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Profiling the motivational characteristics of Greek university students

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ABSTRACT

Research in L2 motivation of the past 60 years has gone through a journey from seeking the sources of motivation within the individual to currently locating motivation at the interplay of cognitive, affective, and social parameters. This study adopts Dörnyei's (2005) L2 Motivational Self System and employs an adapted version of Taguchi et al.'s (2009) questionnaire in order to examine Greek university students' motivational profiles with regard to ideal L2 self and ought-to L2 self and promotion and prevention instrumentality. In the cluster analysis three motivational clusters are identified, with prevention instrumentality and ideal L2 self as main distinguishing factors. Through a series of analyses of variance and crosstabulation the three clusters are associated with language-related, future goals and social variables: The emergent clusters are: the highly motivated students also most proficient in L2, the low motivated students also least proficient in L2 and the overstrivers. Promotion orientations (ideal L2 self and instrumentality promotion) lead to higher L2 proficiency that lasts longer while prevention orientations erode it. The study compares Greek university students' actual achievement to self-perceived competence and highlights the importance of the two regulatory orientations for the study of L2 motivation.

1. Introduction

Research in Second Language (L2) motivation of the past 60 years has been characterized by the increasing shift from seeking the sources of motivation within the individual to acknowledging the complexity of the phenomenon. In the sociodynamic perspective that has dominated motivation research of the past years, cognitive, affective and social parameters come into play. The quality and duration of motivation are seen as emerging from the interaction of the learner's identity (Ushioda, 2015), a multilayered concept in itself, with 'a web of interrelated variables' (Papi & Teimouri, 2014, p. 494) in the learning context.

In the direction of situating motivation in individual differences among learners rather than the interplay of variables, cluster analysis was introduced to identify the motivational profiles of learners in terms of the L2 Motivation Self System (L2MSS) components (Csizér & Dörnyei, 2005; Papi & Teimouri, 2014; Park & Hiver, 2017), which were later refined with the addition of Higgins' (1998) promotional and preventional orientations. Despite the promise of the new approach to uncover some of the complex aspects of L2 motivation, it is "still uncommon" in studies on motivational types of L2 learners in different socioeconomic and educational contexts and the effects of the two orientations on the pursuit of future goals (Crowther et al., 2021, p. 99).

Against this background, the present paper attempts to examine how this methodological approach contributes to determining motivational learner profiles in Greek tertiary education, an educational context yet under researched in relation to the L2MSS. In

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particular, this study adopts Papi and Teimouri's (2014) proposed modification of the L2MSS, as composed of four motivational components, ideal L2 self, ought to self, instrumentality promotion and instrumentality prevention. Cluster analysis is applied to identify learner motivational profiles that emerge as constellations of the four motivational factors but also include temporal and social aspects. To measure the impact of the temporal aspect we compare a) past English language competence by means of self-reports of certificates obtained three years prior to the project and b) current English competence as determined by means of the TOEFL ITP. To measure the influence of the social context we consider the participants' parents' educational background and place of residence.

In what follows we discuss the theoretical framework adopted and we examine the studies that have previously used cluster analysis. We then proceed to the present study and end with conclusions about the motivational profiles of Greek higher education students.

2. Literature review

2.1. L2MSS

In the evolution of language learning motivation two essential turning points are highlighted in the literature: The first one was Gardner and Lambert's (1959) socioeducational model conducted in bilingual Canada. It suggested two orientations that determined motivation to learn a foreign language: instrumental, which satisfies utilitarian, practical purposes, and integrative, expressing the wish to identify with the L2 community of speakers. The second turning point was developed in response to the criticism integrativeness received as in the globalization era the community of L2 speakers with which the learner was supposed to try to identify was dispersed around the globe. In response to that, the L2MSS model of motivation (Dörnyei, 2005) reflects the individual's effort to bridge the gap between her actual and her imagined self.

Building on Markus and Nurius' (1986) possible selves theory and Higgins' (1987) self-discrepancy theory, the L2MSS (Dörnyei, 2005) comprises three aspects, the ideal L2 self (the person/communicator/professional that the individual aspires to become), the ought-to L2 self (the expectations imposed on the learner by the socioeducational context) and the L2 learning experience. At the heart of the model are cognitive, affective and social aspects of identity (Papi & Teimouri, 2014), which interact to shape the motivational intensity of the learner.

The multitude of studies on this model (Boo et al., 2015) highlight its popularity but have also identified its shortcomings. The first one refers to the promotion bias built in the model. The Taguchi et al. (2009) questionnaire, which was used in many L2MSS studies, has been criticized for an asymmetry between the personal and social aspects of learners' future self. Papi et al. (2019) highlight that even the ought-to L2 self-scale had a promotion regulation bias as only three of the ten items refer to negative outcomes.

Teimouri (2017) thus introduced the 'own' and 'other' standpoints in the ideal and ought-to L2 self-scales and found evidence to verify this distinction in the latter scale only with a population of adolescent students in Iran. He graphically represented a continuum from ought-to/other to ought-to/own, which are prevention focused, to ideal L2 self, which is promotion focused. Papi et al. (2019) further worked on and confirmed the 2×2 model working on a sample of ESL university students in the USA. They provided evidence for the ought-to/own being the strongest predictor of motivated behavior followed by ideal L2 self/own, ought L2 self/other, and ideal L2 self/other.

Following Higgins (1998), research also paid attention to the strategic inclinations of learners in their goal pursuits. Promotion-focused regulation was associated with clearer visions of goals and eagerly driven learners experiencing joy and respect while pursuing gains rather than avoiding losses. On the contrary, prevention-focused regulation was associated with anxiety and vigilant strategies while pursuing externally imposed goals such as course requirements and parental pressure (Teimouri, 2017). Prevention-focused regulation and vigilant strategies also seemed to limit choices for the learners in their effort to minimize losses (Papi et al., 2019). In this study, we incorporated both the two L2 selves (ideal and ought-to) and promotion-prevention measures to depict the L2 self-images of the participants.

