
A comparative analysis of Greek vs. English: Can it be argued that teenagers can argue?

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Abstract

The present study examined 72 Greek teenagers' use of the rhetorical features of argument construction in Greek and English using Toulmin's (2003) scheme of argument analysis. A questionnaire, the Quick Placement Test (UCLES 2001), an essay in English and an essay in Greek were employed as research instruments. A learner corpus of English essays and a corpus of Greek essays were compiled and examined qualitatively and quantitatively. The findings revealed that students formed better arguments in English and that L2 proficiency affected argument construction in both Greek and English indicating a possible transferability of argument skills from English to Greek.

Keywords: foreign language writing, argumentative writing, argument analysis, contrastive analysis

1. Introduction

Argumentative writing is "vital to equip learners for success in the twenty first century" (Richards 2003: xiii). Producing cogent arguments in written speech is an important skill to master that poses difficulty even on native speakers of a language (ibid). In fact, argumentative writing has been viewed as the most difficult kind of writing (Manzi, Flotts & Preiss 2012).

In Greece, students of English are required to produce argumentative essays from an early age in order to sit English language certificate exams. Little is known, however, about adolescent second language writing as this field of research is under-developed (Harklau & Pinnow 2009; Leki, Cumming & Silva 2008 as cited in Zhang 2008; Matsuda & de Pew 2002). Considering the importance of argumentative writing, the difficulty it entails, and the lack of extensive research on adolescent second language writing, this study attempts to gain insight into Greek adolescents' formulation of written arguments in both their first and second language.

2. Literature review

A model that has been broadly accepted and employed as an instrument of argument study and as a pedagogic tool is Stephen Toulmin's model of argument analysis (Rigotti & Greco Morasso 2009). Toulmin (2003) constructed an argument scheme moving from formal logic, the philosophical study of arguments, to informal logic, the analysis of everyday arguments. Cheng & Chen (2009: 26) pointed out that other theories and models “assume a level of sophistication beyond the ability of L2 learners” while Toulmin’s model can be used to analyze basic argument structures of L2 learners and, for this reason, it is well-suited to L2 argument analysis. Research has demonstrated that the model has been successfully used as a predictor of the overall quality of argumentative or persuasive essays written by adolescent speakers of English (Knudson 1992; Connor 1990; McCann 1989; Connor and Lauer 1988).

The model consists of six functional features of arguments and shows how they are related. Some of the features are field-invariant, which means that they are part of all arguments irrespective of the context where they are formed, while the rest are field-variant; their use is optional depending on the context they are formulated.

The field-invariant features are three. The first is the *claim* (also known as *thesis* or *conclusion*) defined as “the conclusion whose merits we are seeking to establish” (Toulmin 2003: 90). It is the assertion that the writer or speaker attempts to defend or refute. The hypothetical question “what have we got to go on?” challenges the writer or speaker to support the claim by means of the second feature, the *datum* (also known as *premise* or *reason*) (ibid). The datum is defined as “the ground which we produce as support for the original assertion” and refers to the reasons put forward to defend a claim. *Warrant*, the third main feature, shows that taking “data as a starting point, the step to the original claim or conclusion is an appropriate and legitimate one” (ibid). A warrant acts as a “bridge” establishing the connection between the data and the claim and is generated by the question “how can you get there?”(ibid).

Toulmin (2003) also proposed that arguments have three more features which are field-variant, namely *backing*, *qualifier* and *rebuttal*. *Backing* refers to further evidence that the warrant is legitimate and trustworthy in cases that the acceptability of the warrant is doubted. *Qualifier* refers to words such as ‘probably’ or ‘presumably’ which express the “degree of force” attributed to the claim (ibid: 93).

Rebuttal refers to instances in which the claim might be defeated and cannot be held true. The relationship among all features of Toulmin's model is represented in the following figure.

