



## Need for Rational Thinking: Self-Identity and Social Intelligence of Indigenous Adolescence

*Original scientific paper*

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### Abstract

*After Africa, India has been a home for many indigenous communities who are still untouched by modern lifestyle. In particular indigenous adolescence is the one with the least exposure to the external world. There is a huge gap between how indigenous adolescence perceives them and how they understand interpersonal relationship with the non-indigenous group. Even though Government takes many initiatives they still hesitate to come out their comfort-zone and lagging in interpersonal relationship with non-indigenous people. Results found that rationality indirectly mediates the relationship between self-identity and social intelligence. Adolescence's who are taught to think rationally are better able to assess events using facts and evidence, which allows them to respond appropriately with a deeper comprehension of the circumstances through reasoning. So, rational thinking helps to reduce perceptual bias, conflict resolution between their group likewise improves scientific thinking and effective communication of indigenous students. Indigenous researchers should develop intervention programs to improve their rational thinking, which helps to enhance their social intelligence and most importantly they believe their own ability to make wise decisions.*

**Keywords:** *Indigenous, Mediation, Rational thinking, Self-identity, Social intelligence*

After Africa, India is one of the nations with most significant indigenous populations worldwide. 8.6% of India's population is made up of indigenous people, who are spread out over the nation's territory and varied geographical areas with over 10.2 million indigenous people (Kumar et al., 2020). Most of the tribal communities reside in forested or hill locations and have less exploration in the external group. Over a century has passed since psychology began to explore indigenous mental health. In particular, psychological research on rational thought in this field of study only recently started, and it should have paid more attention to individual differences (Stanovich, 2016). To reason is to choose reasonable goals, behave appropriately in light of one's

goals and beliefs, and maintain impressions that are reasonable with the available evidence. Although intelligence tests measure many significant aspects of thinking, they do not evaluate rational thought. Therefore, intelligence and at least some elements of rational thought are only weakly related. This statement applies to indigenous community who live in the separate settlement. Indigenous people live with their group in the forest area, which differs from non-tribal community. These communities are facing in-group and out-group conflict with others. Having biased thinking characteristic of rational cognition is notably unconnected to intelligence (Stanovich et al., 2013). This limited thinking plays a vital role when intergroup cooperation and coordination are

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the objectives. These group commitments can also result in more problematic psychological tendencies.

Psychologists believe that identity is created via an individual's interaction with their environment (Jenkins, 2014; Sharma & Sharma, 2010). One factor potentially affecting students' risky behavior is their social identity. Due to individual differences, people sometimes behave differently in social circumstances. These unique variations referred to social intelligence in psychology literature. The ability to comprehend others and act intelligently about others is referred to as social intelligence, a term first used by Thorndike (1920) to explain human behavior. Self-identity defines a combination of factors, including identity, honesty, and individualistic framework, that emerges and changes the adaptability and reorientation in a dynamic context (Ahuja et al., 2019; Branje, 2022; Schneider, 2007; Schneider, et al., 2002). Identity plays a vital role during adolescence (Shulman et al., 2016; Verhoeven et al., 2019), and it the first step in developing one's identity is to examine all facets of who they are, including their beliefs (Banales et al., 2020; Leeuwen, 2022; Perner & Roessler, 2011), ideas, emotional state (Demmrich & Wolfradt, 2018; Hatano et al., 2022; Haviland et al., 1994), and behaviors (Pfeifer & Berkman, 2018; Barkley-Levenson & Galván, 2014).

Socialization was essential to identity formation during adolescence (Umaña-Taylor, et al., 2006). Identity and social-related factors play a vital role in the period of adolescence (Yamada, 2009). Previous studies also indicated that social-related factors such as social skills (Laksmiwati et al., 2022; Monika et al., 2021), Social presence (Zhan & Mei, 2013) and social awareness (Samuel, 2016) were positively associated with self. According to Pang (2020), a sense of belonging and social support is related to self-presentation. Indigenous people have a powerful sense of belonging to their particular group, especially adolescence in the stage of identity development. Studies found that the social intelligence of adolescence was significantly associated with study habits (Bhat & Khandai, 2016), academic class (Rani et al., 2019), and academic achievement (Isaac & Ikechukwu, 2019).

