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Bridging the gap between students' values and classroom behaviour: the moderating role of self-determined motivation

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ABSTRACT

Educators strive to instil values in students, as these personal principles are believed to guide children's behaviour. However, research indicates the link between values and behaviour is weaker than anticipated. This study integrated Schwartz's Theory of Basic Personal Values and Self-Determination Theory to explore whether the relationship between students' values and their corresponding classroom behaviours is moderated by the type of motivation driving these behaviours. A sample of 562 fifth-grade students reported their values and motivation for value-congruent behaviours, and homeroom teachers assessed students' classroom behaviours. The results revealed that while students' values were not uniformly related to value-congruent behaviours, autonomous motivation had a positive effect across all behaviour types, whereas controlled motivation had a negative or no effect. Finally, autonomous motivation moderated the relationship between self-transcendence values and supportive behaviour, and between conservation values and disciplined behaviour, underscoring its crucial role in translating values into behaviours in educational settings.

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Introduction

Emerging evidence suggests students' personal values significantly influence their learning approaches and manifest in classroom behaviours from the early years of schooling. These value-driven behaviours, including prosocial actions, self-discipline, learning orientation, and achievement-driven conduct (e.g. Benish-Weisman et al., 2022), not only enrich immediate educational experiences but also lay crucial foundations for long-term academic and social success. However, the relationship between values and actions is more complex than it appears, often more modest than expected (Cieciuch, 2017) or in some cases, entirely absent (Sagiv & Roccas, 2021). This discrepancy underscores the challenge of translating abstract values into consistent,

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concrete behaviours (Bardi & Schwartz, 2003), a task that can be particularly difficult for children whose abstract thinking skills are still developing (Benish-Weisman et al., 2019).

At the core of this challenge lies a central question: what enables values to manifest in behaviour? Values, as overarching life goals, offer clear direction—they clarify what matters and orient individuals towards meaningful aspirations. Yet this directional function alone is often insufficient to drive behaviour, particularly in educational settings where students must regularly manage distractions and competing demands (Benita et al., 2022). In this sense, while values indicate where to go, they do not necessarily supply the psychological fuel needed to get there. Hence, additional motivational forces may be required to energise and sustain value-congruent behaviour.

Self-Determination Theory (SDT; Ryan & Deci, 2017, 2020) offers a nuanced understanding of such energising motivational forces. Specifically, it suggests the motivation—either autonomous or controlled—underlying a behaviour plays a key role in determining not only whether students will engage in a behaviour, but also the quality of that engagement: how persistently, meaningfully, and with what degree of personal investment they will act. In this study, we claim the motivation underlying classroom behaviour can significantly amplify or attenuate the relationship between values and classroom behaviours. In other words, we claim students' values will be manifested in their classroom behaviours to the extent that their motivation for engaging in those behaviours is autonomous and non-controlled.

Schwartz's theory of basic personal values: Relationship between values and classroom behavior

Schwartz's Theory of Basic Personal Values (1992) is the primary framework for understanding the core aspects, development, and impact of human values worldwide (Sagiv et al., 2017; Schwartz & Rubel-Lifschitz, 2009). According to this theory, values constitute abstract aspects of oneself, mirroring personal life priorities and serving as overarching desirable goals. In Schwartz's model (see Figure 1), ten universal values form a circular continuum, grouped into four higher-order categories: self-enhancement, self-transcendence, conservation, and openness-to-change. Values adjacent on the circle share a similar motivational objective, while those in opposite positions have different motivational objectives. For instance, *self-enhancement* values are opposed to *self-transcendence* values; the former values, such as achievement and power, emphasise personal success and control over others, while the latter, such as universalism and benevolence, prioritise concern for others. Similarly, *conservation* values, encompassing values like security and conformity, underscore the importance of preserving the status quo, while the opposite category, *openness-to-change* values, incorporating values such as hedonism, stimulation and self-direction, highlight autonomy and independence of thought and actions.

The motivational aspect of values is highlighted by their role in influencing behaviour, guiding the selection of actions aligned with one's core life goals (for a review, see Roccas & Sagiv, 2017). While research has traditionally focused on adults or adolescents, recent studies have expanded to include middle childhood (ages 6–11), a historically less studied demographic group in this area of research



Figure 1. The Schwartz Basic Values model (adapted from Benish-Weisman, 2024).

(Daniel et al., 2020). Middle childhood is a pivotal developmental stage characterised by rapid cognitive, emotional, and social growth. During this period, children form lasting friendships, develop essential skills, and increasingly express their unique selves – all of which significantly shape their future development (DelGiudice, 2018; Huston & Ripke, 2006). As for personal values, research suggests that at this stage, children already show a value structure aligned with Schwartz's model, including internal dynamics and conflicts (Ciecuch et al., 2016; Knafo & Spinath, 2011). A recent review further points to this period as an important phase of emerging value maturity, characterised by increasing coherence, stability, and behavioural relevance, particularly around age 10 (Knafo-Noam et al., 2024).

