Constant	0.59	0.17	1.80***			0.46	0.22	1.59*		
Model χ^2	155.99					167.51				
df	4					8				
p	< .001					< .001				
-2 Log likelihood	999.66					988.15				
Nagelkerke R^2	0.23					0.24				

Note: For both predictors, the empty information condition served as the reference category. Two-tails *$p < .05$, **$p < .01$, ***$p < .001$

Table 7. *Binary logistic regression analysis of Person A's decision as a function of Person B's preference in the absence of objective competence information*

						95% C.I. for *Exp(B)*	
Predictor	*B*	*SE*	*Wald*	*df*	*Exp(B)*	*Lower*	*Upper*
Distrust request	-1.09	0.31	12.42	1	0.34***	0.18	0.62
Trust request	0.77	0.33	5.41	1	2.16*	1.13	4.13
Constant	0.46	0.22	4.47	1	1.59*		
Model χ^2	36.01						
df	2						
p	< .001						
-2 Log likelihood	335.64						
Nagelkerke R²	0.17						

Note: The empty information condition (no trust request) served as the reference category. Two-tails *p < .05, **p < .01, ***p < .001

Table 8. *Binary logistic regression analysis of Person A's decision as a function of Person B's preference when objective competence information is provided*

						95% C.I. for *Exp(B)*	
Predictor	*B*	*SE*	*Wald*	*df*	*Exp(B)*	*Lower*	*Upper*
Competent	1.93	0.19	99.79	1	6.90***	4.72	10.08
Distrust request	-0.87	0.24	13.59	1	0.42***	0.26	0.67
Trust request	-0.08	0.23	0.13	1	0.92	0.59	1.45
Constant	-0.49	0.18	7.52	1	0.61**		
Model χ^2	126.25						
df	3						
p	< .001						
-2 Log likelihood	656.10						
Nagelkerke R^2	0.27						

Note: On Person B's preference the empty information condition (no trust request) served as the reference category and on Person B's objective competence the incompetent-condition served as reference category. Two-tails *p < .05, **p < .01, ***p < .001

However, a somewhat different pattern emerges when considering only the participants told that Person B was either competent or incompetent. Again, the binary logistic regression with Person A's decision as the dependent variable and the experimental factors as predictors was highly significant, $\chi^2(3) = 126.25$, $p < .001$, *Nagelkerke* $R^2 = .27$ and predicted 71.6% of the decisions correctly, an increase of 18.4 percentage points over the empty model—including an interaction term yielded no significant increase in model fit, $\chi^2(2) = 3.60$, $p = .165$, leading us to recur to the simpler model. Compared to confronting an objectively incompetent interaction partner, being paired with a competent one was associated with a significantly higher propensity to part with the money, *Exp(B)* = 6.90, $p < .001$. As regards Person B's wishes, compared to no request, again, we found a significant decrease in the odds of sending the money if there was a distrust request, *Exp(B)* = 0.42, $p < .001$, but sending a trust request resulted in no significant increase in the willingness to send the money, *Exp(B)* = 0.92, $p = .721$. Results from analyses that included all participants revealed structurally similar results, except for the effect of a trust request, which became only marginally significant when no objective competence information was given, *Exp(B)* = 1.71, $p = .090$, 95% CI [0.92, 3.16].

Summary

Thus, in Study 4, we investigated whether participants consider the interests of Person B when they have specific information about whether Person B wants them to send the money or not. They do – but only to a limited degree, with this consideration tempered in two different ways. First, their decisions depended on the objective competence of their interaction partner. If Person B did a good job on a previous similarly difficult task, Person A was more willing to hand over the money. In addition, the preference of Person B also played a significant role, especially when Person A had no information about whether Person B had passed the first test. However, in this case, it seems that the preferences of Person B were taken as an indicator of their competence.

Second, there was an important asymmetry in the weight participants gave to the wishes of Person B: They only followed the wish of Person B when being asked to keep the

money, but not when asked to send it. Thus, Persons A followed Persons B request specifically if that request gave them permission to choose the safe option. Participants were not moved to honor the requests of Person B to trust their efforts on IQ test even after Person B explicitly provided them.

General discussion

How do people respond to situations that require trust in another person's competence? Based on previous research on trust in morality, two different answers are possible. On one hand, trust in competence might resemble trust in morality in that people shy away from openly signaling their distrust to another person. On the other hand, trust in competence might resemble a rational investment in that people might only be willing to trust someone's competence if such trust is in the trustor's material self-interest.

Competence games versus trust games

By contrasting trust in competence with trust in morality and decisions in gambles, in the four studies of the present paper, we found consistent evidence for the hypothesis that trust in competence resembles more a rational investment and hardly any evidence that it is governed by the motivation to respect a person's intellect and abilities.

Repeating past work, participants in the standard trust game did not follow classical principles of a standard rational actor model. Relative to that model, they were too risk-seeking, given their skepticism about their fellow participants' trustworthiness. Most striking, in Study 2, most participants sent their money to Person B even when they were told that their chance of doubling their £2 was a mere 32%, and thus their chance to go home without any money was 68%. This "excessive" level of trust in morality, thus, appears not to be an ordinary decision under risk or uncertainty but is consistent with one driven by internal norms not to question the morality of another person, as shown by past data (Dunning et al., 2014; for a review, see Dunning et al., 2019). Remarkably, this pattern did not depend on whether there

was an initial endowment for Person B. In Study 3, the trust game was the only paradigm in which such an endowment did not lower the rate of participants taking the risky option.

In contrast, no such pattern was repeated when participants faced a competence game. In all studies and conditions in which we compared participants' behavior in the competence game to the trust game, participants were less risk-taking in competence games than they were in trust games. Thus, although participants were in a position to insult the other person's intelligence, they did not shy away from doing it via their choices—quite different from behavior seen when the issue is the other person's character rather than their competence.[3]

Is trust in competence nothing but a rational investment?

Still, Persons' A behavior in competence games might be driven in part by principled trustfulness—albeit to a notable lesser degree than in standard trust games. In Study 2, participants showed more risk-taking in competence games than in non-social lotteries, suggesting some expression of social preferences.[4] To test whether this behavior was motivated by the wish to avoid signals of distrust in Persons' B competence, we introduced an extended lottery-game in Study 3, in which the outcome did not depend on their interaction partner's level of competence but solely on luck and chance. In case Persons' B did not receive an initial endowment, risk-taking in both the competence game and the extended-lottery-game was *higher* than in a non-social lottery. That is, participants, to some degree, consider Person B in their decision. This result is in line with previous research showing that people often aim to avoid

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[3] It should be noted that our competence criterion was not trivial and perceived to be of quite some importance. In another study not reported here, using a similar set of intelligence test items as in Studies 2 to 4, Persons B indicated that they would feel similarly bad or rejected if others did not trust in their morality or competence (unpublished data). More generally, being perceived as intelligent is important because such a perception does increase one's career prospects (Kristof-Brown, 2000; Spisak et al., 2014), one's perception of being kind and humorous (Moore et al., 2011) as well as one's chances to find a long-term romantic partner (Buss, 2006; Buss et al., 1990).

[4] This result remained valid when accounting for the subjective likelihood of encountering a moral or competent interaction partner (e.g. Schlösser et al., 2013) compared to winning a coin toss (see supplementary material on the OSF).

an inequality of outcomes if they cannot justify gaining more money than their interaction partners (Bolton & Ockenfels, 2000; Fehr & Schmidt, 1999).

However, the fact that such behavior was not restricted to the competence game but was even higher in the extended lottery-game, shows that the excess of risk-taking in competence games observed in Studies 1 and 2 was not due to a motivation to avoid questioning Persons' B competence, but rather to a separate motive to avoid leaving them empty-handed. In the situations where Persons' B had received an initial endowment, eliminating the need to rely on trust to avoid inequality, the level of risk-taking was the same in the competence game, the extended lottery-game and a non-social lottery—again suggesting no special motivation to avoid disrespect in the competence game.

In Study 4, we further tested what drove people to trust in another person's competence. We let participants make decisions in a competence game but gave some information about their specific interaction partner to Persons A. We told them how Person B had fared in similar tests and whether Person B wished them to play it safe or take a risk and trust their performance, thus signaling whether Person B would permit Person A to doubt their competence or not. Persons' A behavior was mainly driven by their own monetary concerns and not by any worry about what their choices signaled about the other person's intelligence or preferences. If Persons A were informed about Persons' B previous performance, they based their decision mainly on that information.

Beyond that, Persons' B requests about whether to trust them were used rather strategically to inform their decisions. If Person B did not want the money to be sent, Persons A were willing to comply with that wish. However, if Persons B wanted the money to be sent this wish was largely ignored. Persons A did consider Persons' B stated preferences, but only when they failed to have any information about Persons' B competence at all. They likely did not do so to respect Persons' B wishes but rather likely because they took those preferences as an indicator of objective competence.

In sum, unlike the trust game, we can speculate that the competence game might stimulate a cognitive scheme similar to making a financial investment. For example, when people consider buying some stocks of a certain company, they will calculate the potential pay-offs and risks of such an investment, but they might not be concerned all that much about offending the self-esteem of that company's CEO.

Concluding remarks

In sum, we did find little evidence for principled trustfulness regarding others' level of competence (although, to be sure, in Study 4, some results were at least marginally significant). Echoing past work, participants shied away from openly signaling their distrust to Person B in the trust game (although they were highly skeptical of Persons' B trustworthiness); no such effect could be found in the competence game. Furthermore, in the competence game, participants considered their expectations of a positive outcome more than they did in the trust game. Thus, is trust in morality an issue of respect and face, whereas trust in competence is more an issue of rational choice and justified self-interest?

Such a strong conclusion might be premature. Trust in morality and competence is related in complex ways that might be overlooked when comparing behaviors in trust- and competence games. Both games aim to measure both kinds of trust (and both kinds of trustworthiness) as purely as possible. In the trust game, as far as Persons B understand the pay-off structure, they only face a moral decision with no issues of competence being involved. In the competence game (at least in the form we applied) Persons B work on their task without being aware that they participate in such a game. Thus, they do not face any moral dilemma like overstating their level of competence or having to consider Person's A interests when choosing their effort level.

However, in real life, the two dimensions of morality and competence will often be intertwined (see Zheng et al, 2023) in complex ways (see, e.g., Judd et al., 2005). Take the simple example of asking a friend to water your plants while you are on vacation. The outcome of such a request will depend on both the friend's competence level (e.g., their experience with

different kinds of plants) and their level of morality (e.g., will your friend show up to water your plants regularly?). Often, the degree of competence performed will partly be determined by the effort put into a task, which in turn will be a function of one's felt moral obligation not to disappoint another person's trust. Thus, when distrusting another person's competence, we might indeed signal our distrust as regards their morality—and research on trust games shows that this is a signal people do not like to send (Dunning et al., 2014).

Moreover, in many real-life situations, it is the moral obligation of Person B to signal a potential lack of competence openly. For example, a general practitioner should be aware of and honestly tell their patients to see a specialist if their level of expertise is insufficient. A bus driver is supposed to avoid driving a bus when they feel dizzy and ill. Thus, not being open about the limits of one's competence is not so much a failure of competence but rather a moral blunder. It would be worthwhile to develop paradigms in which Persons B are incentivized to overstate their level of competence and to measure under which conditions and to what extent Persons B will do so. Furthermore, it should be investigated how sensitive Persons A will be to such temptations for Persons B.

In addition, people are often mandated to report when they are in a morally compromised position—which can lead to paradoxical effects. Work on insinuation anxiety, for example, shows that when professionals disclose financial conflicts of interests, it puts their clients in a dilemma. If those clients decide to choose against any advice they receive from the professional, they call that professional's character into question—and people are reluctant to do so (Sah et al., 2019). Thus, paradoxically, clients who are concerned about a professional's competence but not their morality may feel pressure to trust that professional's advice, against their wishes, after conflicts have been disclosed and issues about the professional's character have been made more explicit.

These are only a few of the questions that future studies could investigate, and the competence game (and its potential variations) is a viable tool for this research.

Thus, the present research on trust in competence answered some questions but also raised some new questions as well. For now, we place trust in the competence of ourselves and other researchers to answer these questions in the future.

Chapter 3

"It depends": Maybe the type of competence matters?

> *"The ability to deal with people is as purchasable a commodity as sugar or coffee and I will pay more for that ability than for any other under the sun."*
>
> — attributed to John D. Rockefeller, American businessman

In Chapter 2, we learned that, under equal circumstances, individuals chose to trust less in competence than in morality. Nevertheless, individuals were more inclined to take the risk and trust in competence than in lotteries. However, this was only the case when trust was the sole means for the interaction partner to have a chance of also gaining a profit. Thus, trust in competence is likely not so much about avoiding questioning another's competence, but rather about other prosocial considerations, such as an aversion to inequality (Choshen-Hillel & Yaniv, 2011; Kroll & Davidovitz, 2003). Additionally, people cared little about others' requests for trust when they had information about their actual competence—although they acted on a request to some extent, regardless of the objective chances of a reward, if their counterpart asked not to be trusted (we will also return to this in Chapter 4).

Does this mean there is no principled trust in competence? It is probably too soon to say. Let us return to the example of your friend trying to park the car and you (potentially) switching places with them. What if you do not even enjoy driving a car that much? Or what if

you prefer motorcycles anyway? In this case, would you really be upset if they did not let you park the car, essentially signaling that they do not trust your driving skills (or, at least, your parking skills)? Similarly, although being perceived as intelligent is important to most people—unlike, for example, latte art skills, which, while impressive, probably matters to fewer individuals—a potential reluctance to distrust competence probably depends on how personally invested people are in the task. Moreover, what if you even told your friend not to hand the car to you, consequently implying they should not trust your ability to park the car? Someone requesting that their competence should not be trusted could also be interpreted as them placing low importance on their competence in that specific task at hand. Indeed, the research shows that individuals ascribe different levels of importance (i.e., to their self-esteem) to different competencies—that is, not all competencies are equally important (see, e.g., Crocker et al., 2002, 2003; Pelham, 1995; Pelham & Swann, 1989).

Some competencies—such as those that more directly pertain to managing social relationships, as suggested by the introductory epigraph—may generally be more important to people and thus more difficult to question. Therefore, in the following chapter, I utilized competence games with a variety of competence tests in an effort to assess the robustness of the previous results.[5]

[5] I would like to thank Seyma Buse Aydın, Julia Maria Bold, Sören Buttermann, Tanja Langheinrich, Maxine Sina Ludwig, and Lena Maria Schacherer for their contributions to adapting and developing the competence tests used in this research.

Introduction

Trusting in others' morality (or benevolence and integrity) and competence (or ability) is important in any interdependent relationship—whether among members of working teams (Costigan et al., 1998; Fulmer & Gelfand, 2012; Kramer, 1999; R. C. Mayer et al., 1995) or in everyday situations like relying on a friend to keep a secret or on their ability to assemble furniture during a move.

However, the research indicates that behavioral trust in morality and behavioral trust in competence appear to be determined by different aspects (Fetchenhauer et al., in press; McAllister, 1995). While behavioral trust in others' morality seems to be influenced—at least to some degree—by a norm against questioning others' moral character, rather than purely by expectations of positive outcomes (Dunning et al., 2014, 2019), such a norm appears to be absent, or at least significantly weaker, when it comes to behavioral trust in others' competence (Fetchenhauer et al., in press). That is, although people generally want to be seen as competent and often base their self-esteem on their perceived competence (Crocker et al., 2002; Crocker & Wolfe, 2001; Wojciszke, 2005), people appear to be more willing to openly question (i.e., distrust) others' competence than their morality (Fetchenhauer et al., in press).

However, the research shows that individuals do not consider all competence dimensions equally relevant to their self-concept (e.g., Crocker et al., 2002, 2003; Pelham, 1995; Pelham & Swann, 1989). Therefore, this study aims to examine whether people are more or less reluctant and, consequently, trust others' competence more or less depending on the competence dimension and its potential relevance to the other person's self-concept. In this way, it seeks to contribute to trust research by 1) evaluating whether different competence dimensions differ in levels of perceived importance to the self and others, 2) assessing the robustness of the findings reported by Fetchenhauer et al. (in press) by replicating them, and 3) investigating whether these results extend to different competence dimensions or not.

How to measure behavioral trust?

When individuals need to describe other individuals and decide whether to trust them, they primarily ask themselves two questions: How moral and how competent is this person (Cuddy et al., 2009; Fiske et al., 2007; Wojciszke, 2005)? Accordingly, trust—defined as *"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 part"* (R. C. Mayer et al., 1995, p. 712)—can pertain both to another's morality and their competence (Costigan et al., 1998; R. C. Mayer et al., 1995; McAllister, 1995).

Interestingly, research suggests that situations of trust involving others' morality are approached differently than those involving others' competence (Fetchenhauer et al., in press; McAllister, 1995). This becomes evident when observing trust decisions in a trust game and a competence game (Fetchenhauer et al., in press; see also Schwieren & Sutter, 2008; Zheng et al., 2023). In the trust game, which is derived from the investment game (Berg et al., 1995), two participants take part in an anonymous one-shot interaction. In a version of this situation, the trustor (Person A) and trustee (Person B) are each given £2. First, Person A must choose whether to keep this money or send it to Person B. If Person A decides to keep the money, both take home £2. If Person A chooses instead to send the money to Person B, the sum is multiplied (e.g., by four) before reaching Person B. In this case, Person B can either keep the full amount of £8, leaving Person A with nothing, or share the money equally with Person A, so that each person leaves the interaction with £4.

As in the trust game, in a version of the competence game (Fetchenhauer et al., in press), Person A can either keep an initial £2 endowment, where both Person A and Person B end up with £2, or allocate it to Person B. However, if Person A opts for the latter, the outcome of the trust depends on Person B's competence: For example, if Person B correctly answers at least half of the questions on a test (e.g., an intelligence test comprising ten questions), Person A and Person B will leave the interaction with £4 each; otherwise, both will receive nothing.

For Person A, the potential consequences of their choices are equal in both games: by trusting Person B's morality or competence (i.e., sending the money), Person A can gain more money than if they keep their initial endowment, but can also leave with nothing. Choosing to send the money, thus, means Person A is vulnerable to Person B's actions (R. C. Mayer et al., 1995; Rousseau et al., 1998).

Behavioral trust in morality versus competence

In the trust game, the research has regularly shown that individuals' behavioral trust in others' morality is well above what could be considered rational—based on the expected rewards of trusting (Dunning et al., 2012; Fetchenhauer et al., 2020; Fetchenhauer & Dunning, 2009, 2012; Schlösser et al., 2016)—underpinning that, other than solely rational considerations, trust in others' morality involves additional psychological processes that influence trust decisions (Dunning et al., 2019; Evans & Krueger, 2016; Fetchenhauer et al., 2020). For example, the research indicates that people also trust because it is what they feel one *ought* to do normatively (Dunning et al., 2014, 2019; Thielmann & Hilbig, 2017). In accordance, the research also showed that prosocial-oriented people tend to trust others more (Kanagaretnam et al., 2009). However, the research suggests that people might even display trust because one *ought* not to show distrust—arguably, in order not to doubt another person's character and question their moral self-concept (Dunning et al., 2014). The latter reasoning is supported by research indicating that people's feelings when contemplating distrust are more strongly related to trust decisions than their feelings when contemplating trust (Dunning et al., 2014, 2019; Schlösser et al., 2016).

What about behavioral trust in competence? As both morality and competence are desirable traits (e.g., Wojciszke, 2005), it appears likely that people also consider others' desire to be seen as competent, much like their consideration of others' desire to be seen as moral (Fetchenhauer et al., in press). As a result, people might be similarly reluctant to doubt another's competence and their self-concept of competence. However, this reasoning does not seem to apply to situations involving trust in another's competence, or at least significantly

less so than for trust in morality (Fetchenhauer et al., in press). For instance, using the variations of the trust game and competence game described above, the research has shown that the proportion of participants deciding to trust others' competence was no different than the proportion of participants risking their money in a lottery on a random mechanism. At the same (externally determined) chance of a positive return, the proportion of participants deciding to trust others' morality, on the other hand, significantly exceeded both. Thus, one could conclude that people are less reluctant to doubt another's competence, at least compared to how much they care about not doubting another's morality (Fetchenhauer et al., in press).

However, it may be too soon to make such a generalized conclusion, for three reasons. First, even though general intelligence is arguably important to the self-esteem of many people (compared to, e.g., gardening skills, which may be relevant to fewer people), being able to solve at least five of the ten questions presented to participants in the studies by Fetchenhauer et al. (in press) might not be as relevant to them as suggested—for example, because many of the questions focused mostly on mathematical abilities. To this end, it was emphasized that an individual's self-esteem does not vary (to the same extent) based on their perception of competence in every conceivable area (Crocker et al., 2002, 2003; Pelham, 1995; Pelham & Swann, 1989). In fact, no one truly considers themselves competent in—and thus derives their self-concept from—every area of life. For instance, a person might derive their self-concept from writing a well-crafted article (and feel self-conscious if it is rejected) but not from their talent or lack thereof in singing, dancing, or doing math. Although mathematical reasoning tasks are often included in intelligence tests (e.g., Gibbons & Warne, 2019; Song & Su, 2022), it is important to note that solving mathematical tasks is often associated with rather negative emotions or thoughts (Bibby, 2002; Jameson & Fusco, 2014; Quilter & Harper, 1988). Simply put, at times, individuals seem to dislike these tasks and prefer not to do them (Brown et al., 2008). Accordingly, being seen as (and told to be) incompetent in the specific task that has been used by Fetchenhauer et al. (in press) may not be perceived as very detrimental to self-esteem.

Second, and related to this, competence dimensions may vary in their perceived personal or social relevance. On a theoretical note, intelligence is important in distinctive areas: in understanding abstract ideas (e.g., mathematics or language), in understanding how things work and how to use them (e.g., computers or artificial intelligence), or in navigating social life (e.g., social or emotional intelligence or intercultural competence) (Thorndike, 1920). Generally, in psychology, there is little support regarding the differentiation between different types of intelligence over general intelligence (g-factor) (Waterhouse, 2006, 2023). For example, emotional intelligence is debated as an independent construct since it does not contribute to better predictions of job performance beyond what general intelligence and personality traits can (see, e.g., O'Boyle et al., 2011). Nevertheless, although Thorndike (1920) provided no empirical evidence (only a theoretical framework) for this distinction, the widespread use of these theories—as is the case with the theory of multiple intelligences (Gardner, 1983)—particularly in educational contexts (Attwood, 2022), suggests that people subjectively perceive these different intelligences and may attribute greater importance to some competencies over others. For example, even though general mental ability (IQ) can benefit others, such as in job performance (Schmidt & Hunter, 1998), as can the ability to weigh up alternatives and make good decisions (i.e., decision-making competence), these abilities are, arguably, primarily self-oriented (Stellar & Willer, 2018). In contrast, emotional intelligence, which is not only about understanding and managing one's own but also others' emotions (J. D. Mayer et al., 2008), reflects an interpersonal skill focusing more on navigating social life. The same is true, for example, for intercultural competence, which reflects knowledge about how to approach individuals who are accustomed to diverse cultural values and customs (Leung et al., 2014). Both are considered important in many aspects of individual and social life (Burrus et al., 2012; Leung et al., 2014; MacCann et al., 2020; Mikolajczak, 2010; Salovey & Mayer, 1990; Sarwari et al., 2024). Given the human desire and need for social connections (Baumeister & Leary, 1995; Holt-Lunstad, 2022), people may perceive these kinds of abilities as particularly important.

Additionally, new competencies are emerging and continue to gain importance. For example, in light of global climate change (Clayton et al., 2015), knowledge about environmental issues might become increasingly important (Geiger et al., 2019). Similarly, health knowledge, such as how to recognize a stroke, might be perceived as something that *"should"* be known. Also, understanding the scope of artificial intelligence and differentiating high-quality news from fake news (Al Zou'bi, 2022; Altay & Acerbi, 2024) becomes increasingly important in our modern digital landscape. Although at first sight the greater specificity of the competence dimension may limit the overall audience that considers it important, some examples, such as those mentioned above, may be more tangible and therefore relevant to everyday life.

Third, some competence dimensions might evoke broader impressions of others, extending beyond perceptions of their competence in that specific area. For instance, knowledge about the environment is considered the foundation for environmentally friendly behavior (Geiger et al., 2019; Roczen et al., 2014). Relatedly, people who are perceived to be pro-environmental are perceived to be warmer than less pro-environmental people (Li et al., 2023)—the second major aspect of human social perception, alongside competence (e.g., Fiske, 2018). Thus, beyond merely indicating a lack of competence, individuals may also express a perceived lack of warmth through their distrust in some competence dimensions. Additionally, as a reflection of different perspectives on measuring emotional intelligence, emotional intelligence can be viewed as either a developable skill or a stable trait (Petrides, 2011), unlike, for example, intercultural competence, which should be perceived to be developable, given the ubiquity of seminars on cross-cultural competence (e.g., Kaufmann et al., 2014). Accordingly, in certain dimensions of competence, distrust may also reflect negative views about others' inherent and stable traits instead of current states of competence, which could be improved with effort.

If people consider others' self-esteem when deciding whether to trust them, it seems reasonable to assume that they discriminate between different dimensions of competence—an assumption that, to my knowledge, has not yet been tested.

Overview of the study

The primary objective of this study was to diversify the competence dimensions and investigate whether decisions to trust would differ among these. To this end, I aimed to expose participants to a broad range of competence areas, taking into account both their content and perceived significance at the individual and societal levels. Therefore, by adopting the methodology alongside the test utilized by Fetchenhauer et al. (in press), I additionally used brief tests of emotional intelligence, intercultural competence, decision-making competence, health competence, artificial intelligence literacy, environmental knowledge, and digital news literacy.[6]

Accordingly, I compared behavioral trust in morality using the trust game with behavioral trust in competence using eight variations of the competence game, and risk-taking in social and non-social lotteries. I determined the sample sizes prior to data collection, and details on all measures, manipulations, and exclusions are provided. Participants assigned to the role of Person B were not permitted to participate in the role of Person A. The study was not pre-registered. The questionnaire (blinded to protect copyright) and anonymized data are available on OSF: https://osf.io/yxup9/?view_only=27d1732cc26f4634a5dc2d9a108df7fb.

Method

Participants. A total of 2,467 participants were recruited via the online recruitment platform Prolific, from which 2,195 participants were assigned to the role of Person A. Of these, 143 were excluded from the analysis due to at least one incorrectly answered control question, leaving a final sample of 2,052 Persons A (1,012 women; 1,025 men; 15 diverse or unspecified) aged between 18 and 82 years (M = 38.77, SD = 13.12). According to a sensitivity analysis for

[6] Note that although items were selected carefully to represent competence in the specific dimension, I do not claim that the tests were reliable and particularly valid assessments of the respective competencies, as this is beyond the scope of this paper.

a two-tailed binary logistic regression and a categorical predictor with 11 levels (α-error = .05, 1 – β-error = .80, *Pr*(Y=1|X=1) H_0 = 0.401, π = 0.09), this sample size allowed for the detection of a minimum *OR* of 1.54. I truthfully informed participants assigned to the role of Person A that only every tenth participant would receive real money based on their decision. Person A participants received a flat payment of £0.75, whereas Person B participants (a total of 272) received a flat payment of £1.00. Additionally, participants (every Person B and every tenth Person A) potentially received variable bonus payments according to their decisions in one of the decision-making situations.

Procedure. In a between-subjects experimental design, Person A participants were randomly assigned to one of 11 conditions involving different games: a trust game (TG), eight competence games (CG) with different competence tests (for examples of the respective test questions, see Appendix A), an extended lottery-game (ELG), and a lottery-game (LG). The first three games (TG, CG, ELG) involved an interaction partner (Person B) whose outcome depended on Person A's decision and, in case Person A committed the money, on their morality (TG), their competence (CG), or a random mechanism (ELG). The fourth game (LG) concerned only one person (Person A).

From Person A's perspective, the incentive structure was the same across all games: Person A started off with an initial endowment of £2—in all situations involving Person B, they also received an initial endowment of £2. In cases where Person A decided to keep the money, they (and Person B if there was one) left the situation with the £2. If Person A committed their money, they ultimately received £4 in the best case, or £0 in the worst case. Additionally, the probability of the best outcome for Person A was set at a fixed 45% across all games, using a similar procedure to previous studies (Fetchenhauer et al., 2020, 2025; Fetchenhauer & Dunning, 2012). In the competence games, Person A was shown the test questions that their interaction partner had to answer before their decision.

After having indicated their decision as Person A (either *I keep the £2* or *I send the £2 to Person B*), all participants assigned to one of the competence games were asked how embarrassing it would be for them (i.e., "How embarrassing would it be for you if you could not answer at least 5 out of the 10 questions correctly on the test presented earlier?") and how embarrassing they thought it would be for Person B (i.e., "What do you think, how embarrassing would it be for Person B if they could not answer at least 5 out of the 10 questions correctly on the test presented earlier?") if they failed the test presented to them. The questions were answered on a scale ranging from 1 (*Not at all) to* 7 (*Very much*) and in random order. This measure was used to jointly operationalize 1) the perceived importance of being competent in the respective dimension and 2) individuals' perceptions of whether they should be competent in this dimension according to their personal standards (see, e.g., Babcock & Sabini, 1990). Finally, participants indicated their gender and age.

Participants assigned to the role of Person B took part in the trust game, one of the competence games, the extended lottery-game, and a simple lottery-game. They were told they would earn real money in only one of the situations. After obtaining the necessary number of moral and immoral, as well as competent and incompetent Persons B to ensure a 45% probability of a beneficial outcome for every tenth Person A across all relevant games, the remaining participants were assigned to the role of Person B in the lottery-game conditions.

Explorative variables. Additionally, after making their decision as Person A, all participants assigned to a decision-making situation with an interaction partner were asked to indicate the extent to which a set of five descriptions related to morality ("moral," "honest," "nice," "fair," "friendly") applied to Person B based on their trustworthiness, competence, or luck (M = 4.98, SD = 1.08, α = .95) versus their untrustworthiness, incompetence, or bad luck (M = 4.42, SD = 1.22, α = .95), as well as a separate set of five descriptions related to competence based on their trustworthiness, competence, or luck (M = 5.47, SD = 0.99, α = .94) versus their untrustworthiness, incompetence, or bad luck (M = 4.01, SD = 1.26, α = .95). All

questions were answered on a scale ranging from 1 (*Not at all*) to 7 (*Totally*) and in random order.

