

Dynamics of Academic Motivation under the Stereotype Threat: An Exploration of the Role of Family Communication in Indonesian Educational Contexts

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A B S T R A C T

This study highlights the importance of family communication in motivating Indonesian students against stereotyping psychology. This study suggests that while stereotyping reduces motivation for higher education, group communication boosts motivation by emphasizing self-expression and discussion. An online survey of 120 Indonesian high school students found negative correlations between stereotyping and academic explanation and positive correlations between conformity and academic aspirations. Results also show the importance of parental education, especially fathers, and family support for student motivation. This study shows how stereotyping negative self-perception causes psychological harm, whereas Indonesian family norms and collective culture may be unique in achieving academic success, contrasting to Western literature. This study shows how stereotyping, family norms, and socioeconomic status interact to motivate academics, provide a supportive family environment, and raise educational aspirations.

Keywords: academic motivation, conformity orientation, conversation orientation, family communication, stereotype threat

INTRODUCTION

Academia is often a stage where various social and cultural stereotypes are displayed and fought over. In this context, the concept of stereotype threat-that is the fear of being judged based on negative prejudices against one's social or ethnic group- plays a critical role (Dupree & Boykin, 2021; Ellis et al., 2018; Llorens et al., 2021; Master & Meltzoff, 2020; Verkuyten et al., 2019). As mentioned by Steele and Aronson (1995), previous literature has established that stereotype threat significantly affects the performance of individuals, particularly minorities. However, one significant consideration that is always overlooked pertains to the stereotype threat and its effects on academic motivation. The family context and communication patterns are very important in this respect. A study by Dorrance Hall et al. (Dorrance Hall et al., 2017) has shown the degree to which family communication may, in particular, conversational versus conformity orientation, influence the way one copes with challenges, including stereotype threat. Relevantly, families are often the main source of support for students and a medium that reinforces or reduces the impact of existing stereotypes.

The family approach to education-nurturing types that encourage conformity versus those that open conversation and allow for free expression-can greatly affect the way students handle

stereotypes and academic pressures (Essiz & Mandrik, 2022; Horstman et al., 2018; Prügl & Spitzley, 2021; Rauscher et al., 2020). For example, families that allow open conversations may build students' confidence and abilities to counteract negative stereotypes. On the other hand, families oriented on conformity may not provide the same support toward the development of individuality and criticality (Rauscher et al., 2020).

In Indonesian society, social and cultural stereotypes prevail in the way groups are perceived. These may further lead to views that finally affect the students' academic achievements and motivation towards excellence (Aini et al., 2019; Littrell et al., 2006; Shin et al., 2018; Sutantoputri et al., 2020). Economic assumptions, ethnicity educational background along with social status are the usual issues on which such stereotypes revolve. For example, in some communities, it is perceived that people raised in city areas could be more successful and smarter compared with those grown in rural or less-developed places. Family culture and values also play a very important role in Indonesia regarding the shaping of children's educational aspirations (Firdaus et al., 2020). In many instances, family values like loyalty and hard work may override academic concerns. It helps to provide a context in which formal education may not be perceived as important or an accessible route to success. (Naafs, 2020; Ross et al., 2021).

Whereas stereotypes or family communication patterns operational create the image of their abilities and their academic potentials in Indonesian students, students growing up in conformity-oriented families may be more vulnerable to the negative influence of a stereotype and would turn out to be poorly academically motivated. In contrast, those from families with a conversation orientation, where the free expression of opinions and an exchange of ideas are encouraged, may be in a better position to respond more critically and surmount negative stereotypes.

Second, stereotype threat has not been adequately mobilized in research on academic motivation, and hardly any research has investigated the phenomenon of its role through the prism of family and communication. Therein lies a need to further explain how students from diverse backgrounds, particularly those with stereotypes, negotiate their academic ecology and how such navigation is influenced by the families. The question remains how internal and external stereotypes influence students in their desire for success and motivation within the academic setting, and what place family communication assumes as a moderator of these influences.

