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Teachers' agency: Do their values make a difference?

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This research explored antecedents and outcomes of teachers' agency. Study 1 (n = 767) tested whether teachers' values relate to an agentic capacity. Study 2 (n = 430) tested the relations between teachers' values, their agentic capacity and their agentic behaviours. The findings show that attributing importance to promoting the self and being open to new experiences, whilst maintaining self-independence, is positively related to agentic capacity. Further, agentic capacity mediates the relations between values and agentic behaviour. These findings start to explain the broad motivations for teachers' agency and its translation into behaviour.

Keywords: teacher agency; teacher values; agentic behaviours; agentic capacity

Introduction

There is an emerging tendency to acknowledge the importance of teachers' agency (Lipponen & Kumpulainen, 2011; Biesta *et al.*, 2015), especially their active involvement in directing and designing their teaching practice (Quinn & Carl, 2015; Van der Heijden *et al.*, 2015). Researchers find teachers' agency advances student learning and facilitates their own professional development (Toom *et al.*, 2015). The study of teachers' agency is important, given the current tension between professionalism and the movement towards standardisation, which reduces teachers' autonomy and control (Wills & Sandholtz, 2009; Van der Heijden *et al.*, 2015; Oolbekkink-Marchand, Hadar, Smith, Helleve & Ulvik, 2017), with many responding to the need for research in the area (e.g. Buchanan, 2015; Priestley *et al.*, 2015a; Toom *et al.*, 2015).

More research needs to be done (Biesta *et al.*, 2015), identifying the different realisations of agency, for example, or determining whether this construct is contextual or personal (Priestley *et al.*, 2013). Although research consistently finds that supportive school contexts encourage teachers' agentic behaviour (Van der Heijden *et al.*, 2015), little is known about how personal characteristics explain differences in the extent to which teachers enact professional agency within the same school context (Bakkenes *et al.*, 2010). Overall, research on teachers' agency as a capacity remains limited, with studies considering related aspects such as locus of control (Bulus, 2011) or personality traits (Barrick & Mount, 1991).

The importance of the methodological perspective in findings of teacher agency is another issue. Many studies are qualitative (e.g. Biesta *et al.*, 2015; Buchanan,

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2015), with little research employing quantitative methods (Pyhältö *et al.*, 2015). These issues led to a recent call for more work by the AERA Teacher Leadership Within and Beyond the Classroom section chairs (Carver & Mangin, 2016). In this article, we answer the call; in the two quantitative studies described here, we examined how teachers' values affect their professional agency.

Theoretical framework

Teachers' agency

The concept of agency is based on the understanding that people do not merely react to and repeat given practices. Rather, they have a capacity for autonomous action, wherein they intentionally transform and refine their worlds, taking control of their lives. Deriving from social cognitive theory, which views people as 'agents of experiences rather than simply undergoers of experiences' (Bandura, 2001, p. 4), agency can be considered a combination of intention and action that influences experience. Agency shapes and drives the direction and course of action (Wilson & Deaney, 2010); it embodies the aptitudes, belief systems, self-regulatory capabilities and functions through which personal influence is exercised.

Defining the capacities that contribute to the enactment of agency varies (Alkire, 2005), mainly because agency represents the capacity to act on one's *own* goals and what one wants to achieve. There is no one type of agentic capacity. Different studies use different measures addressing different capacities. Pantić (2017) used a mixed method to measure sense of purpose and perception of competence, whilst Archer (2000) and Biesta and Tedder (2007) qualitatively explored the individual's capacity for autonomous action. Despite the range in measures, the measurement of agency is not an unknown empirical terrain, and some quantitative or survey-based measures seem comparable and robust across cultures (Alkire, 2005).

There is some ambiguity when the concept is applied to teachers. Some emphasise teachers' *capacity*, seeing agency as the power of teachers (both individually and collectively) to purposefully direct their working lives within structurally determined limits (Hilferty, 2008, p. 167). Others stress teachers' *actions*; for example, Eteläpelto *et al.* (2015) suggest agentic behaviour involves taking a stance and influencing practice. Still others define agency as a *combination of capacities and actions*. Soini *et al.* (2015) view agency as a constantly evolving capacity which includes active efforts to make choices and carry out intentional actions in ways that make a significant difference. In this article, we define agency as a combination of a teacher's *capacity* to initiate and the *enactment* of this capacity to actively direct his/her professional life in accordance with his/her own will, judgement and choice.

Professional agency is needed at both classroom and school levels (Eteläpelto *et al.*, 2013). At classroom level, teacher agency can be directed at making a difference in students' learning or their own teaching practice, for example, by trying out something new (Van der Heijden *et al.*, 2015). At school level, teachers may form and reform productive collaborations with colleagues, parents and the community. Agentic teachers who organise collaborative discussions seize the initiative, take risks, make decisions and motivate others (Lukacs, 2009).

Biesta *et al.* (2015) suggest that agency results from the interplay of individual and contextual factors, with agentic capacity and agentic spaces (contextual factors) working differently in different situations. Put otherwise, agents act upon their beliefs and values within the contingency of different contexts for action (Priestley *et al.*, 2015b). Whilst teacher agency is seen as temporal, situated and contextual by many researchers (Lipponen & Kumpulainen, 2011), others point to personal or inner factors supporting or constraining agency across contexts (Pantić, 2017), including past achievements, understandings, experiences and personal values. In a recent international study on the perception and enactment of agency, Oolbekkink-Marchand *et al.* (2017) showed that factors other than contextual ones affected agentic behaviour.

Priestley *et al.* (2013) suggest that focusing on the various aspects contributing to teachers' agency will generate richer understandings. Following this suggestion, in our study, we explored how personal values relate to agency as a capacity and applied this to teachers' agentic behaviour and actions. A caveat is in order, however, although we focused on values, we did not decontextualise agency. Our aim was to shed light on values as one personal factor supporting or constraining teachers' agency in different contexts. Thus, we examined whether and how values motivate teachers to act in an agentic way.

Relations between agency and values

Values are abstract motivations guiding behaviour and the evaluation of the self and others. They are stable across contexts but vary in relative importance across individuals (Schwartz, 1994). Value theory can often be compared to moral theories. For example, Carol Gilligan's seminal theory (Gilligan, 1993). The Schwartz value theory (SVT) bears some similarity to moral development theories but differs in several significant aspects (see Sverdlik *et al.*, 2012). For example, moral development theories focus on interpreting and understanding social or moral dilemmas or judgements (Killen & Smetana, 2010), while SVT adopts a comprehensive perspective, tapping into any broad motivational goal and referring to varied psychological and behavioural outcomes. As such, SVT offers a more holistic framework to understand a wide range of school behaviours. Schwartz's comprehensive set of values can be organised on a bipolar dimension, with oppositional poles reflecting opposing motivations (Schwartz & Boehnke, 2004). Dimension one focuses on the conflict between self-enhancement and self-transcendence values. The former endorses individual personal goals through excelling and controlling others; the latter stress concern for the well-being and interests of others. Dimension two focuses on the conflict between openness-to-change and conservation values, with the former endorsing change through new ideas, experiences and actions and the latter emphasising the importance of the status quo to preserve the self and society.