Results & discussion

I began by investigating how embarrassing it was perceived by Person A to fail the tests. Notably, the mean answers to how embarrassing it would be to fail one of the tests were fairly neutral (between $M = 3.39$ for Person A's perceived embarrassment to fail the intercultural competence test for Person B and $M = 4.81$ for Person A themself to fail the decision-making competence test). Person A's perceived embarrassment of failing the test themself was strongly correlated with what Person A thought how embarrassed Person B would be ($r(1491) = .77$, $p < .001$, 95% CI [.75, .79]). A repeated measures ANOVA showed that Person A perceived it to be more embarrassing for themselves to fail the test shown to them than for Person B to fail it ($F(1, 1483) = 124.76$, $p < .001$, $\eta_p^2 = .08$). Actually, pairwise comparisons indicated that in any of the tests, Person A perceived it as more embarrassing for themself than for Person B to fail (all $p \leq .004$). Furthermore, I found notable differences in the perceived embarrassment related to failure between the competence tests ($F(7, 1483) = 9.00$, $p < .001$, $\eta_p^2 = .04$). For example, overall, the digital news competence test ($M = 4.64$, $SD = 1.67$), decision-making competence test ($M = 4.60$, $SD = 1.66$), and general intelligence test ($M = 4.56$, $SD = 1.63$) were seen as most embarrassing to fail, while the intercultural competence test ($M = 3.53$, $SD = 1.80$) was seen as the least embarrassing to fail (see Table 9 for details on the pairwise differences). Thus, according to the participants' perceptions, there are indeed some differences in failing a test depending on the respective competence dimension.

Table 9. *Bonferroni-adjusted pairwise mean comparisons in a repeated measures ANOVA of overall perceived embarrassment to fail the test*

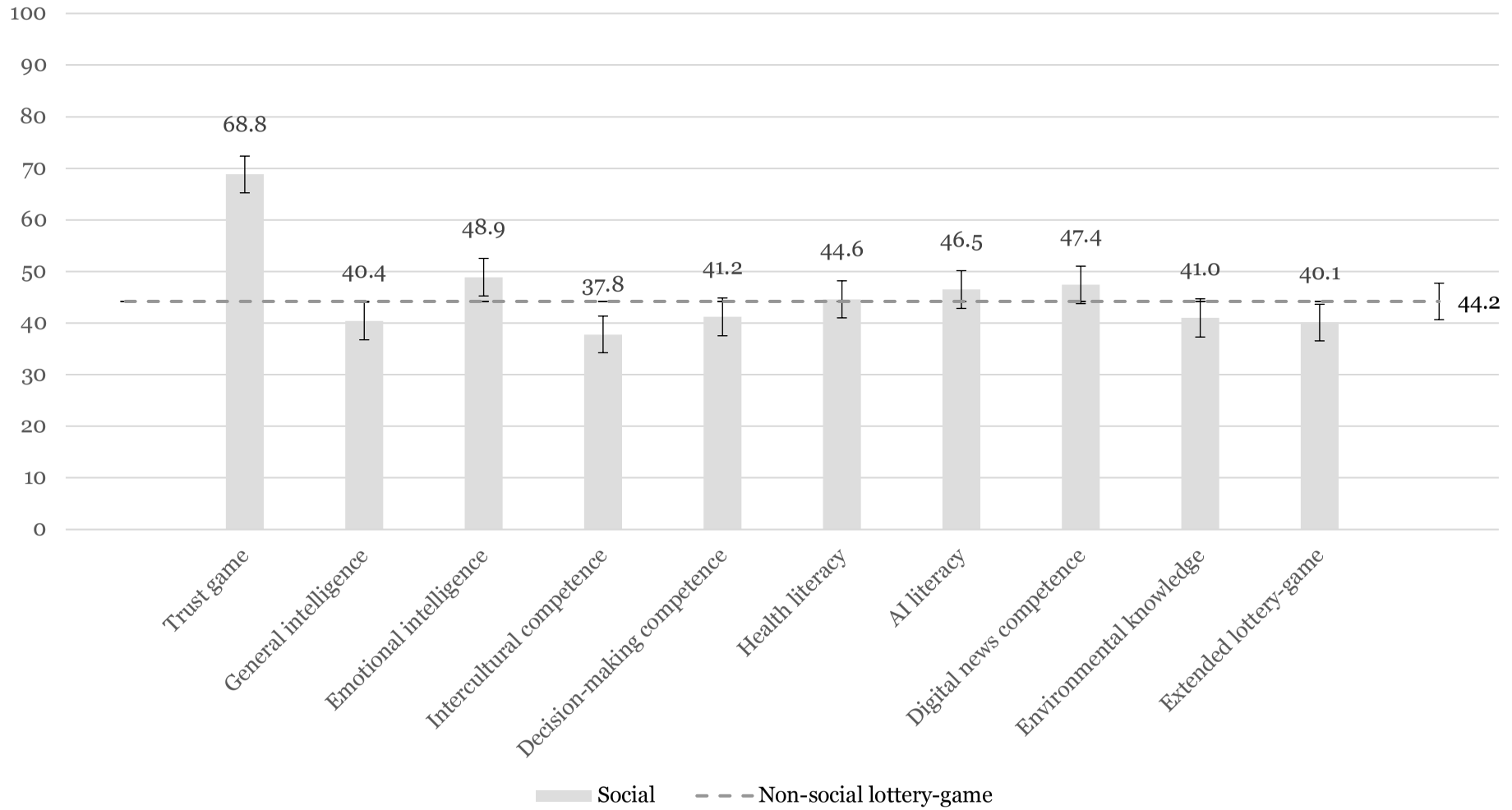
I	J	*MD* (I-J)	*p* (Bonferroni)	95% C.I. for difference	
				Lower	Upper
General intelligence (IQ) (*M* = 4.56, *SD* = 1.63)	EQ	0.42	= .569	-0.15	0.99
	IC	1.03	< .001	0.46	1.60
	DM	-0.03	= 1.00	-0.61	0.54
	H	0.51	= .139	-0.06	1.08
	AI	0.49	= .226	-0.09	1.06
	DN	-0.08	= 1.00	-0.65	0.49
	ECO	0.65	= .014	0.07	1.23
Emotional intelligence (EQ) (*M* = 4.14, *SD* = 1.74)	IC	0.61	= .023	0.04	1.17
	DM	-0.46	= .349	-1.03	0.11
	H	0.09	= 1.00	-0.48	0.65
	AI	0.06	= 1.00	-0.51	0.63
	DN	-0.50	0.159	-1.07	0.07
	ECO	0.22	= 1.00	-0.35	0.80
Intercultural competence (IC) (*M* = 3.53, *SD* = 1.80)	DM	-1.06	< .001	-1.64	-0.49
	H	-0.52	= .112	-1.08	0.04
	AI	-0.55	= .076	-1.11	0.02
	DN	-1.11	< .001	-1.67	-0.54
	ECO	-0.38	= 1.00	-0.96	0.19
Decision-making competence (DN) (*M* = 4.60, *SD* = 1.66)	H	0.54	= .078	-0.03	1.11
	AI	0.52	= .132	-0.06	1.09
	DN	-0.04	= 1.00	-0.61	0.53
	ECO	0.68	= .007	0.10	1.26
Health literacy (H) (*M* = 4.05, *SD* = 1.86)	AI	-0.03	= 1.00	-0.59	0.54
	DN	-0.59	= .031	-1.15	-0.03
	ECO	0.14	= 1.00	-0.44	0.71
AI literacy (AI) (*M* = 4.08, *SD* = 1.83)	DN	-0.56	= .055	-1.13	0.01
	ECO	0.16	= 1.00	-0.42	0.74
Digital news competence (DN) (*M* = 4.64, *SD* = 1.67)	Eco	0.72	= .002	0.15	1.30
Environmental knowledge (Eco) (*M* = 3.92, *SD* = 1.87)					

However, did these perceptual differences translate to the decisions to trust in a manner consistent with these perceptions? For example, did participants trust more often in intelligence than in intercultural competence due to the greater perceived embarrassment of failing the intelligence test compared to the intercultural competence test? The results suggest that this is not the case. As illustrated in Figure 5, 68.8% of Person A participants decided to trust in others' morality. This was a considerably greater proportion than the proportion of Person A participants who bet their money on a random mechanism in a lottery, both if no other person was involved (44.2%) and if another person was involved (40.1%). Likewise, considerably fewer Person A participants chose to trust when the outcome was determined by the competence of their interaction partner (between 37.8% and 48.9%).

I conducted a binary logistic regression with the decision to commit the money as the dependent variable and the decision-making situation as a categorical predictor. Table 10 presents the results of this regression using the trust game, each lottery-game, and the standard competence game involving the general intelligence test questions as reference categories. Results show that when selecting the trust game as a reference category, every other decision-making situation yielded a lower willingness to commit the money (all $p < .001$). On the other hand, apart from the trust game ($p < .001$), no other situation stood out significantly when choosing the non-social lottery (all $p \geq .20$) or the social lottery (extended lottery-game) as a reference category (all $p \geq .08$). Finally, in comparison to the competence game involving the general intelligence test, participants were no more or less willing to trust when any of the other competence dimensions were involved instead (all $p \geq .10$).

Although the overall perceived embarrassment to fail the test was positively associated with the decision to trust ($r(1489) = .08$, $p = .003$, 95% CI [0.02, 0.13]), this relation was not substantial enough to yield any differences in the decisions to trust between the competence games. The results remained structurally consistent when the participants who failed to answer the control questions were included.

Figure 5. *The proportion of participants who decided to trust/bet the money as Person A by game type*



Note: Error bars depict standard errors

Table 10. *Binary logistic regression analysis of Person A's decision as a function of game type*

	Model 1				Model 2				Model 3				Model 4			
			95% C.I. for *Exp(B)*				95% C.I. for *Exp(B)*				95% C.I. for *Exp(B)*				95% C.I. for *Exp(B)*	
Predictor	*Exp(B)*	*SE*	*Lower*	*Upper*	*Exp(B)*	*SE*	*Lower*	*Upper*	*Exp(B)*	*SE*	*Lower*	*Upper*	*Exp(B)*	*SE*	*Lower*	*Upper*
Trust game					3.30***	0.22	2.14	5.09	2.79***	0.22	1.81	4.27	3.25***	0.22	2.10	5.04
General intelligence	0.31***	0.22	0.20	0.48	1.01	0.21	0.67	1.53	0.86	0.21	0.57	1.29				
Emotional intelligence	0.43***	0.22	0.28	0.67	1.43†	0.21	0.96	2.15	1.21	0.20	0.81	1.80	1.41†	0.21	0.94	2.13
Intercultural competence	0.28***	0.22	0.18	0.43	0.91	0.21	0.60	1.37	0.77	0.21	0.51	1.15	0.89	0.21	0.59	1.36
Decision-making competence	0.32***	0.22	0.21	0.49	1.05	0.21	0.69	1.58	0.88	0.21	0.59	1.33	1.03	0.21	0.68	1.57
Health literacy	0.36***	0.22	0.24	0.56	1.20	0.21	0.80	1.80	1.01	0.20	0.68	1.51	1.18	0.21	0.79	1.78
AI literacy	0.39***	0.22	0.26	0.61	1.30	0.21	0.87	1.95	1.10	0.21	0.74	1.64	1.28	0.21	0.85	1.94
Digital news competence	0.41***	0.22	0.27	0.63	1.34	0.21	0.90	2.02	1.14	0.20	0.76	1.69	1.33	0.21	0.88	2.00
Environmental knowledge	0.32***	0.23	0.20	0.49	1.04	0.21	0.69	1.57	0.88	0.21	0.58	1.32	1.02	0.21	0.67	1.56
Extended lottery-game	0.30***	0.22	0.20	0.47					0.85	0.21	0.57	1.26	0.99	0.21	0.65	1.49
Lottery-game	0.36***	0.22	0.23	0.55	1.18	0.21	0.79	1.77					1.17	0.21	0.78	1.75
Constant	2.21***	0.17			0.67**	0.15			0.79	0.14			0.68*	0.15		
Model χ^2	50.67															
df	10															
p	< .001															
-2 Log likelihood	2776.39															
Nagelkerke R^2	0.03															

Note: In Model 1, the trust game served as a reference category; in Model 2, the extended (social) lottery-game served as a reference category; in Model 3, the non-social lottery-game served as a reference category; in Model 4, the competence game with the general intelligence test questions served as a reference category. Two-tails $^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

General discussion

This study aimed to determine whether the evidence suggesting that people show excessive behavioral trust in morality but not (or at least considerably less) in competence (Fetchenhauer et al., in press) extends to various competence dimensions. To this end, I compared trust decisions concerning the morality of another person (i.e., in the trust game) to trust decisions concerning their competence (i.e., in the competence game) with regard to general intelligence (e.g., Gibbons & Warne, 2019), decision-making competence (e.g., Bruine de Bruin et al., 2007), emotional intelligence (e.g., Petrides, 2011), environmental knowledge (e.g., Geiger et al., 2019), health literacy (e.g., Nutbeam, 2000), digital news competence (e.g., López-Meri et al., 2024), AI literacy (e.g., Long & Magerko, 2020), and intercultural competence (e.g., Leung et al., 2014). Additionally, I compared these behaviors with risk-taking in a (social) lottery serving as a reference.

First, the results show that participants did indeed perceive the tests somewhat differently, as they rated the embarrassment of failing each test variably. According to the participants, failing the digital news competence test, decision-making competence test, and general intelligence test would be the most embarrassing. In contrast, the intercultural competence test was perceived as the least embarrassing to fail. In line with previous research concerning the greater importance of competence to the self-concept compared to social impression formation (Abele & Wojciszke, 2007; Wojciszke, 2005; Wojciszke et al., 2011), participants consistently found it more embarrassing to fail the test themselves than for their interaction partner.

Moreover, the perceived embarrassment over failing the test was related to the decision to trust in competence: The more embarrassing participants perceived failure to be, the more willing they were to trust, albeit only to a very low degree. In this regard, it has to be noted that there were no major differences in the perceived embarrassment over failing the test. To gain a clearer picture of this relation, future studies should consider experimentally manipulating the test's relevance, such as conducting an experiment based on methods used

in research examining stereotypes in test performance. That is, future research could prime stereotypes to increase or decrease the relevance of test performance to one's (social) identity (Major & O'Brien, 2005; Spencer et al., 1999; Wout et al., 2008). Another approach could involve allowing trustees to select the competence test they wish to participate in and informing trustors about their trustee's choice as a signal of their identification with a competence dimension while still maintaining constant expectations of competence, as the choice of one competence dimension over another may raise expectations of proficiency and thus reward of trusting. Beyond this, such an experiment would enable researchers to draw causal conclusions about the direction of the relationship—which this study's methodology does not allow.

However, although there was this (small) relationship, it did not yield consistent differences in the willingness to trust between the respective competence dimensions. Rather, the results mirror previous results reported by Fetchenhauer et al. (in press): For the same level of risk and reward, participants were significantly more willing to trust in the morality of another person than in their competence, irrespective of the competence dimension. Similarly, trust in competence—regardless of the dimension—did not surpass the willingness to take a risk in a lottery. Thus, this study is part of research indicating that trust in competence is heavily determined by considerations of outcomes (Fetchenhauer et al., in press; McAllister, 1995).

A possible explanation for this may stem from the observation that trust in competence and morality—modeled through the competence game and trust game—differs significantly, particularly from a monetary perspective (Fetchenhauer et al., in press). Whereas there is a conflict of interest regarding trust in morality—that is, it is always in the interest of Person B to be trusted, but not necessarily for Person A to trust—there is none regarding trust in competence: The interests of both Person A and Person B are aligned (Fetchenhauer et al., in press). This difference may change the motive driving trust decisions. For example, as proposed in the goal-framing theory (Lindenberg, 2023; Lindenberg et al., 2021), individuals are always motivated by three overarching goals in any decision-making situation: a hedonic goal (i.e.,

the satisfaction of positive feelings or the avoidance of negative ones), a gain goal (i.e., increasing or maintaining one's resources) and a normative goal (i.e., consideration of how one should behave according to social/personal norms) with the relative salience of these goals or the alignment of multiple goals determining decisions (Lindenberg, 2023; Onwezen, 2023).

These goals may also relate to the trust decisions observed. In both the trust game and the competence game, the goal of gaining leads to the same decisions. One should trust if one expects that trust will be rewarded, or one should distrust if one expects otherwise. Regarding the hedonic goal, trust in morality research has already shown that participants feel bad considering distrust (Dunning et al., 2019; Schlösser et al., 2016), and, thus, to avoid this, individuals should trust. This choice aligns with the normative goal: individuals should once again trust their interaction partner for them to benefit. The alignment of the hedonic and normative goals may explain why individuals might more often choose to trust in morality than their gain goal would suggest, given their pessimistic expectations of benefitting from trusting (Dunning et al., 2014).

What about trust in competence? Even when assuming that individuals do indeed feel uncomfortable about signaling doubt in others' competence—an assumption that still requires empirical testing in future studies—the normative goal does not necessarily call for trust, as trusting another's competence might also cost them money (i.e., if they failed to answer at least five out of ten questions correctly). Instead, the salience of a similar joint outcome may lead individuals to shift their focus toward the decision that yields personal gain, especially since the choice that best serves personal interests also benefits their interaction partners. Thus, regarding trust in competence, there tends to be an alignment between the gain and normative goal for keeping the money, which ultimately yields distrust.

Therefore, trust research could benefit from assessing the activated goal frames in trust and competence games and from experimentally activating specific goal frames (see Onwezen, 2023, for an example) to reach a deeper understanding of the determinants of different kinds of trust.

Limitations & future studies

While replicating earlier results across various competence dimensions was an important initial step, future studies should address some of this study's limitations in order to deepen the understanding of trust in competence and explore the generalizability of these findings. For example, whereas keeping the test format consistent across the competence dimensions (i.e., ten items, single-choice closed format) is a strength of this study from a methodological perspective, future studies should explore whether experimentally varying the format influences decision-making. In psychometric testing, there is an important distinction between recognition (i.e., choosing the correct answer from a multiple-choice list) and free recall (i.e., generating one's own answers without any answer prompts) (Funk & Dickson, 2011; Strauss, 2001). In this way, recognition is typically easier than retrieving information independently, as required in a short-answer task (Funk & Dickson, 2011). Additionally, future research could use longer test formats, which may be perceived as more reliable assessments. To the extent that individuals are aware of this, these variations in format may significantly impact perceptions of competence and, potentially, a moral norm to trust in competence.

On another note, whereas there is a series of studies about the individual and social importance of competence relative to morality/warmth (Allison et al., 1989; Brambilla et al., 2011; Van Lange & Sedikides, 1998; Wojciszke, 2005; Wojciszke et al., 1998), to the best of my knowledge there is no systematic empirical research on whether individuals perceive dimensions (or sub-dimensions) of intelligence (irrespective of the empirical evidence for these dimensions) as differing in individual and/or social importance and desirability—for example, general intelligence versus emotional intelligence.

Similarly, it is important to explore how some competence dimensions are viewed in relation to other traits (e.g., warmth and morality), and whether they are seen as largely inherited or developable (see, e.g., the differentiation of abilities vs. skills and knowledge in organizational psychology, Woods & Hinton, 2017; for the manipulation of such beliefs, also see Schmitt & Scheibe, 2023). For instance, it might be easier to doubt someone's developable

skills, where distrust signals a perception that the person may *not yet* be able to complete the task, than to doubt unchanging abilities, where distrust signals a perception that someone will never be able to complete the task. Thus, exploring such perceptions and attitudes remains a crucial step in advancing trust in competence research.

Summary

Unlike trust in morality, trust in competence appears to be approached much like a regular risky decision—at least if the potential benefits of both parties are at stake and—in any case—end up with the same amount of money after the interaction. People seem to find it easier to express doubts about others' competence than about their morality, regardless of the specific competence dimension. Thus, openly questioning someone's competence may carry less psychological costs than openly questioning someone's morality—potentially both for the trustor and trustee. The extent to which this is the case needs further empirical investigation.

Chapter 4

What are your feelings? Care for me to share?

> *"To be trusted is a greater compliment than to be loved."*
>
> — George MacDonald,
> *The Marquis of Lossie*

The previous two chapters clearly demonstrated that people choose to trust more in others' morality than their competence, regardless of the competence dimension involved. Additionally, they indicate that individuals only trust in competence excessively, compared to gambling on a lottery, so as not to prevent their interaction partners from also having a chance of receiving a reward. If there was no need for trust to prevent inequality, trust in competence was similar to risk-taking in a gamble. Therefore, again, it appears that individuals are reluctant to question another's morality but not their competence.

Is it because they simply care less about hurting others' feelings regarding their competence than their morality? Or is distrust in competence considered not even that bad, and trust in competence not even that good? Generally speaking, although distrust is seen as unpleasant and trust as pleasant (Poggi & Errico, 2018; Schutter et al., 2021), depending on the case, the degree may vary (Baer et al., 2015, 2021). For instance, using the example from the introduction, in the history of the Federal Republic of Germany, the vote of confidence (*Vertrauensfrage*) has been strategically invoked four times (including this latest one in 2024) to

enable early elections (Deutscher Bundestag, 2024). In Scholz's case, he wanted an expression of "no trust," believing his government was *unable* to continue governing. As a result, he probably did not feel bad about this being the outcome of this vote. Or, to return once again to the more everyday scenario: If you believe you are unable to park the car in the small space, you might feel overwhelmed by the thought of trying and may even feel comfortable with not taking the wheel to try parking. Thus, particularly when people do not want to be trusted, it can be argued that people do not feel bad about others' distrust (see also Baer et al., 2021), also explaining why people act on it when they are asked not to trust (see Chapter 2). What is more, distrusting another's competence—thus implying that someone is unable to solve a task—might not be expected to feel particularly unpleasant to them, as the results in the previous chapter suggest that failing at a competence task was not perceived as especially embarrassing. Accordingly, there is little reason to trust in order to avoid upsetting someone. However, is this true, and particularly, is this equally true if the issue concerns one's good intentions (i.e., morality) or competence?

In the next chapter, we will elaborate on this thinking and examine whether expectations of how trust and distrust might influence others' feelings relate to people's willingness to trust others.

Introduction

Imagine someone saying the following to you: “I think you would rip me off.” or “I think you are out of your depth here.” What does it feel like if others do not trust in your morality or your competence? And how do you think someone else would feel about those two?

As trust concerns others’ morality or competence (Fulmer & Gelfand, 2012; R. C. Mayer et al., 1995; McAllister, 1995), the act of distrust involves calling into question someone’s morality or competence. And indeed, research suggests that being distrusted feels rather bad (Dahlhaus et al., 2025; Feeney, 2005; Poggi & Errico, 2018; Schutter et al., 2021). As this is the case, previous research suggested that people feel self-conscious about the act of distrusting others’ morality and, therefore, hesitate to openly question their morality—arguably, due to the expectation of offending them (Dunning et al., 2012, 2014, 2019; Schlösser et al., 2016). In terms of trust in competence, however, individuals appear to be significantly less concerned about others’ emotions: behaviorally, individuals trust considerably less in situations calling for others’ competence than in situations calling for others’ morality (Fetchenhauer et al., in press; Graczyk, 2025). Is that true, though? That is, are individuals careful not to offend others’ sense of morality—choosing to avoid making them feel bad and instead opting for what makes them feel good—while being less concerned about questioning their competence, even if doing so might hurt their feelings? Or is it simply that people expect distrust in others’ competence not to be as bad, and perhaps trust not as good?

In this paper, we investigate the extent to which being distrusted in morality and competence is expected to feel bad, and the degree to which being trusted in morality and competence is expected to feel good. In addition, we examine how individuals expect others to feel about distrust and trust in morality and competence. Moreover, we explore whether these expectations are related to decisions to trust in morality and competence, respectively, and whether the greater trust in morality over competence can be linked to differences in the expected emotional reactions to trust and distrust.

Trust in morality

Trust can relate to another person's moral character—or their benevolence and integrity (R. C. Mayer et al., 1995). For example, whether a friend pays us back the money we lent them depends on their morality. The trust game, based on the investment game (Berg et al., 1995), allows for an experimental investigation of trust in another's morality (i.e., the actual act of trusting another's morality). In the trust game, there are two persons involved—Person A and Person B—who interact just once and completely anonymously. This means that neither Person A nor Person B learns anything about their respective interaction partner at any point except for the decisions made. For example, in a version of this game, Person A begins with £2 and thereupon can choose to either keep all the money—in this case, Person B would receive no money—or pass it to Person B. If Person A chooses to pass the money, the amount is multiplied, before being transferred to Person B resulting in £9 reaching them, who in turn can then decide to either keep the whole amount—thus Person A would receive no money at all—or whether to allocate £3 to each instead (Dunning et al., 2014; Fetchenhauer & Dunning, 2009).

Although expectations about others' actions (e.g., whether our friend will pay back the money we lent them) are central in the definition of trust—for example, "*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)—research using variations of this game has shown that these expectations (i.e., their cognitive trust) and behavioral trust in others' morality are, at best, only moderately related (Evans & Krueger, 2014, 2016). People exhibit excessively high trust behavior relative to their estimation of others' morality. That is, aside from what rational actor models would suggest, individuals tend to trust even when the expected outcomes of trust are smaller compared to simply distrusting (Dunning et al., 2014, 2019; Fetchenhauer et al., in press). As suggested by research, there seems to be a normative aspect significantly influencing trust behavior (Dunning et al., 2014, 2019; Evans & Krueger,

2016). People trust because they feel they *should* trust—even if they do not *want* to, that is, even if they personally would prefer not to (Dunning et al., 2014). Thus, it was argued that people also trust others out of an internalized norm that discourages calling into question another person's morality to avoid hurting that person's feelings (Dunning et al., 2014, 2019; Schlösser et al., 2016).

Indeed, a diverse body of research supports this reasoning by suggesting that being distrusted by others relates to rather adverse emotions (e.g., Feeney, 2005; Poggi & Errico, 2018; Zak et al., 2005). For example, research using the trust game in different variations shows that being distrusted by others indeed appears to be related to negative emotions (Schutter et al., 2021). Moreover, although both feel bad, Schutter et al. (2021) show that distrust feels even worse if it is the result of an active decision—that is, where trust is the status quo and one needs to actively choose to distrust—rather than the result of withholding trust—that is, where distrust is the status quo and one need to actively choose to trust. In accordance with Schutter et al. (2021), recent research identified that participants expected to feel *angry* about being distrusted by persons they had previously worked with on a joint group task (Dahlhaus et al., 2025). However, this research also showed that being distrusted in one's morality was particularly evident on the valence dimension, as something that feels bad to people (Dahlhaus et al., 2025).

Notably, this research particularly focused on the feelings of being distrusted, while the feelings of being trusted were neglected. Likewise, to the best of our knowledge, there is no research on whether people's assumptions about how distrust and trust might make others feel are related to their decisions to trust them and whether similar patterns emerge regarding trust in others' competence.

Trust in competence

Other than just another's morality, trust can also relate to another person's competence—or ability (R. C. Mayer et al., 1995), for example, when relying on a friend to file one's tax return. Recently, Fetchenhauer et al. (in press) developed a game-theoretic paradigm very

similar to the trust game to experimentally investigate trust in another's competence—the competence game (for related paradigms see Schwieren & Sutter, 2008; Zheng et al., 2023). For example, in a similar version, Person A can decide to either keep the initial endowment (£2) or commit it to Person B. In the latter case, Person A and Person B receive £3 each if Person B reaches a specific competence criterion (e.g., answering at least five out of ten intelligence test questions correctly) or nothing if Person B does not reach that criterion.

Importantly, the trust game and competence game are similar from the perspective of Person A: Their trust pays off if Person B is moral or competent, respectively, while it results in a loss if Person B is immoral or incompetent, respectively (Fetchenhauer et al., in press; Graczyk, 2025). Yet, across multiple studies, researchers found considerably more behavioral trust if it concerned another's morality rather than competence—at equal expectations of others' morality or competence (Fetchenhauer et al., in press; Graczyk, 2025). Moreover, Fetchenhauer et al. (in press) investigated whether providing Person B with the same initial money as Person A—which Person B would receive if Person A chose to distrust—affected trust behavior. Importantly, regardless of whether Person B was endowed or not, the act of distrust nonetheless involves questioning another's morality or competence. They found that close to an equal proportion of Person A decided to trust others' morality irrespective of whether Person B would still receive some money or not when Person A opted not to trust (70.9% vs 75.7%). On the other hand, behavioral trust in others' competence was significantly reduced by this change (47.4% vs. 62.4%). This is compatible with the assumption that behavioral trust in competence is not, or at least is governed far less, by the wish to avoid calling into question another's competence (Fetchenhauer et al., in press). Yet, an open question remains as to whether individuals simply do not care about offending others' competence, thereby willingly eliciting negative emotions in them, or whether they believe that distrust would not hurt others' feelings in the first place, ultimately leading to less trust in competence than in morality.

On the one hand, Poggi and Errico (2018) found that people can feel offended if they are seen as incompetent. In line with those results, research suggests that it is detrimental to employees' self-concept if they feel distrusted by their supervisors (e.g., Baer et al., 2021; Lester & Brower, 2003; Salamon & Robinson, 2008). On the other hand, however, research also shows that in employees, feeling trusted by their supervisors can contribute to unpleasant emotional exhaustion and strains (Baer et al., 2015). It seems that the consequences of being distrusted or trusted in one's competence depend on the overlap between the level of trust received and the level of trust wanted, where people feel they are being treated unfairly if they are trusted too much or too little, given how much they want to be trusted (Baer et al., 2021). This indicates that being distrusted does not always have to be experienced negatively, and being trusted does not necessarily have to be experienced positively. For example, if people believe they are not capable, the sense of responsibility and guilt for another person's loss will make trust feel hardly any good. In such cases, not being trusted might actually come as a relief. In other words, how a person feels when told, "You are out of your depth here," likely depends on whether they are up to the task they are given.

Again, the extent to which individuals expect that their distrust or trust in others' competence would make them feel bad or good, respectively, and whether these expectations relate to decisions to trust their competence is an open question. Moreover, it is unclear whether people expect others to feel worse about distrust in their morality than competence—and better about trust in their morality than competence—for example, because to people, others' morality is more important than competence (e.g., Abele & Wojciszke, 2007; Allison et al., 1989; Van Lange & Sedikides, 1998; Wojciszke, 2005). If so, these differences might have contributed to the greater trust in others' morality over competence observed in previous research (Fetchenhauer et al., in press; Graczyk, 2025).

Overview of the studies

We conducted three studies to determine how participants expected their distrust or trust would make their interaction partners feel, and whether these expected emotions predicted trust in others' morality and trust in others' competence. In Studies 1 and 2, we focused on how good or bad participants expected to feel about being distrusted or trusted in their morality (Study 1) and competence (Study 2), respectively. Additionally, we asked how participants expected others to feel about their distrust or trust in morality (Study 1) and competence (Study 2), respectively, and whether these expectations of others' feelings related to behavioral trust decisions. Finally, in Study 3, we focused on whether different expectations of how others might feel when trusted and distrusted explained the greater trust in others' morality over competence (Fetchenhauer et al., in press).

