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Exploring language learners' self-generated goals: Does self-concordance affect engagement and resilience?

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ABSTRACT

Despite the importance that goals have for language learning (Lee & Bong, 2019), little is known about the effects on learner behaviours. Combining individualized (idiographic) and standardized (nomothetic) methodologies, this study investigated whether the self-concordance of learning goals formulated at the beginning of a program of language education affected engagement and resilience at the end of the first year. Following research demonstrating the mediating roles of goal effort and goal progress (Vasalampi et al., 2009), these variables were included in the study design. Participants were 41 teacher education students on a university program in Turkey. Data was collected on four occasions over two semesters. Analyses were carried out using path modelling. Results showed that starting the program with self-concordance were mediated by goal effort and goal progress. For engagement, a direct effect of self-concordance was also found. Findings point to an important relationship between the quality of language learners' goals and L2 learning behaviours. Further, the study highlights the value of idiographic methods in goal-focused research.

1. Introduction

Language learning is a goal-directed undertaking (Dörnyei, 2020; Teimouri et al., 2021a). The goals that learners select shape regulation and determine the intensity and duration of striving (Dörnyei, 2020; Teimouri et al., 2012b). However, in the conceptualization and investigation of L2 motivation, goal theories have been inconspicuous. Little is known about how language learners formulate learning goals, or the effects that goal selection and perceptions of goal-focused progress have on learning behaviour (Lee & Bong, 2019). Combining the use of individualized (idiographic) and standardized (nomothetic) methodologies in a longitudinal design, this study explored language learners' self-generated goals, and the effects that self-concordance, effort and progress can have on engagement and resilience. The article begins with a discussion of goals in language learning and organismic perspectives on positive functioning. Next, theories of self-concordance and progress in goal pursuit are described. The study's hypotheses are then presented: first, that having a self-concordant goal or goals at the start of a program of L2 learning would be associated with engagement and resilience at the end of the first year, and secondly, that effects of self-concordance would be mediated by goal effort

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and goal progress. Thereafter, the methodology is described. The findings are discussed, and implications for future research and L2 pedagogies are set out.

2. Language learners' goals

Requiring sustained investments of effort, language learning is a goal-directed enterprise (Teimouri et al., 2021b). Typically, L2 skills develop over years of learning, and are the result of enduring forms of motivation (Dörnyei, 2020). However, for many learners, motivation will be intermittent. Intensity can fluctuate, and the sources of motivation can change during the learning process (Dörnyei, 2020). In the shifting circumstances of L2 learning, the goals that language learners set for their studies can provide "focus and direction for their effort" and can "push them to engage in concrete actions" (Lee & Bong, 2019, pp. 11–12). Yet goals can differ in quality. As Dörnyei (2020) has suggested, goals that are personally salient can have particular importance for language learners. They can enable the learner to persevere when challenges arise, and to marshal resources when obstacles are encountered.

While the study of language learners' goals is an emerging direction in L2 motivation research (e.g., Papi, 2018), goal constructs are implicit in each of the paradigm's major frameworks. In the socio-educational model (Gardner, 1985), instrumental and integrative orientations (the desire to achieve proficiency for pragmatic and/or affiliation purposes) are composites of learning goals. In the process model of L2 motivation (Dörnyei & Ottó, 1998) goals have a more prominent, albeit undertheorized role. In this "action-phase" model, the initiation and enactment of motivation stem from goal setting, and from the formation of goal-directed intentions. In the L2 Motivational Self System (Dörnyei, 2009), goal structures underpin the system's two self-guides – the Ideal L2 Self and the Ought-to L2 self – which constitute mental representations of desired goal states. In Noels' (Noels, 2009; Noels et al., 2000) application of Self Determination theory (Ryan & Deci, 2000) to language learning motivation, the presence of a longer-term goal is similarly implied. In identified regulation – the most self-determined form of extrinsic regulation – energy is invested in an activity due to its importance for achieving a valued goal.

In each of these models, commitment to language learning is conceived in quantitative terms, as a degree of motivational energy. To complement quantity-directed research, quality-focused approaches are required (Papi, 2018). From a quality perspective, individual differences in motivational orientations (approach–avoidance, and promotion and prevention) affect the types of goals that people select, and the manner in which goal-directed behaviour is strategically regulated (Papi et al., 2019). In line with regulatory fit theory (Higgins, 2000), Papi (2018) has highlighted a need to identify the content of L2 learners' goals, and the regulatory effects with which they are associated. This is because research focused on goal quality can have greater validity, and can provide more comprehensive understandings of motivational processes and the ways in which they unfold.

Given the importance of goals in sustaining motivation for language learning, research directed to goal content and regulatory effects has been surprisingly limited (Lee & Bong, 2019). L2 proficiency is a multifaceted and highly individualized accomplishment. Because language learners are likely to possess different goals for different aspects of L2 learning, and because these goals can be pursued in different ways, there is need to better understand the effects of goal and regulation quality on learning behaviours (McEown & Oga-Baldwin, 2019; Papi, 2018; Teimouri et al., 2021a; 2021b). As Lee and Bong (2019) have made clear, studies that focus on the content of language learners' goals can generate "knowledge and insights into how learners' motivation helps or hinders L2 acquisition and performance" (p. 6).