Values function as a central aspect of the self and as guiding principles. They motivate and justify action by giving it direction. Revealing which values promote teachers' agency might help create a more engaged school climate. As teachers' agentic capacity is manifest in expressions of their own needs and the pursuit of new ways of thinking and behaving, we hypothesised that self-enhancement and openness-to-change values, both personal focus values (Schwartz, 2010), would relate positively

to agency. This hypothesis was supported by a study conducted among students; values relating to agency were influence, competence, achievement, pleasure, ambition, excitement and autonomy (Buchanan & Bardi, 2015). By and large, these values fit into the self-enhancement values in dimension one of Schwartz's (1994) model and the openness-to-change values in dimension two.

Studies on the relations between values and behaviour find low to moderate associations (e.g. Bardi & Schwartz, 2003; Roccas & Sagiv, 2017). It seems that people do not always act by their values. Other factors moderate these relations, and we hypothesised that agentic capacity is one such factor. That is, agency may mediate the relations between values and behaviour.

Drawing on our understanding of agency as a teacher's *capacity* to initiate and then to *act* on this capacity, and on Schwartz's (1994) value theory, in two related studies, we examined whether and how teachers' personal values play a role in their professional agency. In study 1, given the diversity of measures and definitions in previous studies, we tested whether measures commonly used to identify individual agency could be aggregated to one variable called agentic capacity; we then asked whether and how teacher values relate to this composite agentic capacity. In study 2, we tested our model of the relations between teacher values, the agentic capacity identified in study 1, and agentic actions/behaviours and the mediating role of agentic capacity on the relation between values and agentic behaviour. Figure 1 shows the general theoretical model.

Both studies were conducted within the context of the Jewish state school system in Israel. Schools are funded and administered by a centralised Ministry of Education. The curriculum, syllabi, pre-service teacher education and support for teacher professional development are regulated by the Ministry. Classrooms usually comprise 30–34 students, with 13.03 student/teacher ratio, and about 140 student/computer ratio (Dronkers & Avram, 2010). The state education system has recently been decentralised (Addi-Raccah & Ainhoren, 2009). Schools are responsible for defining their pedagogic goals within the framework of the national curriculum, monitoring students' attainments and pedagogic goals and allocating budgets. They have some autonomy in curriculum development, with teachers able to initiate new programmes and become involved in school decision-making. This setting is ideal for an in-depth examination of teachers' agency.

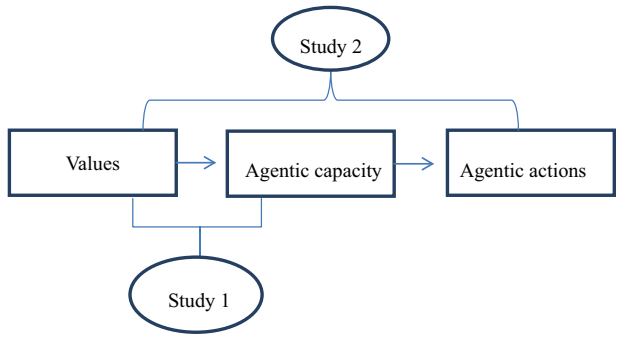

Figure 1. Model of study 1 and study 2 [Colour figure can be viewed at wileyonlinelibrary.com]

Study 1

We employed three measures of agency commonly used when agency is measured as an inner and individual capacity: self-efficacy, proactive personality and self-promotion focus. Each taps into a different angle of the concept.

The dominant empirical approach to the measurement of agency is self-efficacy, a person's belief about what she/he can do and how well (Bandura, 2001). In this thinking, because self-efficacy is a key determinant of how environmental opportunities and impediments are perceived, it influences people's goals, motivations and behaviour (Alkire, 2005). Some see self-efficacy as the most central mechanism of human agency (Skaalvik & Skaalvik, 2016), or as synonymous with human agency (e.g. Schwarzer & Jerusalem, 2010).

Another common understanding of human agency underlines the importance of personality, emphasising the possession of a proactive personality (Christian *et al.*, 2011), defined as a tendency to take personal initiative across a range of activities and situations (Li *et al.*, 2010). Individuals with a highly proactive personality are more likely to pursue their own goals, or in other words, to display agency (Cai *et al.*, 2015).

Some research examines an individual's regulatory focus or goal orientation, one dimension of which is self-promotion, whereby individuals are more likely to focus attention on their own nurturance needs, aspirations and values (Higgins *et al.*, 1997). Promotion-focused individuals direct energy towards pursuing opportunities to achieve aspirations, directing energy away from maintaining the status quo (Neubert *et al.*, 2008). This focus is indicative of agentic capacity (Neubert *et al.*, 2008; Roczniewska & Kolańczyk, 2014).

Like agency, values are assessed by different measures. Previous studies (e.g. Hofstede, 1983) rely on a narrow range of values, with limited relevance to the individual level (Imm Ng, Lee & Soutar, 2007). Our theoretical focus centred on SVT (Schwartz, 1994), as it has been validated in more than 65 cultures and offers a comprehensive model of human values.

Goals

Study 1 tested whether self-efficacy, proactive personality and self-promotion focus create one variable that we could name 'agentic capacity' and whether a teacher's values serve as predictors of his/her possession of this capacity. To be precise, we hypothesised that (1) self-efficacy, proactive personality and self-promotion focus would form a single aggregated latent variable, the 'agentic capacity'. Based on Buchanan and Bardi (2015), we also hypothesised that (2) in dimension one of Schwartz's model (self-enhancement vs. self-transcendence values), the tendency to enhance the self over the other would relate positively to teachers' agentic capacity and (3) in dimension two (openness to change vs. conservation), the tendency to pursue novelty over the status quo would relate positively to teachers' agentic capacity. Figure 2 shows the theoretical model.

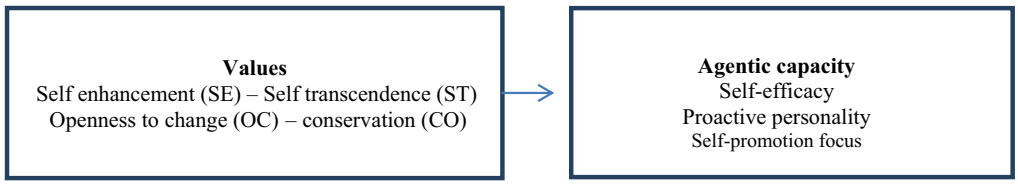

Figure 2. Theoretical model of study 1 [Colour figure can be viewed at wileyonlinelibrary.com]

Method

Population. The study included 767 teachers in the Israeli Jewish community (76.6% female, M_{age} = 39.48, *SD* = 9.91). All teachers work in schools cooperating with a big college and a main university in the centre and north of Israel. We approached teachers during the school day and asked if they would participate; all agreed to do so. Their average seniority is 11 years (*SD* = 15.12). Of the 767 teachers, 45% work in primary education (grades 1–6), 18.6% work in lower secondary schools (grades 7–9) and 35.8% work in high schools (grades 10–12). In addition, 63.9% hold a B.A. or B.Ed., 37.7% an M.A. or M.Ed. and 1.3% a Ph.D. Permission to use the data was granted based on total anonymity, including the name of the school and the district.