We relied on Prolific workers in all studies (Peer et al., 2017). Eligible participants had to be native English speakers and were prevented from participating in more than one study. In each study, every tenth participant was truthfully informed that they could potentially receive variable bonus payments based on the outcome of the interaction in the decision-making situation. Study 3 was pre-registered. We report all measures, manipulations, and exclusions (sample sizes were determined before data collection). The data reported in this manuscript and the corresponding materials are available at: https://osf.io/vy79k/?view_only=46cfc3322b534bde813b9a00ddcdf618.

Study 1

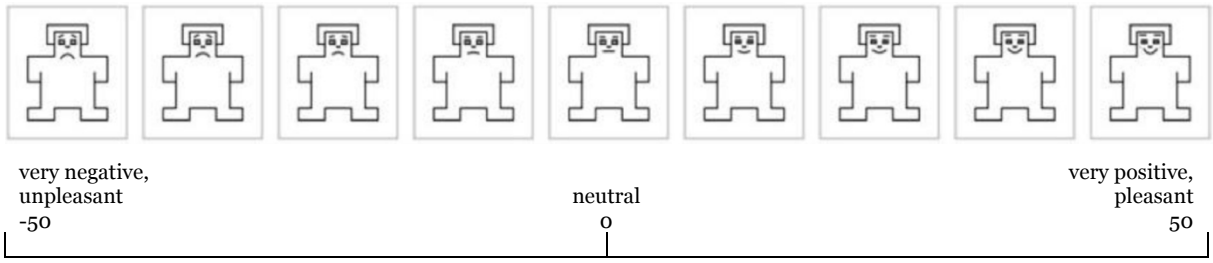
The goal of Study 1 was to examine how participants expected to feel about being trusted and distrusted in their morality using the trust game. Furthermore, we investigated whether participants expected others to feel similarly about trust and distrust in their morality. Finally, we aimed to investigate whether participants considered these expectations of others' feelings toward trust and distrust in their decisions to behaviorally trust others' morality.

Methods

Participants. We recruited 300 participants and excluded 27 participants from the analysis due to at least one incorrect answer to control questions. Thus, the final sample comprised *N* = 273 participants (49.5% female, 49.1% male, 1.5% diverse or unspecified) aged between 18 and 75 (*M* = 42.26, *SD* = 13.70). A sensitivity analysis for a two-tailed paired *t*-test (α-error = .05, 1 – β-error = .80) indicated a minimum detectable *d* = 0.17 for this sample size. Participants received a flat payment of £1.00 for their participation.

Procedure. To start, subjects were asked to indicate how they were feeling at this moment using a single item measuring the valence on a slider ranging from -50 (*Very unpleasant, negative*) to 50 (*Very pleasant, positive*) with 0 (*Neutral*) denoting the midpoint (*M* = 19.70, *SD* = 19.85. This slider was visually accompanied by a nine-point pictograph—the self-assessment manikin (SAM)—for the valence dimension (Bradley & Lang, 1994, see Figure 6). All questions about how decisions would feel to participants or were expected to feel to their interaction partner (see below) were asked using the same valence scale.

Figure 6. *Valence scale accompanied by the valence dimension of the self-assessment manikin (SAM)*



Next, the participants were introduced to a binary version of the trust game. In this variation, Person A started with an initial endowment of £2. If Person A decided to keep the money, they left the situation with the £2, and Person B received nothing. If Person A committed their money, both interaction partners eventually received £3 if Person B reciprocated the trust, or Person A received £0 and Person B received £9 if Person B did not reciprocate the trust. Following the description of the trust game and control questions of understanding, the questionnaire consisted of four blocks in a fixed order.

First, participants were asked to put themselves in the position of Person B: To start, Person B was asked to indicate what they thought their interaction partner—Person A—would feel like if Person A trusted them and they decided to keep £3 and send £3 back to Person A, as well as if they keep all £9 (in random order). Subsequently, they made their definite decision as Person B. Afterward, participants were asked how they would feel about being trusted ("How do you feel if Person A sends the £2 to you?") and distrusted ("How do you feel if Person A keeps the £2 and therefore you receive £0?") by Person A (in random order).

Second, participants were asked to estimate the proportion of participants in the role of Person B who would keep £3 and send £3 back to Person A (i.e., cognitive trust in others' morality) and the proportion of participants in the role of Person who send the £2 to Person B (in random order).

Third, participants were asked to put themselves in the position of Person A: To start, Person A was asked to indicate what they thought their interaction partner—Person B—would feel like if they trusted ("Irrespective of your eventual decision as Person A, what do you think, how would Person B feel if you sent the £2 to them?") and distrusted ("Irrespective of your eventual decision as Person A, what do you think, how would Person B feel if you kept the £2 and therefore they receive £0?") them (in random order). Subsequently, they made their definite decision as Person A (either *I keep the £2* or *I send the £2 to Person B*). Afterward, participants were asked how they would feel if they trusted Person B and Person B kept £3 and sent £3 back to them, as well as if Person B kept the whole £9 (in random order).

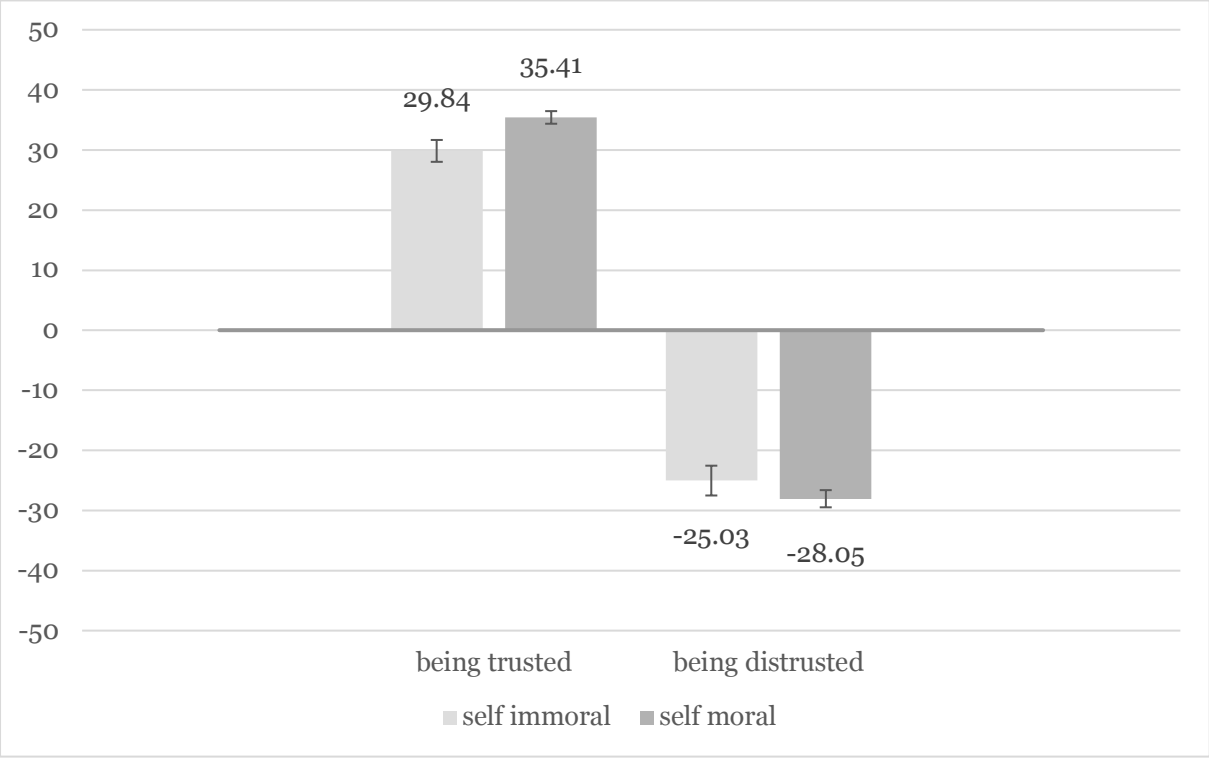
Finally, in reference to Frimer et al. (2017), participants were asked about how they would feel in various social (e.g., "How do you feel if a friend tells someone a secret that you have entrusted to them?") and non-social scenarios (e.g., "How do you feel if you rip off a band-aid from a wound that has only partially healed?") to compare the feelings reported with the decisions in the trust game (see Appendix B for more details) and to indicate their age and gender.

Results

Expected valence of trust and distrust in morality. How did Person B expect to feel about being trusted? Figure 7 illustrates that Person B expected to feel good about being trusted overall (M = 34.02, SD = 15.15). Notably, the results show that Person B expected to feel somewhat better about being trusted if they reciprocated trust rather than not, although this difference was only very small (M = 35.40, SD = 14.41 vs. M = 29.84, SD = 16.62, $t(271)$ = -2.65, p = .008, d = -0.37, 95% CI [-0.65, -0.10]).

Person A's expectations about how Person B would feel about trust align with this. In fact, Person A's expectation about how trust would feel to Person B was significantly related to how they themselves expected to feel about being trusted ($r(273)$ = .61, p < .001, 95% CI[0.53, 0.68]). Accordingly, on average, Person A also expected another Person B to feel good if they trust them (M = 33.31, SD = 15.45): no different than they expected to feel about being trusted themselves ($t(272)$ = 0.87, p = .388, d = 0.05, 95% CI [-0.07, 0.17]).

Figure 7. *The emotional valence of being distrusted and trusted in morality by one's own morality*



Note: The valence of actions was indicated on a scale ranging from -50 (*Very negative, unpleasant*) to 50 (*Very positive, pleasant*), with 0 (*Neutral*) being the mid-point. Error bars depict standard errors.

What about distrust? We first asked how Person B expected to feel about being distrusted. Figure 7 shows that Person B expected to feel bad about being distrusted (M = -27.30, SD = 20.50) and that the extent to which it was expected to feel bad was irrespective of whether Person B would have reciprocated the trust or not (M = -28.05, SD = 20.68 vs. M = -25.03, SD = 19.95, $t(271) = 1.05$, $p = .294$, $d = 0.15$, 95% CI [-0.13, 0.42]). That is, Person B is expected to feel bad about being distrusted in any case, to a similar degree.

Once again, did Person A expect Person B to feel bad about being distrusted? Yes, they did. As with trust, Person A's expectation of how distrust would feel to Person B was significantly related to how they themselves expected to feel about being distrusted ($r(273) = .63$, $p < .001$, 95% CI[0.55, 0.70]). Accordingly, on average, Person A expected Person B to feel bad when they distrust them as well (M = -30.52, SD = 18.97). However, Person A expected that distrust would feel slightly worse for Person B than for themselves ($t(272) = 3.14$, $p = .002$, $d = 0.19$, 95% CI [0.07, 0.31]).

That is, participants expected to feel bad about being distrusted and good about being trusted in morality. Moreover, they expected others to feel similarly about distrust and trust.

Behavioral trust. Cognitively, Person A trusted Person B too little: On average, Person A expected only 45.6% (SD = 25.26) of Person B to be moral and send some money back to Person A—a vastly smaller proportion than the actual proportion (75.1%) of Person B who reciprocated the trust ($t(272) = -19.33$, $p < .001$, $d = -1.17$, 95% CI [-1.32, -1.02]). However, although Person A drastically underestimated Person B's morality, a majority of Person A (72.5%) nevertheless trusted Person B behaviorally. Did Person A's expectation of how Person B would feel when trusted or distrusted contribute to this excess of behavioral relative to cognitive trust in their morality?

To examine whether the expected feelings of trust and distrust related to actual trust decisions, we calculated a differential measure between the expected valence of trust and distrust to enhance interpretability for further analysis. That is, we subtracted Person A's expectation of how distrust would feel for Person B from Person A's expectation of how trust would

feel for Person B (M = 63.84, SD = 27.94), indicating how much trust is expected to feel as more positive relative to distrust for Person B. For example, if Person A expected trust to feel maximally good and distrust maximally bad for Person B (yielding a differential score of 100), they should be most inclined to trust—assuming they are motivated by how Person B feels about being trusted or distrusted. And indeed, a point-biserial correlation indicated a positive relation between this differential score and the decision to trust ($r(273) = .15$, $p = .011$, 95% CI[.04, .27]), although this relation was only small. Moreover, a binary logistic regression ($\chi^2(2) = 33.76$, $p < .001$, *Nagelkerke-R^2* = .17) showed that Person A trusted in Person B's morality more the more positive trust (relative to distrust) was expected to feel for Person B (b = 0.01, *Exp(B)* = 1.01, $p = .031$, 95% CI[1.00, 1.02]), even when adjusted for the expectations of others' morality (b = 0.03, *Exp(B)* = 1.03, $p < .001$, 95% CI[1.02, 1.05]). That is, Person A chose to trust Person B if this choice would make Person B feel relatively better than distrust, beyond what would be rational to do based on Person A's expectations of Person B's morality.

Summary & discussion

Our results show that individuals underestimate the morality of others to quite some degree. However, given these expectations, they also trust excessively behaviorally, in accordance with previous research (Dunning et al., 2014, 2019). Furthermore, we showed that being distrusted is expected to feel quite bad, similar to Dahlhaus et al. (2025), while being trusted is expected to feel quite good. Going beyond previous research, we demonstrated that participants also expected their trust would make their interaction partner feel good, and distrust would make them feel bad, both to a very similar degree as participants themselves expected to feel about being distrusted and trusted. Furthermore, we found that participants took into account how their actions could impact their interaction partners' emotions in their decision to trust their morality.

Study 2

In Study 1, we found that being trusted was expected to feel good, while being distrusted was expected to feel bad. Furthermore, participants believed this would also apply to

others: They expected their trust to make others feel good, while their distrust would make them feel bad. Moreover, these expectations are related to behavioral trust in others' morality. The better participants thought trust would make their interaction partner feel (compared to how bad distrust would make them feel), the more they chose to trust. The goal of Study 2 was to determine whether this was also true for trust in others' competence. That is, 1) we examined how participants expected to feel about being trusted and distrusted in their competence using the competence game, 2) whether participants expected others to feel similarly about trust and distrust in their competence, and 3) whether participants considered these expectations in their decisions to trust others' competence.

Methods

Participants. Again, we recruited a total of 300 participants. This time, after excluding 19 participants due to at least one incorrect answer to control questions, the final analysis sample consisted of N = 281 participants (49.8% female, 49.8% male, 0.4% diverse or unspecified) aged between 18 and 83 years (M = 35.38, SD = 12.30). A sensitivity analysis for a two-tailed paired t-test (α-error = .05, 1 – β-error = .80) indicated a minimum detectable d = 0.17 for this sample size. In this study, participants received a flat payment of £1.69 for participation.

Procedure. Essentially, the procedure for Study 2 mirrored that of Study 1, except this time, the competence game served as the decision-making situation, and all questions were adapted to reflect the different outcomes. Similar to Study 1, after expressing their current feelings on the valence scale (M = 25.23, SD = 22.64), participants were introduced to the competence game (Fetchenhauer et al., in press; Graczyk, 2025), which replicated the incentive structure of the trust game (Study 1) from Person A's perspective. In this situation, Person A began with an initial endowment of £2. In case Person A decided to keep the money, they left the situation with the £2, and Person B received nothing. If Person A committed their money, both interaction partners eventually received £3 if Person B answered at least five out of ten intelligence test questions correctly, or £0 if Person B answered fewer correctly. As in Study 1, following

the description of the competence game and control questions of understanding, the questionnaire consisted of four blocks in a fixed order.

First, participants were asked to put themselves in the position of Person B and indicate what they thought their interaction partner—Person A—would feel like if Person A trusted them and they answered at least five and fewer than five out of ten questions correctly (in random order). Subsequently, they took a test consisting of ten questions adopted from Fetchenhauer et al., in press)—for example, "1/4 - 1/2 - 1 - 3 - 6 - 12 - 5 - ? Which number comes next in the sequence?"—and received feedback on whether they scored fewer than five or at least five of the questions correctly after completion. Afterward, participants were asked how they would feel about being trusted and distrusted by Person A, as in Study 1 (in random order).

Second, participants were asked for their estimate of the proportion of participants in the role of Person B who answered at least 5 out of 10 questions correctly (i.e., cognitive trust in others' competence) and the proportion of participants in the role of Person who send the £2 to Person B (in random order).

Third, participants were asked to put themselves in the position of Person A and indicate what they thought their interaction partner—Person B—would feel like if they trusted and distrusted them (in random order) and, subsequently, made their definite decision as Person A, as in Study 1. Afterward, participants were asked how they would feel if they trusted Person B and Person B answered at least five, as well as fewer than five of the questions correctly (in random order).

At last, as in Study 1, participants were again asked about their feelings in the same social and non-social scenarios (see Appendix B for more details) and to provide their age and gender.

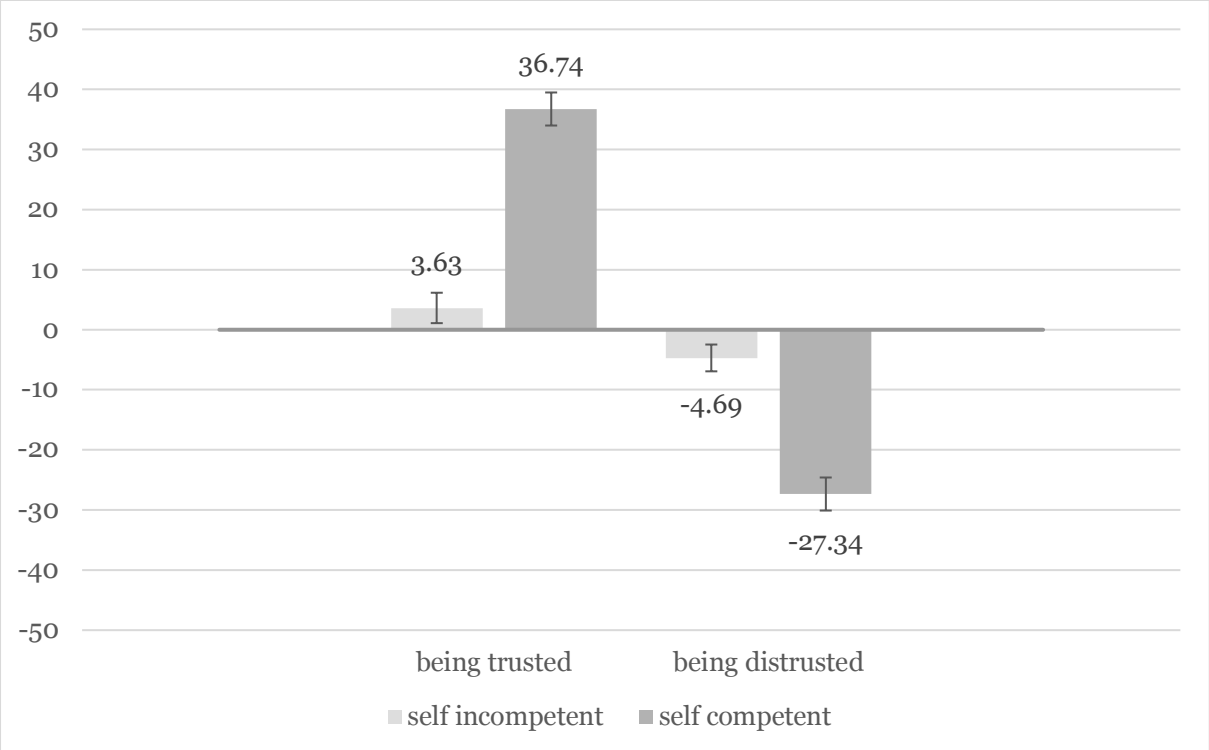
Results

Expected valence of trust and distrust in competence. How did Person B expect to feel when being trusted? Figure 8 shows that Person B expected to feel rather good about being

trusted (*M* = 18.83, *SD* = 35.28). However, the extent to which Person B expected to feel good about being trusted strongly depended on whether Person B was competent or not (*M* = 36.74, *SD* = 17.65 vs. *M* = 3.63, *SD* = 39.21, *t*(217.09) = -9.36, *p* < .001, *d* = -1.06, 95% CI [-1.31, -0.81]). That is, Person B expected to feel good about being trusted if they were competent, but rather neutral if they were incompetent.

Did Person A expect Person B to feel good when they trust them? Indeed, they did (*M* = 31.91, *SD* = 19.22). Even better than they expected to feel about being trusted themselves (*t*(280) = 6.46, *p* < .001, *d* = 0.39, 95% CI [0.26, 0.51]). Nonetheless, Person A's expectation of how trust would feel to Person B was related to how they expected to feel about being trusted themselves (*r*(281) = .34, *p* < .001, 95% CI[0.23, 0.44]), although to a lesser extent than in Study 1 in regards to trust in morality.

Figure 8. *The emotional valence of being distrusted and trusted in competence by one's own competence*



Note: The valence of actions was indicated on a scale ranging from -50 (*Very negative, unpleasant*) to 50 (*Very positive, pleasant*), with 0 (*Neutral*) being the mid-point. Error bars depict standard errors.

As for distrust, how did Person B expect to feel when being distrusted? In Figure 8, one can see that Person B expected to feel fairly bad about being distrusted (M = -15.09, SD = 29.62). Importantly, however, the extent to which Person B expected to feel bad about being distrusted once again strongly depended on whether Person B was competent or not (M = -27.34, SD = 23.41 vs. M = -4.69, SD = 30.41, $t(276.46) = 7.05$, $p < .001$, $d = 0.83$, 95% CI [0.58, 1.07]). That is, Person B expected to feel bad about being distrusted if they were competent, but hardly any bad if they were incompetent.

As with Person A's expectations about trust, Person A's expectation about how distrust would feel to Person B related to how they themselves expected to feel about being distrusted ($r(281) = .38$, $p < .001$, 95% CI[0.28, 0.48]). Likewise, as with trust, Person A expected a stronger emotional reaction in Person B than they expected do have themselves when being distrusted: Specifically, on average, Person A expected distrust to feel somewhat worse for Person B (M = -22.57, SD = 26.85) than for themselves ($t(280) = -3.99$, $p < .001$, $d = -0.24$, 95% CI [-0.36, -0.12]).

That is, participants expected to feel bad about being distrusted and good about being trusted in their competence. However, the extent to which they expected to feel good about being trusted or bad about being distrusted strongly depended on whether they were competent. Participants expected others to feel bad about their distrust and good about their trust, whereas their expectations of others' feelings more closely resembled how competent (rather than incompetent) participants expected to feel about being trusted or distrusted.

Behavioral trust. Did Person A underestimate others' competence as they did with others' morality? This was not the case: On average, Person A expected 46.1% (SD = 19.96) of Person B to be competent, no more than the actual proportion (45.9%) of Person B who were competent ($t(280) = 0.20$, $p = .841$, $d = 0.01$, 95% CI [-0.11, 0.13]). Relative to this, a bigger proportion of Person A (52.0%) decided to commit their money to Person B. In this case, did Person A's expectation of how Person B would feel—when trusted or distrusted—relate to their decision to trust in their competence?

As in Study 1, again, to enhance interpretability for further analysis, we calculated a differential measure between the expected valence of trust and distrust (see above), indicating how much trust is expected to feel as more positive than distrust for Person B (M = 54.48, SD = 37.70). Although the proportion of Person A who actually trusted Person B was considerably smaller than in Study 1, we still found a significant positive, although small, relation between this differential score and the decision to trust in competence ($r(273) = .20$, $p < .001$, 95% CI[.08, .31]). Once again, a binary logistic regression ($\chi^2(2) = 24.21$, $p < .001$, *Nagelkerke-R^2* = .11) also showed that the more positive trust compared to distrust was expected to feel for Person B, the more Person A trusted (b = 0.01, *Exp(B)* = 1.01, $p < .001$, 95% CI[1.01, 1.02]), even when adjusted for the expectation of others' competence (b = 0.02, *Exp(B)* = 1.02, $p < .001$, 95% CI[1.01, 1.04]). That is, also regarding trust in competence, Person A decided in a way that they expected would feel relatively better for Person B, apart from what would be rational based on their expectations of others' competence.

Summary & discussion

As in Study 1, our results show that being distrusted was expected to feel bad and being trusted was expected to feel good. However, in line with previous research (Baer et al., 2021), the extent to which participants expected being distrusted to feel bad and being trusted to feel good heavily depended on whether they were competent. If participants were incompetent, they expected to feel fairly neutral about being distrusted and about being trusted, in stark contrast to how immoral participants expected to experience being trusted and distrusted in the trust game (Study 1). Additionally, we showed that participants expected others to experience distrust and trust fairly similarly, although they expected others to feel somewhat better about trust and worse about distrust than they themselves did. Finally, we showed that these expected emotions related to participants' behavioral trust in others' competence.

Study 3

The primary objective of Study 3 was to compare Person A's expectations about how their trust and distrust in morality would feel to Person B with how their trust and distrust in

competence would feel to Person B. We also aimed to investigate whether these expectations would predict the greater trust in others' morality over others' competence, as observed in previous research (Fetchenhauer et al., in press). For this purpose, we randomly assigned participants to either the trust game or the competence game.

Furthermore, until now, part of how trust and distrust are (expected to be) experienced, and thus part of the decision-making (Fetchenhauer et al., in press), may relate to the fact that Person B has no other way to receive money except through trust. Other than respecting another's emotions regarding their perceived morality or competence, participants may have simply wanted to avoid leaving Person B without any money. Similarly, participants might have expected to feel bad about being distrusted, not so much because of being questioned, but because of leaving the interaction empty-handed. Accordingly, Person A's expectations of Person B's feelings might have been simply tied to that fact. Thus, to eliminate this motivation for trust and the potentially associated expectations of Person B's feelings, we additionally introduced a new set of conditions in which Person B received an initial endowment.

Methods

Participants. We recruited 800 participants and excluded 85 due to at least one incorrect answer to control questions. Thus, the final analysis sample consisted of $N = 715$ participants (49.5% female, 49.5% male, 1% diverse or unspecified) aged between 18 and 83 years ($M = 38.94$, $SD = 13.35$)[7]. A sensitivity analysis for a two-tailed binary logistic regression (α-error = .05, 1 – β-error = .80, $Pr(Y=1|X=1)$ $H_0 = 0.633$, $\pi = 0.5$) indicated a minimum detectable $OR = 1.96$ or $\Delta Pr = 0.139$ for this sample size.[8] In this study, participants received a flat payment of £1.50 for participation.

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[7] One participant indicated their age was 3. We did not exclude this participant from the analyses but for the description of participants' ages.

[8] For the comparison between the trust game involving an endowment for Person B ($n = 163$) and the trust game without an endowment for Person B ($n = 173$)

Procedure. The procedure for Study 3 mirrored that of the previous studies. However, this time, participants were randomly assigned to one of four conditions in a 2 (game: trust game vs. competence game) x 2 (endowment: no vs. with endowment for Person B) between-subjects design.

In the no-endowment condition, participants were introduced to the same decision-making situations as in Studies 1 and 2. In the endowment condition, we adjusted the games' incentives so that Person B started with the same initial endowment as Person A, with all other consequences being equal. That is, in both games involving this endowment for Person B, Person A had the option to either keep £2—resulting in both Person A and Person B receiving £2—or give the money to Person B. If Person A chose to give the money in the trust game, Person B could either keep £9, which would leave Person A with £0, or keep £3 and return £3 to Person A. In the competence game, both players ended up with either £3 when Person B answered at least 5 out of 10 intelligence questions correctly or £0 if not.

All other questions (expected valence of decisions/outcomes, estimated share of moral/competent Person B and trusting Person A, decisions) were modified to reflect this variation in the incentive structure. The order of the questions followed the same sequence as in Studies 1 and 2. As previously, participants were once again asked about their feelings in the same social and non-social scenarios (see Appendix B for more details) and to provide their age and gender.

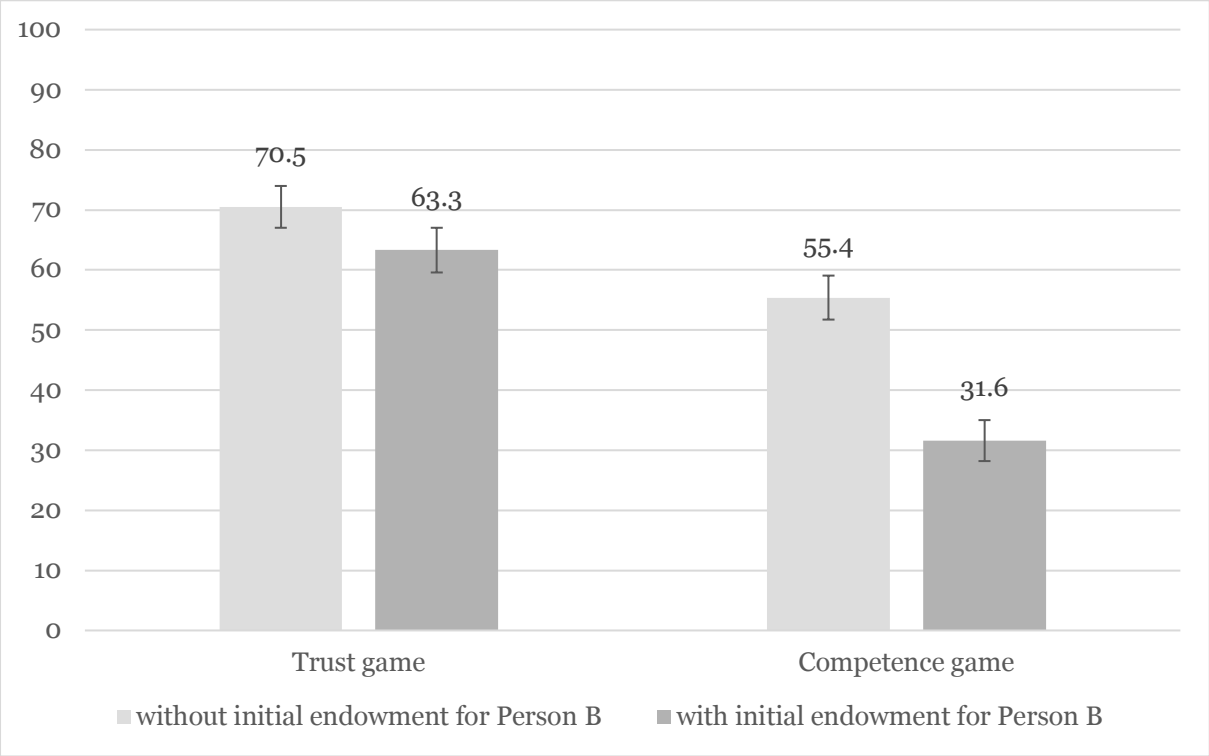
Results

Behavioral trust in morality versus competence. Person A's cognitive trust in Person B was pretty similar across the conditions: The estimated morality or competence of Person B ranged only from 44.1% to 46.7%. Consequently, Bonferroni-adjusted post-hoc comparisons revealed no differences in the expectations of others' trustworthiness across the conditions (all $p = 1.00$). As in Study 1, Person A again significantly underestimated others' actual morality (73.4%) in the trust game ($t(341) = -20.33$, $p < .001$, $d = -1.10$, 95% CI [-1.23, -0.96]). Moreover, as in Study 2, Person A's estimation of others' competence once again did not differ from the

proportion of actually competent (46.1%) Person B in the competence game ($t(373) = -1.58$, $p = .114$, $d = -0.08$, 95% CI [-0.18, 0.02]).