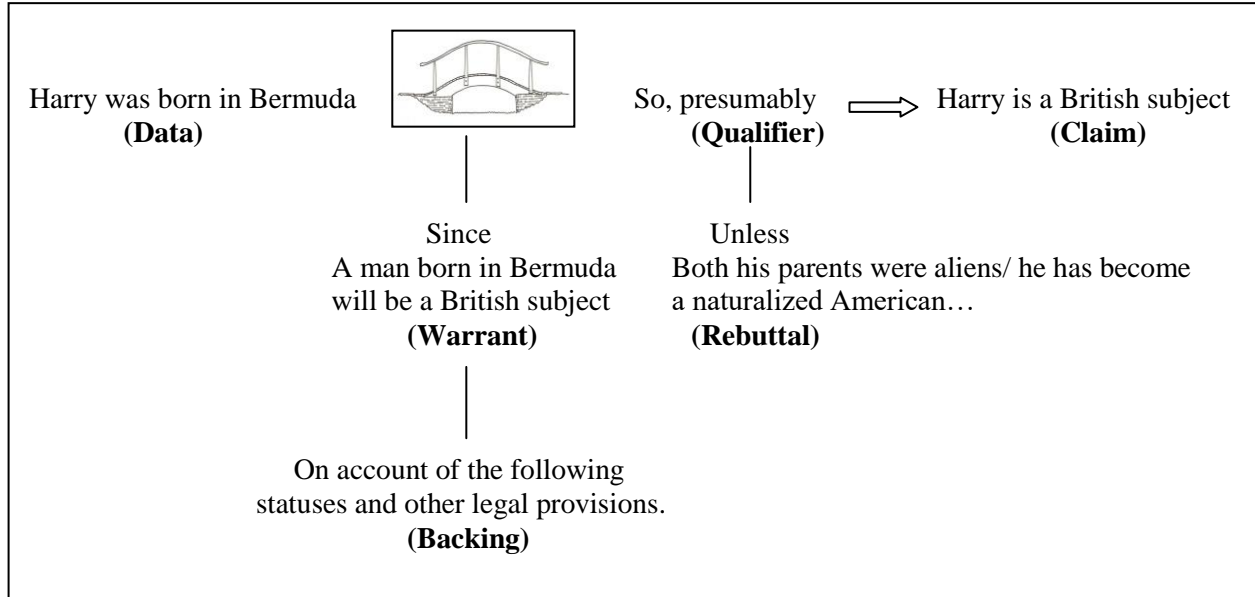


Figure 1. Toulmin's model of argument analysis representing the relationship among field-variant and field-invariant features of argument analysis (Toulmin 2003: 94)

Although this model has been widely accepted it has not escaped criticism. It has been pointed out, for example, that the boundaries between data and warrants are often blurred. "In practice it is often difficult (if not impossible) to determine whether a certain part of argumentation belongs to the data or whether it should be regarded as warrant" (van Eemeren & Grootendorst 2004: 46). In order to cope with such inadequacies of the model and serve the purposes of their research, several researchers modified the original model, for instance by reducing or modifying its features or by constructing scoring guides with clear specifications about what constitutes a good instance of the various features (Crammond 1998; McCann 1989; Connor 1990; Connor & Lauer 1988).

3. The study

The purpose of the study is to probe into adolescent argumentative writing of Greek learners of English with a focus on rhetorical features of argument formulation. More specifically, the research questions are:

1. How do the variables of (a) language (Greek vs. English), (b) gender (male vs. female), (c) age (13-year-olds vs. 15-year-olds), and (d) English proficiency level as attested by the Oxford Quick Placement Test (A2 vs. B1 vs. B2) affected essay length and the production of arguments in terms of the features of Toulmin's model?
2. Does evidence suggest that there is transfer from one language to the other?
3. Do the writers of the study produce effective arguments in terms of Toulmin's model (2003) in their first and second language?

4. Methodology

4.1 Participants

The participants of the study were 72 Greek adolescent students, 35 girls and 37 boys, of two different junior high schools in Thessaloniki, Greece. Forty five of them were 13 years old (mean age: 12, 8) attending the first grade of the 2nd junior high school of Kalamaria, whereas 25 students were 15 years old (mean age: 15, 1) attending the third grade of the 2nd junior high school of Oreokastro. The two schools were situated in different areas of Thessaloniki but can be considered comparable as their students shared similar socioeconomic backgrounds.