Many researchers considered rationality as a mediating factor of psychological variables (Ghorbani et al., 2016; Marshall et al., 2021).

Based on previous findings, researchers investigated indigenous adolescence' self-identity and social intelligence separately, but the association between indigenous self-identity and social intelligence has yet to be explored. Studies found that significant relationship between rationality and identity; Especially dimensions of rationality most characterize the identity (Branchetti, 2015) and rationality correlated to social intelligence (Burgoyne et al., 2022). Previous findings supported that rationality mediates the relationship between academic procrastination, life satisfaction and achievement (Balkis, 2013), mindfulness and dental anxiety associated with ration thinking (Yao et al., 2023). However, no previous studies examined the indirect effect of rationality in the association of self-identity and social intelligence of indigenous adolescence.

## Aim And Hypotheses

This study investigates the association between self-identity and social-intelligence, and how that association mediates through rationality. Based on previous studies, the following three hypotheses framed with reference of Ramayah et al. (2016). There will be a significant difference in Self-identity and social-intelligence of indigenous students. Rationality mediates the relationship between self-identity and social-intelligence. Self-identity has an indirect effect on social-intelligence through rationality.

## Materials and Methods

### Participants

Three hundred and eighty-four (384) indigenous adolescence from the Nilgiris district participated in this study (192 boys, 192 girls). The inclusion criteria are (a) Ages between 12 to 18 years; (b) participants belong to indigenous community (c) Informed consent obtained from the participants. Correspondingly, participants who did not volunteer for this study were excluded.

## Measures

Socio-demographic information about indigenous adolescence age, birth order, family type and gender were gathered for this study.

### Self-Identity

Participants' level of identity was assessed via 35 items Cheek and Briggs (2013) developed Aspects of Identity Questionnaire - IV used, which includes three subscales plus a set of "special" items such as 10 items of personal identity orientation, 7 items social identity orientation, 8 items collective identity orientation and 10 items of special items. Items are rated 5 points Likert scale ranging from 1 (not important to my sense of who I am) to 5 (Extremely important to my sense of who I am). The internal consistency with a Cronbach's alpha of .78 (Balkis, 2013). This study found the inter-reliability coefficient was  $\alpha = .71$ .

### Tromso Social Intelligence Scale

The 21 items self-report Tromso Social Intelligence Scale 7-points Likert scale developed by Silvera et al. (2001) consisted 3 factors such as Social information processing (SIP), Social skills (SS), and Social awareness (SS). Reliability coefficient found from 719 participants was .83.

### Shortened General Attitude and Belief Scale

To determine the rationality of the participants, Shortened General Attitude and Belief Scale (SGABS) developed by Lindner et al. (1999) was used. In this scale rationality dimensions are used to assess the rational thinking of the participants. In previous research, this shortened measure was found to correlate highly and significantly with the original version of the GABS (correlations for subscales ranged from .84 to .98). In addition, the SGABS has been found to be correlated with measures of trait anxiety and depression. The subscales of this measure were found to have moderate to high test-retest reliability and to have average levels of internal consistency Cronbach alpha values of .79 or greater.

## Statistical Analysis

Analysis was conducted by using version 26 of the Statistical Package of Social Sciences. Normal distribution was verified and found to be expected. Descriptive analysis was used to find out the mean, standard deviation (SD) and percentage of the socio-demographic data. Pearson correlation coefficient was performed to assess the associations between dimensions of self-identity, social intelligence and rationality. A smart PLS is used to inspect the mediating role of rationality in the association between self-identity and social intelligence.