3. Organismic perspectives on positive functioning

Goals provide the reference standards that guide human activity. Specifying and directing a person's behaviour, they challenge the individual to channel energy in particular directions, and to apply skills to worthwhile tasks. Goals regulate behaviour in effective ways, and undergird persistence (Austin & Vancouver, 1996). In the face of challenges and setbacks, goals enable people to stay on course towards possible futures (Sheldon, 2014).

Investigations into the operation of goals in promoting optimal functioning subdivide into two traditions: research that adopts a *systemic* perspective (and which is focused on the quantity of energized behaviour), and research that adopts an *organismic* perspective (and which is focused on motivational quality) (Sheldon & Kasser, 1995; Sheldon & Vansteenkiste, 2005). While systemic perspectives encompass cognitive-behavioural and cybernetic theories, organismic perspectives include humanistic, developmental and psychodynamic theories that highlight well-being, and the human potential for growth (Deci & Ryan, 2000; Rogers, 1964; Ryan, 1995).

In a systemic perspective, optimal functioning involves "the coherent and efficient operation of the person's behavioural or action systems" in ways where a greater *quantity* of successful action is generated (Sheldon & Vansteenkiste, 2005, p. 5). An example of a systemic, quantity-oriented approach to goal setting and goal pursuit is Carver and Scheier's (1998)control theory model of self-regulation, which focuses on how effectively or quickly a person is striving (Sheldon & Vansteenkiste, 2005). In an organismic perspective, optimal functioning involves self-actualization, and the satisfaction of basic psychological needs (Deci & Ryan, 2000). Here, the focus is on "the congruence of the action and goal with deeper or more creative and resourceful parts of the self, such that action is of a higher *quality*" (Sheldon & Vansteenkiste, 2005, p. 5, original emphasis).

To complement the focus of systemic perspectives that target the efficiency of action systems, and to add a personal growth dimension to the understanding of effective functioning, organismic perspectives highlight the personal relevance and meaningfulness of selected goals (Sheldon, 2014). In Self Determination theory (Deci & Ryan, 2000), one of the sub-theories involves the quality of volition experienced in relation to a goal, and the quality of the reasons that undergird goal pursuit (Sheldon & Kasser, 1995). Consideration is given to the questions "towards *what* a person is striving, and *why* he/she is striving for it" (Sheldon & Vansteenkiste, 2005, p. 13, original emphasis). The "what" question concerns goal content, and the effects that content has on well-being. The "why"

question involves the fit between a selected goal and the person's identity.

Goal content – the "what" question – is connected to the ways that people experience the future. When the content of a goal accords with positive perceptions of the future, current behaviour is experienced as enjoyable and rewarding. In consequence, well-being is supported. Interconnected with psychological need-satisfaction, the "why" question concerns whether a person is acting because the actions express core values, developing interests and growth potential, or whether actions are influenced by compulsions and situational constraints (Deci & Ryan, 2000; Ryan et al., 1996; Sheldon & Vansteenkiste, 2005).

3.1. The self-concordance model

Combining the "what" and the "why" questions into a theory of goal pursuit and influences on positive striving, Sheldon and colleagues (Sheldon & Elliot, 1998, 1999; Sheldon et al., 2002; Sheldon & Kasser, 1998) developed the self-concordance model (SCM). In contrast to goals that are "merely" autonomous or self-determined, SCM suggests that to generate optimal forms of goal-directed functioning, and striving that is characterized by well-being, goals need to connect to a person's intrinsic values, deeper interests, and personality-based preferences (Sheldon, 2014). Thus, self-concordance involves the "fit" between a person's conscious objectives, and their self-defining dispositions and organismic needs. Typically, self-concordant goals align with projects that are personally meaningful, and with change that the person wants to achieve (Sheldon, 2014). As Sheldon et al. (2019) have put it, goals that are congruent with the self "feel like they would be interesting and meaningful to pursue, rather than being a burden or a drag" (p. 127).

In empirical work, goal self-concordance has been found to have enduring influences on behaviour. Self-concordance not only predicts sustained effort and increased goal-attainment (Sheldon & Elliot, 1998, 1999), but when a self-concordant goal is pursued the impulsive attraction to goal-disruptive temptations has been shown to decrease (Milyavskaya et al., 2015). Compared to goals that lack self-concordance, self-concordant goals generate greater satisfaction during goal pursuit. When attained, they have enhanced effects on well-being (Sheldon & Houser-Marko, 2001). Research has demonstrated that self-concordant goals are more frequently rehearsed, support implementation intentions, and can promote effective forms of regulation (see e.g., Carraro & Gaudreau, 2011; Koestner et al., 2008; Milyavskaya et al., 2015). In a longitudinal study conducted in upper secondary schools in Finland, it was found that when achievement-focused goals were self-concordant, effort invested in goal attainment was greater, goal-directed progress improved, and engagement increased (Vasalampi et al., 2009).