In stark contrast, Figure 9 illustrates how behavioral trust varied across the conditions, despite similar expectations of others' morality and competence. 70.5% of Person A participants trusted in Person B's morality when there was no endowment for Person B, while a slightly smaller proportion of 63.3% trusted in Person B's morality when there was an endowment involved. In contrast, an even smaller proportion of 55.4% of participants trusted in Person B's competence when there was no endowment, whereas only 31.6% trusted Person B's competence when there was an endowment involved.

Figure 9. *Share of Persons A who parted with their money by game and endowment*



Note: Error bars depict standard errors.

Table 11 summarizes the results of a binary logistic regression analysis—adjusted for expectations of others' morality or competence (i.e., cognitive trust)—showing that Person A trusted significantly more in others' morality than competence (b = 0.66, *Exp(B)* = 1.94, p = .004, 95% CI[1.24, 3.04]). Additionally, with the competence game as a reference, we found significantly less trust in competence if Person B received an initial endowment (b = -1.06, *Exp(B)* = 0.35, p < .001, 95% CI[0.22, 0.54]). Finally, we also found a significant interaction effect (b = 0.78, *Exp(B)* = 2.18, p = .018, 95% CI[1.15, 4.13]), showing that behavioral trust in Person B's competence significantly decreased when there was an endowment for Person B but behavioral trust in Person B's morality did not.

Table 11. *Binary logistic regression analysis of Person A's decision as a function of game and endowment, adjusted for cognitive trust*

						95% C.I. for Exp(B)	
Predictor	*B*	*SE*	*Wald*	*df*	*Exp(B)*	*Lower*	*Upper*
Cognitive trust	0.03	0.00	42.22	1	1.03***	1.02	1.03
Trust game	0.66	0.23	8.28	1	1.94**	1.24	3.04
Endowment	-1.06	0.22	22.79	1	0.35***	0.22	0.54
Trust game x endowment	0.78	0.33	5.63	1	2.18*	1.15	4.13
Contant	-0.90	0.23	15.57	1	0.41***		
Model χ^2	110.47						
df	4						
p	< .001						
-2 Log likelihood	874.44						
Nagelkerke R²	0.19						

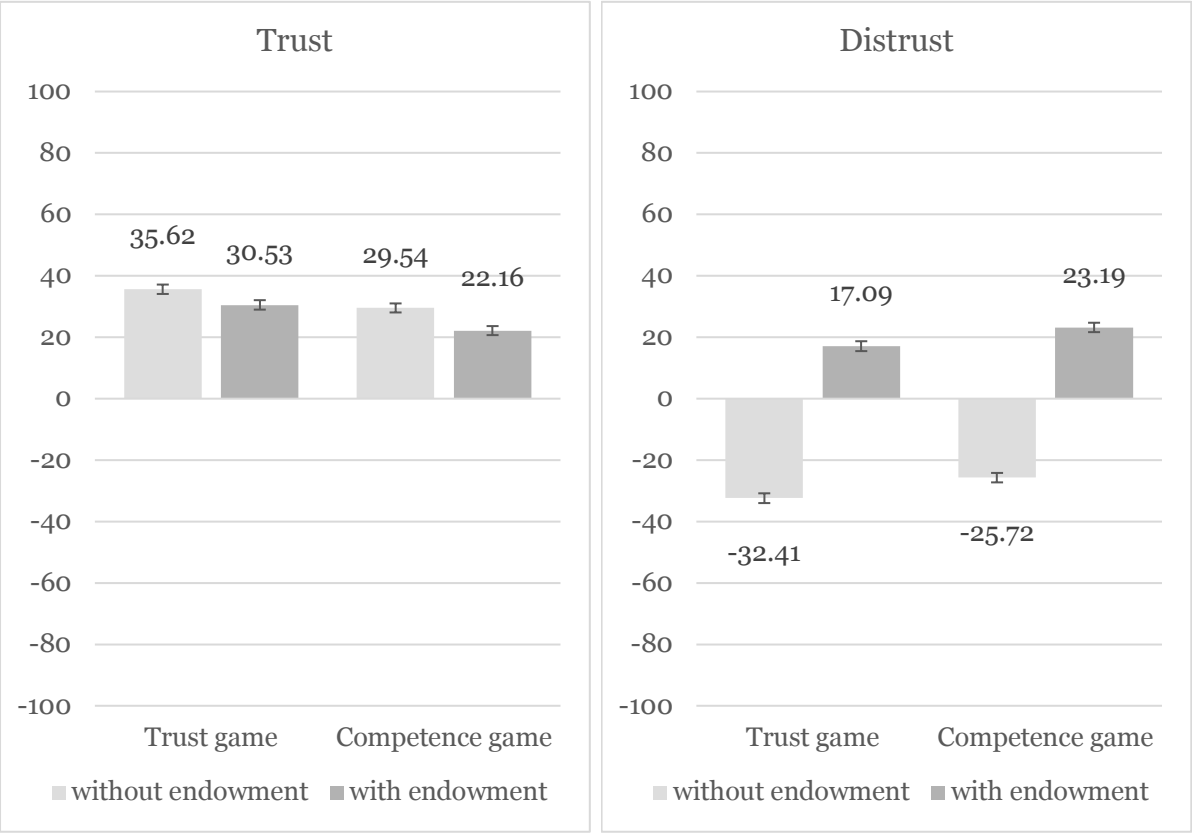
Note: The competence game and the condition involving no initial endowment for Person B served as reference categories. Two-tails *p < .05, **p < .01, ***p < .001

Expected valence of trust and distrust. Given the different levels of behavioral trust across the conditions, did Person A's expectation of how trust and distrust might feel for Person B also differ across the conditions? Figure 10 illustrates that Person A expected Person B to feel overall better about trust in their morality (M = 33.11, SD = 16.31) than in their competence (M = 25.84, SD = 23.34). This was the case both if Person B also had an initial endowment and had no initial endowment. In addition, Person A expected that Person B would feel better about trust if they started with no initial endowment (M = 32.47, SD = 18.36) than if they started with one (M = 26.13, SD = 22.20). The results of a two-way ANOVA showed that the more positive emotions Person A expected Person B to have overall when trusted in their morality compared to their competence was significant ($F(1, 711) = 23.17$, $p < .001$, partial $\eta_p^2 = .03$). Likewise, Person A's overall expectation that trust would feel better for Person B if they had no initial endowment compared to if they had one was significant ($F(1, 711) = 17.23$, $p < .001$, partial $\eta_p^2 = .02$), while a non-significant interaction effect indicates that this was no different depending on whether it was about trusting Person B's morality or competence ($F(1, 711) = 0.58$, $p = .447$, partial $\eta_p^2 = .00$).

Pretty much the reverse was true for distrust: Person A expected that distrust in morality would feel worse for Person B (M = -7.95, SD = 31.92) than distrust in their competence (M = -1.20, SD = 32.65), irrespective of whether Person B had an initial endowment or had none. Also, distrust was generally expected to feel worse for Person B if they had no initial endowment (M = -28.94, SD = 20.26) than if they had one (M = 20.29, SD = 21.99). In the latter case, Person A even expected that Person B would feel better than neutral about distrust ($t(186) = 15.16$, $p < .001$, $d = 1.11$, 95% CI [0.93, 1.29]). An absent interaction effect in a two-way ANOVA indicated that this was no different depending on whether it was about distrusting Person B's morality or competence ($F(1, 711) = 0.04$, $p = .850$, partial $\eta_p^2 = .00$). Instead, the results showed that the general expectation of Person B feeling worse when distrusted in their morality compared to their competence was significant ($F(1, 711) = 16.65$, $p < .001$, partial $\eta_p^2 = .02$) and that the expectation of distrust feeling better for Person B if they had an initial

endowment compared to if they did not have one was significant ($F(1, 711) = 986.14$, $p < .001$, partial $\eta_p^2 = .58$).

Figure 10. *The expected emotional valence of distrusting and trusting Person B's morality or competence by game and endowment*



Note: The valence of actions was indicated on a scale ranging from -50 (*very negative, unpleasant*) to 50 (*very positive, pleasant*), with 0 (*neutral*) being the mid-point. Error bars depict standard errors.

Strikingly, even when Person B also had an initial endowment, Person A still expected that trust in Person B's morality would feel better for Person B than distrust in their morality ($t(168) = 7.01$, $p < .001$, $d = 0.54$, 95% CI [0.38, 0.70]). However, when it came to trusting competence, Person A expected that trust would feel no better or worse than distrust for Person B when Person B had an initial endowment ($t(186) = -0.45$, $p = .654$, $d = -0.03$, 95% CI [-0.18, 0.11]).

Expected valence and behavioral trust. Finally, we asked whether Person A's expectation of how Person B would feel when trusted or distrusted relates to the different levels of trust across the conditions (see Table 12 for bivariate correlations per condition).

Table 12. *Point-biserial correlations between the differential measure of expected emotional valence and trust decisions by condition*

			95% C.I.	
Condition (*n*)	*r*	*p*	Lower	Upper
Trust game without endowment for Person B (173)	.21	= .005	.07	.35
Trust game with endowment for Person B (169)	.04	= .625	-.11	.19
Competence game without endowment for Person B (186)	.21	= .004	.07	.34
Competence game with endowment for Person B (187)	.31	< .001	.17	.43

As in Studies 1 and 2, for further analysis, we calculated a differential score between the expected valence of trust and distrust that represents how much more positively trust was expected to feel to Person B compared to distrust (see above). Analyses revealed that the previously significant effect of an endowment for Person B in the competence game became insignificant after adjusting for this differential score (b = -0.32, *Exp(B)* = 0.73, p = .235, 95% CI[0.43, 1.23]). With the competence game including no endowment for Person B as references, Person A trusted more in competence, the more positive trust compared to distrust was expected to feel for Person B (b = 0.01, *Exp(B)* = 1.01, p < .001, 95% CI[1.01, 1.02]). Together, this indicates that Person A's greater behavioral trust in competence if Person B had no initial endowment, compared to if they had one, was mediated completely via Person A's expectation of how Person B would feel about trust relative to distrust in the respective conditions. Yet, Person A still trusted more in Person B's morality than competence, although to a somewhat smaller degree (b = 0.49, *Exp(B)* = 1.64, p = .037, 95% CI[1.03, 2.60]). Table 13 summarizes the results of this analysis.

Table 13. *Stepwise binary logistic regression analysis of Person A's decision as a function of game, endowment, and the expected valence of trusting relative to distrusting Person B, adjusted for cognitive trust*

	Model 1				Model 2			
			95% C.I. for *Exp(B)*				95% C.I. for *Exp(B)*	
Predictor	*Exp(B)*	*SE*	Lower	Upper	*Exp(B)*	*SE*	Lower	Upper
Cognitive trust	1.03***	0.00	1.02	1.03	1.03***	0.00	1.02	1.03
Trust game	1.94**	0.23	1.24	3.04	1.64*	0.24	1.03	2.60
Endowment	0.35***	0.22	0.22	0.54	0.73	0.27	0.43	1.23
Trust game x endowment	2.18*	0.33	1.15	4.13	2.26*	0.33	1.18	4.35
Expected valence of trust - distrust					1.01***	0.00	1.01	1.02
Constant	0.41***	0.23			0.19***	0.28		
Model χ^2	110.47				135.64			
df	4				5			
p	< .001				< .001			
-2 Log likelihood	874.44				849.27			
Nagelkerke R²	0.19				0.23			

Note: The competence game and the condition involving no initial endowment for Person B served as reference categories. Two-tails *p < .05, **p < .01, ***p < .001

A mediation model using the R package *lavaan* (Rossel, 2012) with 10,000 bootstrap samples confirmed that the lower behavioral trust in Person B's competence if they had an initial endowment, compared to if they had none, was mediated completely by the difference in Person A's expectation of Person B's feelings about trust relative to distrust (b = -0.75, p < .001, 95% CI [-1.04, -0.46]). Additionally, it showed that the greater behavioral trust in Person B's morality than competence was partially mediated via the difference in Person A's expectation of how Person B would feel about trust relative to distrust in morality and competence (b = 0.17, p = .001, 95% CI [0.06, 0.27]).

Summary & discussion

In line with previous results (Fetchenhauer et al., in press), behavioral trust in morality exceeded behavioral trust in competence, with similar expectations of trust turning out beneficial. Additionally, replicating previous results (Fetchenhauer et al., in press), behavioral trust in competence was susceptible to the interaction partner receiving an initial endowment, which prevented them from leaving the interaction empty-handed when not trusted, while behavioral trust in morality was not. Furthermore, our results indicate that participants expected that trust in competence would feel less positive and distrust would feel less negative (even less so if Person B received an initial endowment) compared to trust and distrust in morality, respectively. This difference fully explained the reduced willingness to trust in competence when Person B received an initial endowment and, thus, partially explained the greater willingness to trust in morality over competence.

General discussion

In a set of three studies, we aimed to show the extent to which being distrusted in competence and morality is expected to feel bad, and the extent to which being trusted in competence and morality is expected to feel good. Additionally, we aimed to determine whether individuals expected others to feel bad about distrust and good about trust in morality and competence. Moreover, we examined whether people's expectations about how trust and distrust in morality and competence would feel for their interaction partner related to their decisions

to trust in their interaction partner's morality and competence. In doing so, we also aimed to determine whether different expectations of how trust relative to distrust would feel to their interaction partners accounted for the greater levels of trust in morality over competence found in previous studies (Fetchenhauer et al., in press; Graczyk, 2025).

Our findings indicate that participants expected to feel bad about being distrusted in their morality—in line with previous research (Dahlhaus et al., 2025; Schutter et al., 2021)—and to feel good about being trusted in their morality (Study 1). To put it in perspective, being distrusted was expected to feel something like pulling a band-aid off a partially healed wound, when a friend forgets one's birthday or tells someone else a secret they had been entrusted with. Conversely, participants expected that being trusted would be comparably pleasurable to watching one's favorite movie with a friend, going for a walk on a sunny day, or being surprised by a friend baking a cake (see Appendix B for details). Likewise, in line with previous research (Baer et al., 2015, 2021), distrust in competence was also (mostly) expected to feel bad, while trust in competence was (mostly) expected to feel good, although the extent of it strongly depended on participants' competence (Study 2). For example, participants expected to feel fairly neutral about being distrusted when they were incompetent (i.e., when they answered fewer than five out of ten questions correctly)—roughly as bad as they would feel if a colleague pointed out a stain on their shirt (see Appendix B). Likewise, they expected to feel fairly neutral about being trusted when they were incompetent. As this was the case, we argue that the results at least structurally mirror reality, even though emotions reported were related to somewhat hypothetical scenarios.

Notably—although we also did not expect it to be the case at the outset—it is somewhat surprising that participants did not similarly expect to feel much better or much worse about being trusted or distrusted based on their morality. For example, if participants' sole goal was to maximize profit, immoral participants should feel the best about being trusted. However, if anything, the reverse indicates that the decision to reciprocate is less about a rational calculation of outcomes and more about strong relational and normative considerations (Gouldner,

1960; Perugini et al., 2003). Similarly, the fact that immoral participants expected to feel as bad about being distrusted as moral participants expected to feel about it is surprising for two reasons: 1) Again, if the sole purpose was to profit from the situation, one might have expected the immoral participants to expect feeling the worst about not profiting from being trusted (although see above). 2) Similar to distrust in one's own competence, one might have expected immoral participants to feel somewhat neutral about being distrusted, for example, because it relieved them of the responsibility for Person A's loss—which would have been a testament to their immorality. This goes to show that people generally seem to dislike being viewed and viewing themselves as immoral (Allison et al., 1989; Ellemers et al., 2019; Goodwin et al., 2014; Van Lange & Sedikides, 1998), irrespective of whether they actually are (for a review, see Ellemers et al., 2019). Given that individuals readily engage in various strategies to uphold their view of morality (see, e.g., Ellemers et al., 2019), it would be worthwhile to investigate how participants actually interpret their decision to be immoral (i.e., keep all the money) in the trust game and how it relates to their view of being distrusted.

Furthermore, our results show that participants expected their trust to feel good and distrust to feel bad for their interaction partner and opted to decide in a way that would make their interaction partner feel good (Studies 1 to 3). That is, participants trusted more in morality and competence, the better they expected trust as opposed to distrust to feel for their interaction partner (Studies 1 & 2). However, with trusting others' competence, our results suggest that this may have particularly occurred due to a desire to give the interaction partner a chance to walk away with a bonus (Study 3). To elaborate, in a situation where both actors would leave the interaction with some money at the choice of distrust, participants expected that distrust would still be a pleasant option for their interaction partner. Importantly, while this led participants to put significantly less trust in competence, it did not yield lower behavioral trust in morality. Moreover, although participants expected distrust in another's morality to be a justifiable option if it had the initial endowment as a consequence for both actors (given that participants expected this to still feel good for their interaction partner), they nevertheless chose to trust—to the same degree as when the interaction partner had no initial endowment,

consistent with previous research (Fetchenhauer et al., in press). As a result, the expectation of how trust, compared to distrust, would feel to the interaction partner only partially mediated the difference between trust in morality and competence—specifically, the difference it accounted for between trust in competence when the interaction partner had an endowment and when they did not (Study 3).

Since participants considered the emotions of their interaction partners in their decisions—although admittedly only to a very limited degree given the small effect sizes—can we safely assume that people shy away from signaling doubt to another person not to hurt their feelings (Dunning et al., 2014)? The fact that the expected feelings explained the different levels of trust in competence between the conditions involving and not involving an endowment for the interaction partner shows that, beyond any rationality, people do take into account others' feelings. However, likely not so much because of the signal they send about others' competence, but because they reflect on the emotional consequences of the monetary outcomes.

In this regard, we have to acknowledge two points: 1) Our methods do not allow for definite inferences about the causal direction between the expected feelings and the decisions to trust, as a reversed relationship is also possible. For example, participants may have already decided on what alternative they want to choose and, based on this choice, report their expectations of how their interaction partners might feel about the choices in a way that justifies their decisions. 2) By asking participants numerous questions about how they themselves and their interaction partner might feel about being trusted or distrusted, we likely directed their attention toward these emotional aspects, which may have encouraged more deliberate reflection and potentially influenced their subsequent trust decisions.

However, we believe this concern is likely limited for two reasons: First, our findings closely align with those of previous research that did not involve measuring any mechanism-related variables (Fetchenhauer et al., in press). Second, the fact that participants' behavioral trust in others' morality related to their expectations of how trust relative to distrust might feel

to their interaction partner—when no endowment was involved for the interaction partner—yet did not consider it when there was an initial endowment for the interaction partner, shows that participants could and did consider aspects beyond the emotions associated with the monetary outcomes when deciding whether to trust in the morality of another person.

One could say that the latter result challenges the assumption that people trust in others' morality not to hurt others' feelings (Dunning et al., 2014). However, we would argue that this view would be too simplistic as it does not capture the expressive essence of the argument—that is, hurting others' feelings by doubting their morality specifically (Dunning et al., 2014). The fact that participants trusted others' morality to the same extent even when there was an endowment for Person B involved and even though they thought their interaction partner might still be happy with being distrusted as they still stood to benefit financially—which would have also been an opportunity for the participants to engage in motivated reasoning and justify distrusting (e.g., Epley & Gilovich, 2016)—hints toward trust actually following an internalized norm (e.g., Dunning et al., 2014)—a norm people may not be fully aware of following. Whether and to what extent people follow any norms when trusting in others' competence still requires further in-depth research.

Future prospects

For example, a promising direction for future research may involve examining emotions in a more nuanced way than we did in this study, as the dimensions of emotions vary beyond mere valence, such as in their arousal and dominance (Bradley & Lang, 1994; Dahlhaus et al., 2025; Russell, 2003; Schlösser et al., 2016). Alternatively, deviating from dimensional theories of emotion and measuring discrete emotions instead may also prove beneficial (Ekman, 1992; Watson et al., 1988).

Additionally, since participants perceived distrust in another's morality as justifiable if it still financially benefited Person B (i.e., based on the expected emotions)—yet still chose to trust—it may be valuable to explore the difference between immediate and expected emotions of the trustor to better understand the differences between behavioral trust in morality

and competence. Regarding trust in morality, research has found that immediate, rather than expected emotions, relate to subsequent trust decisions (Dunning et al., 2014, 2019; Schlösser et al., 2016). Our results suggest that immediate emotions may play a weaker role regarding behavioral trust in competence than morality, whereas the expected emotions may be more influential—a speculation requiring empirical hedging.

Finally, drawing on research on trust repair (P. H. Kim et al., 2006; Ma et al., 2019; Xie & Peng, 2009), future studies could explore the duration of emotional reactions triggered by trust and distrust. For example, just as people respond differently to competence and morality-based trust violations, individuals may feel only briefly offended when their competence is questioned, but for a longer time when their morality is. As a result, it could be easier for individuals to question another's competence than their morality, as this offense is potentially more short-lived.

Conclusion

The study at hand offers valuable insights into how trust in morality and competence is perceived. Despite many similarities, we also found notable differences, some of which explain differences observed between trust in morality and competence in previous research. Our results suggest that trust is a slippery slope: it is clear regarding morality but not so clear regarding competence. This research underlines previous findings showing that being trusted in competence does not always have to be good, and being distrusted does not always have to be bad, specifically if one cannot meet the expectations. Thus, when deciding whether to trust others' competence (e.g., a co-worker or an employee), one should consider whether they are willing to take on and are up to the task for the sake of the outcome and the trustee.

Chapter 5

Trust out of respect: A matter of "once *does* count"

"Fool me once, shame on you. Fool me twice, shame on me."

— Proverb

In line with Chapters 2 and 3, the results of Chapter 4 showed that individuals displayed greater trust in others' morality than competence. Chapter 4 additionally showed that distrust was generally viewed as unpleasant, whereas trust was seen as pleasant. However, the individuals' own competence (i.e., whether they were able to pass the test or not) strongly shaped both their expectations of how negatively they would feel about being distrusted in their competence and their expectations of how positively they would feel about being trusted in their competence. Conversely, if it was about their morality, participants always expected distrust to be unpleasant and trust to be pleasant to a very similar degree (although there was a small dip in these expectations about being trusted depending on their morality). Moreover, individuals tended to consider how their actions might impact their interaction partners emotionally when making decisions. This tendency explains why individuals place more trust in competence when it is the only means for someone else to receive a reward, and thus partially accounts for the greater behavioral trust in morality compared to competence. However, rather than reflecting the assumed feelings of being insulted, these anticipated emotions were

more likely focused on the potential financial outcomes. Is it then that people simply disregard what distrust or trust in others' competence reveals about their perception of them, or is it that distrust in others' competence does not even indicate anything about one's view of them?

In Germany, there is a saying that roughly translates as "once does not count" (Ger. *einmal ist keinmal*). It suggests that a single instance of an action is not an indication of whether someone will repeat it, at least not a very reliable one. According to this saying, in our example, if our friend fails to park the car once, it does not call into question their general ability to park or drive. As competence is generally considered context-dependent and, in many cases, even malleable (Tomlinson & Mryer, 2009), the research suggests that there is some truth to this saying (see, e.g., Reeder & Brewer, 1979; Rusconi et al., 2017). In other words, seeing someone failing to park in a small spot, perhaps under the pressure of cars lining up behind, does not necessarily mean that one would expect them to usually be unable to do so or that they would ever be unable to do so. Accordingly, people also indicated that it would not be too embarrassing if someone failed one of the tests that were presented in Chapter 3. Thus, one can argue that it says little about someone if they fail once—and, thus, if they are distrusted once.

However, the research also shows that in other cases, only once *does* in fact count and is considered a reliable indicator of what a person is like if that one instance involved doing something immoral by choice (P. H. Kim et al., 2006; Krosgaard et al., 2002; Wojciszke et al., 1993), for example, if they hit-and-run after causing a car accident (Wojciszke et al., 1993). Importantly, the more a person's morality or competence in a one-time interaction is viewed as a true reflection of how they actually are, the more trust or distrust says something about one's perception of others and the more individuals should trust to avoid insulting them. With this in mind, in the following empirical chapter, we examine whether participants consider what their trust behavior might signal about their perception of others.

Introduction

"This says a lot about you, doesn't it?"

In what way does this idea drive trust decisions? Trust—which can be related to another person's morality and competence (R. C. Mayer et al., 1995)—serves as a basis for fostering interpersonal relationships as well as relationships across groups or entire societies (Fukuyama, 1995; N. D. Johnson & Mislin, 2012; Knack & Keefer, 1997; Labonne & Chase, 2010; McKnight et al., 1998; Robinson, 1996).

Interestingly, while research on the determinants of behavioral trust in another's morality is abundant, experimental studies on the determinants of behavioral trust in another's competence are comparatively scarce (Evans & Krueger, 2009; Fetchenhauer et al., in press; Schwieren & Sutter, 2008; Thielmann & Hilbig, 2015; Zheng et al., 2023). Recently, Fetchenhauer et al. (in press) conducted a comparative analysis of trust in another's competence versus morality using game-theoretic paradigms and experimental methods. Following the *respect hypothesis* (Dunning et al., 2014, 2019), they tested whether behavioral trust in competence could be influenced by a norm of not questioning another's competence, similar to behavioral trust in morality, where people appear to trust in order to avoid signaling that they perceive their counterparts as immoral. However, across five studies, they found little evidence supporting this assumption regarding another's competence. Instead, behavioral trust in others' morality significantly exceeded behavioral trust in others' competence in otherwise virtually identical circumstances (Fetchenhauer et al., in press).

This paper aims to contribute to trust research by elaborating on and testing the rationale behind the respect hypothesis. To this end, we propose that the perceived diagnosticity of another's trustworthiness—that is, the perceived degree to which one can draw conclusions about a person's dispositions based on their behavior—is key. Additionally, we explore whether the perceived diagnosticity accounts for individuals' greater willingness to trust in others' morality over others' competence.

What is trust?

Over the years, trust researchers have distinguished three aspects of interpersonal trust (see, e.g., Dunning et al., 2014, 2019; Evans & Krueger, 2016), that 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 part*" (Mayer et al., 1995, p.712). First, there is a behavioral aspect of trust, which refers to the observable act of trusting another person's benevolence and integrity (morality onwards) or ability (competence onwards) (R. C. Mayer et al., 1995). For example, someone might ask their neighbor to watch over their house while on vacation (i.e., behavioral trust in their morality) or hire a lawyer to handle their lawsuit (i.e., behavioral trust in their competence). Distinct from this, there is a cognitive aspect of trust, which is closely related to the expectations of another's trustworthiness (Dunning et al., 2014, 2019; Evans & Krueger, 2016). For example, the belief that the neighbor will respect one's belongings while checking on the plants (i.e., cognitive trust in their morality) or the belief that the lawyer can effectively represent one's interests (i.e., cognitive trust in their competence). In addition, researchers have emphasized an expressive or normative aspect of trust, which refers to the immediate feelings and experiences involved in the act of trusting or distrusting itself (Dunning et al., 2014, 2019; McAllister, 1995; Schlösser et al., 2016).

Empirical evidence for this distinction can be found regarding trust in others' morality when employing the so-called trust game (Dunning et al., 2012, 2014, 2019). In a binary trust game (based on the investment game; Berg et al., 1995), two persons engage in a single, anonymous interaction. In one example of a potential pay-off structure, Person A receives £2 and decides to either keep it or send it to Person B. If Person A keeps the money, they leave with the £2, and Person B gets nothing. If the money is sent to Person B, it is multiplied to become £6. Person B then chooses to either keep the whole £6 or share it equally. Thus, by choosing to trust Person B, Person A could receive a larger amount of money compared to keeping it themselves. However, the decision to send the money to Person B makes Person A vulnerable

to Person B's morality, embodying a main aspect of trust (R. C. Mayer et al., 1995; Rousseau et al., 1998).

On closer inspection, it becomes clear that a rational profit-maximizing Person B would keep the entire amount of money if entrusted with it. Consequently, by predicting this behavior, a rational Person A should choose to keep their money in the first place. However, time and again, empirical observations show that people do not adhere to strictly rational considerations when confronted with this situation (Dunning et al., 2019). Instead, Person B often chooses to share half the money with Person A when they are trusted—something Person A expects to some degree but nonetheless significantly underestimates them to do (Fetchenhauer & Dunning, 2009). Yet, despite Person A's relatively low expectations of the other's morality, they still choose to trust Person B behaviorally—more than what a person would be expected to do based on those expectations and their personal preferences alone (Dunning et al., 2014; Evans & Krueger, 2014, 2016; Kanagaretnam et al., 2009; Thielmann & Hilbig, 2017). As a result, researchers have concluded that behavioral trust in another's morality must include aspects that influence behavior beyond merely calculating potential rewards based on expectations (Dunning et al., 2014, 2019; McAllister, 1995).

For example, studies have found that participants report experiencing negative emotions like tension, fear, and guilt when considering not trusting (Dunning et al., 2014; Schlösser et al., 2016), and that these emotions shape trust behavior (Dunning et al., 2014, 2019). These emotions are thought to stem from a personal sense of obligation to trust others (Dunning et al., 2014). In support of this idea and to wrap up the respect hypothesis, the research has shown that people feel they *should* trust, possibly to avoid signaling to others that they suspect them to be immoral (Dunning et al., 2014, 2019). Thus, in the example provided above, when deciding whether to trust one's neighbor, one might choose to do so to avoid signaling one's expectations that they will not respect one's belongings. Importantly, while the trust game has been useful for exploring the various aspects of trust, it is clear that it neglects

the competence dimension of trustworthiness (Dunning et al., 2019; Fetchenhauer et al., in press).

Is there principled trust in competence?

Do we also find too much trust in others' competence—given the low expectations of their competence—due to our reluctance to signal to them that we suspect them to be incompetent? To answer this question, Fetchenhauer et al. (in press) introduced a game-theoretic approach based on the trust game: the competence game (see Schwieren & Sutter, 2008; Zheng et al., 2023 for related paradigms). Essentially, from the perspective of Person A, the pay-off structure of both games is identical. Person A may either keep the initial £2 endowment or pass it on to Person B. If Person A chooses the latter, and Person B proves to be competent—for example, by answering at least five out of ten intelligence test questions correctly—then both Person A and Person B receive £3 each; otherwise, they receive nothing. Again, by choosing to trust Person B, Person A could receive more money than if they decided to keep it.

