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The Effect of Social Privilege on Cognitive Empathy Among University Students in Indonesia

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ABSTRACT
This study examines the effect of social privilege on cognitive empathy among university students in Indonesia. Using a quantitative correlational design, data were collected from 309 students enrolled in public and private universities across diverse socio-cultural regions. The instruments employed were the Privilege and Oppression Inventory (POI) and the Perspective Taking subscale of the Interpersonal Reactivity Index (IRI). Data were analyzed using simple linear regression. The results indicate a positive but weak relationship between social privilege and cognitive empathy. The regression coefficient ($\beta = 0.10$, $p = 0.08$) suggests that social privilege does not significantly predict cognitive empathy. Consistently, the coefficient of determination ($R^2 = 0.010$) shows that social privilege accounts for only 1% of the variance in cognitive empathy, with most variation explained by other psychosocial and contextual factors. These findings suggest that cognitive empathy among university students is shaped more by social interactions and educational experiences than by structural advantage alone. The study underscores the importance of character education and campus policies that foster inclusive learning environments and meaningful cross-group interactions to support empathy development in higher education. This research contributes to discussions on empathy, social inequality, and student development in diverse academic contexts.

Keywords: *Cognitive Empathy; Higher Education; Social Privilege; Social Psychology; University Students.*

INTRODUCTION

In social life, individuals do not experience equal access to resources, opportunities, or social recognition. Certain groups benefit from structural advantages related to economic conditions, educational background, gender, ethnicity, or cultural identity. These advantages are commonly referred to as social privilege, defined as systematic benefits held by individuals or groups based on specific social identities (McIntosh, 1989; Peterson, 2025).

McIntosh (1989) conceptualizes social privilege as an "invisible backpack" of unearned advantages that facilitate everyday life. Individuals raised in highly educated or economically stable families, for instance, tend to have greater access to information, social networks, and institutional opportunities, while those without such privilege may encounter structural barriers that remain unseen by more advantaged groups. When privilege is unacknowledged, it may create perceptual blind spots and motivated forms of denial that reduce individuals' sensitivity toward inequality experienced by others (McIntosh, 1989; Phillips & Lowery, 2020).

In contrast, cognitive empathy refers to the ability to understand another person's thoughts, perspectives, and experiences without necessarily sharing their emotional state (Davis, 1983). Unlike emotional empathy, which involves affective resonance, cognitive empathy emphasizes perspective-taking as a cognitive process. This ability plays a crucial role in social interaction, as it supports mutual understanding, reduces interpersonal conflict, and fosters tolerance and social inclusion (Decety & Jackson, 2004). Recent scholarship also highlights that cognitive empathy represents a distinct capacity shaped by developmental and contextual processes, reinforcing the need to examine it beyond affective components alone (Dorris et al., 2022).

Within higher education settings, cognitive empathy represents an essential competency for students navigating multicultural and socially heterogeneous campus environments. University students come from diverse socio-economic, cultural, and regional backgrounds, making issues of social privilege especially relevant. Students who occupy more privileged positions may have limited exposure to social constraints experienced by marginalized peers, which could potentially influence their capacity to understand other lived realities.

Previous research has suggested that awareness of social privilege may enhance empathy and prosocial attitudes (Case et al., 2014), whereas individuals who deny or minimize privilege often display defensiveness and reduced sensitivity to social inequality (De Vries, 2024). However, much of this literature has focused primarily on emotional empathy or has been conducted within the context of structured interventions, such as privilege awareness training, reflective exercises, or perspective-taking tasks (Todd & Galinsky, 2014; Hays et al., 2007). These approaches are typically designed to heighten social awareness and may not reflect empathy as it naturally occurs in everyday social interactions.

Empirical studies also demonstrate that social privilege can shape social treatment and judgment. For example, research has shown that individuals with certain forms of privilege may receive more favorable social evaluations and opportunities across interpersonal and institutional contexts (Quadlin, 2022; Nurmala et al., 2025). Nevertheless, findings regarding the relationship between social status and empathy remain mixed. Some studies report positive associations, while others argue that empathy is more strongly influenced by social experiences and environmental contexts than by social position alone (Decety & Cowell, 2021; Hamer & McFarland, 2023).

Despite growing interest in social privilege, research examining its relationship with cognitive empathy as a naturally occurring disposition, particularly among university students in Indonesia, remains limited. This gap is notable given the importance of cognitive empathy in culturally diverse higher education environments,

where students are required to engage with differing perspectives and social realities rationally and constructively.