Measures. Self-efficacy—Consistent with other studies (e.g. Schwarzer & Jerusalem, 2010; Skaalvik & Skaalvik, 2016), teachers' perceived self-efficacy was assessed using the General Self-efficacy Scale (GSE) (Luszczynska *et al.*, 2005; Schwarzer & Jerusalem, 2010). The GSE assesses a general sense of perceived self-efficacy, with 10 items rated on a six-point Likert-type scale, ranging from 1 (not at all true) to 6 (exactly true). An example is: 'I can always manage to solve difficult problems if I try hard enough'. Table 1 gives Cronbach's alphas.

Proactive personality—Proactive personality is a core component of human agency (Bandura, 2006). Teachers' proactivity was measured using the Proactive Personality Scale (PPS) created by Seibert *et al.* (1999), a scale used in previous studies assessing proactive personality in work-related contexts (Li *et al.*, 2010; Cai *et al.*, 2015). The scale has 10 items, with responses on a six-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). An example is: 'No matter what the odds, if I believe in something I will make it happen'. Table 1 gives Cronbach's alphas.

Self-promotion focus—Teachers' self-promotion focus was measured using the Work Regulatory Focus (WRF) scale (Neubert *et al.*, 2008) incorporating achievement, ideals and gains. It was developed for the workplace but has been used in educational contexts (Neubert *et al.*, 2008). The scale includes nine items, with responses on a six-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). An example is: 'At work, I am motivated by my hopes and aspirations'. Table 1 shows Cronbach's alphas.

Table 1. Psychometric properties associated with the studies' scales

Scale	Study 1			Study 2		
	Cronbach α	Mean	*SD*	Cronbach α	Mean	*SD*
Agentic capacity						
Self-efficacy	0.91	4.54	0.76	0.82	4.60	0.81
Proactive personality	0.85	4.24	0.87	0.73	4.26	0.98
Self-promotion focus	0.86	3.55	0.95	0.84	3.66	1.04
Agentic behaviours						
Agency behaviour				0.80	4.61	0.93
Helping behaviour				0.89	4.69	0.89
Creative behaviour				0.92	4.39	1.06
Agentic engagement				0.90	4.4	0.95
Organisational citizenship behaviours				0.83	3.83	0.72
Values*						
Self-enhancement (SE) − self-transcendence (ST)		−0.882	1.10		−0.91	1.03
Openness to change (OC) − conservation (CO)		0.07	0.91		0.06	0.89

Notes: SE − ST = dimension 1 of values, self-enhancement values minus self-transcendence values; OC − CO = dimension 1 of values, openness-to-change values minus conservation values. *Because these dimensions are built by subtracting two contradicting values, reliability cannot be imputed to each dimension. Thus, reliabilities for the four values are presented in the text.

Values—Teachers' values were assessed using the Portrait Values Questionnaire (PVQ) (Schwartz *et al.*, 2001). The PVQ includes short verbal descriptions of 40 people (matched to the respondent's gender) giving the person's goals, aspirations or wishes and implicitly indicating the importance of a single broad value. For each portrait, participants are asked to rate on a six-point Likert-type scale how similar they are to the person described, from 1 (not like me at all) to 6 (very much like me). Respondents' values are inferred from their self-reported similarity to people in terms of the importance of particular values.

We aggregated these into four value groups based on Schwartz (1994). Self-enhancement (SE) values highlight the goal of individualistic dominance and self-success. An example is: 'It is important to her to be in charge and tell others what to do' ($\alpha = 0.78$). Self-transcendence (ST) values emphasise concern for other people's welfare and rights. An example is: 'It's very important to her to help the people around her' ($\alpha = 0.76$). Openness-to-change (OC) values focus on individual independence in mind and action and on openness to new experiences. An example is: 'Thinking up new ideas and being creative is important to her' ($\alpha = 0.79$). Conservation (CO) values stress the status quo, traditions and stability. For example: 'She believes that people should do what they're told, even when no-one is watching' ($\alpha = 0.81$).

For the sake of parsimony, we aggregated the four broad values into two value dimensions: dimension one was computed by subtracting self-transcendence values from self-enhancement values (SE − ST); dimension two was calculated by subtracting conservation values from openness-to-change values (OC − CO). This method

is congruent with Schwartz's (1994) theory that each pole mirrors its opposite. This method has been widely used and validated (e.g. Lipponen *et al.*, 2008). The psychometric properties associated with these values are given in Table 1.

Analysis strategy. To reveal teachers' value tendencies, we examined the means of the two value dimensions. Using Amos 21 statistical software, we used structural equation modelling (SEM) as a confirmatory factor analysis (CFA) model to see if the three agency measurements loaded on the same factor. Two fit indices were used to establish the adequacy of model fit: the comparative fit index (CFI) (Bentler, 1990) and the root-mean-square error of approximation (RMSEA) (Kline, 2011). Kline (2011) says that excellent model fit is achieved by CFI ≥ 0.95 and RMSEA ≤ 0.06, with models resulting in CFI > 0.90 and RMSEA < 0.08 considered adequate fit. Because χ^2 is influenced by the sample size, we did not use it (Marsh, Balla & McDonald, 1988). Figure 3 shows the hypothesised CFA model.

To assess whether a teacher's values predicted his/her possession of agentic capacity, we used a two-step regression model controlling for age and gender.

Results and discussion

The means in Table 1 show that the teachers in study 1 lean more towards self-transcendent than self-enhancement values ($M = -0.88$, $SD = 1.10$). They are almost even in their adherence to openness-to-change and conservation values ($M = 0.07$, $SD = 0.91$), and they show a moderate level of agentic capacity ($M = 4.11$, $SD = 0.71$).

To examine whether the three agency measurements loaded on the same factor, we used a second-order CFA; this type of analysis tests the factorial validity of scores from measurement scales on two levels (Byrne, 2016). The CFA model hypothesised *a priori* that responses to the agentic capacity questionnaire could be explained by three first-order factors (self-efficacy, proactive personality, promotion focus) and one second-order factor (capacity). The final model showed an excellent fit (CFI = 0.95, RMSEA = 0.05) (see Table 2 and Figure 4, study 1). As hypothesised, the scores of the three variables aggregated to create a single agentic capacity score.

