Profiling the motivational characteristics of Greek university students

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A B S T R A C T

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 socio-dynamic perspective that has dominated motivation research of the past years, cognitive, affective and social parameters come into play. More recent conceptualizations of L2 learner motivation adopt a complex-systems

approach, whereby the quality and duration of motivation are seen as emerging from the interaction of the learner's identity (Ushioda, 2015), a multi-layered concept in itself, with 'a web of interrelated variables' (Papi & Teimouri, 2014, p. 494) in the learning context. However, adopting a dynamic systems approach from the natural sciences to the social sciences entails methodological challenges. Quantitative, statistical approaches seem to be inadequate in describing the complexity of the phenomenon, which is socially and temporally situated (Dörnyei, MacIntyre, & Henry, 2015).

In the direction of situating motivation in individual differences among learners rather than the interplay of variables, Papi and Teimouri (2014) used cluster analysis instead of variable centered statistical techniques. Along with Csizer and Dörnyei's (2005) and Park and Hiver's (2017) studies, these appear to be the only such attempts in the literature that use cluster analysis to identify motivational profiles of learners in terms of the L2 Motivation Self System (L2MSS) components. We wish 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.

The present study thus 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. We apply cluster analysis to identify learner motivational profiles that form at 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. The innovation of this study lies in the cluster analysis approach it uses that is compatible with the complex dynamic perception of language learning and motivation but rather infrequent in the literature (Plonsky, 2013), as well as the educational context, Greek higher education.

In what follows we discuss the theoretical framework adopted, we examine the studies that have previously used cluster analysis and then proceed to draw 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) socio-educational 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 the learner was supposed to try to identify with was dispersed around the globe. It was Dörnyei's (2005) L2MSS, according to which motivation reflects the individual's effort to bridge the gap between her actual and her imagined self, which includes both a positive future self-mage and a feared one, she wishes to avoid.

Building on Markus and Nurius' (1986) possible selves theory and Higgins' (1987) self-discrepancy theory, the L2MSS (Dörnyei, 2005) comprises three aspects, the *ideal self* (the person/ communicator/ professional that the individual aspires to become), the *ought self* (the expectations imposed on the learner by the socio-educational context) and the *L2 learning environment.* 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.

Two shortcomings have been observed of the L2MSS. The first one relates to the asymmetry between the two future selves, and the other relates to the criterion that has been used in most relevant studies to establish the effectiveness of the model. The asymmetry between the two future

selves, ideal L2 and ought to self (Al Hoorie, 2018), concerns the construct validity of the two concepts and the relation with achievement and motivation. While there is empirical support for the relation of the L2 learning experience and ideal L2 self with motivation (e.g., Csizér & Kormos, 2009; Papi & Teimouri, 2012; Ryan, 2009) and achievement (Dornyei & Chan, 2013), the construct validity of the ought-to self has remained problematic to establish. Papi and Teimouri (2014) attempted to address this asymmetry by adding Higgins' (1987) two self-regulatory orientations, promotion-focused and prevention-focused orientation. A continuum can thus be established between internalized, advancement-oriented motivation on the one end, in which ideal L2 self can be found, and preventional regulatory focus on the other end, which includes ought to-self.

Concerning 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 (e.g., Al Hoorie, 2016). However, 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.

The temporal aspect of motivation was present in process models of motivation such as Williams and Burden's (1997) and Dörnyei and Ottó's (1998), which suggested stages of motivation, proceeding linearly represented in flow chart fashion. In the complex dynamic perspective to motivation the temporal aspect goes beyond linear, cause and effect relations, to speak of developmental processes rather than products (Dörnyei et al., 2015). Motivation to learn in terms of

the dynamic systems approach is a system of interconnected, interacting elements (teachers, students, significant others, educational context, narrow and broader) whose rules of interaction evolve through time, sometimes reaching stability and leading to emergent patterns (Hiver & Al-Hoorie, 2020). Motivation has been observed to fluctuate in nature and intensity on both a short and a long-term basis. A number of research studies (Hotho, 2000; Pawlak, 2012; Poupore, 2013) observed fluctuations in the students' motivational profile on a short-term basis, in weekly classroom practice, as a result of the students' perception of achievability, usefulness, difficulty and enjoyment of tasks (Hotho, 2000) or other factors like the learning activities (Kruk, 2016). In the long-term, motivation has been found to decrease due to extensive institutional engagement (e.g., Chambers, 1999; Dörnyei, Csizér, & Németh, 2006; Gardner, Masgoret, Tennant, & Mihic, 2004). In the course of the evolution of motivation, phases of stability are detected at transitions to new phases like going to junior high school (Koizumi & Matsuo, 1993), or leaving school to go to work (Shoaib & Dörnyei, 2005).

