

Greek Cultural Characteristics and Academic Writing

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Abstract

Cross-cultural research has shown that cultural values are discernible in the rhetoric of academic authors. Cultural characteristics—such as uncertainty avoidance, power distance, and individualism/collectivism (Hofstede 1980) define relations of power and solidarity among individuals, their notions of politeness and appropriate social behavior, as well as their persuasive styles, affecting the ways authors express their claims and build up their arguments in academic texts. These factors (together with audience and purpose of genre and degree of an author's socialization in the academic community) affect the writing style of Greek authors as it is revealed by the analysis of Research Articles (RAs) and samples of students' writing (assignments, dissertations and theses) in the fields of Electronic, Electrical, and Chemical engineering. The analysis shows that the rhetorical behavior of Greek expert engineers and student engineers has both similarities and differences. Common points include the projection of an authoritative expert persona in their writing, the expression of great certainty and conviction in their claims, and references to the body of shared knowledge. These are shown to be the result of the high uncertainty avoidance, high power distance, collective values, and solidarity orientation that characterize Greek society. The differences are attributed to the conventions of the genre in which the authors are writing and their degree of enculturation in the academic community.

Introduction

Texts in academia are socially constructed within academic discourse communities. Textual meanings are not fixed, but are "socially mediated, influenced by the communities to which writers and readers belong" (Hyland, 2000:12). The norms and conventions of academic communities are defined by their ideologies and methodologies, and are reflected in the genres they utilize for the achievement of the community's goals. The formation of genres is a response to social forces within disciplines, and their formal features represent ways in which a community agrees to express its fundamental relations and interactions (Bazerman, 1988).

Journal of Modern Greek Studies, Volume 23, 2005.

National academic communities are linked by factors such as the anglicization of scholarship, the great mobility of academics, and the numerous means of communication and information exchange. They are additionally linked by *manifest intertextuality* (texts drawing on other texts, in the forms of quotation, paraphrase, copying and translating) and *interdiscursivity*¹ (texts drawing on text types or genres) (Fairclough, 1992). These factors unite national communities and transform them into an international academic community.

However, national academic communities operate within larger speech communities, the members of which are joined by similar cultural values and characteristics and share similar norms of social interaction. Despite, therefore, the factors that link national academic communities, there still exist different cultural patterns of writing, of organizing discourse, and of interacting with members of the community. Becher (1989) reports on the typical French Engineering paper, with its "absolute approach, beginning with a highly mathematical exploration of the feasibility of each problem, as opposed to the comparative American approach, which starts straight on solutions looking at the relative merits and demerits of different ones." He also reports on the "heavy handed" nature of German mechanical engineering, and the different national habits of minds of historians, whose ways of looking at things differ depending on their nationality (1989:23, 24).

Cross-cultural research studies have delineated the differences that do exist on many levels of various nationalities' academic writing, and have shown that there are discernible differences in patterns of intellectual tradition, which have been attributed to cultural characteristics, the structure of communities, literacy practices, and notions of politeness (e.g. Mauranen 1993; Duszak 1994; Valero-Garces 1996; Vassileva 2000). These studies have indicated that there exist certain intellectual styles and modes of academic interaction that are ultimately defined by cultural norms and values. Even though similar conventions have been shown to exist in the writing of various nationalities, the above research has suggested that these conventions can be motivated by diverse factors, which are culturally shaped.

The values that characterize Greek culture affect the ways Greek authors of scientific texts construct and offer their knowledge claims to the scientific community, and define what is considered persuasive in this community of scientists. This is revealed in an analysis of fifteen RAs and thirteen samples of students' writing as regards the rhetorical strategies of hedging and emphatic assertions of claims.

