




## Cross-Cultural Prediction of Norm Internalization Using Conformity Pressure, Moral Disengagement, and Social Learning

Yanelis. Batista<sup>1</sup>, Gabrielle. Pelletier<sup>2\*</sup>, Rodrigo. Villagra<sup>3</sup>

<sup>1</sup> Department of Clinical Psychology, University of Havana, Havana, Cuba

<sup>2</sup> Department of Educational Psychology, University of Calgary, Calgary, Canada

<sup>3</sup> Department of Psychology, National University of Asunción, San Lorenzo, Paraguay

\* Corresponding author email address: [gabrielle.pelletier@ucalgary.ca](mailto:gabrielle.pelletier@ucalgary.ca)

### Article Info

#### Article type:

Original Research

#### How to cite this article:

Batista, Y., Pelletier, G., & Villagra, R. (2026). Cross-Cultural Prediction of Norm Internalization Using Conformity Pressure, Moral Disengagement, and Social Learning. *Journal of Psychosociological Research in Family and Culture*, 4(2), 1-10.

<https://doi.org/10.61838/kman.jprfc.5419>



© 2026 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

### ABSTRACT

**Objective:** The present study aimed to predict norm internalization across culturally diverse individuals based on conformity pressure, moral disengagement, and social learning using an integrated statistical and machine learning approach.

**Methods and Materials:** This study employed a descriptive–correlational design with a predictive modeling framework. The sample consisted of 512 participants from Canada, selected through stratified random sampling to ensure cultural diversity. Data were collected using standardized instruments measuring norm internalization, conformity pressure, moral disengagement, and social learning. Demographic variables were also assessed to control for potential confounding effects. Data analysis was conducted using both classical statistical techniques, including Pearson correlation and multiple regression analysis, and advanced machine learning models such as Random Forest, Support Vector Machine, and Gradient Boosting. Model performance was evaluated using cross-validation procedures and metrics including  $R^2$ , RMSE, and MAE.

**Findings:** The results indicated that conformity pressure ( $\beta = 0.24$ ,  $p < 0.001$ ) and social learning ( $\beta = 0.31$ ,  $p < 0.001$ ) significantly and positively predicted norm internalization, while moral disengagement ( $\beta = -0.38$ ,  $p < 0.001$ ) was a significant negative predictor. The regression model explained a substantial proportion of variance in norm internalization ( $R^2 = 0.41$ ). Machine learning analyses revealed that the Gradient Boosting model achieved the highest predictive performance ( $R^2 = 0.47$ ), outperforming Random Forest and Support Vector Machine models. Feature importance analysis consistently identified moral disengagement as the most influential predictor, followed by social learning and conformity pressure.

**Conclusion:** The findings demonstrate that norm internalization is a multifaceted process influenced by the interaction of social influence and cognitive moral mechanisms. Social learning and conformity pressure facilitate the internalization of norms, whereas moral disengagement undermines it. The integration of machine learning methods enhances predictive accuracy and reveals complex non-linear relationships among variables. These results highlight the importance of addressing

both social and cognitive dimensions in interventions aimed at promoting ethical behavior and strengthening social cohesion in culturally diverse contexts.

**Keywords:** *Norm Internalization; Conformity Pressure; Moral Disengagement; Social Learning; Cross-Cultural Psychology; Machine Learning; Predictive Modeling*

## 1 Introduction

The internalization of social norms represents a foundational process in human socialization, reflecting the extent to which externally imposed rules, expectations, and moral standards are transformed into self-regulatory mechanisms that guide behavior across contexts. Norm internalization is not merely a passive absorption of cultural values but rather a dynamic and context-dependent process shaped by individual cognition, social interaction, and broader cultural structures. Recent scholarship has increasingly emphasized that the internalization of norms is contingent upon complex interactions among social influence, moral cognition, and learning processes, particularly within diverse cultural environments where competing normative frameworks coexist (Abboud-Armaly, 2024; Zhang et al., 2025). In this regard, cross-cultural perspectives provide a critical lens through which variations in norm internalization can be understood, especially in societies characterized by multicultural integration and shifting social expectations.

One of the central mechanisms influencing norm internalization is conformity pressure, defined as the tendency of individuals to align their attitudes and behaviors with perceived group norms in order to achieve social acceptance or avoid rejection. Conformity operates as a powerful social force that can facilitate the adoption of shared norms but may also suppress individual autonomy depending on contextual factors (Sharma & C., 2024; Walters, 2021). Empirical studies have shown that conformity pressure is closely linked to behavioral regulation, particularly in environments where group cohesion and collective identity are emphasized (Košir, 2021). However, the effects of conformity are not uniform across cultures, as collectivist societies tend to prioritize group harmony, whereas individualist cultures emphasize personal choice and self-expression, leading to distinct pathways of norm internalization (Abboud-Armaly, 2024). These cultural variations underscore the necessity of examining conformity pressure within a cross-cultural predictive framework.

