## DOES MORAL JUDGEMENT MEDIATE THE RELATIONSHIP BETWEEN MORAL EMOTION AND MORAL IDENTITY TOWARDS PROSOCIAL BEHAVIOUR? AN EMPIRICAL STUDY AMONG MALAYSIAN ADOLESCENTS

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ABSTRACT

This study examined the mediating role of moral judgement in the relationship between moral emotion, moral identity, and prosocial behaviour among adolescents in Malaysia. A total of 393 adolescents (170 males; 223 females; *M* age = 16 years) from 12 public secondary schools completed the surveys on moral judgement, moral identity, moral emotion, and prosocial behaviour. To determine predictive links among the variable, a mediation model in SPSS AMOS 27 was conducted. The results revealed positive correlations among moral judgement, moral emotion, moral identity and prosocial behaviour. Regression analyses showed that while moral identity was positively linked with both prosocial behaviour and moral judgement, whereas moral emotion was positively linked only to moral judgement. Notably, moral judgement fully mediated the link between moral emotion and prosocial behaviour and partially the association between moral identity and prosocial behaviour. These findings highlight the significance of moral judgement as a key factor in linking moral emotion and moral identity to promote prosocial behaviour among adolescents. Implications for promoting moral development in adolescence are discussed. Furthermore, this study calls for a forward-looking perspective by suggesting future inquiries into theoretical models and practical applications.

Keywords: Moral judgement, prosocial behaviour, moral emotion, moral identity, adolescents
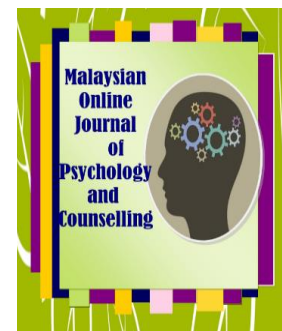
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INTRODUCTION

Prosocial behaviour includes voluntary acts with the intention of helping and benefiting others such as volunteering, altruism, sharing, cooperation, and participation in welfare and community activities (Boles et al., 2006). As early as age three, children begin to perceive prosocial behaviour as morally virtuous (Vaish et al., 2011). In adolescence, the formation of individual ethical codes and moral beliefs steers moral behaviour towards prosocial behaviour (Chaikovska et al., 2020; Flook et al., 2019). This transition to prosocial behaviour is guided by moral rules that encompass notions of right and wrong and good and bad (Smetana, 2006).

Prosocial adolescents show greater moral understanding, as evidenced by their engagement in civic activities (Sunil & Verma, 2018), build good relationships with peers (Longobardi et al., 2021) and society (Hudson & Brandenberger, 2023), have positive mental health (Paviglianiti & Irwin, 2017), and achieve better academic performance (Oberle et al., 2023). Although the significance of prosocial behaviour has been emphasised, there is a gap between its importance and its practical implementation in real-life scenarios. Adolescents are often confronted with a variety of moral dilemmas in their daily lives. They often find themselves in such situations and mistakenly rely on inappropriate criteria to determine the right course of action, ultimately leading to poor behavioural choices. This problem contributes to the emergence of immoral behaviour (Sengsavang, 2018), which increases the likelihood that they will engage in criminal or juvenile activities.

Several mechanisms or processes have been proposed that promote prosocial behaviour in adolescents (Caprara et al., 2014; Eisenberg et al., 2016; Padilla-Walker & Carlo, 2014). These processes are divided into three categories: moral cognition (Kohlberg, 1969), moral emotion (Tangney et al., 2007), and moral identity (Blasi, 1984). To date, the cognitive approach has been widely employed as the predominant framework and approach to predict prosocial behaviour (Forsyth, 2020; Garrigan et al., 2015; Schipper & Koglin, 2021). Kohlberg (1969) argued that moral judgement is not solely based on the outcomes of actions but these actions are also influenced by the underlying moral principles and other moral domains used to justify those judgements.

However, previous research has predominantly focused on the identification of one or two moral motivations, which leads to certain limitations (Ding et al., 2018). First, relying on a single motivation to explain prosocial behaviour is insufficient. Second, the specific roles of individual motivations and their interconnectedness with prosocial behaviour have not been fully understood. For example, the relationship of moral emotions such as guilt and shame on prosocial behaviour leads to different results (Han et al., 2023; LeBlanc et al., 2020), although both were negatively valued and served as motivators for moral judgement. However, it is not clear whether negative moral emotions increase moral judgement maturity toward developing a prosocial behaviour tendency. Moreover, moral identity is often studied as a moderator in closing the judgement-action gap (Ding et al., 2018; Hardy et al., 2015), although it also has been shown to be one of the factors contributing to prosocial behaviour (Li et al., 2021; Rullo et al., 2021). These limitations highlight the need to consider all three moral motivations and their simultaneous interactions in order to gain a comprehensive understanding of prosocial behaviour. By looking at all three motivations simultaneously, this study provides a comprehensive understanding of the factors that influence prosocial behaviour.

