



Moral fixedness: Morality seems less changeable than competence and warmth[☆]

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ABSTRACT

In four studies, we investigate lay beliefs about trait changeability across three fundamental dimensions of social perception: competence, warmth, and morality. We find consistent evidence for *moral fixedness*—the belief that moral traits change less over time than traits related to competence or warmth. Participants believed that individuals who exhibited behaviors implying morality—particularly low morality—were less likely to change than those demonstrating comparable levels of competence or warmth. This moral fixedness belief appeared to stem from the assumption that morality reflects a person's core character. Moreover, it shaped social intentions: participants expressed lower willingness to collaborate with colleagues perceived as low in morality, a pattern explained by their presumed limited potential for change. We discuss implications for the broader belief that “people don't change,” for learning processes surrounding moral behavior, and for the consequences of moral attribution.

Do people really change, or do they mostly stay who they are? What seems like a straightforward question yields complicated answers. In the domain of scientific research, people's beliefs on changeability have been encapsulated in implicit theories (Levy et al., 1998; Tinsley et al., 2015). Research has found (e.g., Chiu et al., 1997; Mathur et al., 2013; Owens et al., 2019) that people indeed differ substantially in the extent to which they believe that individuals' characteristics can change (i.e. subscribing to incremental theory) versus they stay fixed (i.e., subscribing to entity theory). These theories play a significant role in shaping not only people's attitudes toward others (Kammrath & Peetz, 2012; Ryazanov & Christenfeld, 2018; Yeager, Trzesniewski, & Dweck, 2013) but also their own well-being and achievement in situations that involve stressful transitions (Yeager et al., 2014).

Despite the practical importance of beliefs on changeability (for conciseness, we hereafter refer to them as “changeability beliefs”), there remains a lack of clarity on a critical question: *What do people actually mean when they say that people do (or do not) change over time?* As we discuss below, myriad studies have established the multidimensional nature of social perception (Abele et al., 2021; Asch, 1946; Hamilton & Fallot, 1974; Jamieson et al., 1987; Kervyn et al., 2010; Peeters, 1992; Rosenberg et al., 1968). Moreover, there are distinct sets of antecedents

and consequences associated with different dimensions of perceptions, alluding to the unique operation of each dimension (Pagliaro et al., 2013; Righetti & Finkenauer, 2011; Xu et al., 2013). It can be thus valuable to embrace the premise that people may hold distinct levels of changeability beliefs for different characteristics or traits. When one person says that people do change and another person disagrees, it is possible that the disagreement arises because they are referring to changes of different traits. This suggests that, without proper consideration of variance across diverse categories of individual traits, research may overlook an important source of people's disagreement on whether or not people change over time.

To address this issue, the present research incorporates competence, warmth, and morality as the three dimensions where people may project different levels of changeability over time (Fiske et al., 2002; Goodwin et al., 2014). We define *moral fixedness* as the belief that moral traits change less over time than traits related to competence or warmth. Our findings not only support the existence of this belief but also suggest its underlying process: people view morality as more fixed because they see it as a reflection of one's core character. We also explore the practical implications of this belief, testing whether perceptions of low morality (vs. low competence vs. low warmth) reduce people's willingness to

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collaborate with the targets.

Our findings extend the literature on morality perceptions in developmental psychology (Dunlea & Heiphetz, 2022; Heiphetz, 2020; Martin & Heiphetz, 2021). Research suggests that morality tends to be essentialized, leading people to believe that it does not change much (Haslam, 2017; Haslam et al., 2000). However, past work indicates that moral essentialism appears for children, but then attenuates or even disappears for adults (Dunlea & Heiphetz, 2021; Heiphetz, 2019). We find that essentialist beliefs on morality operate for adult population as well, and we even observe that such beliefs can produce significant consequences on people's behaviors and decisions. Moreover, because past work on moral essentialism concerns only morality, there has been limited evidence that speaks to the significance of this phenomenon relative to other important dimensions of human characteristics. The same issue applies to recent work in organizational psychology where researchers focused on beliefs regarding moral changeability and their downstream consequences (e.g., Feng et al., 2022). By incorporating competence and warmth, we show that the beliefs of trait changelessness arise more significantly for morality than other important traits.

Moreover, we identify a category of misbehavior (low morality) that is less likely to be forgiven than others. Even after a disappointing interaction with someone, as long as change seems possible, people may be willing to give a second chance (Weinzimmer & Esken, 2017). However, we show that this is less likely to happen in the morality dimension. This tendency holds particular importance for newcomers. Those who recently joined a social group or organization would naturally undergo learning processes, and therefore incumbent members tend to accept the possibility that those newcomers may show behavior that is inconsistent with their expectations (Harteis et al., 2008). Nevertheless, our findings suggest that this process may operate less strongly when the behavior implies low morality.

More broadly, we introduce another perspective that distinguishes morality from other traits: morality perceptions exert stronger influences on the predictions of the future. In other words, morality perceptions are not only applied to describe the current state but also projected into the future, and this effect of morality perceptions emerges more strongly than competence and warmth perceptions. By revealing this pattern, we extend the body of work that discusses the uniqueness and significance of morality perceptions (Pagliaro et al., 2013; Stellar & Willer, 2018).

1.1. Changeability beliefs on individual traits

The discussion of changeability beliefs originally concerned intelligence. Research found that people differed substantially in the extent to which they believed that intelligence could change or stay constant (Costa & Faria, 2018; Dweck & Leggett, 1988; Dweck & Yeager, 2019). Moreover, these beliefs were found to explain their achievement levels. For example, research showed that students who believed that intelligence could change demonstrated stronger academic achievements (Blackwell et al., 2007). A meta-analysis (Burnette et al., 2013) summarized that the achievement gains were explained by various self-regulatory processes, such as higher goal setting and mastery-oriented approaches (e.g., positive views toward efforts).

With rich evidence on people's beliefs about intelligence, researchers broadened their scope of investigation to examine changeability beliefs regarding people's characteristics in general (Levy et al., 1998; Yeager, Trzesniewski, & Dweck, 2013). Empirical evidence revealed that individuals who thought people's characteristics could not be changed judged others' misbehavior in a harsher manner (Martin & Heiphetz, 2021). Moreover, upon experiencing damages inflicted by other individuals, they were more willing to seek revenge (Yeager, Miu, et al., 2013). These findings illustrate the overall ramifications of changeability beliefs: those who believe that people can change are more likely to give others another chance after a disappointing event; in contrast, those who believe that people's characteristics generally stay fixed tend

to conclude that wrongdoers should be punished or expelled. To advance these existing findings, we incorporate three different bases of social perception to show that people do not hold the same level of changeability beliefs for various traits, and that the dimension in which people are least likely to give second chances is morality.

1.2. Morality in social perception

Research has shown that people distinguish between competence and warmth as they perceive social targets (Aaker et al., 2012; Fiske et al., 2007; Kervyn et al., 2010). Competence captures targets' abilities, skillsets, and creativity. Warmth, on the other hand, captures targets' sociability, friendliness, and agreeableness (Fiske et al., 2002). During the past few decades, researchers have found that competence and warmth perceptions are separable and capture a significant amount of variance in social perception (Abele et al., 2021).