Indeed, emerging evidence shows during middle childhood, children's values shape their social interactions, influencing their behaviours from prosocial acts to aggression (Benish-Weisman et al., 2019; Daniel et al., 2020; Misgav et al., 2023). Within the school environment, where students spend considerable time engaging both academically and socially, recent studies at primary and middle school levels highlight the role of higher-order values in shaping key classroom behaviours. Findings show self-enhancement values promote achievement-driven behaviours, self-transcendence values foster supportive interactions, conservation values encourage disciplined conduct, and openness-to-change values stimulate curiosity and learning engagement (Benish-Weisman et al., 2022; Berson & Oreg, 2016; Scholz-Kuhn et al., 2023).

This evidence underscores the profound influence of values on daily school life and their potential to foster long-term educational and social success. Building on these findings, we aimed not only to examine the relationship between primary school students' values and their behaviours, but also to explore the factors that may amplify or attenuate this relationship.

Why values are not always manifested in value-congruent behaviors?

Despite the aforementioned points, research shows that the relationships between values and value-congruent behaviours are often modest (Cieciuch, 2017; Schwartz et al., 2017), and in some cases, values fail to manifest in behaviour at all (Elster & Gelfand, 2021). These findings indicate that even when individuals strongly endorse particular values, they do not consistently behave in ways that reflect them.

Motivational literature offers a useful lens for understanding the value–behaviour gap by distinguishing between two key components of action: direction and energisation (e.g. Elliot & Sommet, 2023; Elliot & Thrash, 2001). Direction defines the goal—what individuals strive for—while energisation is the force that initiates, sustains, and mobilises effort, especially when facing obstacles or competing demands. Values, as overarching life goals, provide direction by clarifying what matters and orienting individuals towards meaningful aspirations. Yet their abstract nature makes them difficult to translate into behaviour (Bardi & Schwartz, 2003), particularly in contexts requiring immediate, situation-specific responses (Eyal et al., 2009; Trope & Liberman, 2010). In this sense, values may be likened to a map: they indicate where to go but may not inherently supply the energy needed to get there.

Turning values into action, therefore, often requires additional motivational resources that can energise behaviour and sustain meaningful engagement. For example, Maio and Olson (1994) found that value-expressive attitudes—reflecting one's values—strengthen the value–behaviour link, whereas utilitarian attitudes—focused on practical outcomes—tend to weaken it. Ponizovskiy et al. (2019) highlighted the importance of value-instantiating beliefs: individuals are more likely to act on their values when they perceive a specific behaviour as a tangible expression of that value. Similarly, Verplanken and Holland (2002) found that values guide behaviour more when activated in the moment.

Recently, Sagiv and Roccas (2021) suggested that since values are integral to the self, translating them into behaviour requires volitional and intentional self-regulation rather than yielding to external pressures. In other words, value-congruent behaviour is more likely when guided by inner goals and fuelled by a genuine sense of willingness. This distinction between volitional (or autonomous) and controlled self-regulation of behaviour is at the heart of SDT (Ryan & Deci, 2017, 2020).

SDT's distinction between autonomous and controlled motivation

SDT (Ryan & Deci, 2020) is a fundamental framework for understanding human motivation, particularly in educational contexts. Central to the theory is a continuum of self-regulation, reflecting the reasons individuals engage in behaviour, ranging from external to internal motivation regulation. External regulation occurs when behaviour is motivated by external rewards or punishments. Introjected regulation is slightly more internal, as behaviours are motivated by the desire to avoid negative emotions, such as shame or guilt, or to boost self-esteem. In both cases, behaviour is influenced by external sources, leading individuals to feel controlled by outside forces. Thus, these forms of regulation constitute *controlled motivation*, representing only partially internalised behaviours and considered maladaptive.

The other types of self-regulation are more internalised and are therefore considered autonomous, as they involve the experience of being the origin of one's own behaviour. These types include identified regulation, where behaviour is enacted because one acknowledges its importance, and it is compatible with one's values and goals, integrated regulation, where behaviours are enacted because they are fully compatible with one's identity, and intrinsic regulation, where behaviours are carried out for the pure enjoyment or satisfaction derived from them. Together, these types form *autonomous motivation*, representing fully internalised behaviours and considered adaptive.

In educational settings, autonomous motivation is consistently linked to positive classroom behaviours from early schooling through higher education (Bureau et al., 2022; Guay et al., 2008). Among elementary students, it is associated with higher academic performance, reflected in greater engagement, persistence, and sustained learning (Gordeeva et al., 2018; Wang et al., 2024). Studies with secondary students show that autonomous motivation also predicts prosocial behaviour (Collie, 2022) and exploration of new ideas (Lazarides et al., 2016). Conversely, controlled motivation is consistently linked to less favourable outcomes from elementary school onward, including lower engagement, poorer academic performance (Assor et al., 2005; Howard et al., 2021), reduced prosocial behaviour, and increased conduct problems (Collie, 2022).

Self-Determined motivation as a moderator of the relationship between values and behavior

In psychological research, vitality refers to the subjective experience of energy, a dynamic sense of being alive, alert, and fully engaged, and is recognised as a core indicator of psychological well-being and optimal functioning (Nix et al., 1999; Ryan & Frederick, 1997). According to SDT, vitality is most fully realised when individuals are autonomously motivated. When people act based on genuine interest or personal convictions, they experience a sense of energised engagement and sustained effort, while perceiving less strain in the process. In contrast, controlled motivation—driven by external pressure or inner compulsion—tends to deplete this resource, often leading to fatigue, disengagement, and a diminished sense of purpose (Martela et al., 2016; Ryan & Deci, 2017). From this perspective, motivational regulation emerges as the energising force that values may not inherently supply. While values define *what* matters by offering broad and enduring direction, motivation governs *why* individuals act and with *what energy* their actions are carried out.