LITERATURE REVIEW

Theoretical perspectives on moral motivation for prosocial behaviour

Moral judgement and prosocial behaviour

Several theoretical frameworks highlight the relationship between moral judgements and adolescents' prosocial behaviour. According to Kohlberg's (1969) cognitive developmental theory, moral judgement serves as an inherent motivator for moral action (Gibbs, 2019; Smetana, 2006). Kohlberg assumed that individuals' moral judgement develops as they mature, leading to the development of personal moral principles (e.g., the progression from the conventional stage to the post-conventional stage). This development facilitates a deeper understanding of moral values and interpersonal relationships and enables individuals to apply their moral principles in making judgements and to guide their behaviour in positive or prosocial ways (Carlo et al., 2003; Eisenberg et al., 2015).

Gibbs' (2019) neo-Kohlbergian theory stresses the effects of moral judgement on moral behaviour and highlights individual differences in moral judgement maturity in relation to prosocial or antisocial behaviour. In addition to moral judgement, prosocial behaviour is associated with moral self-relevance (or moral identity), while antisocial behaviour is associated with moral-cognitive dysfunction. Gibbs (2019) proposed a revised model with four stages grouped into two levels, in contrast to Kohlberg's six-stage theory. The immature stage comprises stages 1 and 2 and focuses on self-interest and obedience. The mature stage comprises stages 3 and 4 and focuses on interpersonal relationships, social expectations and the importance of maintaining order and justice. The progression from the immature to the mature level plays a vital role in adolescents' moral development. Adolescents' growing social perspective-taking and attentional capacities are required to make mature moral decisions that lead to effective prosocial behaviour (cf. Garrigan et al., 2018). Moral judgement plays a crucial role in affecting adolescents' prosocial behaviour. As individuals' capacity for moral judgement matures, their moral principles begin to emerge (Kohlberg, 1984), leading to a greater awareness and understanding of the importance of moral values in their everyday lives. This developmental process enables individuals to apply their moral principles to shape their behaviour in ways that benefit others (Gibbs, 2019). Previous research has consistently examined the relationship between moral judgement and various forms of desirable behaviour, including prosocial behaviour (Ding et al., 2018; Li et al., 2018; Patrick et al., 2018). These studies support a positive relationship between moral judgement and helping behaviour, particularly in the context of adolescent development.

However, it is important to note that there are also contradictory findings. Some studies have not found a consistent relationship between moral judgement and prosocial behaviour (Anyanwu et al., 2020; van der Graaff et al., 2018). In another study, the association between moral judgement and prosocial behaviour was not always positive, as adolescents may show an unstable change in their conceptual understanding of moral judgement when engaging in prosocial acts. One possible explanation for the mixed results in the literature could be the use of different instruments to assess moral judgement and prosocial behaviour. Consequently, further research is needed to explore the significance of moral judgement on adolescents' engagement on prosocial behaviour.

Moral identity and prosocial behaviour

Blasi (1984) identified a gap between moral judgement and moral action and proposed a self-model of moral functioning, which serves as a source of motivation. Based on this model, moral judgements are more likely to promote moral behaviour when they are evaluated through responsibility

judgements rooted in one's identity and driven by the inclination for self-consistency (Hardy & Carlo, 2011). Blasi introduced the concept of moral identity, which reflects individual differences in how strongly moral behaviour is interwoven with one's self-concept (Lapsley, 2015). As adolescents often struggle with identity formation, a strong sense of moral identity can provide them with a framework that guides their judgement and actions towards prosocial behaviour.

Blasi's self-model (1984) posits moral identity as a significant antecedent of adolescents' prosocial behaviour (Lapsley, 2015). Consequently, prior study on moral identity has primarily concentrated on exploring its association with the moral behavioural outcome (Hertz & Krettenauer, 2016). Indeed, since the last decade, a considerable amount of research has focused on examining the role of moral identity in promoting prosocial behaviour, especially in children, adolescents and young people (Patrick et al., 2018; Rullo et al., 2021; Li et al., 2021). During this developmental phase, adolescents often go through various identity crises, which is why it is important to address this issue. One possible approach is to emphasise the importance of morality as a fundamental component of self-identity, as a self-regulatory system that guides and motivates a person's intentions and behaviours (Brooks et al., 2013; Lapsley, 2015).

Many empirical studies have leveraged the predictive potential of moral identity construct to assess various forms of prosocial behaviour, encompassing civic engagement (Sunil & Verma, 2018), community service (Hudson & Brandenberger, 2023), volunteering (Molchanov et al., 2021), charitable endeavours or donations (Winterich et al., 2013) and positive social activities (Kaur, 2020). These investigations have yielded encouraging outcomes, demonstrating that the presence of a moral identity as a motivating force for moral behaviour thus makes young people more accountable to society at large. However, challenges arise when young people's moral self-perceptions and their behavioural intentions diverge, leading to questions of integrity (Hertz & Krettenauer, 2016). Empirical studies support this disconnection, showing that adolescents and youth are often driven by the motivation to maintain a positive moral self-image and tend to avoid morally consistent behaviour (Dong, 2021; Dong et al., 2019; Monin & Merritt, 2012). Dong (2021) suggests that this group is more prone to moral hypocrisy than moral integrity, as they fail to enact the moral principles they profess. Thus, research is needed to examine whether moral identity actually manifests itself in the form of prosocial behaviour in adolescents.