Recently, morality has been discussed as the third dimension whereby people assess the extent to which target individuals are responsible, principled, and fair (Goodwin et al., 2014). Although the independence of this dimension has been debated (Abele et al., 2021; Fiske et al., 2002), some evidence suggests that morality not only is differentiated from competence and warmth, but also plays an important role in shaping people's attitudes toward their targets. For example, people reported their group's morality was more important than its competence and warmth (Leach et al., 2007). Similarly, morality motives were stronger than competence motives in driving individuals' actions (Ellemers et al., 2008). A comprehensive review explained morality' perceptual independence from competence and warmth and its unique practical impact (Brambilla & Leach, 2014).

1.3. Morality perceptions and changeability beliefs

We propose moral fixedness, predicting that people overall believe morality changes less over time than competence and warmth. We base this prediction on the tendency for people to judge targets' fundamental character using morality perceptions. When people perceive certain levels of morality regarding their targets, they make inferences regarding the virtue that those targets aim to achieve (Goodwin et al., 2014). Such virtue is believed to determine how target individuals would behave whenever their behavior has implications on other people's (or their own) well-being (England, 1967; Kamakura & Mazzon, 1991; Roccas, 2005). In other words, morality traits inform people on the value systems that guide targets' behavior across situations, determining character judgment of targets (Crossan et al., 2013; Jennings et al., 2015; Kupperman, 1995). This explains why people believe that morality reflects people's "true self" that provides the basis of their external behavior and internal experience (Newman et al., 2015).

In contrast, perceptions of competence are based on targets' ability elements such as their knowledge and skillsets, centering on what target individuals can achieve using their own effort (Ellemers et al., 2008; Fiske et al., 2002). As such, competence perceptions tend to be more based on the consequences that can result from targets' action than the value systems that guide their action itself. Thus, people may infer targets' character more strongly from perceptions of morality traits than competence traits. Also, people perceive warmth as they gauge targets' friendliness and sociability, which reflect how targets would behave vis-à-vis their counterparts (Abele et al., 2021; Leach et al., 2007). Therefore, warmth captures targets' behavior in a particular relational context (e.g., toward a specific counterpart). Consistent with this observation, research showed that the warmth ratings for a given individual varied substantially based on the qualities of their relationships (Greguras & Robie, 1998; Oh & Berry, 2009). Knowing that individuals adjust their demonstration of warmth across different relationships, people may base their character judgment less on warmth than morality, because again, character is believed to govern targets' behavior across situations.

Our prediction contrasts with that of Goodwin et al. (2014; Study 2),

who argued that because people see morality as central to character, they actually view moral traits as more changeable than traits related to warmth. However, they conceptualized changeability in terms of the extent to which target individuals *can* control the demonstration of the traits *in a given situation*, which explains why participants also assigned greater responsibility for morality traits. In contrast, our question examines the extent to which people believe that trait changes *do* occur *over time*. By doing so, we reveal the temporal patterns that people project for morality, competence, and warmth.

Finally, as a downstream consequence of the hypothesized effect regarding changeability beliefs, we consider a situation where a target individual demonstrates behavior that reflects low morality (vs. low competence vs. low warmth). Upon observing those who have committed misbehavior, people naturally consider its changeability in the future to determine whether they should increase their distance with the transgressors (Giles & Heyman, 2003). As predicted above, when people encounter a target individual behaving in a manner signaling low morality, they may infer that the individual's behavior would not change over time, at least in this particular dimension. People would thus be incentivized to increase their distance from the target, to minimize the potential discomfort and damage they may experience in the future. Such willingness to increase social distance can manifest in people's collaborative intentions (Avry et al., 2020). Therefore, we predict that people demonstrate weaker collaborative intentions with a target individual who has demonstrated behavior that indicates low morality (than low competence and low warmth).

1.4. Overview of studies

We tested our predictions on moral fixedness across four studies. In Study 1, using the traits identified by Goodwin et al. (2014), we examined participants' character judgment and changeability beliefs for morality, competence, warmth traits. In Study 2, we experimentally induced participants' perceptions of high or low morality (vs. competence vs. warmth) using hypothetical scenarios regarding a specific target individual. We tested the effect of morality (vs. competence and warmth) perceptions on changeability beliefs and character judgment regarding the target, while also testing whether the effect emerged more strongly in low (vs. high) levels of morality. In Study 3, we conducted similar analyses as in Study 2 but using ratings from actual targets by asking participants to report their perceived levels of morality, competence, and warmth of a known, real-world target. In Study 4, we asked participants to imagine an organizational newcomer who showed low morality (vs. low competence vs. low warmth) and examined their collaborative intentions with the target along with changeability beliefs.

In Study 1, we did not assume a particular context to examine participants' overall thoughts on morality, competence, and warmth traits. In the remaining studies, we tested our predictions in the context of work organizations. We made this choice for multiple reasons. First, social judgments in the workplace hold significance because people make decisions based upon those judgments on various issues such as hiring, promotion, and firing (Pettigrew, 1973; Shapira, 1997). Second, more often than not, people's interactions with specific coworkers do not constitute a one-shot event; they typically encounter opportunities to interact or collaborate with them on multiple occasions (Bianchi et al., 2018; Villas-Boas, 2020). In such situations, changeability beliefs can become an even more relevant issue because they can have a direct influence on whether people choose to distance themselves from the coworkers over time or develop trusting and supportive relationships. Finally, the literature has recently observed an increased amount of research on the implications of morality in organizations (Feng et al., 2022; Jennings et al., 2015; Lu et al., 2017; Owens et al., 2019). The present work can contribute to this growing body of work by establishing the connections between the notions of morality and change, a conceptual link that has not been fully explored in the organizational literature.

We decided on the sample sizes of the studies based on our pilots. We pre-registered our sample size, predictions, and analysis plans prior to the data collection for studies (<https://aspredicted.org/knm2-5gk3.pdf>; <https://aspredicted.org/5sqk-dh7d.pdf>; <https://aspredicted.org/yhprt24c.pdf>; <https://aspredicted.org/bqxf-qrbw.pdf>). We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study. Raw data, computer codes, and study materials for the present research can be found on the following webpage: https://osf.io/awxqj/?view_only=494c01bb287f44aeb2dbd18dac7e853a.

2. Study 1

Our first study captured people's overall beliefs on how various traits of a person might change over time. We presented the traits identified by Goodwin et al. (2014), and asked participants to choose one of the following four patterns of change for each trait: (a) increase, (b) decrease, (c) no change, or (d) random variance (without any discernable patterns of change). To maximize the separation among the three dimensions of social perception, we utilized the traits in the following three categories: competence, warmth ("high warmth and low morality" in Goodwin and colleagues), and morality ("low warmth and high morality" in Goodwin and colleagues). We also measured participants' character judgment of each trait to test whether it demonstrated an indirect effect in the association between trait categories and changeability beliefs. Following the insights from past research that the traits may differ from each other in terms of favorability, confirmability, and disconfirmability (Rothbart & Park, 1986; Rusconi et al., 2020, 2017), we used these variables as controls.

2.1. Method

Sample. We recruited 600 American participants on Connect, an online recruitment platform offered by CloudResearch ($M_{\text{age}} = 38.7$; 283 female [47 %], 312 male [52 %], 5 non-binary [1 %]; 30 Asian or Pacific Islander [5 %], 108 Black [18 %], 20 Hispanic [3 %], 406 White [68 %], 1 Native American [0.2 %], 35 two or more races [6 %]).