Parallel to conformity processes, moral disengagement plays a critical role in shaping whether individuals internalize or resist social norms. Moral disengagement

refers to a set of cognitive mechanisms that enable individuals to justify or rationalize unethical behavior, thereby weakening the internal regulation of moral standards (He et al., 2025; Shi et al., 2025). When individuals engage in moral disengagement, they may reinterpret harmful actions as acceptable, diffuse responsibility, or minimize the consequences of their behavior, ultimately reducing the likelihood of norm internalization. A growing body of research has demonstrated that moral disengagement is associated with a wide range of maladaptive outcomes, including bullying, antisocial behavior, and unethical decision-making (Bjärehed, 2022; Rico et al., 2024). Furthermore, contextual factors such as leadership style, social support, and institutional norms can either exacerbate or mitigate the effects of moral disengagement, highlighting its embeddedness within broader social systems (Ahtisham et al., 2023; Yan et al., 2023).

Social learning theory provides an additional explanatory framework for understanding norm internalization, emphasizing the role of observational learning, imitation, and reinforcement in shaping behavior. According to this perspective, individuals acquire norms by observing the actions of others, particularly those perceived as role models or authority figures, and by internalizing the consequences associated with those behaviors (Janhonen, 2023). Social learning processes are especially salient in culturally diverse contexts, where individuals are exposed to multiple and sometimes conflicting normative systems. Research has shown that group identification and social modeling significantly influence the adoption of both ethical and unethical behaviors, depending on the prevailing norms within a given social environment (Li et al., 2022; Zhu et al., 2024). This suggests that social learning not only facilitates norm internalization but also interacts with moral disengagement mechanisms to either reinforce or undermine ethical standards.

The interplay between conformity pressure, moral disengagement, and social learning becomes particularly complex when examined across cultural contexts. In multicultural societies, individuals often navigate multiple normative frameworks simultaneously, leading to potential conflicts between personal values and group expectations. The normative conflict model posits that such tensions can result in selective internalization, where individuals adopt

certain norms while rejecting others based on perceived legitimacy and social reinforcement (Abboud-Armaly, 2024). Moreover, cross-cultural differences in parenting practices, educational systems, and peer interactions further shape the processes through which norms are internalized (Bowles et al., 2022; Naureen et al., 2024). For instance, parental expectations and emotional regulation strategies have been found to mediate the relationship between social influence and moral development, indicating that norm internalization is influenced by both proximal and distal social factors.

Recent empirical research has also highlighted the role of contextual and situational variables in moderating the relationships among conformity pressure, moral disengagement, and social learning. For example, willpower and self-regulatory capacity can buffer the effects of social influence, reducing the likelihood of moral disengagement even in high-pressure environments (Okan, 2025). Similarly, organizational and institutional contexts, such as ethical leadership and justice perceptions, can shape individuals' responses to normative pressures, either reinforcing or counteracting disengagement mechanisms (Jiang & Xie, 2024; Koay & Lim, 2021). These findings suggest that norm internalization is not solely determined by individual traits but is also contingent upon environmental and structural factors.

In addition to these psychosocial mechanisms, the role of negative emotions and cognitive appraisal processes has been increasingly recognized in the literature. Emotional responses such as guilt, shame, and empathy can either facilitate or inhibit moral disengagement, thereby influencing the internalization of norms (Bosaia et al., 2025). Cognitive reappraisal strategies, on the other hand, can alter individuals' interpretations of social situations, affecting their susceptibility to conformity pressure and their engagement in ethical or unethical behavior (Thiel et al., 2020). The integration of emotional and cognitive dimensions into models of norm internalization provides a more comprehensive understanding of how individuals navigate complex social environments.

Furthermore, the emergence of digital and technologically mediated social environments has introduced new dimensions to the study of norm internalization. Online interactions and virtual communities create unique contexts in which social learning and conformity processes operate differently compared to face-to-face settings (Dempsey et al., 2023). The anonymity and reduced accountability associated with digital platforms may

facilitate moral disengagement, while also enabling the rapid dissemination of social norms across cultural boundaries. This highlights the need for contemporary research to incorporate both traditional and modern contexts when examining norm internalization.

Cross-cultural variations in norm internalization are also influenced by broader societal and structural factors, including socioeconomic conditions, educational systems, and cultural values. Studies have shown that exposure to violence, inequality, and institutional instability can disrupt normative development and increase reliance on disengagement mechanisms (Dong et al., 2024; Ljubica et al., 2023). Conversely, supportive and inclusive environments that promote social responsibility and ethical engagement can enhance the internalization of prosocial norms (Grady, 2025; Malaret et al., 2021). These findings underscore the importance of adopting a holistic approach that considers both individual and contextual determinants of norm internalization.