Using hierarchical multiple regression, the hypotheses describing the relationship between the variables (i.e., self-identity, social intelligence and rationality) and the mediating role of rationality were examined. The mediation model is becoming more and more common, and it plays a noteworthy impact in evolving knowledge in the field of social psychology and theory development (Bullock et al., 2010; Pieters, 2017; Wood et al., 2007) and also scholars from business, psychology and education have expressed their interest and special attention to this mediation effect (Memon et al., 2018; Rasoolimanesh et al., 2021). Descriptive statistics, Pearson correlation and multiple linear correlation analyses executed using SPSS version 26 software and mediation analysis was performed using Smart PLS software.

## Ethical Consideration

The researcher submitted the proposal with questionnaire, consent form and researcher contact information to obtain permission from the Ministry of tribal welfare department in Tamil Nadu. With permission from the Ministry of tribal welfare department, data were collected from indigenous adolescence in the Nilgiris. Participating was optional; one could opt out at any moment.

## Results

### Socio-Demographic Characteristics Of Descriptive Analysis

Descriptive analysis was used to analyze the participant's gender, family type, Father and mother's education and occupation in this study. A total of 394 indigenous adolescence (Boys - 49.1% and Girls 50.9%), with ages ranging from 12 to 19 years (Mean = 1.71; SD = 0.951). Most of the participant's parents completed school-level education (Mothers = 69.45; Fathers 71.1%). Furthermore, 68.8% of participants belong to the nuclear family (Mean = 1.31; SD = 0.465). The majority of the participant's parents working as coolie/ daily wages (Mother = 68.2; Father = 76.3%).

### Description of Self-identity, Social Intelligence, and Rationality

The mean score of self-identity was 3.79, social intelligence was 4.44 and rationality was 3.78. The dimension

of unique identity has the lowest score compared to other dimensions; meanwhile, social identity dimension of social skill had the highest mean score compared to other scores.

### Self-Identity, Social Intelligence, Rationality And Socio-Demographic Variable

Results show that mean score of Female (4.50), Joint family (4.49), Indigenous adolescence, father who completed undergraduate (4.83), mother (Professional course) had more social intelligence compared to other variables. Compared to the father's occupation, mothers who worked in the public sector (4.67) had more social intelligence.

**Table 1.**

*Relationship between self-identity, social intelligence and rationality*

Constructs	Variable	1	2	3	4	5	6	7	8
Self-identity	Personal identity	1							
	Collective identity	.277**	1						
	Social identity	.323**	.313**	1					
	Special items	.321**	.502**	.388**	1				
Social intelligence	Social information processing	.058	.006	.069	.116	1			
	Social awareness	.013	.007	.150*	.063	.494**	1		
	Social skills	.144	.078	.203**	.098	.579**	.652**	1	
Rationality	Rationality	.233**	.348**	.242**	.245**	.287**	.188*	.243**	1

\*\*significant at .01 level and \*significant at .05 level.

Table 1 shows that bivariate analysis of the association between self-identity, =social intelligence, and rationality. Pearson correlation coefficient shows that self-identity dimension of personal identity is significantly associated with collective identity, social identity and rationality at a .01 level. Collective identity is significantly

related to social identity, special items and rationality at the .01 level. Social identity significantly associates with special items, social skills, and rationality at a .01 level. Meanwhile, social identity is positively associated with social awareness at a .05 level. Special items are significantly associated with rationality at the .01 level. Social information is associated with social

awareness, social skills and rationality at a .01 level. Social awareness is associated with social skills and rationality at a .01 level. Social skills are associated with rationality

at the .243 level. The mediating factor of rationality is significantly associated with dimensions of self-identity and social intelligence at the .01 level.

