

Less human, less positive? How AI involvement in leadership shapes employees' affective well-being across different supervisor decisions

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ABSTRACT

As artificial intelligence (AI) becomes increasingly integrated into organizational leadership, it is critical to understand how algorithmic decision-making affects employee well-being. This study investigates how varying levels of AI involvement in leadership – ranging from fully human to hybrid (human-AI collaboration) to fully automated – influence employees' emotional responses at work. It also examines whether the emotional impact of leader type depends on the outcome of a managerial decision (positive vs. negative). To investigate these questions, we conducted a vignette-based online experiment using a 3x2 between-subjects design. Participants (N = 153 workers) were randomly assigned to one of six short, standardized leadership scenarios that varied by leader type (human, hybrid, or AI) and decision outcome (positive or negative). The vignettes described a realistic workplace situation in which a leader communicates a decision about a project's continuation. Subsequently, emotional responses were measured using validated affective scales.

The results showed that higher AI involvement led to lower positive affect, particularly following favorable decisions, while negative affect remained largely unaffected. These results suggest that, while AI leadership is not emotionally harmful, it also fails to generate positive engagement. Positive affect was strongest when positive decisions were delivered by a human leader and weakest when delivered by an AI.

These findings contribute to leadership and human-AI interaction research by highlighting an emotional asymmetry in AI-led leadership. Practically speaking, these results imply that while AI offers efficiency, it lacks the interpersonal resonance necessary for emotionally meaningful interactions. Therefore, organizations should consider maintaining human involvement in contexts where recognition, trust, or relational sensitivity are important.

1. Introduction

Artificial intelligence (AI) technologies are increasingly shaping how organizations operate (Glikson & Woolley, 2020), and their integration into everyday working life continues to expand (Hillebrand et al., 2025). As AI becomes more embedded in organizational processes, it is transforming how work is coordinated, decisions are made, and performance is managed. From recruitment and scheduling to performance tracking and customer service, AI systems are being adopted to enhance efficiency and reduce human bias (Madanchian, 2024). These developments mark a fundamental shift in how organizations function and interact with their employees.

Within this broader transformation, leadership represents one of the domains most directly affected. Classical leadership functions comprise

providing autonomy and supporting the social climate, but also evaluating work, providing feedback, recognizing and rewarding performance, and setting and clarifying objectives (Steele & Watts, 2022). Many of these functions, in which leaders spend a substantial portion of their time, like routine, administrative, and control tasks, are now considered automatable (Hillebrand et al., 2025). Accordingly, it is only natural that the potential of AI is being exploited to gradually replace certain leadership functions. AI systems are taking over managerial roles, generating and allocating tasks, making data-based decisions, reviewing performance, giving feedback and planning shifts, among other tasks (e.g., Höddinghaus et al., 2021; Wesche & Sonderegger, 2019). As technology progresses and AI becomes more integrated into everyday working life, hierarchies are changing as well. AI is no longer just a tool subordinate to humans; it is also becoming a partner,

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teammate, supporter, and even a substitute (e.g., Tsai et al., 2022; Van Quaquebeke & Gerpott, 2023; Wesche & Sonderegger, 2019). Hence, it is expected that fewer human leaders will be needed in the future, particularly at lower and middle management levels (Van Quaquebeke & Gerpott, 2023). From a financial perspective, replacing managers with AI is appealing because these positions are costly for organizations (Glikson & Woolley, 2020). However, it is questionable whether this would satisfy employees' social and emotional needs. As contemporary leadership theories, such as affect-based leadership, emphasize, effective leaders foster positive emotions, engagement, and meaning at work through social interaction (Montano et al., 2017; Skakon et al., 2010). In addition to transforming leadership roles, AI technologies have also been shown to influence employee well-being more broadly, with potential benefits and risks that warrant further exploration (e.g., Malik et al., 2021; Nazareno & Schiff, 2021). For instance, recent experimental findings suggest that people perceive negative performance feedback from computers as more stressful and less fair than comparable feedback from human sources, even when actual task performance is unaffected (Thuillard et al., 2022).

Given that leaders largely define the environment in which their subordinates experience well-being (e.g., Inceoglu et al., 2018), the question arises as to what, if any, changes in the latter can be expected when hybrid (human-AI) or fully automated leaders take on the role of conventional human leaders. While the general effects of leadership on employee well-being have been well established (e.g., Montano et al., 2017), several recent studies have begun to examine how AI-supported or algorithmic leadership affects employee attitudes and emotional responses (e.g., Höddinghaus et al., 2021; Liang et al., 2025; Passalacqua et al., 2024). However, little is known about how different types of AI involvement in leadership – ranging from fully human to hybrid to fully automated – differentially influence affective well-being. This gap is particularly relevant as organizations increasingly experiment with AI in leadership roles (e.g., Mann, 2023). Moreover, prior work has rarely examined whether the emotional consequences of AI leadership depend on the nature of the managerial decision – namely, whether the outcome is positive or negative – a factor likely to shape how leadership is perceived in emotionally meaningful contexts (e.g., Bankins et al., 2022; Ismagilova & Ploner, 2025; Lipshitz, 1989). According to Affective Events Theory positive and negative events in the workplace lead to emotional reactions, which in turn can influence an employee's job satisfaction and performance (Weiss & Cropanzano, 1996).