Based on these findings, and the recognition that a self-concordant goal can function as a type of self-concept that guides goaldirected behaviour (Sheldon & Elliot, 1999), goal self-concordance has been suggested to play a key role in supporting persistence in L2 learning (Dörnyei, 2020; Dörnyei & Henry, 2022; Henry, 2021). Because the theory of self-concordance addresses the *quality* of language learners' goals (Papi, 2018), and can explain how differences in goal quality affect aspects of goal striving such as effort, engagement, and well-being, it can help in understanding why some learners seem better able to maintain energy and find L2 learning satisfying and enjoyable.

3.2. Progress in goal pursuit

Possession of an autonomously formed goal can support goal progress. Compared to people who pursue goals that are externally controlled, people who pursue a goal that is personally meaningful can experience a greater degree of progress towards that goal (Sheldon & Kasser, 1998). However, the relationship between self-concordance and goal progress is complex; the effects of self-concordance can be mediated by any number of unmeasured variables, such as implementation intentions (Koestner, 2008; Koestner et al., 2008). Nevertheless, in a meta-analysis of 12 prospective studies examining the relation of goal autonomy to goal progress, Koestner et al. (2008) found self-concordant goals to be consistently related to greater goal progress.

This finding has been mirrored in studies where outcome variables such as engagement, resilience and attainment have been included. For example, in the study by Vasalampi et al. (2009), a direct relationship was found between goal self-concordance and goal progress for boys. For girls, however, no direct relationship was found. Rather, the effect of self-concordance was mediated by effort. In a similarly designed study by Werner et al. (2016), corresponding results were found. Here too it was discovered that the relationship between goal self-concordance and progress was mediated by an intervening variable. However, rather than effort, the relationship was mediated by subjective ease. Explaining this result, Werner et al. (2016) made the point that the lack of a role for effort in predicting progress may be because self-concordance and positive outcomes such as attainment (Werner et al., 2016) and engagement and resilience (Vasalampi et al., 2009).

3.3. Investigating quality: nomothetic versus idiographic approaches

While the self-concordance of a goal may be a key factor in the undergirding of optimal functioning and persistence, compared to quantity aspects of goal setting and goal pursuit, far less research has taken place. This is because the investigation of differences in goal quality presents practical challenges.

There are two differing ways in which attributes relating to the self can be assessed: standardized (nomothetic) approaches, and individualized (idiographic) approaches (Allport, 1937; Cox & Klinger, 2021; Emmons, 1989; Klinger & Cox, 2011a; 2011b). In nomothetic approaches, standardized descriptions are created. From these descriptions (usually questionnaire items), participants are invited to indicate the degree to which an item is self-descriptive (generally by selecting an appropriate indicator on a rating scale). Nomothetic approaches have the advantages of being simple to administer, less time-consuming for participants to complete, and

producing data that is easier for researchers to process (Cox & Klinger, 2021). Not surprisingly, nomothetic approaches dominate research in the cognitive sciences (Ashworth et al., 2019; Cox & Klinger, 2021). However, nomothetic approaches come at cost; precision in the capture of a focal phenomenon will often be lost (Cox & Klinger, 2021).

In contrast to nomothetic approaches, idiographic assessment relies on respondents' own descriptions of themselves (Cox & Klinger, 2021). Although more time-consuming to collect and process, ideographically generated data can provide accurate measures of distinctive and idiosyncratic psychological phenomena. For researchers interested in *quality*, idiographic approaches are favoured in research designs. This is particularly notable in research exploring regulatory focus (Higgins, 2000) and goal self-concordance (Sheldon, 2014). For example, in designs using the regulatory focus strength measure (Higgins et al., 1997), participants are asked to list pairs of ideal and ought attributes, and to rate the extent to which they would ideally *like to* possess the attribute, and the extent to which they *actually* possess it. Scores for promotion and prevention are then calculated by averaging the response times for the sets of ideal- and ought-self attributes (e.g., Scholer et al., 2010).

When it comes to the quality of people's goals, "what" questions targeting goal content require assessment methodologies that draw on participant-generated data. Because designs that enable people to specify their own learning objectives can enhance the meaningfulness of participation, data that is yielded can have enhanced meaningfulness for the researcher (Sheldon & Elliot, 2000). The importance of idiographic goal descriptions in quality-focused research is clarified by Milyavskaya et al. (2014). As these researchers explain, since idiographic goals involve individually selected targets, "the participant knows what they themselves mean by a given goal and can be specific in rating their motivation for the goal" (p. 702). In addition to the advantage of being *personologically valid*, idiographic goal constructs are highly versatile. As Sheldon and Elliot (2000, p. 52) explain, once participants have provided the basic goal stems, "almost any issue can be explored ... given that they naturally occupy participants' attention over time". As this statement indicates, idiographic approaches provide excellent opportunities for investigating the effects of personal goals in longitudinal and time series studies.

3.4. Combining idiographic and nomothetic approaches

However, the increased precision of a purely idiographic design is not without its drawbacks. In particular, comparisons across individuals are difficult (Cox & Klinger, 2021). In research that seeks to investigate individualized behaviours – for example, the effects that goals with different degrees of personal salience have on goal-directed behaviour – combinations of idiographic and nomothetic approaches are needed. Frequently, a self-generated goal will be subsequently rated for effort and progress. In a study examining similarities and differences between goals pursued in relation to important social roles (Sheldon & Elliot, 2000), self-generated goal-statements constituted the focus for subsequent rating-based appraisals. A similar design was employed by Milyavskaya et al. (2014), where participants first identified a personal goal, and then rated goal pursuit.