The relationship between norm internalization and behavioral outcomes has also been extensively documented in the literature. Individuals with higher levels of norm internalization are more likely to engage in prosocial behavior, adhere to ethical standards, and contribute positively to social cohesion (Zhan et al., 2022). In contrast, low levels of internalization are associated with increased risk of deviant behavior, including bullying, knowledge hiding, and unethical pro-organizational behavior (Khan et al., 2021; Mo et al., 2022). These patterns highlight the practical significance of understanding the mechanisms underlying norm internalization, particularly in educational, organizational, and community settings.

Despite the substantial body of research on conformity pressure, moral disengagement, and social learning, there remains a need for integrative models that capture the complex and interactive nature of these variables within cross-cultural contexts. Traditional statistical approaches have provided valuable insights into the relationships among these constructs, but they may be limited in their ability to model non-linear interactions and high-dimensional data. The application of machine learning techniques offers a promising avenue for advancing this field, enabling the identification of complex patterns and predictive relationships that may not be apparent through conventional methods (Zhang et al., 2025). By leveraging advanced analytical tools, researchers can develop more accurate and nuanced models of norm internalization that account for the multifaceted nature of human behavior.

In light of these considerations, the present study seeks to integrate theoretical and empirical perspectives on conformity pressure, moral disengagement, and social learning within a cross-cultural predictive framework. By examining these variables simultaneously and employing both traditional and machine learning approaches, the study aims to provide a comprehensive understanding of the factors that influence norm internalization across diverse cultural contexts. The findings are expected to contribute to the development of more effective interventions and policies aimed at promoting ethical behavior and social cohesion in increasingly multicultural societies.

The aim of this study is to predict norm internalization across cultural contexts based on conformity pressure, moral disengagement, and social learning using a combined statistical and machine learning approach.

## 2 Methods and Materials

### 2.1 Study Design and Participants

The present study employed a descriptive–correlational design with a cross-cultural predictive modeling approach. The target population consisted of adults residing in Canada across diverse cultural backgrounds, including both native-born citizens and immigrants representing varied ethnic communities. A total of 512 participants were recruited through stratified random sampling to ensure adequate representation of major cultural groups within urban and semi-urban regions. Inclusion criteria required participants to be at least 18 years old, possess sufficient proficiency in English or French to complete the questionnaires, and provide informed consent. Data collection was conducted through an online survey platform, which allowed for geographically dispersed participation and minimized response bias associated with interviewer presence.

### 2.2 Measures

Data collection tools consisted of standardized and psychometrically validated instruments widely used in psychological and sociocultural research. Norm internalization was assessed using the Norm Internalization Scale developed by Grusec and Goodnow (1994), which measures the extent to which individuals adopt and regulate behavior based on internalized social norms; the scale includes multiple items rated on a Likert-type continuum, with higher scores indicating stronger internalization. Conformity pressure was measured using the Conformity

Scale adapted from the work of Mehrabian and Stefl (1995), capturing susceptibility to social influence and the tendency to align attitudes and behaviors with perceived group expectations. Moral disengagement was assessed using the Moral Disengagement Scale developed by Bandura et al. (1996), which evaluates cognitive mechanisms such as moral justification, displacement of responsibility, and dehumanization that allow individuals to disengage from ethical standards; this instrument includes several subscales and has demonstrated robust reliability across cultural contexts. Social learning processes were measured using a modified version of the Social Learning Questionnaire grounded in Bandura's social learning theory (1977), focusing on observational learning, imitation, and reinforcement patterns within social environments. All instruments were scored using standardized procedures, and prior studies have reported satisfactory validity and reliability indices for each measure; in the present study, internal consistency coefficients were also examined and found to be within acceptable ranges.

### 2.3 Data Analysis

Data analysis was conducted using a combination of traditional statistical techniques and machine learning algorithms to enhance predictive accuracy. Initially, descriptive statistics were calculated to summarize the characteristics of the sample and distribution of variables. Pearson correlation coefficients were computed to examine bivariate relationships among conformity pressure, moral disengagement, social learning, and norm internalization. Subsequently, multiple regression analysis was performed to assess the predictive contribution of independent variables while controlling for demographic covariates. To extend the predictive framework, machine learning models including Random Forest, Support Vector Machine, and Gradient Boosting algorithms were implemented using Python-based analytical libraries. Model performance was evaluated through cross-validation procedures, with metrics such as accuracy, mean squared error, and R-squared used to compare predictive efficiency. Feature importance analysis was conducted to determine the relative contribution of each predictor variable. Additionally, assumptions of statistical analyses, including normality, multicollinearity, and homoscedasticity, were rigorously tested to ensure the robustness of findings. All analyses were performed using IBM SPSS Statistics for classical statistics and Python (with

relevant machine learning libraries) for advanced predictive modeling.

