

The Relation Between Learning Climate and Mistake-Acceptance Components of Learning Culture: The Double Bias of Mistakes View

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Abstract: The synergy of the KLC approach components (knowledge, learning, and collaboration cultures) supports a knowledge-driven organization's sustainability. However, given the profound alleged “synergy” between the KLC cultures, the question arises: How does this synergy occur? Based on the former studies, it is assumed that a collaborative culture appears to be the unifying and synergy-driving force of all cultures incorporated into the KLC approach. However, learning culture is at the center of the KLC's power to support collective intelligence development in knowledge-driven organizations. This study aims to study more in-depth how learning culture components, learning climate, and mistakes acceptance component as a source of learning interact, based on Kucharska's and Karwowska's (2025) KLC-sustainability' model. To do so, a moderation analysis is performed based on a sample of 496 Polish knowledge workers using the ordinary least squares (OLS) regression method. Results showed that a strong learning culture has a high potential to neutralize the adverse effects of the double bias of mistakes.

Keywords: Knowledge culture, Learning culture, Collaborative culture, Knowledge organizations, The KLC cultures approach (KLC), Double bias of mistakes (DBM)

1. Introduction

This study focuses on the relationship between the learning climate and mistake-acceptance components of a learning culture observed through the double bias of the impact of mistakes. The inspiration for this research was a study by Kucharska and Karwowska (2025). Precisely, based on their findings, the assumption has been made that the double bias of mistakes (DBM) impact diminishes the supporting power of the learning culture climate component on the mistake-acceptance component. This article aims to provide additional empirical evidence, building on prior studies (Hosseini et al., 2023; Kucharska and Kopytko, 2024; Kucharska and Szeluga-Romanska, 2025) that suggest the double bias of mistakes is detrimental to organizations.

The concept of the double bias of mistakes (DBM) introduced by Kucharska and Bedford in 2023 and further developed by Kucharska and Kopytko in 2024, is based on the cognitive bias known as the “framing effect,” first identified by Tversky and Kahneman in 1981 (Clark, 2009; Druckman, 2001a-b; Plous, 1993). The framing effect significantly influences how we judge situations and make decisions (Thomas and Millar, 2011). The mistake bias arises from the belief that mistakes are a natural aspect of humanity, counterbalanced by the negative consequences those mistakes can produce. In organizational contexts, this cognitive bias is compounded by the pervasive belief that “bosses never make mistakes,” leading to the notion that only outstanding employees can advance to managerial positions. Consequently, employees may hide mistakes, fearing they will be labeled as “losers.” This behavior creates an illusion of both personal and organizational perfection. Self-awareness is crucial for developing intelligence (Kour and Bhatia, 2025). Without acknowledging mistakes, errors, or failures, individuals cannot fully understand their meaning or learn from them. When mistakes are denied or ignored, they fail to become opportunities for reflection and growth for either the mistake-maker or their colleagues (Hull, 1930). Thus, perpetuating this illusion of perfection undermines intelligence. In biased organizations and societies, people often emphasize excellence while concealing mistakes. This dynamic complicates organizational learning from errors. Hidden mistakes can cause harm and represent a loss of value, rather than serving as valuable lessons. This observation aligns with the concept of “negative resource spirals” (Hobfoll et al., 2018), which suggests that the loss of one resource—such as the knowledge gained from mistakes—can lead to further losses. In this context, failing to learn from experience is regarded as waste, which contradicts the principles of sustainability. Kucharska and Karwowska (2025) proved it. Precisely, they examined the structure of the relation between the KLC approach and sustainability. The important part of the complex structure of relations are components of learning culture: learning climate and acceptance mistakes as a source of learning (Kucharska and Bedford, 2020).