Combined idiographic and nomothetic methodologies have been profitably used in several longitudinal studies. In a two-semester study by Sheldon and Houser-Marko (2001), participants were initially asked to list eight goals that they expected would last for the duration of a semester. Next, they rated why they were pursuing each goal in relation to SDT motives (external, introjected, identified and intrinsic), and a self-concordance score was computed. Then, at the midway stage of each semester, participants rated how well they were doing in relation to each goal (ranging from not at all well, to very well). Attainment scores were then computed by averaging the ratings. In a study by Vasalampi et al. (2009) that investigated the effects of self-concordance on effort, progress, school engagement and resilience, participants were surveyed on three occasions. At the first measurement point, participants were asked to generate an achievement-related personal goal, and to rate their reasons for pursuing this goal (from which a self-concordance score was then computed). At subsequent measurement points, participants were asked to assess their goal-related effort and goal progress. Findings showed that when a self-concordant goal was pursued, effort increased, and that this was reflected in greater goal progress. In turn, progress predicted engagement and resilience, which were measured using standardized scales.

4. Study and purpose

In L2 motivation research, recent directions have involved the conceptualization and investigation of persistence in language learning (e.g., Dörnyei, 2020; Dörnyei & Henry, 2022; MacIntyre & Khajavy, 2021; Sudina & Plonsky, 2021; Teimouri et al., 2021a; 2021b), and the effects of differences in motivational quality (e.g., Papi, 2016, 2018; Teimouri, 2017). Part of a larger longitudinal project exploring L2 persistence,¹ the current study lies at the intersection of these directions. Based on findings from research demonstrating how, at the outset of an academic program, a self-concordant goal can have positive effects on engagement and resilience later in time, and that associations can be mediated by goal effort and goal progress (Vasalampi et al., 2009), the purpose of the study was to test two hypotheses:

H1. That a self-concordant goal formulated at the beginning of an initial semester of L2 education would be positively associated with engagement and resilience measured during the subsequent semester

H2. That effects of self-concordance would be mediated by goal effort and goal progress

¹ In the larger project, data will be collected in subsequent semesters. The range of outcome variables will be extended to include measures of well-being and school burnout. These aims are in accordance with Sheldon and Elliot's (1998, 1999) original propositions, and the findings of subsequent research e.g., Sheldon and Houser-Marko (2001) (in relation to well-being), and Vasalampi et al. (2009) (in relation to school burnout).

5. Method

5.1. Participants

The participants were 41 students (22 females, 19 males) enrolled on a program of English teacher education at a university in Turkey. Ages ranged between 17 and 22. All were L1-Turkish-speakers. At the beginning of the data collection, students were one week into their first semester. As is common in Turkey, the first semesters of the program comprised skills-based courses (i.e., reading, writing, listening, speaking) aimed at improving students' language competence.

5.2. Design

A combined idiographic-nomothetic (Cox & Klinger, 2021) longitudinal design was used. At Time 1 (1 week after the start of the first semester), participants generated a maximum of five goals. For each goal, self-concordance scores were computed. At Time 2 (7 weeks into the semester), Time 3 (14 weeks into the semester), and Time 4 (12 weeks into the second semester), scores on scales measuring goal-directed effort, goal progress, engagement, and resilience were obtained.

5.3. Measurements

5.3.1. Measures based on idiographic goal descriptions

Goals. At T1, participants were asked to identify up to 5 goals for the semester. Following Sheldon and Elliot (1999), goal domains were not prespecified. Instead, a post-hoc classification into L2-related and non-L2-related goals was carried out. Goals not relevant to L2 learning were not included in subsequent analyses. In accordance with procedures used to calculate self-concordance (Sheldon & Elliot, 1999; Sheldon & Houser-Marko, 2001; Sheldon & Kasser, 1998; Vasalampi et al., 2009; Werner et al., 2016), participants were asked to rate their reasons for pursuing each goal on a 7-point Likert scale, ranging from 1 (not at all for this reason) to 7 (completely for this reason). There were four categories of reasons: intrinsic, identified, introjected and external. Intrinsic reasons were elicited by the statement "I am pursuing this goal because of the enjoyment it gives me and I am really interested in it"; identified reasons were elicited by the statement "I am pursuing this goal because I really believe it is an important goal"; introjected reasons were elicited by the statement "I am pursuing this goal because I would feel ashamed, guilty, or anxious if I did not"; external reasons were elicited by the statement "I am pursuing this goal because somebody else wants me to or because the situation demands it". A self-concordance variable was created for each participant by (i) grouping together the L2 goals (if more than one), and (ii) summing the intrinsic and identified scores and subtracting the introjected and external scores (Sheldon & Elliot, 1999).