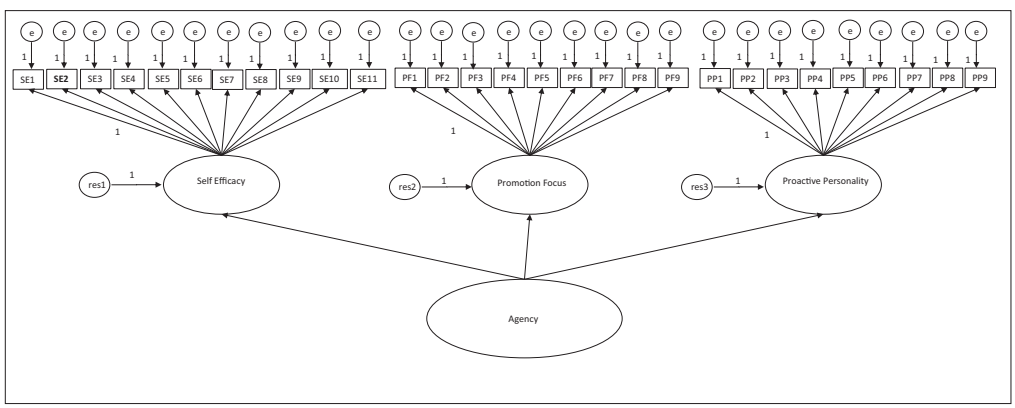

Figure 3. Hypothesised CFA model

Table 2. Second-order CFA on self-efficacy, proactive personality, promotion focus and capacity

			Estimate	*SE*
Promotion focus	←	Agentic capacity	0.80***	0.06
Self-efficacy	←	Agentic capacity	0.803***	0.05
Proactive personality	←	Agentic capacity	0.96***	0.06
promotion.focus1	←	Promotion focus	0.40***	0.09
promotion.focus2	←	Promotion focus	0.40***	0.10
promotion.focus3	←	Promotion focus	0.41***	0.15
promotion.focus4	←	Promotion focus	0.59***	0.27
promotion.focus5	←	Promotion focus	0.68***	0.28
promotion.focus6	←	Promotion focus	0.80***	0.30
promotion.focus7	←	Promotion focus	0.77***	0.30
promotion.focus8	←	Promotion focus	0.70***	0.27
promotion.focus9	←	Promotion focus	0.63***	0.22
self.efficacy11	←	Self-efficacy	0.63***	0.22
self.efficacy10	←	Self-efficacy	0.70***	0.09
self.efficacy9	←	Self-efficacy	0.76***	0.09
self.efficacy8	←	Self-efficacy	0.72***	0.10
self.efficacy7	←	Self-efficacy	0.72***	0.11
self.efficacy6	←	Self-efficacy	0.70***	0.90
self.efficacy5	←	Self-efficacy	0.76***	0.09
self.efficacy4	←	Self-efficacy	0.78***	0.10
self.efficacy3	←	Self-efficacy	0.74***	0.10
self.efficacy2	←	Self-efficacy	0.62***	0.11
self.efficacy1	←	Self-efficacy	0.62***	0.10
proactive.personality9	←	Proactive personality	0.80***	0.06
proactive.personality8	←	Proactive personality	0.80***	0.06
proactive.personality7	←	Proactive personality	0.78***	0.06
proactive.personality6	←	Proactive personality	0.86***	0.06
proactive.personality5	←	Proactive personality	0.74***	0.06
proactive.personality4	←	Proactive personality	0.71***	0.06
proactive.personality3	←	Proactive personality	0.58***	0.05
proactive.personality2	←	Proactive personality	0.56***	0.06
proactive.personality1	←	Proactive personality	0.61***	0.06

*** $P < .0001$

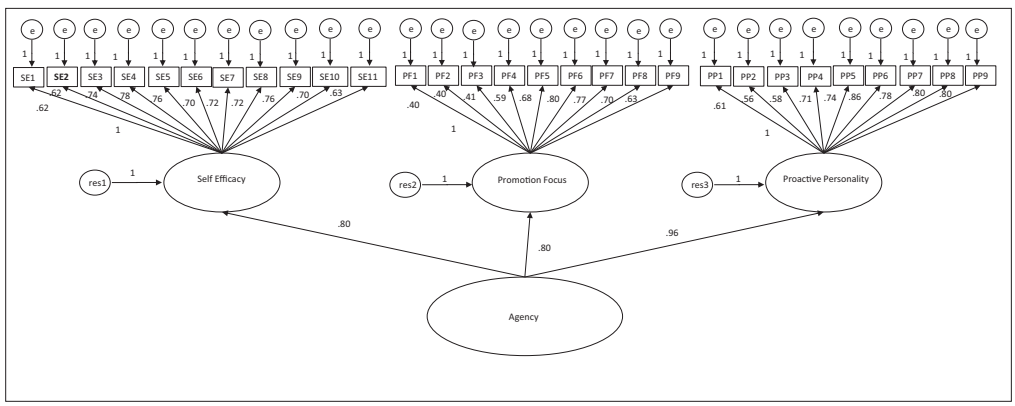

Figure 4. CFA results

Next, we examined whether values predicted agentic capacity. We entered each value dimension in the first step and the controlling variables (age and gender) in the second step. We controlled for age and gender following the literature suggesting that these variables correlate with values (Schwartz & Rubel, 2005; Döring *et al.*, 2016). The associations between the SE – ST values ($\beta = 0.29$, $p < 0.001$), OC – CO values ($\beta = 0.29$, $p < 0.001$) and agency were positive and significant. Put otherwise, the more teachers rate themselves as endorsing self-enhancement or openness-to-change values, the stronger their agentic capacity, thus confirming study 1's hypotheses.

Study 2

Study 1 demonstrated the contribution of broader motivations (values) to agentic capacity. At this point, we still did not know how these values and agentic capacities related to functioning. Many researchers say agentic capacity leads to agentic behaviours (Eteläpelto *et al.*, 2015; Soini *et al.*, 2015). A specific behaviour is chosen from amongst a number of possibilities, and agents act on their beliefs and values within particular contexts (Biesta & Tedder, 2007; Pantić, 2017). We measured agentic actions through five behavioural constructs (agency, helping, creative, agentic engagement, organisational citizenship) to tap the various aspects of agency in teachers' professional lives.

Agency behaviour (Buchanan & Bardi, 2015) includes activities wherein individuals define and pursue challenging goals related to their professionalism. Agentic teachers may express themselves by assuming responsibilities and taking risks (Lukacs *et al.*, 2011; Le Fevre, 2014).

Helping behaviour (Van Dyne & LePine, 1998; Neubert *et al.*, 2008) features an orientation whereby individuals collaborate with and help others in their working group for the benefit of the group. Collaboration with colleagues and helping behaviours are key characteristics of agentic teachers (Spitzmuller & Van Dyne, 2013; Soini *et al.*, 2015; Van der Heijden *et al.*, 2015), especially helping behaviour that goes beyond minimum role expectations (Neubert *et al.*, 2008).

Creative behaviour (Neubert *et al.*, 2008) involves the production and implementation of ideas that differ from the agreed-upon way of doing things. Some studies refer to creative behaviour as an expression of agency. Moskowitz *et al.* (2007) say agentic behaviours include innovating and taking the lead in planning or organising, whilst Le Fevre (2014) and Lukacs *et al.* (2011) suggest agentic teachers exhibit a kind of entrepreneurship by taking creative initiatives and assuming responsibility for their execution.

Agentic engagement (Reeve, 2013) involves teachers' constructive contribution to their work and professional environment by communicating their preferences and making recommendations or contributions. Studies find participating in decision-making (Pantić, 2017) or making suggestions (Eteläpelto *et al.*, 2015) are central activities for agentic teachers.