Another objection raised concerns the external criterion against which effectiveness of motivation is determined. Most L2MSS studies have used self-reported 'intended effort' as the criterion measure rather than L2 achievement. In fact, in a meta-analysis of the research on L2MSS Al-Hoorie (2018) states that there is "scarcity of studies utilizing objective measures in the field" (p. 727). Furthermore, studies that did employ some form of performance variables (e. g., school grades) found that the future self-guides do not necessarily predict performance (Kim & Kim, 2011; Lamb, 2012) or that ideal L2 self may even be a negative predictor of performance (Moskovsky et al., 2016). Intended effort is found to be a problematic criterion for measuring the learning impact of future self-guides for reasons of implicit attitudes and social desirability. Implicit attitudes are the result of past experiences that may create favorable predispositions to learning which may not necessarily materialize. Furthermore, respondents may report a positive intended effort out of their desire to create a favorable impression upon the researcher (social desirability, Al-Hoorie, 2016). Instead, the effectiveness of motivation could be estimated in terms of motivational duration, measured in terms of sustained language competence. If the learners' level of competence is measured a few years apart and is found to be stable or improved, then that may be taken to be indicative of persisting motivation. Moreover, the use of an objectively graded test, such as the TOEFL ITP, may provide a better indicator of the learner's competence compared to school grades which may be confounded by teacher attitudes or leniency (Al-Hoorie, 2018). In this study both the motivation duration variable and an objectively graded test are used.

In the L2MSS this fluctuation in motivation takes place in the course of the L2 learning experience. Yet, the L2 learning experience is not necessarily limited to the narrow classroom context (e. g. the teacher's personality, teaching materials). It may include learning that takes place outside the classroom (Papi & Teimouri, 2014), something especially true in the information society. It may also include influences from the broader sociocultural context such as the family background and the neighborhood in which the learners

reside. These are depicted in the "meso level of sociocultural institutions and communities" according to the Douglas Fir framework (2016, p. 24). The present study tries to capture this type of broader sociocultural background through the learners' perceptions of their families' demographic characteristics.

Motivation may be influenced by the individual's capital (Bourdieu, 1986), social (connections) and cultural (education and qualifications). Social capital in the form of individuals' social networks is critical in creating learning opportunities as a means of providing learning resources (Cho et al., 2002). From a cultural capital perspective, a variety of parental characteristics such as parental education, involvement, social class, occupation, and place of origin may have a role to play in children's educational achievement and motivation. These parental characteristics may provide learners with (or deprive them of) interactional contacts with the target language which may shape their language learning histories (Hiver et al., 2019). In this sense, L2 self-guides are constantly shaped by synchronic and diachronic variation (Dörnyei & Ryan, 2015) in an effort to achieve a balance between 'background' (life experiences, family expectations) and 'foreground' future aspirations (Henry, 2015, p. 84).

In this context, families may create opportunities for exposure to and use of the L2, which will be beneficial for their offspring and may even inspire and promote the learning of additional foreign languages. Affordances are actual or perceived opportunities for action provided by the environment and can be effectively capitalized upon only if observers are attentive to environmental cues (Singleton & Aronin, 2007). Potential affordances provided by the family create a greater range of language situations family members participate in (Herdina & Jessner, 2002) and are expected to lead to more developed language awareness (Kecskés & Papp, 2000; Lasagabaster, 2000). In turn, that heightened language awareness would enable the individual to reap more benefits from the language use opportunities provided in the multilingual communication environments.

2.2. Cluster analysis in L2 motivation research

Cluster analysis is an analytic tool to identify types of learner formed around constellations of common characteristics. It identifies patterns or 'subcommunities', which bear similar cognitive and motivational characteristics (Csizér & Dörnyei, 2005, p. 614-15). There are various studies using cluster analysis in LL motivation; yet they may be based on different theories of motivation (the process model, Hiromori, 2009; need for achievement, Jang & Liu, 2012; self-determination, Dincer, 2020, Vansteenkiste et al., 2009) or motivation for specific tasks or skills (Mizumoto & Takeuchi, 2008; Park & Hiver, 2017; Rysiewicz, 2008). Some of the most relevant ones will be presented here.

Csizér and Dörnyei's (2005) Hungarian study on a sample of 4765 adolescent learners of English as a Foreign Language (EFL) was conducted before the L2MSS was fully proposed and involved a questionnaire composed of seven components: integrativeness, instrumentality, attitudes towards L2 speakers, cultural interest, vitality of the L2 community, milieu and linguistic self-confidence. The criterion measures against which the impact of the seven components of language learning motivation was determined were intended learning effort and L2 preference from a choice of foreign languages among which were English (US) and English (UK). The strongest determinant of the two criterion measures was found to be integrativeness, which was relabeled as ideal L2 self because it mediated instrumentality and attitudes toward L2 speakers, the instrumental and affective aspects of ideal L2 self respectively. The study revealed four clusters suggesting a continuum of increasing motivation, from the least motivated (Group 1) to the most motivated, displaying a strong ideal L2 self (Group 4). Group 2 exceeded in attitudes to the L2 community and cultural interest. Group 3 scored higher on instrumentality, the pragmatic side of motivation, showing awareness of the professional relevance of L2 proficiency, which was interpreted as closer to the ought-to self. The conclusions of the research were that the higher the integrativeness, the precursor of the ideal L2 self at the time, the greater the motivated behavior (group 4), an early finding that is worth examining further in different sociocultural settings.

In a study with both quantitative (cluster analysis) and qualitative methods (two open-ended questions), Nishida (2013) examined the motivational profiles of Japanese university non-English majors and the relationship of ideal and ought-to L2 selves with the four regulatory types in self-determination theory and other affective parameters (L2 willingness to communicate, international posture). She confirmed that "L2 ought-to selves are more likely to be externally regulated compared with L2 ideal selves" (p. 51). Her cluster analysis indicated four clusters: two with lower and two with higher scores in the different variables. Cluster three, for example, displayed the highest level on most motivational factors except ought-to L2 self, in which it registered the second highest score. In the open-ended questions, this cluster indicated the highest willingness to live overseas and expended effort in communicative goals (listening and speaking). Close by was cluster 4 which had high levels on all variables, and the highest on L2 ought-to. The sample of this study is very similar to our own (university non-English majors) and the association of L2MSS variables with the self-determination regulatory types provides a fruitful framework for comparison.