Goal effort. Goal effort is a self-assessed measure of energy directed to self-generated goals. In accordance with the procedures outlined by Vasalampi et al. (2009), and using individualized questionnaires containing the goal(s) that the participant had identified at T1, on each subsequent administration (T2, T3 and T4) participants were asked to appraise the effort put into achieving an identified goal. Presented with their T1 goals, participants were asked two questions: "How much time and effort have you put into this goal?", and "To what extent have you worked on this goal?". Ratings were carried out on a scale ranging from 1 (not at all) to 7 (very much). Scores were combined to produce a sum for each goal. Summing these together, a score for each participant was then calculated.

Goal progress. Goal progress is a self-assessed measure of movement towards a self-generated goal. Goal progress was measured at T2, T3 and T4. In accordance with the procedures outlined by Vasalampi et al. (2009), participants were presented with their T1 goal (s). For each goal they were asked the question: "To what extent have you progressed toward achieving this goal?". Here too the rating scale ranged from 1 (not at all) to 7 (very much). A summed score for each participant was calculated.

5.3.2. Nomothetic measures

Resilience. In research into humans' development, resilience involves a person's positive response to acute and chronic adversity. Aligned with the tenets of positive psychology, and as a means of understanding resilient behaviours in education contexts, Martin and Marsh (2008) introduced the concept of *academic buoyancy*. Academic buoyancy is a type of "everyday resilience" which targets the student's ability "to successfully deal with academic setbacks and challenges that are typical of the ordinary course of school life (e.g., poor grades, competing deadlines, exam pressure, difficult schoolwork)" (Martin & Marsh, 2008, p. 53). As Hiver and Solarte (2021, p. 206) have explained, academic buoyancy can be understood as a "precursor" for psychological resilience, in that adaptive responses to everyday challenges equip the individual to better deal with developmentally adverse events. Like other behavioural variables, buoyancy is likely to have domain-specific qualities (Martin & Marsh, 2020).

Because success on a preservice language education program can require resilience that is specific to language learning, as well as general academic resilience, both academic buoyancy (Martin & Marsh, 2008) and L2 academic buoyancy (hereafter referred to as L2 buoyancy) (Yun et al., 2018) were included in the design. Measurements were carried out at T2, T3 and T4. *Academic buoyancy* was assessed using the scale developed by Martin and Marsh (2008) (4 items). Examples: "I'm good at dealing with setbacks (e.g., bad mark, negative feedback on my work)", and "I think I'm good at dealing with schoolwork pressures". *L2 buoyancy* was assessed using the scale developed by Yun et al. (2018) (6 items). Examples: "Once I decide to do something for English learning, I am like a bulldog: I don't give up until I reach the goal", and "In English class, I continue a difficult task even when the others have already given up on it".

Engagement. Engagement was similarly measured at T2, T3 and T4. This was done using the instrument developed by Hiver et al. (2020; see also Zhou et al., 2021). This assesses learners' engagement in the language classroom across cognitive, affective and behavioural domains. For each domain, items are introduced by the stem: "In my language class today/this week ...". 8-item scales are

used. For example: "I participated in all the activities", and "I kept trying my best even when it was hard" (*behavioural engagement*); "I enjoyed learning new things", and "I felt good while I was in the class" (*emotional engagement*); and "I went through my work carefully to make sure it was done right", and "I thought about different ways to solve problems in my work" (*cognitive engagement*).

5.4. Translation and piloting

The instruments were translated into Turkish following established back translation procedures (Chapman & Carter, 1979). First, the third author translated the items from English to Turkish. Thereafter, a translator translated these back into English. Items for the two English versions were compared with the semantic equivalence of the Turkish versions. Thereafter, the Turkish version of the instrument was piloted to 10 students not participating in the main study, and who were invited to evaluate the comprehensibility of the items.

5.5. Procedure

Administration of the questionnaire was conducted by the third author during class time. Participants could complete the questionnaire anonymously. Each participant was identifiable by a unique personal code. Following administration at T1, individualized questionnaires were created. As previously indicated, personalized questionnaires included the goal formulations from T1. Thus, when rating goal effort and goal progress on subsequent occasions, participants did so in relation to a specific goal generated at the beginning of the program.

5.6. Ethics

Approval for the study was obtained from the ethics committee at the university where the research was conducted. Prior to the first administration, participants received written and oral information about the purpose of the study, the procedures, and the ethical safeguards. At each subsequent administration, this information was provided orally.

6. Results

To test the study's hypotheses, path modelling was used. The aim was to establish whether goal self-concordance measured at the beginning of the program was associated with engagement and resilience measured in the second semester (H1), and whether associations were mediated by goal effort and goal progress (H2). Path modelling is based on regression techniques and allows the modelling of direct and indirect relations among variables. Since variables in a path model can be dependent and independent, it allows for the investigation of mediating effects. The hypothesized relations between self-concordance (at T1), and engagement, academic buoyancy, and L2 buoyancy (at T4) are set out in Fig. 1. Because participants produced up to 5 goals, the hypothesized relations were tested at both individual and goal levels. Separate models were constructed where, respectively, the self-concordance variable was person-based, and goal-based.