Thus, from a complex dynamic perspective motivation is situated in both time and place, the context in which the learning takes place. In the L2MSS this is represented by the L2 learning experience. Yet, the learning context is not necessarily limited to the narrow classroom context. It may include learning that takes place outside the classroom (Papi & Teimouri, 2014), something especially true in the information society, or influences from the broader sociocultural context. According to Ushioda's (2009) Person-in-Context Relational View of Motivation, learner motivation and identity are determined by the cultural and historical context. It may be influenced by the individual's capital, social (connections) and cultural (education and qualifications). Social capital in the form of individuals' social networks is instrumental in creating learning opportunities as means of providing learning resources (Cho, Stefanone, & Gay, 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. In

this sense, L2 self-guides constantly try to achieve a balance between 'background' (life experiences, family expectations) and 'foreground' future aspirations (Henry, 2015, p. 84).

2.2. Cluster analysis in L2 motivation research

Accepting the complexity of learning motivation entails the use of different research tools. Dynamic theorization necessitates research tools that study the phenomenon in its complexity, fluidity, emergence and messiness, which is not easy to implement in the social sciences (Dörnyei et al., 2015). If the process of language learning is nonlinear and iterative and a product of the interconnectedness of components in an ecosystem, then conventional quantitative research methodologies that focus on specific variables at a time may be inappropriate research tools. It is counter intuitive to "decompose the system into its elements and use control over discrete elements whilst varying just one of them, either directly or through the use of treatment and control groups, in order to establish causality in terms of the properties of those elements" (Byrne & Callaghan, 2014, p. 173).

Directed Motivational Currents (Dörnyei, Ibrahim, Z., & Muir, 2015; Dornyei, MacIntyre, & Henry, 2015) reflect the inter-temporal dimension of motivation within a Complex Dynamic Systems approach. In Directed Motivational Currents, it is increasingly realized that in the intricate process of language learning and communication learning agents are individuals with multiple layers of identity, with diverse experiences, learning or otherwise, which they negotiate in the process (Swann & Bosson, 2008). This means that qualitative research tools would be more suitable. However, cluster analysis is also able to identify patterns or 'subcommunities', which bear similar cognitive and motivational characteristics (Csizér & Dörnyei, 2005, p. 614-15). It is an analytic tool to identify types of learner formed around constellations of motivational variables.

Cluster analysis studies in motivation research are rather infrequent (see Plonsky, 2013 for general SLA research). The most notable cluster analyses are:

Csizér and Dörnyei's (2005) Hungarian study on a sample of 4,765 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), as motivated learning behavior also increased from the first to the fourth cluster.

Park and Hiver (2017) investigated changes in Korean middle school students' motivational profiles as a result of a project based (PBL) 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 MML, MMM and LHH. The MML cluster stood for medium L2 anxiety, medium self-efficacy and low ideal L2 self and through the course of PBL instruction students in this group increased their ideal L2 self. The MMM cluster had medium values on all motivational variables and maintained these levels, while the LHH 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 PBL instructional intervention that, through the cooperative environment it fosters, helped students develop and enhance their ideal L2 self.

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, Magid, and Papi's (2009) Japan and China study. It involved ten variables: ideal L2 self, ought to self, L2 learning experience, motivated learning behavior, instrumentality promotion, instrumentality prevention, family influence, attitudes to the L2 community, cultural interest and language anxiety. The study thus 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 on account of the fact that they treat 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 sets apart 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 quit more quickly in the face of a difficult task. The other two clusters in Papi and Teimouri's (2014) research ranked in between the lowest (group 1) and the highest in motivation (groups 4 and 5). Group 2 learners had weak scores on the two future selves, but their attitudes to the L2 language and community are improved and they saw instrumental value in the L2. Group 3 learners registered moderate scores on most of the motivational scales but scored relatively high scores on the instrumentality scales, feeling the relevance of L2 proficiency for their professional development.