### 3 Findings and Results

The demographic characteristics of the sample indicated that the 512 participants ranged in age from 18 to 64 years, with a mean age of 34.72 years (SD = 9.85). The sample consisted of 52.34% females and 47.66% males. In terms of educational attainment, 28.91% held a high school diploma, 46.27% had completed undergraduate studies, and 24.82% possessed postgraduate degrees. Regarding cultural background, 61.52% identified as Canadian-born, while 38.48% were immigrants representing diverse cultural origins, including East Asian, South Asian, Middle Eastern, and European backgrounds. Socioeconomic distribution showed that 31.05% reported low income, 49.18% middle income, and 19.77% high income. These distributions

indicate a heterogeneous and culturally diverse sample appropriate for cross-cultural analysis.

Table 1 presents the descriptive statistics and Pearson correlation coefficients among the primary study variables. The results demonstrate that norm internalization had a moderate positive correlation with social learning ( $r = 0.46, p < 0.001$ ) and conformity pressure ( $r = 0.39, p < 0.001$ ), while it showed a significant negative correlation with moral disengagement ( $r = -0.52, p < 0.001$ ). Conformity pressure was positively associated with social learning ( $r = 0.41, p < 0.001$ ) but positively correlated with moral disengagement at a lower magnitude ( $r = 0.18, p < 0.01$ ). Moral disengagement exhibited a negative association with social learning ( $r = -0.36, p < 0.001$ ). These results suggest that individuals with higher exposure to social learning and conformity pressures are more likely to internalize norms, whereas those with higher moral disengagement are less likely to do so.

**Table 1**

*Descriptive Statistics and Correlation Matrix of Study Variables*

Variable	Mean	SD	1	2	3	4
1. Norm Internalization	3.87	0.64	1			
2. Conformity Pressure	3.54	0.71	0.39**	1		
3. Moral Disengagement	2.91	0.68	-0.52**	0.18*	1	
4. Social Learning	3.76	0.66	0.46**	0.41**	-0.36**	1

Table 2 presents the results of the multiple regression analysis examining the predictive effects of conformity pressure, moral disengagement, and social learning on norm internalization. The model was statistically significant ( $F = 86.73, p < 0.001$ ) and explained 41.28% of the variance in norm internalization ( $R^2 = 0.4128, \text{Adjusted } R^2 = 0.4076$ ). Social learning emerged as the strongest positive predictor ( $\beta = 0.31, p < 0.001$ ), followed by conformity pressure ( $\beta =$

0.24,  $p < 0.001$ ), while moral disengagement was a significant negative predictor ( $\beta = -0.38, p < 0.001$ ). These findings indicate that individuals who engage more in observational learning and are influenced by social norms tend to internalize norms more strongly, whereas cognitive disengagement from moral standards undermines this process.

**Table 2**

*Multiple Regression Analysis Predicting Norm Internalization*

Predictor	B	SE	$\beta$	t	p
Constant	1.274	0.213	—	5.98	<0.001
Conformity Pressure	0.216	0.041	0.24	5.27	<0.001
Moral Disengagement	-0.338	0.039	-0.38	-8.67	<0.001
Social Learning	0.287	0.043	0.31	6.67	<0.001

Table 3 summarizes the performance of machine learning models used to predict norm internalization. Among the tested algorithms, the Gradient Boosting model demonstrated the highest predictive accuracy ( $R^2 = 0.47,$

RMSE = 0.41), followed by Random Forest ( $R^2 = 0.45,$  RMSE = 0.43) and Support Vector Machine ( $R^2 = 0.42,$  RMSE = 0.45). Feature importance analysis revealed that moral disengagement had the highest contribution to

prediction, followed by social learning and conformity pressure. These findings suggest that non-linear machine

learning approaches provide slightly improved predictive performance over traditional regression methods.