Moral emotion and prosocial behaviour

The concept of guilt and shame as self-conscious emotions, proposed by Lewis (1971) and later extended by Tangney and Dearing (2002), might be a useful theoretical framework to explain the links between moral emotions and prosocial behaviour. This framework suggests that shame refers to a global negative evaluation of the self often associated with feelings of worthlessness or inadequacy. Contrastingly, guilt refers to the negative evaluation of specific behaviours or actions of the self that is accompanied by remorse and a desire to make amends for the wrongdoing (Lewis, 1971; Lewis, 2000; Tangney & Dearing, 2002). While guilt is considered exclusively moral and adaptive, shame is often considered maladaptive (Tangney et al., 2007; Tangney & Stuewig, 2004). Nevertheless, there have been calls in prior research to reassess the role of guilt and shame (Miceli & Castelfranchi, 2018; Tangney et al., 2007), as these emotions play an adaptive role in encouraging adherence to moral and social norms. Taken together, several theoretical perspectives shed light on the relationships between cognition, identity, emotion, and adolescents' prosocial behaviour.

Conceptually, guilt is generally regarded as having a stronger moral connotation compared to shame, while shame is seen as less adaptive in promoting adaptive prosocial behaviours (Dempsey, 2017;

Tangney et al., 2007). Although both emotions are distinguished as a function of one's self versus one's behaviour and public versus private, previous studies have found that guilt and shame proneness promote prosocial behaviour (Barón et al., 2018; Rullo et al., 2021). A study conducted by Barón et al. (2018) with teenagers aged 12-14 years showed the significant predictive value of guilt and shame proneness in promoting prosocial behaviour. Furthermore, a study by Olthof (2012) with Dutch teenagers found guilt positively predicted prosocial behaviour, while another study found the same result between shame and emotional prosocial behaviour (Carlo et al. (2012). A meta-analysis that included 42 studies also showed a moderate positive effect size for the relationship between these moral emotions and prosocial behaviour (Malti & Krettenauer, 2013). While the existing literature confirms the positive relationship between guilt, shame and prosocial behaviour, the majority of previous studies have linked shame to antisocial behaviour. Indeed, previous research has consistently found a negative relationship between these negative emotions and prosocial behaviour in adolescents (Rangganadhan & Todorov, 2010; Roos et al., 2014). Some scholars have proposed that the moral movation of guilt and shame may vary across different cultural contexts or be contingent upon the specific measures used to assess prosocial behaviours (Carlo, 2014).

In this vein, Perdani's (2019) study conducted in Malaysia yielded results suggesting that adolescents' high propensity to feel guilt and shame is a positive factor that motivates them to challenge their behaviour, regulate negativity and promote prosocial values in their actions. This study provides the first insight into the Malaysian population, which is characterised as a collectivist society in which cultural and religious factors contribute to an increased tendency to feel guilt and shame. Remarkably, Cucuani et al. (2022) support these findings by assuming that collectivist societies are deeply rooted in cultural, normative and religious beliefs, resulting in individuals within these communities exhibiting an increased propensity to feel guilt and shame when they deviate from societal expectations. (i.e., stage 3 and 4 in Kohlberg and Gibbs model). Consequently, this study offers valuable insights from a cultural perspective by highlighting the positive motivation of guilt and shame proneness in promoting prosocial behaviour. However, considering that the available evidence is limited, further research is necessary to explore these relationships within the context of a collectivist society.

Moral motivation of prosocial behaviour: Different models
While positive associations between moral identity and moral emotion (guilt and shame) have been demonstrated in relation to prosocial behaviours (e.g., Barón et al., 2018; Patrick et al., 2018), less attention has been paid to intervening variables of these relationships, in particular the role of moral judgement. In particular, it is not clear whether or not adolescents' moral judgement plays an intervening role in bridging guilt and shame proneness towards prosocial behaviour. Murphy and Kiffin-Petersen (2017) claimed in their multilevel model that high levels of negative emotion guide individuals in evaluating moral choices and promote prosocial behaviour. This is because self-conscious emotion trigger heightened self-awareness and sensitivity to others' perceptions (de Hooge et al., 2013). Consequently, people who experience guilt and shame not only try to restore their self-image, but also strive to correct moral judgements and regain social acceptance. By behaving prosocially towards others, the social self is indirectly restored. Meanwhile, Garrigan et al. (2018) proposed a model that highlights the importance of emotional processes in individuals' ability to evaluate and make moral decisions. According to their model, emotion play a crucial role in facilitating moral judgements, which in turn motivates moral behaviour in adolescents. Although the theoretical model supports this notion, there is little empirical evidence of how it works in adolescent settings. Therefore, it is important to understand the role of moral judgement in mediating the relationship between adolescents' moral emotion and prosocial behaviour.

In addition, the role of moral judgement may also contribute to the associations between moral identity and prosocial behaviour, as suggested by previous studies (Paramita et al., 2022; Schipper & Koglin, 2021). Based on prior studies, moral identity enhances adolescents' moral judgement, which, in turn, reinforces their engagement in prosocial (Paramita et al., 2022) and altruistic behaviour (Nikdel et al., 2017). These findings align with Schipper and Koglin's (2021) study, which highlight that while the level of moral identity has a direct impact on both moral judgement and moral behaviour, moral judgement ensures the integrity of moral identity through one's actions. It is evident that adolescents with a strong moral identity are more attuned to the norms and principles of prosocial behaviour (Xu & Ma, 2016). The significant association between moral identity and moral responsibility further strengthens the link between moral judgement and the decision-making process, guiding individuals to act in accordance with societal norms (Schipper & Koglin, 2021), potentially reducing the likelihood of moral hypocrisy. Therefore, this study aims to explore the role of moral judgement in mediating the relationship between moral identity and moral emotion towards adolescent' prosocial behaviour.