3. Objectives and research questions

Adopting a 'soft' but feasible approach to the complexity of L2 learning motivation, which imports dynamic metaphors from the natural sciences (De Bot, 2011), 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. Similar to that study, we use cluster analysis to approach statistical data collected from tertiary education students, an analytical tool not frequently used in motivation research. On the one hand we seek to examine the generalizability of Papi and Teimouri's findings and observation of the significance of the two instrumentalities in differentiating learner motivational configurations. On the other, we attempt 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 (motivated behavior) interact to produce different learner types, we used linguistic (self-reported and actual L2 proficiency), social (parental cultural capital) and motivational (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. We use the TOEFL ITP as a measure of the students' current, actual L2 competence. We use self-reported L2 Proficiency in terms of certificates acquired (typically in the three years prior to starting University) as a measure of comparison with the actual level of competence, as a possible indication of motivation duration. Social aspects influencing learner identity are the students' cultural and capital as indicated by the parents' educational attainment and their knowledge of the L2.

Our study addresses the following research questions:

1. Do the four motivational variables of ideal L2 self, ought to self, instrumentality promotion and instrumentality prevention combine to form distinct motivational clusters of learners?
2. How do these motivational types of learners differ in terms of language-related variables: a) self-reported competence level, b) actual L2 proficiency as estimated by means of the TOEFL ITP test and c) multilingualism?
3. How do these motivational types of learners differ in terms of future educational and professional goals?
4. How do these motivational types of learners differ in terms of the students' cultural capital perceived in terms of their parents' educational attainment, their EFL knowledge and family residence?

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%). Their age ranged from 19 to 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 of the independent user, B2 level (51.8%) according to the Common European Framework for Language-CEFR (CoE, 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%. We consider their academic English scores as the valid assessment of the students' current competence.

To determine motivation sustenance**,** we asked students to state their language certificates (if any) and the year they acquired them in order to compare them against an objective measurement of their current level of competence. Most Greek students stated that they acquired the General English certificates around the age of 15 to 16 years. This is characteristic of the Greek society. Because General English certificates have a permanent value for the Greek labor market, parents urge their children to obtain at least a B2 certificate before they enter senior high school when they concentrate on the highly competitive university entrance exams. The fact that both the public and private sectors accept language certificates regardless of the year they were obtained leads to the belief that the level of competence can be preserved without intended learning effort.

Our rationale behind the double measurement of competence was twofold, for 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.

4.2. Instruments

The instruments used in the present study were online questionnaires which the students answered on a voluntary basis as part of the English for Academic Purposes course focused on Public Speaking theory and practice.

1. The motivational orientation questionnaire comprising four scales of the ML2SS 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 *a* of the scales on the questionnaire were: ideal L2 self (4 items) α=.846; ought to L2 self (5 items) α=.796; instrumentality promotion (6 items) α=.708, instrumentality prevention (3 items) α=.776.
2. The socio-economic status questionnaire included a) the students' background parental educational attainment, their EFL knowledge and family residence (3 items) and b) the students' forward-orientation as indicated importance of the English language for employment (2 items, 4-point scale), c) their future educational and career goals (2 items) and d) their determination to complete their studies.
3. Students were asked to state the language certificates they held (if any) as a measure of their past self-perceived English language competence. They were also asked to state any additional FL they speak and their perceived level of competence (L3). Moreover, the

students' Academic English level of competence was assessed with the TOEFL ITP test. This 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 their language certificates.

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 non-hierarchical 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, L3, post-graduation 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, p. 84). 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. All three solutions were tried applying *k*-means non-hierarchical 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 (performance, socio-educational background, etc.) data.

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.

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	63	200		*df*=2, *p*=.000
	(26.7%)	(17.5%)	(55.7%)		
Male	48	28	98		
Female	48	35	102		

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, they 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. Figure 1 presents a graphic representation of the four motivational variables in the three clusters.