Mizumoto and Takeuchi (2008) investigated non-English majors' motivation, vocabulary learning strategies and extracurricular study time in relation to TOEIC scores. Their learners in Cluster 1 had the highest TOEIC scores and had the highest level of intrinsic motivation and input seeking, used more metacognitive strategies and invested learning effort in the extracurricular study of English. The learners in Cluster 2 registered active use of vocabulary learning strategies, but a possibly ineffective use of them as indicated by their average TOEIC scores. Cluster 3 learners indicated extrinsic motivation and poor strategy use. Similarly to the present study, the study highlighted the role of objective test scores as a measure of language competence rather than self-reported intended effort and pointed to the discrepancy between knowledge of strategies and their actual use, both of which merit further investigation.

Park and Hiver (2017) investigated changes in Korean middle school students' motivational profiles as a result of a project-based intervention. Taking into account the effects of time, they compared clusters of students pre- and post-intervention to highlight motivational shifts. Their questionnaire variables included L2 anxiety, L2 self-efficacy, Ideal L2 self and L2 self-regulation. Three clusters initially emerged, termed according to the strength of the main variables. The first cluster stood for medium L2 anxiety,

medium self-efficacy and low ideal L2 self and through the course of project-based learning instruction students in this group increased their ideal L2 self. The second cluster had medium values on all motivational variables and maintained these levels, while the third cluster had low anxiety and exceptionally high ideal L2 self and L2 self-efficacy and remained stable throughout the intervention. The overall conclusion was in favor of the project-based learning instructional intervention that, through the cooperative environment it fosters, helped students develop and enhance their ideal L2 self. The contribution of study lies in the incorporation of the effect of time and the fluctuation in learners' motivation. However, it is based on the immediate classroom environment rather than the broader sociocultural context.

Papi and Teimouri (2014) examined the motivational and attitudinal profiles of 1278 Iranian middle and high school students by means of a questionnaire adapted from Csizér and Dörnyei's Hungarian study (2005) and Taguchi et al.'s (2009). The study involved finer delineations of both instrumental orientations (promotion/approach and prevention/avoidance), ideal and ought motivations, and environmental influence (learning environment and family). Five clusters were revealed. Group 1 learners were considered the weakest as they had the lowest scores on the L2MSS variables (ideal, ought-to self and L2 learning experience), the lowest level of motivated behavior, and the second lowest scores in L2 anxiety, L2 proficiency, with negative attitudes to the L2 speaking community and the L2 treating the L2 as an obligation that has little relevance to their future life. The most motivated cluster was Group 4 with an overall promotion outlook on language learning, a fully developed ideal self (in both the L2 community and instrumentality-related aspects) and the highest self-rating of L2 proficiency. Learners in this group enjoyed L2 learning and were not burdened by fear of failure- or ought-to-related obligations. Close to the performance of Group 4 was Group 5 who had very high scores on all motivational factors but whose self-rated L2 proficiency was the second highest, following that of Group 4. What distinguishes this group of learners is that, although they enjoyed the learning process and registered positive attitudes toward the L2 culture and community, their high rates on prevention-focused variables, the ought-to self and prevention instrumentality, and the second highest score of all groups in L2 anxiety constituted a disadvantage for language learning motivation increasing anxiety and eroding willingness to communicate. Similar observations are made by Crowe and Higgins (1997), who observed that prevention-focused individuals tended to give up more quickly in the face of a difficult task. The delineation of instrumentality into promotion and prevention and the role of family influence are important parameters in this study that are worth examining further in different sociocultural settings with varying degrees of family influence on their children's motivation.

Against this backdrop, the need arises to look into the emergence of motivational clusters in sociocultural contexts yet unexplored and to research further into the effects that the promotion-prevention distinction may have on the students' motivation in these settings.

2.3. The Greek context

EFL has always played a pivotal role in Greek schools and society. English language certification is thought to equip students with valuable skills for their personal, academic and professional life. As a key for professional development and social mobility (Angouri et al., 2010), it has also been related to 'social and economic prestige' by Greek parents and students alike (Prodromou, 1988). Knowledge of EFL for most stakeholders is perceived as certified knowledge, which will provide access to the domestic as well as the international job market.

Greek university students are known for depending strongly on their parents prior and during their studies as strong family ties and protection have been deeply rooted in Greek cultural values for many decades (Tsekeris et al., 2015). In addition to providing subsistence and paying their children's tuition fees, Greek parents have a say in their children's academic and professional plans (Angouri et al., 2010) and most of them go to great lengths to ensure a better future for them even if they reside in disadvantaged locations and have limited access to educational opportunities or are hit by severe economic crises (Mattheoudakis & Alexiou, 2009). Typical parental aspirations have included seeing their children as EFL certificate holders, university graduates and, if financially sustainable, possibly as pursuers of postgraduate studies abroad (Dendrinos et al., 2013; Eurobarometer, 2012). A recent study of the L2 motivation of Greek adolescents (N = 598) revealed that a great majority (86%) attends additional language classes whether as private tutoring or in English language institutes and that certificates tend to be obtained in the 3rd grade of middle school (Kantaridou & Xekalou, 2021).