Accordingly, this study aims to examine the relationship between social privilege and cognitive empathy among university students within a culturally diverse higher education context. By focusing on cognitive empathy as a naturally occurring disposition, rather than as the outcome of a specific intervention, this study seeks to contribute empirical evidence to ongoing debates regarding the role of social privilege in empathy development and to inform educational efforts aimed at fostering social understanding and inclusivity in higher education.

METHOD

This study employed a quantitative correlational design to examine the relationship between social privilege level and cognitive empathy among university students. This design was selected to allow objective testing of associations between variables using numerical data and statistical analysis (Creswell, 2014).

The study was conducted in June 2025 through an online survey involving undergraduate students from public and private universities across Indonesia, representing western, central, and eastern regions. The population consisted of active undergraduate students from various academic disciplines, selected due to their diverse social, economic, and cultural backgrounds, which are central to discussions of social privilege and empathy development. A probability sampling technique with stratified random sampling was applied to ensure proportional representation based on university region and type of institution. A minimum sample size of 300 respondents was targeted to detect moderate correlation effects (Fidell & Fidell, 2014), and 309 valid responses were included in the final analysis.

The independent variable was social privilege level, defined as individuals' access to rights, resources, and opportunities that are unequally distributed across social groups. The dependent variable was cognitive empathy, defined as the ability to rationally understand others' perspectives without emotional involvement. Social privilege was measured using an adapted version of the Privilege and Oppression Inventory (POI), consisting of 20 items covering economic, educational, ethnic, gender, and sexual orientation dimensions, rated on a five-point Likert scale. Cognitive empathy was assessed using the Perspective Taking subscale of the Interpersonal Reactivity Index (IRI) (Davis, 1983), comprising seven items, also rated on a five-point Likert scale.

All instruments underwent cultural adaptation and content validation by experts in social and educational psychology to ensure suitability for the Indonesian context. Reliability testing using Cronbach's Alpha showed acceptable internal consistency for both scales ($\alpha \geq 0.70$) (Nunnally & Bernstein, 1994). The study involved no intervention or experimental treatment. Data were collected naturally through an online questionnaire completed independently by participants. Prior to participation, respondents received information regarding the study's purpose, voluntary participation, and data confidentiality. Informed consent was obtained electronically, and all responses were collected anonymously and used solely for academic purposes.

Data analysis was conducted using simple linear regression to examine whether social privilege level predicted cognitive empathy. Prior to hypothesis testing, statistical

assumptions were assessed, including normality of residuals, linearity, and independence of residuals. All analyses were performed using JASP statistical software (Version 0.17).

RESULT

This study involved 309 active undergraduate students from various public and private universities in Indonesia, representing three main regions: Western, Central, and Eastern Indonesia. Descriptive statistics were used to summarize the demographic characteristics of the respondents, as presented in Table 1.

Table 1. Respondent Demographics

Variable	Valid	Missing	Median	Mean	SD	Variance	Range	Min	Max
Age	309	0	3.000	3.272	1.868	3.491	6	1	7
Gender	309	0	1.000	1.411	0.493	0.243	1	1	2
Region	309	0	3.000	2.411	0.779	0.607	2	1	3

The results indicate that most respondents were in the age category corresponding to 21–23 years, representing students in the middle phase of their undergraduate studies. The gender distribution showed a higher proportion of female respondents. In terms of university region, respondents were distributed across all regions of Indonesia, with a greater representation from Central and Eastern Indonesia.

Assumption Testing

The normality of residuals was assessed using a Q–Q plot (Figure 1). The residual points closely followed the diagonal line, indicating that the residuals were approximately normally distributed. No substantial deviations or asymmetrical patterns were observed, suggesting that the normality assumption was satisfied.

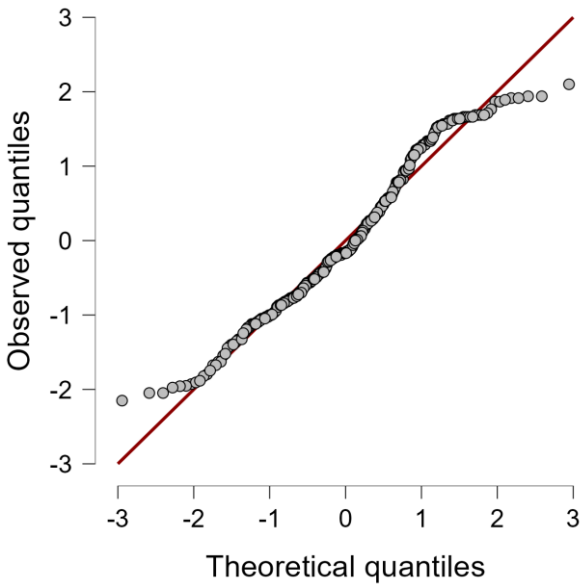

Figure 1. Normality Test

The heteroscedasticity assumption was examined using a scatterplot of residuals against predicted values (Figure 2). The residuals were randomly dispersed around the zero line with no discernible pattern, indicating that the variance of residuals remained constant across predicted values and that the homoscedasticity assumption was met.