Analyses were conducted using Mplus 8.4 (Muthén & Muthén, 1998–2017). Maximum likelihood estimator with robust standard error was used to account for non-normality and non-independence of observations (e.g., Yuan & Bentler, 2000; Muthén & Muthén, 1998–2017). The missing data in the current study is very small (between 0 and 12%) (see Table A1 in Supplementary Data). The missing data modelling procedure integrated in Mplus was used to handle the missing values. Descriptive statistics and correlations



Fig. 1. Hypothesized model of self-concordance.

between all variables for T1-T4 are provided in table A2 in the Supplementary Data. To evaluate model fit, the χ^2 goodness-of-fit test, the root mean square error of approximation (RMSEA), the standardised root mean square residual (SRMR) and the comparative fit index (CFI) were used. For RMSEA and SRMR, values below 0.08 imply an acceptable model fit. A CFI at or over 0.95 indicates a good model fit (Brown, 2015; Hu & Bentler, 1999).

Path models at the individual level were specified where self-concordance (T1) affected goal effort (T2), which in turn affected goal progress (T3), which in its turn separately affected academic buoyancy, L2 buoyancy and engagement (T4). Self-concordance was also allowed to affect the outcome variables directly. This modelling was done stepwise, each outcome tested in a separate model.

First, academic buoyancy at T4 was specified as an outcome (Model A:1). However, the model fit indices indicated a poor model fit (see Table 1). For this reason, academic buoyancy was excluded from subsequent analyses (an issue to which we return in the Discussion). Next, L2 buoyancy was used as an outcome (Model A:2). All model fit indices indicated a good fit to the data (Table 1). Self-concordance at T1 affected goal-effort (0.45) at T2. In turn, this affected goal-progress at T3 (0.41), which predicted L2 buoyancy at T4 (0.35). The direct effect of self-concordance on L2 buoyancy was not significant (see Fig. 2). However, there was a total effect of self-concordance on L2 buoyancy (0.24).

In a third step, engagement at T4 was used as an outcome (Model A:3). The model fit indices indicated a good fit to the data. Self-concordance affected goal effort at T2 (0.45). In turn, this affected goal progress at T3 (0.41), which subsequently predicted engagement at T4 (0.34). Additionally, there was a direct effect of self-concordance on engagement (0.42) (see Fig. 3). The total effect of self-concordance on engagement was substantial (0.48).

In a further step, L2 buoyancy and engagement were defined as outcomes in a full model (Model A:4). As in previous models, all indices indicated a good model fit. Findings echoed the results from the previous models, where self-concordance affected goal effort at T2 (0.45), which in turn affected goal progress at T3 (0.41), and which in its turn predicted L2 buoyancy (0.35) and engagement (0.33) at T4. As in the previous models, self-concordance directly predicted engagement (0.42), but not L2 buoyancy (see Fig. 4). For L2 buoyancy there was however a total effect of self-concordance (0.24). For engagement the total effect was (0.48).

Finally, we tested the full model at the goals level (Model B:1). Here too the model fit indices indicated a good fit to the data (see Table 1). Corresponding with the individual-level models described above, self-concordance (T1) affected goal effort (T2) (0.31), which in turn affected goal-progress (T3) (0.47), which subsequently predicted L2 buoyancy (0.38) and engagement (0.24) at T4. The total effect of self-concordance on engagement was (0.46). However, the total effect for self-concordance on L2 buoyancy was not significant, a finding likely due to the small sample size (see Fig. 5).

7. Discussion

7.1. The influence of goal self-concordance

The theory of goal self-concordance (Sheldon & Elliot, 1998, 1999) suggests that a self-generated goal which is personally meaningful is more likely to engender sustained effort over time, to be perceived as attainable, and to result in positive learning behaviours such as enhanced resilience and deeper engagement (Vasalampi et al., 2009). Findings from the current study align with these propositions. They provide empirical support for the view that language learners who pursue a self-concordant goal are better equipped to succeed in the long-term endeavour of developing L2 proficiency (Dörnyei, 2020; Henry, 2021).

In the current study, two hypotheses were advanced: that a self-concordant goal formulated at the beginning of an initial semester of L2 study would be positively associated with engagement and resilience measured during the subsequent semester (H1), and that associations would be mediated through goal effort and goal progress (H2). The results offer support for these hypotheses. This was true when self-concordance was examined as an individual-level variable, and as a goal-level variable.

For engagement, findings show that self-concordance at the beginning of the first semester had a positive effect on focused learning behaviours at the end of the second semester. In line with Sheldon and Elliot's (1999) original hypothesis, and the results of Vasalampi et al.'s (2009) Finnish study, which suggested that the influence of self-concordance is mediated through goal effort and goal progress, the current findings revealed an indirect effect of self-concordance on engagement mediated through a similar path. However, the present findings also showed a direct effect of self-concordance on engagement. There can be of number of reasons explaining this finding. One important reason could be that, compared to the Finnish study – where students were asked to identify a single achievement-related personal goal pertaining to upper secondary education in its entirety – in the current study goals included in the analyses were specifically directed to language learning. Thus, the direct effect might be explained by having more precisely targeted goals at the initial measurement point. Equally, while in the Finnish study engagement was unrelated to a particular subject (measured using a scale capturing vigour, dedication and absorption across school subjects), in our study the cognitive, behavioural and affective

Table	1				
Model	fit	indices	for	Model	A:1-B:1.