**Table 3**

*Machine Learning Model Performance Comparison*

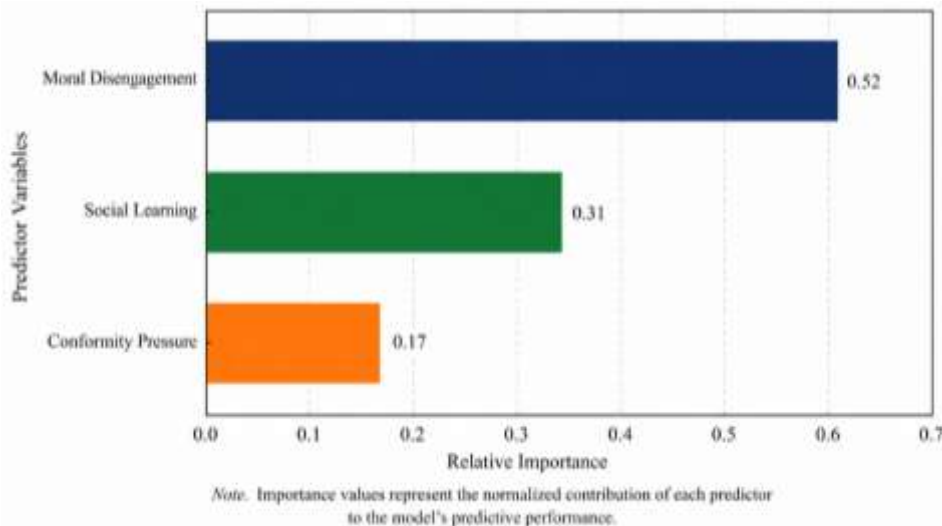
Model	R <sup>2</sup>	RMSE	MAE
Random Forest	0.45	0.43	0.34
Support Vector Machine	0.42	0.45	0.36
Gradient Boosting	0.47	0.41	0.32

The results presented in Table 3 indicate that ensemble learning methods, particularly Gradient Boosting, outperform other models in capturing the complex relationships among sociocultural variables and norm

internalization. The relatively lower RMSE and MAE values further confirm the robustness and generalizability of the model predictions.

**Figure 1**

*Feature Importance Ranking of Predictors in Gradient Boosting Model*



The figure illustrates the relative importance of predictor variables in the Gradient Boosting model, with moral disengagement emerging as the most influential factor, followed by social learning and conformity pressure. This pattern reinforces the central role of cognitive moral processes in shaping norm internalization across cultural contexts, while also highlighting the complementary influence of social and environmental learning mechanisms.

**4 Discussion**

The findings of the present study provide robust empirical support for the integrative role of conformity pressure, moral disengagement, and social learning in predicting norm internalization across culturally diverse populations. The results indicated that social learning and conformity pressure

were significant positive predictors of norm internalization, whereas moral disengagement emerged as a strong negative predictor. Furthermore, the machine learning analyses demonstrated that non-linear modeling approaches, particularly Gradient Boosting, yielded superior predictive performance, underscoring the complex and interactive nature of these psychosocial variables. These findings contribute to the growing body of literature emphasizing that norm internalization is not a unidimensional construct but rather the outcome of dynamic interactions between social influence mechanisms and cognitive moral processes.

The positive association between social learning and norm internalization observed in this study is consistent with social learning theory, which posits that individuals acquire behavioral norms through observation, imitation, and

reinforcement. The strong predictive role of social learning suggests that individuals who are more attuned to modeling and reinforcement within their social environments are more likely to internalize societal norms. This aligns with prior research indicating that group identification and exposure to normative behaviors significantly shape ethical conduct and decision-making processes (Janhonen, 2023; Zhu et al., 2024). In cross-cultural contexts, where individuals are exposed to multiple normative systems, social learning becomes particularly salient as a mechanism for navigating and integrating diverse value frameworks. The present findings extend this literature by demonstrating that social learning retains its predictive strength even when controlling for other influential variables such as conformity pressure and moral disengagement.

Conformity pressure also emerged as a significant positive predictor of norm internalization, highlighting the importance of social influence in shaping individual behavior. This finding is in line with previous studies that have identified conformity as a central mechanism through which individuals align with group norms and expectations (Sharma & C., 2024; Walters, 2021). The moderate strength of this relationship suggests that while conformity facilitates norm internalization, it operates in conjunction with other processes rather than independently. In multicultural environments, conformity pressure may be particularly influential as individuals seek to adapt to dominant cultural norms while maintaining aspects of their cultural identity. This dynamic is consistent with the normative conflict model, which posits that individuals selectively internalize norms based on perceived social acceptance and legitimacy (Abboud-Armaly, 2024). Thus, conformity pressure appears to function as both a facilitator and a regulator of norm internalization, depending on the broader cultural context.

In contrast, moral disengagement demonstrated a strong negative relationship with norm internalization, indicating that individuals who employ cognitive justifications for unethical behavior are less likely to internalize societal norms. This finding corroborates a substantial body of research linking moral disengagement to reduced ethical behavior and increased engagement in antisocial activities (Bjärehed, 2022; Rico et al., 2024). The prominence of moral disengagement as the strongest predictor in both regression and machine learning models underscores its central role in undermining internal regulatory mechanisms. Previous studies have shown that moral disengagement can be amplified by contextual factors such as leadership style, social support, and institutional norms, which either enable

or constrain unethical behavior (Ahtisham et al., 2023; Yan et al., 2023). The present findings extend these insights by demonstrating that moral disengagement not only predicts behavioral outcomes but also directly impedes the internalization of norms across cultural contexts.