There is also a lot of parental pressure for students to have completed their EFL studies as early as possible in order to devote themselves to taking the competitive high stakes university entrance exams (Sifakis, 2018). Consequently, they aim at obtaining at least a B2 and ideally a C1 and/or C2 level certificate at the age of 15–16 years, around the end of their junior high school years. They then shift focus on the university entrance exams, which often results in a deterioration of their English competence in their tertiary education (Kantaridou, 2004; Rizouli, 2013) and a discrepancy between their (previously) certified and actual competence. The fact that both the public and private sectors accept language certificates regardless of the year in which they were obtained leads to the belief that the level of competence can be preserved without intended learning effort. At the same time, despite the perceived strong motivation to attain a university degree (Angouri et al., 2010) a lot of Greek students delay their graduation for a number of years, a problematic phenomenon well known as 'stagnant students' (Katsikas et al., 2006) and a possible indication of a waning motivation. Against this backdrop, a discrepancy appears between the motivation students seem to have to learn EFL and graduate from university and their actual achievement, and the need arises to look into the motivational profile of university students in the Greek setting.

3. Objectives and research questions

The present study aims to elucidate the different aspects of motivation by following up on Papi and Teimouri's (2014) inclusion of the two instrumentalities, promotion and prevention in determining the motivational orientation of learners. Similarly to that study,

the paper uses cluster analysis to approach statistical data collected from tertiary education students. On the one hand it seeks to examine the generalizability of Papi and Teimouri's findings regarding the significance of the two instrumentalities in differentiating learner motivational configurations. On the other, it attempts to examine the contribution of other parameters influencing the shaping of learner identities. While Papi and Teimouri (2014) seek to identify how linguistic (self-reported L2 proficiency), affective (L2 anxiety) and motivational variables (motivated behavior) interact to produce different learner types, this study uses linguistic (self-reported and actual L2 proficiency), social (parental cultural capital and place of residence), future aspirations and motivational variables (ideal and ought-to L2 selves, and instrumentality promotion and prevention scales).

The originality of the paper lies in the educational context studied, the linguistic performance measures used to further define the motivational clusters and the examination of social aspects impacting motivation in the learners' family background and their future academic and professional goals. The educational context is that of Greek higher education, in which, to the best of our knowledge, little research has been conducted related to L2MSS (Kantaridou & Xekalou, 2021). The TOEFL ITP is used as a measure of the students' current, actual L2 competence. The self-reported L2 Proficiency in terms of certificates acquired (typically in the three years prior to starting University) is used as a measure of comparison with the actual level of competence, as a possible indication of motivation duration. The rationale behind the double measurement of competence served educational and research purposes. The educational goal was to raise the students' awareness of the potential drop in language competence and the need to actively engage in the EAP courses. The research goal was to tap into the temporal aspect of motivation by linking motivational sustenance to the preservation of level of competence. A sustained level of competence would indicate sustained intended learning effort. A drop from the self-reported past level of competence to the currently measured by means of the TOEFL ITP would suggest unsustained motivation. Social aspects influencing learner identity are the students' cultural capital as indicated by the parents' educational attainment and their knowledge of the L2 and the learners' future academic and professional goals.

The study addresses the following research questions:

1. Do the four motivational variables of ideal L2 self, ought-to L2 self, instrumentality promotion and instrumentality prevention combine to form distinct motivational clusters of learners?
2. If yes, what are the language-related (self-reported competence level, actual L2 proficiency and L3), future educational and professional goals and social characteristics (indicated in the parents' educational attainment, their EFL knowledge and family residence) of the emergent motivational clusters?

4. Method

4.1. Participants

The participants were 359 Greek university students pursuing studies within the economic discipline and studying English for Academic Purposes (EAP). They were freshmen (59.3%) and sophomores (40.7%) and they were fairly equally distributed in gender (male: 48.5%, female: 51.5%). The vast majority were between 19 and 20 years of age (90%). About half of them (42.9%) could speak one (or more) additional foreign language (L3), most popular of which were German (N = 93), French (N = 33), Russian (N = 10), Italian (N = 8), Spanish (N = 8), and Albanian (N = 7).

The level of General English language competence was measured in relation to the language certificates the students reported to hold. It was mainly that of the independent user, B2 level (51.8%) according to the Common European Framework for Language-CEFR (Council of Europe, 2001) followed by C-level (42.8%). However, when their Academic English competence was assessed with the TOEFL ITP test, the percentage of B-level students increased to 68.8% and those of C-level declined to 30.9%. Their Academic English scores are considered to be the valid assessment of the students' current competence.

4.2. Instruments

The instruments used in the present study were online questionnaires and the TOEFL ITP test, which the students completed on a voluntary basis as part of the English for Academic Purposes course. They included the following:

1. The motivational orientation questionnaire comprising four scales of the L2MSS questionnaire devised by Taguchi et al. (2009), Japanese version: ideal L2 self, ought-to self, instrumentality promotion and instrumentality prevention. The 19 items were translated into Greek to facilitate comprehension by students of all levels of competence. The translation was checked by the back-translation method. The questionnaire was answered on a 5-point Likert scale (1: strongly disagree to 5: strongly agree). The Cronbach α of the scales on the questionnaire were: ideal L2 self (4 items) $\alpha = 0.846$; ought-to L2 self (5 items) $\alpha = 0.796$; instrumentality promotion (6 items) $\alpha = 0.708$, instrumentality prevention (3 items) $\alpha = 0.776$.
2. The demographic background questionnaire including a) the English language certificates they held (if any) and any additional FL they spoke (2 items), b) the students' background parental educational attainment, their EFL knowledge and family residence (3 items) and c) the students' forward orientation as indicated in importance of the English language for employment (2 items, 4-point scale), d) their future educational and career goals (2 items) and e) their determination to complete their studies.
3. The TOEFL ITP test assessing the students' Academic English level of competence. The test is divided into three sections: listening comprehension, structure and written expression, and reading comprehension. The final scores, which ranged from 353 to 663,

were converted into CEFR levels (A2<337, B1: 338–460, B2: 461–543, C1: 544–627, C2>628) to ease comparison with the language certificates held.

4.3. Data analysis

The data were analyzed with SPSS 23. Cluster analysis was used to decide on the distinct groups of students according to their scores in the four motivation factors. Both hierarchical and nonhierarchical methods of cluster analysis were used. Then, to check the differences of the indicated clusters in other variables, analysis of variance was used for the scale variables (TOEFL ITP scores, importance of English and determination to complete studies) and crosstabulation for the categorical variables (language certificates, third foreign language [L3], postgraduation goals, parents' educational attainment, parents' EFL knowledge, family residence).