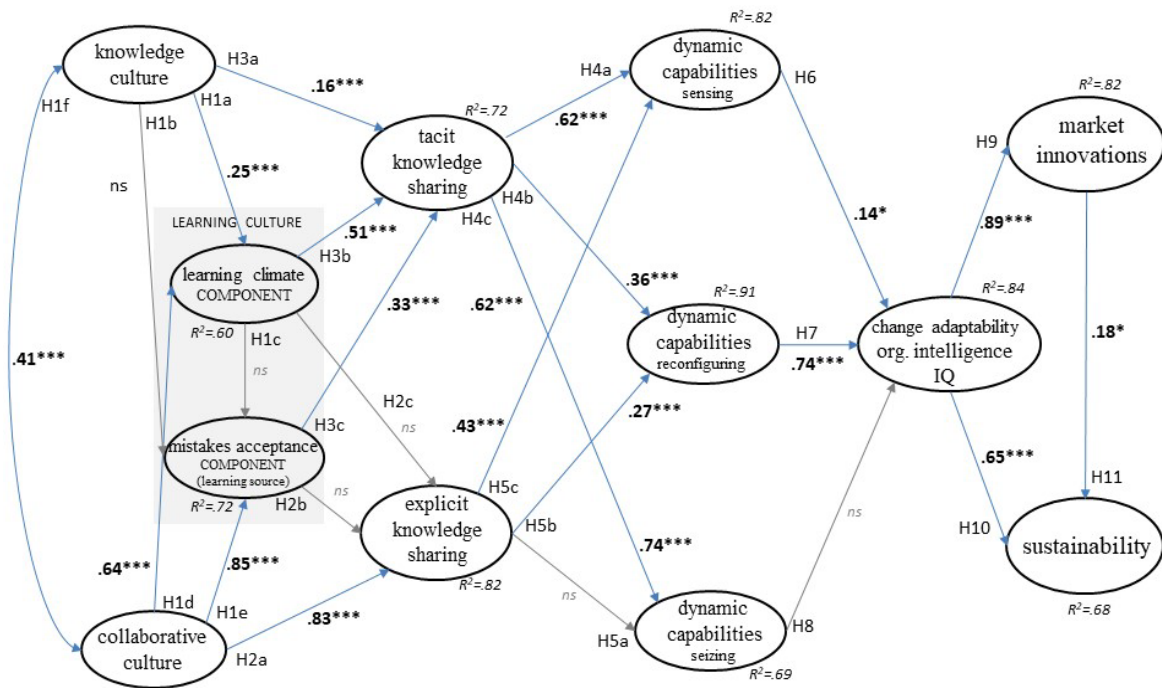
2. The KLC Approach

The synergy of KLC cultures shifts knowledge-driven organizations (Kucharska and Bedford, 2023). According to these authors, knowledge culture is a shared organizational appreciation for knowledge as a critical company resource that makes knowledge culture a central point of the proposed KLC approach. However, suppose a

learning culture does not support a knowledge culture impact on an organization. In that case, the organization is at risk of getting stuck at a particular level of knowledge exploitation, securing and controlling its status. Therefore, learning culture matters for a shared organizational motivation for constant knowledge expansion. Organizations that rely chiefly on proven knowledge often prefer to “keep things as they are” and “avoid any risk.” They prefer maintaining a “safe, control-oriented environment based on well-known routines” (Kucharska and Bedford, 2023, p.55). These organizational attitudes may hinder organizational development. The solution to this problem appears to be a continuous learning culture. To be efficient, the learning cultures of learning organizations must be multilevel. And to be multilevel, they must be collective by definition. From the organizational perspective presented by these authors, there is no culture of learning without the culture of knowledge, and there is no learning without collaboration. In summary, knowledge culture focuses on exploiting knowledge, whereas learning culture focuses on its exploration; collaborative culture makes both multilevel.

These three cultures are exponentially valuable for tacit and explicit knowledge sharing, dynamic capabilities, innovations, and sustainability development. When it comes to explicit knowledge, sharing it can be imposed by organizational policies, rules, and procedures. This approach does not apply to tacit knowledge. Tacit knowledge is contextual and strictly personal and can only be shared voluntarily (Polanyi, 1996; Olaisen and Revang, 2018; Saint-Onge, 1996; Kucharska and Erickson, 2023). So, company culture is the best and the only organizational tool to support tacit knowledge sharing, which is critical for human capital development. Therefore, the triple power of KLC—the KLC approach—is expected to be the most efficient tool for tacit and explicit knowledge sharing, dynamic capabilities, innovations, and sustainability development. Kucharska and Bedford (2023) claim that when all three get implemented together—they are much more potent than any of them alone.