Post-hoc sensitivity power analyses showed that, with the nest data structure, sample sizes of $n_s = 147$ and 112 would be sufficient to the detect effect sizes of *Cohen's ds* = 0.23 (morality vs. competence on changeability beliefs) and 0.27 (morality vs. warmth on changeability beliefs), assuming multilevel modeling with two-tailed tests, $\alpha = 0.05$, power = 0.80.

Procedures. We informed participants that the study explored how a person's traits change over time. We presented the 24 traits reported in Goodwin et al. (2014) in the aforementioned categories in random order (see Table 1). For each trait, we asked the following question: "Please select the explanation that best reflects your thoughts on how the following trait of a person changes over time." Participants were given the following four options:

"This trait of a person tends to increase over time. Although there may be some variance across different situations, the overall trend is upward";

"This trait of a person tends to decrease over time. Although there may be some variance across different situations, the overall trend is downward";

"This trait of a person remains unchanged over time. Although there could be some variance across different situations, the overall trend is flat";

"There's no discernible pattern of change for this trait of a person over time. The variance across different situations is overwhelming, and it does not indicate a specific trend."

Subsequently, we measured character judgment of each trait using

Table 1
Traits and Categories (Study 1).

Category	Trait	Favorability	Confirmability	Disconfirmability
Morality	principled, responsible, just, fair, honest, trustworthy, loyal, courageous	6.03 (1.04)	5.07 (1.43)	4.32 (1.60)
Competence	intelligent, creative, innovative, logical, clever, organized, athletic, musical	5.31 (1.19)	4.70 (1.50)	3.98 (1.60)
Warmth	warm, sociable, easy-going, funny, playful, happy, agreeable, enthusiastic	5.41 (1.17)	5.45 (1.24)	4.60 (1.55)

Note. Values in parentheses are standard deviations.

the following question, “To what extent do you think that the following trait captures the fundamental character of a person, shaping who they are and distinguishing them from other individuals?” (1 “not at all” to 7 “very much”). Then, we measured the favorability, confirmability and disconfirmability of each trait using the following questions: “How favorably or unfavorably would you regard a person who possessed the following trait?” (1 “very much unfavorably” to 0 “neither unfavorably nor favorably” to 7 “very much favorably”); “How frequently do occasions arise to allow for behaviors to confirm the following trait of individuals (i.e., to show that they possess the trait)?” (1 “not at all frequently” to 7 “extremely frequently”); “How frequently do occasions arise to allow for behaviors to disconfirm the following trait of individuals (i.e., to show that they do NOT possess the trait)?” (1 “not at all frequently” to 7 “extremely frequently”). Traits were presented in random order in each construct. Finally, participants provided demographic information.

2.2. Results and discussion

We created two binary variables to capture whether the trait belonged to the competence and warmth categories, using morality as the reference category, and these were used as the main predictors in our analyses. We used multilevel modeling to consider the nested data structure (responses within participants). The descriptive statistics and correlations of the study variables can be found in Table 2.

To test our main prediction on changeability beliefs, we created a binary variable capturing whether participants chose the *no change* pattern for each trait (1 = chosen, 0 = not chosen). According to our pre-registered plans for data analysis, we report our analyses below with and without control variables (i.e., favorability, confirmability, and disconfirmability of each trait). As reported in Table 3, participants were more likely to choose the *no change* pattern for morality traits ($M = 38\%$) than competence traits ($M = 32\%$) and warmth traits ($M = 31\%$). Using multilevel modeling with the logit link function, we found significant differences in participants’ likelihood to choose the *no change* pattern between morality and competence traits ($b = -0.32$, $SE = 0.05$, $z = -6.74$, $p < .001$, $d = -0.23$; including controls, $b = -0.25$, $SE = 0.05$, $z = -5.20$, $p < .001$) and between morality and warmth traits ($b = -0.36$, $SE = 0.05$, $z = -7.78$, $p < .001$, $d = -0.27$; including controls, $b = -0.30$, $SE = 0.05$, $z = -5.98$, $p < .001$).¹

Participants also reported that morality traits captured a person’s character to a stronger degree ($M = 5.55$, $SD = 1.18$) than competence ($M = 4.91$, $SD = 1.48$) and warmth traits ($M = 4.95$, $SD = 1.33$). Again, using multilevel modeling, we found significant differences in character judgment between morality and competence traits ($b = -0.64$, $SE = 0.02$, $t(13798) = -26.72$, $p < .001$, $d = -0.76$; including controls, $b = -0.27$, $SE = 0.02$, $t(13930) = -12.04$, $p < .001$) and between morality and warmth traits ($b = -0.60$, $SE = 0.02$, $t(13798) = -24.93$, $p < .001$, $d = -0.71$; including controls, $b = -0.41$, $SE = 0.02$, $t(13932) = -17.71$, $p < .001$).

Based on these results, we estimated the indirect effect of character judgment in the association between the morality category and

¹ To estimate the degrees of freedom for all multilevel models used in the present research, we used the *r* package “lmerTest”, which relies on Satterthwaite tests for best approximation.

changeability beliefs. Using the *r* package “mediation”, we estimated the indirect effect based on the quasi-Bayesian approximation with 5000 resamples. The indirect effect was significant (without controls, point estimate = 0.008, 95 % $CI = [0.004, 0.012]$; including controls, point estimate = 0.003, 95 % $CI = [0.001, 0.006]$).

In this study, we found initial evidence for moral fixedness, observing that people believed morality traits were less likely to change over time than competence and warmth traits. This finding was explained by the extent to which people believed that morality traits captured a person’s fundamental character. Our results emerged significantly even when we controlled other features of the traits that have been found to differentiate the three categories.

3. Study 2

In contrast to Study 1’s correlational approach to test moral fixedness, Study 2 used an experimental paradigm to manipulate the perceived morality, competence, and warmth of a specific target individual and examined participants’ changeability beliefs about the individual.

3.1. Method

Sample. We recruited 900 American participants on Prolific (Palan & Schitter, 2018), an online platform that helps researchers collect data ($M_{age} = 37.6$; 425 female [47 %], 468 male [52 %], 7 non-binary [1 %]; 57 Asian or Pacific Islander [6 %], 66 Black [7 %], 40 Hispanic [4 %], 676 White [75 %], 3 Native American [0.3 %], 57 two or more races [6 %], 1 unidentified [0.1 %]).

Post-hoc sensitivity power analyses showed that sample sizes of $n_s = 90$ and 175 would be sufficient to detect the effect sizes of $d_s = 0.42$ (morality vs. competence on changeability beliefs) and 0.30 (morality vs. warmth on changeability beliefs), assuming two-sample *t*-tests, $\alpha = 0.05$, power = 0.80.

Procedures. Participants read vignettes in which they imagined working at a mid-sized firm in the United States, trying to put together a team for a work project. They were then given a short explanation of a candidate, Casey, with whom they had a brief interaction in a training session they had led. Subsequently, participants were given a more specific description of the interaction, which was determined by a 3 (traits: morality vs. competence vs. warmth) \times 2 (valence: positive vs. negative) factorial design in which participants were randomly assigned to one of the six conditions.