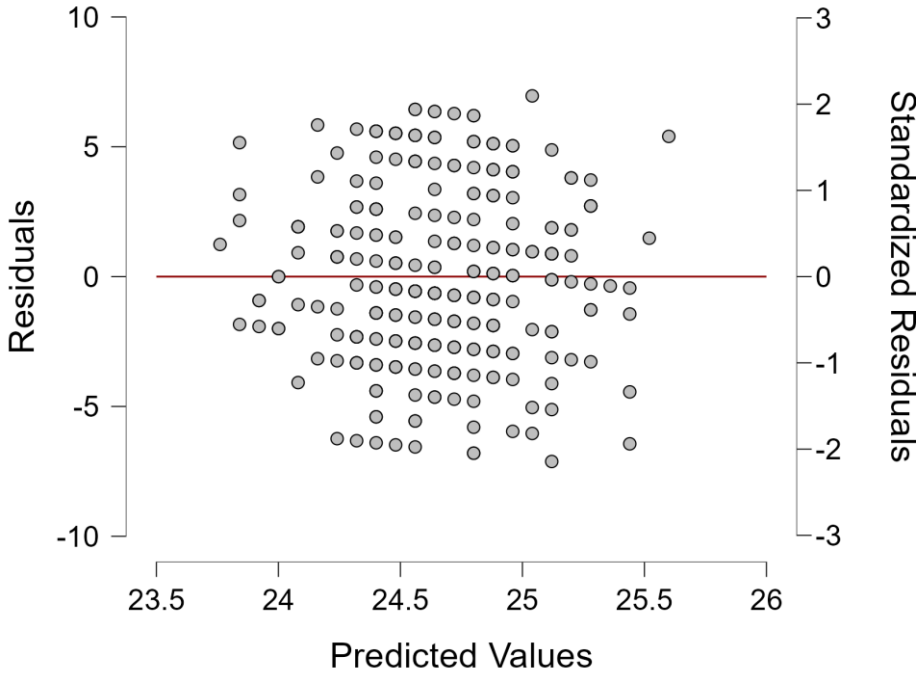

Figure 2. Heteroscedasticity Test

Residual independence was evaluated using the Durbin–Watson test (Table 2). The Durbin–Watson value of 1.795 fell within the acceptable range (1.5–2.5), indicating the absence of autocorrelation among residuals.

Table 2. Residual Independence Test

Model Summary - cognitive empathy

Model	R	R^2	Adjusted R^2	RMSE	Durbin-Watson Autocorrelation	Statistics	p
M_0	0.000	0.000	0.000	3,338	0.097	1,799	0.077
M_1	0.100	0.010	0.007	3,327	0.098	1,795	0.070

Note. M_1includes Social Privilege Level

Regression Analysis

The results of the simple linear regression analysis examining the effect of social privilege level on cognitive empathy are presented in Table 3. The analysis yielded an R value of 0.100, indicating a positive but very weak relationship between the two variables. The R^2 value of 0.010 shows that social privilege accounted for only 1% of the variance in cognitive empathy, while the remaining 99% was explained by other factors.

Table 3. Summary of Linear Regression Model

Model Summary - cognitive empathy

Model	R	R^2	Adjusted R^2	RMSE	Durbin-Watson Autocorrelation	Durbin-Watson Statistics	p
M_1	0.100	0.010	0.007	3,327	0.098	1,795	0.070

Note. M_1 includes Social Privilege Level

The overall regression model was not statistically significant (F = 3.092, p = 0.080), indicating that social privilege level was not a significant predictor of cognitive empathy.

The regression coefficients are presented in Table 4. The unstandardized regression coefficient for social privilege was B = 0.080, with a standardized coefficient β = 0.100 and a significance value of p = 0.080, which exceeds the 0.05 threshold. This indicates that although the direction of the relationship was positive, the effect was not statistically significant.