In this study, the decision type refers to an indirectly performance-related managerial decision at the individual level – specifically, whether a project the employee worked on intensely will be continued or discontinued. This format allows us to isolate a clear and personally relevant managerial outcome that resembles performance feedback, but represents a concrete, binary decision communicated by a leader.

This study addresses these gaps by systematically comparing emotional responses to human, hybrid, and fully automated leadership across two decision types (positive vs. negative): it examines how varying degrees of AI involvement in leadership affect employees' emotional reactions, with a focus on positive and negative affect as core indicators of affective well-being (Watson et al., 1988). We also test whether the effect of leader type is moderated by decision outcome (i.e., whether the communicated decision is favorable or unfavorable) (Bankins et al., 2022; Ismagilova & Ploner, 2025; Lipshitz, 1989).

Our work contributes to human-AI interaction, leadership, and organizational psychology research by combining both leader identity and decision outcome in a controlled experimental design. It introduces hybrid leadership as a theoretically and practically relevant middle ground and sheds light on how emotional responses vary depending on who leads and what kind of decision is communicated.

2. Theory and hypotheses

2.1. Leadership, artificial intelligence, and affective well-being

Leadership plays a central role in shaping employee well-being, particularly in terms of affective experiences – employees' positive and negative emotional states at work (Inceoglu et al., 2018; Montano et al., 2017). This is in line with Affective Events Theory (Weiss & Cropanzano, 1996), which posits that positive and negative events at work trigger emotional reactions that, in turn, shape job satisfaction and performance. Beyond performance or task outcomes, leadership theories such as transformational and affect-based models emphasize that effective leaders foster emotional engagement, meaning, and motivation by offering recognition, support, and high-quality interaction (Montano et al., 2017; Skakon et al., 2010). Affect-based leadership theory, in particular, conceptualizes leadership as an emotionally charged social process, in which leaders shape employee well-being through support, recognition, and relational presence (e.g., Inceoglu et al., 2018; Montano et al., 2017). Empirical research confirms that positive leadership experiences are linked to higher job satisfaction and lower burnout, while destructive or emotionally distant leadership is associated with stress, disengagement, and impaired well-being (Baquero, 2023; e.g., Skakon et al., 2010; Sparr & Sonnentag, 2008). These theories conceptualize leadership as a relational, emotionally charged process. Against this background, it remains unclear whether automated forms of leadership can fulfill these affective functions. While AI may enhance objectivity and consistency, it inherently lacks the social and emotional intelligence and the ability to convey interpersonal cues needed to motivate employees and attend to their psychological needs, which are essential components of leadership and emotional labor (Siemon, 2022). This raises fundamental questions about the limits of AI in leadership domains where emotional labor and relational presence are essential.

Recent empirical studies paint a mixed picture: AI has been associated with increased autonomy, flexibility, creativity, job performance, and fairness, but also with increased stress, reduced trust, lower social recognition, and increased uncertainty (e.g., Malik et al., 2021; Matsunaga, 2022; Nazareno & Schiff, 2021). These ambivalent findings highlight the need for systematic investigation of how different levels of AI involvement in leadership affect employees' emotional responses. In the context of this study, AI involvement in leadership refers to the extent to which an AI system performs core managerial functions, ranging from no involvement (human-only), to shared decision-making (hybrid), to full automation (AI-only leadership).

2.2. How AI involvement in leadership affects affective well-being

AI systems are often considered superior decision-makers due to their advanced data processing capabilities, ability to detect patterns in incomplete information, and immunity to human limitations such as fatigue, bias, and self-interest (e.g., Avolio et al., 2014; Köchling et al., 2024; Parry et al., 2016; Wesche & Sonderegger, 2019). With AI taking over traditionally human cognitive functions, the integration into decision-making processes will reshape leadership dynamics, requiring human leaders to adapt their strategies and leadership styles to leverage AI's capabilities in problem-solving and decision-making (Raisch & Fomina, 2024). Yet, research has shown that fully automated decision-making reduced perceived autonomy, motivation, task engagement, and skill development (Passalacqua et al., 2024) and increased levels of job burnout and perceived threat among employees (Zayid et al., 2024). Moreover, employees perceive AI leaders as less benevolent but more transparent than human supervisors (Höddinghaus et al., 2021). Research also suggests that leaders are seen as effective when they match followers' ideas of what a leader should be like, with competence being an important part of these ideas (Matsunaga, 2022; Offermann et al., 1994). Thus, introducing AI as a leader could potentially lead to negative emotions or low acceptance.