4.2 Instruments

For the purposes of the particular study, a mixed instrumentation method was used, including both quantitative and qualitative research tools. Data were collected by means of the Quick Placement Test (UCLES 2001), a brief questionnaire with basic questions about the participants' profile, and two writing tasks, one in Greek and one in English. The English essay prompt was a very widely circulated phrase at the time the study was conducted regarding the brainwashing effect of watching television: "When thousands of TV sets are on, thousands of people are brainwashed". The Greek prompt was also based on a very popular phrase regarding Facebook: "Once you log in, you're glued" (Αν μπεις, κόλλησες). The topics were carefully selected to address topics familiar to the students. Since this was a within-subject study, involving the same students writing in two languages, the essays dealt with different topics in order to eliminate the possibility of transfer as a result of translation (Uysal 2012).

4.3 Procedure

The data were collected in three 45-minute sessions. In the first session students completed the questionnaire and the QPT. In the following two sessions students wrote the Greek and English essays. They were instructed to express their opinion supporting it with reasons and were advised to write at least 120 words. During the writing procedure they had no access to any resources or help. The essay writing tasks resembled common writing assessment practices to which students had been repeatedly exposed to, avoiding in this way their involvement in novel experiences that might create confusion, require lengthier instructions, or affect their performance.

4.4 Data Analysis

Firstly, the questionnaires and the QPTs were analyzed. The scores of the QPTs were turned into the corresponding levels of the Common European Framework for Languages (Council of Europe 2001) according to the guidelines in the QPT. The essays were manually typed and turned into electronic format. Two corpora of argumentative essays in English and in Greek were compiled, consisting of approximately 11,500 and 13,000 words respectively.

After that, the readability test tool (<http://www.webpagefx.com/tools/read-able/>) an online, free-to-use formula measuring the readability of texts, equipped with build-in software for displaying basic text statistics, was used to count the number of words per essay, words per sentence, and sentences per essay. Length of texts was decided to be part of the analysis because according to Connor (1990: 80) essay length has been found to be “a good predictor of writing quality; it needs to be included in a comprehensive model of persuasive student writing”.

Qualitative analysis was then performed. In order to identify the thesis (main claim), data, warrants, and rebuttal of the essays in both languages, specific criteria had to be set. Specific criteria increase the reliability of the results as only one rater, the researcher, would analyze the essays. Firstly, the corpora in both languages were carefully examined and, secondly, Toulmin’s (2003) model of argument analysis along with three adaptations (Connor 1990; Connor & Lauer 1988; Crammond 1998; McCann 1989) were taken into consideration for the design of a scoring guide that would serve the qualitative analysis of the two corpora in the best possible way. The scoring guide devised is illustrated in the following table.

Thesis	<p>Clear Thesis (2 points): The writer clearly states his/her point of view which is relevant to the topic.</p> <p>Unclear Thesis (1 point): The writer's point of view is not clearly stated or it is inconsistent but the content of the essay is relevant to the topic. The reader has to infer the writer's point of view.</p> <p>No Thesis (0 points): The writer does not offer a point of view relevant to the topic.</p>
Data	<p>Strong Data (2 points): The writer provides reasons which are well-developed, clear, and relevant to the topic.</p> <p>Weak Data (1 point): The writer provides some reasons but they are not all related to the topic or they are not well-developed, limited to sub-claims with no elaboration.</p> <p>No Data (0 points): The writer provides either no reasons at all or irrelevant reasons.</p>
Warrant	<p>Warrant (1 point): The writer presents the data in such a way that there is a clear connection between the data and the thesis. The reader can accept the bridge to the claim.</p> <p>No Warrant (0 points): No connection between the data and the claim can be established.</p>
Rebuttal	<p>Rebuttal (1 point): The writer recognizes that there are opposing views, different than his own.</p> <p>No rebuttal (0 points): No recognition of opposition.</p>