This research tries to explain the associations of stereotype threat and family communication, on one hand, with academic motivation, on the other, by advancing a series of hypotheses. First, we have theorized that stereotype threat would be negatively related to students' desire for further education. A similar hypothesis was advanced by the belief that greater awareness of preconceptions regarding further education would lower one's aspirations for future education. Second, we have postulated an inverse correlation to exist between submission orientation in familial communication and the drive for continued education. This suggests that a household atmosphere with a high value on uniformity could reduce kids' motivation to pursue further education. Third, on the other hand, we argued that a conversation orientation in family

communication would positively relate to motivation for advanced degrees, suggesting that a family environment that encourages open discussion and self-expression may increase such motivation. Furthermore, we consider the moderating role of conformity and conversation orientation in the relationship between stereotype threat and motivation for further education. We also hypothesize that these two communication orientations will influence how stereotype threat affects students' academic motivation by reducing or increasing its impact.

This study examines the relationship between stereotype threat and academic motivation among university students in Indonesia, specifically exploring how family communication patterns may moderate this relationship. The main hypothesis to be investigated suggests that there will be an inverse relationship between conformity orientation within the family and academic motivation. In contrast, a direct relationship is anticipated between conversation orientation and academic motivation. In addition, it will investigate how these two communication orientations affect the relationship between stereotype perception and college students' desire to pursue further education.

METHOD

Research Design

The present investigation utilizes an online survey methodology to scrutinize the influence of stereotype danger on the scholarly drive of university pupils. Moreover, the research examines the impact of familial communication patterns on developing this connection. The survey was conducted to examine students' viewpoints regarding their vulnerability to stereotypes and the subsequent impact on their inclination to seek higher education. In addition, the survey also collected data on family communication patterns, including conformity orientation and conversation orientation, to understand how these influence students' educational motivation.

Participants

The research encompassed a cohort of 120 university students, carefully chosen from 10 distinct regions in Indonesia that exhibited the most minimal Gross Participation Rate (GPR) in higher education. The regions mentioned earlier included the Bangka Belitung Islands, Lampung, Central Java, North Kalimantan, West Java, West Kalimantan, South Sumatra, Central Kalimantan, and Riau Islands. All participants were above the age of 18. Demographic data collected included gender, ethnicity, field of study, parental education level, and household income. To ensure that all respondents had the requisite legal capacity to provide informed consent, those under 18 were deliberately excluded from the sample (see Table 1).

Table 1 Demographic of Participants

Demographic Variable		<i>n</i>	%
Gender	Male	47	39.2
	Female	73	60.8
Tribes	Bangka	6	5.0
	Melayu	17	14.2

	Asmat	8	6.7
	Dani	9	7.5
	Lampung	11	9.2
	Jawa	21	17.5
	Dayak Banjar	12	10
	Sunda	16	13.3
	Palembang	11	9.2
	Rawas	9	7.5
Age	18 - 20	53	44.2
	21 - 25	41	34.2
	26 - 30	17	14.2
	> 30	9	7.5
Income	< 1.000.000	7	5.8
	1.000.000 - 2.000.000	41	34.2
	2.000.000 - 3.000.000	29	24.2
	3.000.000 - 4.000.000	17	14.2
	4.000.000 - 5.000.000	15	12.5
	> 5.000.000	11	9.2

Procedures

The students will be invited via email and social media to participate in the online poll. Before commencing the survey, participants will get comprehensive information describing the objectives of the study, the required protocols, and a meticulous elucidation of how their responses will be treated with utmost secrecy and anonymity. Before being granted access to the survey, participants must provide their agreement to participate via an online platform. The survey is expected to require a time commitment of roughly 20-30 minutes for completion.

Measurement

The survey instrument will measure the following variables.

- a) Stereotype Threat: The developed scale will measure students' perceptions of the stereotype threat they face.
- b) Educational Motivation: Questions designed to assess students' level of motivation to pursue further education after college.
- c) Family Communication Patterns: The scale will measure conformity and conversation orientation in the participant's family.
- d) Covariates: Parents' education level and household income will be measured and considered covariates due to their potential influence on students' educational decisions.

The collected data will be analyzed using the relevant statistical techniques to examine the relationship between the variables and investigate the function that family communication patterns play as moderators in this relationship.