Despite its plausibility, the research has found little evidence for a mechanism akin to trust in morality regarding trust in others' competence that involves an aversion to questioning another person's competence. For example, in a study reported by Fetchenhauer et al. (in press), only a minority of participants (40.3%) were willing to trust another's competence when their objective chances of meeting a competent interaction partner were set at 32%. However, under identical circumstances, a slight majority of participants (53.6%) trusted the others' morality. Thus, while participants were once again hesitant to signal distrust in Person B's morality, even where they knew that the majority of Persons B were not trustworthy, this hesitation only weakly extended to trust in the competence of others (Fetchenhauer et al., in press). In other words, it appears that trust in competence is not, or is at least considerably less, influenced by concerns about the signal sent to others. This is noteworthy considering how crucial it is to be perceived as competent by others for various life outcomes (Galliani & Vianello, 2012; Leisen & Hyman, 2004; Todorov et al., 2005), and for individuals to see themselves as competent (Soral & Kofta, 2020; Wojciszke, 2005)—after all, nobody wants to be

viewed as incompetent. However, does distrust actually mean that one views someone as inherently incompetent?

The respect hypothesis decoded

According to the respect hypothesis, people trust others although they are skeptical of their trustworthiness, because they shy away from signaling to another person that they perceive them as untrustworthy (Dunning et al., 2019; Fetchenhauer et al., 2020; Schlösser et al., 2016). Thus, when deciding whether to trust someone, individuals consider the potential signal of their decision and how it reflects on the person they are trusting or distrusting. In other words, when deciding whether to trust others in the trust game, people might ask themselves: "What does it say about Person B if I assume they would keep all the money for themselves *or* share the money equally with me in this situation?" Hence, when exactly does trusting or not trusting another person signal something about our perception of them?

Even though not explicitly stated, the rationale of this argument is intricately connected to the belief that behaviors, such as another's morality in a trust game or competence in a competence game, serve as a reliable indicator of that person's actual morality or competence (i.e., how diagnostic it is perceived to be of their dispositions), and their trustworthiness in similar circumstances in the future (Heider, 1958; Ross, 1977). Therefore, the decision to distrust or trust is not only indicative of the current situation but also of one's perceptions of another's future behavior. For instance, in the context of the trust game, when Person A believes that one can very confidently draw conclusions about others based on their (single) behaviors and chooses not to trust Person B, they are effectively communicating: "I believe you are and always will be an immoral person." But if they trust, they communicate: "I think you are a moral person." Conversely, if Person A thinks that Person B's decision in the trust game is largely dictated by the specific situation rather than reflecting their true character, then Person A's decision not to trust Person B does not signal any doubt about Person B's dispositional morality. Since individuals tend to expect attitudinal and emotional similarities between

themselves and others (Krueger, 2007; C. J. Lee & Andrade, 2011), they might therefore assume their interaction partners to perceive this similarly.

This assumption has not yet been tested empirically. Thus, we aim to close this research gap by examining the relationship between the perceived diagnosticity of trustworthiness (i.e., morality and competence) and the decision to trust, contributing to a deeper understanding of the underlying psychological mechanism associated with the respect hypothesis. Additionally, we test whether differences in the perceived diagnosticity of morality and competence can explain the different levels of behavioral trust in another's morality and competence.

In this light, we expect two potential alternative results:

1) Similar to trust in another's morality, people also choose to trust in others' competence to avoid doubting them. This is, however, to a much lesser degree, because the signal sent through trust or distrust if it concerns another's competence is much weaker than if it concerns another's morality. For one, research consistently highlights how people are more sensitive to information about another's morality than their competence (Abele & Wojciszke, 2007; Allison et al., 1989; Brambilla et al., 2011; De Bruin & Van Lange, 1999a, 1999b; Fiske et al., 2007; Goodwin et al., 2014; Van Lange & Sedikides, 1998; Wojciszke et al., 1998). In other words, information about another's morality appears to be more important (e.g., for social desirability) than their competence in social judgment (e.g., Goodwin et al., 2014; Landy et al., 2018). Accordingly, research has shown, for example, that intentionally choosing not to meet a trustor's expectations (i.e., behaving immoral) is viewed as more severe—and is less forgiven (P. H. Kim et al., 2006)—than not actually being able (i.e., acting incompetently) to meet them (Elangovan et al., 2007; P. H. Kim et al., 2006). That is, through their distrust or trust in another's morality, people make a statement about a trait (i.e., whether they perceive them as immoral or moral) that is more central to social impressions than through their distrust or trust in another's competence (see also Fetchenhauer et al., in press).

Moreover, and related to this tendency, people perceive differences in the causes of a person's morality and competence. These attributions influence the extent to which a display of morality or competence is perceived as diagnostic, which in turn affects the inferences one can draw from it about others (Martijn et al., 1992; Mende-Siedlecki et al., 2013; Reeder & Brewer, 1979; Reeder & Spores, 1983; Rozin & Royzman, 2001; Rusconi et al., 2020; Singh & Teoh, 2000; Skowronski & Carlston, 1987). Extreme moral turpitude, for example, is often perceived as highly diagnostic of a person's true moral character, as a genuinely moral person, arguably, would not act immorally even when given the opportunity (e.g., Rusconi et al., 2020; Wojciszke et al., 1993). For example, when receiving the keys to a neighbor's house to watch over it while they are away, a moral person would not even consider stealing anything, whereas an immoral person might seize the opportunity—highlighting how "A single dishonest behavior is sufficient to produce a confident attribution that the actor is dishonest" (Reeder & Brewer, 1979, p.68). On the other hand, morally virtuous behavior is not necessarily diagnostic of morality, because situational factors such as social or legal constraints can lead both moral and immoral individuals to behave in the same way in a given situation (Martijn et al., 1992; Rusconi et al., 2020; Skowronski & Carlston, 1987). This aligns with studies suggesting that low morality is readily attributed to enduring character traits, as people believe that morality (particularly low morality) does not change as readily (P. H. Kim et al., 2006; Reeder & Spores, 1983; Rusconi et al., 2017, 2020; Wojciszke et al., 1993). In contrast, competence is generally considered to be more dynamic and context-dependent (Chen et al., 2011; P. H. Kim et al., 2006; Reeder et al., 2001; Tomlinson & Mryer, 2009), and therefore, one display of competence is perceived as less diagnostic of a person's true competence. This is particularly true when observing someone failing at a task once, as this may happen to both competent and incompetent individuals. On the other hand, since one usually does not succeed by accident, particularly in difficult tasks, a display of competence necessitates a higher (dispositional) level of competence, allowing a more confident attribution of actual competence (Fiske et al., 2007; Reeder et al., 2001; Reeder & Brewer, 1979; Skowronski & Carlston, 1987; Wojciszke et

al., 1993). For instance, if a lawyer loses a lawsuit, this does not necessarily indicate the lawyer's incompetence, as the case may have been unwinnable from the start, for example, if the lawyer was appointed as a public defender in a case where all the evidence points against the defendant.

Thus, it is reasonable to assume that a person's morality-related trustworthiness in the trust game is perceived as more diagnostic of them than their competence-related trustworthiness in the competence game. Accordingly, the signal conveyed through distrust in the trust game significantly outweighs the signal sent about Person B in the competence game, ultimately resulting in greater behavioral trust in others' morality than competence.

2) It is also possible that, unlike trust in another's morality, trust in another's competence involves no consideration of the potential signal sent through trust or distrust at all, irrespective of any differences in the perceived diagnosticity between morality and competence. McAllister (1995) postulates that the perceived social and moral characteristics (e.g., organizational citizenship behavior) of another person associate with affect-based trust—that is, an emotion-based bond rooted in interpersonal concern. On the other hand, perceived competence (e.g., role performance) is associated with cognition-based trust—that is, a rational assessment of another person's ability to fulfill their commitments, free of any emotional considerations of concern for another person. In line with this, the series of results reported by Fetchenhauer et. al. (2025) also indicated little evidence for a concern about the signal sent regarding another's competence. For example, essentially the same number of participants placed trust in another's competence as those who took a risk in a simple risk-taking situation where both Person A and Person B started with the same initial endowment (i.e., if Person A decided to keep the money, both actors ended up with the same money). In other words, if both individuals ended up with the same outcome irrespective of the choice, Person A reverted to their risk-taking preferences when deciding whether to trust. Trust in another's morality, however, remained unaffected by whether Person B would still receive money or not if distrusted: Person A still chose to trust in their morality excessively. This result was replicated in

another study using similar methods but with a variety of competence tests on different topics (Graczyk, 2025). Thus, when it comes to trust in another's competence, any excessive risk-taking might reflect a wish to avoid inequality rather than a concern about what the decision reflects about one's perceptions of others (Fetchenhauer et al., in press).

Ultimately, this suggests that trust decisions in the competence game might not be influenced by the perceived diagnosticity of competence at all. Thus, we would expect that the perceived diagnosticity of Person B's trustworthiness (i.e., their morality or competence) relates to Person A's trust decisions in the trust game but not in the competence game.

Both the consideration of the potential signal—which is likely much weaker in the competence game—and the disregard for the potential signal altogether when it comes to trust in another's competence appear to be plausible results that will be tested in this paper.

Overview of studies

We conducted two experimental studies to examine whether people's perception of the diagnosticity of another's trustworthiness relates to their trust decisions. Study 1 utilized a 2 (trustworthiness: trustworthy vs. untrustworthy) x 2 (dimension: morality vs. competence) between-subjects experimental design to investigate differential perceptions of another's trustworthiness. Study 2 then replicated the results from Study 1 and related them to trustors' actual decisions to trust in others' morality and competence in a between-subjects experimental design (trust game vs competence game).

We relied on Prolific for the participants in both studies since Prolific is associated with good data quality (Peer et al., 2017) and has already been successfully used in experimental trust research (Fetchenhauer et al., in press). As a prerequisite for participating, eligible participants had to indicate that English was their native language. Participants who took part in the first study were excluded from participating in the subsequent study. The studies were not pre-registered. Sample sizes were determined before data collection, and we report all

measures, manipulations, and exclusions. Materials and anonymized data are shared on OSF: https://osf.io/uehp2/?view_only=295b3cde7c504e3080aa1d3ef6c6bee4

Study 1

Method

Participants. A total of 400 participants were recruited via the online crowdsourcing platform Prolific. We excluded 28 participants from the analysis due to at least one incorrect answer to control questions and thus obtained a final sample of $N = 372$ participants (186 women, 182 men, 4 chose not to assign themselves) with self-reported ages ranging between 3 and 86 years ($M = 39.77$, $SD = 13.59$).[9] For this sample size, a sensitivity analysis for an ANOVA (α-error = .05, 1 – β-error = .80) indicated a minimum detectable $f = 0.172$ (partial $\eta_p^2 = .029$). All participants received a flat payment of £1.00.

Procedure. In a 2 x 2 between-subjects experimental design, participants were randomly assigned to participate in the trust *or* competence game (see above). To control for the understanding of the description of the decision-making situations, participants were asked to answer a few check questions relating to monetary rewards. Afterward, participants had to estimate the percentage of Persons B returning half the money in the trust game ($M = 44.05$, $SD = 22.05$) or answering at least five out of ten questions correctly in the competence game ($M = 45.11$, $SD = 17.89$) as a measure of their cognitive trust (Dunning et al., 2019)—in the competence game after having seen the test questions presented to Person B.[10] Subsequently, par-

[9] After excluding the participant who reported an age of 3, the age range was between 19 and 86 years ($M = 39.87$, $SD = 13.48$). Since we had no hypothesis regarding age, we did not exclude this participant from the analysis.

[10] Results of an independent sample *t*-test indicated no significant difference in the estimated proportion of moral and competent interaction partners, $t(353.44) = -0.51$, $p = .612$, $d = -0.05$, 95% CI[-0.26, 0.15]. Thus, we decided not to consider cognitive trust in any of the analyses.

ticipants were again randomly assigned to one of two conditions: In the trust game, participants were asked to imagine a Person B who either kept all the money *or* returned half the money to Person A. In the competence game, participants were asked to imagine a Person B who either answered fewer *or* at least five out of ten questions correctly—which would be relevant to the decision-making situation. To ensure that participants read the instructions properly, they had to correctly answer a control question about Person B's decision or test result in line with the scenario they were asked to imagine before proceeding to the following questions.

Subsequently, participants were asked about how diagnostic they perceived Person B's trustworthiness using two items based on Wojciszke et al. (1993). For example, in the trust game, participants were asked to answer "To what extent is this a typical example of Person B's morality? That is, how much could you say about Person B's morality based on this alone?" on a scale ranging from 1 (*Not at all representative of Person B's morality*) to 7 (*Totally representative of Person B's morality*), and "How much does this tell you about Person B in general?" on a scale ranging from 1 (*Very little*) to 7 (*Very much*) (M = 4.49, SD = 1.54, α = .80). Additionally, all participants were asked to indicate to what extent a set of descriptions—five relating to morality ("moral," "honest," "nice," "fair," "friendly"; M = 4.34, SD = 1.47, α = .97) and five relating to competence ("competent," "clever," "smart," "intelligent," "wise"; M = 4.59, SD = 1.10, α = .94)—would apply to Person B based on their trustworthiness. All questions were answered on a scale ranging from 1 (*Not at all*) to 7 (*Totally*) and in random order. Finally, participants indicated their gender and stated their age.

Explorative variables. For explorative purposes, participants were asked about their overall negative or positive impressions of Person B based on their decision or test result using one question adapted from Wojciszke et al. (1993). For example, in the trust game, participants were asked to answer "Based on this alone, what is your evaluation of Person B?" on a scale ranging from 1 (*Very negative*) to 7 (*Very positive*) (M = 4.56, SD = 1.52).

Additionally, for explorative purposes, drawing on the conceptions of causal attributions of Weiner (1985) and Heider (1958), we asked participants four questions, each addressing one dimension of causal attribution (locus, stability, globality, and control) behind Person B's behavior or test result, based on scales from prior research (Mcauley et al., 1992; Peterson et al., 1982). For another unrelated research project, we additionally asked participants to answer four questions each, employing their implicit theory of morality and intelligence by adopting previous scales (Dweck, 2000; Dweck et al., 1995; H. Han et al., 2020).

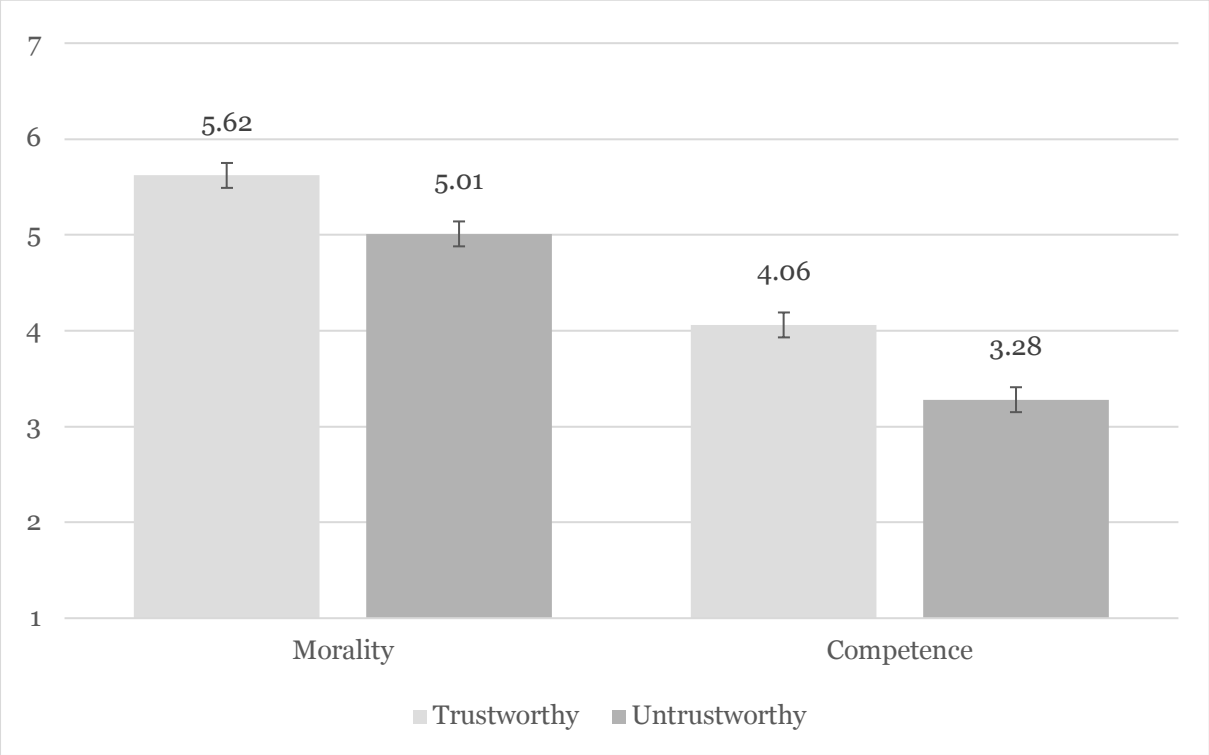
Results

Did the participants perceive Person B's decisions in the trust game as more diagnostic than their test results in the competence game? Indeed, they did. Figure 11 illustrates that Person A generally perceived Person B's morality to be more diagnostic (M = 5.32, SD = 1.24) than their competence (M = 3.68, SD = 1.36). Specifically, Person A perceived both Person B's moral displays (compared to competent) and Person B's immoral display (compared to incompetent) as more diagnostic. Moreover, we found that participants generally perceived positive displays of morality or competence as more diagnostic (M = 4.84, SD = 1.48) than negative displays of immorality or incompetence (M = 4.14, SD = 1.52).

The results of a two-way ANOVA showed that the greater perceived diagnosticity of Person B's morality compared to competence was significant (F(1, 368) = 158.24, p < .001, partial η_p^2 = .30). Likewise, the greater perceived diagnosticity of Person B's trustworthiness (i.e., moral and competent) compared to untrustworthiness (i.e., immoral and incompetent) was significant (F(1, 368) = 28.31, p < .001, partial η_p^2 = .07). An absent interaction effect indicated that the greater perceived diagnosticity of trustworthiness compared to untrustworthiness was no different in regard Person B's morality and competence (F(1, 368) = 0.43, p = .511, partial η_p^2 = .001). These results remained structurally similar after adjusting for cognitive trust—that is, the expectation of others' morality or competence. Therefore, from Person A's perspective, Person B's decision in the trust game is perceived to be more telling of Person

B than the test result in the competence game, irrespective of whether this display of morality or competence was positive or negative.

Figure 11. *Perceived diagnosticity of Person B's trustworthiness (trustworthy vs. untrustworthy) by dimension (morality vs. competence)*

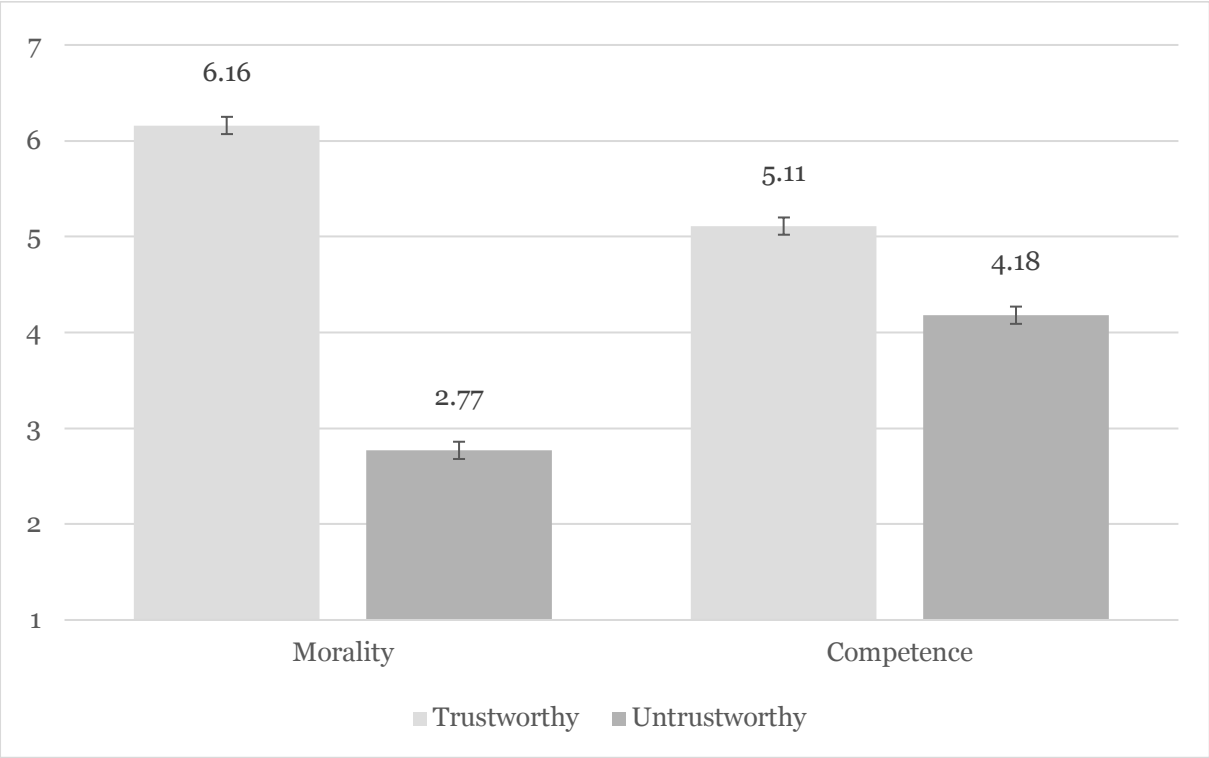


Note: High values depict higher perceived diagnosticity. Error bars depict standard errors.

As another approach to examining the insightfulness of Person B's behavior in the trust game or Person B's test result in the competence game, we investigated how perceptions of morality related to perceptions of competence. To this end, we calculated two bivariate correlations between our self-developed perceived morality and competence scales. While participants related Person B's competence to their morality based on information about Person B's morality ($r(183) = .60$, $p < .001$, 95% CI[.50, .68]), participants did not draw any conclusions about Person B's morality based on Person B's competence ($r(185) = .11$, $p = .138$, 95% CI[-.04, .25]). A Fisher's z-test showed a significant difference between the correlations ($p < .001$). That is, Person B's moral or immoral behavior was perceived to also carry information about their competence beyond merely their moral characteristics, but Person B's competence or incompetence was not perceived to be insightful for their morality.

Explorative analysis. Additionally, we investigated the overall impression of Person B based on their morality and competence. As shown in Figure 12, Person B was perceived significantly more positively if they were moral rather than immoral (M = 6.16, SE = 0.09 vs. M = 2.77, SE = 0.09, MD = 3.39, p < .001, 95% CI [3.05, 3.73]). The same was true, albeit to a smaller degree, if Person B was competent rather than incompetent (M = 5.11, SE = 0.09 vs M = 4.18, SE = 0.09, MD = 0.92, p < .001, 95% CI [0.58, 1.26]). Moreover, Person B was perceived significantly more positively if they were moral rather than competent (MD = 1.06, p < .001, 95% CI [0.72, 1.39]), but significantly more negatively if they were immoral rather than incompetent (MD = -1.41, p < .001, 95% CI [-1.75, -1.07]).

Figure 12. *Overall positive or negative impression of Person B by their trustworthiness (trustworthy vs. untrustworthy) and the dimension (morality vs. competence)*



Note: High values depict a positive impression of Person B. Error bars depict standard errors.

Accordingly, results of a two-way ANOVA showed that Person A's impression of Person B was generally more positive if Person B was trustworthy compared to untrustworthy (F(1, 368) = 565.71, p < .001, partial η_p^2 = .60), although this difference was significantly more pro-

nounced with Person B's morality versus immorality compared to competence versus incompetence ($F(1, 368) = 184.74$, $p < .001$, partial $\eta_p^2 = .33$). The results here remained structurally similar when adjusting for cognitive trust.

Thus, Person B was perceived more positively if they were moral or competent rather than immoral or incompetent. However, Person B's decision in the trust game had a greater influence on their impression, in both positive and negative directions, than the test result in the competence game.

Summary and discussion

Both morality and competence were perceived as more diagnostic than immorality and incompetence, respectively. Additionally, overall, interaction partners' behaviors in the trust game were perceived to be more telling of them than test results in the competence game. Furthermore, both morality and competence were viewed more positively than immorality and incompetence, respectively. However, being moral was seen more favorably than being competent, just as being immoral was seen more unfavorably than being incompetent. Interestingly, while immorality was perceived very negatively, incompetence was regarded rather neutrally—that is, neither particularly positive nor particularly negative. These findings support the idea of greater sensitivity to morality-related information than competence-related information in social impression-making, as suggested in previous research (Goodwin et al., 2014; Wojciszke et al., 1993, 1998).

Study 2

Study 1 revealed that acts of trustworthiness, as measured in game-theoretic paradigms, are perceived as more diagnostic if they concern a person's morality than their competence. In Study 2, we examined whether the perceived diagnosticity of another's trustworthiness related to the decision to trust them in both the trust game and the competence game, respectively.

Method

Participants. A total of 401 participants were recruited via Prolific. We excluded 13 participants from the analysis who gave at least one incorrect answer to control questions and thus obtained a final sample of N = 387 participants (189 women, 194 men, 4 chose not to assign themselves) with self-reported ages ranging between 18 and 79 years (M = 39.34, SD = 13.63). For this sample size, a sensitivity analysis for a two-tailed binary logistic regression (α-error = .05, 1 − β-error = .80, $Pr(Y=1|X=1)$ H_0 = 0.359, π = 0.5) indicated that an OR = 0.56 or smaller would be detectable. Additionally, we recruited N = 40 participants serving as Person B (20 women, 18 men, 2 chose not to assign themselves) with self-reported ages ranging between 21 and 73 years (M = 39.48, SD = 14.14). Person A participants received a flat payment of £0.60; Person B participants received a flat payment of £1.00. Additionally, participants could receive variable bonus payments from the decision-making situations.

Procedure. In general, Study 2 followed the procedure of Study 1. First, participants were randomly assigned to participate in the trust *or* competence game, which replicated the same monetary rewards as in Study 1 (see above). Again, after participants had answered several questions to assess their understanding of the situation, they were asked about their cognitive trust as a control variable (Dunning et al., 2019)—that is, the percentage of moral or competent Persons B—following the same method as in Study 1 (see above).

Afterward, participants were asked how diagnostic they perceived Person B's behavior or test result using the same questions as in Study 1. As in Study 1, for explorative purposes, we again asked for participants' overall positive or negative impression of Person B (see above). In this study, however, to avoid salience effects, each participant answered those questions relating to Person B being moral (or competent) and immoral (or incompetent) in random order. Subsequently, participants were asked for their decision as Person A (either *I keep the £2* or *I send the £2 to Person B*). Finally, we asked for the participants' genders and ages.

Person A participants were truthfully informed that only every tenth participant would receive real money according to their decision to avoid recruiting a needlessly large number

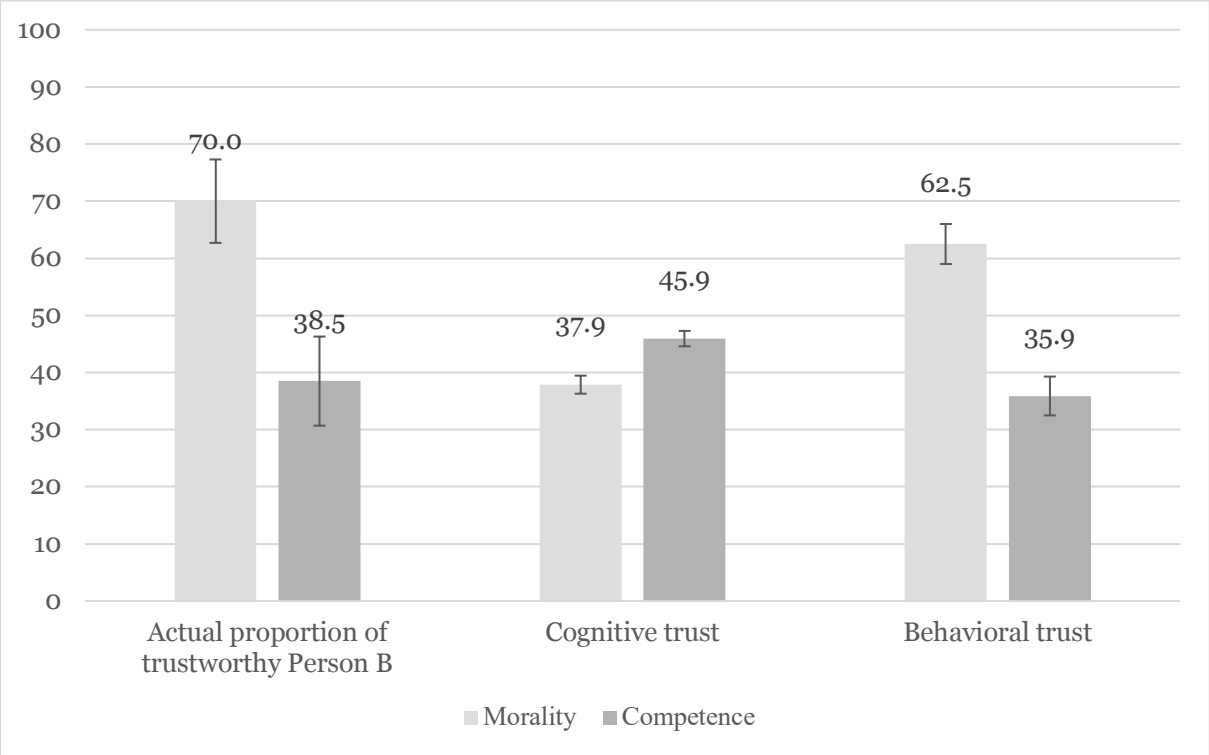
of Person B participants. Person B participants took part in the trust game by indicating whether they wanted to keep all the money or share it equally, and in the competence game by completing the intelligence test. All Person B participants were truthfully informed that they would receive real money in only one of the two games. For the sample description, participants were also asked for their age and gender at the end of the questionnaire.

Results

In the position of Person B, 70% of the participants decided to share the money equally, and 38.5% of the participants answered at least five out of ten test questions correctly. A McNemar's test showed that the proportion of trustworthy participants was significantly higher in the trust game than in the competence game ($\chi^2(1) = 8.47$, $p = .004$). Figure 13 illustrates how Person A significantly underestimated the morality of Person B in the trust game ($M = 37.88$, $SD = 21.84$, $t(191) = -20.38$, $p < .001$, $d = -1.47$, 95% CI[-1.67, -1.27]), but significantly overestimated the competence of Person B in the competence game ($M = 45.94$, $SD = 18.85$, $t(194) = 5.51$, $p < .001$, $d = 0.40$, 95% CI[0.25, 0.54]).