Organisational citizenship behaviours (Somech & Drach-Zahavy, 2000) go beyond specified role requirements (in-role) to promote organisational goals (extra-role). The behaviours must be voluntary, neither role-prescribed nor part of formal job

duties. Behaviours directed at—or likely to benefit—an organisation are seen as expressions of agentic behaviours (Belogolovsky & Somech, 2010; Quinn & Carl, 2015; Pantić, 2017).

Goal

Our goal was to explore the relations between teachers' values, the agentic capacity identified in study 1 and agentic behaviours. We hypothesised that agency is needed to actively express values which emphasise enhancing the self or openness to new experiences and ideas. Specifically: (1) the SE – ST value dimension will relate positively to agentic capacity and this, in turn, will relate positively to agentic behaviours (agency, helping, creative, agentic engagement and organisational citizenship behaviours); (2) the OC – CO value dimension will relate positively to agentic capacity and this will relate positively to agentic behaviours; (3) the relations between values and agentic behaviours will be mediated by agentic capacity. Figure 5 shows the theoretical model.

Method

Population. Study 2 included 430 teachers in the Jewish community in Israel (72% female, M_{age} = 38.97, SD = 9.07). The teachers work in public schools in the centre and north of Israel. We approached teachers during a school day and asked those who did not participate in study 1 if they would participate; all agreed to do so if anonymity was maintained (including school and district). The average seniority is 10 years (SD = 9.71). Of the 430 teachers studied, 47% work in primary education (grades 1–6), 19% in lower secondary schools (grades 7–9) and 33.5% in high schools (grades 10–12). Among the participants, 61.6% hold a B.A. or B.Ed., 33.8% an M.A. or M.Ed. and 1.2% a Ph.D.

Measures. Values and agentic capacity—We measured values and agentic capacity as described in study 1. In this section, we report only on measures related to agency-related behaviours (those not included in study 1). The psychometric properties associated with these scales are given in Table 1.

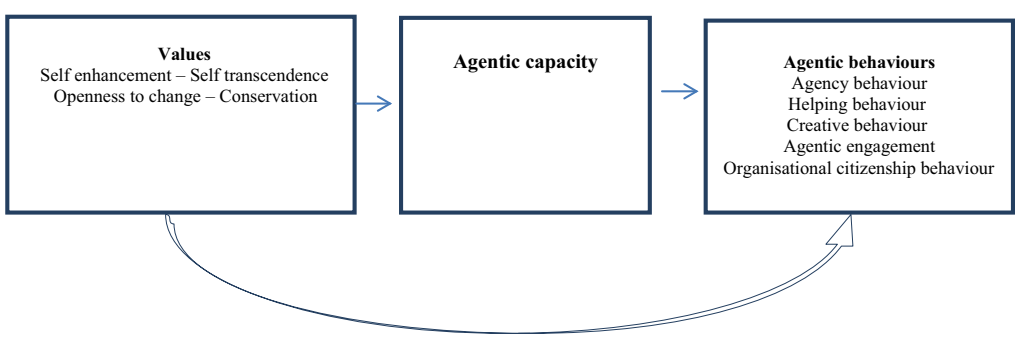

Figure 5. Theoretical model of study 2 [Colour figure can be viewed at wileyonlinelibrary.com]

Agency behaviours—We adapted Buchanan and Bardi's (2015) scale of agency behaviours. This six-item scale originated from the Value-Expressive Behaviour Questionnaire (Bardi & Schwartz, 2003), in which behaviour items are chosen in accordance with the operationalisation of agency (Helgeson, 1994). We adopted Bardi and Schwartz's (2003) instructions. Our scale included six items describing different behaviours. Participants indicated how frequently they had engaged in each behaviour during the past 6 months, relative to their opportunity to do so, using a six-point Likert-type scale ranging from 1 (never) to 6 (always). An example is: 'I persevered with a challenging task'.

Helping behaviour—The Helping Behaviour Scale was developed and validated by Van Dyne and LePine (1998) and has been used in studies assessing types of agentic behaviour (Neubert *et al.*, 2008). The scale includes six items. Respondents indicate the extent to which each item represents their behaviour on a six-point Likert-type scale, ranging from 1 (does not represent at all) to 6 (strongly represents). High scores represent helping behaviours. To ensure relevancy in the teaching context, we changed the term 'work group' to 'other teachers in my school'. An example of the original items is: 'I volunteer to do things for this work group'.

Creative behaviour—The Creative Behaviour Scale was developed by Scott and Bruce (1994) and modified by Neubert *et al.* (2008). The scale includes six items related to behaviours of creativity and innovation. Respondents indicate the extent to which each item represents their own behaviour on a six-point Likert-type scale from 1 (does not represent at all) to 6 (strongly represents). High scores represent creative behaviours. An example is: 'I search out new technologies, process, techniques and/or product ideas'.

Agentic engagement—To measure teachers' agentic engagement, we used Reeve's (2013) nine-item scale of student agentic engagement and adapted the items to make them relevant to the teacher population. For example, Reeve's (2013) item 'I let my teacher know what I need and want' was changed to 'I let my school's principal know what I need and want'. The following item from the original scale was excluded because it could not be adjusted to the teaching context: 'During class I ask questions that help me learn'. Respondents indicate the extent to which each item represents their own behaviour on a six-point Likert-type scale, ranging from 1 (does not represent at all) to 6 (strongly represent). High scores represent high agentic engagement; low scores represent low agentic engagement.

Organisational citizenship behaviour—We assessed teachers' organisational citizenship behaviour using a 23-item questionnaire developed and validated for schools by Somech and Drach-Zahavy (2000). Respondents indicate the extent to which each item represents a teacher's in-role behaviour on a six-point Likert-type scale from 1 (strongly disagree) to 6 (strongly agree). High scores represent in-role behaviours; low scores represent extra-role behaviours. An example is: 'Stay after school hours to help students with class materials'.

Analysis strategy. To illuminate teachers' value tendencies, we examined the means of the two value dimensions. Using Amos 21 statistical software, we then studied the mediating role of agency on the relations between values and behaviours using two runs of SEM and controlling for age and gender. Figures 6 and 7 show the hypothesised SEM of study 2. To establish the adequacy of each model's fit, we used the same fit indices as in study 1. In this phase, we also examined raw correlations between values, agentic capacity and behaviours.

Findings and discussion

Table 1 presents descriptive statistics of all study 1 and study 2 variables; Table 3 provides a correlation matrix of study 2 variables.

The means in Table 1 show that the descriptive findings of study 2 are similar to those of study 1. As in study 1, the teachers in study 2 lean more towards self-transcendent than self-enhancement values ($M = -0.91$, $SD = 1.03$). The teachers are once again almost even in their adherence to openness-to-change and conservation values ($M = 0.06$, $SD = 0.89$). They show a moderate level of agentic capacity ($M = 4.11$, $SD = 0.71$). In addition, agentic capacity correlates significantly with values and shows moderate to high correlations with agentic behaviours.