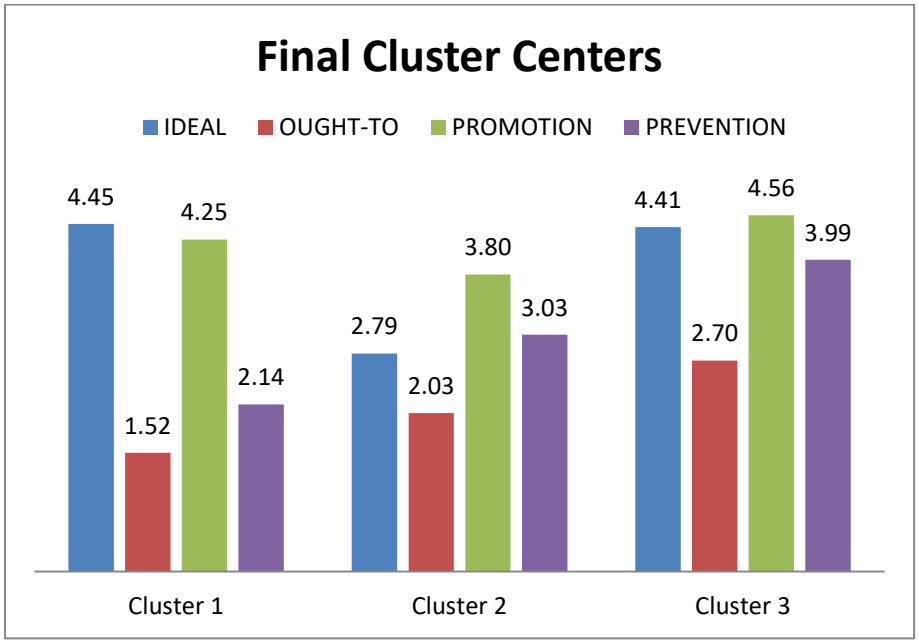

Figure 1. Final cluster centers

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

In order to validate our three-cluster solution as well as to gain further insight into the characteristics of the three groups we performed analyses of variance (scales) and cross-tabulation (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 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 in the TOEFL ITP test of academic English remains the highest compared to the other clusters (M=531.71).

Students in cluster 2mainly hold B-level certificates and even the ones who did achieve a C-level competence in the past do not manage to sustain their level through the years. 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 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 multilingualism, they indicate the second largest percentage of L3 speakers, well above that of cluster 2.

Table 2. *Language-related characteristics of the three clusters***.**

Language-related profile		Cluster 1	Cluster 2	Cluster 3
Certificates held*				
	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*		531.71	471.00	510.67
CEFR equivalent*				
	B level	55.2% (53)	96.8% (61)	67% (134)
	C level	44.8% (43)	3.2% (2)	33% (66)
L3*		50.0% (48)	23.8% (15)	45.5% (91)

*indicates statistically significant differences.

5.2.2. *Future goal characteristics of the three clusters*

The three clusters indicated statistically significant differences in their future goals: determination to complete studies (*f*(2:358)3.511, p=.031), primary post-graduation goal (x^2=(df12)62.180, *p*=.000) and the importance of English in the job search in Greek local market (*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 post graduate 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 post-graduation 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.

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*	3.50	3.35	3.57
(Tukey post-hoc tests: 2<3)	(.64)	(.62)	(.57)
Importance for Work abroad	3.95	3.90	3.96
	(.20)	(.42)	(.19)
determination to complete studies*	3.37	3.07	3.35
(Tukey post-hoc tests: 2<3, 2<1)	(.79)	(.74)	(.76)
post graduation target *			
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%

*indicates statistically significant differences.

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. However, they point out some interesting trends especially in relation to cluster 2, which indicated the highest percentage of non-graduate parents and complete lack of post-graduate 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 4. *The family background of the three clusters*.

Parents' educational background	Cluster 1	Cluster 2	Cluster 3
non-grad	Fathers: 57.3% (55) Mothers: 54.2% (52)	Fathers: 68.3% (43) Mothers: 55.6% (35)	Fathers: 62.0% (124) Mothers: 54.5%

			(109)
Higher education	Fathers: 29.2% (28) Mothers: 40.6% (39)	Fathers: 31.7% (20) Mothers: 44.4% (28)	Fathers: 31.5% (63) Mothers: 39.0% (78)
Post-grad studies	Fathers: 13.5% (13) Mothers: 5.2% (5)	Fathers: 0 Mothers: 0	Fathers: 6.5% (13) Mothers: 6.5% (13)
Parents' knowledge of English	Fathers: 1.69 (1.11) Mothers: 1.67 (1.18)	Fathers: 1.39 (1.12) Mothers: 1.50 (1.13)	Fathers: 1.37 (1.18) 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

The three distinct motivational clusters that were revealed from the cluster analysis display the following contribution of motivational and background parameters:

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. They manage to sustain their advanced level of English in the two to three years of intensive preparation for the university entry exams. Half of them (the largest percentage in the clusters) can speak another foreign language. They feel highly confident that they will continue with postgraduate studies abroad probably due to their family support and possibly inspired by their symbolic and educational capital, that is, the fact that a significant percentage of parents, especially fathers have postgraduate degrees. Parents who can speak foreign languages and hold positive attitudes toward language learning have been shown to contribute to their children's understanding of language utility and in turn result in more positive language learning attitudes and aspirations (Bartram, 2006). The fact that the students in this cluster were mainly brought up in the two major cities in Greece (Athens and Thessaloniki) may have given them more opportunities to develop a more cosmopolitan, international attitude towards English. 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). These students seem to resemble group 4 in Papi and Teimouri's (2014) study as their scores are high in the promotion-oriented motives and the lowest in the prevention-oriented ones (ought-to and instrumentality prevention).