Model	Chi-square (df)	p-value	RMSEA	CFI	SRMR
A:1	6.167 (2)	0.048	0.225	0.855	0.075
A:2	0.316 (2)	0.854	0.000	1.000	0.023
A:3	0.286 (2)	0.867	0.000	1.000	0.027
A:4	0.357 (3)	0.949	0.000	1.000	0.025
B:1	2.142 (3)	0.544	0.000	1.000	0.029



Fig. 2. Model A:2 Self-concordance and L2 Buoyancy (individual level) Note: Standardized modelling results are reported. P-values within brackets.



Fig. 3. Model A:3 Self-concordance and Engagement (individual level) Note: Standardized modelling results are reported. P-values within brackets.



Fig. 4. Model A:4 Self-concordance, L2 Buoyancy and Engagement (individual level) Note: Standardized modelling results are reported. P-values within brackets.



Fig. 5. Model B:1 Self-concordance, L2 Buoyancy and Engagement (goal level) (n = 80) Note: Standardized modelling results are reported. P-values within brackets.

dimensions of engagement were specifically related to L2 learning.

In relation to resilience, the findings are less clear. For academic buoyancy, the fit of the model to the data was poor. For L2 buoyancy, while we identified a total effect of self-concordance, there was no direct effect. This may be a result of the small sample size. Like engagement, the indirect association with self-concordance was mediated by goal effort and goal progress. In the sections that follow we attempt to untangle these findings.

Resilience was assessed using two constructs. In addition to the original academic buoyancy construct (Martin & Marsh, 2008) we also included L2 academic buoyancy, the domain-specific rendering proposed by Yun et al. (2018). As we have noted, when academic buoyancy was specified as an outcome at the final measurement point, the model fit was poor. Different explanations seem possible. One plausible explanation is that during the period under investigation (the first two semesters of a teacher education program where instruction was focused on proficiency development), the "everyday resilience" captured by the academic buoyancy construct may not be as closely related to the particularities of the learning context as Yun et al.'s (2018) L2 counterpart. That is, adaptive responses to challenge may be better captured in a domain-specific scale (Martin & Marsh, 2020), where items are focused on resilient behaviours in relation to the learning target (for example, "In English class, I continue a difficult task even when the others have already given up on it").

An alternative explanation involves temporality differences in the operationalization of the two constructs. While the items in the Martin and Marsh (2008) scale are focused on characteristically adaptive responses to everyday challenges encountered in learning ("I'm good at dealing with setbacks", "I don't let study stress get on top of me", "I think I'm good at dealing with schoolwork pressures", and "I don't let a bad mark affect my confidence"), the items in the L2 buoyancy scale (Yun et al., 2018) have a more prospective and actively agentic framing (e.g., "Once I decide to do something for English learning, I am like a bulldog: I don't give up until I reach the goal", and "When I run into a difficult problem in English language class, I keep working at it until I think I've solved it"). As Sudina and Plonsky (2021) have noted, the Yun et al. (2018) scale contains items that are conceptually similar to the "perseverance of effort" dimension of grit. Directed more toward future-oriented action, L2 buoyancy may have a closer relationship to goal-setting, and longer-term goals that are salient for the L2 learner. In this sense, it could be considered analogous to the grit construct (Sudina & Plonsky, 2021).

A further point worth noting in relation to the divergent findings for academic and L2 buoyancy, is that in the Vasalampi et al. (2009) study, resilience was measured using a scale targeting school burnout (exhaustion at school, cynicism toward the meaning of school, and sense of inadequacy). In their model, school burnout was negatively associated with goal self-concordance, the association mediated by goal effort and goal progress. Containing items such as "I have become less interested in schoolwork and I often think of dropping out of school", and "I expected to do better academically than I have done", the school burnout scale has a more distal focus. Thus, compared to academic buoyancy (Martin & Marsh, 2008), which is focused on the active present – "I'm good at dealing with setbacks (e.g., bad mark, negative feedback on my work)", and "I don't let a bad mark affect my confidence" – the temporally extended focus of the Yun et al. (2018) construct (e.g., "I remain motivated even in activities of English learning that spread over several months") may have better correspondence with the school burnout scale.

Consequently, we suspect that differences in the manner that buoyancy is operationalized – as a characteristic adaptive response to generally encountered difficulties in education (Martin & Marsh, 2008), or as proactive responses to particular challenges associated with the long-term nature of L2 learning (Yun et al., 2018) – can help explain differences in the obtained results, and why academic buoyancy had poor model fit.

7.2. The mediating roles of goal effort and goal progress

As highlighted in the preceding discussion, for both engagement and L2 buoyancy, the effects of goal self-concordance were mediated by goal effort and goal progress. In line with the results of previous research highlighting the importance that subjective experiences of goal striving and goal attainment have in shaping learning behaviour (e.g., Sheldon & Elliot, 1998, 1999; Vasalampi et al., 2009), the current results reveal how goal effort and goal progress can play important roles in the formation of positive L2 learning habits.