Kucharska and Karwowska (2025) proved that the KLC approach supports sustainability (Figure 1).



Source: Kucharska and Karwowska (2025)

Figure 1: The KLC approach impact on knowledge sharing, dynamic capabilities, org. intelligence, innovations and sustainability

Note: n =496; ML–maximum likelihood; $\chi^2 =1694.161$ (533); CFI =.915; TLI =.918; RMSEA =.066; Cmin/df =3.18; *p <.05; **p <.01; ***p <.001; ns—not significant result

The entire structural model given above confirms that KLC culture's synergy fosters knowledge sharing (tacit and explicit) that is vital for dynamic capabilities development, which, in turn, influences organizational intelligence (change adaptability), innovativeness, and sustainability.

3. The Double Cognitive Bias of Mistakes (DBM) Affects the Culture of Learning

Based on Kucharska and Karwowska's (2025) findings (Figure 1), this study focuses on the relationship between the learning climate and mistake-acceptance components of a learning culture observed through the double bias of mistakes' impact. The assumption has been made that the double bias of mistakes (DBM) impact diminishes the supporting power of the learning culture climate component on the mistake-acceptance component.

Following Kucharska and Karwowska's findings (2025, Figure 1), H1a ($\beta = .25^{***}$) confirms that knowledge culture positively supports the learning-climate component of a learning culture, but the mistake-acceptance component is not supported by knowledge culture, so H1b is not confirmed. The expected positive influence of the learning-climate component on the mistake-acceptance component of learning culture is also not confirmed (H1c). Hypothesis H1d ($\beta = .64^{***}$) confirms a strong, positive influence of collaborative culture on the learning-climate component of a learning culture, and H1e exposes an even stronger effect of collaborative culture on the mistake-acceptance component of a learning culture ($\beta = .85^{***}$). The correlation between collaborative and knowledge cultures is also confirmed (H1f: $\beta = .41^{***}$). Summing up, collaborative culture is the strongest influence among the KLC cultures and thus is the center of the KLC approach. But the negative verifications of hypotheses H1b and H1c require deeper investigation. It might be, following the former studies by Hosseini et al. (2023), Kucharska and Bedford (2023), and Kucharska and Kopytko (2024), that the double bias of mistakes (DBM) seriously concerns collective organizational learning. Based on the H1c verification results of the mentioned prior study (Figure 1, Kucharska and Karwowska, 2025), the following hypothesis post-hoc was formulated as follows:

Hypothesis: *The DBM impacts diminish the supporting power of the learning culture climate component on the mistake-acceptance component*

4. Method and Results

To sustain or reject this post-hoc hypothesis, an OLS regression analysis was run using SPSS PROCESS (Hayes, 2018). The DBM identification procedure was applied according to Kucharska and Kopytko's (2024) detection method. Briefly, this entails measuring and comparing attitudes toward mistakes with their acceptance as a potential learning source; if the contradiction is noted, bias is detected. Following this procedure in this study, the sample was divided into two groups—with bias ($n = 184$) and without bias ($n = 312$) detected. Next, the OLS regression results obtained for these two groups were compared to explore how DBM affects the learning culture climate component's influence on the learning culture mistake-acceptance component. Details of this analysis are presented below (Figure 2).