In the [positive vs. negative] morality conditions ($n_{positive} = 174$, $n_{negative} = 146$), participants were given the following description: “You were struck by how he [upheld vs. did not uphold] the moral and ethical principle of the firm while performing his task. So you provided feedback on how he [measured up vs. didn’t measure up] to the company’s moral code.” In the [positive vs. negative] competence conditions ($n_{positive} = 140$, $n_{negative} = 138$), participants read the following description: “you were struck by how he [satisfied vs. didn’t satisfy] the competence and performance standard of the firm. So you provided feedback on how he [fulfilled vs. didn’t fulfill] the performance expectations of the company.” In the [positive vs. negative] warmth conditions ($n_{positive} = 154$, $n_{negative} = 148$), participants read the following description: “you were struck by how he [displayed vs. did not display] a warm and friendly attitude while interacting with others. So you provided

Table 2
Descriptive Statistics and Correlations (Study 1).

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. No change	0.33	0.47	–						
2. Character judgment	5.14	1.37	0.03	–					
3. Favorability	5.58	1.18	0.03	0.48	–				
4. Confirmability	5.07	1.43	–0.02	0.33	0.36	–			
5. Disconfirmability	4.30	1.61	–0.01	0.16	0.15	0.38	–		
6. Morality category ^a	0.33	0.47	0.06	0.21	0.27	0.00	0.01	–	
7. Competence category ^b	0.33	0.47	–0.03	–0.12	–0.17	–0.18	–0.14	–0.50	–
8. Warmth category ^c	0.33	0.47	–0.04	–0.10	–0.10	0.19	0.13	–0.50	–0.50

Note. *n* = 14400 (responses nested within participants). *r*s greater than 0.02 are significant at 0.05 level.

^a Morality category = 1, Other = 0, (completely redundant with the other two category variables; used only in estimation of the indirect effect);

^b Competence category = 1, Other = 0.

^c Warmth category = 1, Other = 0.

Table 3
Frequencies of Change Patterns Reported by Participants (Study 1).

Change patterns	Categories		
	Morality	Competence	Warmth
Increase	35	33	19
Decrease	10	21	28
No change	38	32	31
Variance	17	15	22

Note. Values represent percentage of each change patterns within each category.

feedback on how he [showed vs. did not show] a proper tone of social interactions at the company.”

After the description, participants completed the items on their changeability beliefs and character judgment regarding Casey (1 “not at all” to 10 “very much”). The item on changeability beliefs was the following: “To what extent do you believe that the episode described above captures Casey’s trait that would not change over time?” The item on character judgment was the following: “To what extent do you think that Casey’s behavior during the training session captures his fundamental character?” Finally, participants provided their demographic information.

3.2. Results and discussion

Descriptive statistics and correlations of the study variables can be found in Table 4. According to our pre-registration, we examined participants’ responses using a 3 (traits) × 2 (valence) analyses of variance. Specific results from each condition can be found in Table 5.

The ANOVA results for changeability beliefs suggested a significant main effect of traits, $F(2, 894) = 17.00, p < .001$. We conducted pairwise comparisons of changeability beliefs across the three conditions with Tukey’s method of adjusting *p*-values. As predicted, participants in the morality condition reported stronger beliefs that the trait would not change over time ($M = 7.49, SD = 2.30$) than those in the competence condition ($M = 6.45, SD = 2.55$), $t(897) = 5.22, p < .001, d = 0.42$, and the warmth condition ($M = 6.74, SD = 2.44$), $t(897) = 3.83, p < .001, d = 0.31$. In contrast, the difference in changeability beliefs between the competence and warmth conditions was not statistically significant, $t(897) = -1.45, p = .317, d = -0.12$.

The ANOVA also revealed that the effect of traits on changeability beliefs was qualified by a significant interaction between traits and valence, $F(2, 894) = 5.19, p = .006$, generalized $\eta^2 = 0.01$. The simple effect suggested that the effect of the morality condition on changeability beliefs was stronger in the negative condition (simple effect $b = 1.35, SE = 0.23, t(896) = 5.85, p < .001$) than in the positive condition (simple effect $b = 0.36, SE = 0.22, t(896) = 1.66, p = .098$). Additionally, there was a significant main effect of valence, $F(1, 894) = 126.34, p < .001, d = 0.70$. Participants in the positive condition reported stronger beliefs that the trait would not change over time ($M = 7.75, SD = 2.18$)

than those in the negative conditions ($M = 6.02, SD = 2.44$).

We conducted the same set of analyses for character judgment, and the results mirrored the findings from changeability beliefs. The ANOVA results suggested a significant main effect of traits, $F(2, 894) = 25.21, p < .001$. We thus conducted pairwise comparisons of character judgment across the three trait conditions with Tukey’s method of adjusting *p*-values. As predicted, participants in the morality condition reported that the candidate’s behavior captured his character to a stronger extent ($M = 8.22, SD = 2.12$) than those in the competence condition ($M = 7.05, SD = 2.46$), $t(897) = 6.23, p < .001, d = 0.50$, and the warmth condition ($M = 7.48, SD = 2.27$), $t(897) = 4.02, p < .001, d = 0.33$. In contrast, the difference in character judgment between the competence and warmth conditions did not reach statistical significance at the 0.05 significance level, $t(897) = -2.27, p = .061, d = -0.18$. The results also revealed that the effect of traits on character judgment was qualified by a significant interaction between traits and valence, $F(2, 894) = 10.08, p < .001$, generalized $\eta^2 = 0.02$. The simple effect on interaction between traits and valence revealed that the effect the morality condition on character judgment was stronger in the negative condition (simple effect $b = 1.54, SE = 0.21, t(896) = 7.41, p < .001$) than in the positive condition (simple effect $b = 0.27, SE = 0.20, t(896) = 1.40, p = .161$). Additionally, a significant main effect of valence, $F(1, 894) = 210.60, p < .001, d = 0.86$, revealed that participants in the positive condition reported that the candidate’s behavior captured his character to a stronger extent ($M = 8.57, SD = 1.73$) than those in the negative condition ($M = 6.57, SD = 2.45$).

Based on these results, we estimated the indirect effect of the morality condition on changeability beliefs via character judgment. Using the same approach as in Study 1, we found a significant indirect effect (point estimate = 0.649, 95 % CI = [0.432, 0.879]).

In this study, we again found evidence for moral fixedness. Behaviors that captured morality was believed to change less over time than those that captured competence and warmth. Again, this effect was explained by people’s judgment of character. Finally, we found that the effect of moral behaviors on changeability beliefs and character judgment emerged more strongly when they indicated low morality than high morality.

4. Study 3

In this study, we returned to the observational approach, measuring the levels of morality, competence, and warmth that participants perceived from an actual colleague with whom they had interacted at work. We tested whether morality perceptions had the strongest association with changeability beliefs and character judgment. Because the Study 2 findings showed that the distinction between morality and the other two domains emerged more clearly in negative (than positive) interactions, we aimed to focus on interactions where participants’ colleague demonstrated low levels of morality, competence, or warmth.

Table 4
Descriptive Statistics and Correlations (Study 2).