Notably, values and motivation differ in their contextual characteristics. Once internalised, values remain relatively stable over time and across situations (Cieciuch et al., 2016; Knafo-Noam et al., 2024). In contrast, the quality of motivation—autonomous or controlled—is more fluid and sensitive to social contexts. According to SDT, social environments play a central role in shaping motivational regulation from early childhood (Ryan & Deci, 2020). Autonomy-supportive environments, often fostered by parents and teachers, promote children's autonomous motivation, whereas controlling contexts tend to foster controlled motivation (Bureau et al., 2022; Schweder & Raufelder, 2024). This responsiveness positions motivation as a potential contextual energiser that can facilitate or hinder the behavioural expression of values. When students are autonomously motivated, values not only provide direction but are also energised

from within—leading to behaviour that is consistent, purposeful, and personally meaningful. In contrast, when motivation is controlled, that inner fuel is lacking, and values may fail to translate into action. In other words, we expect the type of motivation (autonomous vs. controlled) to moderate the effect of values on behaviour.

A similar process has been demonstrated in relation to the goal construct. Like values, goals typically provide direction for behaviour (Elliot & Thrash, 2001). In classroom settings, students commonly adopt achievement goals, defined as cognitive representations of future competence (Elliot & Thrash, 2001). According to achievement goal theory (Elliot, 2005), the type of goal students pursue—mastery or performance—predicts various forms of behavioural regulation and classroom experiences.

A growing body of research shows that the effects of achievement goals on academic outcomes depend not only on the type of goal but also on the reasons underlying its pursuit—whether autonomous or controlled. For instance, Michou et al., (2014) and Gillet et al. (2015) found that pursuing achievement goals for autonomous reasons consistently predicted adaptive outcomes, such as deep learning strategies and academic satisfaction. In contrast, controlled reasons were associated with maladaptive outcomes, including anxiety and surface-level learning. In some cases, when motivational quality was taken into account, the predictive power of the goal itself diminished—highlighting that the quality of motivational energy may be even more influential than the goal's content.

Furthermore, several studies (Benita et al., 2014, 2022; Gaudreau, 2012) demonstrated that autonomous motivation not only predicts academic outcomes above and beyond the type of goal but also moderates the effect of goals on these outcomes. Specifically, the link between mastery goals and outcomes such as academic satisfaction, interest, engagement, and achievement was stronger when these goals were pursued for autonomous reasons.

To the best of our knowledge, only one study has examined the interaction between values and motivation, not in predicting behaviour, but in predicting self-efficacy. Barni et al. (2019) found the relationship between teachers' values and their sense of self-efficacy was stronger when teachers' motivation for teaching was autonomous rather than controlled. By suggesting autonomous motivation is a facilitator of the expression of values in positive self-perceptions, this finding raises the possibility that autonomous and controlled motivations might similarly enhance or attenuate the expression of students' values in their behaviours.

The present study

Grounded in Schwartz's Theory of Basic Personal Values (2012) and SDT (Ryan & Deci, 2020), and informed by achievement goal research (Benita et al., 2014, 2022; Gaudreau, 2012) alongside limited empirical work on values (Barni et al., 2019), this study examined the complex interplay between students' values, their motivations underlying value-driven behaviours, and teacher-reported classroom behaviours. Recent research investigating value-behaviour relationships in educational settings (e.g. Scholz-Kuhn et al., 2023) informed our initial hypothesis. We hypothesised students' higher-order values – self-enhancement, self-transcendence, conservation, and openness-to-change – would be positively correlated with their corresponding classroom behaviours: achievement-oriented, supportive, disciplined and learning-oriented behaviours, respectively (H1).

Following Michou et al., (2014) and Gillet et al. (2015), we further hypothesised that autonomous motivation underlying these behaviours, would have a significant positive effect on the behaviours themselves, beyond the effects of the corresponding values alone (H2a). Conversely, controlled motivation would have either a negative effect or no effect on these behaviours (H2b).

Extending theoretical propositions (Sagiv & Roccas, 2021), building on empirical findings by Barni et al. (2019), and drawing on recent insights from achievement goal research (e.g. Benita et al., 2022), we also hypothesised the relationship between students' higher-order values and their congruent classroom behaviours would be moderated by the type of motivation driving these behaviours – autonomous or controlled. Specifically, we predicted students' personal values would be more strongly related to value-congruent behaviour when the motivation underlying the behaviour was autonomous (H3a). Conversely, students' values would be less related to value-congruent behaviour when the motivation underlying the behaviour was controlled (H3b). Importantly, because we did not have priori assumptions regarding which values would be moderated by motivation and which would not, we considered the hypotheses about the types of values to be exploratory.

Method

Participants

Participants were 562 fifth grade students and their 33 homeroom teachers, drawn from 14 urban primary schools in Israel. Students' ages ranged from 10 to 11.5 years (mean = 10.35, SD = .93), with 48.9% identifying as females. All teachers involved were female, with ages ranging from 34 to 56 years (mean = 44.84, SD = 6.39).