5. Findings

5.1. Motivational clusters

Initially, a hierarchical cluster analysis was employed to extract the possible number of cluster solutions. The Ward density method was used based on the squared Euclidean distance between cases, i.e., participants, as an index of dissimilarity (Skehan, 1986). The aim of the analysis is to determine initial cluster centroids and the plausible range of cluster solutions. The four motivation factors, ideal L2 self, ought-to self, instrumentality promotion and instrumentality prevention, were used as predictors or independent variables to predict group membership, i.e., the dependent variable. The results indicated that solutions of two, three or four clusters were more likely. However, the dendrogram indicated that the three-cluster solution is more appropriate as it leaves fewer outliers. All three solutions were tried applying *k*-means nonhierarchical cluster analysis due to the large number of participants (N = 359). The three-cluster solution was deemed more suitable and more meaningful in relation to primary (motivational scales) and secondary (linguistic, future goals, family background, etc.) data as it produced more statistically significant differences between the clusters in the subsequent analyses. To further validate the three-cluster solution anova was run with cluster membership as the independent variable and the four motivational factors as dependent. The results were all statistically significant.

The *f*-values in the anova table (Table 1) indicate that the factors contribute to the interpretation of the clusters in the following descending order: instrumentality prevention, ideal L2 self, L2 ought-to self and instrumentality promotion. Table 1 presents the final cluster centers, the *f*-values, the difference in the three clusters in the Tukey HSD post hoc tests as well as the number of members in each cluster. Gender did not produce any statistical differences and will not be further discussed.

Cluster 1 is characterized by the lowest scores in instrumentality prevention and ought-to L2 self, the highest ideal L2 self and high instrumentality promotion. That is, the promotion-oriented motivational characteristics prevail, while the prevention-oriented ones do not make a similar contribution.

Cluster 2 is characterized by medium level instrumentality prevention and ideal L2 self, while ought-to L2 self is low and instrumentality promotion high. While they do have promotion-related motivations, these students also have prevention-oriented characteristics as compared to the first cluster.

Cluster 3 is characterized by the highest instrumentality prevention and ought-to L2 self of all three clusters. All four motivational components register high rates. Alongside high instrumentality prevention and ought-to they demonstrate high ideal L2 self and the highest instrumentality promotion. Fig. 1 presents a graphic representation of the four motivational variables in the three clusters.

5.2. Language-related, future goals, motivational and social characteristics of the emergent motivational groups

In order to gain further insight into the characteristics of the three clusters we performed analyses of variance (scales) and crosstabulation (categorical variables).

5.2.1. Language-related characteristics of the three clusters

The crosstabs analyses with the language-related variables: certificate (x^2=(df6)20.133, $p = .003$), English academic competence CEFR equivalent (x^2=(df6)35.105, $p = .000$) and L3 (x^2=(df2) 11.901, $p = .003$) indicated statistically significant results. The analysis of variance with the TOEFL ITP scores also produced statistical significant differences (f(2:358)14.641, $p = .000$) and the Tukey HSD post hoc analysis indicated that each cluster differs from the other two. Table 2 presents the language-related characteristics of the

Table 1
Final cluster centers.

Final Cluster Centers	Cluster 1	Cluster 2	Cluster 3	Tukey's post-hoc	*F*-value
IDEAL	4.45	2.79	4.41	1 < 2; 2 < 3	220.648
OUGHT-TO	1.52	2.03	2.70	1 < 2<3	103.115
PROMOTION	4.25	3.80	4.56	1 < 2<3	58.230
PREVENTION	2.14	3.03	3.99	1 < 2<3	241.200
N	96 (26.7%)	63 (17.5%)	200 (55.7%)		$df = 2$, $p = .000$
Male	48	28	98		
Female	48	35	102		

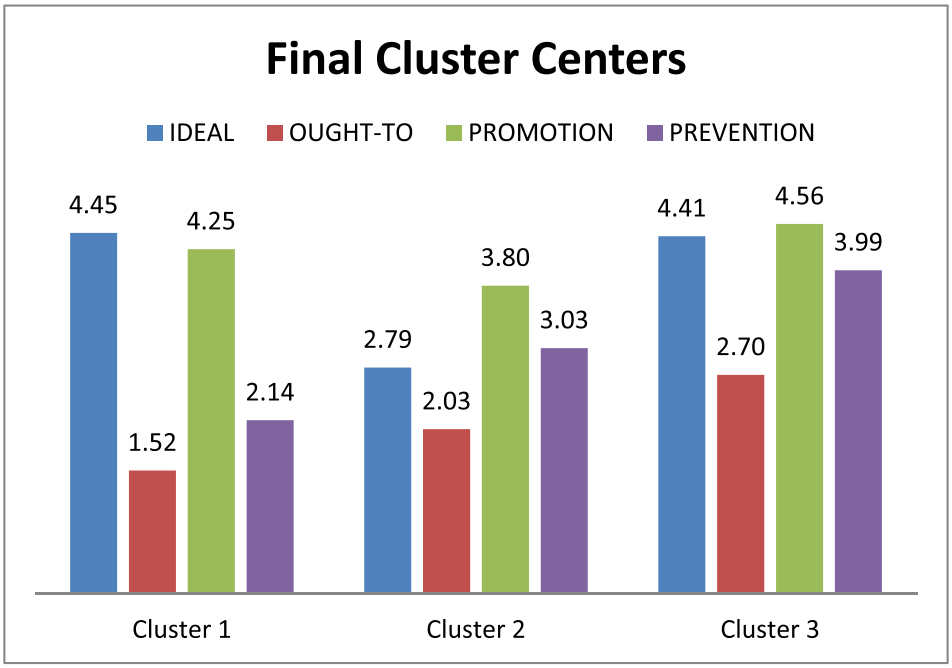

Fig. 1. Final cluster centers.

three clusters; the percentages in each column represent each cluster.