Table 1. Scoring guide and criteria for the evaluation of the quality of argumentation based on Toulmin's model of informal reasoning (2003) and three adaptations of the model (Crammond 1998; McCann 1989; Connor 1990)

All essays in both corpora were examined carefully and were analyzed according to this guide. A total score was calculated for each essay adding the separate points the students got in the features of claim, data, warrant, and rebuttal. The top score a participant could get was 6. The number of different data put forward by the students in each essay was also counted. Statistical analysis was performed with the use of the

statistical program SPSS (version 20.0). The variables of language, age, gender, and level of proficiency were taken into account.

5. Results

5.1 Language (English vs. Greek)

In terms of text length, Greek essays were longer and included longer sentences than essays in English. The differences in the mean score of words per essay and words per sentence between the two languages were statistically significant ($p= 0.001$, $p= 0.000$) and can be seen in the following figures.

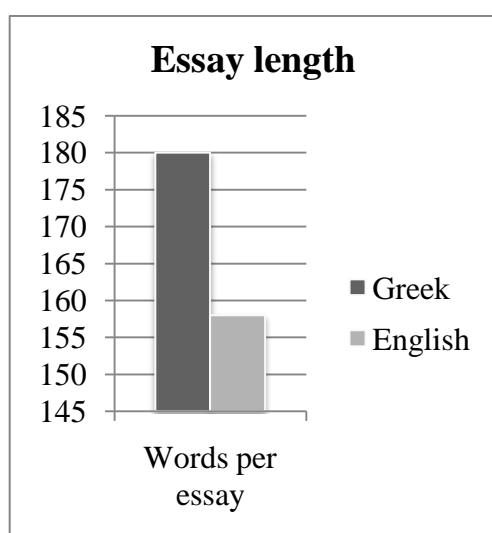


Figure 2. Mean score of number of words per essay in the Greek and English essays

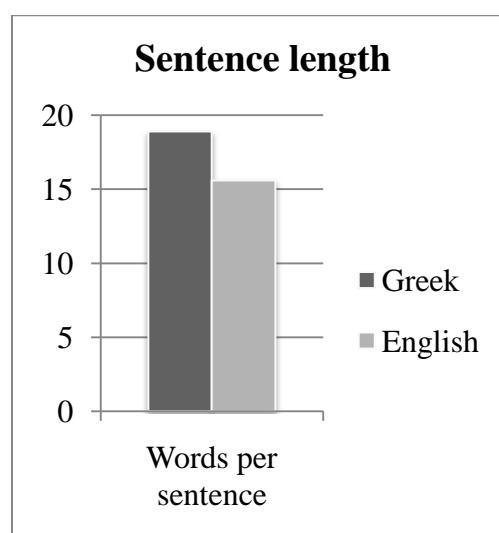


Figure 3. Mean score of number of words per sentence in the Greek and English essays

Regarding theses, no statistically significant differences were noted in the use of clear theses or no theses at all, but the use of unclear theses in English was statistically greater than that in Greek ($p= 0.027$). If we consider that a thesis was marked as unclear when “the writer's point of view is not clearly stated or it is inconsistent but the content of the essay is relevant to the topic”, the results suggest that in English the production of theses was relatively better than that in Greek because at least essays with unclear theses included propositions or data that related to the topic. The reader could use them as hints to infer the writer’s point of view.

The statistical analysis of the use of data between the two languages revealed statistically significant differences. The percentage of the number of students using strong data was statistically higher in English ($p= 0.004$) while the percentage of

students who did not use data was statistically higher in Greek ($p= 0.011$). In English, therefore, more students used data to support their theses.