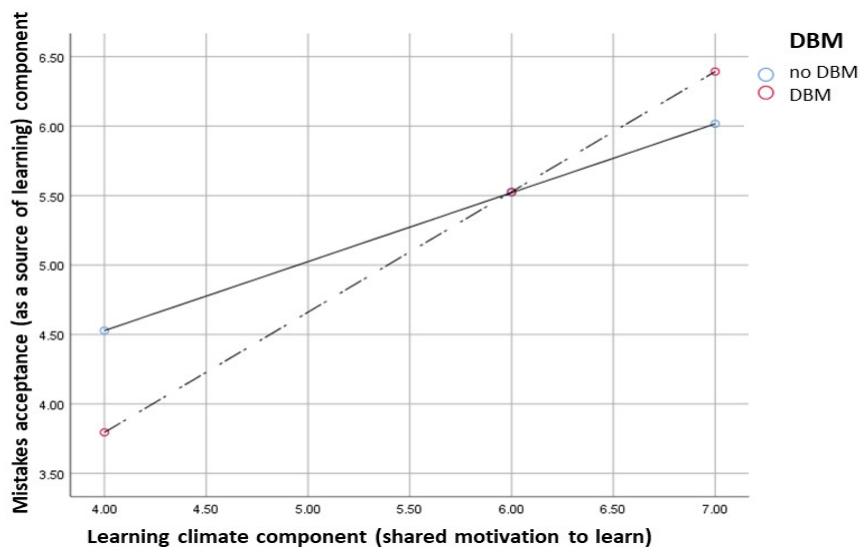


Figure 2: The relation between learning-climate and mistake-acceptance (as a source of learning) components, viewed through the prism of the double bias of mistakes (Authors' model)

***** PROCESS Procedure for SPSS Version 4.2 *****

Model : 1 Y : Bam4 X: Ba4 W: DB Sample Size: 496

OUTCOME VARIABLE: LCm

Model Summary

	R	R-sq	MSE	F	df1	df2	p
	.5154	.2656	1.3326	59.8005	3.0000	496.0000	.0000
Model	coeff	se	t	p	LLCI	ULCI	
constant	2.5439	.2458	10.3476	.0000	2.0608	3.0269	
LCc	.4961	.0422	11.7538	.0000	.4132	.5790	
DB	-2.2120	.8728	-2.5343	.0116	-3.9269	-.4971	
Int_1	.3697	.1434	2.5789	.0102	.0880	.6514	

Product terms key: Int_1 : LCc x DB

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	.0098	6.6507	1.0000	496.0000	.0102

Focal predict: LCc (X) Mod var: DB (W)

Conditional effects of the focal predictor at values of the moderator(s):

DB	Effect	se	t	p	LLCI	ULCI
.0000	.4961	.0422	11.7538	.0000	.4132	.5790
1.0000	.8658	.1370	6.3191	.0000	.5966	1.1350

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/ LCc DB LCm .

BEGIN DATA.

```
4.0000 .0000 4.5282
6.0000 .0000 5.5204
7.0000 .0000 6.0165
4.0000 1.0000 3.7952
6.0000 1.0000 5.5268
7.0000 1.0000 6.3926
```

END DATA. GRAPH/SCATTERPLOT=

LCc WITH LCm BY DB .

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output: 95.0000

Figure 2 shows that in the group characterized by DBM, acceptance of mistakes as a source of learning is lower when the level of the learning culture climate component is low. However, when the level of the learning culture climate component grows, the mistake-acceptance component also grows, and it grows faster than observed for the non-biased group. This means that the learning culture climate component matters for learning culture mistake-acceptance component development, especially for individuals who experience DBM, and only if the learning culture climate component level is very high. The non-biased group also demonstrates a higher level of

learning culture mistake-acceptance component when the learning culture climate component grows, which is not as evident for the biased group.

Thus, the hypothesis is partially confirmed. The hypothesis is true only for a low level of the learning culture climate component. When the learning culture climate component level is high, the acceptance of mistakes as a source of learning grows faster for the biased group than for the non-biased group. It suggests that the learning climate component can be seen as an antidote to the double bias of mistakes. So, a strong learning culture can be critical to neutralizing the DBM's negative effects. Summing up, the hypothesis is conditionally sustained. Therefore, this issue requires deeper exploration.

5. Discussion, Limitation and Further Research Directions

First of all, it is essential to highlight that this short research related to the double bias of mistakes phenomena (Kucharska and Bedford, 2023) is part of a broad line of studies related to general organizational learning through mistakes proposed by such prominent authors as e.g., Edmondson (1996) Eggers, (2015) Fischer et al. (2006); Frese and Keith (2015) Gelfand et al., (2011) or Keith et al., (2020). So, the given findings are part of a considerable scientific discussion whose conclusion suggests that companies must support their organizational maturity in wise learning from failures to grow. Building on the findings of this short study, they contribute to a considerable scientific discussion by revealing that the double bias of mistakes may be a significant barrier to the desired maturity of organizational learning. Moreover, it can discourage young generations of employees who are highly sensitive to company culture and avoid those that hinder their psychological well-being (Graczyk-Kucharska and Erickson, 2020).