The interplay among the three predictors provides further insight into the mechanisms underlying norm internalization. The positive correlations between social learning and conformity pressure, alongside their negative associations with moral disengagement, suggest that these variables operate within an interconnected system of social and cognitive influences. This pattern is consistent with research indicating that social environments characterized by strong normative cues and positive role modeling can mitigate the effects of moral disengagement and promote ethical behavior (Bowles et al., 2022; Košir, 2021). Conversely, environments that tolerate or reinforce disengagement mechanisms may weaken the impact of social learning and conformity, leading to lower levels of norm internalization. These findings highlight the importance of considering both reinforcing and inhibiting factors in the study of moral and social development.

The machine learning results further enrich the interpretation of these relationships by revealing the relative importance of each predictor in a non-linear predictive framework. The superior performance of the Gradient Boosting model suggests that the relationships among conformity pressure, moral disengagement, and social learning are not strictly linear but involve complex interactions that can be better captured through advanced analytical techniques. This aligns with recent calls in the literature for the integration of machine learning methods in psychological and sociocultural research to uncover hidden patterns and improve predictive accuracy (Zhang et al., 2025). The identification of moral disengagement as the most influential feature in the model reinforces its critical role in shaping norm internalization and highlights the need for targeted interventions to address disengagement mechanisms.

The findings also have important implications for understanding norm internalization in contemporary social contexts, particularly in light of increasing cultural diversity and digitalization. The role of social learning in mediating norm internalization suggests that exposure to diverse perspectives and role models can facilitate the integration of multiple cultural norms. However, the presence of moral disengagement mechanisms may complicate this process, especially in environments where accountability is reduced,

such as online platforms (Dempsey et al., 2023). The interaction between digital and offline socialization processes represents an important area for future research, as it may significantly influence the development and internalization of norms in modern societies.

Moreover, the results highlight the significance of contextual and structural factors in shaping norm internalization. Studies have shown that supportive and inclusive environments, characterized by ethical leadership and strong social cohesion, can enhance the internalization of norms and reduce reliance on disengagement mechanisms (Jiang & Xie, 2024; Koay & Lim, 2021). In contrast, environments marked by conflict, inequality, or exposure to unethical behavior may disrupt normative development and increase susceptibility to disengagement (Dong et al., 2024; Ljubica et al., 2023). The present study reinforces these findings by demonstrating that individual-level predictors must be understood within the broader context of social and cultural influences.

Emotional and cognitive processes also play a critical role in the relationships observed in this study. The literature suggests that emotions such as guilt and empathy can counteract moral disengagement and promote norm internalization, while cognitive appraisal strategies influence how individuals interpret and respond to social cues (Bosaia et al., 2025; Thiel et al., 2020). The integration of these processes into predictive models may further enhance our understanding of the mechanisms underlying norm internalization and provide a more comprehensive framework for intervention.

## 5 Conclusion

Finally, the cross-cultural dimension of the study underscores the importance of examining norm internalization within diverse sociocultural contexts. Differences in cultural values, socialization practices, and institutional structures can significantly influence the processes through which norms are internalized. For example, parental expectations and educational systems have been shown to shape moral development and behavioral regulation in culturally specific ways (Mokano & Letuma, 2025; Naureen et al., 2024). The present findings contribute to this body of research by demonstrating that the predictive relationships among conformity pressure, moral disengagement, and social learning are robust across diverse cultural backgrounds, while also highlighting the need for culturally sensitive approaches to research and intervention.

The study is subject to several limitations that should be considered when interpreting the findings. First, the use of a cross-sectional design limits the ability to draw causal inferences regarding the relationships among the variables. Second, the reliance on self-report measures may introduce response biases, including social desirability and recall bias. Third, although the sample was culturally diverse, it was limited to participants residing in a single country, which may restrict the generalizability of the findings to other cultural contexts. Fourth, the study did not incorporate qualitative data, which could provide deeper insights into the processes underlying norm internalization. Finally, while machine learning models enhanced predictive accuracy, they may lack interpretability compared to traditional statistical methods.

Future research should address these limitations by employing longitudinal and experimental designs to establish causal relationships among conformity pressure, moral disengagement, and social learning. Additionally, studies should expand the cultural scope by including participants from multiple countries and cultural settings to enhance generalizability. The integration of qualitative methodologies, such as interviews and ethnographic approaches, could provide richer insights into the lived experiences of individuals navigating complex normative environments. Furthermore, future research should explore additional variables, such as emotional intelligence, cultural identity, and digital engagement, to develop more comprehensive models of norm internalization. The continued application of advanced analytical techniques, including hybrid machine learning and structural equation modeling approaches, is also recommended to capture the complexity of these relationships.