Importantly, Person A expected that fewer Persons B would share the money than correctly answer at least five out of ten questions ($t(375.22) = -3.89$, $p < .001$, $d = -0.40$, 95% CI[-0.60, -0.19]). However, compared to their cognitive trust, a reversed pattern could be observed for their behavioral trust. Behaviorally, a significantly greater proportion of the participants (62.5% vs. 35.9%) chose to trust others' morality than competence ($\chi^2(1) = 27.40$, $p < .001$, $\varphi = .27$, $Exp(B) = 0.34$).

Figure 13. *Actual and expected trustworthiness and competence (i.e., cognitive trust) as compared to cognitive and behavioral trust in morality vs. trust in competence*

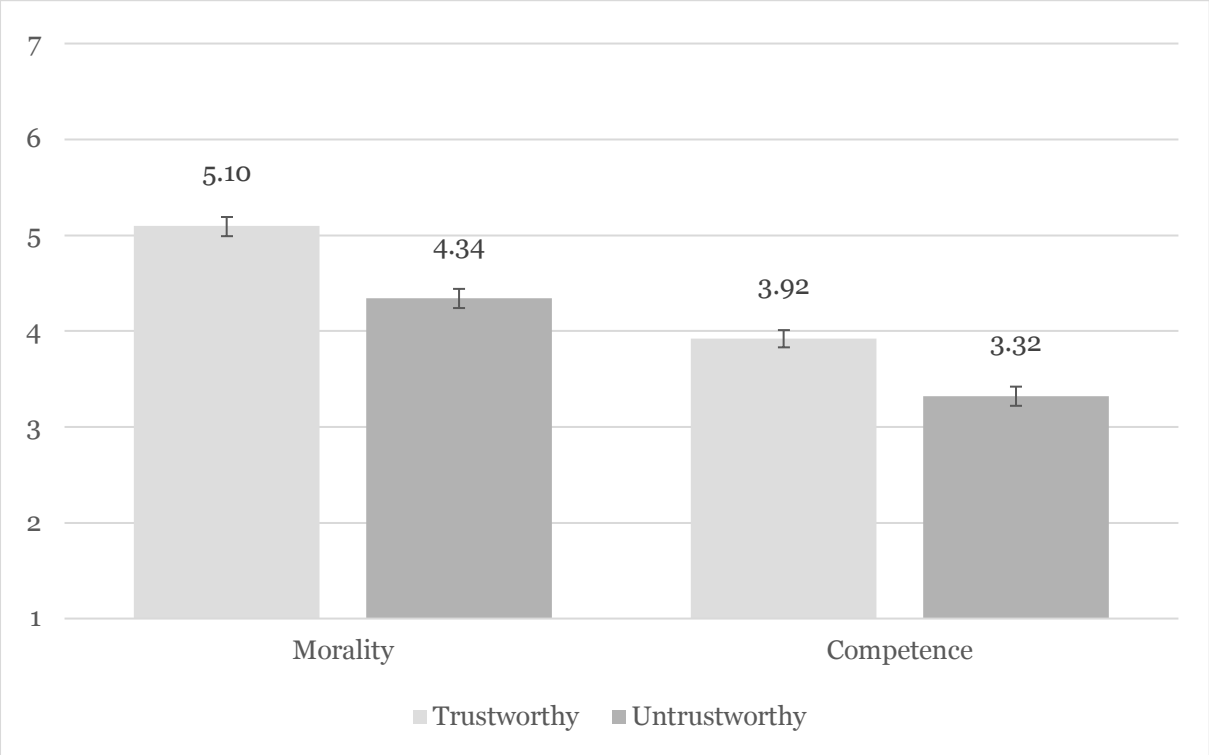


Note: The actual proportion of trustworthy Person B should be interpreted with caution due to the very small sample (N =40) recruited solely to serve as interaction partners for Person A. Error bars depict standard errors.

In light of these results, we asked whether Person A once again perceived Person B's decision in the trust game as more telling of them than their test result in the competence game. Indeed, Figure 14 illustrates that Person A generally perceived Person B's morality as more diagnostic (M = 4.72, SD = 1.21) than their competence (M = 3.63, SD = 1.14). As in Study 1, both Person B's moral (compared to competent) display and their immoral (compared to incompetent) display were perceived to be more diagnostic. Also, we again found that a positive display of morality or competence was perceived to be more diagnostic than a negative display of immorality or incompetence (M = 4.51, SD = 1.41 vs M = 3.83, SD = 1.44). Replicating the results from Study 1, a repeated-measures ANOVA showed that the greater perceived diagnosticity of Person B's morality compared to competence (F(1, 385) = 83.82, p < .001, partial η_p^2 = .18) and that the greater perceived diagnosticity of Person B's trustworthiness (i.e., moral and competent) compared to untrustworthiness (i.e., immoral and incompetent)

was significant ($F(1, 385) = 124.04$, $p < .001$, partial $\eta_p^2 = .24$). Again, a non-significant interaction effect indicates that the greater perceived diagnosticity of trustworthiness compared to untrustworthiness was no different in regard Person B's morality and competence ($F(1, 385) = 1.79$, $p = .182$, partial $\eta_p^2 = .01$).

Figure 14. *Perceived diagnosticity of Person B's trustworthiness (within-subjects: trustworthy vs. untrustworthy) by dimension (between-subjects: morality vs. competence)*



Note: High values depict higher perceived diagnosticity. Error bars depict standard errors.

Given the absence of an interaction effect and the results of a principal component analysis (PCA) identifying only a single component, we decided to combine all items measuring the perceived diagnosticity into one scale for increased parsimony and interpretability for further analysis ($M = 4.17$, $SD = 1.30$, $\alpha = .81$).

Finally, we ask whether the perceived diagnosticity of Person B's morality and competence is related to Person A's willingness to trust. Specifically, does it explain the greater willingness to trust others' morality over competence, or does it exclusively relate to the willingness to trust others' morality? Table 14 depicts the results of a step-wise binary logistic regression analysis adjusted for participants' estimation of others' morality and competence (i.e.,

cognitive trust) to answer this question.[11] Confirming previous analyses, Person A exhibited a significantly lower propensity to pass on their endowment if it concerned Person B's competence compared to morality (b = -1.72, *Exp(B)* = 0.18, $p < .001$, 95% CI[0.11, 0.29]). Including the perceived diagnosticity in a second step yielded no significant increase in model fit ($\chi^2(1) = 0.51$, $p = .476$). Thus, the difference in the perceived diagnosticity of morality and competence did not account for the difference in behavioral trust levels. However, adding an additional interaction term of the perceived diagnosticity with the game yielded a significant increase in model fit ($\chi^2(2) = 9.61$, $p = .008$). In this model, there was no longer any difference between the willingness to trust another's morality or competence (b = 0.84, *Exp(B)* = 2.32, $p = .333$, 95% CI[0.42, 13.02]). Using the trust game as a reference category, we found a significant positive relation between the perceived diagnosticity of morality and the decision to trust in morality (b = 0.37, *Exp(B)* = 1.45, $p = .010$, 95% CI[1.10, 1.94]) and a significant interaction effect indicating a smaller relation of the perceived diagnosticity of competence with the decision to trust in competence (b = -0.61, *Exp(B)* = 0.55, $p = .003$, 95% CI[0.36, 0.81]).

[11] The results of the analyses remain structurally the same in a model that excludes cognitive trust as a covariate.

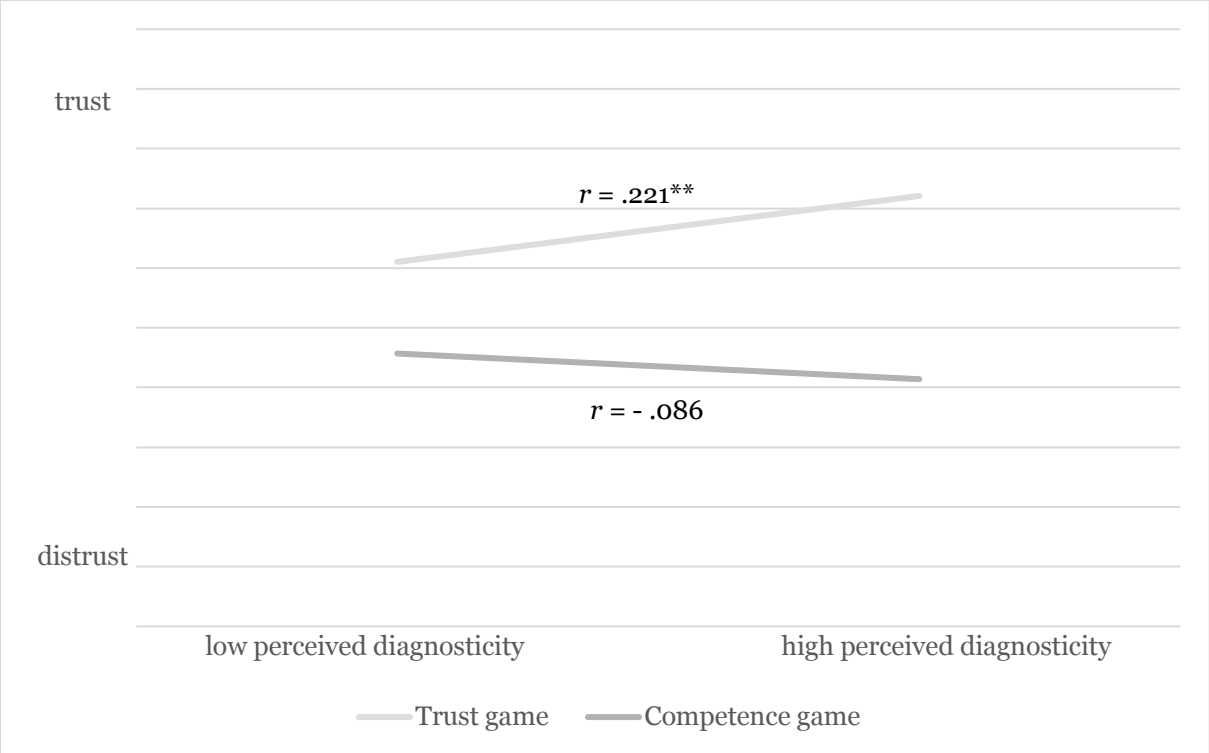
Table 14. *Stepwise binary logistic regression analysis of Person A's decision to trust as a function of Person B's trustworthiness dimension (morality vs. competence), Person A's cognitive trust and Person A's perceived diagnosticity of Person B's trustworthiness*

	Model 1				Model 2				Model 3			
			95% C.I. for *Exp(B)*				95% C.I. for *Exp(B)*				95% C.I. for *Exp(B)*	
Predictor	*Exp(B)*	*SE*	Lower	Upper	*Exp(B)*	*SE*	Lower	Upper	*Exp(B)*	*SE*	Lower	Upper
Cognitive trust	1.05***	0.01	1.04	1.06	1.05***	0.01	1.04	1.06	1.05***	0.01	1.04	1.06
Game	0.18***	0.26	0.11	0.29	0.19***	0.28	0.11	0.33	2.32	0.87	0.42	13.02
Diagnosticity					1.07	0.10	0.88	1.31	1.45*	0.14	1.09	1.92
Game x diagnosticity									0.55**	0.20	0.36	0.81
Constant	0.32***	0.27			0.23**	0.53			0.06***	0.73		
Model χ^2	93.01				93.51				102.61			
df	2				3				4			
p	< .001				< .001				< .001			
-2 Log likelihood	443.36				442.86				443.76			
Nagelkerke R^2	0.28				0.29				0.31			

Note: In "Game", the trust game condition served as the reference category. High values in "Diagnosticity" express higher perceived diagnosticity of Person B's morality/competence. Asterisks indicate significance at the $p < .05$ level (*), at the $p < .01$ level (**), and at the $p < .001$ level (***).

To gain a clearer understanding, we conducted a separate binary logistic regression, including only subjects that participated in the competence game and with cognitive trust as a covariate ($\chi^2(2) = 29.75$, $p < .001$, *Nagelkerke* $R^2 = .19$), which showed no significant relationship between the perceived diagnosticity of competence and the decision to trust in competence ($b = -0.23$, *Exp(B)* = 0.79, $p = .106$, 95% CI[0.60, 1.05]). Thus, the perceived diagnosticity of morality relates to behavioral trust in others' morality. However, this relationship does not manifest when it regards another's competence. Figure 15 illustrates this interaction effect using point-biserial correlations.

Figure 15. *Point-biserial correlation slopes of Person A's perceived diagnosticity of Person B's trustworthiness with their decision to trust in morality and competence*



Note: Asterisks indicate significance at the $p < .05$ level (*), at the $p < .01$ level (**), and at the $p < .001$ level (***).

Summary and discussion

As in Study 1, morality and competence were perceived as more diagnostic than immorality and incompetence, respectively. Likewise, decisions in the trust game were again perceived to be more telling of Person B than the test result in the competence game. Extending

the results of Study 1, Study 2 additionally showed that the perceived diagnosticity of morality was related to the willingness to trust in another's morality, as expected based on the respect hypothesis. The more diagnostic participants perceived morality to be, the more they actually trusted others' morality. However, the perceived diagnosticity of competence did not relate to trust in another's competence, suggesting that individuals disregard the potential signal that their decision may convey regarding their perceptions of another's competence.

General discussion

This paper aimed to close two research gaps. First, we aimed to elaborate on the respect hypothesis, stating that people trust in others' morality excessively—given their low expectations of others' morality—due to a reluctance to signal to them that they suspect them to be immoral. To this end, we proposed that the perceived diagnosticity of others' trustworthiness—that is, the perceived insightfulness of a display of trustworthiness for a person's dispositions—is related to trust decisions. Second, we investigated differences in the perceived diagnosticity of morality and competence to potentially help explain the varying levels of behavioral trust in others' morality and behavioral trust in others' competence observed in previous studies (Fetchenhauer et al., in press).

Our findings reveal that trustworthiness was perceived as more diagnostic of underlying dispositions compared to untrustworthiness across both the morality and competence dimensions (Studies 1 & 2). Additionally, a behavior in the trust game was generally perceived to be more diagnostic of another's morality than an outcome in the competence game was of another's competence (Studies 1 & 2). Additionally (also in line with previous studies, e.g., Stellar & Willer, 2018), and by extension, our self-developed scales to measure perceptions of Person B's competence and morality showed that the participants made conclusions regarding Person B's competence based on their moral behavior, but not vice versa (Study 1).

Thus, contrary to previous research, we did not observe an often-documented positivity-negativity asymmetry (Reeder & Brewer, 1979; Rozin & Royzman, 2001; Singh & Teoh,

2000; Skowronski & Carlston, 1987; Wojciszke et al., 1993), in that immorality would be perceived as more diagnostic than morality, but competence as more diagnostic than incompetence. Noteworthily, studies showing a higher perceived diagnosticity of an immoral behavior compared to moral behavior typically used behaviors with high levels of extremity (i.e., extremely dishonest rather than moderately dishonest behaviors). Relatedly, Wojciszke et al. (1993) found that the negativity bias of morality depended on the extremity of the transgression. Whereas this bias manifested for extreme moral transgressions (e.g., fleeing the scene of an accident), it decreased or disappeared for moderately evaluated transgressions, such as jumping a queue. Conversely, the positivity bias of competence increased for moderate rather than extreme acts (Wojciszke et al., 1993). In our studies, the morality-related acts—that is, Person B sharing or keeping the money—and competence-related acts—that is, Person B answering at least five or fewer than five out of ten intelligence test questions correctly—could be interpreted as rather moderate. This might explain the observed results of the higher perceived diagnosticity of Person B's trustworthiness—that is, their morality or competence—compared to their untrustworthiness—that is, their immorality or incompetence.

Future research could explore the generalizability of these findings. For instance, it could examine whether similar levels of perceived diagnosticity are observed across both dimensions of trustworthiness when larger sums of money are involved in the respective decision-making situations. Specifically, do we still find greater perceived diagnosticity for moral behavior compared to immoral behavior if Person B decides to share £10, £50, or £100 equally in the trust game, where keeping the entire amount might be viewed as increasingly extreme? Additionally, does the perceived diagnosticity of competence in the competence game show any changes for these higher stakes, given that the probability of competence is relatively independent of the amount at stake and instead changes depending on the extremity (i.e., difficulty) of the competence criterion (see also Rusconi et al., 2020)?

Nevertheless, as theoretically predicted, participants overall perceived Person B's decisions in the trust game to be more diagnostic than the test results in the competence game

(Studies 1 & 2). Additionally, participants viewed another person much more positively when they behaved morally than when acting competently, and much more negatively when they behaved immorally than when acting incompetently. Collectively, these findings support the idea of being more sensitive to morality-related information than to competence-related information in social impression-making. They align well with the notion of the primacy of moral traits in social cognition (Fiske et al., 2007) and their dominant role in forming impressions of others, with competence-related information serving as a modifier of them (Fiske et al., 2007; Wojciszke et al., 1998).

Moreover, in Study 2, we replicated a main finding regarding trust in others' morality: Participants significantly underestimated the actual trustworthiness of others but chose to trust too much given those expectations (Fetchenhauer & Dunning, 2009). Likewise, we replicated results reported by Fetchenhauer et al. (in press), where behavioral trust in another's morality significantly exceeded behavioral trust in another's competence at similar levels of cognitive trust (i.e., expectations of another's trustworthiness).

In an extension of previous research, our results show that participants chose to trust their interaction partners more when they perceived a display of moral and immoral behavior to be more revealing of them. This association, however, did not show with behavioral trust in others' competence and the perceived diagnosticity of another person's competence and incompetence (Study 2). Because participants did not seem to consider what their decisions might say about their perceptions of their interaction partner, and trustors' decisions were only related to their expectations of their interaction partners' competencies, our results are in line with the notion of a cognition-based approach to the decision (McAllister, 1995). In keeping with our assumptions and complementing the respect hypothesis (Fetchenhauer & Dunning, 2012), trust in others' morality corresponded with what these decisions supposedly signal about participants' perceptions of their interaction partner. The more diagnostic participants perceived morality and immorality to be, the more often they chose to trust others' morality, indicating that participants consider the impact their distrust and trust might have

on the trustee's self-esteem (Heider, 1958; Hu et al., 2015; Weiner, 1985) and that they respect their moral character (Dunning et al., 2019; Fetchenhauer et al., 2020). Beyond this, however, our findings indicate that participants inferred Person B's competence based on their morality, suggesting that questioning someone's morality does more than cast doubt on their moral character; it also brings their competence into question. To expand on this idea and complement our findings, future research could employ more direct measures of the presumed signals sent to trustees. For example, researchers could ask trustors directly what they believe they are signaling to trustees about their morality or competence through their trust decisions. Furthermore, researchers could investigate whether these perceptions align with what trustees believe trustors are signaling to them through their decisions and whether, in cases of distrust, trustees engage in self-serving attributions to uphold their self-view to a similar degree if the distrust concerns their morality or competence (see, e.g., Coleman, 2011).

Obviously, more thorough research is needed to examine the causal direction between the perceived diagnosticity of morality and trust in morality, as a reversed relationship is also conceivable. For instance, as part of motivated reasoning (Epley & Gilovich, 2016), participants might have decided in advance whether they wanted to trust their interaction partner and then adjusted their judgements about the diagnosticity afterward to "ease" any emotions (Dunning et al., 2014; Schlösser et al., 2016) tied to their choice (i.e., "Since my decision does not tell anything about Person B, I do not have to feel bad about distrusting them"). To establish the causal link, future research could, for example, prime the diagnosticity level (low vs. high) by using similar procedures to Chiu et al. (1997)—which involves reading an article that claims traits are stable *or* can change over time—and subsequently measure trust decisions. Alternatively, inspired by research on trust violation and repair (e.g., Kim et al., 2006), future research may experimentally vary information given to trustors about how their trustees fared in a previous interaction. Given the higher perceived diagnosticity of morality compared to competence, trustors might consider the prior morality of trustees in a trust game more than their prior competence in a competence game—at least cognitively.

However, we believe that the structurally consistent levels in the perceived diagnosticity of others' morality and competence in both studies support the suggested causal narrative. While the situation involving a subsequent decision (Study 2) could have led to a reversed relationship, the absence of a decision in Study 1 eliminated the need for, for example, motivated reasoning (Epley & Gilovich, 2016). Thus, the consistent levels of perceived diagnosticity across both studies suggest they were not influenced by the decision to trust or distrust.

Moreover, future research should investigate whether this relationship holds across different cultures. Analyses not reported here showed that the more participants perceived the cause of trustworthiness to be internal (locus), stable, and controllable, the more diagnostic they perceived it to be of underlying dispositions (see OSF for details). Notably, cultural and societal values can shape locus and control attributions of others' behaviors, with individualistic or Protestant cultures demonstrating a stronger tendency toward an internal and personally controlled—and thus very diagnostic—attribution pattern compared to collectivistic or Confucian cultures (Menon et al., 1999; Miyamato & Kitayama, 2002; Morris et al., 2001). In this regard, the research has interestingly shown that levels of trust in the morality of out-group members are more similar to those of in-group members in individualized countries that have moved away from viewing people in relation to social groupings. In contrast, collectivistic countries exhibit a narrower trust radius, meaning that people from those countries are less likely to trust the morality of out-group members than in-group members (Delhey et al., 2011; Delhey & Welzel, 2012; Enke, 2019). The relationships between the perceived diagnosticity of morality and trust in morality may lead to a wider trust radius in individualistic cultures because of the more prevalent dispositional (i.e., more diagnostic) attribution pattern, both for in-group and out-group members. Conversely, as situational (i.e., less diagnostic) attribution patterns—including both moral and immoral behaviors—are more common in collectivistic cultures, the perceived moral obligation to trust, especially out-group members, may diminish. Consequently, the trust radius may narrow, focusing more on close relationships (Delhey et al., 2011). Thus, our results may be valuable for advancing the understanding of cross-cultural differences regarding trust in morality, offering a promising avenue for future research.

Conclusion

This study presents insightful results on the perceived diagnosticity of morality and competence and their relation with respective trust decisions. While the perceived diagnosticity of morality related to trust in another's morality, no such relation was found between the perceived diagnosticity of competence and trust in another's competence. Our results also add to research showing that people more strongly condemn others' immorality than incompetence, alleviating the psychological cost of being distrusted in one's competence. These results closely align with existing trust research and provide a valuable theoretical contribution to the field.

Chapter 6

Trust the gap? A brief meta-analysis of trust in morality versus trust in competence

"A wise man, therefore, proportions his belief to the evidence."

— David Hume,
An Enquiry Concerning the Human Understanding

Across the multiple studies and conditions presented in this thesis, people exhibited a greater willingness to trust in others' morality than their competence. To illustrate this, for all studies and conditions that compared both behaviors, 68.5% of participants trusted in others' morality, and a considerably lower proportion of 47.2% trusted in others' competence. To obtain a more precise estimate of this difference in trusting behavior, I conducted a multi-level meta-analysis on the raw data (i.e., the number of trusting and distrusting participants in the trust games and competence games) using a random effects model with restricted maximum likelihood estimation using the *metafor* package in R (Viechtbauer, 2010). This analysis included a total of 16 comparisons between behavioral trust in others' morality and behavioral trust in others' competence, nested in six studies (see Assink & Wibbelink, 2016 for this approach). A multi-level analysis allowed me to extract multiple effect sizes within a single study, thereby better reflecting the variances in effect sizes (see Table 15).

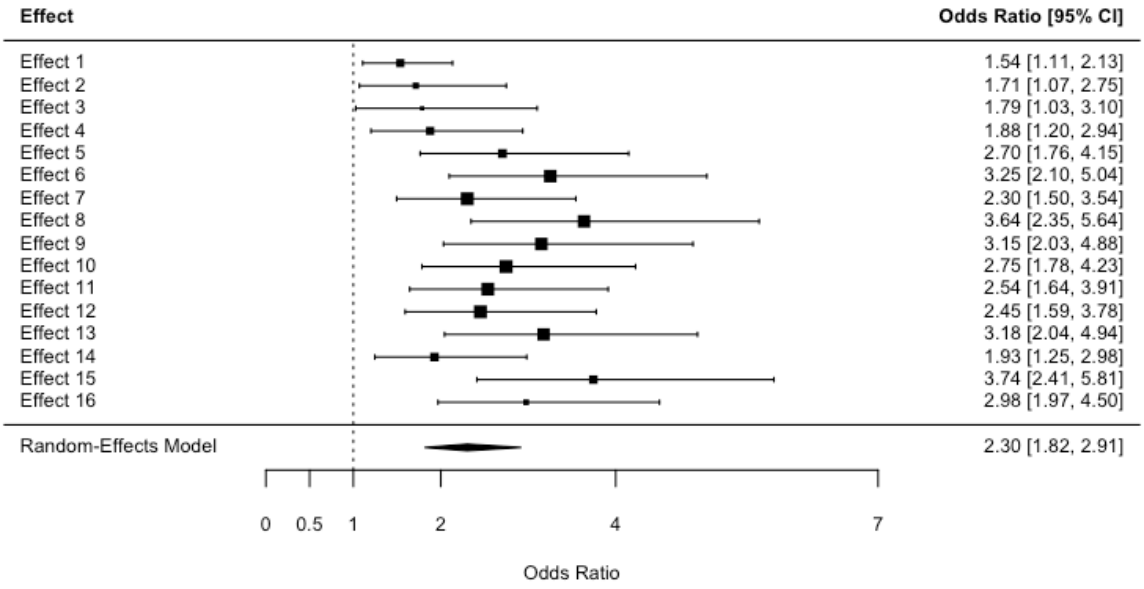
Table 15. *The data set used for the multi-level meta-analysis*

			potential moderators			trust game		competence game	
Chapter	Study	Effect number	Study design	Competence test	Endowment	Cases trusting	Cases distrusting	Cases trusting	Cases distrusting
2	1	1	within-subjects	trivial pursuit	no endowment	219	97	188	128
2	2	2	between-subjects	IQ	no endowment	74	64	58	86
2	2	3	between-subjects	IQ	no endowment	111	27	99	43
2	3	4	between-subjects	IQ	no endowment	137	44	121	73
2	3	5	between-subjects	IQ	endowment	127	52	93	103
3	1	6	between-subjects	IQ	endowment	117	53	74	109
3	1	7	between-subjects	EQ	endowment	117	53	93	97
3	1	8	between-subjects	Intercultural	endowment	117	53	71	117
3	1	9	between-subjects	Decision-making	endowment	117	53	75	107
3	1	10	between-subjects	Health	endowment	117	53	86	107
3	1	11	between-subjects	AI	endowment	117	53	87	100
3	1	12	between-subjects	Digital news	endowment	117	53	90	100
3	1	13	between-subjects	Environ-mental	endowment	117	53	73	105
4	3	14	between-subjects	IQ	no endowment	122	51	103	83
4	3	15	between-subjects	IQ	endowment	107	62	59	128
5	2	16	between-subjects	IQ	no endowment	120	72	70	125

Note: In accordance with the analyses in the previous chapters, for this data set, I utilized the number of events (i.e., trust) and non-events (i.e., distrust) after excluding cases with at least one incorrectly answered control question. The variable *endowment* depicts whether the trustee also received an initial endowment (0 = no initial endowment for the trustee; 1 = with an initial endowment for the trustee).

In line with the findings from the individual studies, overall, the results of the meta-analysis confirm a significantly greater willingness to trust in others' morality than in others' competence, $b = 0.83$, $Exp(B) = 2.30$, $p < .001$, 95% CI [1.82, 2.91]. However, there was meaningful heterogeneity between the individual effect sizes, $Q(15) = 26.01$, $p = 0.038$ (see Figure 16).

Figure 16. *Multi-level meta-analysis forest plot of the willingness to trust others' morality versus competence*



Note: The squares illustrate the individual effect sizes across studies and conditions. The size of each square reflects the weight of the effect size to the overall effect size. The diamond illustrates the overall effect size, with its width indicating the 95% confidence interval.

On closer inspection, there may be a systematic difference in the effect size between the conditions where participants' interaction partners also received an initial endowment and the conditions where the interaction partners did not. To illustrate this, for all studies where the interaction partner was initially not endowed with the same sum of money, 68.8% of participants decided to trust in others' morality, and a lower proportion of 54.3% decided to trust in others' competence. However, where the interaction partner also received an initial endowment, 68.6% of participants decided to trust in others' morality, and a considerably lower proportion of 44.7% decided to trust in others' competence.

Accordingly, using a meta-regression, I found a significantly greater difference in the willingness to trust in others' morality compared to their competence when an endowment was involved for the interaction partner (b = 1.07, *Exp(B)* = 2.93, p < .001, 95% CI [2.50, 3.43]), than when no endowment was involved for the interaction partner (b = 0.66, *Exp(B)* = 1.93, p = .002, 95% CI [1.44, 2.58]), p = .006. Within these subgroups, there was no meaningful heterogeneity between the individual effect sizes; with an endowment for the interaction partner: $Q(9)$ = 5.07, p = 0.828; without an endowment for the interaction partner: $Q(5)$ = 6.37, p = 0.272.[12]

In other words, the cumulative evidence indicates a significantly greater willingness to trust in others' morality than in their competence, although the extent of this difference depends on contextual factors. This effect appears weaker when trust is the only way for the other person to (potentially) receive money. Further research is needed to identify further potential moderators of this difference.

[12] It should be noted that in Chapter 3, the respective competence games were all tested against the same sample in the trust game, which introduces some bias compared to a corresponding independence in the other studies. Given the lack of significant differences in the willingness to trust someone's IQ compared to all other competence tests (see Chapter 3), I repeated the analysis by pooling all competence games in this study. The results were structurally similar. Although the overall effect size was slightly smaller using the pooled data (b = 0.82, *Exp(B)* = 2.26, p < .001, 95% CI [1.77, 2.88]), the required subgroup analyses yielded one slightly larger effect size, endowment: b = 1.11, *Exp(B)* = 3.03, p < .001, 95% CI [1.83, 4.99], no endowment: b = 0.65, *Exp(B)* = 1.91, p < .001, 95% CI [1.46, 2.51]. As these differences are negligible in magnitude—resulting from the individual weights of the effect sizes to the overall effect sizes—I decided to report the analysis using the individual effects as a more realistic reflection of the variance for the subgroup analysis.

Chapter 7

What have we learned and what is there to learn?

"People don't care how much you know until they know how much you care."

— attributed to Theodore Roosevelt,
26th president of the United States

What have we learned?

The chapters in this dissertation systematically compare people's willingness to trust in others' competence with their willingness to trust in others' morality in an endeavor to determine how individuals approach and what aspects they consider in situations that require trusting others' competence rather than their morality. Specifically, ten quantitative studies addressed whether people show excessive risk-taking, whether they give others the benefit of the doubt to avoid hurting their feelings, and whether people shy away from potentially signaling to others that they perceive them as incompetent as a sign of respect.

So, do individuals show excessive risk-taking—similar to trust in morality—or do they let risk and reward dictate their decisions?