Procedure

After gaining approval from the school principal, the research team collaborated with 5th-grade homeroom teachers to facilitate the study. A letter was sent to parents, outlining the study's purpose and providing an opt-out option. Once parental consent was obtained, the team coordinated with teachers to schedule the study. Teachers received questionnaires for themselves and their students. Students were assured anonymity and could skip uncomfortable questions. The questionnaires were administered during a 45-minute class, with staff available for support. Teachers completed their questionnaires at their convenience. To ensure privacy and accurate data matching, each participant was assigned a unique identifier. The study was approved by the Ministry of Education (protocol number: 10694) and the internal Ethical Committee of the University.

Measures

Students' higher-order values

Students' higher-order values were measured using the self-report Portrait Values Questionnaire (PVQ; Schwartz et al., 2001). This questionnaire comprises 40 brief verbal depictions of hypothetical individuals and underscoring the significance of their values

through their goals, aspirations, or wishes. For instance, the item 'It's very important to her/him to help the people around her/him' characterises an individual valuing self-transcendence. Participants were instructed to rate how similar they are to the hypothetical individuals on a 6-point Likert scale ranging from 1 (not like me at all) to 6 (very much like me).

In line with standard procedure to control response tendency, students' responses on the scale were centred on their average response to all questions (Parks-Leduc et al., 2015). After this adjustment, the items were categorised into four value groups according to Schwartz's (1992) theory, and subscale scores were calculated as follows: self-enhancement, 7 items ($\alpha=.76$); self-transcendence, 10 items ($\alpha=.83$); conservation, 13 items ($\alpha=.80$); openness-to-change, 10 items ($\alpha=.76$).

Teachers' reports of students' value-congruent class behaviors

Students' behaviours were evaluated using the Schoolchildren's Class Behaviours Scale (Benish-Weisman et al., 2022; Berson & Oreg, 2016). This teacher-report scale consists of 12 items, with three items allocated to each of the four typical classroom behaviours associated with one of four higher-order value categories. Achievement-oriented behaviour, exemplified by statements like 'Is very competitive in class', aligns with self-enhancement values. Supportive behaviour, such as 'Is responsive to the needs of his classmates', aligns with self-transcendence values. Disciplined behaviour, such as 'Consistently follows and respects the classroom rules', aligns with conservation values. Lastly, learning-oriented behaviour, expressed as 'Truly relishes discovering new things', aligns with openness-to-change values.

Homeroom teachers rated each student in their class based on the described behaviours, indicating how accurately each description matched the child's behaviour on a scale from 1 (never) to 5 (most or all the time). Subscales showed adequate reliability: .81 achievement-oriented, .69 supportive, .95 disciplined, and .85 learning-oriented.

Students' motivation for value-congruent class behaviors

An adapted version of the Self-Regulation Questionnaire (SRQ; Ryan & Connell, 1989) was used to evaluate students' motivation for behaviour across the four behaviours described above. Each behaviour was assessed using a separate questionnaire, introduced by a specific prompt: 'When I help or show consideration towards classmates, I do it because...' (supportive), 'When I try to excel in my teacher's class, I do it because...' (achievement-oriented), 'When I strive to learn new things in my teacher's class, I do it because...' (learning-oriented), and 'When I'm doing what my teacher asks me to do in class, I do it because...' (disciplined). Each questionnaire included 12 corresponding items, with three items per motivational regulation: external (e.g. 'I don't want to be scolded by my teacher or parents'), introjected (e.g. 'If I misbehave, I will feel bad about myself'), identified (e.g. 'It is important for me to follow the rules'), and either intrinsic or integrated regulation, depending on whether the behavioural context might be perceived as enjoyable. Since adhering to rules is less likely to be seen as a fun activity, integrated regulation was used as the most autonomous form in the disciplined behaviour scale (e.g. 'I feel good when I am following the rules').

Students rated each item on a Likert scale ranging from 1 (not at all) to 5 (highly agree). The full list of items, along with confirmatory factor analysis results, is provided in the [Supplemental Materials](#) (Tables S1–S4 show items and CFA results for each questionnaire; Table S5 presents model fit indices). As in previous studies (e.g. Phillips & Johnson, 2018), two factors were computed for each of the four class behaviours: autonomous motivation (identified and integrated/intrinsic regulation), and controlled motivation (introjected and external regulation). Subscales demonstrated excellent reliability, with scores for autonomous and controlled motivation as follows: .85 each for achievement-oriented, .87 and .82 for supportive, .85 and .78 for disciplined, and .85 and .75 for learning-oriented behaviours.

Plan of analysis

To explore associations between the study variables, we computed Pearson correlation coefficients. We subsequently ran a series of regression analyses using Mplus 8.4. (Muthén & Muthén, 2017) with maximum likelihood estimation robust to non-normality (MLR). Four models were evaluated, one for each classroom behaviour outcome. As students were nested within classrooms, we calculated the intraclass correlation coefficients (ICC) for our dependent variables. The ICCs for supportive (0.13), disciplined (0.04), achievement-oriented (0.07), and learning-oriented behaviour (0.07) showed it was important to account for the hierarchical nature of the data. Therefore, we designated class as the 'cluster' variable using the 'Type=Complex' method in Mplus.