Studies have shown that disclosing AI feedback leads employees to develop negative views of it, such as reduced trust in its quality and increased concerns about job displacement risks. Employees who were told their feedback came from AI showed 5.4 % lower job performance compared to those informed that their feedback came from human leaders (Tong et al., 2021). In general, reduced AI transparency fosters employees' negative emotions, such as anxiety, and creates power asymmetries leading to various outcomes (Curchod et al., 2020; Hillbrand et al., 2025; Rahman, 2021; Tarafdar et al., 2023).

Research comparing human and automated leadership shows that human decisions often elicit positive emotions through social recognition, while algorithmic decisions evoke mixed reactions – valued for efficiency but criticized as impersonal or dehumanizing. This ambivalence is especially pronounced in interpersonal contexts such as performance evaluations or hiring (Lee, 2018).

Based on affect-based leadership theory, we expect that increased AI involvement will reduce employees' affective well-being, as automated systems may lack the relational and emotional presence needed to foster positive affect.

Hence, we assume that the higher the AI involvement in leadership, ranging from human over hybrid to fully automated leadership, the more negatively employee affective well-being is impacted (see Fig. 1). Employee emotions towards the type of leader, revealing their state of affective well-being, will be measured via positive and negative affect.

H1a). AI involvement in leadership is negatively associated with positive affect.

H1b). AI involvement in leadership is positively associated with negative affect.

2.3. Decision-making by supervisors and well-being

Justice and fairness perceptions in the context of work were found to impact employee well-being significantly. Decisions by supervisors perceived as biased or unfair can have detrimental effects on employees, including increased depression and anxiety, as well as feelings of dehumanization, reduced effort and commitment, lower job satisfaction, and higher turnover intentions (Lind, 2001, pp. 56–88; Saleem et al., 2024; Wood et al., 2013). However, it is important to consider that decisions with positive outcomes are typically evaluated more favorably, whereas negative outcomes tend to invite harsher judgment. Positive outcomes are often seen as more justified and indicative of better decision-making, regardless of the process behind them (Bankins et al., 2022; Ismagilova & Ploner, 2025; Lipshitz, 1989). Hence, we hypothesize.

H2a). A positive management decision is positively associated with positive affect.

H2b). A positive management decision is negatively associated with negative affect.

In terms of automated leadership, research suggests that for human-centered tasks, algorithmic decisions are seen as less fair and trustworthy, evoking more negative emotions due to their perceived lack of intuition and the dehumanizing nature of machine evaluations.

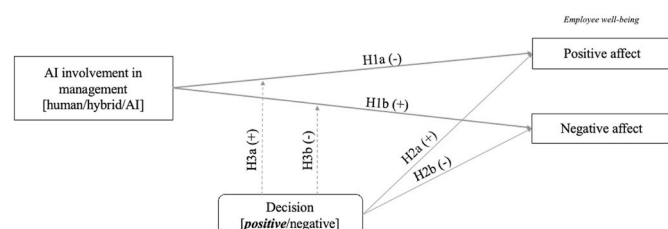


Fig. 1. Proposed theoretical model.

However, this finding may be influenced by outcome bias (Christoff, 2014; Lee, 2018). Furthermore, people tend to perceive lower levels of interactional justice when decisions following performance (e.g. receiving or not receiving a bonus/promotion/recommendation etc.) are made by AI rather than by humans, often considering AI an unsuitable decision-maker. On the contrary, when AI makes a positive (performance-related) decision affecting people, they were found to feel more trust and perceive greater interactional justice compared to either AI or a human making a negative (performance-related) decision (Bankins et al., 2022). Regarding outcome bias, this suggests that individuals may overlook the process by which an AI arrives at its decisions and instead focus primarily on the outcome they receive (Bankins et al., 2022; Ismagilova & Ploner, 2025; Lipshitz, 1989). Recent experimental findings further suggest that people perceive negative performance feedback from computers as more stressful and less fair than comparable feedback from human sources, despite similar effects on task performance (Thuillard et al., 2022).

In the present study, the “decision outcome” refers to a project-related managerial decision concerning whether a participant’s work project, which he/she has been working on intensively for a year, would be continued or discontinued. While this is not direct performance feedback, such project-related outcomes have personal and professional implications that make them emotionally meaningful and carry implicit evaluative meaning. Taking into account previous research, it can be assumed that managerial decisions affecting one’s work continuity and recognition can evoke affective responses similar to those elicited by direct individual performance feedback (e.g., Montano et al., 2017; Skakon et al., 2010). Accordingly, we expect that the outcome of these decisions – positive versus negative – will influence employees’ emotional reactions depending on who delivers them.

Hence, the following additional hypotheses were formulated.

H3a). A positive management decision moderates the negative relationship between AI involvement in management and positive affect, such that the negative effect weakens when the decision is positive.

H3b). A positive management decision moderates the positive relationship between AI involvement in management and negative affect, such that the positive effect weakens when the decision is positive.

The following section details the experimental design, participant recruitment, and measures.

3. Method

3.1. Design and procedure

To test our hypotheses, an experimental vignette study was conducted, in which vignettes were the sole instrument of data collection. This methodology was selected for its capacity to offer robust experimental control by manipulating variables. As such, it is particularly well-suited for the investigation of emerging research areas and the development and refinement of theoretical models (Robinson & Clore, 2001). The vignette-based approach permitted the systematic manipulation of specific elements of a stimulus, while concurrently controlling for confounding variables that would be difficult or impossible to manage in real-life settings (Evans et al., 2015).