On the one hand, trust in competence might have resembled trust in morality, wherein people shy away from openly doubting another person—as signaled by their distrust. On the

other hand, trust in competence might have resembled playing a lottery, where people would only trust if taking that risk likely resulted in a material gain.

Across all studies and conditions in which trust in others' competence and morality was directly contrasted, it was unambiguously clear that individuals display a notably greater willingness to trust in others' morality than in their competence under virtually similar chances of potential benefits (Chapters 2 to 6). However, Study 2 of Chapter 2 also showed that individuals were more likely to trust in competence than take risks in a lottery that only involved the risk-takers themselves. Thus, while the willingness to trust in competence certainly differs from the willingness to trust in morality, it also differs from decision-making in simple risk-taking situations—yet, upon closer inspection, not as much as it may seem at first glance.

To elaborate, although Chapter 2 showed more risk-taking in competence games than in simple (non-social) lotteries, Chapters 2 and 4 also demonstrated that trust in competence declined sharply when individuals' trust risked not only their own endowment but also that of their interaction partner. In this case, individuals were no more or less risk-taking than they were in lotteries by themselves or in lotteries including another person. In contrast, trust in others' morality remained unchanged of whether playing it safe would have also still benefited their interaction partner to some degree, which then widened the *trust gap*—that is, the difference between behavioral trust in morality and competence increased (Chapter 6).

However, an important aspect must be noted that may explain the greater difference in the willingness to trust in this case: Whereas it was still in the interest of the trustee to be trusted in the trust game—after all, they would ultimately end up with more money than their initial endowment—this was not necessarily the case in the competence game (see also Chapter 3). In the competence game, in addition to being responsible for the loss of the trustor (see below for further details), the trustee could also lose their initial endowment if they happened to be incompetent. Research in the near future should investigate whether the sharp decrease in the willingness to trust others' competence compared to others' morality remains stable

when this difference in the interests of the trustee is removed—for example, by comparing trust games with variations of competence and lottery-games (each with and without an initial endowment for the trustee), where the trustee cannot lose from being trusted. For this purpose, one could utilize a variant of the competence game where both the trustor and trustee benefit from the trustee's competence ($4 each) compared to their initial endowment ($2 each). However, only the trustor risks losing their initial endowment if the trustee fails ($0), while the trustee retains their initial money in this case ($2). To the extent that it reflects real-life situations—such as investing in start-ups or visiting a hairdresser—one could even more closely replicate the incentives of the trust game from the trustees' perspectives rather than the trustors', albeit in reverse (see also Fetchenhauer et al., 2020): Both actors could start with $2 each. If the trustor chooses to send their money and the trustee fails, the trustor ends up with nothing ($0), while the trustee receives $4 for being trusted. If the trustee succeeds, the trustor gets $4, and the trustee receives $8. Similar to the trust game, in both variations, there is no possibility for the trustee to end up in a worse position due to trust. In the latter version, they may even find themselves in a better position regardless of their competence, similar to the trust game.

Nevertheless, it is noteworthy that in the cases where the trustees' money was also at stake, data from Chapters 2 and 3 show that trust in competence, irrespective of the competence domain and its perceived importance (Chapter 3), closely resembles risk-taking in both social and non-social gambles. That is, regardless of how important a specific competence was perceived to be, if there is also money of another person at risk, trust seems to revolve more around individuals' own risk preferences and possibly their personality traits (Lauriola & Weller, 2018)—at least when they do not have a clear idea of their interaction partners' preferences to *not* risk the money (see Study 4 of Chapter 2).

Although in fairness, individuals were not explicitly informed about the significance of competence in the different dimensions in Chapter 3, but instead inferred their potential im-

portance for their counterparts. To better assess the robustness of these results, future research should explicitly inform participants about how much a particular dimension of competence matters to their interaction partners (e.g., their responses on a scale that addresses this question concerning the test they took), or let trustees choose the test they want to take, while adjusting for the objective risk of trust (see Chapter 3). In addition, longer tests could be used that—arguably, also in the participants' view—assess competence more reliably, for example, full psychometric intelligence tests, such as Raven's matrices (Raven, 2000).

Still, however, the fact that risking certain gains for both interaction partners—unlike in the non-social lottery, where only the decision-maker is at risk—did not appear to influence decision-making at all (see Study 3 of Chapter 2 and Chapter 3) suggests that personal risk preferences were the primary driver of trust decisions in these cases. Clearly, this suggestion requires more scientific support by thoroughly examining these kinds of relationships within the competence game.

Importantly, in each case (i.e., regardless of whether the interaction partner started with an initial endowment or not), behavioral trust or distrust was an overt statement about another's competence (at least to some extent; see Chapter 5). Thus, rather than being concerned about not questioning another person, the results together suggest that any excess of risk-taking (or at least much of it) when it comes to another person's competence (as initially observed in Study 2 of Chapter 2) can be attributed to an aversion to having more than others—something many people tend to dislike (e.g., Kroll & Davidovitz, 2003)—as well as a desire (or potentially perceived obligation; see below) to also give others a chance for a gain.

However, it remains unclear whether both motivations apply equally, which of them is more influential, and whether they operate similarly in regard to trust in competence versus a social lottery. To elaborate, both motivations stem from a sense of unease but could arise from different sources. An aversion to inequality is rather self-focused, whereas giving someone a chance of a potential gain (i.e., an increase in their welfare)—and consequently risking one's

safe gain—is rather other-focused (see, e.g., Choshen-Hillel & Yaniv, 2011). Arguably, the former is more likely in the context of a social lottery—which is also reflected in an overall lower agency over the outcome, that is, the degree to which the outcomes can be actively affected (Choshen-Hillel & Yaniv, 2011)—while the latter is more relevant to behavioral trust in competence, as the key difference lies in whether the other person had to put in the effort. Since participants took the time to complete the test, individuals may have wanted to acknowledge this effort by giving them a chance to earn from it. In other words, individuals may have felt discomfort earning while someone else had already done the work, which could have prompted them to hand over their money. To illustrate this, think back to the last time you visited the hairdresser and were not pleased with the outcome (I suppose this has happened to everyone at some point in their lives). Did you speak up about not liking the haircut? Did you even refuse to pay for it? Surely it would be easier to walk away before you enter the shop if you change your mind (i.e., because you distrust that they will do a good job).

Thus, future research could benefit from disentangling these motivations to gain a clearer understanding of the underlying drivers of behavioral trust in competence. One approach could involve experimentally varying the sequence in the competence game. For example, in one condition, participants could be told that their interaction partner would take the competence test only if they decided to commit the money (and would not take the test if they chose not to), while in another, they would be informed that their partner had already completed the test.

This research idea also hints toward different motivations behind prosocial behavior, which may also play a role in trust in others' morality, as has been noted by researchers (Dunning et al., 2019). The research distinguishes between "giving"—that is, voluntarily engaging in a prosocial act for the benefit of another—and "giving in"—that is, reluctantly engaging in such acts, for example, due to personal obligations, which people avoid when given the chance (Cain et al., 2014; Dunning et al., 2019). Future research could follow up on this idea and examine how much people *give in* when trusting others' morality versus their competence—and

the extent to which people are more inclined to yield when it is about others' morality than their competence—by giving them an escape route out of this situation (Dunning et al., 2019). A possible research design might involve, in one case, telling participants in the role of Person A that Person B already knows about the situation and has already either made their decision or has participated in the test (or not yet; see above). In another case, Person A could be informed that Person B will only learn about the decision-making situation if they decide to commit the money in the first place—at which point Person B would then be asked to participate. In another step, one could additionally vary whether Person B would also receive an initial endowment or not. This would offer further insights into whether Person A feels obliged to trust Person B (i.e., give in) or whether they are more likely to follow their own risk preferences.

Do people trust in competence to avoid hurting others' feelings, or do they not care about others' feelings?

In some ways, they care—but the feelings that are considered may stem from factors other than doubting someone else's qualities. Chapter 4 showed that people's willingness to trust in others' competence (and morality) relates to avoiding unpleasant feelings and (in relative terms) promoting pleasant feelings in their interaction partners—though only to a small degree. Aligned with individuals' expectations of others' feelings, people expected to feel rather bad about being distrusted and good about being trusted. However, in line with previous research (Baer et al., 2021), the expected pleasantness of being trusted (and the unpleasantness of being distrusted) strongly depended on whether individuals demonstrated competence. When they were not up to the task, they expected to feel somewhat indifferent (i.e., neither particularly good nor bad) about being trusted or distrusted. What is important is that participants' expectations of how their interaction partners might feel about trust and distrust in their competence more closely resembled how competent people expected to feel about these. That suggests that, in their expectations, participants rather thought about how a competent

person might feel about trust or distrust. Since participants appear to use competent interaction partners as a reference point, this may also contribute to why they responded more strongly to requests for distrust (see Study 4 of Chapter 2). In stark contrast, although immoral individuals also expected to feel somewhat worse about being trusted than moral individuals, this was not nearly as pronounced as it was regarding incompetence. They still expected to feel very good about being trusted and very bad about being distrusted, in very close alignment with how others expected them to feel about these.

These results are insightful for two reasons. They demonstrate that the pleasantness of trust in competence, more than in morality, relies on the joint outcome. In other words, in addition to not having succeeded and, therefore, not receiving a reward, individuals appear to feel responsible for the joint result and, arguably, experience guilt about being accountable for the trustor's loss. Admittedly, this is somewhat paradoxical, since trustees do not choose to be responsible for the loss, but the trustors *force* the responsibility on them; at least, they are certainly less accountable than trustees in the trust game who deliberately choose their trustor not to receive any money (see also Chapter 2). This makes the suggestion worthy of further empirical investigation. For example, researchers could ask trustees how responsible they feel for both joint losses and joint successes. Conversely, trustors could be asked how responsible they believe trustees might feel in these situations. This would allow researchers to explore whether trustors' expectations about a trustee's sense of responsibility influence behavioral trust in their competence—for instance, whether participants respect a trustee's request not to be trusted in order to spare trustees from feeling responsible for a potential joint loss, even when chances are that trusting would have been beneficial (see Study 4 of Chapter 2).

Beyond that, it would also be interesting to find how responsible trustors perceive themselves to be for the joint outcome and how their perception of responsibility relates to trust decisions. For instance, trustors might feel more responsible for the joint outcome in the extended lottery-game than in the competence game, which requires the trustee's effort to turn out well (relatedly, see above). This greater feeling of responsibility could have yielded a

greater willingness to take risks for the sake of others in a lottery than in the competence game (see Study 3 of Chapter 2). Similarly, trustors might feel more responsible, particularly for a good outcome (i.e., where both actors end up with the same greater gain), in the trust game than in the competence game. To illustrate, when you introduce your new partner to your friends, they often ask "who made the first move"—who approached whom (on the central role of trust in others' morality during the early stages of relationship formation, see below). That is, the person who extended their trust usually appears responsible for the successful start of a relationship, although logically, it also depends on the person who accepted the invitation. However, if you undergo successful knee surgery, few people credit you for choosing the right surgeon, but they typically praise the surgeon for performing the procedure well. In other words, apart from potentially placing responsibility for a loss on their trustees—who did not choose to have it—trustors may also feel less sense of pride in a successful interaction in the competence game as compared to the trust game—a factor that people may seek in their decisions (C. R. Schneider et al., 2017).

Moreover, the results from Chapter 4 suggest that, even though individuals may feel worse due to being responsible or better due to not being responsible for the loss, they still expect to feel fairly neutral. Overall, these responses suggest that some underlying factors mitigate the effects of being trusted and distrusted on emotions, for instance, feelings of appreciation for being treated fairly (Kroll & Davidovitz, 2003)—a suggestion that needs further empirical exploration. In line with this idea of fairness, people expected that distrust in others' competence would be a justifiable option—and even a preferred choice over trust when they themselves were not up to the task—if it ensured that their counterpart left with an equal amount of money (see Study 3 of Chapter 4). What is important is that while people acted on this in the competence game, they did not in the trust game. In other words, while trust in competence relates to how potential outcomes may affect someone's feelings, people seem less concerned about these—apparently, especially about how the monetary outcomes of distrust might affect others' feelings—when deciding whether to trust others' morality. This pattern aligns with previous research, wherein trust in others' morality more strongly relates to the

(trustors') feelings associated with the act of distrusting itself than the expected feelings associated with the potential outcomes of trusting or distrusting (Schlösser et al., 2013, 2016).

Do people then consider what their distrust or trust reveals about their perception of others if it concerns their morality, but not if it concerns their competence? Or does an individual's distrust or trust in others' competence actually reveal nothing about how they perceive them in the first place?

Although the latter appears to be true as well to some extent, the results in Chapter 5 suggest the former. First, results not reported in Study 1 of Chapter 5 ($F(4, 367) = 45.70$, $p < .001$, *Adjusted-*$R^2 = .33$) showed that the more the cause of morality or competence was perceived to be within the person instead of the context ($\beta = .24$, $p < .001$, 95% CI[.15, .33]), the more it was perceived to be controllable ($\beta = .36$, $p < .001$, 95% CI[.27, .45]) and the more stable it was perceived to be over time ($\beta = .19$, $p < .001$, 95% CI[.10, .28]), the more diagnostic—that is, revealing—these displays of morality or competence were perceived to be.

Importantly, in line with previous research (Reeder & Brewer, 1979; Reeder & Spores, 1983; Wojciszke et al., 1993), a display of competence in the one-time interaction was perceived as less diagnostic of actual competence than a display of morality was of actual morality. Accordingly, distrust or trust in others' morality implies a stronger belief that they are actually immoral or moral than distrust or trust in others' competence implies that they are actually incompetent or competent. However, this difference in how insightful others' morality compared to their competence was perceived to be for a person did not explain their greater willingness to trust others' morality over competence (see Study 2 of Chapter 5). Whereas individuals were more inclined to trust in morality when they believed others' morality accurately reflected what they are like as persons, they did not take into account how much others' competence did when trusting in competence. In other words, regardless of whether people thought that distrusting others' competence (i.e., implying they were not competent) would suggest they viewed them as genuinely incompetent, they did not hesitate to express this doubt about others' competence.

However, future research could achieve even clearer results on this matter by asking participants directly to indicate what their decisions implied about their perceptions of others' morality and competence (e.g., "How much does your decision to keep/send the money to Person B reveal about your perception of their morality/competence?") and relate these answers to their subsequent decisions. As a final test of how unconcerned people are about signaling that they perceive someone to be incompetent, a variation of the competence game could be introduced in which participants choose to either keep their initial endowment ($2), or bet it on their interaction partner's competence or incompetence (similar to betting on either heads or tails in a coin toss) for a greater gain ($4) if they are right or a loss if they are wrong ($0). For example, replicating the design of Study 2 in Chapter 2, participants could be informed that their chances of encountering a person who answered at least five questions correctly in a competence game were either 32% or 68%. If participants were unconcerned about the signal their decision would send (participants must be informed that their interaction partner would learn of their decision), a similar proportion of participants should choose to bet on another's competence in the 68% condition as those participants who bet on another's incompetence in the 32% condition, and vice versa. In an initial study, the interaction partner's outcomes should be independent of what Person A wagered: Person B will always earn—irrespective of Person A's choice—if they are competent ($4) and otherwise not ($0).

Relatedly, as an alternative, future research could lend itself to similar methods to those employed by Schutter et al. (2021), wherein participants could be introduced to a variation of the competence game that requires them to actively distrust rather than actively trust. That is, Person A (and Person B) could learn that the money already sits with Person B and that their choice is to either leave it with Person B—at which point the joint outcome depends on Person B's competence (e.g., either $4 or $0 each)—or take it from them, whereupon Person A receives $2 and Person B nothing (or also $2 in another version). Trust decisions in this type of competence game—as well as in a similar version of the trust game—could be compared to the standard versions presented in the previous chapters to better understand whether, and

to what extent, people are more concerned about the signals conveyed with trust or the signals conveyed with distrust (Schutter et al., 2021).

On a related note, Study 2 of Chapter 5 showed not only that others' morality in a trust game was seen as more revealing of a person than their competence in a competence game, but also that participants were more sensitive to others' morality than competence when forming overall positive or negative impressions—mirroring previous results on the role of others' morality and competence on social impressions (Goodwin et al., 2014; Wojciszke et al., 1993). Specifically, participants evaluated a person a lot more positively if they were moral than competent, but a lot more negatively if they were immoral than incompetent, whereas the latter relates well to earlier research showing more negative reactions to morality-related trust breaches than competence-related trust breaches (Elangovan et al., 2007; P. H. Kim et al., 2006).

Notably, results not reported in Study 2 of Chapter 5 showed that the positive evaluation of a person was strongly related to how diagnostic a positive display of morality or competence was perceived to be ($r(387) = .68$, $p < .001$, 95% CI [.62, .73]). In other words, positive impressions based on another's display of morality or competence became stronger the more people believed that this is how this person really is. With negative evaluations, on the other hand, results showed a relation to how diagnostic a negative display of immorality was perceived to be ($r(192) = -.45$, $p < .001$, 95% CI [-.56, -.33]) but not incompetence ($r(195) = -.04$, $p = .583$, 95% CI [-.18, .10]). As such, trust and distrust (particularly in morality as it appears) convey not only perceptions of how others are perceived to be *objectively* (in the figurative sense), but also a strong evaluation of those traits. In other words, people do not just signal that they see others as immoral; they also express their disapproval of them being immoral (see also Hartley et al., 2016). Or, people do not just signal that they (possibly) see others as incompetent; they also express that this would be no big deal—at least in this one-time interaction, given the rather neutral evaluation of another person displaying incompetence (see Study 2 of Chapter 5). And initial analyses with this global evaluation ($\chi^2(4) = 63.91$, $p < .001$,

Nagelkerke-R² = .39) show that, at least when it is about trusting others' morality, the degree to which people think that being moral is a good thing (*b* = 0.51, *Exp(B)* = 1.66, *p* = .024, 95% CI[1.07, 2.58]) or being immoral is a bad thing (*b* = 0.70, *Exp(B)* = 2.02, *p* = .001, 95% CI[1.31, 3.10]) could be more significant factors in trust decisions than the bare signal of whether people think of someone being actually moral or immoral (*b* = -0.12, *Exp(B)* = 0.89, *p* = .566, 95% CI[0.60, 1.32]). In other words, people might care more about what their decisions signal about their liking for someone than about the trait per se. These analyses, however, only allow for an initial idea about this process. More thorough research is needed to better discern or relate these factors.

To summarize, then, the results in all the chapters of this dissertation indicate little evidence of principled trust in competence in the same way that there is for trust in morality—that is, excessive trust given the low expectations of return—due to an internalized aversion to doubt others (Chapters 3 and 5). Instead, trust in competence seems to be more concerned with potential (joint) outcomes (Chapters 2 and 4) and with expectations about how their interaction partner might feel about these monetary outcomes (Chapter 4). Although these results clearly show that trust in others' competence involves more than just rational considerations, they also suggest that trust in others' morality engages other or further psychological processes (Chen et al., 2011; McAllister, 1995), leading to the consistent pattern of higher levels of behavioral trust in others' morality than others' competence (Chapters 2 through 6).

Research has yet to determine why the decisions to trust in morality and competence involve different processes. Aside from the factors described above, an answer may lie in the sequential order of trust formation in social relationships, as trust appears to be initially rooted in the perception of others' intentions (i.e., morality) and only subsequently in others' competence (e.g., Abele & Wojciszke, 2007; Fiske et al., 2007). It is argued that recognizing whether someone has good or bad intentions matters more for one's survival—rooted in an evolutionary perspective—since a person's ability to contribute only matters if they do not intend to cause harm (Fiske et al., 2007). Hence, there is a greater sensitivity toward morality-

related information than competence-related information (see, e.g., Goodwin et al., 2014; Landy et al., 2018; Wojciszke et al., 1998; also, Chapter 5). In accordance, the research shows that people recognize words related to warmth more quickly than those related to competence (Ybarra et al., 2001) and draw corresponding trait inferences from behaviors implying coldness faster than incompetence (Zhang & Wang, 2018). Moreover, the research shows that another person's competence becomes more desirable (although still less than morality) only after a close relationship has been established (Abele & Wojciszke, 2007). That is, particularly in the early stages of relationships, another person's morality takes precedence.

The research on the development of trust in organizational settings (i.e., formal relationships) suggests similar conclusions. For example, it has shown that trust in competence—as a distinct dimension—can only be identified at a later relationship stage (Webber, 2008), that others' integrity plays a primary role in initial trust (Jarvenpaa et al., 1998), and that the reliance on cues of others' competence to inform trust decisions (albeit observable from the outset) increases over time (van der Werff & Buckley, 2017).

Accordingly, when deciding whether to trust someone, the research showed that people *cared* little about their counterpart's previous incompetence or competence if they already demonstrated their immorality, but cared very much if they previously demonstrated their morality in a situation requiring both another's morality and competence (Zheng et al., 2023).

In other words, people need to be perceived as moral to satisfy their basic need for social relationships (Baumeister & Leary, 1995), and they must first trust another's morality to signal their willingness to establish a professional relationship, a friendship, or a romantic partnership (Fiske et al., 2007). Given the significance of social connections for our well-being and health (Holt-Lunstad, 2022; Proctor et al., 2023; Seppala et al., 2013) and for personal achievements (D. S. Lee et al., 2018), individuals may (to some degree) be evolutionarily *hard-wired* to 1) feel bad about being perceived as immoral (see, e.g., Chapter 4) irrespective of whether they actually are (for a review, see Ellemers et al., 2019) and 2) give others the benefit of the doubt when it comes to their intentions (Buss, 2019; Simon, 2020). However, people

may also be hardwired (to some extent) to allow an established relationship to depend conditionally on the competence of others and to let go of it, when necessary, for instance, when their life trajectory depends on these relationships (Abele & Wojciszke, 2007; Fiske et al., 2007).

On the other hand, as already noted, beliefs regarding one's competence are important (Galliani & Vianello, 2012; Soral & Kofta, 2020; Wojciszke, 2005), and one's immediate relationships (i.e., family and peers) seem to influence how individuals perceive their own competence and, consequently, the attainability of life goals, for example (Altermatt & Pomerantz, 2003; Massey et al., 2008; Moran et al., 2013). Thus, being seen as competent by our friends and family may be especially important. Therefore, in close relationships, people might care more about how competent others feel and thus be more hesitant to indicate that they perceive them as incompetent, for example, stemming from a desire not to undermine the other person's motivation or confidence in pursuing their goals. Thus, the degree of social closeness to an interaction partner may influence how strongly people feel inhibited from expressing distrust in their competence. In other words, it would be worth investigating whether, all things being equal, people trust the competence of strangers less than their friends and even less than their partners.

Beyond this, this *care* for another's (perception of) competence might even begin as early as the point at which we consider them suitable for having around or for a potential relationship (i.e., a friendship or romantic relationship)—that is, if we know this person is moral. Accordingly, it would be worth investigating whether people show greater trust in others' competence in a competence game (e.g., because of a potential aversion to doubting others' competence) if they perceive their interaction partner to be moral (e.g., based on their decision as Person B in a trust game) compared to immoral (or no information), while maintaining equal probabilities of encountering a competent interaction partner within these interaction partners.

On a final note, even though one could argue that trust is evolutionarily adaptive in establishing new relationships (Buss, 2019; Simon, 2020), it is somewhat paradoxical to readily give anyone's intentions the *unconditional* benefit of doubt (i.e., to trust, given the somewhat pessimistic expectations of their morality). According to error-management theory, humans evolved to make errors that incur the smallest cost of consequences, such as taking a longer, well-lit route home in the evening that runs close to houses instead of walking the shorter way through a park alone in the dark (Haselton & Buss, 2000). In situations that require trust, such as deciding whether to cross the street when noticing a suspicious individual, arguably, the biggest costs of error emerge from misplacing trust in someone (i.e., not crossing the street) highly competent yet immoral who has the skills to carry out their harmful intentions (see also Wojciszke et al., 1993)—for example, not just stealing a phone but also hacking into a bank account using it. Thus, the expectations of others' competence should not be disregarded altogether in such situations.

This might explain people's asymmetric sensitivity towards extremely negative morality-related but positive competence-related behaviors (Reeder & Brewer, 1979; Skowronski & Carlston, 1987; Wojciszke et al., 1993). Accordingly, irrespective of the debatable accuracy of such first impressions (for a summary, see Todorov et al., 2015), the research indicates that people form highly stable impressions not only of others' morality, but also of their competence, within just a fraction of a second of exposure (Willis & Todorov, 2006). Similarly, trait inferences drawn from positive behaviors indicating competence were formed as quickly as those for warmth (Zhang & Wang, 2018).

Given the potentially high cost of trusting a highly competent person with little information on their morality, it is reasonable to assume that people might be more cautious in extending the benefit of the doubt regarding others' morality (if we take it as a signal of the willingness to establish a relationship) when they have information about their high (vs. low) competence (or no information). As the aversion to doubting others' morality may weaken in

such high-cost situations, people might then be more likely to be influenced by their expectations of others' morality when deciding whether to trust (for related research designs, see below).

That said, many questions remain. Besides the further research already delineated above, what should be the next steps for a more comprehensive understanding of interpersonal trust?

What more is there to learn?

This dissertation represents important initial steps in research on trust in competence. However, there are many more directions that could be explored. Generally, almost all research utilizing the trust game, ranging from intergroup contact research to trust repair, could gain from incorporating the competence game in order to obtain a more nuanced understanding of trust. For instance, does intergroup discrimination extend to trust in others' competence to the same degree as it does with trust in morality (Balliet et al., 2014)—for example, because people generally have more favorable perceptions of traits like morality and competence in in-group members compared to out-group members (Cuddy et al., 2007; Fiske et al., 2002)? For instance, a minimal group paradigm—in which participants interact with a person from the in-group versus an out-group (e.g., Gagnon & Bourhis, 1996)—that contrasts behavior in the trust game with behavior in the competence game could be used for investigating this question.

In the following section, I will present several ideas for future research that expand on the theorizing and empirical findings discussed in the previous chapters. Three overarching and partly interrelated directions include: 1) exploring the application of further key findings on trust in others' morality to trust in others' competence, 2) identifying factors that shape perceptions of a trustee's competence and how these influence trust in their competence, and 3) investigating how the combination of others' morality and competence in trust situations impacts decisions.

From morality to competence: Application of further key findings

To begin with, future research could further investigate differences between trust in morality and trust in competence, particularly in relation to the key findings obtained on trust in morality thus far, in order to advance our theoretical understanding of interpersonal trust (Dunning et al., 2019).

As previously discussed in Chapter 4, it would be beneficial to thoroughly explore the difference between immediate and anticipated emotions related to trust decisions from the trustor's perspective (Fetchenhauer & Ehlebracht, 2019; Schlösser et al., 2016). Trust in morality research shows that decisions are primarily driven by the emotions associated with the decision itself (immediate emotions) rather than the emotions associated with the outcomes of the decision (anticipated emotions) from the trustors' perspective (Dunning et al., 2017; Schlösser et al., 2013, 2016). The question remains as to whether this also applies to trust in competence. The immediate emotions tied to trust decisions—especially the negative feelings associated with distrust (Schlösser et al., 2016)—may be less intense for trust in competence than for trust in morality, as the potential signal sent concerning competence is weaker than concerning morality, as outlined in Chapter 5. Moreover, as suggested by the findings in this dissertation (see Chapter 4), anticipated emotions may have a greater influence on predicting trust in competence than immediate emotions, in stark contrast to the relations regarding trust in others' morality. Therefore, following a procedure similar to that of Schlösser et al. (2016), researchers could ask participants (in a random order) to rate how they would feel about distrusting and trusting their interaction partner—as well as how the four potential outcomes (trust vs. distrust x trustworthy vs. untrustworthy interaction partner) might make them feel—using the three dimensions of the self-assessment manikin (Bradley & Lang, 1994) prior to deciding whether to trust in a between-subjects design (trust game vs. competence game). In subsequent studies, one could additionally vary whether the interaction partner be-

gins with an initial endowment or not to remove inequality as a factor contributing to the answers (see Chapters 2 and 4) and whether it would always be in the monetary interest of the interaction partner to be trusted (see above for an example for such a paradigm).

Additionally, a key finding in trust research pertains to trust in the morality of others being an injunctive norm rather than a social norm (Dunning et al., 2014; Fetchenhauer & Ehlebracht, 2019). This is indicated by results showing that trust decisions are largely uninfluenced by whether they are made in private or public, reflecting a high degree of internalization (Dunning et al., 2014). Other than trust in others' morality, trust in others' competence might still be a social norm, reflected through higher trust rates when it is expressed publicly rather than privately, for example, when using a similar procedure as Dunning et al. (2014). Thus, participants could be randomly assigned to take part in a laboratory study alongside another unknown participant, earning them a flat payment. In a between-subjects design, participants could then interact with each other in the trust game or competence game (in both the role of Person A and Person B) using this flat payment as an initial endowment. It is important that in one case, they fill out the questionnaire in silence and learn about the outcome of the interaction only after the study finishes with an anonymous payout, whereas in the other case, they are informed that the experimenters will read each other's respective decisions aloud during the interaction.

Beyond this, it would also be worthwhile to examine whether the trustor's status in relation to the trustee's status affects a potential social norm of trust in competence (for the relationship between status and emotions related to trust in morality, see, e.g., Dahlhaus et al., 2025). In cultures with a high degree of power distance, which can be reflected by high levels of respect for superiors in organizational settings (Khatri, 2009), it is particularly likely that low-status individuals would be less likely to doubt the competence of high-status individuals than vice versa, a research idea necessitating cross-cultural investigations of trust in competence. More feasibly, however, the research indicates that cultural orientations, such as individualism and collectivism, can be primed, yielding outcomes similar to those in cross-cultural

comparisons (see, e.g., Oyserman & Lee, 2008). Likewise, power distance (low vs. high) could be primed (Travaglino & Moon, 2020), for example, using sentence scrambling tasks (H. Kim et al., 2023). Thus, in a subsequent study, one could compare trust in others' competence between participants who have previously been primed with high versus low power distance beliefs in an adjusted public condition in which a group of participants takes part in a session that initially involves a group task (see, e.g., Dahlhaus et al., 2025) so that participants can identify the status (higher vs. lower vs. equal) of the other participants. At any rate, researchers should measure cognitive trust in the respective interaction partner, as another person's perceived status in particular might correlate with their perceived competence.

As an alternative approach to investigating a potential norm for trusting others' competence, one could consider the research on punishment and compensation (Bicchieri & Maras, 2022; Fehr & Fischbacher, 2004; Fehr & Rockenbach, 2003; FeldmanHall et al., 2014). For instance, the research shows that people are only willing to punish *intentionally* unfair (i.e., non-reciprocal) behaviors as a reaction to norm violations and compensate victims of such violations more, both at their own costs (Bicchieri & Maras, 2022). Thus, following Bicchieri & Maras (2022), subsequent research could explore whether and to what extent third-party observers are willing to punish or compensate one or both actors (i.e., Person A and Person B) at their own expense (i.e., a portion of their endowment for participating in the study) after observing distrust and untrustworthiness in a trust game or distrust and incompetence in a competence game—ideally using variations in incentive structures where the trustee does versus does not start with the same initial endowment (and possibly the additional variations described above).