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. Similar clusters were also revealed in Papi and Teimouri's (2014) and Csizer and Dörnyei's (2005) studies. In our case, their low percentage of multilingualism, their intermediate level of general English certificates and their significant decrease in the level of English competence as well as their primary goal for

[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.

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. 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. They also register the lowest determination to complete their studies and the highest percentage in regional place of residence. 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., 016; Ringenberg, McElwee, & Israel, 2009; De Graaf, De Graaf, & Kraaykamp, 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). Although the role of urbanism measures in learner's motivation in Greece is still unresearched, learning EFL in small regional areas affording 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 (Mahili, 2008). While not abiding by the essentialist view of cultural and parental influences (Kubota & Lehner, 2014), we see them as experiences students have which appear to affect particular stages in their development of motivation.

Cluster 3 students' motivational profile [++ideal, +++ought, +++promotion, +++prevention] includes both favorable and unfavorable conditions for their L2 self-identity. They represent the over-strivers of our 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. In relation to their primary post-graduation 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 hindered/ held back by the high pressure felt from the social background and their need to avoid failure. They possibly compensate for their lack of confidence in their abilities with extra effort and combine both fear of failure and hope (De Castella, Byrne & Covington, 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, we also conclude that the high occurrence of prevention-oriented motives erodes interest or effort from language learning as it increases general anxiety for success and fear of failure.

With regard to the Greek higher education, the most representative cluster appears to be Cluster 3 (55.7%), which includes high contribution of most motivational factors. The significant contribution of instrumentality prevention holds back the proficiency level, possibly because it triggers anxiety. There is attrition of the L2 proficiency 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.

Of the L2MSS factors, the ideal L2 self seems to contribute to higher proficiency levels (clusters 1 and 3). Prevention instrumentality seems to detract from proficiency: cluster 3 is slightly held back 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) alongside promotion (ideal 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.

Motivation 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, Higgins and Friedman (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. Similarly, the two orientations of promotion and prevention instrumentality were found to interrelate with the two L2 selves: learners with strong ideal L2 self tend to be more promotionally oriented, while learners with stronger ought are avoidance-motivated, trying to avoid "negative consequences of not meeting certain expectations or obligations" (Papi & Teimouri, 2014, p. 499). *Ought*-focused individuals might thrive at tasks in prevention-framed contexts (Shah et al., 1998), while their progress would be hampered in promotion-focused surroundings. In the L2MSS (Dörnyei 2005), the ideal self relates to accomplishment, hence has a promotion focus, while the ought to self is associated with drives such as security and has a prevention focus (Crowe & Higgins, 1997; Higgins, 1987).

The picture that emerges is a complex one in which learners' motivational profiles are shaped by an intricate combination of motivation, socioeconomic and language-related parameters. Motivational strength and sustenance are affected by the sense of importance of the FL 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 self, serving as role model, a future identity to assume.

7. Conclusion

The present study examined which affective and social variables shape Greek higher education students' nature and duration of motivation to learn English. In doing so we adopted Papi

and Teimouri's (2014) adaptation of Dörnyei's (2005) L2MSS by complementing the two future selves (ideal and ought to) with the two instrumentalities (promotion and prevention). 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. For the sample of Greek higher education students of this research, 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. The motivational cluster that is characterized by high prevention orientation in the present study registers a drop in performance/ level of competence while in that of Papi and Teimouri (2014), it displays lower willingness to communicate and lower self-reported proficiency. 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 lower willingness to communicate.

In addition to the affective motivational parameters, we attempted to examine individual learners' temporal and social aspects of motivation. To a moderate extent we found that parental cultural capital does relate to students' different motivational profiles (Selvam, 2013). The learner's background (parents with postgraduate studies) seems to relate to their level of competence (higher than that of students who did not report having parents with postgraduate studies) as well as their 'foreground', their future goals. It must be stressed, however, that this is a simple interpretation and no claim to a causality is made between parental education background and individual learner's motivation and language competence. For instance, higher educational background of the parents could be associated with anxiety that might antagonize positive motivational factors.

Further research could investigate whether the affective, social and temporal factors examined here, i.e. the four motivational orientations, the learners' cultural capital (as indicated by the parents' educational attainment) and motivation sustenance, have similar impact on learners across different cultural contexts, or whether there is a hierarchy between them. The dynamics of

motivation can be better researched by using a mixture of quantitative and qualitative research means as well as a wider range of affecting parameters.

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