To examine the mediating role of agency on the relations between values and behaviours, we examined two models (Figures 6 and 7) for each of the two value dimensions, controlling for age and gender. The final models had excellent fit (CFI = 0.99, RMSEA = 0.02 for SE − ST dimension and CFI = 0.99, RMSEA = 0.03 for OC − CO dimension).

As shown in Table 4 and Figures 8 and 9, study 2 replicates the results of study 1 in that the SE − ST and OC − CO dimensions relate positively to agentic capacity. That is, attributing importance to promoting the self and being open to new experiences whilst maintaining self-independence in thoughts and actions are related to teachers' agentic capacity. Further, as hypothesised, agentic capacity is positively related to agentic behaviours. Specifically, teachers reporting a higher agentic capacity also report more agency, helping, creative, agentic engagement and organisational citizenship behaviours.

Moreover, agentic capacity significantly mediates the relations between values and behaviours. Agentic capacity apparently helps teachers behave according to their values. This pattern is consistent across all behaviours. For example, a high capacity to act on their own goals (agentic capacity) is important for teachers to express the value of enhancing the self (SE − ST) in behaviours such as pursuing challenging tasks (agentic behaviour) or communicating professional needs (agentic engagement). Agentic capacity is also important for teachers to express the value of openness to new experiences (OC − CO) in behaviours such as searching for new teaching technologies (creative behaviour) or making innovative suggestions (organisational citizenship behaviour). In other words, the possession of agentic capacity helps teachers express their values in action.

Interestingly, the model exhibits some direct relations between values and behaviours, and agency has a crucial role in these relations; however, the direct relations

Table 3. Correlations of variables in study 2

	SE − ST	OC − CO	Agentic capacity	Agency behaviour	Helping behaviours	Creative behaviour	Agentic engagement
SE − ST values							
OC − CO values	0.22**						
Agentic capacity	0.20**	0.33**					
Agency behaviour	0.09	0.18**	0.47**				
Helping behaviour	−0.11	0.04	0.46**	0.36**			
Creative behaviour	0.09	0.42**	0.59**	0.49**	0.50**		
Agentic engagement	0.16**	0.19**	0.63**	0.46**	0.44**	0.51**	
Organisational citizenship behaviour	−0.09	0.07	0.54**	0.43**	0.63**	0.43**	0.46**

Note: **$p < 0.01$.

between values and behaviours are significant in only half of the behaviours measured (Table 4 and Figures 8 and 9).

General discussion

We were interested in teachers' agency (as a capacity and as a behaviour) as it relates to their values. The role of agency remains a controversial and contested issue (Eteläpelto *et al.*, 2013), but we make several important contributions to the discussion. First, our approach emphasises the inner personal factors related to agency. In our view, agency is a capacity that can *also* be influenced by motivations, beliefs or values. More precisely, we define agency as an intentional belief and as an action taken to achieve a specific outcome (Giddens, 1984). As such, we place the individual in the centre, considering her/his motivations and goals. Other approaches to agency put more emphasis on the social context; some even neglect the individual act within the context (Eteläpelto *et al.*, 2013). Second, we extend the discussion; instead of seeing agency as a temporal and short-term construct, we suggest viewing it as a long-term one that includes life goals and/or values (Biesta & Tedder, 2007). Third, our multi-dimensional approach to agentic capacity and

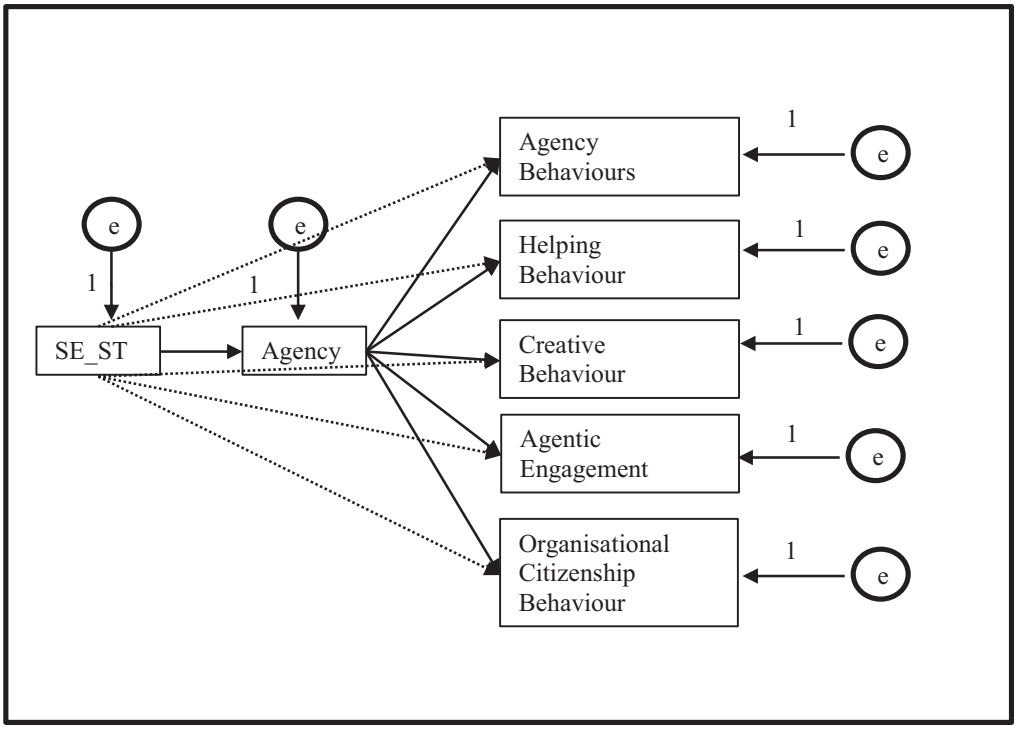

Figure 6. Hypothesised SEM model for SE – ST values*
*Due to sample size and the CFA results of study 1, we related to agentic capacity as an observable variable