Variables	M	SD	1	2	3	4	5
1. Changeability beliefs	6.92	2.46	–				
2. Character judgment	7.61	2.33	0.66	–			
3. Morality condition	0.36	0.48	0.17	0.19	–		
4. Competence condition	0.31	0.46	–0.13	–0.16	–0.50	–	
5. Warmth condition	0.34	0.47	–0.05	–0.04	–0.53	–0.48	–
6. Valence condition ^a	0.52	0.50	0.35	0.43	0.04	–0.02	–0.01

Note. *n* = 900. *r*s greater than 0.06 are significant at 0.05 level.

^a Positive = 1, Negative = 0.

Table 5
Changeability beliefs and Character Judgment (Study 2).

Valence	Changeability beliefs			Character judgment		
	Morality	Competence	Warmth	Morality	Competence	Warmth
Positive	7.97 (2.13)	7.54 (2.29)	7.68 (2.12)	8.75 (1.77)	8.31 (1.87)	8.62 (1.51)
Negative	6.91 (2.37)	5.34 (2.31)	5.77 (2.38)	7.59 (2.32)	5.78 (2.34)	6.30 (2.34)
Mean	7.49 (2.30)	6.45 (2.55)	6.74 (2.44)	8.22 (2.12)	7.05 (2.46)	7.48 (2.27)

Note. *n* = 900. Values in parentheses are standard deviations.

4.1. Method

Sample. Based on our pre-registered analysis plan, we collected data from 1200 American participants on Connect (*M*_{age} = 39.3; 629 female [52 %], 558 male [47 %], 13 non-binary [1 %]; 110 Asian or Pacific Islander [9 %], 93 Black [8 %], 66 Hispanic [6 %], 5 Native American [0.4 %], 4 unidentified [0.3 %], 841 White [70 %], 81 two or more races [7 %]).

Our results from Wald tests (without control variables) could be translated into the effect sizes of *r*s = 0.088 (morality vs. competence on changeability beliefs) and 0.062 (morality vs. warmth on changeability beliefs). Post-hoc sensitivity power analyses showed that sample sizes of *n* = 497 and 1000 would be sufficient to detect them, assuming two-tailed tests, α = 0.05, power = 0.80.

Procedures. We asked participants to recall an incident in the workplace where they were disturbed (i.e., negatively surprised) by a colleague’s behavior at work. They wrote three to four sentences to describe the incident.

Participants completed the items on their changeability beliefs and character judgment regarding the colleague (1 “not at all” to 7 “very much”). The item on changeability beliefs was the following: “To what extent do you think that the colleague’s behavior would not change in the future?” The item on character judgment was the following: “To what extent do you think that the incident captures the colleague’s fundamental character?”

We then measured perceptions of morality, competence, and warmth using the following item: “What were the levels of the following characteristics that you perceived from the colleague during the incident? How high or low were they?” (–5 “very low” to 0 “neither high nor low” to 5 “very high”). As a control variable, we measured participants’ relational closeness at the time of the incident (1 “not at all close” to 5 “very close”), the colleague’s age and gender, and colleague’s position in organizational hierarchy at the time of the incident (1 = “very low” to 5 = “very high”). Finally, participants provided demographic information.

4.2. Results and discussion

In this study, we focused on the extent to which perceptions of morality, competence, and warmth deviated from the neutral points in the negative direction (and their impact on changeability beliefs). However, because participants might have obtained some positive perceptions from the colleague, and because our predictions applied to the deviations in the positive direction as well (albeit to a weaker degree, given

the Study 2 results), we focused on the extent to which perceptions of morality, competence, and warmth deviated from the neutral point in both negative and positive directions. We thus computed the absolute value of morality, competence, and warmth perceptions.²

Descriptive statistics and correlations of the study variables can be found in Table 6. As can be found in Table 7, the absolute value of morality perceptions had a significant association with changeability beliefs (Model 1), *b* = 0.26, *SE* = 0.03, *t*(1198) = 9.70, *p* < .001, *r* = 0.27. In other words, the more participants’ morality perceptions of their colleague deviated from the neutral point, the stronger they believed that the colleague’s behavior would stay unchanged. Moreover, this association remained significant when competence and warmth perceptions were included in the model as well (Model 2), *b* = 0.19, *SE* = 0.03, *t*(1196) = 5.92, *p* < .001. Similarly, the absolute value of morality perceptions had a significant positive association with character judgment, both without competence and warmth perceptions in the same model (Model 4), *b* = 0.33, *SE* = 0.02, *t*(1198) = 13.90, *p* < .001, *r* = 0.35, and with them (Model 5), *b* = 0.25, *SE* = 0.03, *t*(1196) = 8.98, *p* < .001. These patterns suggested that, the more participants’ morality perceptions of their colleague deviated from the neutral point, the stronger they thought that the incident reflected the colleague’s fundamental character. These results remained consistent in terms of statistical significance when relational closeness, colleague’s age, gender, and hierarchical position were included in the model as the control variable (Models 3 and 6).

Using the same approach as in Studies 1 and 2, we estimated the indirect effect of character judgment in the association between morality perceptions and changeability beliefs. We found a significant indirect association (estimate = 0.183, 95 % *CI* = [0.153, 0.215]). This finding did not change in terms of statistical significance when competence and warmth perceptions were included in the same model (estimate = 0.148, 95 % *CI* = [0.119, 0.181]) and when the control variables discussed above were added as well (estimate = 0.142, 95 % confidence interval = [0.114, 0.172]).

Finally, we assessed the strength of the associations between changeability beliefs and the absolute value of morality perceptions

² We conducted supplemental analyses by retaining only the responses with negative perceptions, and they demonstrated consistent patterns with the main analyses we report below in terms of statistical significance. We report the analyses only using negative perceptions in an online supplement that can be found on our osf page.

Table 6
Descriptive Statistics and Correlations (Study 3).

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Changeability beliefs	5.13	1.67	–										
2. Character judgment	5.28	1.55	0.55	–									
3. Morality perceptions	–2.04	2.30	–0.27	–0.35	–								
4. Competence perceptions	–1.49	2.48	–0.15	–0.21	0.53	–							
5. Warmth perceptions	–2.58	2.36	–0.21	–0.27	0.58	0.45	–						
6. Absolute morality perceptions	2.53	1.76	0.27	0.37	–0.71	–0.33	–0.37	–					
7. Absolute competence perceptions	2.31	1.73	0.18	0.23	–0.31	–0.58	–0.24	0.45	–				
8. Absolute warmth perceptions	2.99	1.81	0.21	0.28	–0.43	–0.30	–0.78	0.46	0.33	–			
9. Relational closeness	2.44	1.15	–0.17	–0.18	0.16	0.18	0.21	–0.08	–0.07	–0.14	–		
10. Colleague’s age	37.8	12.09	0.15	0.09	–0.01	0.06	–0.12	0.05	0.01	0.14	0.03	–	
11. Colleague’s gender ^a	0.55	0.50	–0.04	–0.04	–0.06	–0.06	0.01	0.04	0.00	–0.06	–0.07	–0.04	–
12. Colleague’s position	2.85	1.08	0.07	0.03	0.02	0.13	–0.05	0.03	–0.02	0.07	0.17	0.31	0.05

Note. *n* = 1200. *r*s greater than 0.05 are significant at 0.05 level.

^a Male = 1, Female or non-binary = 0.

Table 7
OLS Regression Analyses on Changeability beliefs and Character Judgment (Study 3).