Students in cluster 1 indicate the strongest language-related profile with the highest percentage of L3 speakers, and the highest percentage of C-level certificate holders who managed to sustain their level through the years and, although slightly decreased, their performance on the TOEFL ITP test of academic English remains the highest compared to the other clusters (M = 531.71).

Students in cluster 2 mainly hold B-level certificates. Those who had achieved a C-level competence in the past did not sustain it. This cluster registers the lowest percentage of members who speak an additional FL. They register the lowest mean score on TOEFL ITP (M = 471).

Cluster 3 students register the second highest mean TOEFL ITP score (M = 510.67). Although their self-reported competence was fairly equally distributed between B and C level, their current L2 proficiency leans heavily towards B level. In terms of an additional FL, they indicate the second largest percentage of L3 speakers, well above that of cluster 2.

5.2.2. *Future goal characteristics of the three clusters*

As Table 3 shows, the three clusters indicated statistically significant differences in their future goals: determination to complete studies (f(2:358)3.511, p = .031), primary postgraduation goal (x^2=(df12)62.180, p = .000) and the importance of English in job search in Greece (f(2:358)3.243, p = .040). Statistically significant differences in the post hoc analyses are mainly between cluster 2 and 3 in importance and determination, while cluster 2 differs significantly from cluster 1 in the latter as well. Importance of English for work abroad did not produce any statistical differences and will not be further discussed.

Cluster 1 demonstrates high importance of English for work in Greece, the highest determination to complete studies and its primary goal is to continue with postgraduate studies abroad. Cluster 2 indicates relatively lower importance of English for work in Greece and the lowest determination to complete studies, while for the majority of its members the primary postgraduation goal is to work in Greece and the second most popular to continue with postgraduate studies in Greece again. Cluster 3 indicates a similar to cluster 1 profile but its means in importance and determination differ statistically significantly from cluster 2.

5.2.3. *Family background*

The statistical analyses of the three clusters with the family educational background, parents' knowledge of English and their place of residence did not produce statistically significant differences (see Table 4). However, they suggest some interesting trends especially in relation to cluster 2, which indicated the highest percentage of nongraduate parents and complete lack of postgraduate education in the parental environment as well as the highest percentage of members brought up in regional areas. In relation to parental knowledge of English, the students were mainly strict in their assessment of their parents' competence as they rated them quite low on a four-point scale. In relation to place of residence, cluster 1 indicated the highest percentage of members from the two major cities in Greece compared to the other clusters.

Table 2
Language-related characteristics of the three clusters.

Language-related profile	Cluster 1	Cluster 2	Cluster 3
Certificates held[a]			
No	6.3% (6)	4.8% (3)	5.0% (10)
B level	44.8% (43)	69.8% (44)	49.5% (99)
C level	48.9% (47)	25.4% (16)	45.5% (91)
TOEFL ITP mean score[a]	531.71	471.00	510.67
CEFR equivalent TOEFL ITP mean score[a]			
B level	55.2% (53)	96.8% (61)	67% (134)
C level	44.8% (43)	3.2% (2)	33% (66)
L3[a]	50.0% (48)	23.8% (15)	45.5% (91)

[a] Indicates statistically significant differences.

Table 3
Importance of English and future goals in the three clusters.

Future goals	Cluster 1	Cluster 2	Cluster 3
Importance for Work in Greece[a] (Tukey post hoc tests: 2 < 3)	3.50 (.64)	3.35 (.62)	3.57 (.57)
Importance for Work abroad	3.95 (.20)	3.90 (.42)	3.96 (.19)
Determination to complete studies[a] (Tukey post hoc tests: 2 < 3, 2 < 1)	3.37 (.79)	3.07 (.74)	3.35 (.76)
Postgraduation target [a]			
Work in Greece	16.7% (16)	46.0%(29)	16.5% (33)
Work abroad	4.2% (4)	1.6% (1)	9.5% (19)
Postgrad in Greece	16.7% (16)	36.5%(23)	22.5% (45)
Postgrad abroad	59.4% (57)	11.1% (7)	49.5% (99)
Other	3.1%	4.8%	2%

[a] Indicates statistically significant differences.

Table 4
The family background of the three clusters.

Parents' educational background	Cluster 1	Cluster 2	Cluster 3
nongrad	Fathers: 57.3% (55)	Fathers: 68.3% (43)	Fathers: 62.0% (124)
	Mothers: 54.2% (52)	Mothers: 55.6% (35)	Mothers: 54.5% (109)
Higher education	Fathers: 29.2% (28)	Fathers: 31.7% (20)	Fathers: 31.5% (63)
	Mothers: 40.6% (39)	Mothers: 44.4% (28)	Mothers: 39.0% (78)
Postgrad studies	Fathers: 13.5% (13)	Fathers: 0	Fathers: 6.5% (13)
	Mothers: 5.2% (5)	Mothers: 0	Mothers: 6.5% (13)
Parents' knowledge of English	Fathers: 1.69 (1.11)	Fathers: 1.39 (1.12)	Fathers: 1.37 (1.18)
	Mothers: 1.67 (1.18)	Mothers: 1.50 (1.13)	Mothers: 1.69 (1.19)
Family place of residence			
Athens-Thessaloniki	39.6% (38)	22.2% (14)	32.5% (65)
Regional capitals	20.8% (20)	23.8% (15)	20.5% (41)
Villages	32.3% (31)	47.6% (30)	39% (78)
Other	7.3% (7)	6.4% (4)	8% (16)

6. Discussion

This section discusses the emergent motivational profiles together with the linguistic characteristics, future goals and family background in each cluster and then draw conclusions about the L2MSS factors and promotion-prevention orientations in the Greek higher education context.

6.1. Motivational cluster characteristics

Three distinct motivational clusters were revealed from the cluster analysis of the Greek university students.