The findings are interpreted by adopting a holistic approach similar to Hirschon's (2001). Hirschon (2001:16) writes that "apparently unrelated phenomena can be seen to make sense if interpreted in a

holistic way within the overall socio-cultural context," as well as that "certain values have primary interpretative significance as markers of the ethos of a culture," and "can be inferred from linguistic conduct and communicative style" (Hirschon 2001:18, 19). Therefore, findings from sociological and anthropological research into Greek cultural characteristics, culture and institutions (Hofstede 1980, Triandis and Vassiliou 1972, Vassiliou et al. 1972; Legg and Roberts 1997), and cross-cultural linguistic studies into preferred modes of social interaction and notions of politeness (Sifianou 1992, 1997; Tannen and Kakavá 1992; Mackridge 1992; Pavlidou 1994; Tzanne 2001; Antonopoulou 2001; Georgakopoulou 2001) have been used to explain Greek authors' rhetorical behavior. The above studies provide insights of certain aspects of Greek people's "subjective culture" (Triandis 1972), which are shown to affect the ways Greek authors interact with their readership and define their persuasive style. Hofstede's (1980) findings regarding Greece and the studies by Triandis and Vassiliou (1972) and Vassiliou et al. (1972) may be considered to be rather dated, and it may be claimed that their findings do not apply to the Greece of 2004. However, lack of contemporary similar studies leaves no alternative but to use them. Apart from that, even though some changes may have occurred in Greek subjective culture since the 1970s, the basic values and characteristics of Greek culture these studies identified remain broadly similar today and are repeated in recent studies (e.g. in Legg and Roberts 1997; Hirschon 2001).

It may also be argued that, since the above linguistic studies discuss conversational data, their findings cannot be readily drawn on in a study of written discourse. The main difference between orality and literacy is the focus of literacy on written language. Orality and literacy have until recently been seen as having different characteristics: spoken language has been characterized as being context dependent, while written language has been characterized as detached and decontextualized (Ivanič 1998:59). However, as Ivanič (1998) points out, spoken and written language cannot be neatly separated in this way, as literacy is not autonomous but ideological, shaped by the values and practices of the culture in which it is embedded (Street 1995). Very often characteristics attributed to one mode rather than the other are in fact features of the social context in which they are employed and in other contexts those features might be attributed to another mode (Street 1995:152). Street (1995:160) maintains that scholars tend to now see the relationship between literacy and orality as a "continuum" rather than as a "divide." According to this view, Greek spoken norms of social interaction and literacy practices are linked in that they both reflect the social values of Greek culture.

Greek cultural characteristics, relations of power and solidarity, and the notion of politeness

A starting point in the discussion of Greek cultural characteristics would be Hofstede's (1980) study on cultural differences in work-related value orientations. This study gives an insight of four parameters on which cultures differ. These are *power distance, uncertainty avoidance, individualism-collectivism,* and *masculinity-femininity. Power distance* relates to cultural attitudes towards status and social hierarchies, the degree to which a culture believes that institutional and organizational power should be distributed unequally, and whether the decisions of the power holders should be challenged or accepted. *Uncertainty avoidance* describes the extent to which the culture feels threatened by uncertain situations and tries to avoid them by establishing more structure. *Individualism-collectivism* relates to the degree to which a culture relies on and has allegiance to the self or the group. Finally, *masculinity-femininity* indicates the degree to which a culture values behaviors such as "male assertiveness" and "female nurturance" (Hofstede 1980:178).

These parameters of cultural difference can affect a culture's intellectual style, literacy practices, and structure of educational institutions. Hofstede (1980:138) maintains that the degree of a culture's uncertainty avoidance, in particular, affects the type of intellectual activity in the country in a fundamental way, and has also shown that cultural characteristics differentiate cultural teaching and learning styles (Hofstede 1986). Galtung (1981) has also shown that intellectual styles can be culture specific, and distinguishes among four intellectual styles: teutonic, gallic, saxonic and nipponic.

Cultural characteristics can additionally affect relations of power and solidarity (Spencer-Oatey 1996, 1997), what is considered polite behavior in a given culture (Mao 1994; O'Driscoll 1996), and interpersonal communication (Triandis 1995; Gudykunst and Matsumoto 1996). The notion of face and face wants are culturally determined, and what are considered as positive and negative faces are culturally shaped. O'Driscoll (1996) talks of the culture-specific face, Mao (1994) of the relative face orientation, while Bravo (1996, in Hernández-Flores, 1999) uses the autonomy and affiliation concepts from social psychology (Benjamin 1974) in order to explain politeness behavior. Hernández-Flores maintains that what the categories of autonomy and affiliation aim at in terms of social behavior is open to cultural interpretation, and are "empty categories that need to be filled with contents, that is the components of one's group socio-cultural identity" (1999:40). The notion of face and face wants have also been shown to depend on the individualistic/collectivist nature of societies and the high/low power distance that characterizes them (Ting-Toomey 1988; Morisaki and Gudykunst 1994; Ting-Toomey and Cocroft 1994; Gudykunst and Matsumoto 1996).