Present study

Although moral judgement has long been studied in Malaysia, we rarely find empirical evidence on how it mediates the relationship between moral emotion and moral identity towards prosocial behaviour. Moreover, the evidence of how these constructs affect the prosocial behaviour of Malaysian adolescents remain scarce. This study entailed two primary aims. The first was to investigate whether the moral judgement, moral identity and moral emotion have a significant impact on Malaysian adolescents' prosocial behaviour. We hypothesised that all three factors positively associated with prosocial behaviour. Moreover, because moral identity and moral emotion are predictors of prosocial behaviour, the present study also examined whether the impacts are mediated by moral judgement. Hence, we hypothesised that moral judgement mediates the effect of the moral identity and moral emotion on adolescents' prosocial behaviour. Based on theoretical perspectives, models, and previous research, a mediation model is proposed and referred to as "The Mediation Model of Malaysian Adolescents", which includes moral emotions and moral identity as exogenous variables, moral judgement as a mediating variable, and prosocial behaviour as an endogenous variable (Figure 1).
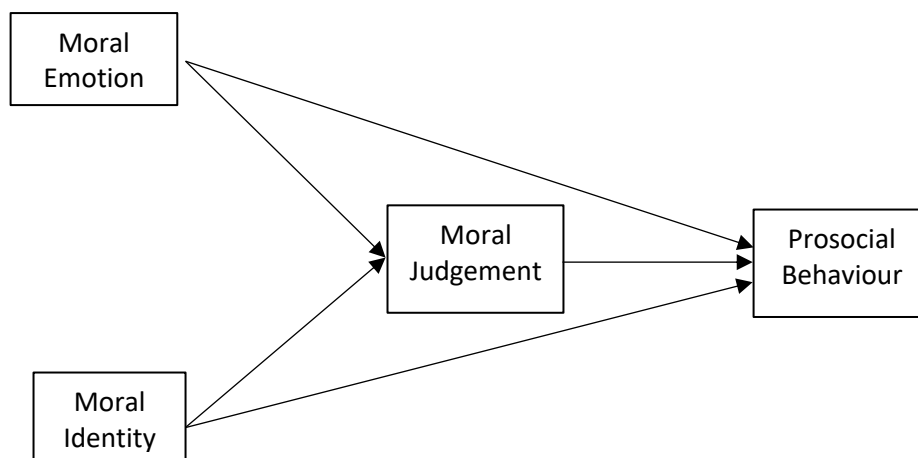

Figure 1. Moral judgement as a mediator between moral emotion, moral identity, and prosocial behaviour.

METHODOLOGY

Participants

A total 393 adolescents participated in this research. The adolescents were from 12 national secondary schools covering all 10 districts around the Selangor, Malaysia. This sample consisted of 170 males and 223 females (Mage = 16.0 years). The sample reported their ethnicity as Malay (81.2%, n = 319), Indian (15.3%, n = 60), Chinese (2.0%, n = 8), native people of Sabah and Sarawak (1.3%, n = 5) and Indonesian (0.3%, n = 1). Of the participants, 82.7% are Muslim; 14.5% are Hindu; 2.0% are Buddhist; 0.8% are Christian.

Procedure

Permission to conduct the study was obtained from Educational Planning and Policy Research Division (EPRD), Ministry of Education (MoE) Malaysia. Along with that a state level approval was obtained from Selangor State Education Department (JPN) and also from the respective school boards. All participants completed their survey in classroom during school hours. The researchers involved in the data collection, provided an explanation and subsequently distributed the forms, addressing any queries from students regarding the completion of the questionnaires.

Measures

Sociomoral reasoning maturity

Adolescents' moral judgement maturity was measured using the Sociomoral Reflection Measure-Short Form Objective (SRM-SFO; Brugman et al., 2023). The SRM-SFO is an instrument that integrates the dilemma-free format (Gibbs et al., 1992) and the stage-related reasoning components of a recognition measure (Basinger & Gibbs, 1987). The SRM-SFO is composed of 10 item sets that are categorised into four domains of values: Contract and Truth (Items 1-4), Affiliation (Item 5), Life (Items 6-7), and Property, Law, and Legal Justice (Items 8-10).

Each item set in the SRM-SFO consists of three parts. Firstly, it begins with an introductory stem related to specific value areas (e.g., "How important is it for people to keep promises, if they can, to friends?"). This section assesses the respondents' value interest in general. Respondents indicate their response ranging from not important to important and very important. Secondly, the item set presents a question that pertains to the previously evaluated value (e.g., "If you had to give a reason WHY it is IMPORTANT to keep a promise to a friend if you can, what reason would you give?"). This question is followed a series of four stage-keyed statements, which are provided in a randomised order representing stages 1 to 4 of Gibbs' (2019) sociomoral developmental stages. Participants assess each reason (e.g., reason A: because your friend helped you a lot and you need a friend) using three response options: (a) closely aligned with their own justification, (b) not closely aligned with their own justification, or (c) uncertain regarding their own justification. Finally, the third part of the item set involves choosing the best reason from the four presented options. Respondents select the reason that is closest or most representative of their own justification.