Table 4. Regression Coefficients

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
M_0	(Intercept)	24,657	0.190		129,850	< .001
M_1	(Intercept)	19,763	2,789		7,085	< .001
	Social Privilege Level	0.080	0.045	0.100	1,758	0.080

The resulting regression equation is as follows:

Cognitive Empathy = 19.763 + 0.080 (Social Privilege Level)

DISCUSSION

Taken together, the findings of this study indicate that social privilege level does not constitute a significant predictor of cognitive empathy among university students, despite the positive direction of the observed relationship. The very small explanatory power of the model (R^2 = 0.010) suggests that structural advantages related to social privilege contribute only marginally to students' capacity to cognitively understand others' perspectives.

This finding contrasts with previous research reporting that greater awareness of social privilege is associated with higher levels of empathy and prosocial orientation (Case et al., 2014). However, it is important to note that much of the existing literature has focused primarily on emotional empathy or examined empathy as an outcome of structured interventions, such as perspective-taking exercises, reflective writing, or social justice–oriented training programs (Todd & Galinsky, 2014; Hays et al., 20007). In

contrast, the present study examined cognitive empathy as a naturally occurring disposition, without experimental manipulation or targeted intervention. This conceptual and methodological distinction may help explain the weak and non-significant relationship observed.

The socio-cultural context of Indonesian higher education also warrants consideration. Universities in Indonesia are characterized by substantial cultural, ethnic, and socioeconomic diversity, which facilitates frequent interaction among students from different social backgrounds. Such everyday interactions and shared academic environments may play a more decisive role in shaping cognitive empathy than individuals' positions of social privilege alone. Empirical evidence suggests that cognitive empathy among university students is associated with a range of psychosocial and contextual factors within higher education settings, including interpersonal engagement, learning experiences, and individual differences, rather than being primarily determined by structural advantage or disadvantage (Hamer & McFarland, 2023).

Within this broader framework, the socio-cultural context of Indonesian higher education also warrants consideration, particularly considering the limited explanatory power of social privilege observed in this study. Moreover, the findings reinforce the view that cognitive empathy is a multidimensional construct shaped by a constellation of psychosocial and educational factors rather than by structural advantage alone. Prior research indicates that components such as emotional regulation, moral reasoning, interpersonal experiences, and sustained exposure to diverse perspectives within academic environments play a more substantive role in the development of cognitive empathy among university students (Hvidt et al., 2023; Selvasingam et al., 2024). These dimensions were not examined within the scope of the present analysis but represent important directions for future research.

Moreover, the limited explanatory power of social privilege in this study reinforces the view that cognitive empathy is a multidimensional construct influenced by a range of psychosocial and educational factors. Elements such as emotional regulation, moral reasoning, interpersonal experiences, and exposure to diverse perspectives within learning environments are likely to play a more substantial role in shaping cognitive empathy among university students (Zaki, 2020; Kafetsios & Zampetakis, 2022). These factors were beyond the scope of the present analysis but remain important considerations for future research.

Overall, the findings suggest that social privilege alone is insufficient to explain variations in cognitive empathy within higher education contexts. Rather than positioning privilege as a direct determinant, this study highlights the need to situate cognitive empathy within broader social, psychological, and educational processes that operate in culturally diverse university settings (Davis, 2022; Hamer & McFarland, 2023).

Despite its contributions, this study is subject to several limitations. First, the cross-sectional correlational design precludes causal inference regarding the relationship between social privilege and cognitive empathy. Second, the reliance on self-report measures may introduce social desirability bias and subjective interpretation of both privilege and empathy. Third, while the sample captured regional and institutional diversity, the analysis did not include other potentially influential variables, such as intensity of intergroup contact, curricular exposure to social justice issues, or individual

personality traits. Future studies may benefit from longitudinal or mixed method designs and the inclusion of additional psychosocial and contextual variables to provide a more comprehensive account of cognitive empathy development among university students.

From a higher education policy perspective, the findings of this study suggest that universities should refrain from assuming that students' social privilege directly translates into differences in cognitive empathy. Instead, institutional efforts to foster cognitive empathy should be directed toward intentional pedagogical and curricular design. Policies that support structured intergroup interaction, collaborative learning, and reflective academic practices may offer more effective pathways for developing perspective-taking skills than initiatives that focus solely on privilege awareness. In this regard, higher education institutions play a strategic role in cultivating cognitive empathy as an academic and social competency through everyday learning experiences, rather than relying on students' social backgrounds as primary determinants.

CONCLUSION

Based on the findings of this study, it can be concluded that social privilege does not constitute a significant predictor of cognitive empathy among university students. Although the relationship between social privilege and cognitive empathy was positive, its strength was very weak and not statistically significant. This indicates that possessing greater social privilege does not necessarily enhance students' ability to cognitively understand others' perspectives. The limited explanatory power of the regression model further suggests that structural advantages alone are insufficient to account for variations in cognitive empathy.