Cluster 1 students [+++ideal,[1] +ought, ++ promotion, +prevention] seem to be most motivated compared to the other clusters. They are characterized by motivational orientations that promote learning, i. e., high instrumentality promotion and ideal L2 self and the low instrumentality prevention and ought-to L2 self. Students in cluster 1 manage to sustain their advanced level of English in the two to three years of intensive preparation for the university entrance exams. Half of them (the largest percentage in the clusters) can

[1] The + indicates the relative strength of a variable in the three clusters: a single '+' indicating the weakest cluster on the particular variable, double '++' indicating the second highest and three '+++' symbolizing the strongest cluster.

speak a third foreign language and feel highly confident that they will continue with postgraduate studies abroad. In relation to the promotion-prevention orientations, this cluster is similar to group 4 in Papi and Teimouri (2014) and Nishida's (2013) cluster 3, also high on promotion and low on prevention orientations with the strongest interest in living abroad. Similarly, the first profile of highly motivated learners in Henry and Davydenko (2020) was characterized by a promotion orientation and autonomously and internally set future goals, likely to be sustained in the long term.

The students' very strong determination to continue postgraduate studies abroad is probably due to their family support and possibly inspired by their symbolic and educational capital, that is, the fact that a substantial percentage of parents (the highest of all clusters), especially fathers have postgraduate degrees and have better reported EFL knowledge. The strong role parents play in their children' L2 motivation is corroborated in the literature. The importance of a supportive home and a rich learning environment have been highlighted in many studies to the point of even outweighing the classroom learning experience (Csizér & Galántai, 2012; Farahani et al., 2019). Parents who can speak foreign languages and hold positive attitudes toward language learning are well shown to contribute to their children's understanding of language utility and in turn result in more positive language learning attitudes and professional and academic aspirations (Bartram, 2006; Kantaridou & Xekalou, 2021). In this light, student's strong determination to complete their studies could be attributed to their parents' education and knowledge of EFL, i. e. formed within the broader socio-cultural background of the family in a 'multilevel nested system' (Hiver et al., 2019, p.89).

The fact that the students in cluster 1 were mainly brought up in the two major cities in Greece (Athens and Thessaloniki) may also have given them more opportunities to develop a more cosmopolitan, international attitude towards English, in contrast to cluster two students, most of whom resided in rural areas. This is also reflected in the Coleman report, linking urbanism and more affluent areas of residence in the US with easier access to education and higher educational attainment (Hanushek, 2016). The strong ideal L2 self-exhibited in this cluster has also been associated with urban and metropolitan cities in the Indonesian context (Lamb, 2012).

Cluster 2 students [+ideal, ++ought, +promotion, ++prevention] are the least motivated, who most likely do not build their identity around the knowledge of foreign languages. Unlike cluster 1, these students have not developed an ideal L2 self and have not eagerly invested in language learning. Similar clusters of low motivated learners were also revealed in Papi and Teimouri's (2014) and Csizér and Dörnyei's (2005) studies. In this case, the students' low percentage of L3 knowledge, their intermediate level of General English certificates and their significant decrease in the level of English competence as well as their primary goal for local employment all point in this direction. It may be the case that they learnt English because this is the 'done' thing; it is what is expected of them by society but not felt relevant for their own identity. They also register the lowest determination to complete their studies. The fact that their parents' educational level is relatively the lowest of the three clusters may indicate that they probably have not learnt to invest in education for their professional advancement.

A number of studies provide evidence for the important role of family background in the children's educational attainment. By acting as role models and being actively involved in their children's education, parents have been seen to influence their academic understanding and achievements (Chiu et al., 2016; Ringenberg et al., 2009; De Graaf et al., 2000). A low or uneducated parent of low socioeconomic status is more likely to negatively affect a person's educational attainment (Eagle, 1989). Negative parental attitude and lack of knowledge of EFL have also been shown to relate to their children's negative attitude toward EFL learning (Bartram, 2006).

The students in this cluster also showed the highest percentage in regional place of residence. Relevant findings from Lamb (2012) linked rural settings with low ideal L2 self-scores. Although the role of urbanism measures in learner's motivation in Greece is still unresearched, learning EFL in small regional areas which afford students less stimulating educational opportunities and having to attend to more practical/basic than higher educational needs have been shown to relate to low motivation and merely attaining the threshold level certificate of EFL (Machili, 2008). While not abiding by the essentialist view (Kubota & Lehner, 2014), in this study cultural and parental influences are considered to represent the 'meso level of sociocultural' influences (The Douglas Fir Group, 2016) exerted on the learners' L2 motivation, which in this cluster seems to be locally rather than internationally defined.

Cluster 3 students' motivational profile [++ideal, +++ought, +++promotion, +++prevention] includes both favorable and unfavorable conditions for their L2 self-identity. They represent the overstrivers of the sample (self-worth theory of motivation Covington, 1992). They are the highest in instrumentality promotion but also the highest in ought-to and instrumentality prevention. Compared to cluster 2, they stand higher in L2 competence. However, compared to cluster 1, they fail to sustain their level of English during the 2–3 years they spent preparing for the university entrance exams. The lack of sustained level of English witnessed here, usually indicative of waning motivation, has been linked in the literature to a loss rather than gain attitude over the possibility of future failure (Henry & Davydenko, 2020). As Henry and Davydenko (2020) claim, framing learning 'commitments' as 'obligations' and being concerned with negative outcomes can be emotionally draining and rarely sustained in the long term (p. 376). In relation to their primary postgraduation goal, they resemble cluster 1 students in that they see themselves pursuing postgraduate studies primarily abroad but also in Greece. In this cluster, the need for success and self-promotion in L2 seem to be held back by the high pressure felt to avoid failure possibly cultivated in the family. Csizér (2019) similarly noted the strong effect parental pressure can have on learners' ought-to L2 self. The positive appraisal of language learning shaped by the family background increased both the quality (higher ideal L2 self) and the quantity (L3 or learning an additional FL) of language learning in our participants. This is also reflected in Hiromori (2009) who concluded that intention for a task (the language learning goal in our case) is mainly shaped by its subjective value (rather than by expectancy of success) and mediates the concrete learning actions to be undertaken by the learners. So it seems that the students in this cluster possibly compensate for any lack of confidence in their abilities with extra effort and combine both fear of failure and hope (De Castella et al., 2013). Their willingness to relocate abroad for work purposes also points in this direction as their percentage in this variable is the highest of all clusters. As this cluster seems similar to Papi and Teimouri's (2014) group 5 and Henry and Davydenko's (2020) group 3 in the existence of both a promotion and avoidance orientation, the conclusion reached in this study is that the high occurrence of prevention-oriented motives seems to erode interest or effort from language learning as it increases

general anxiety for success and fear of failure.