The total score for the Sociomoral Reflection Maturity Percentage (SRMP) protocol is derived by assessing the 10 item sets, which indicate the level of moral judgement. The SRMP signifies the average percentage of accepted mature responses among the total potential mature responses provided by the respondents. The percentage of mature responses ranges between 0 to 100 (from completely immature to completely mature). Missing values were handled according to the rules

established by Brugman et al. (2023). This scale demonstrated acceptable reliability in previous studies (Brugman et al., 2023; Sathish Rao., 2018). In this study, Cronbach's alpha was 0.74.

Guilt and shame proneness

Adolescents' moral emotion of guilt and shame were measured via Guilt and Shame Proneness Scale (GASP; Cohen et al., 2011). The GASP consists of a total of 16 items, which are further divided into four sub-scales, each consisting of four items: Guilt–Negative-Behaviour-Evaluation (NBE), Guilt-Repair, Shame–Negative-Self-Evaluation (NSE), and Shame-Withdraw. Each item presents a scenario that may elicit feelings of guilt or shame, or describes a response to a situation that induces guilt or shame. Example of item of Guilt-NBE included: "You lie to people but they never find out about it. What is the likelihood that you would feel terrible about the lies you told?". Respondents rate their likelihood of experiencing the emotion or taking the action depicted in the scenario on a 7-point Likert scale (e.g., 1 = very unlikely to 7 = very likely). A higher score noted as higher proneness of guilt and shame. In this study, we used the total mean score of the scale. The reliability of the GASP has been demonstrated in several studies (Alabèrnia-Segura et al., 2022; Bottera et al., 2020) and shows good consistency. In this study, the obtained Cronbach's alpha coefficient was 0.71 indicating a satisfactory scale.

Moral identity

Adolescents' moral identity was measured using Moral Identity Questionnaire (MIQ; Black & Reynolds, 2016). The MIQ consists of 20 items, with 8 items assessing the Moral Self subscale and 12 items assessing the Moral Integrity subscale. Respondents indicate their agreement or disagreement with each item on a 6-point Likert scale. The Moral Self subscale measures the extent to which respondents identify with moral values, whereas, Moral Integrity subscale assesses integrity in actions performed either in private or in public. Example items include: "I try hard to act honestly in most things I do (Moral Self)" and "As long as I make a decision to do something that helps me, it does not matter much if other people are harmed (Moral Integrity)". As the items in the Moral Integrity subscale are negatively worded, they were reverse-coded. The mean scores of these subscales were used in the analysis, and high scores indicate high level moral identity. A study conducted by Abbasi Asl and Hashemi (2019) showed a good reliability of the scale. This study revealed a Cronbach's alpha coefficient of 0.7, indicating a satisfactory scale.

Prosocial behaviour

The Prosocial Tendencies Measure-Revised (PTM-R; Carlo et al., 2003) was adapted to assess adolescents' tendency to engage in certain types of prosocial behaviour. The PTM-R instrument is a self-assessment or self-report measure that has been widely used in the 21st century and is used in more than 25 countries (Martí-Vilar et al., 2019). Originally, the PTM-R comprised 21 items, distributed across six subscales: emotional (5 items), dire (3 items), anonymous (4 items), compliant (2 items), altruistic (4 items, reverse coded), and public (3 items) (Carlo et al., 2003). However, in this study, slight modifications were made to the instrument based on the adaptation by Kou et al. (2007). Three additional items were included for the compliant subscale to address its limited item count, while one item with redundant meaning was removed from the public subscale and one item added. In total, there are 24 items with the same 6 subscales. These adjustments were aimed at improving the reliability of the compliant and public subscales and ensuring that reliability criteria were met (Kou et al., 2007). Example items include: "It makes me feel good when I can comfort someone who is very upset" (emotional) and "I tend to help people who are hurt badly" (dire). Participants rated their prosocial tendencies on a 5-point Likert scale (e.g., 1 = does not describe me at all to 5 = describes me greatly) with overall higher scores indicating a stronger tendency towards

prosocial behaviour. Previous study (Li et al., 2018; Ngai & Xie, 2018) employing modified versions of the instrument have demonstrated satisfactory and good reliability. In this study, the reliability was high (Cronbach Alpha = 0.83).

Data Analysis

Descriptive statistics and collinearity diagnostics were computed using SPSS version 28 (IBM Corporation, 2019). AMOS application version 27 (Arbuckle, 2013) was used to perform structural equation modelling (SEM) analysis in this study, enabling the examination of correlation, path analysis, and mediation. The goodness of model fit was evaluated by considering various indices, including the Chi-Square statistic index ($\chi2$ or CMIN; $p < 0.05$), Relative Chi-Square and degrees of freedom ($\chi2$ /df < 5.0), Root Mean Square Error of Approximation (RMSEA < 0.08), Standardized Root Mean Residual (SRMR < 0.08), Comparative Fit Index (CFI ≥ 0.90), Tucker Lewis Index (TLI ≥ 0.90), and Akaike Information Criterion (AIC; lower values indicating better model fit) (Hair et al., 2022). All possible direct paths in the model were estimated.