From a practical perspective, the findings of this study have important implications for educational, organizational, and policy contexts. Interventions aimed at enhancing norm internalization should focus on strengthening positive social learning environments, promoting ethical role modeling, and reducing opportunities for moral disengagement. Educational programs can incorporate strategies that encourage critical thinking, empathy, and moral reasoning, while organizations can foster ethical cultures through transparent leadership and accountability mechanisms. Policymakers should also consider the role of cultural diversity and digital environments in shaping normative behavior, developing policies that promote inclusion and ethical engagement across contexts. By addressing both individual and contextual factors, it is possible to create

environments that support the internalization of positive social norms and contribute to social cohesion.

### Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

### Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

### Declaration of Interest

The authors report no conflict of interest.

### Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

### Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

### References

- Abboud-Armaly, O. (2024). "Within Five Seconds, I Can Already See the Contradictions and the Conflict With Society": Applying the Normative Conflict Model to a Collectivist Society. *Conflict Resolution Quarterly*, 41(4), 437-452. <https://doi.org/10.1002/crq.21418>
- Ahtisham, M. M. A., Haq, M. A. u., Ahmed, M. A., & Khalid, S. (2023). Effect of Despotic Leadership on Organizational Cynicism: Role of Moral Disengagement and Organizational Identification. *Verslas Teorija Ir Praktika*, 24(1), 194-205. <https://doi.org/10.3846/btp.2023.13483>
- Bjärehed, M. (2022). The Association Between Moral Disengagement and Bullying in Early Adolescence. <https://doi.org/10.3384/9789179291280>
- Bosaia, L., Garbi, G., Berlin, E., Lasagna, C., Macri, L., Paradiso, M. N., & Piccoli, N. D. (2025). Do Boys and Girls Evaluate Sexual Harassment Differently? The Role of Negative Emotions and Moral Disengagement. *Behavioral Sciences*, 15(10), 1306. <https://doi.org/10.3390/bs15101306>
- Bowles, T., Scull, J., & Jimerson, S. R. (2022). School Connection Through Engagement Associated With Grade Scores and Emotions of Adolescents: Four Factors to Build Engagement in Schools. *Social Psychology of Education*, 25(2-3), 675-696. <https://doi.org/10.1007/s11218-022-09697-4>
- Dempsey, R. P., Eskander, E., & Dubljević, V. (2023). Ethical Decision-Making in Law Enforcement: A Scoping Review. *Psych*, 5(2), 576-601. <https://doi.org/10.3390/psych5020037>
- Dong, S., Dong, Q., & Chen, M. (2024). The Relationship Between Grandparents' Violent Discipline and School Bullying Behavior Among Left-Behind Children. *Journal of interpersonal violence*, 40(1-2), 177-203. <https://doi.org/10.1177/08862605241246001>
- Grady, S. P. (2025). From Pecking Orders to Forest Networks: Reimagining Inclusion Through Biodiversity. *Support for Learning*, 40(4), 302-309. <https://doi.org/10.1111/1467-9604.70010>
- He, J., Wang, Z., & Xu, S. (2025). How Legal Motivation Buffers the Effects of Moral Disengagement on School Bullying Among Chinese College Students. *Frontiers in psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1583706>
- Janhonen, J. (2023). Socialisation Approach to AI Value Acquisition: Enabling Flexible Ethical Navigation With Built-in Receptiveness to Social Influence. *Ai and Ethics*, 5(1), 527-553. <https://doi.org/10.1007/s43681-023-00372-8>
- Jiang, W., & Xie, Y. (2024). How Unethical Pro-Organizational Behavior Links to Actors' and Observers' Behaviors: A Meta-Analysis. *Sage Open*, 14(3). <https://doi.org/10.1177/21582440241271278>
- Khan, A. G., Li, Y., Akram, Z., & Akram, U. (2021). Does Bad Gossiping Trigger for Targets to Hide Knowledge in Morally Disengaged? New Multi-Level Insights of Team Relational Conflict. *Journal of Knowledge Management*, 26(9), 2370-2394. <https://doi.org/10.1108/jkm-08-2021-0609>
- Koay, K. Y., & Lim, P. K. (2021). Ethical Leadership and Knowledge Hiding: Testing the Mediating and Moderating Mechanisms. *Journal of Knowledge Management*, 26(3), 574-591. <https://doi.org/10.1108/jkm-02-2021-0091>
- Košir, K. (2021). Preventing Bullying: Peer Culture as the Crucial Developmental Context in Adolescence. 107-126. <https://doi.org/10.32320/978-961-270-341-7.107-126>
- Li, J., Wang, H., Cai, Y., & Chen, Z. (2022). How Leaders Restrict Employees' Deviance: An Integrative Framework of Interactional Justice and Ethical Leadership. *Frontiers in psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.942472>
- Ljubica, J., Shaffer, M. A., & Baker, C. (2023). Breaking Bad: A Model of Expatriate Managerial Misbehavior. *Applied Psychology*, 73(3), 1261-1286. <https://doi.org/10.1111/apps.12512>
- Malaret, S., Allan, E. J., Graham, G., Esquenazi, C., Bacon, D., & Whalen, P. J. (2021). Teaching Student Leadership, Ethics, and Group Responsibility for Hazing Prevention: An Exploratory Study. *Jcaps*, 3(1), 17-33. <https://doi.org/10.52499/2021012>
- Mo, S., Lupoli, M. J., Newman, A., & Umphress, E. E. (2022). Good Intentions, Bad Behavior: A Review and Synthesis of the Literature on Unethical Prosocial Behavior (UPB) at Work. *Journal of Organizational Behavior*, 44(2), 335-354. <https://doi.org/10.1002/job.2617>
- Mokano, M. F., & Letuma, M. C. (2025). Disciplinary Issues in Special Education: Teachers' Experiences and Attribution. *African Journal of Disability*, 14. <https://doi.org/10.4102/ajod.v14i0.1655>