Variables	Changeability beliefs			Character judgment		
	Model 1	Model 2	Model 3	Model 4	Model 5	
Absolute morality perceptions	0.26 (0.03) ^a	0.19 (0.03) ^a	0.19 (0.03) ^a	0.33 (0.02) ^a	0.25 (0.23) ^a	0.26 (0.03) ^a
Absolute competence perceptions		0.06 (0.03)	0.06 (0.03) ^a		0.05 (0.03) ^a	0.05 (0.03) ^a
Absolute morality perceptions		0.09 (0.03) ^a	0.05 (0.03)		0.11 (0.03) ^a	0.08 (0.03) ^a
Relational closeness			–0.24 (0.04) ^a			–0.20 (0.05) ^a
Colleague’s age			–0.18 (0.09)			–0.18 (0.08) ^a
Colleague’s gender ^a			0.02 (0.00) ^a			0.01 (0.00) ^a
Colleague’s position			0.08 (0.04)			0.05 (0.04)
<i>R</i> ²	0.07 ^a	0.08 ^a	0.13 ^a	0.14 ^a	0.16 ^a	0.18 ^a

Note. *n* = 1200. Values in parentheses are standard errors.

^a *p* < .05.

^a Male = 1, Female or non-binary = 0.

relative to competence perceptions and warmth perceptions. Using the Wald test, we found that changeability beliefs had a stronger association with the absolute value of morality perceptions than the absolute values of competence perceptions ($t(1197) = 3.05, p = .002$, difference in standardized betas = 0.16) and warmth perceptions ($t(1197) = 2.15, p = .032$, difference of standardized betas = 0.11). Even with the control variables included in the model, we found that changeability beliefs had a stronger association with the absolute value of morality perceptions than the absolute values of competence perceptions ($t(1193) = 2.85, p = .004$) and warmth perceptions ($t(1197) = 3.11, p = .002$). Similarly, character judgment had a stronger association with the absolute value of morality perceptions than the absolute values of competence perceptions ($t(1197) = 4.97, p < .001$, difference of standardized betas = 0.26) and warmth perceptions ($t(1197) = 3.58, p < .001$, difference of standardized betas = 0.20). Even when the model included the control variables, the absolute value of morality perceptions demonstrated a stronger association than the absolute value of morality perceptions than the absolute values of competence perceptions ($t(1197) = 4.91, p < .001$) and warmth perceptions ($t(1197) = 4.34, p < .001$).

In this study, based on participants’ perceptions of an actual colleague from a work setting, we found that stronger perceptions of morality predicted participants’ stronger beliefs that the colleague would not change over time. This association was explained by character judgment. Moreover, our findings suggested that morality perceptions had stronger associations with changeability beliefs and character judgment than competence and warmth perceptions.

5. Study 4

Having obtained evidence of moral fixedness in the previous three

studies, we aimed to examine its downstream consequence. Like Study 3, we assumed negative interactions and tested whether perceptions of low morality shaped participants’ collaborative intentions through changeability beliefs. We also included the manipulation checks of perceived morality, competence, and warmth, to ensure that (a) our manipulations produced the intended effects on trait perceptions and (b) those perceptions predicted changeability beliefs and collaborative intentions.

5.1. Method

Sample. Using Connect as a recruitment platform, we collected responses from 600 American participants ($M_{age} = 38.9$; 316 female [53 %], 279 male [47 %], 5 non-binary [1 %]; 7 Asian or Pacific Islander [10 %], 10 Black [8 %], 6 Hispanic [3 %], 417 White [70 %], 2 Native American [0.3 %], 47 two or more races [8 %], 1 unspecified [0.2 %]).

Post-hoc sensitivity power analyses showed that sample sizes of *n*s = 78 and 139 would be sufficient to detect the effect sizes of *d*s = 0.40 (morality vs. competence on changeability beliefs) and 0.30 (morality vs. warmth on changeability beliefs), assuming two-sample *t*-tests, $\alpha = 0.05$, power = 0.80.

Procedures. We asked participants to imagine a similar situation as the negative condition of Study 2. They imagined that they were putting together a team for the work project assigned to them, considering Casey as a potential member of the project. Casey was described as someone who had taken part in a training session led by participants in the past. We manipulated perceptions of [low morality vs. low competence vs. low warmth] using the following passages: “You were coaching him for an important part of his job, and you didn’t feel like [some of the ways he performed it were within the moral and ethical boundary of the firm vs. some

of the ways he performed it were on par with the competence and performance standard of the firm vs. he showed a particularly warm and friendly attitude]. So you provided feedback on [the right way to do it vs. the performance expectations of the company vs. the correct tone of social interactions at the company].”

Based on the description, participants were asked to share their brief thoughts on Casey, using an open-ended question (“Please share your brief thoughts on Casey described above. In particular, what’s your overall impressions of Casey’s behavior during the training session?”). Participants were then asked to report perceive morality, competence, and warmth of Casey, using the same items in Study 3. Subsequently, participants finished the items on changeability beliefs (“To what extent do you believe that the episode described above captures Casey’s trait that would not change over time?”) and collaborative intentions (“Now you’re seeing Casey is on the list of candidates. To what extent are you willing to have Casey on board in your team?”), using a 1 “not at all” to 7 “very much” scale. Finally, they provided demographic information.

5.2. Results and discussion

The descriptive statistics and correlations of the study variables appear in Table 8. According to our pre-registered plan, we ran ANOVAs to examine the effectiveness of our manipulations. We found a significant effect of the experimental conditions on perceived morality, $F(2, 597) = 177.40, p < .001$. Pairwise comparisons with Tukey’s method of adjusting p -values suggested that participants in the low morality condition perceived lower levels of morality from Casey ($M = 3.54, SD = 1.84$) than those in the low competence condition ($M = 6.41, SD = 1.68$), $t(597) = -16.95, p < .001, d = -1.26$, and the low warmth condition ($M = 6.18, SD = 1.58$), $t(597) = -15.41, p < .001, d = -1.22$. In contrast, there was no significant difference between the low competence and low warmth conditions, $t(597) = 1.35, p = .368, d = 0.14$. Similarly, we found a significant effect of the experimental conditions on perceived competence, $F(2, 597) = 34.63, p < .001$. Pairwise comparisons suggested that participants in the low competence condition perceived lower levels of competence from Casey ($M = 4.74, SD = 2.23$) than those in the low morality condition ($M = 5.68, SD = 2.11$), $t(597) = -4.49, p < .001, d = -0.42$, and the low warmth condition ($M = 6.52, SD = 1.97$), $t(597) = -8.31, p < .001, d = -0.78$. There was also a significant difference between the low morality and low warmth conditions, $t(597) = 3.95, p < .001, d = 0.40$. Finally, we found a significant effect of the experimental conditions on perceived warmth, $F(2, 597) = 125.5, p < .001$. Pairwise comparisons suggested that participants in the low warmth condition perceived lower levels of warmth from Casey ($M = 3.32, SD = 2.02$) than those in the low morality condition ($M = 5.08, SD = 2.01$), $t(597) = -9.32, p < .001, d = -0.80$, and the low competence condition ($M = 6.33, SD = 1.60$), $t(597) = -15.78, p < .001, d = -1.28$. There was also a significant difference between the low morality and low competence conditions, $t(597) = -6.68, p < .001, d = -0.65$. The significant effects that we had not predicted (e.g., differences in perceived competence between the low morality and low warmth conditions) substantiated the importance of using the manipulation checks as predictors in the analyses that we report below.