Before initiating the main study, a pre-study was conducted to ensure the clarity and comprehensibility of the developed scenarios. This pre-study included in-depth qualitative discussions with subject matter experts and pretests of the vignettes, followed by an additional round of qualitative feedback. Insights from this process were used to iteratively refine both the scenarios and the selected items (Bankins et al., 2022; Evans et al., 2015).

We employed a 3x2 between-subject design to examine our hypotheses using six hypothetical scenarios (Aguinis & Bradley, 2014). The vignettes were identical (length, consistency) across all experimental

conditions, differing only in the segments containing the experimental manipulations (see Appendix for full vignettes). Participants were randomly assigned to one of the six vignettes. We made use of a classical leadership situation, in which the leader makes a decision with different outcomes: We manipulate the type of leader (human/AI/hybrid) as well as the decision whether the employee's (participant's) project will be continued (yes/no).

In each vignette, the leader communicated a clear managerial decision simulating an indirectly performance-related decision with direct individual consequences. We selected decision-making as an exemplary leadership function that can be automated, representing one specific aspect of (automated) leadership. While this approach represents only one of multiple potential leadership functions, it provides a focused way to explore the concept (Höddinghaus et al., 2021). To align with best practices for vignette studies, as recommended by Aguinis and Bradley (2014), we chose to depict a realistic scenario that is feasible for algorithms and can be found in everyday working life. Participants were provided with background context and instructed to imagine themselves in the described situations, aiming to increase participant engagement.

As studies have shown that the type of AI (e.g. robotic, virtual, embedded), its degree of anthropomorphism (Glikson & Woolley, 2020) and its gender (Jeon, 2024; McBreen & Jack, 2001; Siegel et al., 2009) influence participants' perception, including trust and how persuaded they are, we decided to exclude the type and gender of the AI as a possible influence to avoid possible effects on participants' perceptions by not giving the leader a particular (human) name in the scenarios and not specifying the type of AI ("AI-system"). After reading the assigned vignette, participants completed a questionnaire containing all relevant measures. The experimental vignette study was conducted online, allowing participants to complete it at their convenience.

The study was approved by the ethics committee of *German Association for Experimental Economic Research e.V.* prior to data collection. All participants received detailed information about the study's general purpose, procedures, and their rights. Informed consent was obtained from all participants before participation. They were assured that their responses would remain anonymous and confidential, and that all data would be used exclusively for scientific purposes in accordance with data protection regulations. No personally identifying information was collected.

3.2. Sample

Participants completed the experiment through an online questionnaire in March and April of 2025. They were initially sourced from the authors' existing networks. This recruitment approach eventually evolved into a snowball sampling method. A total of 203 German participants were recruited to complete the survey. To ensure data quality, we included two stimuli checks and excluded 50 participants who failed to answer one or more check items correctly. The final sample consisted of $N = 153$ individuals from the German working population, of whom 57.5 % identified as female, 40.5 % as male, and 2.0 % as non-binary or other. The mean age of the participants was found to be $M = 35.25$ years ($SD = 11.33$), with an average company tenure of $M = 6.09$ years ($SD = 7.38$). The average weekly working hours were $M = 36.33$ ($SD = 11.79$), and participants worked remotely for an average of $M = 14.87$ ($SD = 12.34$) hours per week.

We conducted a priori power analysis using G*Power 3.1.9.7 (Faul et al., 2007) to determine the required sample size for a planned MANCOVA. Assuming a medium effect size ($f^2(V) = .08$), $\alpha = .05$, and desired power $(1 - \beta) = .95$, the analysis indicated that a total sample of $N = 134$ would be needed. The final sample size of $N = 153$ is beyond that and also in line with recommendations for between-subjects experimental vignette designs involving factorial manipulations (Aguinis & Bradley, 2014). Additionally, our participants represent a diverse cross-section of the German working population in terms of age, gender, industry, and working conditions, which supports the validity of

our findings. Importantly, over 85 % of the participants reported currently working under a supervisor, ensuring relevance to the study's leadership-focused context.

3.3. Measures

Positive and negative affect were measured with the help of the Positive and Negative Affect Scales (PANAS) developed by Watson et al., in 1988 (see Table 1). As positive and negative affect represent core components of emotional experience and are widely recognized indicators of psychological well-being, we use the PANAS to measure subjective affective well-being (Diener et al., 1999), analogous to previous studies (e.g., Tetzten et al., 2022; Zhang et al., 2025). They consist of two 10-item mood scales, encompassing positive and negative affect, which are herein used as proxies for well-being and stress. Response choices are scored using a five-point Likert scale from "1 – not at all" to "5 – extremely". Positive affect is defined as "the extent to which a person feels enthusiastic, active and alert" with a high positive affect being "a state of high energy, full concentration, and pleasurable engagement" (Watson et al., 1988). A low positive affect is associated with sadness and inactivity. On the other hand, negative affect as a dimension of distress includes different aversive states of mood, which can be "anger, contempt, disgust, guilt, fear, and nervousness" (Watson et al., 1988), with a low negative affect indicating peace of mind and calmness. Moreover, research has found a low positive affect and high negative affect predict depression and anxiety, and negative affect is related to self-reported stress and ineffective coping mechanisms. High positive affect, however, has been found to be related to satisfaction, social activity and pleasant events (Watson et al., 1988).