According to Hofstede's (1980) data, Greek society is a high-power-distance society. Its power distance index is 60 (highest 94, lowest 11). It is also a society that cannot tolerate uncertainty. It is at the top of the list (112) in the uncertainty avoidance index. Greece is additionally shown to be a collectivist and masculine society. It is towards the bottom (35) of the individualism index, with the lowest score being 12. The masculinity index places Greece somewhere in the middle (57), with the highest score at 95 and the lowest at 5 (Hofstede 1980:77, 122, 158, 189).

Hofstede (1980) makes several observations about countries based on how they score on the four indices. He claims that in countries with a high power distance index, powerful people try to look as powerful as possible, and there is less questioning of authority in general. He maintains that people in high uncertainty avoidance countries feel a greater need for consensus, group decisions are ideologically popular, there is more showing of emotions, and intolerance towards deviant persons and ideas. In collectivist countries, he says, social relations are predetermined in terms of in-groups, there is belief in group decisions, and educational systems are traditional. Finally, he states that in countries with a high masculinity index there is admiration for the strong, ego gratification is valued, and traditions go back several generations, reinforced or weakened by historical events. Observations made by other researchers researching Greek cultural identity, generally bear out on Hofstede's scores and their interpretations, and are all ascribed to Greek historical and political situations and difficult survival conditions.

Such researchers are Triandis and Vassiliou (1972), and Vassiliou et al. (1972). These researchers analyzed subjective culture, which Triandis (1972:4) defines as "a cultural group's characteristic way of perceiving the man-made part of its environment." He adds that "aspects of subjective culture are the perception of rules, and the groups' norms, roles, and values" (1972:4). Triandis and Vassiliou (1972:302–304) write that Modern Greek culture has been influenced by six important factors: 1) scarce resources and keen competition for them—Greece is a mountainous country, it is difficult to cultivate, while there are pressures from an expanding population; 2) reaction to the domination by autocratic rulers—the Turks; 3) dependence on the male hero for survival of the cultural values—village leaders took to the mountains to avoid being executed by the Turks; 4) increased dangers for boys resulting in increased protectiveness by mothers—the Ottomans kidnapped children and placed them in specially formed schools for soldiers called Janissaries; 5) the unfiltered importation of foreign

institutions—mainly political (kings, government ministries, parliaments; and 6) low control over the environment (war, revolution, struggle for survival).

Their findings agree with those of Hofstede (1980) in that they also claim that Greek society is a collectivist one, imbued with social considerations. They write that in Greece the concept of the in-group is central. The in-group for Greeks is defined as "my family, my relatives, friends and friends of friends" (Triandis and Vassiliou 1972:305). The competition for scarce resources and the struggle for survival created an extremely tightly knit family and an in-group that provided protection, social security, and a warm and relaxing environment. Within the ingroup the appropriate behavior is characterized by co-operation, protection, and help. The concept of $\varphi\iota\lambda\delta\tau\iota\mu\sigma$ demands that people sacrifice themselves to help members of their in-group. This concept is particular to the Greek context, and a person with $\varphi\iota\lambda\delta\tau\iota\mu\sigma$ is roughly defined as someone who behaves toward members of his/her in-group the way they expect him/her to behave (Triandis and Vassiliou 1972:309).