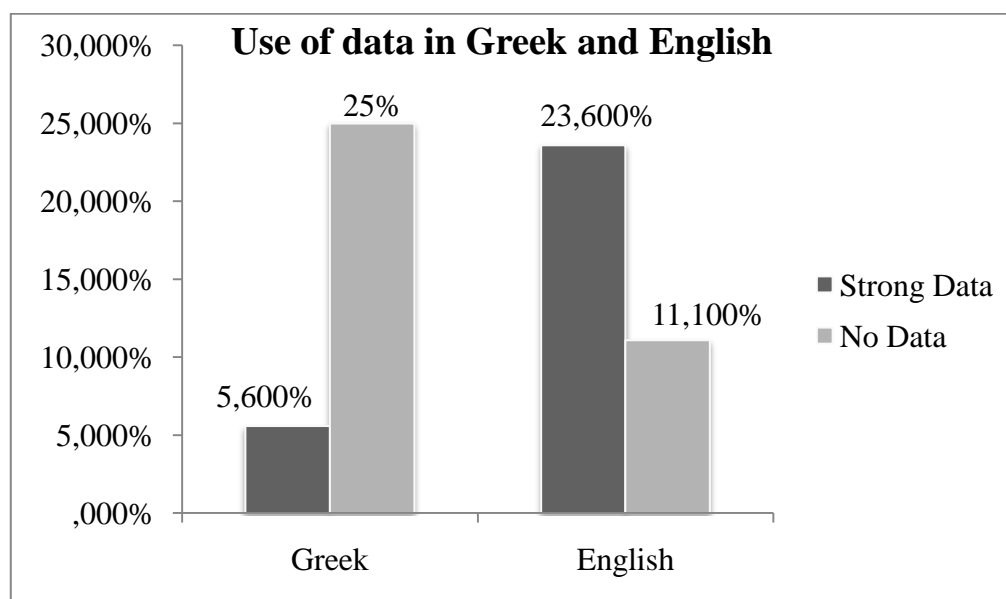


Figure 4. Differences in the use of data between Greek and English

Statistically significant differences were also observed in the number of data students used in the two languages. In English the mean score of the number of data used was statistically greater than that in Greek ($p= 0.001$). Therefore, data use in English was better both in quality and in quantity.

In terms of rebuttals there was a statistically significant difference between Greek and English ($p= 0.024$) essays as in English students used more rebuttals. More specifically, five students recognized that there were other points of view while no student used rebuttals in Greek.

5.2 Gender

Independent t-test analyses were performed with gender as the independent variable. The statistically significant differences related to essay length. More particularly, girls produced lengthier texts in both Greek ($p= 0.015$) and English ($p= 0.003$) in comparison to boys. They also wrote lengthier sentences in English than their male classmates ($p= 0.05$).

5.3 Age/High School Grade

Independent samples t-test analysis with age, 13 vs. 15, as the independent grouping variable revealed interesting statistically significant differences only in the Greek essays. Older students had a significantly better added Toulmin score ($p= 0.001$) and used a significantly greater number of data ($p= 0.043$) in Greek than younger students. Older students also used Greek theses in a better way. More 15-year-olds used clear theses ($p= 0.000$) and fewer 15-year-olds used unclear theses ($p= 0.002$) when compared to 13-year-olds. The differences are presented in the following figures.

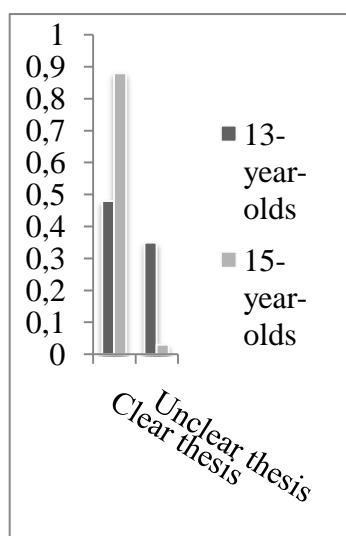


Figure 5. Mean score differences of Greek clear and unclear theses use between 13 and 15 year old students