We gathered control variables encompassing demographic factors (such as age and gender, place of residence) as well as work-related characteristics (work location, years of experience, industry, tenure at the current company, working hours, remote hours, leadership responsibility, attitudes towards artificial intelligence).

4. Results

A multivariate analysis of covariance (MANCOVA) was conducted to examine the effects of AI involvement in leadership and decision outcome on positive and negative affect, while controlling for age and AI attitudes. The assumptions for MANCOVA were only partially met. Levene's test for equality of variances was non-significant for positive affect ($p = .238$), indicating homogeneity of variances, but significant for negative affect ($p = .001$), indicating a violation of this assumption. Therefore, results should be interpreted with this limitation in mind.

The multivariate test showed significant main and interaction effects, based on Roy's largest root criterion (Chiani, 2016). First, AI involvement had a significant effect on positive affect. Employees reported feeling less positive when decisions were made by hybrid or AI leaders compared to human leaders ($F(2, 145) = 3.38, p = .037, \eta^2 = .045$), thus supporting H1a. However, AI involvement did not significantly predict higher negative affect ($F(2, 145) = 1.20, p = .305, \eta^2 = .016$), which means H1b was not supported.

Second, we found strong main effects for decision outcome. Participants who received a positive managerial decision reported significantly higher positive affect ($F(1, 145) = 144.39, p < .001, \eta^2 = .499$) and significantly lower negative affect ($F(1, 145) = 113.70, p < .001, \eta^2 = .440$), confirming H2a and H2b.

Third, a significant interaction effect emerged between AI

Table 1
Reliability statistics for positive and negative affect scales.

Scale	Cronbach's Alpha	Number of Items
Positive Affect	.922	10
Negative Affect	.918	10

involvement and decision outcome for positive affect ($F(2, 145) = 10.22, p < .001, \eta^2 = .124$), supporting H3a. This suggests that the negative effect of AI involvement on positive affect was weaker when a favorable decision was communicated. For negative affect, however, the interaction did not reach statistical significance ($F(2, 145) = 3.04, p = .051, \eta^2 = .040$), providing no support for H3b.

Taken together, the full model explained a substantial portion of the variance in both affective outcomes – positive affect (adjusted $R^2 = .536$) and negative affect (adjusted $R^2 = .476$).

Fig. 2 illustrates these patterns in detail. Under positive decisions, positive affect was highest for human leadership ($M = 3.93, 95\% \text{ CI } [3.66, 4.21]$), followed by hybrid leadership ($M = 3.64, 95\% \text{ CI } [3.36, 3.92]$), and lowest for AI leadership ($M = 3.00, 95\% \text{ CI } [2.73, 3.27]$). Under negative decisions, positive affect dropped considerably across all leader types. Specifically, human leadership yielded $M = 2.15 (95\% \text{ CI } [1.88, 2.43])$, hybrid leadership $M = 2.02 (95\% \text{ CI } [1.77, 2.28])$, and AI leadership $M = 2.37 (95\% \text{ CI } [2.11, 2.64])$. Notably, although automated leadership had the lowest positive affect when delivering good news, it showed a comparatively higher positive affect than human or hybrid leaders when communicating negative outcomes. These patterns indicate that while AI leadership reduces the positive emotional impact of favorable decisions, it may be somewhat more tolerable or less emotionally damaging when delivering unfavorable news.

We also included age and attitudes toward AI as covariates in the MANCOVA. Both variables significantly influenced emotional responses. Older individuals reported higher positive affect ($p = .009, \eta_p^2 = .046$) and lower negative affect ($p = .003, \eta_p^2 = .057$), which may indicate greater emotional resilience in response to leadership scenarios. Furthermore, participants with more favorable attitudes toward AI reported significantly lower negative affect ($p < .001, \eta_p^2 = .077$), though their levels of positive affect did not differ. These findings suggest that individual differences, such as age and AI attitudes, may shape how employees emotionally experience AI-led leadership.