Triandis and Vassiliou (1972:299) maintain that the Greeks seem to define the universe in terms of the triumphs of the in-group over the out-group, and that their social behavior is strongly dependent on whether the other person is a member of the in-group. The in-group/out-group distinction is given by Vassiliou et al. (1972) as an explanation for Greeks' high intolerance of ambiguity. Hofstede's claim that cultures with high uncertainty avoidance tend towards rigidity and dogmatism, and intolerance of different opinions is also supported by Vassiliou et al. (1972:111), who report that Greeks are generally seen by Americans as obstinate and unyielding in their opinions. Greek values are clear, openly proclaimed, and expressed in unhesitating fashion. Vassiliou et al. explain that the Greeks behave this way because:

... they hold their opinions as representative of the in-group, they defend positions shared by the in-group, and perceive such opinions as leading to support for the in-group. Such behaviors function to increase the Greek's self-esteem because they increase his acceptance by the in-group and his perceived prestige in the out-groups. (Vassiliou et al. 1972:111)

Greeks' need for security is demonstrated by the Greeks' preference for jobs that offer long-term security, and for public sector positions, which provide security, benefits and pensions (Legg and Roberts 1997:76, 98).

Hofstede (1980) argues that high uncertainty avoidance results in traditional educational systems, a characteristic of collectivist countries as well. Mouzelis (1995) and Bourantas and Papadakis (1996) comment on the formalistic system of training in the social sciences based on

memorization, and on the emphasis on rather theoretical aspects of business studies in Greek Universities, respectively.

Admiration for the strong, the value of ego gratification, and the masculinity of Greek society is attributed by Triandis and Vassiliou (1972) to the significance of the image of the guerrillas in the formation of the Greek male, and the importance ascribed to male children. The ideal of the hero requires achievement and fame, and boys are pushed to achieve and build high self-confidence.

As mentioned earlier, Hofstede's (1980, 1986) claim that intellectual styles can be culture-specific is generally supported by Galtung (1980), even though Galtung's essay does not attempt to explain the reasons for the differences in the four intellectual styles he established. Greece is not mentioned by Galtung nor is it included in any of the four intellectual styles he has identified. However, there are elements in the Greek intellectual tradition that bear close resemblance to the Teutonic and Gallic intellectual styles.² According to Galtung, the *Teutonic* intellectual style is characterized by its tendency to theorize, the deductive style of its theory formation, and the central position of the logical relation of implication. The *Gallic* intellectual style is similar to the Teutonic as regards theorizing and lack of empirical data substantiation, but there are differences as regards theory formation.

Whereas the Teutonic approach is based on deductions and logical structure, the Gallic approach is based on artistic quality, elegance, and aesthetic aspects, such as balance and symmetry. What also unites these two traditions is their attitude towards diversity of opinion and debate. Teutons and Gals love debate but with scholars who subscribe to similar points of view as themselves and not to diametrically opposite ones. Thus, diversity of opinion in one single debate is likely to be smaller and the audience more homogeneous (Galtung 1981).

One piece of evidence of the affiliation of the Greek intellectual style and educational system to the Teutonic and Gallic ones is the curricula of Greek academic institutions and their rather traditional and theoretical approaches to subject matters, which characterize societies that follow the Teutonic tradition (Čmejrková 1984). Bourantas and Papadakis (1996) report that up until the mid-1980s, Greek technical universities provided very little training in management, while the Economics and Business universities focused on law, macro-economics, and accounting rather than management and marketing. According to Legg and Roberts (1997), the whole history of Greek education shows a tendency to language and classical studies and a neglect of technical education. Up until the educational reform of 1975, there was an overproduction of university students in non-technical areas, a situation

that the reform attempted to address (Legg and Roberts 1997:98–99). This trend in Greek education towards theoretical studies could be said to be in agreement with a characteristic that Hofstede attributes to countries with high uncertainty avoidance, that is, a theoretical rather than practical contribution to knowledge.

As Galtung (1981) maintains, there has to be some correspondence between the structure of a scientific community and its scientific products. Greek academic institutions bear a number of similarities to Teutonic ones, the most obvious being that the University of Athens was organized along Bavarian lines (Legg and Roberts 1997). Greek academic institutions are as elitist as the Teutonic ones. The admissions process to Greek universities is very selective, and the difficulty of passing the entrance examinations is immense due to limited placement³ especially in departments that are in high demand. This is the main reason why a great number of Greek students end up studying in the United States of America, the United Kingdom, or other European countries. However, this elitism is purely intellectual because Greece has long had the highest percentage of students from the lower economic classes, making access to higher education in Greece more egalitarian in this respect than in other European countries (Legg and Roberts 1997:100).