The presence of a threat is evaluated using four subscales, each of which consists of three items. These subscales are used to quantify the threat posed by stereotypes. The four concepts measured

are group concept threat, self-reputation threat, self-concept threat, and group reputation threat. The items for the four subscales were taken from Measures of Stereotype Threat by Shapiro (Cortland et al., 2019; Shapiro et al., 2013; Shapiro & Williams, 2012; Shewach et al., 2019; Xavier et al., 2014) and measured on a 7-point Likert scale ranging from "Cares Very Much" to "Doesn't Care at All."

Self-concept focuses on how individuals perceive themselves, using questions such as "To what extent do you worry that your actions could imply negative things about your abilities in your mind?" Self-reputation threat looks at how individuals perceive themselves through others, using questions such as "To what extent do you worry that your actions could lead you to be judged negatively by others because you are/have ____?" Group concept threat measures the threat they feel to a group and how it applies to them, using questions such as "To what extent are you concerned that your actions could lead to you being judged negatively by others because you are/have ____?" Group reputation looks at how participants see their actions as threatening to the group, using questions such as "To what extent do you worry that your actions may under-represent the people who ____?" Factor analysis showed that the items for the four subscales loaded on one factor. Thus, all 12 items were averaged into one index (Cronbach $\alpha = .93$).

Family communication patterns are measured through conversation or conformity orientation, which describes the norms expected of children as they grow. Ritchie and Fitzpatrick's modified Family Communication Patterns instrument measures this orientation through questions about how the family communicates with individuals (Fitzpatrick & Ritchie, 1994, 2008; Ritchie & Fitzpatrick, 1990). Conversational orientation is determined by questions such as, "My parents often ask my opinion when the family talks about something," or, "My parents encourage me to express my feelings." Conversational orientation should indicate whether the child is encouraged to express their ideas and opinions autonomously. The conversation orientation scale consists of fourteen items, each offering participants the opportunity to score their level of agreement using a Likert scale with seven points, ranging from "Strongly Agree" to "Strongly Disagree." The average of the 14 items received a Cronbach α value of .91.

Conformity orientation is determined by questions such as "When things are essential, my parents expect me to obey without asking" or "In our house, my parents usually have the last word." Conformity orientation indicates how children are encouraged to conform to parental authority to achieve goals. Eleven items are included in the conformity orientation scale, and participants are asked to score their level of agreement with each item using a Likert scale with seven points, ranging from "Strongly Agree" to "Strongly Disagree." All eleven items were averaged, and Cronbach's alpha coefficient was .92.

Motivation measures participants' willingness and desire to pursue further education after college through four questions on a 7-point Likert scale, ranging from "Not at all likely" to "Very likely." This measure included questions such as "I will go straight to work after college and not pursue further education" (reverse coded) and "I will pursue a master's degree after college," which were adopted by Ali and McWhirter (2006). The four questions were averaged (Cronbach $\alpha = .83$).

RESULTS AND DISCUSSION

Before testing the hypotheses, the correlations between the main variables were tested. The main variables were determined as motivation to pursue higher education after college, stereotype threat, conformity orientation, and conversation orientation variables. There was a significant relationship between perceived stereotype threat and motivation to pursue higher education. The data showed that the higher the perception of stereotype threat, the lower the motivation to continue education, as seen from the negative correlation of $r = -.26$. This confirms that negative self-perceptions reinforced by stereotypes can affect one's academic aspirations.

Furthermore, our analysis revealed that conformity orientation in the family was positively correlated with motivation to pursue an advanced degree, with a correlation value of $r = .33$, signifying that family values and norms prioritizing conformity to the group may encourage individuals to achieve higher academic standards. However, there was a significant negative correlation between conformity orientation and conversation orientation at $r = -.56$, suggesting that in families that favor conformity, there may be a reduced openness and frequency of communication on various topics. This may raise questions about how family communication dynamics influence academic identity formation and resilience to stereotype threat.