- Naureen, S., Rashid, S., & Tariq, F. T. (2024). Parental Expectations and Student's Morality Mediating Role of Frustration Intolerance. *Academy of Education and Social Sciences Review*, 4(2), 236-248. <https://doi.org/10.48112/aessr.v4i2.768>
- Okan, N. (2025). The Moderating Role of Willpower as a Personality Trait in the Relationship Between Social Influence and Moral Disengagement Contradiction. *Brain and Behavior*, 15(5). <https://doi.org/10.1002/brb3.70506>
- Rico, D. A., Panesso, C., Arbeláez, J. S., Gutiérrez, G. C., Isaac, V., Escobar, M. J., & Herrera, E. (2024). Moral Disengagement in Adolescent Offenders: Its Relationship With Antisocial Behavior and Its Presence in Offenders of the Law and School Norms. *Children*, 11(1), 70. <https://doi.org/10.3390/children11010070>
- Sharma, A., & C., K. (2024). Peer Pressure: A Comprehensive Literature Review of the Last Two Decades. *International Journal for Multidisciplinary Research*, 6(2). <https://doi.org/10.36948/ijfmr.2024.v06i02.14916>
- Shi, L., Wu, Y., & Zhou, Y. (2025). The Role of Moral Disengagement and Classroom Collective Efficacy in Social Support and Bystander Behavior of Elementary School Students: A Multilevel Moderated Mediation Analysis. *School Psychology*, 40(4), 462-471. <https://doi.org/10.1037/spq0000639>
- Thiel, C. E., Bonner, J., Bush, J., Welsh, D., & Pati, R. K. (2020). Rationalize or Reappraise? How Envy and Cognitive Reappraisal Shape Unethical Contagion. *Personnel psychology*, 74(2), 237-263. <https://doi.org/10.1111/peps.12387>
- Walters, G. D. (2021). Social Influence and Delinquency: The Role of Criminal Thinking. *Criminal Behaviour and Mental Health*, 31(6), 368-371. <https://doi.org/10.1002/cbm.2219>
- Yan, W., Chen, H., He, Y., & Zhang, C. (2023). Abusive Supervision and Employee Unethical Pro-Organizational Behavior: A Moderated Mediation Model of Moral Disengagement and Traditionality. *Chinese Management Studies*, 18(2), 324-341. <https://doi.org/10.1108/cms-07-2022-0264>
- Zhan, J., Yang, Y., & Lian, R. (2022). The Relationship Between Cyberbullying Victimization and Cyberbullying Perpetration: The Role of Social Responsibility. *Frontiers in Psychiatry*, 13. <https://doi.org/10.3389/fpsy.2022.995937>
- Zhang, L., Hui, B. P. H., Kong, F., Lu, H., & Chen, S. X. (2025). Why People "Lie Flat"? An Integrative Framework of Social-Psychological Pathways in China. *Personality and Social Psychology Review*, 29(4), 371-382. <https://doi.org/10.1177/10888683251358516>
- Zhu, J. N., Lam, L. W., Li, N., & Shao, M. (2024). Making Our Groups Better? The Roles of Moral Disengagement and Group Identification in the Learning of Pro-group Unethical Behaviour. *Journal of Occupational and Organizational Psychology*, 97(4), 1550-1571. <https://doi.org/10.1111/joop.12528>