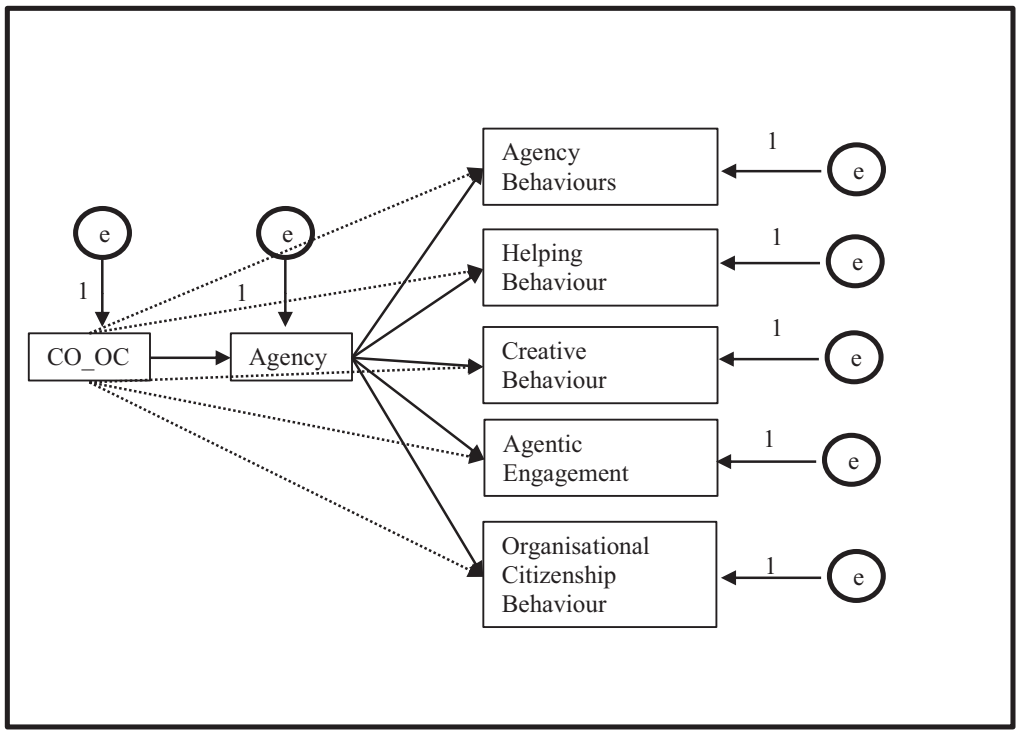

Figure 7. Hypothesised SEM model for CO – OC values*
*Due to sample size and the CFA results of study 1, we related to agentic capacity as an observable variable.

agentic behaviour encompasses the diverse manifestations of agency. For example, our attention to helping and creative behaviours as expressions of agency promotes a more inclusive understanding.

Our findings suggest that values relate to agentic capacity. Attributing importance to promoting the self and being open to new experiences whilst maintaining independent thoughts and actions are positively related to teachers' agentic capacity. In addition, agentic capacity mediates the relations between values and agentic behaviours. Without ignoring the importance of contextual factors, teachers' agency can also be understood (and studied) as a manifestation of their agentic capacity. Our findings echo previous models showing that teachers' agency reflects what they bring with them to school (Priestley *et al.*, 2015b; Tao & Gao, 2017). Like Lai *et al.* (2016), we find that teachers' professional agency varies across individuals: teachers responding to similar contextual opportunities may take different actions, based on their values and mediated by their agentic capacity. Thus, individual agency makes a unique contribution to teachers' agentic behaviour. It has an independent effect from contextual and social influences.

Researchers acknowledge the importance of individual beliefs, knowledge, skills and values in the manifestation of agency (e.g. Biesta *et al.*, 2015; Charteris &

Table 4. Model's results linking values, agency and behaviours

	SE − ST (model 1)		OC − CO (model 2)	
	β	*SE*	*β*	*SE*
Direct effects				
Values → Agentic capacity	0.20**	0.04	0.33**	0.05
Agentic capacity → Agency behaviour	0.49**	0.04	0.48**	0.05
Agentic capacity → Helping behaviour	0.53**	0.06	0.53**	0.06
Agentic capacity → Creative behaviour	0.61**	0.06	0.52**	0.06
Agentic capacity → Agentic engagement	0.63**	0.05	0.65**	0.05
Agentic capacity → Organisational citizenship behaviour	0.49**	0.06	0.60**	0.06
Values → Agency behaviour	0.01	0.04	0.03	0.05
Values → Helping behaviour	−0.19**	0.05	−0.12*	0.05
Values → Creative behaviour	−0.03	0.05	0.25**	0.05
Values → Agentic engagement	0.07	0.04	−0.008	0.05
Values → Organisational citizenship behaviour	−0.18**	0.03	−0.12*	0.04
Indirect effects				
Values → Agency behaviour	0.10**		0.16*	
Values → Helping behaviour	0.11**		0.18**	
Values → Creative behaviour	0.12**		0.17**	
Values → Agentic engagement	0.13**		0.22**	
Values → Organisational citizenship behaviour	0.12**		0.20*	

Notes: SE − ST = self-enhancement values minus self-transcendence values dimension, OC − CO = openness-to-change values minus conservation values. *$p < 0.05$. **$p < 0.01$.

Smardon, 2015; Lai *et al.*, 2016; Tao & Gao, 2017). Some argue that the personal characteristics of teachers, including beliefs or attitudes, strongly influence how and the extent to which they enact professional agency (e.g. Kwakman, 2003; Bakkenes *et al.*, 2010; Fullan, 2013). To the best of our knowledge, until now, no one has asked how specific values interact with agency manifestation.

Looking at the SE − ST dimension in both studies, we see that teachers are higher in ST than in SE. Yet, in the path from SE − ST values to the agentic trait and agentic behaviours, it seems that SE is more significant than ST. Self-focused values are important to achieve self-related goals, but they are also related to agentic capacity and behaviours in the schooling context, with the potential to improve school functioning. When teachers wish to promote themselves in the schooling context, their resulting behaviours may not only contribute to the self but also enhance the school climate and contribute to school progress.

We find that the OC − CO values relate to agentic capacity and agentic behaviours, with the OC aspect more significant to agency than the CO one. The pursuit of the values of independent thinking and action and the search for new experiences enhance teachers' agentic capacity and behaviours. In the schooling context, pursuing novelty is important for teachers' agency and creative behaviour and for behaviours that promote school functioning and create a better working climate. Therefore, school principals should nurture independent thinking amongst their teachers. When