Table 8
Descriptive Statistics and Correlations (Study 4).

Variables	M	SD	1	2	3	4	5	6	7
1. Changeability beliefs	3.62	1.47	–						
2. Collaborative intention	3.70	1.37	–0.41	–					
3. Perceived morality	5.34	2.15	–0.14	0.48	–				
4. Perceived competence	5.64	2.22	–0.01	0.49	0.45	–			
5. Perceived warmth	4.93	2.24	–0.03	0.32	0.41	0.29	–		
6. Low morality condition	0.35	0.48	0.17	–0.18	–0.61	0.02	0.05	–	
7. Low competence condition	0.33	0.47	–0.12	0.04	0.35	–0.28	0.44	–0.52	–
8. Low warmth condition	0.32	0.47	–0.05	0.14	0.27	0.27	–0.49	–0.50	–0.49

Note. $n = 600$. r s greater than 0.07 are significant at 0.05 level.

The ANOVA on changeability beliefs replicated the results from Study 2. We found a significant effect of the experimental conditions, $F(2, 597) = 8.93, p < .001$. We conducted pairwise comparisons using the same method above (and Study 2) and found that participants in the low morality condition reported stronger beliefs that the colleague’s trait would not change over time ($M = 3.95, SD = 1.40$) than those in the low competence condition ($M = 3.37, SD = 1.47$), $t(597) = 4.04, p < .001, d = 0.40$, and the low warmth condition ($M = 3.51, SD = 1.49$), $t(597) = 3.04, p = .016, d = 0.30$. In contrast, the difference in changeability beliefs between the low competence and low warmth condition was not significant, $t(597) = -0.96, p = .605, d = -0.09$.

The results on collaborative intentions revealed parallel patterns. The ANOVA showed a significant effect, $F(2, 597) = 10.74, p < .001$. Pairwise comparisons using the same method above revealed that participants in the low morality condition reported weaker collaborative intentions with the colleague ($M = 3.22, SD = 1.26$) than those in the low competence condition ($M = 3.62, SD = 1.33$), $t(597) = -3.11, p = .006, d = -0.31$, and the low warmth condition ($M = 3.73, SD = 1.33$), $t(597) = -4.51, p < .001, d = -0.43$. In contrast, the difference in changeability beliefs between the low competence and the low warmth conditions was not statistically significant, $t(597) = -1.43, p = .673, d = -0.14$. We used the same approach in Studies 1 to 3 to estimate the indirect effect, that is whether the effect of the low morality condition on collaborative intentions was explained by changeability beliefs. The indirect effect was significant (estimate = -0.187 , 95 % confidence interval = $[-0.289, -0.093]$).

We ran an additional set of analyses using perceived morality, competence, warmth as the predictors instead of the experimental conditions. We found that perceived morality significantly predicted changeability beliefs, $b = -0.12, SE = 0.03, t(596) = -3.70, p < .001, r = -0.15$. In contrast, we did not find a significant effect of perceived competence, $b = 0.04, SE = 0.03, t(596) = 1.43, p = .152, r = 0.06$, or perceived warmth, $b = 0.02, SE = 0.03, t(596) = 0.56, p = .579, r = 0.02$. We also found that perceived morality significantly predicted collaborative intentions, $b = 0.18, SE = 0.03, t(596) = 7.20, p < .001, r = 0.28$. We also found significant effects of perceived competence, $b = 0.21, SE = 0.02, t(596) = 8.84, p < .001, r = 0.34$, and perceived warmth, $b = 0.06, SE = 0.02, t(596) = 2.83, p = .005, r = 0.12$. Finally, using the same approach above, we found a significant indirect effect suggesting that perceived morality predicted collaborative intentions via changeability beliefs (estimate = 0.042 , 95 % confidence interval = $[0.019, 0.065]$).

The results from this study replicated Study 2’s findings: participants believed that a colleague who demonstrated low morality would change less than a colleague who demonstrated low warmth or low competence. Our results using the manipulation checks bolstered the validity of this finding. Finally, a key downstream consequence to this effect emerged: Those who perceived low morality were least willing to collaborate with the colleague, and this effect was explained by changeability beliefs.

6. General discussion

In the present research, we demonstrated people’s robust belief that

morality changes over time less than competence and warmth. This belief on moral fixedness was observed when participants reported beliefs on various traits (Study 1), when they recalled a person they had previously interacted with (Study 3), and when they imagined a hypothetical newcomer at work (Studies 2 and 4). Across all studies, participants reported that traits or behaviors implying (im)morality were less likely to change than those implying competence and warmth. This effect was explained by the beliefs that morality captures an individual's fundamental character. Finally, there was a significant downstream consequence to the effect: when a colleague at work demonstrated low morality (vs. low competence vs. low warmth), participants demonstrated the weakest collaborative intentions with them (Study 4). The effect sizes of our main findings are summarized in Table 9.

6.1. Implications

We suggest that discussions of whether or not people change over time may need to be more specific than they typically are, given that beliefs on changeability differed significantly across social perception dimensions. Thus, the disagreement concerning the possibility of change may stem from a focus on different traits. In particular, those who emphasize fixedness may be focusing on moral traits, whereas those who believe in changeability may be considering traits related to competence and warmth. Relatedly, although the literature on implicit theories has broadened its scope to incorporate overall characteristics of targets (Chiu et al., 1997; Levy et al., 1998; Yeager, Miu, et al., 2013), our findings indicate that it could be valuable to examine the belief that people adopt for a specific trait, because research can further examine their relative impact on people's behaviors and decisions.

We find that people are more punitive in response to moral failings than to lapses in competence or warmth, offering insights into how learning processes unfold—especially in organizational contexts (Weick, 1995; Weick & Ashford, 2001). When individuals are denied a second chance after displaying morally questionable behavior, learning may be stunted: the person is removed from the opportunity to improve through experience. By contrast, if a second chance is granted, accompanied by clear corrective feedback, it can facilitate stronger, faster learning by signaling the seriousness of the misconduct and the expectation that it must not recur. Conversely, when moral violations go unaddressed, transgressors may infer that their behavior is acceptable, increasing the likelihood of repetition. These dynamics not only affect individual learning but also shape vicarious learning among observers who draw lessons from how such incidents are handled. Overall, our findings underscore the significant role of morality in influencing how people learn—from their own behavior and from the behavior of others.

Our findings contribute to the attribution literature (Weiner, 1985). Research has shown that people tend to attribute misbehaviors to individuals' internal traits even when external factors have clearly

influenced the way targets have behaved (Gilbert & Malone, 1995; Ross, 1977). Our findings extend such findings by showing that, if misbehaviors are attributed to targets' moral (versus competence or warmth) traits, it can more strongly determine their perspectives on future events. As a further extension of our investigation, research can delineate the individual, relational, and situational factors that induce people to attribute targets' behavior to their morality, competence, or warmth.

In Study 2 we also found that participants were more likely to reach character judgment when targets demonstrated low morality than high morality, which is consistent with the past findings from attribution research (Rusconi et al., 2020). This pattern can be connected to research on "true self" (Newman et al., 2015), which has illustrated that people typically assume high morality for their targets. Due to the mismatch between what people have expected and what they actually face, the targets' demonstration of low morality can induce a surprise and thus lead to stronger character judgment. In this regard, our findings suggest that the significance of morality perceptions can be discussed in terms of not only people's default assumption of high morality but also their character judgment based on perceptions of low morality—as well as its implications for changeability beliefs.