Moreover, it seems that parental education, particularly the father's educational background, has an impact on the inclination of children to pursue higher education. A moderate positive association existed between the level of education attained by the father and the motivation displayed by the children to pursue further education ($r = .23$). This correlation could be attributed to the influence of parental figures in shaping the educational ambitions of their offspring. The same factor is also seen in the mother's education, where there is a highly significant correlation with the father's education ($r = .43$), suggesting that the higher educational backgrounds of both parents tend to be interconnected. Family income, measured through the variable 'Income,' also showed a moderate positive relationship with conversation orientation ($r = .26$), signaling that families with higher incomes may offer a more supportive environment for open communication. This can create more avenues for children to cultivate the grit and drive to surmount stereotype dangers and actively pursue scholastic accomplishments.

For more details, see Table 2, which presents the correlations between all the main variables and covariates examined in this study. Table 3 shows the main variables' means, standard deviations, and covariates.

Table 2 Correlation Among Key Variables and Covariates

	1	2	3	4	5	6	7
1. Stereotype Threat	1						
2. Motivation to Pursue an Advanced Degree	-.26	1					
3. Conformity-Orientation	.33**	-.03	1				
4. Conversation-Orientation	-.26	.07	-.56**	1			

5. Father's Education	-.04	.23**	.02	-.03	1		
6. Mother's Education	.07	.16	.13	.16	.43***	1	
7. Income	.06	.07	-.14	.26**	.03	.15	1

Notes: *** $p \leq .001$, ** $p < .05$, * $p < .10$

Table 3 Mean and Standard Deviation of Key Variables and Covariates

	Mean	Standard Deviation	N
1. Stereotype Threat	4.91	1.62	120
2. Motivation to Pursue an Advanced Degree	5.68	1.63	120
3. Conformity-Oriented	6.05	1.62	120
4. Conversation-Oriented	6.4	1.6	120
5. Father's Education	5.79	2.05	120
6. Mother's Education	6.46	2.07	120
7. Income	7.99	2.18	120

When testing the H1, H2, and H3 associations, household income, father's education level, and mother's education level were controlled as covariates. In this study, H1 hypothesized that stereotype threat would negatively affect motivation to pursue an advanced degree. The results substantiated this hypothesis, demonstrating a noteworthy inverse correlation between stereotype threat and motivation, as seen by the coefficient of -0.21 with a significance level of p of 0.03. The correlation between the level of perceived stereotype threat and individuals' motivation to seek higher education is inversely proportional. This finding further solidifies our comprehension that negative stereotypes possess a potent psychological obstacle to academic accomplishments.

Shifting the focus to H2, we argue that conformity orientation will negatively affect motivation for further education. Regression analysis again confirmed this prediction with a coefficient of -0.47 and a p -value of 0.04, underscoring that social norms emphasizing conformity can significantly curb academic aspirations. In other words, conformity-orientated individuals may be more inclined to adhere to group expectations rather than pursue personal, educational goals that may be considered unorthodox.

In addition, the findings about the control variables indicated a positive correlation between the level of education attained by the father and the inclination to pursue a higher degree ($b = 0.28$, $p = 0.03$). This substantiates the notion that fathers with extensive education can be a source of motivation and assistance for their offspring in attaining elevated academic aspirations. Conversely, the mother's educational background exhibited no noteworthy correlation ($b = 0.09$, $p = 0.57$), implying that the father's level of education might hold greater significance as a driving force in this particular scenario. Finally, family income showed a marginal relationship ($b = 0.1$, $p = 0.05$), which may suggest that while economic factors play a role, they are not as heavy as the psychosocial burden represented by stereotype threat and conformity.

For more details, see Table 4 below.

Table 4 A Test of Conformity-Orientation's Moderation in The Relationship between Stereotype Threat and Motivation to Pursue an Advanced Degree Based on Ordinary Least Squares (OLS) Regression

	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	2.31	.99	1.83	> .01
Stereotype Threat	-0.21	.43	-0.48	.03
Conformity-Orientation	-0.47	.31	-1.82	.04
Stereotype Threat x Conformity Orientation	0.16	.16	1.38	.11
Father's Education	0.28	.19	2.14	.03
Mother's Education	0.09	.19	0.34	.57
Income	0.1	.17	0.48	.05

The third hypothesis (H3) states that conversation orientation in the family will have a positive relationship with motivation to pursue further education. Based on the regression results, conversation orientation has a positive coefficient of 0.28 with a significance level of *p* of .04. This supports the hypothesis that open and inclusive family communication contributes positively to one's motivation to pursue an advanced degree. Healthy communication within families appears to facilitate the exchange of ideas and support educational aspirations, in line with existing literature that emphasizes the vital role of communication in academic development.