**Table 2.**  
*Indirect Effect of Rationality*

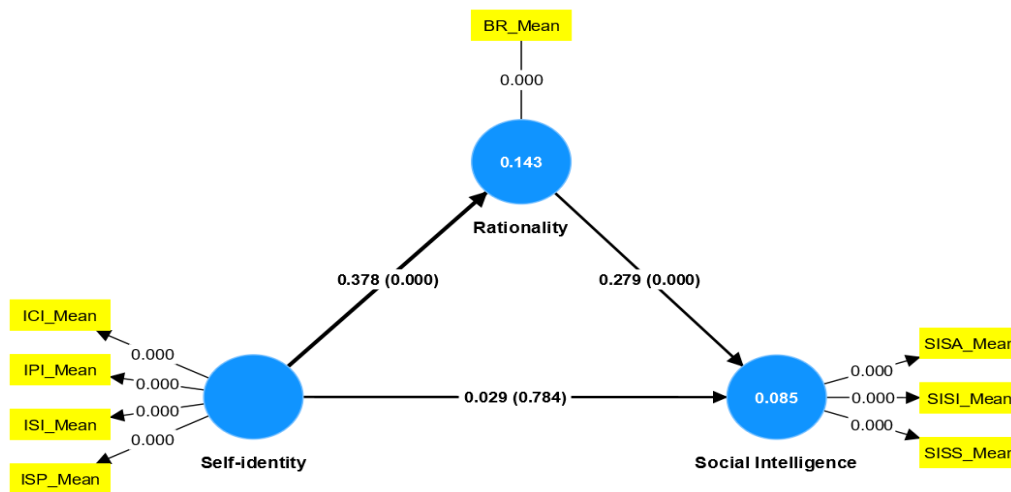
Steps	Path Effect	Independent variable (IV)	Dependent Variable (DV)	Beta	P value
1	Direct effect of self-identity on rationality	Rationality	Self-identity	0.378	0.000
2	Direct effect of rationality on social intelligence	Rationality	Social intelligence	0.279	0.000
3	Direct effect of self-identity on social intelligence	Self-identity	Social intelligence	0.029	0.000
4	Indirect effect of self-identity on social intelligence	Self-identity Rationality	Social intelligence	0.784 3.017	0.000 0.000

Table 2 displays the mediating effect of rationality in the relationship between self-identity and social intelligence by using SmartPLS (Ringle et al., 2022). The predictor variable of self-identity, the independent

variable was social intelligence and the mediating variable was rationality. Multiple regression was conducted to find out the mediating effect of rationality.

**Figure 1.**

*Path analysis of Rationality as a mediator in the association between self-identity and social intelligence*



The first test of rationality was regressed on self-identity. Because, dimensions of self-identity significantly related to rationality. Results show that rationality is to be regressed on self-identity (beta = .378, p = .001). Secondly, Social intelligence was regressed on rationality. Since gender, type of family, education, and occupation of the participant's parents are associated significantly with social

intelligence. Findings show that social intelligence was significantly regressed on rationality (beta = .279, p = .001). Third self-identity was significantly regressed on social intelligence (beta = .029, p = .001). Finally, social intelligence was significantly regressed on rationality (beta = .784, p = .001) and self-identity (mean = 3.017, p = .001), respectively.

## Discussion

Rationality mediates the relationship between the dimensions of self-identity and social intelligence. Therefore, the results supported to our hypotheses. Self-identity is a collective term that includes a sense of belonging in the social group to identify with the community (Ashmore et al., 2004). Especially people from indigenous groups had strong self-identity towards their social group (Powers & Sakaguchi, 2006). Previous studies found that adolescence's fundamental factor of self-identity significantly correlated to an individual's psychological integrity, mental health, and stability. In growing research in social psychology, identity in adolescence has been positively associated with life satisfaction (Diener et al., 2018), cultural identity, social and emotional well-being (Fatima et al., 2022). The finding regarding the relationship between self-identity and social intelligence is similar to earlier studies (Falahi et al., 2020), which supported a self-identity dimension of social identity positively associated to social skills and awareness of the social intelligence dimensions. A person's interpersonal and social ties with other people are strengthened by social intelligence since it has positive and constructive aspects and functions. However, social awareness is the element of social intelligence that promotes proper behaviors in social settings and is a vital component in those with high social intelligence. People will feel more powerful and empowered and hence more socially trusted if they develop their social identities and make more social connections. Due to their interactions with society and increased knowledge and awareness of the community, these individuals feel more confident and are less apprehensive about joining it. On the other side, students who have not developed their social identities feel less optimistic due to apprehension about living in the social community and not understanding the community, as well as potentially a sense of helplessness in the face of potential issues. Of course, the contrary interpretation of this relationship is also possible. In other words, those who feel more trustworthy engage with society more and have stronger social identities. However, the wellspring of meaning and experience for people is their identity. Although each