The regression analyses were conducted in three hierarchical steps aligned with the three hypotheses. Step 1 (H1) included the higher-order value corresponding to the behaviour together with the other three values as covariates, allowing us to control for shared variance and estimate the unique contribution of each value to its corresponding behaviour. In Step 2 (H2), we added autonomous and controlled motivation underlying the behaviour. Step 3 (H3) introduced the interaction terms by multiplying the centred scales of the higher-order value with the centred scales of autonomous and controlled motivation.

To evaluate the statistical power underlying our findings, we conducted post hoc power analyses using G*Power 3.1 (Faul et al., 2009) with $\alpha = .05$. The observed R^2 values in Step 1 ranged from .015 to .087 ($f^2 = .016$ –.095), and Step 2 models yielded increases in explained variance ranging from $\Delta R^2 = .015$ to .068 ($f^2 = .017$ –.074). Step 3, which introduced the interaction terms, resulted in only small additional increases in explained variance ($\Delta R^2 = .002$ –.011; $f^2 = .002$ –.012). Although modest, such small effect sizes are typical of moderation models, particularly in multi-informant, real-world educational contexts (Cohen et al., 2003; McClelland & Judd, 1993). Importantly, our sample ($N > 500$) provided high statistical power, ranging from .87 to .99, allowing us to detect subtle interaction effects.

Results

Preliminary analysis

Table 1 presents the correlations among the study variables. As the table shows, significant positive relationships between values and value-congruent teacher-reported

Table 1. Descriptive statistics and intercorrelations between the studies' variables.

Variable	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Values (student's report)																
1 Self-transcendence	4.48(.53)	–														
2 Conservation	3.78(.51)	.08*	–													
3 Self-enhancement	3.11(.89)	–.63**	–.54**	–												
4 Openness-to-change	4.31(.53)	–.39**	–.63**	.18**	–											
Autonomous motivation (student's report)																
5 Supportive behaviour	4.19(.79)	.44**	.22**	–.41**	–.25**	–										
6 Disciplined behaviour	3.93(.81)	.22**	.38**	–.34**	–.33**	.57**	–									
7 Achievement behaviour	4.19(.86)	.04	.17**	–.09*	–.16**	.50**	.57**	–								
8 Learning behaviour	3.86(.85)	.25**	.31**	–.33**	–.28**	.57**	.66**	.62**	–							
Controlled motivation (student's report)																
9 Supportive behaviour	2.39(.96)	–.04	.14**	.01	–.14**	.16**	.17**	.13**	.12**	–						
10 Disciplined behaviour	3.12(.98)	.03	.09**	–.01	–.17**	.21**	.33**	.27**	.18**	.58**	–					
11 Achievement behaviour	2.68(1.08)	–.12**	.10*	.10*	–.14**	.07	.17**	.26**	.10*	.68**	.60**	–				
12 Learning behaviour	2.76(.93)	–.15**	.02	.16**	–.09*	.08	.17**	.22**	.06	.61**	.68**	.68**	–			
Classroom behaviour (teacher's report)																
13 Supportive behaviour	3.71(.86)	.17**	.12**	–.13**	–.15**	.20**	.19**	.13**	.21**	–.04	.03	–.04	–.07	–		
14 Disciplined behaviour	4.27 (.85)	.23**	.19**	–.23**	–.21**	.23**	.22**	.13**	.24**	–.03	.09*	–.01	–.03	.65**	–	
15 Achievement behaviour	3.73(.96)	.01	–.04	.08†	–.03	.16**	.13**	.14**	.17**	–.13**	–.06	–.13**	–.10*	.39**	.20**	–
16 Learning behaviour	3.84(.93)	.13**	–.01	–.01	–.09*	.19**	.16**	.11**	.20**	–.10*	–.02	–.13**	–.10*	.62**	.40**	.79**

Note.

† $p < .10$.

* $p < .05$.

** $p < .01$, $N = 562$. Near significant and significant associations are in bold.

behaviours emerged for self-transcendence values/supportive behaviour and conservation values/disciplined behaviour, with a marginal association for self-enhancement values/achievement behaviour. Unexpectedly, openness-to-change values were negatively related with teacher-reported learning behaviour.

Self-transcendence values were positively correlated with autonomous, but not controlled, motivation for supportive behaviour. Conservation values were positively correlated with both autonomous and controlled motivation for disciplined behaviour. Self-enhancement values were negatively correlated with autonomous motivation for achievement behaviour and positively correlated with controlled motivation for achievement behaviour. Openness-to-change values were negatively correlated with both autonomous and controlled motivation for learning behaviour.

Finally, autonomous, but not controlled, motivation for supportive behaviour was positively associated with teacher-reported supportive behaviour. Both autonomous and controlled motivation for disciplined behaviour were positively associated with teacher-reported disciplined behaviour. Autonomous motivation for achievement behaviour was positively correlated with teacher-reported achievement behaviour and controlled motivation was negatively correlated. Autonomous motivation for learning behaviour was positively associated with teacher-reported learning behaviour, while controlled motivation was negatively correlated.