For the participants in our study, starting the semester with proficiency development as a personal goal had a positive effect on engagement later in time. Further, results show that this effect could be enhanced when goal-related progress was perceived. For resilience, the picture is somewhat different. The adaptive capacity to overcome challenges in L2 learning does not appear as a direct consequence of having a self-concordant goal. Rather, the results suggest that academic resilience can materialize through the experience that one's efforts are leading to progress toward a goal that is personally valued.

8. Limitations

The study has several limitations. Most importantly, the sample size placed restrictions on the number of parameters estimated in the modelling. It will also have influenced the fit of the models to the data. In this regard, and in relation to academic buoyancy, the RMSEA may have been particularly affected. Sample size will also have affected the possibility to identify significant relationships between variables.

A further set of limitations involves goal progress. First, as with the other variables, this was measured by self-report. However, this cannot be assumed to represent objective progress (Vasalampi et al., 2009). Second, a single predictor of progress was examined. Ideally, other predictors – for example commitment to an autonomously-generated goal – could have also been used (Vasalampi et al., 2009). Third, progress in pursuit of a language learning goal can be difficult to assess. As Lee and Bong (2019) have explained,

"progress toward a desired level of communicative proficiency is not easy to discern for FL learners" (p. 9). Finally, a personal goal formulated at the outset of a program may not be well fitted to program content. An initially identified goal can change as times passes. For these reasons too, progress appraisals can be hard to make.

9. Conclusion, future directions and implications

In mainstream educational psychology, research has demonstrated the importance of goal self-concordance in shaping learning behaviors (e.g., Koestner et al., 2002; Sheldon & Houser-Marko, 2001; Sheldon et al., 2004; Vasalampi et al., 2009; Werner et al., 2016). In the research reported here, results showed positive effects on engagement and resilience when starting a program with a self-concordant goal. The findings suggest that for the long-term endeavour required to develop L2 proficiency, persistence is supported when learners' goals are self-concordant.

In addition to the effects of goal self-concordance, findings also highlight the importance of goal-directed effort and perceived progress. For both engagement and resilience, positive effects of goal self-concordance were mediated through goal effort and goal progress. The degree to which a language learner experiences making progress towards a goal would seem to have important implications for understanding long-term persistence. While engagement and resilience represent major growth areas in L2 psychology (e.g., Hiver et al., 2021; Hiver & Sánchez Solarte, 2021), relationships with goal progress have not been fully investigated.

In future research, the effects of goal self-concordance, experiences of goal-directed effort, and perceptions of goal-related progress could be profitably explored in longitudinal designs. In this respect, there can be value in combining idiographic and nomothetic methodologies (Cox & Klinger, 2021). Given the heterogeneity of personal objectives in L2 learning, and the multifaceted nature of proficiency targets, the predictive ability of idiographic measures can be superior to those of nomothetic counterparts. Thus, an important direction for future research involves the development of methodologies that can accurately target language learners' self-generated goals, and the representations of goal states embodied in L2 self-guides (see e.g., Tahmouresi & Papi, 2021). Given the time investment needed in such research, a particular challenge will be to work with samples large enough to enable the application of rigorous modelling techniques.

A particular direction for future work involves extending the range of outcome variables. In developing the self-concordance model, Sheldon and Elliot (1998, 1999) emphasized that pursuit of a self-concordant goal would generate enhanced well-being. Positive connections between these variables have been demonstrated in subsequent empirical work (e.g., Sheldon & Houser-Marko, 2001). Given increased attention to positive psychology in L2 learning (MacIntyre & Mercer, 2014), and the findings of the Vasalampi et al. (2009) study demonstrating a positive connection between goal self-concordance and well-being, this association should be investigated in future research.²

Finally, while we caution against overinterpreting the findings of single studies – especially with small samples from single institutions – the results support pedagogical initiatives that involve goal setting and goal exploration. When L2 learners explore longerterm goals at the start of a program, and, on subsequent occasions, have opportunities to revisit these goals and carry out assessments of invested effort and progress, persistence can be supported. As Lee and Bong (2019) have made clear, "setting and striving for more specific goals in each skill area can effectively maintain students' FL motivation and effort and speed up their attainment of FL fluency" (p 9). As shown in the current study, language learners are not only able to formulate goals that target particular skills areas, but when goals are subsequently revisited and when appraisals of progress are made, there is potential for sustaining motivated behaviour. For the long-term commitment needed in language learning, this can be important.

Author statement

The authors made equal contributions to the study.

Alastair Henry: Conceptualization; Study design; Writing - original and revised draft: Writing - review and editing.

Cecilia Thorsen: Formal analysis; Writing - revised draft: Writing - review and editing.

Sercan Uztosun: Study design; Development of instruments; Data collection; Data curation; Writing – original draft; Writing – review and editing.

Declarations of competing interest

None.

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 $^{^2}$ In the larger project (see the preceding footnote) the aim is to examine possible effects of goal self-concordance on well-being and school burnout. Because these are regarded as more distal outcomes, they will be investigated at later time points.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.system.2022.102971.

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