The mediation effect was evaluated using the bootstrapping method with 95% confidence intervals (5,000 repetitions). Prior research suggests that bootstrapping is less biased and do not rely on assumptions about the distribution of indirect effect (*ab*) (Hayes, 2013). In addition to reporting the significance of the parameter, the confidence interval obtained through bootstrapping provides supplementary evidence regarding the stability of the coefficient estimate (Hair et al., 2022). Notably, the bootstrapping method is well-suited for use with large sample sizes, as in this study (n > 300), as it does not necessitate the assumption of normality (Hayes, 2013).

RESULTS

Preliminary Analysis

Descriptive statistics and intercorrelations among the primary study variables are presented in Table 1. The examination of the normality of the study variables revealed that all followed a normal distribution, as supported by previous literature (Hair et al., 2022; Tabachnick & Fidell, 2019). As shown in Table 1, adolescents showed higher levels of guilt and shame proneness and moral identity, while their tendencies towards prosocial behaviour remained moderate. Notably, they have showed a higher levels of moral judgement maturity. These descriptive analyses collectively indicate that adolescents maintain high levels of moral judgement, moral emotion and moral identity remain high, while their tendencies in engaging prosocial behaviour is at a moderate level. This observation effectively addresses the first research question, shedding light on the state of adolescents' moral motivations and tendencies towards prosocial.

Bivariate correlations demonstrated significant associations among both the observed and latent variables, indicating their interrelatedness. Specifically moral emotion of guilt and shame was positively associated with moral judgement and prosocial behaviour. Moreover, Moral identity was also positively related to moral judgement and prosocial behaviour. Additionally, moral judgement was positively related with prosocial behaviour. This analysis provides a conclusive answer to the second research question.

Table 1. Means, standard deviation and bivariate correlation between main study variables

Variables		1	2	3	4
1	Moral emotion				
2	Moral identity	0.43**			
3	Moral judgement	0.36**	0.39**		
4	Prosocial behaviour	0.27**	0.42**	0.29**	
	Mean (M)	5.27	4.32	67.51	3.67
	Standard deviation (SD)	0.87	0.87	13.73	0.63

Note: n = 393; ** = $p < 0.01$

Analysis

To assess the relationship between the individual constructs, the validity and reliability of the constructs were first evaluated. To establish convergent validity and construct reliability, we examined the standardised factor loadings, construct reliability (CR) and average variance extracted (AVE) for each construct. Factor loadings were higher than 0.5 and not exceeding 1.0, CR for each construct was above 0.7, and the AVE exceeded 0.4. Despite the AVE value falling below threshold of, it can still be deemed acceptable based on the criteria proposed by Fornell and Larcker (1981), which suggests that an AVE value above 0.4 can be acceptable if the CR value exceeds 0.7. Therefore, all constructs demonstrate sufficient convergent validity. Lastly, discriminant validity was assessed by examining inter-construct correlations and it does not exceed 0.90 and the value of AVEs were greater than squared correlation (r^2) value. These results support the sufficient validity and reliability of the constructs in the model (Fornell & Larcker, 1981; Hair et al., 2022) and structural model was established.

The hypothesised model fit the data well: n = 393, χ^2 (df, p) = 74.429(59, 0.00), χ^2/df = 1.262, RMSEA = 0.026, SRMR, 0.034, CFI = 0.991, TLI = 0.988 and AIC = 138.429. As shown in Figure 2 and Table 2, the result indicated that moral identity was significant and positively related to prosocial behaviour (β = 0.294, SE = 0.095 p = 0.001) and moral judgement ((β = 0.325, SE = 1.895 p = 0.000). Similarly, moral judgement was significantly and positively related to prosocial behaviour (β = 0.291, SE = 0.003 p = 0.028). However, moral emotion of guilt and shame was not related with prosocial behaviour, but significantly and positively associated with moral judgement ((β = 0.211, SE = 1.197 p = 0.001). The first path model explained 22% in prosocial behaviour. Meanwhile, second path model explained 21% in moral judgement. These path models highlight that moral identity is positively linked with both prosocial behaviour and moral judgment. Meanwhile, moral emotion was found to be positively linked solely with moral judgment, thus providing insight into the answer to the third research question.
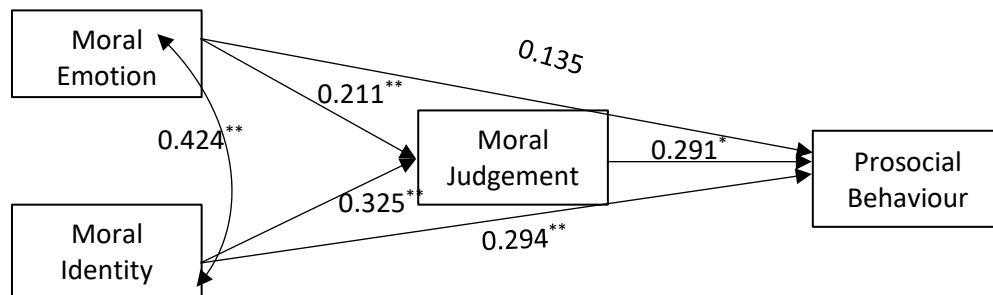
Figure 2. The mediation model of moral emotion and moral identity on adolescents' prosocial behaviour. Note: *n* = 393; * = *p* < 0.05; ** = *p* < 0.01. Standardised estimates and significant path are presented.