5. Discussion

5.1. Theoretical contributions

This study contributes to ongoing discussions at the intersection of leadership research, organizational psychology, and human-AI interaction. As organizations increasingly adopt AI systems to support or replace managerial roles, understanding the psychological and emotional implications of such shifts becomes essential. Our findings offer three key contributions to this evolving discourse: First, we advance leadership theory by systematically comparing human, hybrid, and fully automated leadership configurations and their emotional effects on employees – an area that has been largely overlooked in empirical research. Secondly, we make a contribution to the existing literature on employee well-being by focusing on affective responses as

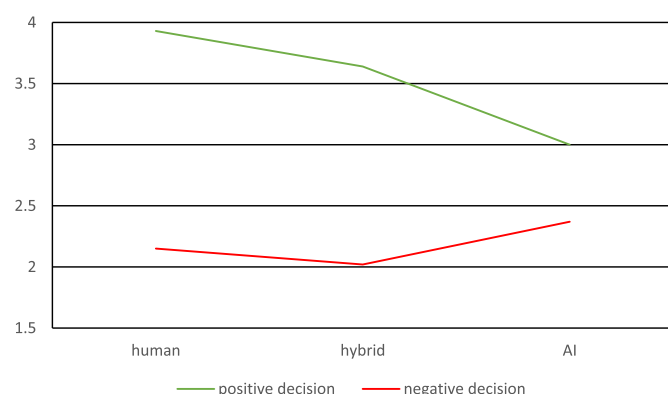


Fig. 2. Estimated marginal means.

immediate indicators of how leadership is experienced in automated contexts. Thirdly, we add to the field of decision-making theory by examining how leader identity interacts with decision outcome to shape emotional reactions.

Our findings indicate that automated leadership significantly reduces positive affect, particularly when compared to human leadership. The more AI was involved in the leadership process, the less positively participants felt. This emotional dampening may stem from the perception that AI lacks the ability to build trust (Glikson & Woolley, 2020). Our results lend credence to prior theories that suggested automated leadership, while potentially efficient, lacks the relational and emotional cues that contribute to positive emotional engagement (Höddinghaus et al., 2021; Montano et al., 2017). Moreover, this supports affect-based leadership theories (Inceoglu et al., 2018), which emphasize the role of emotional connection in generating positive affect. The decline in positive affect under automated leadership may also partly stem from perceptions of reduced interactional justice when decisions are delivered by AI rather than humans (Bankins et al., 2022).

Importantly, the effect size was small to medium, suggesting a subtle but meaningful dampening of positive affect in AI-led scenarios. However, the study found no significant impact of AI involvement on negative affect, indicating that automated leadership did not elicit stronger negative emotions. Instead of provoking resistance or distress, automated leadership may result in emotional disengagement or neutrality. Over time, such emotional flatness in response to leadership may erode employees' sense of connection to their work or reduce their willingness to go beyond formal role expectations. Conversely, the absence of stronger negative affect could also be seen as an advantage, as it suggests that automated leadership does not actively harm employees' emotional well-being. This finding aligns with studies showing that AI leadership often evokes mixed or neutral rather than overtly negative reactions (Höddinghaus et al., 2021; Lee, 2018). Taken together, our findings suggest that, while automated leadership subtly dampens positive affect due to its limited relational resonance, it does not heighten negative affect. This indicates that AI-led leadership elicits emotional neutrality rather than active resistance.

As anticipated, we observed a strong main effect of decision outcome: positive decisions consistently elicited higher positive affect and lower negative affect, while negative decisions reliably produced more negative affect. This underscores the pivotal role of decision outcomes in influencing emotional responses to leadership (Bankins et al., 2022; Lee, 2018). Furthermore, this pattern is consistent with outcome bias literature, which suggests that individuals place more emotional weight on the outcome of a decision than the process or decision-maker (Bankins et al., 2022; Ismagilova & Ploner, 2025; Lipshitz, 1989).

Notably, the findings indicated a substantial interaction between AI involvement and decision outcome for positive affect. When the decision was positive, employees reported a strong decrease in positive affect as AI involvement increased. In contrast, when the decision was negative, participants felt low positive affect across all leadership types. This suggests that automated leadership is more tolerated in negative scenarios, possibly due to perceptions of objectivity or emotional neutrality (Höddinghaus et al., 2021; Lee, 2018). However, when positive outcomes are involved, employees value human-delivered communication more, possibly due to the perceived authenticity and social recognition of a positive evaluation coming from another person (Montano et al., 2017; Skakon et al., 2010).

Regarding negative affect, while the main effect of decision outcome was large and significant, neither the main effect of AI involvement nor the interaction reached significance. This suggests that individuals may experience negative emotions in response to unfavorable decisions, regardless of the source of leadership, whether human, hybrid, or automated. This contrasts with some prior research that expected AI to increase distress or anxiety (e.g., Malik et al., 2021), and may indicate that AI decisions are emotionally detached rather than emotionally threatening. One possible explanation is that participants may have

lower expectations for emotional support from AI compared to human leaders. As a result, they may be less disappointed or emotionally affected when receiving bad news from an AI system, perceiving it as more neutral or impersonal. This aligns with research on expectancy violations and depersonalized interaction, which suggests that when people do not expect empathy or warmth, the absence of these qualities does not produce strong negative emotional reactions (e.g., [Y. Liu & Zhang, 2024](#)). In contrast, a human leader delivering the same unfavorable outcome might elicit more frustration or disappointment due to unmet social-emotional expectations ([Montano et al., 2017](#); [Skakon et al., 2010](#)).