Hierarchical regression analyses

Step 1: Effect of values on classroom behavior

Table 2 presents the results of the hierarchical regression analyses. The first step of the analyses provided partial support for Hypothesis 1, as positive relationships between higher-order values and teacher-reported value-congruent classroom behaviours were found for self-enhancement values/achievement-oriented behaviour, along with a marginally significant positive association between self-transcendence value/supportive behaviour. However, no significant associations were found between conservation values and disciplined behaviour, nor between openness-to-change values and learning-oriented behaviour.

Given that all higher-order values were included in each model, it is noteworthy that no additional associations emerged between values and teacher-reported classroom behaviours. The only exception was self-transcendence values, which also showed marginal positive associations with learning- and achievement-oriented behaviours.

Step 2: Effect of motivations on classroom behavior

The second step of the analysis confirmed Hypothesis 2a, suggesting the positive effect of autonomous motivation goes beyond the contribution of the corresponding values. Specifically, autonomous motivation for each behaviour was positively related to its respective teacher-reported classroom behaviour: achievement-oriented, supportive, disciplined, and learning-oriented. In this step, only self-enhancement values showed positive associations with their value-congruent teacher-reported classroom behaviour.

Table 2. Results of the hierarchical regression analysis.

	Supportive behaviour			Disciplined behaviour			Learning-oriented behaviour			Achievement-oriented behaviour		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Self-transcendence values	0.22[†]	0.09	-0.25	0.14	0.15	0.14	0.25[†]	0.20	0.20	0.21[†]	0.13	0.12
Conservation values	0.16	0.12	0.12	0.07	0.09	-0.29	0.09	0.02	0.01	0.16	0.06	0.05
Openness-to-change values	0.02	-0.03	-0.05	-0.10	-0.04	-0.05	0.02	-0.02	0.23	0.10	-0.01	-0.02
Self-enhancement values	0.09	0.07	0.08	-0.09	-0.04	-0.06	0.19	0.23	0.23	0.28*	0.27*	0.16
Autonomous motivation		0.18**	-0.60*		0.12*	-0.44		0.23**	0.56		0.20**	0.21
Controlled motivation		-0.09*	0.45		0.03	0.04		-0.12**	0.10		-0.21**	-0.36*
Value X Autonomous motivation			1.07**			0.78*			-0.33			0.00
Value X Controlled motivation			-0.55			-0.01			-0.24			0.20
R ²	0.041*	0.064**	0.075**	0.087**	0.102**	0.108**	0.026	0.086*	0.089**	0.015	0.083**	0.085**

Note.
[†]*p* ≤ .06.
**p* < .05.
***p* < .01, N = 562. Significant coefficients appear in bold. All estimates are standardised coefficients. The effects account for the nested data structure using TYPE = COMPLEX in Mplus 8.5.

Additionally, the results supported Hypothesis 2b. Controlled motivation for achievement, supportive, and learning behaviour were negatively related to teacher-reported achievement, supportive, and learning behaviour, respectively. Controlled motivation for disciplined behaviour was unrelated to disciplined behaviour.

Step 3: the moderating role of autonomous and controlled motivation

The third step of the analysis partially supported Hypothesis 3a. Specifically, autonomous motivation underlying supportive behaviour moderated the relationship between self-transcendence values and teacher-reported supportive behaviour. Similarly, autonomous motivation underlying disciplined behaviour moderated the relationship between conservation values and teacher-reported disciplined behaviour. However, autonomous motivation for achievement and learning behaviour did not moderate the relationship between self-enhancement values and teacher-reported achievement behaviour; nor did it moderate the relationship between openness-to-change values and teacher-reported learning behaviour.

Moreover, our analysis did not support Hypothesis 3b, as we did not find significant interaction effects involving students' personal values and controlled motivation. In other words, controlled motivation did not moderate the relationship between students' values and their classroom behaviours as anticipated.

Given the significant interactions, we examined the effects of self-transcendence values on supportive behaviour across varying levels of students' autonomous motivation (see the left panel in Figure 2 and Table 2). At high levels of autonomous motivation (+1 SD), self-transcendence values showed a significant positive effect on supportive behaviour ($\beta=.24$, $SE=.11$, $p=.033$). However, at mean and low levels (0 SD and -1 SD), the effect was not significant ($\beta=.13$, $SE=.09$, $p=.127$; $\beta=.03$, $SE=.09$, $p=.773$, respectively). This indicates that self-transcendence values were only related to supportive behaviour when autonomous motivation was high (a fully attenuated interaction).

Similarly, we examined the effects of conservation values on disciplined behaviour across levels of autonomous motivation (see the right panel in Figure 2 and Table

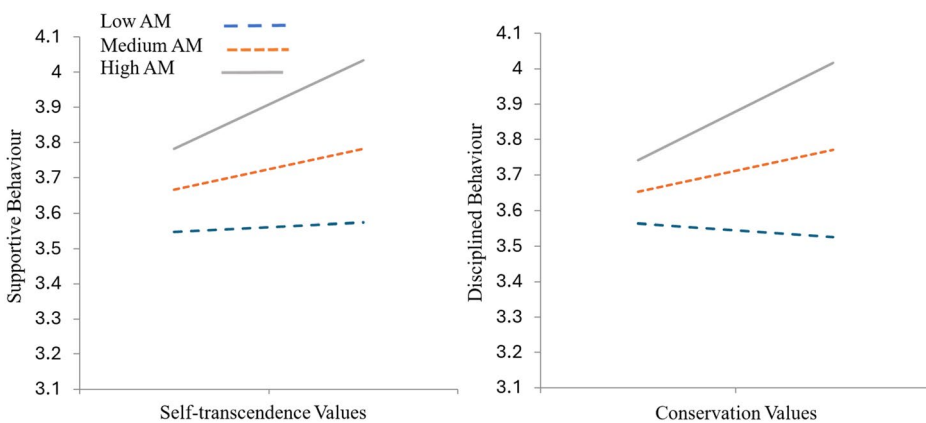


Figure 2. Autonomous motivation (AM) moderation effects.