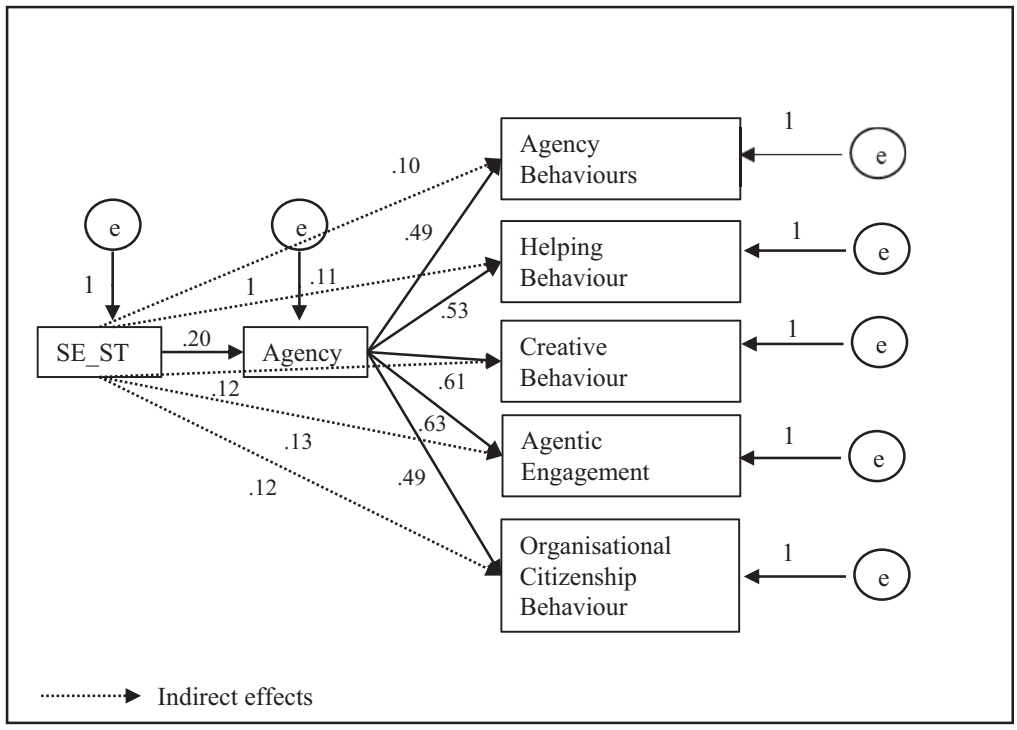

Figure 8. Final model SE – ST dimension

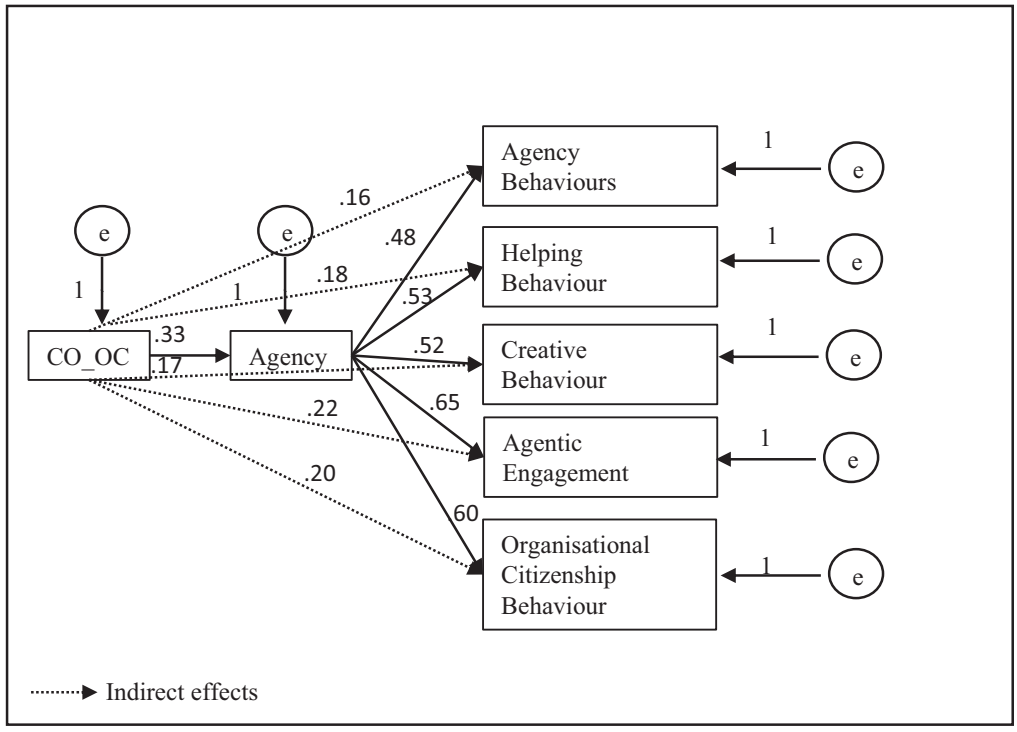

Figure 9. Final model CO – OC dimension

schools have more autonomy to define and develop their pedagogic goals, as in Israel, teacher agency is an asset.

Some may disagree with a framing whereby teacher agency stems from what teachers bring with them to school, because of the implications for educational development. Simply stated, our findings do not undermine the importance of context. Instead, we show how values relate to agentic capacity and agentic behaviour; the possession and promotion of certain values may help agency to emerge. Therefore, our results do not support determinism. Quite the contrary, in fact. School principals might encourage these specific values among teachers to contribute to their agentic capacities and behaviours to enhance school climate. In an era of change, the relevance of values that teachers bring with them to school should be acknowledged.

Recent findings show that principles have an important role in shaping students' values and school-related behaviour (Berson & Oreg, 2016), making it important to understand which values relate to teachers' behaviour. If we want to study teacher agency, we need to understand how it is resourced. Like Charteris and Smardon (2015), we claim that it is important to consider how psychological views and personal capacity interact with the achievement of agency. Our study contributes to the research on agency by highlighting the role of personal values. Teachers' competencies and motivations can function as individual affordances or resources for the contextual, political and social aspects promoting the practice of professional agency. We have made a good start, but future research should examine the possible interactions between the contextual/social and individual agency.

Strengths and limitations

Our study has several noteworthy strengths. First, it was conducted in two large-scale samples, allowing us to replicate and validate the results. Second, most of the studies exploring teacher agency use qualitative methods on small samples. Only a few quantitative studies have been carried out on teachers' agency (e.g. Pyhältö *et al.*, 2015). We measured agentic capacity amongst teachers using a quantitative design, offering the opportunity to examine both the antecedents of agency and the behavioural outcomes.

Some limitations should be acknowledged. First, the studies used only self-report measures, and these can be biased. However, values and the agentic capacity are almost exclusively measured using self-reports, as an observer will have difficulty estimating them accurately. Second, we chose to measure values, agency and behaviours using a set of accepted measurements. Although most have been used in workplace and school contexts, there are other accepted measurements for these constructs, and there is a slight possibility that the results are confined to the specific measurements used. This is the case in many quantitative studies. To validate the findings, other studies should assess the models using different instruments. Third, we measured values at one time point, preventing us from learning about the developmental process of the relations between values, agency and behaviour. Future studies should use longitudinal designs to tap into the dynamics of values and behaviour. Fourth, the research design did not include the various school contexts. As use of the data was granted only if we maintained total anonymity, including school and district names, the teachers could not be grouped based on the schools where they work. We could

not distinguish between the different school environments and how they might support or hamper agency. A final contextual point is the role of initial teacher education; the development of a sense of agency may be one of its most important outcomes (Fairbanks *et al.*, 2010). Teacher education may help teachers develop a sense of agency or empowerment to move ideas forward, to reach goals, or even to transform the context (Beauchamp & Thomas, 2009). We could not group teachers into different initial teacher education contexts. Future studies should examine our findings in relation to school-specific contextual factors and to initial teacher education contexts. Fifth, the data were gathered from Israeli teachers. As values, agency, behaviour and their relations might differ across cultures, these results should be replicated elsewhere. Sixth, we focused on how teachers' values relate to their agentic capacity and behaviour, leaving students unstudied. As teachers play an important role in students' performance and school engagement (Downes, 2013), future work should examine how teachers' agency relates to students' engagement and dropout.

Compliance with ethical standards

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

Conflict of interest: Author A declares that he/she has no conflict of interest. Author B declares that he/she has no conflict of interest.

Ethical approval: All procedures performed in this study were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Informed consent was obtained from all individual participants in the study.

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