Table 2. Direct pathways from moral emotion to prosocial behaviour

Construct	B	SE	Beta	CR	*p*
Outcome = Prosocial behaviour					
Moral emotion	0.074	0.057	0.135	1.289	0.098
Moral Identity	0.302	0.095	0.294	3.194	0.001
Moral Judgement	0.006	0.003	0.291	2.998	0.028
R = 0.465 *R²* = 0.22					
Outcome = Moral Judgement					
Moral emotion	3.905	1.197	0.211	3.263	0.001
Moral Identity	7.593	1.895	0.325	4.008	0.000
R = 0.458 *R²* = 0.21					

Note: *n* = 393; Outcome = outcome measure; B = *Unstandardised Estimates*; SE = *Standard Error*; Beta = *Standardised Estimates*; CR = *Coefficient Ratio*; *p* = significant value (*p* < 0.05).

Table 3. Mediation effect of moral judgement in the relationship between moral emotion and moral identity towards prosocial behaviour.

Model/ Hypothesised paths	Beta	*p*	95% CI Bootstrap BC	
			LB	UB
Direct Model				
Moral emotion → Prosocial behaviour	0.178	0.008		
Mediation Model				
Moral emotion → Prosocial behaviour	0.135	0.098		
Standardised Indirect Effect (SIE)	0.029	0.024	0.003	0.076
Direct Model				
Moral Identity → Prosocial behaviour	0.341	0.000		
Mediation Model				
Moral Identity → Prosocial behaviour	0.294	0.001		
Standardised Indirect Effect (SIE)	0.044	0.028	0.005	0.104

Note: *n* = 393; Beta = *Standardised Estimates*; *p* = significant value (*p* < 0.05); 95% confidence intervals; LB = Lower Bound; UP; Upper Bound.

In this model, mediation analysis tested whether moral judgement mediates the effect of moral emotion and moral identity on adolescents' prosocial behaviour. As shown in the Table 3, the relationship between moral emotion and prosocial behaviour was fully mediated by moral judgement (β SIE = 0.029; CI = [0.003, 0.076]; $p < 0.05$). That is, adolescents who demonstrated high moral emotion of guilt and shame judged the prosocial behaviour as being morally upright, subsequently predicted a greater tendency to engage in prosocial acts.

On the other hand, the relationship between moral identity and prosocial behaviour was only partially mediated (β SIE = 0.044; CI = [0.005, 0.104]; $p < 0.05$). This shows that adolescents' who demonstrated high moral identity judged the prosocial behaviour as reflections of their moral selves and morally right, leading to an increased tendency to engage in prosocial behaviour. Thus, the association between moral emotion and prosocial behaviour exhibited an indirect pathway, whereas the link between moral identity and prosocial behaviour manifested as a combination of indirect and direct effects. These findings highlight the significance of moral judgement as a mediator in both the relationship between moral emotion and prosocial behaviour, as well as between moral identity and prosocial behaviour. This addresses the fourth and fifth research questions. Hence, the proposed model "The Mediation Model of Malaysian Adolescents" is accepted.

DISCUSSION

This study aimed to examine the moral motivation factors in predicting prosocial behaviour tendencies, as well as empirically demonstrate the crucial role of moral judgement in linking moral emotion of guilt and shame with moral identity in predicting prosocial behaviour among adolescents. Consistent with our expectations, each factor showed some degree of predictive power on adolescents' prosocial behaviour. While no significant direct effect was observed between moral emotion and prosocial behaviour, moral identity exhibited direct positive effect with adolescents' tendency for prosocial behaviour and also their moral judgement. However, heightened moral emotion of guilt and shame were found to have a significant role in shaping adolescents' moral decision-making processes, which subsequently directly and positively predicted their level of moral judgement maturity. Moreover, adolescents' moral judgement maturity showed a positive effect on prosocial behaviour. As far as our understanding extends, this study constitutes the initial endeavour to examine the collective impact all three moral motivation for prosocial behaviour.

This study found that moral identity had the most significant impact on both adolescents' prosocial behaviour and moral judgement. The findings of this study are consistent with previous studies (Kaur, 2020; Patrick et al., 2018) which found that moral identity emerged as a pivotal factor, surpassing moral judgement, in explaining prosocial behaviour. Adolescents with strong moral identity tend to be more actively involved in civic activities, community service, and volunteering (Sunil & Verma, 2018; Hudson & Brandenberger, 2023), reflecting their heightened inner moral commitment. This result supports Blasi's (2005) approach, which considers the integration of identity and morality as the basis for a person's personal development, making it a source of moral motivation for prosocial behaviour. In the school context, adolescents engage in collaborative activities with greater enthusiasm when they are given responsibility (identity) in the classroom (Mahwish & Hussain, 2018). Such situation occurs when adolescents' moral integrity and moral desire are guided by intact social relationships with their teachers, schools and school communities. The moral agent in the teenager's environment thus plays an important role in ensuring that the moral identity possessed by the teenager can be displayed through prosocial behaviour. This further

strengthens the teenager's moral integrity by ensuring that their behaviour is always based on moral principles.