Further, Cluster 3 with its composition of both high instrumentality promotion and instrumentality prevention appears to be the most representative of the Greek higher education (55.7%). The significant contribution of instrumentality prevention holds back the proficiency level, possibly because it triggers anxiety (Teimouri, 2017). There is attrition of the L2 proficiency as students progress from middle school to higher education. A possible underlying reason may be the Greek mentality that learning EFL is a process that reaches its climax at the completion of middle school, hopefully with the acquisition of a certificate, so that the student can then focus on the high-stakes university entrance exams or subsequent goal pursuits.

6.2. Promotion-prevention orientations

Against this background, the following considerations arise about the L2MSS factors and promotion-prevention orientations in the Greek higher education context. The ideal L2 self seems to contribute to higher proficiency levels (clusters 1 and 3). Prevention instrumentality seems to detract from sustenance of language competence; there was a substantial drop in cluster 3 learners' competence in comparison to cluster 1. These findings seem to corroborate Papi and Teimouri's (2014) observation that the motivational profile that has equal contribution of all motivation components, prevention (ought-to) alongside promotion (ideal L2 self), does not have as high proficiency levels and long-lasting motivation as the group that is more promotion focused. This suggests that prevention focus detracts both from motivation sustenance and L2 competence. Moreover, it substantiates the argument in favor of the investigation of the promotion-prevention distinction with evidence from the Greek educational context.

Promotion-prevention orientations may be enhanced or hampered by the relative congruence between the individual's self-identity and the social and learning context (Lamb, 2009). According to Swann and Buhrmester (2012), people tend to prefer self-affirming contexts and endorse feedback from environments that are congruent to their identity. As early as 1998, Shah et al. (1998) suggest a complicated picture, in which learning is affected by the situation in which it takes place; promotion-oriented individuals seem to perform better in promotion-framed testing conditions while prevention-oriented individuals perform better in the prevention-framed tasks. In our case, if language learning is promotion framed as it is related to social and economic prestige (Prodromou, 1988) in the Greek context, it became appealing to learners of all clusters. Similar results were also indicated in Papi's (2018) study where promotion regulation led to higher vocabulary acquisition scores for both the gain and loss conditions. Its additional combination with a prevention framing in the form of parental pressure to acquire an advanced language certificate (Angouri et al., 2010) formulated the profile of clusters 2 and 3 learners' higher prevention regulation orientation. This prevention orientation, though, subsequently erodes interest in language learning once the goal of acquiring a certificate is achieved. The longstanding concern of the Greek society with (language and academic) qualifications which was exacerbated during the financial crisis may take its toll and become evident in the learners' preoccupation with avoiding losses rather than creating (learning, professional) opportunities and taking risks to overcome obstacles.

The picture that emerges is a complex one in which learners' motivational profiles are shaped by an intricate combination of motivation, language-related and social parameters. Motivational strength and sustenance are affected by the sense of importance of EFL in acquiring a job, which may, in turn, be influenced by the individual's cultural (level of parental education) capital. Higher educational level of the parents may enhance the learners' ideal L2 self and shape their future identity.

7. Conclusion

Based on the motivational factors of ideal L2 self, ought-to L2 self, instrumentality promotion and instrumentality prevention, the present study indicated three distinct cluster of Greek university students: the highly motivated students, the low-motivated students and the overstrivers. It seems to be the case that in the Greek higher education context, the addition of the two self-regulation instrumentalities helps delineate finer shades of motivation that lead to successful learning outcomes. It is observed that promotion orientations (ideal L2 self and instrumentality promotion) lead to higher L2 proficiency that lasts longer while prevention orientations erode it. It could be concluded that the presence of prevention orientations in a learner's profile is associated with lower self-reported and observed proficiency, possibly because it is mediated by vigilant and avoidance strategies to minimize losses rather than eager risk-taking to maximize opportunities for communication in the foreign language. These findings add to previous research on the two orientations by highlighting the role they play for sustenance of L2 competence. The contribution made in the field of L2MSS is also located in the motivational strength of the three clusters in relation to maintenance of EFL competence and L3 knowledge which is higher in the low prevention-oriented cluster. The learner's background (parents with postgraduate studies, better EFL knowledge and urban residence) seems to relate to their level of competence as well as their future goals and determination to complete their studies. The results provide further insights into the social factors that were tentatively interpreted as related to the motivational profiles of Greek university students, a context still unresearched in relation to L2MSS.

Yet, no claim to a causality is made between parental education background and individual learner's motivation and language competence, which is a limitation of this study. Further research could investigate such causality using structural equation modelling incorporating other individual differences variables such as language aptitude or language learning styles and strategies. Also, qualitative findings from interviews with a selective sample of students from the three clusters could shed more light into finer shades of/underlying motivational and background parameters that are not apparent in quantitative research. In addition, a more longitudinal design might probably confirm sustenance of motivation and EFL competence.

Author statement

1. Authorship Responsibility.

- All authors have seen and approved the content of the submitted manuscript
- The paper presents original work not previously published in similar form and not currently under consideration by another Journal.
- The authors followed ethics guidelines.

2. Authorship Contributions.

Zoe Kantaridou: Conception and design of study, Methodology, Formal analysis, Investigation, Data curation, Writing-Original Draft, Writing-Review & Editing
Ifigeneia Machili: Design of study, Investigation, Writing-Original Draft, Writing-Review & Editing, Critical revision,
Iris Papadopoulou: Design of study, Investigation, Writing-Original Draft, Writing-Review & Editing

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