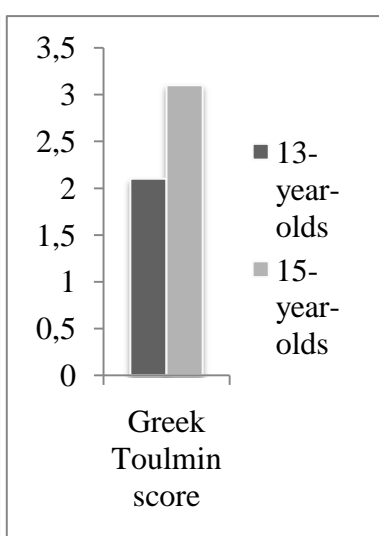


Figure 6. Added Toulmin score difference between the two age groups in Greek

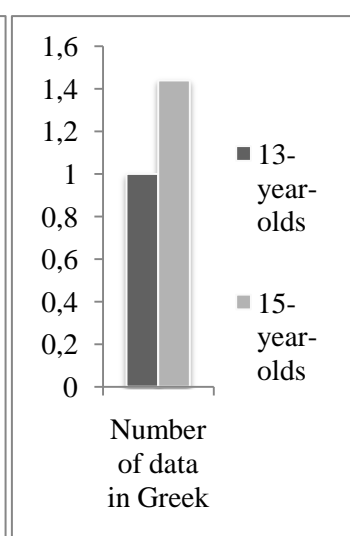


Figure 7. Number of data employed between the two age groups

What is interesting about these results is that no statistically significant difference was revealed in relation to the English essays. Age is a variable that made a difference in Greek but not in English.

5.4 Proficiency level in English

Based on the results of the QPT, learners were categorized in three groups of English proficiency level; A2, B1, and B2. Independent samples t-test analyses with levels of proficiency level as the independent grouping variables were performed. Results

showed that A2 level students were weaker in performance than B1 and B2 level students in many respects. The results are summarized in the following tables.

Level of students/ Dependent Variables	A2 level students	B1 level students	Significance
Essay length in English (number of words)	133	170	p= 0.002 .
Mean added Toulmin score in English essays	2.20	3.12	p= 0.002

Table 2. Statistically significant differences between A2 and B1 level students

Level of students/ Dependent Variables	A2 level students	B2 level students	Significance
Essay length in English (number of words)	133	199	p= 0.002 p= 0.000
Sentence length in English essays (words per sentence)	14.82	17.45	p= 0.026
Strong data in English essays (1=yes, 0= no)	0.05	0.57	p= 0.000
Weak data in English essays (1=yes, 0=no)	0.73	0.35	p= 0.013
Number of data in English essays	1.41	2.07	p= 0.046
Added Toulmin score in English	2.20	3.15	p= 0.002 p= 0.000
Use of warrants in English essays (coded in SPSS as 1=yes, 2=no)	1.97	1.64	p= 0.001

Table 3. Statistically significant differences between A2 and B2 level students

All these results show that the use of particular features of argumentative writing in English increased as the proficiency level of the students improved. B2 and B1 level students produced longer essays and sentences. They used better data, more data, and had a better added Toulmin score in English than less proficient learners of English.

Additionally, the use of warrants, although generally restricted to a minimal level, was significantly greater in more proficient students' essays of English.

A statistically significant difference was noted in the added Toulmin score in Greek between A2 and B2 level students as shown in the following figure.

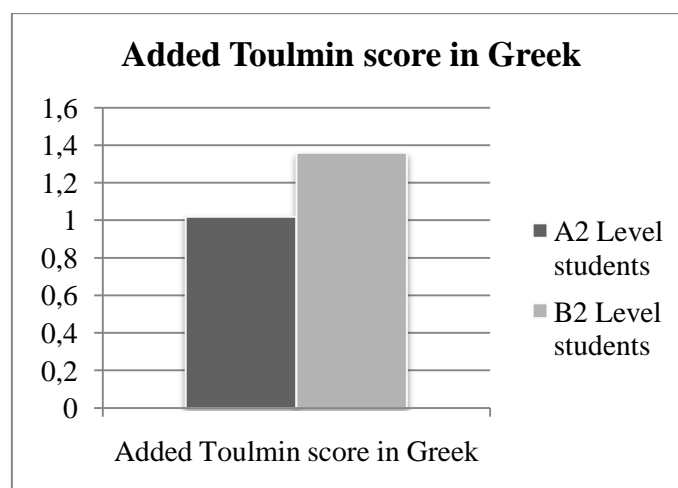


Figure 7. Statistically significant difference between A2 and B2 level students in Greek essay writing