person may have multiple identities, the fact that these identities are all the same in society creates a solid foundation for social trust. Membership in social groupings is the source of social identity. According to certain studies, a person can have a social identity in addition to a global identity; these identities do not necessarily conflict with one another but can work together. And move in the direction of society's advancement (Akdemir, 2018; Thomas, 2019; Vincent Ponroy et al., 2019).

Lone and Khan (2018) also found that indigenous adolescence exhibit less patience while acting under pressure because of the social environment in which they have grown up, conditioning them for such action. Indigenous pupils are less cooperative, less able to communicate with one another amicably, and less able to consider all sides of an issue. The indigenous students lack self- and other confidence. They are less cooperative since it is difficult to believe what they do is proper or wrong (Acharya & Kshatriya, 2014). Due to less exploration of the outside world and maximum support and pampering of their family, we found no relationship between personal and collective identity and dimensions of social intelligence.

Meanwhile, Social identity of indigenous adolescence was significantly associated to social awareness and social skills of social intelligence dimensions. These findings also supported that social identity of students related considerably to social intelligence (Mikaeili & Ahmadi, 2022). As previously mentioned no relationship between personal and collective identity to social intelligence but through rationality there is an association between self-identity and social intelligence. Our findings also supported that rationality mediates the relationship between self-identity and social intelligence. Studies found no association between self-identity and social intelligence, but experiencing rational thinking positively impacts the association between self-identity and social intelligence of indigenous adolescence. The cognitive component of rationality mediates the relationship between the psychological element of self-identity and sociological part of social intelligence. According to Evans and Stanocich (2013), intelligence is a hallmark rationality behavior and plays a vital role in intelligence. Our

results also found that a positive association between rationality and social intelligence. Alexander (2000) supported a strong positive association between rationality and social intelligence. Furthermore, our findings showed that, a positive association between rationality and social intelligence. Branchetti (2015) studies show that rationality associate to identity determinants. Indigenous adolescence with rational thinking leads to impact their self-identity. Having specific thought like rationality may influence helps to understand them and resolve interpersonal conflicts (Baron, 2020; Hopkins & Kahani-Hopkins, 2004; Rafique et al., 2020). Our findings also specified that self-identity indirectly affects the social intelligence through the mediator of rationality.

### Limitations

As our sample was focused on indigenous adolescence, this limited our applicability to other age-group indigenous populations. Future research should conduct the study with age group indigenous community. The research area of this study is in the Nilgiris, future research could aim at state and country-level indigenous populations to improve the representation of the indigenous community. We recommended longitudinal studies for indigenous adolescence so that we can explore their identity through their social connections.

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### Conclusion

This study explores the mediating role of rationality in the association between self-identity and social intelligence among indigenous adolescence. Findings supported the hypothesized structural model, indicating that rationality partiality mediates the relationship between self-identity and social intelligence. Rationality is an important cognitive component that improves social intelligence. Indigenous adolescence have a strong identity towards their social community, but they would not socialize with other community people. So, their identity did not impact their social intelligence. But with the help of rationality, indigenous people change their perspective toward society, creating high social intelligence levels. Indigenous psychology researcher should thoroughly understand their way of life so that government, Non-Government Organizations (NGOs) and policymakers may implement the rational thinking-based program.

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### Conflict of Interest

The authors declare no conflict of interest.

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