Another similarity with Teutonic educational systems is the all-knowing persona of the professor, for whom respect is tremendous (Galtung, 1981:834). Teaching at the Greek universities takes place exclusively through lectures. Seminars as a method of teaching are very limited. Even though lectures as a method of teaching are partly dictated by practical reasons (such as the large numbers of students allowed to enrol per class),⁴ opportunities for negotiation and discussion are restricted. In lectures, the students are exposed only to the authority and expertise of the lecturer. The power of the lecturer's expertise is also evident in the fact that the main means for assessing student progress are oral and written examinations for which the students are expected to memorize the lecturer's book or notes (Mouzelis 1995). The lecturer's book and notes are usually the only materials that the students are expected to read during a module.⁵

According to Hofstede (1980, 1986), the omniscient teacher and one-way teaching is a characteristic of countries with large power distance. Legg and Roberts (1997:99) write that the Greek educational system is authoritarian at all levels—from teacher-students relationship to the relationship of the schools with the Ministry of Education. In Greece, teachers are never called by their first name. Formal titles are always used. The curriculum content is centralized; curricula are uniform in both public and private schools, while there is no autonomy at

the school-level. All matters related to school life are regulated by the Ministry of Education which designs the curricular subjects syllabi, publishes the textbooks, defines the objectives of each subject, and issues instructions to teachers on how to teach the materials in the classroom (Legg and Roberts 1997:99). Even though these practices do not apply to Greek universities, nonetheless, the operation of Greek universities remains centralized because admission to Greek universities is closely controlled by the state, which creates the university entrance examinations and controls the length of study and the award of academic degrees (Wright et al. 1997a). Academic degrees in Greece are awarded by the state, not by individual universities, as is the case in the United States and the United Kingdom (Wright et al. 1997b).

Greek cultural characteristics also affect relations of power and solidarity which seem to be interrelated rather than mutually exclusive. The existence of the concept of $\varphi\iota\lambda\delta\tau\iota\mu\sigma$ in Greek society suggests that in the Greek context, close relationships include not just intimacy and solidarity but also obligations and limits on an individual's autonomy. In Greek society, additionally, even though it is obligatory to acknowledge an individual's higher status, one may still have close ties with that person, which shows the vertical nature of Greek society. In vertical societies, individuals have closer ties with members of the same social unit as themselves, "the bonds of those of unequal status can be strong," and "inequality in status cannot be easily equated with high social distance" (O'Driscoll 1996:26). Higher status is not looked upon as negative but it is respected and acknowledged without damaging solidarity relations.⁶

As regards the notion of politeness, linguistic politeness studies conducted in the Greek context have shown that Greece is a solidarity orientation society (Sifianou 1992, 1997; Tzanne 2001; Antonopoulou 2001; Georgakopoulou 2001; Antonopoulou and Sifianou 2003) in which politeness is used to enhance the relationship aspect of the communication (Pavlidou 1994). This can be attributed to the collectivist nature of Greek society and its emphasis on in-group approval. Face in Greek society seems to conform to the description of *interdependent* face and its needs of inclusion and approval by the group, as presented by Morisaki and Gudykunst (1994). Hirschon (2001:20) maintains that politeness codes in Greece have a direct bearing on the notion of $\tau\iota\mu\eta$ (honor), which is closely associated with the concept of $\varphi\iota\lambda\delta\tau\iota\mu\rho$, and can be interpreted as a person's intrinsic worth and moral integrity, as well as his/her social reputation, prestige and esteem. Both meanings are determined by societal values, standards and expectations.

The above cultural characteristics, relations of power and solidarity, and the Greek notion of politeness seem to affect the rhetoric of

Greek authors in academic writing, as is shown by the analysis of research articles (RAs) in Engineering and samples of student writing. However, these are not the only factors that affect the rhetoric of scientific authors because a host of other issues, (such as audience and purpose of genre, intertextuality and interdiscursivity, and degree of one's enculturation in the academic community) are also at play.

Scientific genres

Research articles and students' assignments, theses, and dissertations constitute genres used by scientific communities to publicize, disseminate, and ratify knowledge.