Students who were more proficient in English did better in the rhetorical features of Toulmin's model in Greek than less proficient learners of English.

6. Discussion

Firstly, results are discussed with regard to the first two research questions; how the variables of language, gender, age and level of English proficiency affected the production of arguments and whether transfer of argument skills between the two languages can be reported.

Research has shown that native language writers produce longer (Silva 1993; Ferris 1994a) and more effective texts (Silva 1993) in comparison with second language writers. They also obtain higher Toulmin scores (Ferris 1994a). The results of this study corroborate previous research findings in terms of essay length. In Greek, students produced longer essays and longer sentences. It has been suggested that better argumentative texts are longer because

the longer the essay is, the more likely it is that the writer has done a more adequate job of presenting his or her claim, of supporting that claim with

relevant and appropriate data, of anticipating and dealing with counterarguments, and of using warrants to show how the data support the claim (Ferris 1994a: 56).

However, essays in Greek were not longer for these reasons. Essay length did not seem to add to the overall quality of argument formulation in this study as English essays were shorter but generally better than Greek ones contradicting previous findings that have shown that the use of Toulmin's features in the first language was better than in the second one (Cheng & Chen 2009). Given that in both Greek and English essays, the amount of irrelevant information was fairly high, first language fluency may have allowed the production of lengthier irrelevant statements and, consequently, longer texts. Girls were also found to write longer texts than boys in both languages, but were not better than boys in any aspect of argument formulation supporting the finding that text length was not an important factor contributing to the formulation of good arguments.

The rhetorical features of argument formulation in English essays were affected by English language proficiency. More proficient students were better in many features of essay writing in English when compared with less proficient students. This finding was expected as previous empirical studies have demonstrated that more skilled second language learners produced better writing texts (Zhang 2008), and, more particularly, better argumentative writing texts (Ferris 1994b; Cumming 1989; Ito, 2004). L2 proficiency has been shown to be related to L2 argumentative writing quality (Sasaki & Hirose 1996; Ito 2004; Cheng & Chen 2009).

Surprisingly, students with a higher level of proficiency also obtained a higher Toulmin score in Greek. This finding agrees with research that has demonstrated that L2 proficiency is related to L1 writing (Ito 2004; Cheng & Chen 2009). The results might be indicative of a possible transferability of argument skills from the second language to the first, lending support to previous research revealing bidirectional transfer across languages (Berman 1994; Uysal 2012; Hirose 2003; Kobayashi & Rinnert, 2007). Considering that second language adolescent learners develop their writing skills in their first and second language at the same time (Reynolds 2002 as cited in Harklau & Pinnow 2009), it could be assumed that rhetorical skills were transferred from the language in which they were more developed to the language they were less developed, that is from English to Greek.

Greek essay writing was also found to be affected by the factor of age. Older students produced better arguments than younger students in Greek. Developmental factors might account for this finding. Research has shown that as students grow older, they also mature cognitively and therefore produce better arguments (Golder & Coirer 1994). However, age did not seem to play any role in the argument features of English essays. This is a key finding that shifts attention away from maturational factors as a possible explanation for the inability of 13-year-olds to construct as good arguments as 15-year-olds in Greek. Lack of cognitive maturity would have yielded similar findings both in Greek and English essay writing. Other factors such as English proficiency level or previous argumentative writing instruction and experience may account for this finding.