Our findings are also theoretically interesting with regard to the classification and understanding of hybrid leadership. Prior theoretical accounts have raised concerns about the ability of hybrid leadership to maintain employee well-being at levels comparable to traditional human leadership, given the potential for emotional detachment or reduced transparency in partially automated settings ([Höddinghaus et al., 2021](#); [Wesche & Sonderegger, 2019](#)). However, our findings suggest that the presence of a human leader in hybrid constellations may be sufficient to maintain emotional engagement (at least when favorable decisions are communicated), indicating that hybrid leadership can buffer some of the affective shortcomings associated with fully automated leadership.

Although AI can improve feedback consistency ([Liang et al., 2025](#); [Sparr & Sonntag, 2008](#)) and communication processes (e.g., [Wesche & Sonderegger, 2019](#)), which have the potential to support employee well-being, these benefits alone do not seem sufficient to generate emotional engagement – likely because they lack the interpersonal warmth and relational alignment central to human leadership ([Inceoglu et al., 2018](#); [Montano et al., 2017](#)).

These results provide theoretical refinement by showing that automated leadership primarily influences positive emotional engagement, not distress. This asymmetry in emotional response aligns with leadership theories that conceptualize leaders as key drivers of positive emotional states such as enthusiasm, motivation, and meaning at work (e.g., transformational or affect-based leadership models; [Inceoglu et al., 2018](#); [Montano et al., 2017](#)).

5.2. Limitations and directions for future research

Since this study was conducted as a vignette-based experimental study, offering strong internal validity but limiting external validity, a key limitation is that participants did not have a firsthand experience with the hypothetical scenario. Future research could address this limitation by examining employee reactions to AI in leadership in live workplace environments, such as organizations that already integrate AI into their leadership functions. Additionally, data collection was limited to Germany, a country with distinct cultural characteristics, labor market structures (e.g., employee organizations), and data protection regulations ([Köchling et al., 2024](#)), but also with a strong emphasis on procedural fairness and legal regulation of workplace data. Especially in terms of AI introduction at the workplace, German employees might therefore hold distinct expectations or reservations towards AI. These factors may limit the generalizability of the findings to other cultural or institutional contexts. Individual differences such as age and pre-existing attitudes toward AI also shaped affective responses, suggesting future studies should account for user characteristics when evaluating emotional reactions to AI leadership. To strengthen external validity, future research should examine this research question in more diverse national contexts and among employees from varied cultural backgrounds.

As the study is hypothetical in its nature, some possible effects might not have been fully perceived by participants. For example, the fact that certain work demands of the human leader, such as multitasking and permanent availability, could be taken away by the AI leader in a hybrid scenario, increasing capacity for employee care and subordinate well-

being ([Krick et al., 2022](#)). Although our scenarios aim to simulate project-based feedback with personal relevance, the emotional intensity of such decisions may differ from direct performance evaluations. Future research could compare these forms of decision-making more directly. Moreover, the concise nature of the scenarios does not provide information about the capabilities of the automated (or hybrid) leader, such as automated and unbiased feedback, data-driven decision-making, or constant availability. Likewise, the limitations of automated leadership, such as the lack of emotional and social intelligence, are also omitted, leaving room for participant interpretation. While this approach prevents bias from additional information, it remains unclear which specific attributes influence participants' preferences or aversions towards a given leader type. Future research could build on this by exploring which characteristics are commonly attributed to automated versus human leaders and how these perceptions impact emotional responses.

As previous studies have demonstrated, disclosing AI can negatively impact employees' perceptions of it ([Tong et al., 2021](#)). Since our scenarios explicitly stated AI or hybrid involvement, this transparency may have influenced affective responses, especially in AI conditions. Future studies should test whether affective well-being differs when AI is disclosed versus undisclosed.

As previously stated, the type of AI, its degree of anthropomorphism ([Glikson & Woolley, 2020](#)) and its gender ([McBreen & Jack, 2001](#); [Siegel et al., 2009](#)) can influence participants' experiences. Furthermore, the visual attractiveness ([Ma et al., 2025](#); [Norman, 2002](#)), but also humor, empathy, and the agreeableness of the voice, have been demonstrated to influence participants' perception of the AI system ([Chang et al., 2018](#); [Ma et al., 2025](#); [Niculescu et al., 2013](#)). Future research could explore the potential moderating effects of these factors on employee well-being when working with an AI system.

While this study measured psychological well-being using (short-term) positive and negative affect states as a proxy, further research could consist of longitudinal studies. Longitudinal studies are particularly useful for assessing well-being, as they capture changes over time ([Hamar et al., 2019](#)) and offer insights into its stability and fluctuations ([Ryff et al., 2015](#)). Additionally, the measurement of physiological well-being (stress symptoms) could further support research in this area ([J. Liu et al., 2010](#)).

5.3. Practical implications

Our findings offer several practical implications for organizations implementing automated leadership systems. First, AI may not be the optimal solution for emotionally salient contexts that benefit from interpersonal warmth, such as employee recognition or praise. The observed decline in positive affect under automated leadership, particularly following positive decisions, suggests that employees are less satisfied with accomplishments recognized by non-human leaders.