2). At high and mean levels (+1 SD, 0 SD), conservation values showed a significant positive effect on disciplined behaviour ($\beta=.37$, $SE=.10$, $p<.000$; $\beta=.23$, $SE=.06$, $p<.000$, respectively). At low levels (−1 SD), the effect was not significant ($\beta=.10$, $SE=.08$, $p=.240$). These results suggest the positive correlations between conservation values and disciplined behaviour are more pronounced when autonomous motivation is high but are still evident at average levels (a partially attenuated interaction).

Discussion

Using two key theoretical frameworks, Schwartz's Theory of Basic Personal Values (Schwartz, 1992, 2012) and SDT (Ryan & Deci, 2020), this study explored the complex interplay between values, motivation, and behaviour in fifth-grade students. Our findings challenge the assumptions about the consistency between values and behaviour, as they suggest students' higher-order values do not uniformly relate to their corresponding classroom behaviours. However, autonomous motivation consistently demonstrated a significant positive effect on these behaviours, even when accounting for values. Autonomous motivation also moderated the relationship between certain values and their congruent classroom behaviours, highlighting its crucial role in translating values into behaviour.

Associations between higher-order values, motivation and classroom behavior

Drawing on earlier research (e.g. Benish-Weisman et al., 2022), we hypothesised positive associations between students' higher-order values and their corresponding classroom behaviours. The expected relationships were confirmed for self-enhancement values, where students exhibited achievement-oriented behaviour, and were marginally supported for self-transcendence values, where students displayed supportive behaviour. However, no such relationships emerged for conservation or openness-to-change values, suggesting that students' values are not uniformly reflected in their day-to-day classroom behaviour. Although not fully aligned with our hypothesis, our findings underscore the complexity of translating abstract values into concrete actions (Sagiv & Roccas, 2021).

We found consistent and more robust relationships between autonomous motivation for behaviour and the behaviours themselves, and to a lesser extent, between controlled motivation and behaviour—both surpassing the effects of certain values. In line with findings by Michou et al., (2014) and Gillet et al. (2015), this supports the view that the quality of motivational energy may be even more influential in shaping behaviour than the directional content of the goal or value itself, which likely requires specific conditions to be effectively translated into action.

From values to action: the moderating role of autonomous motivation

As expected, autonomous motivation significantly moderated the link between values and behaviours, but only for self-transcendence and conservation values and their corresponding behaviours. Specifically, students prioritising self-transcendence values

engaged in supportive behaviour only when their autonomous motivation was high. Similarly, students endorsing conservation values exhibited disciplined behaviour primarily when their autonomous motivation was moderate to high. Both value types share a social orientation, with self-transcendence focusing on others' welfare and conservation emphasising the maintenance of societal norms (Schwartz et al., 2012). This shared foundation likely explains why autonomous motivation is crucial for activating these specific values: it provides the vital energy needed to fuel their abstract orientation, enabling their translation into meaningful behavioural engagement.

Beyond creating a more engaging classroom environment, value-motivation interactions may promote students' personal development. Autonomous motivation likely encourages students to act on their values, thus fostering greater coherence and self-congruence (Weinstein et al., 2012). As motivation is sensitive to external influences (e.g. classroom atmosphere; Benita & Matos, 2020), certain contexts may contribute more significantly to students' character development, offering a potential area for future research.

Building on recent achievement goal research showing that autonomous motivation moderates goal effects on classroom outcomes (e.g. Benita et al., 2022), we extend this principle beyond concrete academic pursuits to life's broader guiding principles: personal values. This aligns with Barni et al. (2019) finding that motivation moderates the link between teachers' values and their self-efficacy. Shifting focus from teachers' self-perceptions to students' classroom behaviour as perceived by teachers, we reveal a parallel moderating dynamic in the value-behaviour link among primary students. Finally, by identifying autonomous motivation as key in translating values into behaviour, our results support Sagiv and Roccas (2021) proposition that volitional self-regulation strengthens value-behaviour alignment. Importantly, our study extends these formulations to specific value domains.

Unlike self-transcendence and conservation values, in our study, self-enhancement values did not interact with autonomous motivation to predict behaviour. Rather, these values were related to achievement-oriented behaviour above and beyond the effects of motivations. This could be due to the self-serving nature of these values, as they drive students towards personal advancement (Schwartz et al., 2012). However, the dynamic is likely more complex, as self-enhancement values, propelled by the need for anxiety alleviation and self-preservation (Sagiv et al., 2015), have been closely aligned with introjected motivation (Pulfrey & Butera, 2013). This alignment was reflected in our results, as evidenced by the positive correlation we found between self-enhancement values and controlled motivation. From an SDT perspective, students endorsing self-enhancement values experience internalised pressures, prioritising recognition and dominance over genuine excellence (e.g. Vansteenkiste et al., 2006). While this pressure-driven pursuit may boost academic performance, it also poses a risk of emotional distress (Choi et al., 2022), warranting further investigation.