To see it clearly, the context of this finding is worth discussing. Precisely, the negative verification of H1b (Kucharska and Karwowska, 2025; Figure 1) study that the knowledge culture supports the acceptance of mistakes as a source of learning component is probably related to the fact that DBM diminishes the supporting power of the learning culture climate component on the mistake-acceptance component, was only partially confirmed. More insight into the issue can be gained from the findings of Kucharska (2021), who explored the relationship between learning culture components across sectors. Her results revealed that the relationship between learning culture components can be sector-related. Precisely, she exposed that significant support of the learning climate for the mistake-acceptance component is noticeable for the healthcare and IT sectors but not for the construction and higher education. It means that some industries can be more biased than others, probably those in which knowledge cultures dominate over learning cultures. So, the effect of DBM on the relationship between learning culture components may also vary when analyzed by sector. Summing up, this issue requires further study.

Another research window opened by this study's findings concerns the DBM. Specifically, the effect of the DBM on the relationship between learning-culture components across different sectors. Those sectors that rely more on knowledge culture than learning culture may be more affected by the DBM (knowledge culture does not support the acceptance of mistakes component of learning culture, as the findings showed). This issue also requires further study. From here, other related questions arise: How should organizations address the existence of DBMs to be more adaptive and innovative, thereby securing growth, rather than being more controlled and predictive to ensure safety? Additionally, it would be interesting to know how artificial intelligence (AI) addresses the existence of DBM. Algorithms are as intelligent as the people creating them. Is collective organizational intelligence intelligent enough to detect a DBM and its influence on decision-making? Is AI intelligent enough to detect a DBM and its influence on decision-making?—All these questions remain open.

Moreover, this study is limited to a single country and a diverse range of sectors and does not consider the gender or position factors in any form. Given that a company's culture is influenced by national and sectoral cultures (Kucharska and Bedford, 2023) and gender and position in management often determines perceptions and behaviors (Kucharska and Kucharski, 2025; Kucharska and Szeluga-Romanska, 2025), replicating this study in other countries and specific sectors can shed further light on the explored mechanisms.

6. Practical Implications

This research has several practical implications. First, because the Double Bias Model (DBM) can significantly hinder organizational learning, it is essential to neutralize its effects. The most effective way to achieve this is by implementing both key components of a learning culture: a learning climate, which fosters shared motivation to learn, and the acceptance of mistakes as valuable learning opportunities.

It is important to clarify that we do not endorse negligence. Instead, we advocate for a human approach, which contrasts with an unrealistic expectation of perfection. We promote an attitude of acceptance, recognizing that mistakes are a natural part of working in dynamic and uncertain conditions, even when we are diligent. This acceptance is at the heart of learning from experience in a changing environment.

Moreover, the broader context of this study showed that implementing the KLC approach can be very beneficial regarding organizational learning ambitions. The desired behavior regarding learning culture is the constant pursuit of learning from both good and bad experiences. If a mistake is made, it should be claimed, reported, and discussed to prevent similar events in the future through proper procedural corrections. The KLC approach supports it.

7. Conclusions

This brief study on the phenomenon of double bias in mistakes (Kucharska and Bedford, 2023; Kucharska and Kopytko, 2024) is part of a broader research initiative focused on organizational learning through mistakes. The key message is that for knowledge-driven companies to thrive, they must enhance their organizational maturity by learning effectively from failures. The findings of this study contribute to this crucial scientific discussion by highlighting how the double bias of mistakes can significantly hinder the desired maturity in organizational learning. Still, a strong learning culture can mitigate the adverse effects of this double bias.

AI usage declaration: We used Grammarly to make language corrections.

Ethics statement: Respondents voluntarily participated in the research, and their anonymity was fully respected and secured.

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