Furthermore, moral judgement also had a significant impact on prosocial behaviour of adolescents. These findings align with previous research (Ding et al., 2018; Patrick et al., 2019) that emphasises the role of evaluating the moral implication and anticipating the consequences of actions in shaping individuals' propensity for prosocial behaviour. This reveals that adolescents' ability to assess the positive and negative outcomes of decisions positively affects their adherence to community norms, particularly in fostering a sense of community. Consequently, these findings emphasise the direct motivation of matured moral judgement in stimulating individuals' engagement in prosocial behaviour both within and beyond the school environment. This finding is consistent with Gibbs' theory (2019), which emphasises the importance of deep moral understanding and decision-making skills, especially in early and mid-adolescence. This is because this stage of development is often associated with risk and stress. To combat disciplinary and antisocial problems that are common among adolescents, fostering moral judgement equips them to cultivate morally upright and balanced thinking as they engage with the outside world. Consequently, schools and especially educators should use moral judgement to promote prosocial tendencies through various social activities that support adolescents' critical thinking.

One of the notable contributions of this study is the mediating role of moral judgement in the relationship between moral emotion of guilt and shame and prosocial behaviour. Moral emotion of guilt and shame, while not predictive of prosocial behaviour, were indirectly predictive via moral judgement. In contrast to previous research indicating negative associations between these emotions and prosocial behaviour (e.g., Rangganadhan & Todorov, 2010; Roos et al., 2014), our findings are consistent with other studies that have demonstrated positive associations between moral emotion of guilt and shame and prosocial behaviour (e.g., Gülseven et al., 2022; Perdani, 2019). Adolescents who experience positive feelings of guilt and shame often engage in prosocial behaviour to promote their own future well-being (Cucuani et al., 2022). These emotions can motivate them to become more empathetic, to respect and value themselves, to admit mistakes, and to strive to correct them through prosocial actions (Barón et al., 2018; Schalkwijk et al., 2016). This is consistent with collectivist cultures such as Malaysia, where guilt and shame are considered important emotional experiences that encourage individuals to reflect on their morality and take responsibility for their actions (Perdani, 2019). This motivation is particularly important as guilt and shame require a heightened capacity for empathy, whether through cognitive means (perspective taking or moral reasoning) or affective means (expressing concern), to empathise with the plight of others and seek to change their behaviour as a form of reparation for their mistakes. Thus, through a matured moral judgement, guilt and shame can indirectly promote prosocial behaviour.

Furthermore, this study found that moral judgement partially acts as a mediator in the relationship between moral identity and prosocial behaviour. This finding is consistent with a previous study by Paramita et al. (2022), which showed that ethical judgements mediated the relationship between moral identity and social behavioural intentions among Indonesian adolescents. Similarly, a study in Iran found that moral judgement maturity (i.e., moral self) positively predicted adolescents' propensity to engage in altruistic behaviour (Nikdel et al., 2017). These findings highlight the positive effect of moral identity on moral judgement and facilitate the processing of information that is consistent with moral principles (Rullo et al., 2021; Schipper & Koglin, 2021). By applying moral criteria, adolescents can judge the moral nature of their actions. Hence, adolescents who possess a strong moral identity assess their behaviour against their held moral values, deeming them morally

upright, thus promoting prosocial behaviour. The findings of this study align with Blasi's (1984) perspective, highlighting the importance of a strong moral identity in fostering responsible judgement, maintaining integrity and preventing moral hypocrisy in adolescents' behaviour. By cultivating moral judgement, adolescents are better equipped to make morally sound decisions and avoid inconsistencies between their values and actions, thus promoting coherence and sincerity in their moral conduct.

Limitations and future research
The present study possesses several strengths in comparison to prior research on moral judgement and prosocial behaviour. First, we integrated all four major moral domains (i.e., cognition, emotion, identity and behaviour) into one model. Second, we used measures with a strong psychometric property, ensuring the reliability and validity of the data. Third, the study explored not only the direct associations between guilt, shame, moral identity, and prosocial behaviour but also examined the indirect pathways involving moral judgement as a mediator. Lastly, while most previous studies have examined the negative impact of the moral emotion of guilt and shame, this study suggests a positive significant link and indirect impact via moral judgement in understanding prosocial behaviour and moral development in adolescents.

This study has several limitations. First, the sample consisted solely of 16-year-old secondary school students, limiting the generalisability of the findings to other populations such as children or adults. Other age group within the adolescence category would require future studies in order to generalise. Second, the respondents in the study were also not selected based on gender as the focus of the study was not on this demographic factor. For future studies, it is recommended to consider gender difference to provide valuable insights on how male and females varied in moral emotion, moral identity, moral judgement and prosocial behaviour. Finally, the current study did not examine the causal relationships among the specific dimensions of each construct for each dimension within the construct. Therefore, future research should focus on exploring the causal pathways of individual dimensions within constructs, as suggested by previous studies and instrument editors.

CONCLUSION

Moral judgement is an important moral cognitive skill that contributes to positive moral development in adolescents. In this study, higher levels of moral judgement in adolescents were found to be related to higher levels of prosocial behaviour. Our mediation analysis showed that feelings of guilt and shame may indirectly contribute to prosocial behaviour in adolescents by developing mature moral judgement. In addition, adolescents are better able to make morally informed decisions, and with a higher level of moral identity, they tend to avoid contradictions between their values and actions, which promotes coherence and sincerity in their moral behaviour. Thus, developing moral judgement in adolescents by fostering moral motivation enables them to be prosocial in their actions.

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