Unexpectedly, openness-to-change was the only higher-order value that did not show a positive relationship with its value-congruent classroom behaviour, even after interacting with autonomous motivation. Notably, it was also negatively correlated with both autonomous and controlled motivation underlying learning-oriented behaviour, suggesting that it may reduce students' overall motivation in school.

Openness-to-change values, which emphasise independence and autonomy, typically mature fully only at later developmental stages (Daniel & Benish-Weisman, 2019). Moreover, given children's tendency towards conformity, even those who endorse openness-to-change values may express them in more conventional ways (Benish-Weisman et al., 2019). Such conformity may further restrict the expression of these values, particularly in school environments that prioritise standardised curricula over diverse learning experiences (Shafiyeva, 2021). In elementary schools' context especially, being considered a 'good boy/girl' (i.e. obeying the teacher and avoiding disruption) often reflects prioritising conformity over valuing independent thinking or autonomous action. Our findings suggest that value expression may be age- and context-dependent, underscoring the need to further examine the conditions that enable or constrain the behavioural manifestation of values.

Finally, our results challenge the hypothesis that controlled motivation, driven by external or internal pressures, weakens the value-behaviour connection (Barni et al., 2019; Sagiv & Roccas, 2021), as we did not find any significant moderating effects. The persistence of certain value-driven behaviours under such pressures suggests values, as internalised factors, buffer against the influence of controlled motivation. However, while controlled motivation may not actively interfere with value expression, its absence alone cannot energise values into behaviour. Rather, autonomous motivation is key to making this happen.

Research strengths, limitations, and future directions

Admittedly, this study had several limitations. A strength was its incorporation of both student self-reports and homeroom teacher assessments (Podsakoff et al., 2003). However, teacher reports may miss some of the more nuanced behaviours observed in the classroom and can be influenced by emotional closeness to certain students. Thus, to enhance accuracy, future research could include additional behavioural assessments, such as reports from multiple informants (e.g. teachers, peers; Benish-Weisman, 2015) and direct classroom observations.

Second, our cross-sectional design captured relationships at a single point in time, limiting causal inferences. Values may influence behaviour, but behaviour can also shape values (Benish-Weisman, 2015), with motivation potentially moderating these links. To clarify causality and test alternative models, future research should use experimental or longitudinal designs to track changes in values and motivation over time. For example, the transition from primary to secondary school may accelerate value internalisation (Benish-Weisman et al., 2019) and reduce autonomous motivation (Gnambs & Hanfstingl, 2016), a dynamic that warrants further study.

Third, although our models revealed statistically significant main and interaction effects, they explained only modest variance in student behaviours (R^2). This is unsurprising, as behaviour is shaped by a wide range of personal, social, and contextual factors (Li & Xue, 2023), many of which fall outside the scope of our focused, theory-driven model. Our aim was to isolate and test specific psychological predictors to examine targeted hypotheses. In this context, modest R^2 values are both reasonable (e.g. Ozer & Benet-Martínez, 2006; Pérez-González et al., 2022) and typical in moderation analyses conducted in naturalistic settings, particularly with

multi-informant data (McClelland & Judd, 1993). Despite this limitation, our initial investigation of motivation's moderating role in the value–behaviour link offers meaningful theoretical insights (Cohen et al., 2003) and highlights the need for future research—particularly pre-post intervention studies designed to explore the extent to which strengthening students' autonomous motivation enhances value-driven behaviour in the classroom.

A final limitation concerns the generalisability of our findings beyond the school environment and the specific cultural context of this study. Educational settings have unique features (academic focus) that may shape students' values (Berson & Oreg, 2016), motivation (Benita & Matos, 2020), and behaviours. Consequently, our findings may not extend to other environments or age groups. To better understand the value–motivation–behaviour link, future research should examine varied settings, such as sports teams emphasising competition and teamwork, and community organisations centred on volunteerism and civic engagement, as well as diverse cultural contexts. Studying these environments could inform strategies to foster authentic, value-driven behaviours and build more cohesive communities.

Conclusion

Our integrated framework offers an innovative approach to understanding how students' values and motivations interact to predict behaviour in educational settings. We challenge the traditional value-to-behaviour link, emphasising the critical role of autonomous motivation in translating socially oriented values into adaptive classroom behaviours. This study not only advances theoretical understanding but also provides preliminary practical insights. By applying SDT principles—highlighting the importance of social environments in supporting students' autonomous motivation (Schweder & Raufelder, 2024)—and recognising the effectiveness of school-based interventions (Su & Reeve, 2011), our findings lay the groundwork for developing and evaluating strategies to promote value-driven behaviour in the classroom. Such strategies hold potential for dual benefits: encouraging students to autonomously and meaningfully integrate core values into their daily lives, while also enhancing their engagement and involvement in educational experiences.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Declaration of the use of generative AI in the writing process

In the preparation of this work, the authors employed OpenAI's ChatGPT (GPT-4) for spell-checking and improving text clarity. Following its use, the authors reviewed and refined the content, taking full responsibility for the final version.

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