Future research could also further explore the distinction between cognitive and behavioral trust. In Study 4 of Chapter 2, we learned that providing participants with information about how their interaction partner fared in a similar task strongly affected subsequent trust decisions. It would be beneficial to investigate how providing participants with information about their interaction partner's previous trustworthiness in the trust game influences

trust toward that partner compared to an interaction partner's previous competence in the competence game. In reference to Chapter 5, an interesting paradox may emerge here. Here, we learned that a display of morality was perceived as more diagnostic of morality than a single display of competence was of competence. Thus, cognitively, participants should deduce a person's morality more strongly from their previous morality than they deduce competence from previously displayed competence. Therefore, they should also act more strongly on information regarding previous morality and immorality than on competence and incompetence (see also De Bruin & Van Lange, 1999a, 1999b). Accordingly, prior research suggests that individuals are more likely to be blamed for a morality-related breach of trust than for a competence-related one, which also has a greater impact on subsequent trust (P. H. Kim et al., 2006; Krosgaard et al., 2002). On the other hand, despite being informed of others' immorality, people could still choose to trust (despite their even more pessimistic expectations of their morality) to avoid questioning others' morality. Thus, although trust in such an interaction partner should certainly decrease, it might still be that cognitive trust and behavioral trust align to a lesser degree than when informed of another's morality. This research could contribute to the literature by systematically presenting participants in a between-subjects design with positive or negative (or no) information about their interaction partner's past morality and competence in trust and competence games, respectively. It will examine how this information differently influences cognitive trust and, subsequently, behavioral trust toward the interaction partner in these games.

Finally, trust in morality research showed that people severely underestimate others' trustworthiness (see, e.g., Dunning et al., 2019, as well as Chapters 2 to 5). It has been argued that this underestimation arises from asymmetrical feedback regarding others' trustworthiness, in which individuals learn about others' untrustworthiness if they initially trusted them, but do not learn of others' trustworthiness if they did not trust them. In Chapter 2, in agreement with this, we found a similar yet somewhat less pronounced underestimation of others' competence. As already mentioned in Chapter 2, future research could determine whether the

same mechanism influences the underestimation of others' competence as it does their morality (e.g., using a similar experimental paradigm as Fetchenhauer & Dunning, 2010). Here, participants could first estimate how many individuals would be moral or competent in a trust and competence game. Subsequently, while watching short video clips of real people who previously participated in a trust and competence game, participants could be informed about each person's morality and competence—either immediately after deciding to trust (regardless of the decisions), only when they decided to trust, or not at all—and then estimate the proportion of moral and competent trustees.

In this regard, research should also explore whether people typically underestimate others' competence or not (see Chapter 2). In Chapter 2, people underestimated others' competence, whereas in Chapter 5, individuals slightly overestimated others' competence (although this should be interpreted with caution due to the small sample of Person B). In Chapter 4, on the other hand, individuals' estimates of others' competence were very accurate, hinting toward different or additional mechanisms involved in the estimation of others' competence. For example, the primary methodological difference in Chapter 4, compared to Chapters 2 and 5, was offering participants feedback on their competence. People usually overestimate their competence (i.e., they see themselves as above average), and thus potentially underestimate others' competence in easy tasks (Zell et al., 2020). In more difficult tasks, people sometimes underestimate their own competence (i.e., they see themselves as below average), potentially leading to an overestimation of others' competence. By receiving feedback on their actual competence (Chapter 4), participants might have adjusted their estimation of others' competence toward the true proportion, whereas the accuracy of this estimation might still depend on the perceived difficulty of the task. Future research could explore this idea by experimentally varying whether participants receive feedback on their own competence (vs. no feedback) and its effect on accurately estimating others' competence with tests of varying difficulty. Such a design would also allow us to determine whether objectively incompetent people underestimate others' competence, relative to their own, more than objectively competent people do (Kruger & Dunning, 1999).

Aspects of perceived competence

The aspects discussed above have addressed factors within the trustors that subsequently influence trust decisions. On a practical note, a particularly important avenue for future research is to identify the factors within the trustee that shape trustors' perceptions of trustees and how these perceptions influence trust.

Based on the different chapters presented in this dissertation, these factors may relate particularly to how competent trustees are perceived to be (e.g., based on a trust request or previous demonstrations of competence). Thus, future research should examine signs or signals affecting the perception of others' competence. For example, as touched upon by Schwieren and Sutter (2008), information about a person's characteristics that allow their categorization into certain social groups can trigger stereotypes that influence perceptions of their competence, such as the stereotype that math is a more masculine ability—despite meta-analytic evidence showing on average (if any) only minimal gender differences in cognitive abelites (Hyde, 2014)—while empathy is more strongly associated with femininity (Tellhed et al., 2017). Future research could benefit from using variations of the competence game involving different tests, such as the emotional intelligence test (see Chapter 3), in relation to information about the interaction partner (e.g., their gender) to investigate trust in competence as a consequence of stereotypes.

Future research should, however, focus more on specific signs of competence that individuals could actively signal under certain contexts—that is, indicators over which they have control (or at least some degree of control). In doing so, individuals, such as politicians, physicians, or job applicants, could foster trust in their competence.

For instance, to the extent that people have an intuition about others' thought processes (Grühn et al., 2008; Redmond, 1989)—such as the assumption that others share similar traits (e.g., competence) as oneself (for a social projection account regarding the estimation of others' moral trustworthiness, see, e.g., Thielmann & Hilbig, 2014)—an individual's willing-

ness to trust others' competence may be perceived as a reflection of their competence. Additional analyses not reported in Study 2 of Chapter 4 showed that competent participants trusted others' competence more than incompetent participants did ($\chi^2(1) = 27.72$, $p < .001$, $\varphi = .31$), suggesting that a person's trust in others' competence, in fact, can be a valid sign of their competence. Therefore, a display of trust in others' competence can be understood as: "This person believes the test is easy, so they trust that the other person has succeeded at it as well." Thus, beyond further examining the extent to which trusting another's competence is a valid indicator of one's own competence, future research could also explore whether individuals perceive this trust as a sign of their competence. Specifically, in a between-subjects design, researchers could investigate whether people are more likely to trust those who previously demonstrated trust in others' competence in a competence game—in a similar test—compared to those who did not, including an additional control condition where trustors receive no information about their trustees' previous trust decision.

In another vein, previous studies suggest that individuals who express ambivalent views on controversial topics (such as the death penalty in some regions) are perceived as more competent than those with firm, one-sided opinions. This is because acknowledging multiple perspectives on complex issues is seen as a sign of willingness and ability to engage with a topic in depth (R. Han et al., 2023; Pillaud et al., 2018). However, the perception of ambivalence differs when comparing *trait* ambivalence to *state* ambivalence toward a specific topic. While chronic ambivalence can have positive effects, such as reducing a correspondence bias and a self-serving bias (I. K. Schneider et al., 2021), chronic indecisiveness can also result in being perceived as incompetent by others (R. Han et al., 2023).

Future research could adopt a balanced quasi-experimental approach—to avoid deception (e.g., using an oversampling procedure until sufficient participants were recruited meeting the respective criteria; see, e.g., Study 4 in Chapter 2)—by providing participants with in-

formation about their interaction partners' trait ambivalence and state ambivalence on controversial (or non-controversial) topics (e.g., based on Han et al., 2023; Pillaud et al., 2018) and subsequently measuring both cognitive and behavioral trust in this person's competence.

Specifically, in multiple studies one could first evaluate the impact of trait ambivalence (based on Han et al., 2023) on perceptions of competence and subsequent trust by truthfully informing trustors before their decisions about their trustee's agreement with the statement that they *usually* feel conflicted and divided on *most* (vs. *rarely* feel conflicted and divided on *any*) controversial issues, as they tend to recognize both pros *and* cons (vs. only pros *or* cons). In a subsequent study based on Pillaud et al. (2018), trustees could be first asked for their opinion on a specific controversial or non-controversial issue (i.e., state ambivalence), and afterward, trustors could be informed about their trustee's agreement, ambivalence, or disagreement toward it before their decision to trust this trustee. As an extension to this, one could test the differential impact of state versus trait ambivalence by informing trustors about their trustee's agreement, ambivalence, or disagreement regarding a specific controversial or non-controversial issue or multiple controversial or non-controversial issues while ensuring that attitudes toward the multiple non-controversial issues consistently either align or misalign with general opinions (Pillaud et al., 2018).

Given the importance of distinguishing between chronic and single ambivalences regarding the perception of competence (R. Han et al., 2023; Pillaud et al., 2018), it would be interesting to see whether repeated (chronic) trust in others' competence yields different perceptions of others' competence than a single display of trust in others' competence. On the one hand, repeatedly trusting others' competence in various situations could reinforce the idea that that person must be competent. Thus, one could experimentally vary whether a trustor learns about their interaction partner's previous trust (versus distrust) in one other person's competence or multiple other persons' competences (using different but similarly difficult tests) and investigate its impact on trusting this interaction partner's competence in a competence game.

On the other hand, relying too often on others' competence may also be seen as a sign of one's own incompetence, especially if individuals frequently choose to trust others instead of themselves when given the chance. As noted earlier, individuals tend to view their abilities as above average (Zell et al., 2020), however, there is considerable variation in this tendency depending on their own competence (Kruger & Dunning, 1999). This suggests that individuals might often prefer to trust their own competence rather than that of others in a consistent manner. Additionally, this above-average effect emerges particularly for easy tasks, while tasks perceived to be difficult could even yield a below-average effect (Kruger, 1999; Zell et al., 2020). Thus, the tendency of individuals to trust themselves compared to others could additionally depend on the perceived difficulty of the test. This suggests two directions for future research. First, it would be valuable to examine whether people prefer to rely on their own competence rather than trusting someone else's, depending on their subjective perception of the test's difficulty. This could be explored by introducing a third option in a competence game, where the trustor can choose the outcome depending on their own competence instead of the trustee's. Second, it would be worth investigating how information about such a decision—or multiple similar decisions (see above)—affects another person's willingness to trust this individual in a later competence game.

Furthermore, although researchers traditionally treat warmth (and morality as a part of it) and competence as separate dimensions of social perception (Fiske et al., 2002; Judd et al., 2005; Wojciszke, 2005), studies suggest that people often associate another's morality and competence with each other (Forgas & Laham, 2017; Judd et al., 2005; Rosenberg et al., 1968; Stellar & Willer, 2018). Similarly, Study 1 of Chapter 5 shows that information about a person's past morality in the trust game relates to judgments of their competence. This raises the question of whether signs of morality, which could easily be signaled since they are more within one's personal control (Alicke, 1985), might enhance trust in competence—and this to a greater degree than vice versa. Aside from the finding that people do not seem (or at least seem less) to infer others' morality based on information about their competence (see Study 1 of

Chapter 5), a person's competence could also, for example, suggest that they might not reciprocate trust (i.e., be immoral in the trust game) since this choice could be interpreted as the most rational and thus arguably intelligent choice (Baron & Hershey, 1988; Krueger & Acevedo, 2007).

One way to test this would be, for instance, to assess whether information on previous generosity in a dictator game (see, e.g., Engel, 2011) influences trust in a subsequent competence game. Additionally, in a counter-balanced design, one could 1) examine whether knowledge of a person's prior morality in a trust game (i.e., decision as Person B) affects later decisions to trust that person's competence and vice versa, while allowing the respective estimations of others' trustworthiness and competence to vary freely. 2) In reference to the social projection mechanism noted earlier (Thielmann & Hilbig, 2014), one could also examine whether knowledge of a person's prior trust in a trust game—which, according to previous research (Evans & Revelle, 2008; Thielmann & Hilbig, 2014) and to further analyses not reported in Study 1 of Chapter 4, also appears to relate to their morality as Person B ($\chi^2(1) = 58.13$, $p < .001$, $\varphi = .46$), similar as trust in others' competence with own competence (see above)—affects later decisions to trust that person's competence and vice versa. Notably, further results from Study 3 of Chapter 4 ($\chi2(2) = 119.06$, $p < .001$, *Nagelkerke-R^2* = .21) suggested that participants' own morality was more strongly related to their decision to trust others' morality than participants' own competence was to their decision to trust others' competence ($b = 0.87$, *Exp(B)* = 2.39, $p < .001$, 95% CI[1.56, 3.66]). It would be fascinating to investigate whether people intuitively view a person's trust in others' morality as a more valid sign of their own morality than a person's trust in others' competence of their own competence and thus, consider a person's trust in others' morality more when contemplating whether to trust this person.

As regards the latter, it would be additionally interesting to see how a person's trust versus distrust in others' morality or competence is perceived—and affects subsequent trust toward them—given this person's expectations of others' morality or competence. For instance,

in a prisoner's dilemma, Krueger and DiDonato (2010) note that the perception of a person's competence based on their willingness to cooperate varied with knowledge about this person's expectations regarding their interaction partner's willingness to cooperate. For example, cooperating individuals were seen as more competent when they expected their counterparts to cooperate as well, but were viewed as less competent if they anticipated their counterparts would not cooperate. Conversely, those who did not cooperate were perceived as less immoral if they expected others not to cooperate as well, rather than when expecting them to cooperate (Krueger & DiDonato, 2010). Thus, in addition to providing participants with information about how their interaction partners acted as trustors in a previous situation (see above), one could also experimentally vary information on whether they expected their interaction partner to be moral/competent or not.

Finally, in Study 4 of Chapter 2, we learned that a trust request—that is, explicitly asking to be trusted—can be a promising approach (e.g., in self-advertising) to increasing trust as it can be interpreted as a sign of competence (in the absence of objective information). Future research should investigate more thoroughly how others' trust requests relate to expectations of their competence (i.e., measuring cognitive trust) and whether these requests provide valid information about competence—that is, whether people requesting trust are actually more competent—using mostly the same procedure as in Study of 4 of Chapter 2 (all of which would also be interesting regarding morality in the trust game). For instance, individuals typically view themselves favorably compared to others, in particular with regard to easy tasks (see, e.g., Zell et al., 2020). However, the overestimation of an individual's own competence is particularly pronounced among individuals with lower rather than higher competence (Kruger & Dunning, 1999). In accordance, it might be that objectively incompetent people send a trust request disproportionately often, given their actual competence.

Moreover, future research should consider whether trust is the only way for a trustee to potentially receive money (i.e., variations of the competence game with vs. without an initial endowment for the trustee) to determine both 1) whether trustees will then more often request

trust and 2) whether trustors discount the trust request for this same reason (relatedly, see the next section regarding the interplay of morality and competence in trust situations). Furthermore, future research could explore the effect of third-party credentials as indicators of competence using the competence game. Given that the perceived morality and competence of the source are foundational to persuasiveness and credibility (Linne et al., 2022; Pornpitakpan, 2004), it would be valuable to explore whether the source's morality and competence differentially affect (Linne et al., 2022; Pei, 2025) the perception of others' competence, particularly across various sources that may introduce bias (Banerjee et al., 2017), such as self-interested motives.

For example, in an initial research step, after receiving feedback on how the interaction in the competence game ended (in terms of the trustor's decision and trustee's competence), one could experimentally vary whether a different trustor in a second competence game (with a similar competence criterion) receives a trust request from their trustee based on their first interaction (no request vs. "You should send me the money" vs. "You should keep the money") *or* receives a trust pointer from the initial trustor in the first interaction (no pointer vs. "You should send them the money" vs. "You should keep the money"), whilst again manipulating a potentially strategic motive of this request/pointer (see above). Subsequently, one should test the effect of a joint presentation to see whether a trust request would be largely ignored in the presence of (potentially) more objective trust pointers, as in Study 4 in Chapter 2. In a subsequent study, one could provide additional information about the source's (i.e., previous trustor's or trustee's) morality and competence (e.g., their result in a previous competence game or trustworthiness in a trust game) to find whether a trust pointer is impacted by this information, as suggested in the research on persuasiveness (e.g., Linne et al., 2022).

Naturally, as already suggested, such a request could be strategically motivated and thus may also depend on a person's morality to some degree. This points us toward the next research direction: the interplay between morality and competence in trust situations.

Trust in morality and competence

The strength of the competence game (as well as the trust game) lies in its ability to isolate and measure trust in a single dimension of trustworthiness, thus preventing confusion with other dimensions. However, this focus also limits its validity in accurately reflecting trust in real-life situations. In the previous paragraph, I discussed how people typically perceive others according to both morality and competence, and sometimes draw judgments of one from the other. Similarly, trust situations rarely involve only one of these dimensions; instead, they are often reflected by a combination of both another's morality and competence (Fetchenhauer & Ehlebracht, 2019; Zheng et al., 2023). For example, consider relying on a coworker to complete a report on time during a joint project. The outcome hinges on both their competence (e.g., their ability to submit the report correctly) and their morality (e.g., whether they will prioritize this work and actually submit it on time or perhaps even take full credit for the joint effort).

What effect does this overlap between morality and competence have on trust compared to only trusting either others' morality or competence? Would individuals hesitate to express distrust to avoid signaling that they view others as incompetent and, in particular, as immoral, or does the involvement of competence provide a way to justify distrust, thus enabling people to attribute their doubts to the other's ability rather than morality—which we now know people do not seem to be overly concerned about (see Chapter 5)? Or do individuals trust even less so, as trusting both another's morality and competence simultaneously increases the overall risk compared to situations where they only need to rely on either morality or competence alone (Fetchenhauer & Ehlebracht, 2019).

To investigate these questions, upcoming research could generally draw on the research process presented in the previous chapters and the recommendations for additional studies outlined in the integrative discussion of these. Thus, a first step might consist of comparing risk-taking in lotteries and regular trust and competence games with a paradigm that simultaneously involves both another's competence and morality (while either adjusting for

cognitive trust or holding the objective risks constant). Such a paradigm could, for example, somewhat mirror the design of Study 4 in Chapter 2, but with important adjustments. For example, as usual, the trustor could start with an initial endowment of $2, which they could either keep, thus ending the interaction, or send to the trustee. In the latter case, three possible outcomes arise. If the trustee answers at least seven out of ten competence test questions correctly, both actors would end up with $4 each (i.e., the same amount and more than the initial endowment). If the trustee answers fewer than three questions correctly, both actors end up with nothing ($0 each). However, if the trustee answers between three and six questions correctly, the trustee would receive $4 while the trustor receives nothing. Importantly, after answering the questions and receiving feedback about the number of correctly solved questions, trustees would then have the opportunity to send a trust request to their trustor, which would be handed to them before their decision to trust. This paradigm exposes the trustor to two risks: the trustee's ability to meet the required level of competence and morality, as reflected by the potential conflicts of interest, as similarly observed in principal-agent dilemmas (Eisenhardt, 1989). The trustee benefits from sending the trust request, even if it ultimately harms the trustor and has little incentive to put in their best effort to solve the task. Using this paradigm, it would be valuable to examine how many individuals act selfishly by requesting trust at the expense of their interaction partner, compared to how many individuals act selfishly in the traditional trust game when placed in the role of the trustee.

Additionally, it would be interesting to investigate whether trustors act upon the trust request, even when it may be to their detriment, potentially as a way to avoid questioning the morality of others, similarly to the traditional trust game. A pointer toward the latter can be deduced from research that showed that people are reluctant to act against the (competence-based) advice of professionals—that is, to distrust—when those professionals disclose a potential conflict of interest, as distrust may serve as a signal that the advice is in self-interest (Sah et al., 2019). In such cases, even if individuals might believe the advice is not ideal, they may still choose to act on it to avoid signaling doubt about the professionals' morality (see also

Chapter 2). Somewhat similarly, advertising research indicates that people's intentions to purchase a product (e.g., energy drinks) are higher after a longer disclaimer rather than a shorter one—irrespective of whether it was positive or negative (i.e., about its healthiness)—that is, after openly disclosing potentially conflicting information about the product's quality rather than, arguably, attempting to conceal it (Herbst et al., 2012). In other words, a brand's transparent disclosure of potentially conflicting interests can enhance consumer trust (i.e., lead to product purchases), as a testament to its morality, even if the product may be of poor quality.

Alternatively, future research could also build on a version of the paradigm used by Zheng et al. (2023). In this version, the trustor begins with $2, which they may either retain or pass to the trustee. If they choose the latter, two outcomes are possible from the trustor's perspective. If the trustee correctly answers fewer than five out of ten competence test questions, both parties receive $0. However, if the trustee correctly answers at least five questions, the trustor's contribution is multiplied, allowing the trustee to either keep the full amount ($8) or divide it equally ($4 each). Although trustors again make themselves vulnerable to the trustee's morality and competence in this game, it differs from the previous proposition in an important way: From the trustor's perspective, there is ambivalence as to why they may have ended up with nothing if they trusted—either due to the trustee's incompetence or immorality.

While there is a methodologically simple fix for this—that is, informing participants about the disclosure regarding how outcomes came about, as was done in the research presented in earlier chapters—I argue that this very ambivalence opens up new and interesting research directions. First, if individuals are distrusted, do they attribute this distrust to their competence or immorality, and which one hurts more (see Chapter 3)? Given that people prefer to be seen as moral over competent (e.g., Allison et al., 1989; Wojciszke, 2005), people might ascribe distrust to the trustor's perception of their competence as a self-serving mechanism (Coleman, 2011). Second, to the extent that individuals are relatively unconcerned about their competence being questioned (see Chapters 4 and 5)—at least less so than their morality being scrutinized (Alicke, 1985; Allison et al., 1989; Van Lange & Sedikides, 1998), perhaps

also due to self-serving biases (Coleman, 2011)—they might exploit this ambiguity to obscure their own immoral behavior, perhaps also because they feel they deserve all the money after doing all the work and meeting the competence criterion. Thus, in this paradigm, individuals might more frequently choose selfishness and keep all the money compared to in a regular trust game. Third, and more so than in the previous paradigm, people could place significantly less trust in others in this situation because they can attribute their distrust to their doubt about others' ability rather than morality—which people appear to be less concerned about (see Study 2 of Chapter 5).

Some final words

This thesis set out to explore whether people exhibit principled trustfulness in others' competence out of an internalized norm to respect another person's competence. The research presented here indicates that this is not the case. Instead, trust in competence appears to be more conditional on joint outcomes. Thus, unlike trust in morality, which is often given the benefit of the doubt, people tend to be more skeptical about trusting others' competence.

The latter may not come as a surprise when looking back at our societies. When you were a child or teenager, were you ever asked, "What do you want to be when you grow up?" Hardly anybody—in fact, probably no one—is able to excel in every aspect of life. Accordingly, today, specializing in a particular area is the norm, and this division of skill and labor—evident even in very early hominid groupings (Nakahashi & Feldman, 2014)—could shape how we trust others' competence. This might lead us to naturally question others' competence to do a specific task—after all, we are sometimes even encouraged to do this (e.g., when general physicians recommend that patients consult a specialist for a second opinion), or even required to do it (e.g., when we hire a new employee). In many of these cases, people probably question others not in order to offend them—and probably people would not feel too offended about being questioned—but rather to achieve the best possible result, which, to be clear, is a good thing if it serves a shared interest or alleviates someone from being burdened with an overwhelming task (see, e.g., Baer et al., 2015, 2021; also, Chapter 4). To revert one last time to the

parking scenario, it might be downright unfair to force someone to park the car if they are afraid of scratching it while trying. Thus, it is not always in the best interest of others to trust their competence. Sometimes it is even in their best interest not to—so we should rather just not do it if we are unsure about whether they are up to the task. Particularly, as our distrust in another's competence—even if it means we believe they are actually unable—does not necessarily mean we think poorly of them as a person.

In light of this and the findings presented in this thesis, it is important to recognize that individuals cannot depend on a leap of faith regarding their competence, in a similar way as with their morality—although more research is needed as to whether this is true cross-culturally and in any situation, for example, between people who know each other. Accordingly, individuals across a range of settings, from political to organizational, are well advised to signal their competence in order to raise expectations of their competence (to the degree they can warrant it) and thereby foster greater trust, for example, by taking an ambivalent stance on a controversial issue (e.g., politicians), signaling their honesty (e.g., doctors) or providing objective evidence of past accomplishments (e.g., job applicants) possibly.

On a final note, whether trust in morality genuinely shows more respect toward another than trust in competence is a philosophical question. Since trusting someone's competence—at least in its form investigated here—appears to be more conditional than trusting someone's morality, trust in others' competence renders trust a more honest and genuine acknowledgment of others' competence compared to trust in others' morality. Thus, more so than for trust in morality, people might truly mean it when they trust others' competence. At least there can be certainty that when I leave these questions to future researchers to find the answers, I truly mean it.

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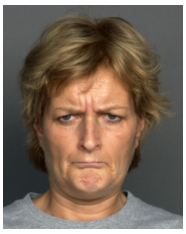
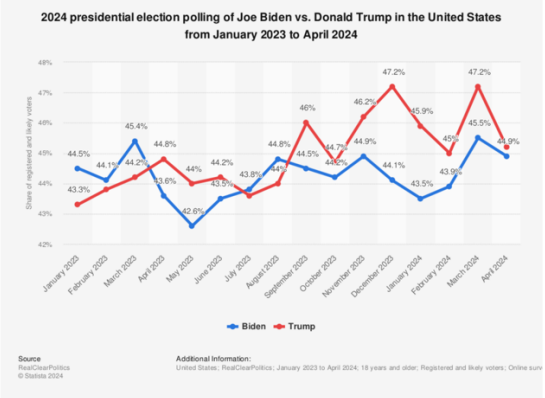
Appendices

Appendix A. *Overview of the tests, example items and the sources used to develop the respective tests*

Test	Example item	Sources
General intelligence	1/4 - 1/2 - 1 - 3 - 6 - 12 - 5 - ? Which number comes next in the sequence? • 7 • 9 • 10 • 15 • 20	(Fetchenhauer et al., in press; Gibbons & Warne, 2019)
Emotional intelligence	What emotion is this face expressing?  • anger • distrust • fear • happiness • neutrality • sadness * This particular image was not part of the test. In compliance with the FACES database release agreement, we can show this particular image to illustrate the test.	(Baron-Cohen et al., 2001; Ebner et al., 2010)
Environmental knowledge	Which energy form is a renewable form of energy? • nuclear energy (from fission) • petroleum • natural gas • geothermal energy	(Geiger et al., 2019)

Digital news competence	 Based on the study chart, please identify which headline gives accurate information supported by the data: • "Trump Leads in Early 2024 Polls but Race Remains Tight" • "Trump's Popularity Surges Unchallenged in 2024 Polls!" • "New US President is Pretty Much Certain: Donald Trump" • "Majority of Voters Think Biden is too Old to be Effective President, New Poll Says"	(Maksl et al., 2015; Mitchell et al., 2018; Newman et al., 2018; Pennycook et al., 2021)
Decision-making competence	<table><tr><td colspan="2"></td><td colspan="2">B</td></tr><tr><td colspan="2"></td><td>L</td><td>R</td></tr><tr><td rowspan="2">A</td><td>T</td><td>1, 2</td><td>0, 3</td></tr><tr><td>B</td><td>0, 0</td><td>1, 1</td></tr></table>*Note: payoffs A, payoffs B* Based on what Player B is most likely to do, which is the best option to choose for Player A? • T • B • doesn`t matter whether Player A chooses T or B	(Aliprantis & Chakrabarti, 2000; Bruine de Bruin et al., 2007; Finucane & Gullion, 2010; Osborne, 2004; Prisner, 2014)
Intercultural competence	When you are a guest in an Indian household, what is the customary way to eat a meal of rice in that house? • using both hands • using a fork and spoon • using only the right hand • using only the left hand	(Cook, 2021; A. Engel et al., 2022; Faloju, 2017; Hegde et al., 2018; Kushner, 2012; Levine et al., 1980; Lewis et al., 2020; Parry, 2020; Pigliasco,

		2005; Yang, 2024)
Health competence	Which of the following is not a common sign of stroke? • confusion, trouble speaking or understanding speech • difficulty breathing • severe headache • numbness of face, arm, or leg, especially on one side of the body • trouble seeing	(American Psychiatric Association, 2022; Calhoun & Harding, 2010; Craske et al., 2014; Drivsholm et al., 2005; Mbuagbaw et al., 2014; O'Connor et al., 2014; Pancioli, 1998; Steel et al., 2014; Winker et al., 2000; Wu, 2016; Zhao et al., 2011)
AI literacy	What determines the behavior of AI systems? • AI systems strive for autonomy • AI systems pursue a goal that has been given to them by humans • AI systems perform behaviors randomly • AI systems seek out goals independently and pursue them	(Hornberger et al., 2023; Long & Magerko, 2020)

Appendix B. *Expected emotional valence of social and non-social scenarios examined in Studies 1 to 3 of Chapter 4*

	Event	Study 1 (N = 273) *M (SD)*	Study 2 (N = 281) *M (SD)*	Study 3 (N = 715) *M (SD)*
1.	How do you feel if you have a tooth pulled?	-38.08 (16.53)	-36.76 (18.97)	-37.41 (18.00)
2.	How do you feel if a friend speaks badly of you behind your back?	-39.05 (14.13)	-38.46 (14.75)	-37.92 (16.96)
3.	How do you feel if a friend tells someone a secret that you have entrusted to them?	-34.46 (23.64)	-35.00 (21.68)	-34.98 (22.15)
4.	How do you feel if you rip off a band-aid from a wound that has only partially healed?	-21.22 (17.09)	-25.92 (19.92)	-23.08 (18.50)
5.	How do you feel if a close friend forgets your birthday?	-19.66 (18.49)	-23.20 (20.93)	-20.01 (19.14)
6.	How do you feel if a fellow colleague points out a stain on your T-shirt?	-7.48 (15.29)	-4.99 (22.16)	-4.97 (20.31)
7.	How do you feel if you find £3 on the street?	27.12 (15.75)	26.79 (19.13)	26.24 (17.83)
8.	How do you feel if a friend spontaneously invites you to dinner?	27.44 (16.20)	27.82 (19.20)	27.86 (18.33)
9.	How do you feel if a fellow colleague compliments you on your looks?	28.15 (17.51)	30.60 (18.18)	30.17 (17.51)
10.	How do you feel if you watch your absolute favorite film with a friend?	34.08 (14.43)	34.24 (15.97)	34.44 (14.35)
11.	How do you feel if you go for a walk on a sunny day?	34.75 (14.03)	21.45 (25.78)	30.04 (20.03)
12.	How do you feel if a friend surprisingly bakes you a cake?	35.52 (13.06)	35.79 (14.81)	36.01 (14.54)

Note: Unadjusted raw means. Questions were answered on a scale ranging from -50 (*very negative, unpleasant*) to 50 (*very positive, pleasant*), with 0 (*neutral*) being the mid-point