Practically, the evidence presented in this paper underscores the importance of ethical training within organizations. Once immoral behavior is observed, it may be judged as unforgivable—especially in the eyes of observers. This concern is particularly salient for newcomers, who may not yet be fully acquainted with the organization's ethical norms. To mitigate this risk, organizations should include explicit and thorough discussions of ethical expectations during onboarding (Bauer & Erdogan, 2011). From the perceivers' perspective, our findings suggest that moral attributions trigger especially strong reactions. However, such judgments may overlook alternative explanations for misbehavior. For instance, individuals may violate ethical norms not because of flawed character, but due to a lack of awareness or guidance. While punishment may be appropriate when both a clear violation and intentionality are established, such judgments should be exercised with caution. Perceptions of immorality can be enduring and may substantially influence a person's future within the organization.

6.2. Limitations and future directions

We acknowledge that all studies used online samples (albeit recruited from multiple platforms). Thus, it would be valuable to test whether the current findings generalize to a non-online setting.

Another issue for future work is identifying the specific stages of human development during which people think changes in morality, competence, warmth occur. It could be the case that people believe competence-related traits increase until targets reach middle age (with accumulated experiences and learning; Masten & Coatsworth, 1998)

Table 9
Effect sizes for comparisons across morality, competence, and warmth.

	Type	Morality vs. Competence	Morality vs. Warmth	Competence vs. Warmth	
Study 1	Changeability beliefs	Cohen's <i>d</i>	0.23	0.27	0.04
	Character judgment	Cohen's <i>d</i>	0.76	0.71	-0.05
Study 2	Changeability beliefs	Cohen's <i>d</i>	0.42	0.31	-0.12
	Character judgment	Cohen's <i>d</i>	0.50	0.33	-0.18
Study 3	Changeability beliefs	Difference in standardized betas	0.16	0.11	-0.05
	Character judgment	Difference in standardized betas	0.26	0.20	-0.07
Study 4	Changeability beliefs	Cohen's <i>d</i>	0.40	0.30	-0.09
	Collaborative intentions	Cohen's <i>d</i>	-0.31	-0.43	-0.14
Studies 1, 2, 4	Changeability beliefs ^a	Cohen's <i>d</i>	0.35	0.30	-0.06

Note. Effect sizes were estimated using models without control variables.

^a We conducted a random-effects meta-analysis using effect sizes from Studies 1, 2, and 4. Study 3 was excluded because it involved comparisons of predictive strength (i.e., differences in standardized beta coefficients) within a single sample, which do not yield an effect size directly comparable to Cohen's *d*.

and decrease toward the later phases in life (with further aging; Deary et al., 2009). In contrast, people may believe that warmth-related traits decline earlier in life as individuals compete to achieve success, but increase after middle age as people become more satisfied with life and more prosocial (Mayr & Freund, 2020; Singer et al., 2007) and/or as aging-related stereotypes of high warmth begin to take hold (Fiske et al., 2002). Finally, although our findings suggest that people project a lower possibility of change for morality (than competence and warmth), it could be valuable to investigate the pattern of change that people hold for morality across various phases of development.

Connecting our findings to the literature on morality perceptions (Cusimano & Goodwin, 2020; Goodwin et al., 2014) offers an additional avenue for future research. As discussed, Goodwin et al. (2014; Study 2) found that people believed that morality is more changeable because people can control its manifestation, assuming their motivation. Such findings concerned changes that can occur at a given moment, instead of temporal patterns that emerge over time. In contrast, our investigations addressed people's beliefs on trait changes over time. Meanwhile, we did not specifically focus on the changes that can arise based on people's motivation and commitment. Research can thus further examine people's beliefs on the changes that can be shaped by people's motivation over time. Although this question is in line with those found in the literature on implicit theories (Chiu et al., 1997; Levy et al., 1998; Yeager et al., 2014), the differentiation of those theories among morality, competence, and warmth has yet to receive significant attention in this field.

In Study 4, participants reported weaker collaborative intentions when a colleague demonstrated low morality than low competence or low warmth. Although changeability beliefs had an indirect effect, it is possible that other factors, such as perceived significance of the behavior, could also have contributed to collaborative intentions. Because low morality can implicate possibilities of significant future events (e.g. cheating and bribery; John et al., 2014; Liu et al., 2017), people may be more willing to distance themselves from those who demonstrate low morality than those with low competence or low warmth. The joint effects of these and other factors warrant further research attention.

We also consider potential boundary conditions of our finding. One such condition is the situational factors that surround the relationships between perceivers and targets. For example, in a context that features strong performance orientation (O'Reilly et al., 1991), people may emphasize competence-related information. They may make snap judgments based on individuals' abilities, which can then shape character judgments on competence ("Competence constitutes people's core characteristics"), changeability beliefs ("Competence does not change much over time"), and collaborative intentions ("I would like to work with that person who demonstrated competence"). As a result, early evidence on targets' competence can significantly determine the way they are recognized, and those who receive early recognition may continue to enjoy more favorable perceptions than other people (Nisbett & Wilson, 1977).

Finally, we acknowledge that the association between character judgment and changeability beliefs can be bidirectional. Although our predictions address how people's overall characterization of moral traits (character judgment) would manifest itself in their specific predictions for future behavior (changeability beliefs), it is certainly possible that the causal path goes the other way around—that is, beliefs on morality's changelessness might affect people's thoughts on its centrality in constituting people's character. We note that throughout our studies, morality perceptions had stronger associations with character judgment than changeability beliefs, which is consistent with our predictions. That being the case, the issue of reverse causality can be addressed by manipulating character judgment and examining its effect on changeability beliefs and vice versa (Spencer et al., 2005).

7. Conclusion

At the heart of this research lies a simple but meaningful insight: People view morality as more fixed than competence or warmth. This belief in moral fixedness shapes not only how we judge others, but also how we treat them—limiting opportunities for redemption, collaboration, and growth. Morality is uniquely positioned in social perception because it is seen as a window into a person's core character. As a result, even a single moral misstep may cast a long shadow, influencing not only how the transgressor is perceived but also how they are treated in the future. These findings suggest that our beliefs about whether people can change are not just philosophical—they are deeply social, with real consequences for inclusion, forgiveness, and learning. Understanding the moral lens through which we view others may be key to fostering more fair and growth-oriented communities and organizations.

Open practices

We decided on the sample sizes of the studies based on our pilots. We pre-registered our sample size, predictions, and analysis plans prior to the data collection for studies (<https://aspredicted.org/knm2-5gk3.pdf>; <https://aspredicted.org/5sqk-dh7d.pdf>; <https://aspredicted.org/yhpr-t24c.pdf>; <https://aspredicted.org/bqxf-qrbw.pdf>). We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study. Raw data, computer codes, and study materials for the present research can be found on the following webpage:

CRedit authorship contribution statement

Jinseok S. Chun: Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Conceptualization. **Michael S. North:** Writing – review & editing, Resources, Project administration, Conceptualization.

Declaration of competing interest

The authors declare no conflict of interest.

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