Conversely, when decisions are unfavorable, automated leadership may be less emotionally damaging, as participants reported similarly low positive affect and high negative affect regardless of leader type. In fact, participants felt slightly less negative affect when an AI delivered a negative decision, possibly due to perceptions of algorithmic objectivity and fairness. This suggests that AI may be strategically better suited for delivering negative decisions, potentially due to its perceived neutrality and reduced emotional pressure – though this must be confirmed in real-world settings.

Furthermore, the results indicate that hybrid leadership models, where AI supports analytical decision-making while humans remain involved in emotionally charged communication, may offer a promising balance. Human leaders might symbolically “represent” or contextualize AI-generated decisions, helping to maintain trust and emotional connection – especially for positive outcomes where leader identity matters most.

Organizations should also ensure that their leaders are trained to endorse AI in a responsible and transparent matter. This includes

preparing employees for AI integration, clarifying roles, and addressing fairness concerns. Research indicates that symbolic leadership can mitigate emotional resistance and promote acceptance.

5.4. Conclusion

Overall, our study contributes to the growing body of research on the effects of AI integration in leadership on employee experiences. By comparing human, hybrid, and fully automated leadership scenarios, we demonstrate that increased AI involvement significantly diminishes positive emotions, particularly when favorable decisions are made. Even when outcomes are positive, the absence of human emotional resonance in AI-led leadership appears to diminish employees' sense of recognition and connection, both of which are central to affective well-being. In contrast, negative decisions triggered similar emotional responses across all leader types, suggesting that the source of a negative message does not mitigate its impact. Interestingly, automated leadership did not increase negative affect, but rather, it blunted positive emotional responses. This asymmetry suggests that the risk of AI in leadership may lie less in causing harm than in failing to emotionally engage. Our findings contribute to the ongoing debate about algorithmic management by emphasizing the importance of human emotional intelligence in leadership. Hybrid leadership models combining AI's efficiency with human empathy may be a promising way to protect well-being in increasingly automated workplaces. These findings carry practical relevance for organizations, HR professionals, and technology developers. As AI systems increasingly take on leadership functions, it is essential to recognize their limitations in generating emotional engagement. While AI may improve efficiency and consistency, our results suggest that human involvement remains critical – especially when communicating positive outcomes or fostering employee connection. Organizations should therefore implement hybrid leadership models that strategically combine AI capabilities with human empathy to support employee well-being. Additionally, AI designers should consider how system transparency, communication style, and contextual cues can affect employees' emotional experiences.

While our findings offer new insight into AI's emotional effects in leadership, they are based on hypothetical scenarios in a specific national context. Future studies should explore real-world AI implementations across diverse work cultures and include longitudinal and physiological measures to capture well-being over time.

CRedit authorship contribution statement

Emily Lochner: Writing – review & editing, Writing – original draft, Visualization, Validation, Resources, Project administration, Methodology, Investigation, Data curation, Conceptualization. **René Schmoll:** Writing – review & editing, Validation, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Stephan Kaiser:** Writing – review & editing, Validation, Supervision, Methodology, Investigation, Data curation, Conceptualization.

Data statement

The datasets generated and analyzed in the current study are not publicly available, but anonymized data can be provided by the author upon reasonable request.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors used ChatGPT by OpenAI and DeepL (Write) in order to improve language clarity. After using these tools/services, the authors reviewed and edited the content as needed and takes full responsibility for the content of the publication.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix. Vignettes

Introduction and Scenario

In the following, you will be presented with a scenario in which you should put yourself. Please imagine the situation as real as possible.

Imagine you work in product management at a company that develops and markets innovative products. You took on responsibility for an important project a year ago and have put in a lot of work since then. The aim of the project is to get a new product ready for the market.

Human leader/positive decision

Based on the results to date, *your manager* decides to launch the product on the market as it meets the requirements of the target group. He/she informs you of this decision and asks you to prepare for the market launch.

Human leader/negative decision

Based on the results to date, *your manager* decides *not to launch* the product on the market as it does not meet the requirements of the target group. He/she informs you of this decision and asks you to prepare to terminate the project.

AI leader/positive decision

Based on the results to date, your manager, *an AI system*, decides to launch the product on the market as it meets the requirements of the target group. It informs you of this decision and asks you to prepare for the market launch.

AI leader/negative decision

Based on the results so far, your manager, *an AI system*, decides *not to launch* the product on the market as it does not meet the requirements of the target group. It informs you of this decision and asks you to prepare to terminate the project.

Hybrid leader/positive decision

Based on the results to date, *your human manager and an AI system*, decide together to launch the product on the market as it meets the requirements of the target group. They inform you of this decision and asks you to prepare for the market launch.

Hybrid leader/negative decision

Based on the results to date, *your human manager and an AI system*, decide together *not to launch* the product on the market as it does not meet the requirements of the target group. They inform you of this decision and asks you to prepare to terminate the project.

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