The fourth hypothesis (H4) proposed that conversation orientation would moderate the relationship between stereotype threat and motivation to continue studies. The interaction coefficient between stereotype threat and conversation orientation was -0.03, with a significance level of *p* of .04. This suggests that conversation orientation has a significant though small moderating effect on the relationship between stereotype threat and motivation. Open dialogue in the family seems to attenuate the negative impact of stereotype threat on one's motivation. However, the small effect size signifies that other factors may also be at play.

Furthermore, the influence of various covariates on academic motivation was explored. The results of the father's education showed a positive trend, although not fully statistically significant. The coefficient for this variable was 0.25, with a significance level of *p* of .05, almost reaching the statistical significance threshold. This indicates that the father's education level may influence children's academic motivation positively.

In contrast to the father's education, the mother's education does not appear to have a significant relationship with academic motivation. With a coefficient of 0.07 and a significance level of *p* of .91, this finding suggests that in this study, a mother's education may not significantly affect children's academic motivation.

Furthermore, the analysis also identified that income, represented by a coefficient of 0.09 and a significance level of *p* of .06, has an insignificant trend toward academic motivation. While the statistical significance of this outcome may be lacking, there is a suggestion that economic

variables, such as income, may bolster educational motivation. Nevertheless, further investigation is necessary to validate these discoveries.

This is shown in the provided Table 5.

Table 5 A Test of Conversation-Orientation's Moderation in the Relationship between Stereotype Threat and Motivation to Pursue an Advanced Degree Based on Ordinary Least Squares (OLS) Regression

	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Constant	0.81	1.41	0.61	.51
Stereotype Threat	0.45	.30	1.27	.11
Conversation-Orientation	0.28	.14	0.1	.04
Stereotype Threat x Conversation-Orientation	-0.03	.23	-0.54	.04
Father's Education	0.25	.19	1.74	.05
Mother's Education	0.07	.19	0.23	.91
Income	0.09	.18	0.38	.06

DISCUSSION

The findings of this study indicate a negative correlation between stereotype threat and academic motivation. This implies that the continuation of negative self-perceptions through stereotypes can hinder an individual's motivation inside the academic sphere. The findings unveiled a significant negative association between stereotype threat and the propensity to pursue additional education ($r = -.26$). This suggests that stereotype danger is a cognitive obstacle to academic success.

In addition, there was a positive relationship between conformity orientation in family communication and motivation to pursue an advanced degree ($r = .33$), suggesting that family norms favor conformity and might encourage higher academic achievement. However, the significant negative relationship between conformity orientation and conversational orientation ($r = -.56$) implies that conformity-favouring family communication might hinder the formation of a resilient academic identity.

Parental education, particularly that of the father, was positively associated with the child's motivation to continue education ($r = .23$), reflecting the importance of role modeling in the setting of educational aspirations. The data indicates a positive correlation ($r = .26$) between family income and conversation orientation. This might mean, therefore, that economic issues create a greater avenue for open communication.

These findings align with previous research that suggested stereotype threat may reduce motivation and act as an obstacle to academic performance (Baysu & Phalet, 2019; Drace et al., 2020; Flore et al., 2018; Martiny & Nikitin, 2019; Weber et al., 2018). As far as Indonesian society is concerned, it becomes crystal clear that an education system needs to be devised holistically in order to challenge and shrink negative stereotypes effectively.

The inclusion of conformity orientation as a contributing element in fostering academic motivation stands in contrast to other works where conformity has been presented as a potential obstacle to individual initiative and creativity (Markus & Kitayama, 1991). Nevertheless, in such a collectivistic cultural setting as Indonesia, conformity may be regarded as a worthwhile step toward social accord and, thus, should favor academic achievement.