These findings imply that cognitive empathy among students is shaped by broader psychosocial and socio-cultural processes, rather than by social privilege as a single determining factor. Students from diverse social backgrounds appear to have relatively equal opportunities to develop cognitive empathy through everyday academic interactions and learning experiences within the university environment. Consequently, future research is encouraged to examine additional variables that may play a more substantial role in shaping cognitive empathy, such as intergroup contact, educational practices, and individual psychological factors, particularly within multicultural and pluralistic higher education contexts.

REFERENCES

Case, K. A. (2012). Discovering the privilege of whiteness: White women's reflections on anti-racist identity and ally behavior. *Journal of Social Issues, 68*(1), 78–96. https://doi.org/10.1111/j.1540-4560.2011.01737.x

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*(1), 113–126. https://doi.org/10.1037/0022-3514.44.1.113

Davis, M. H. (2022). *Empathy: A social psychological approach* (2nd ed.). Routledge.

De Vries, B. (2024). *Microaggressions in everyday life: Race, gender, and sexual orientation*. https://doi.org/10.1111/sjp.12543

Decety, J., & Cowell, J. M. (2021). Empathy, justice, and moral behavior. *AJOB Neuroscience, 12*(2), 94–106. https://doi.org/10.1080/21507740.2021.1896594

Decety, J., & Jackson, P. L. (2004). The functional architecture of human empathy. *Behavioral and Cognitive Neuroscience Reviews, 3*(2), 71–100. https://doi.org/10.1177/1534582304267187

Dorris, L., Young, D., Byrne, K., & Hoyle, R. (2022). Cognitive empathy across the lifespan. *Developmental Medicine & Child Neurology*. https://doi.org/10.1111/dmcn.15263

Fidell, L. S., & Fidell, L. S. (2014). *Using multivariate statistics*. Pearson.

Hamer, K., & McFarland, S. (2023). The role of early intergroup experiences for identification with all humanity in adulthood. *Frontiers in Psychology, 14*, 1042602. https://doi.org/10.3389/fpsyg.2023.1042602

Hays, D. G., Chang, Y. C., & Decker, S. L. (2007). Initial development and psychometric data for the privilege and oppression inventory. *Measurement and Evaluation in Counseling and Development, 40*, 66–79.

Hvidt, E. A., Wehberg, S., Andersen, C. M., Søndergaard, J., & Sønderlund, A. L. (2023). Individual differences in empathy in Danish university students: A cross-sectional study. *International Journal of Social Psychiatry*. https://doi.org/10.1177/00207640231196751

McIntosh, P. (1989). White privilege: Unpacking the invisible knapsack. *Independent School, 49*(2), 31–36.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Nurmala, N. (2025). *Praktik sosial beauty privilege pada mahasiswi dalam lingkungan kampus di Kota Serang* (Doctoral dissertation, Universitas Sultan Ageng Tirtayasa).

Peterson, V. S. (2025). Privilege. In *[Judul buku ensiklopedia/handbook]* (pp. xx–xx). Oxford University Press. https://doi.org/10.1093/hepl/9780192897701.003.0013

Phillips, L. T., & Lowery, B. S. (2020). I ain't no fortunate one: On the motivated denial of class privilege. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/pspi0000240

Quadlin, N. (2022). Do perceptions of privilege enhance—or impede—perceptions of intelligence? Evidence from a national survey experiment.

RSF: The Russell Sage Foundation Journal of the Social Sciences, 8(7), 48–69. https://doi.org/10.7758/RSF.2022.8.7.03

Reniers, R. L., Corcoran, R., Drake, R., Shryane, N. M., & Völlm, B. A. (2011). The QCAE: A questionnaire of cognitive and affective empathy. *Journal of Personality Assessment, 93*(1), 84–95. https://doi.org/10.1080/00223891.2010.528484

Selvasingam, S., Viknesvaran, S., Dharmalingam, G., Kumar, K. V. N., Moe, S., Pothen, M., & Htay, M. N. N. (2024). Self-assessed affective and cognitive empathy and its predictors among medical students in a private institution in Malaysia. *International Journal of Teaching, Learning and Higher Education*. https://doi.org/10.71354/ijthpe.02.01.24

Todd, A. R., & Galinsky, A. D. (2014). Perspective-taking as a strategy for improving intergroup relations: Evidence, mechanisms, and qualifications. *Social and Personality Psychology Compass, 8*(7), 374–387. https://doi.org/10.1111/spc3.12116