Proficiency level in English may have affected the transferability of rhetorical features from L2 to L1 in the case of 13-year-olds. Younger students' low level of proficiency might have been the reason why they were not as good in Greek argument production as older ones since low proficiency level was found to be associated with poor argument production. Alternatively, poor rhetorical knowledge in L1 may have hindered the transferability of rhetorical knowledge from L2 to L1. At the age of 13 rhetorical knowledge of argument features may have been developed in English but because of limited experience in argumentative writing in Greek, L1 rhetorical knowledge may have been at initial stages of development making it hard for students to transfer features from L2. As they grow older, their experience and practice in L1 argumentative writing increase possibly allowing transfer of features from L2.

The third research question was whether Greek teenagers argue effectively in Greek and in English. The answer is that most of them do not. Although in English students produced better arguments, they produced poor arguments in both languages. This finding supports research demonstrating that adolescents produce weak arguments in their L1 and L2 (Crowhurst 1990; Knudson 1992; Kuhn & Udell 2003).

Approximately half of the students produced clear theses in both languages, a quite low percentage if one thinks that stating one's point of view is the first basic step in producing an argument. Although the use of data was better in the English essays, the majority of students could not adequately support their theses with good and elaborated data neither in Greek nor in English, a weakness that characterizes L1 inexperienced writers (McCann 1989). In fact, many essays included neither clear theses nor good supporting data (Al-Abed-Al-Haq & Ahmed 1994 as cited in Zhu

2001). Lack of familiarity with the topic cannot explain this weakness. Topics were familiar to students, half of whom provided much relevant information in the form of advantages and disadvantages of Facebook/ TV. However, they failed to turn this content knowledge into arguments. Many students had the tendency to use non-arguments, a similar finding to Crowhurst's results (1990). They actually presented information without elaboration but with much personal information, including personal narration, a finding that has been reported for L2 adolescent writers (Loca de Larios, Marin & Murphy 2001).

Use of warrants was minimal although their importance in an argumentative writing text is great because linking data to the main thesis adds to the persuasiveness of an argument (Crammond, 1998). Rex, Thomas & Engel (2010: 57) stated that "arguments are won and lost on well-reasoned-that is, well-written-warrants". Limited use of warrants is most likely attributed to lack of instruction but it can also mean that writers do not place themselves in the position of the reader or are not "sufficiently aware of the audience's needs or background" (Crammond 1998: 251) assuming that the reader will be able to make the connection between the data and the thesis without an explicitly stated warrant. Similar findings were reported for L1 adolescent writers (Crammond 1998).

Rebuttals were nearly not employed at all. The only attempt to recognize opposing points of view were made by 5 students in English essays, a finding that is probably connected to instruction in English argumentative writing. Students tended to use one-sided arguments without including opposition structures. Similar findings have been reported for L1 adolescent writers (Knudson 1992; Nippold & Ward- Lonergan 2010).

7. Study limitations

Several limitations need to be acknowledged in this study. Firstly, the number of participants was not large enough to allow generalizability of results. Secondly, only one rater assessed the use of Toulmin's features in student essays. The effect of subjective judgment was addressed through the careful development of scoring criteria but assessment of essays by two independent raters would have yielded more reliable results. The most serious limitation, however, was the restricted amount of time that the researcher had access to the participants. The study could only focus on texts as written products. There was no time to conduct interviews or to administer questionnaires or tests in order to probe into students' cognitive abilities or identify

the writing processes and strategies they used while writing the essays in both languages. Students' and teachers' questionnaires and interviews would have been the source of additional information about teaching instruction, sociocultural backgrounds, and affective factors. However, three 45-minute sessions per class were not enough to probe into all these factors that might have influenced L1 and L2 adolescent argumentative writing.

8. Conclusion

This study showed that L2 proficiency affected the production of rhetorical skills of argument formulation in both L1 and L2, that rhetorical skills seemed to be transferable from L2 to L1, and that adolescent EFL students could not argue effectively not even in their native language. The weakness of students to produce well-reasoned arguments needs to be underlined. Forming cogent arguments is a skill that students need to master in their first and second language because of the overriding importance of argumentation.

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