With respect to parental education, our results are in line with the current literature about the role of family socialization on educational motivation (Davis-Kean, 2005; Goldstein et al., 2005). In particular, the role of the father's education underlines the importance of masculine role models in the Indonesian family context. Family income correlating with conversation orientation echoes the finding that families with more significant resources may provide stronger support for their children's academic development (Conger & Donnellan, 2006; Donnellan et al., 2009; Ekström & Östman, 2013; Halle et al., 1997; Hanson & Olson, 2018; Rojas, 2008).

This study adds to the existing literature by clarifying how stereotypes, familial norms, and socioeconomic position interact to influence academic motivation. The importance of a supportive family environment in strengthening the capacity to overcome stereotype risks and fostering the motivation to achieve higher educational goals is emphasized.

Research Limitations and Future Suggestions

This study includes some methodological limitations that need to be considered. The online survey design used in this study allows for a wide range of participants but likely limits the depth of responses and richness of interpretation that could be obtained through face-to-face interactions or qualitative methods such as in-depth interviews. Respondents' self-reported data may also contain biases such as social desirability or self-selection bias, where individuals with a particular interest in the research topic may be more willing to participate.

In addition, the sample was limited to students from the region with the lowest higher education Gross Participation Rate (GPR) in Indonesia, which may not reflect the experiences of students from other, more diverse regions. The study's cross-sectional nature also limits the ability to draw causal inferences from the data. Using correlation and regression analyses only allows the identification of relationships but cannot ascertain the direction and nature of those relationships without longitudinal data.

Future research should consider a longitudinal design to track changes in academic motivation over time, particularly concerning evolving stereotype threat perceptions. Expanding the sample to include students from a more comprehensive geographical and cultural background in Indonesia would provide a more thorough understanding of the issue.

It is also recommended that future research integrate qualitative methods to capture the complexity of family communication patterns and their impact on academic motivation. In-depth interviews can also yield rich and detailed narratives about experiences related to stereotype threat and family communication support mechanisms. Second, discussing interventions aiming at a reduction of stereotype threat and an enhancement of positive family communication can provide

an indication of practical implications for educational practice. On the other hand, its effectiveness in doing so could be assessed with the view of enhancing academic motivation and stereotype threat resilience.

Last but not least, since parental education and income are the significant results in this analysis, the future study maybe discuss how parental education or family income can influence students' academic motivation. Indeed, in this matter, parental involvement in education, expectations from parents, and resources to students for educational purposes can be explored. Basically, this study can also be further improved to consolidate the findings with regard to enhancing academic motivation vis-à-vis stereotype threat and extend the findings to Indonesia's educational setting by addressing the limitations and recommendations discussed.

CONCLUSION

This study has provided significant leads into the processes of academic motivations in light of stereotype threat and has qualitatively probed area of family communication about education within Indonesian context. Results from this study indicate that stereotype threat significantly lowers academic motivation; any negative perceptions, created through stereotypes, can act as a psychological obstacle to aspirations toward education. This is reflected in the strong negative relation between stereotype threat and motivation to pursue higher education.

However, while conformity orientation in family communication is perceived basically as an inhibiting factor within much of the Western literature in an Indonesian collectivistic context, it would appear to foster higher academic motivation. This would suggest that family norms in these cultural contexts play their role more subtly and differently. Second, conversation orientation, as expressed through facilitation of free expression and open discussion, has helped in enhancing academic motivation. This means that good communication with the family members themselves is a support to the individual in overcoming stereotype threats and progressing in their educational pursuits.

This also means that the use of parents' academic level, in particular, fathers' education and family income was significant to influence academic motivation, suggesting that economic and social factors support children's academic development. These factors underline the critical importance of the family as a supporting base for their children's academic growth and achievement in Indonesia.

Therefore, the findings of this study have significant implications for educational policy and supportive practice in Indonesia, one that can recognize the complex nature of stereotyping influences, family communication, and socio-economic factors that could better inform effective strategies at improving academic motivation. This confirms that education needs to be more inclusive and empathetic in approach in order to deal with such negative stereotypes and strengthen families to support higher educational attainments. The conclusion, therefore, beckons education policymakers and practitioners to establish supportive yet challenging learning environments that are conducive to allowing all students to reach their full potential irrespective of their stereotypical background.

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