Research articles are the main means by which new knowledge or claims to new knowledge become known, and by which the community decides to accept or refute such knowledge or claims. Production of research articles is one of the characteristics of the hard sciences. Their collaborative or competitive nature ascribes great importance to this genre. However, apart from the published information, *curriculum* genres (Berkenkotter and Huckin 1995), such as assignments, theses, and dissertations, also constitute key academic genres and play a role in promoting research and developing knowledge. Students' writing also communicates knowledge. It is the students' way of communicating their understanding, interpretation, evaluation, and criticism of disciplinary knowledge.

The above genres follow disciplinary conventions and norms which are defined by the purpose for which they are written, the audience they address, and the power relations within a scientific community. The main purpose of research articles is to persuade the community to accept new knowledge claims (Latour and Woolgar 1979), and to address fellow scientists of similar *absolute* or *relative* status (Cansler and Stiles 1981) to that of the author(s). Cansler and Stiles (1981) differentiate between relative and absolute status in their definition of status:

... a person's status or social rank may be construed both absolutely in a stable social hierarchy and in relation to another member with whom he or she is currently interacting. Thus one's *relative* status is high in a conversation with a subordinate and low in a conversation with a superior, but one's *absolute* status is the same in both conversations. (1981:450–460)

Curriculum genres, on the other hand, are mainly written for assessment purposes and usually address lecturers and examiners who are more knowledgeable and of higher absolute and relative status than their authors. Thus, although these genres may share some similar

conventions and rhetorical strategies, the motivation behind the rhetorical strategies they employ may be different.

The ways authors of scientific texts choose to address their readers are also affected by the degree of the authors' enculturation in the academic community, their understanding of the power relations operating in the academic community, and the extent of their familiarity with the conventions of the discipline (Bizzel 1992; Berkenkotter and Huckin 1995). Published research articles are written by individuals who have achieved some level of expertise in their field, have probably produced similar pieces of writing before, and are likely to be familiar with the expectations of the community and the norms that govern academic writing. They can also be expected to be aware of the politics of academic writing, and their rhetorical strategies should reflect these power relations and expectations. On the other hand, not all students at all levels of university education would be expected to be aware of the practices operating in academic communities and the identities authors should adopt in order to produce successful academic texts. Research students writing Ph.D. dissertations might be more familiar with the politics of academic writing as they might have published or attempted to publish themselves in journals or conference proceedings. Students writing a master's thesis, as well as undergraduate students writing their final year honors thesis, will probably still be in the process of being initiated in the practices of their disciplinary communities. Students at these levels are not considered fully-fledged members of the academic community yet (Bartholomae 1985; Berkenkotter and Huckin 1995).

An analysis of these genres, therefore, needs to take into account the kinds of processes that are in operation during text production at various levels of experience and stages of community membership. A discussion of the corpus of the analysis and the method employed follows in the next section.

Corpus and method

The RAs corpus comprises a total of fifteen articles—eleven Chemical Engineering articles, which were presented at the Second Panhellenic Conference on Chemical Engineering (May 1999), two Electronic and Software Engineering papers, which were presented at the Second National Conference on ICT in Education (October 2000), and two Electronic and Software Engineering papers which were presented at the National Conference on Informatics and Education (November, 2000). The Chemical Engineering papers were recommended by a specialist informant (a Chemical Engineering Associate Professor at the Aristotle University of Thessaloniki), while the papers on Informatics in

education were recommended by a specialist informant from the Institute of Informatics and Telematics, Thessaloniki, Greece.⁹

The samples of students' writing comprise a total of thirteen texts—two PhD dissertations, seven papers required by courses at the Master's level, and four final year honors theses required for a B.S. degrees in Electronic, Electrical, and Chemical Engineering.¹⁰ The students who authored the samples in this category were students in the Departments of Chemical, and Electronic and Electrical Engineering at the Aristotle University of Thessaloniki—except for one student who submitted his undergraduate final year honors thesis to the Department of Chemical Engineering at the University of Patras. The length of the research articles and the samples of the student writing was calculated in lines.¹¹

The analysis focused on two rhetorical strategies commonly used by scientific authors, namely hedging and emphatic assertions of claims (Hyland 1998), and their personal and impersonal expression.

Hedging is the modification and toning down of claims, and is expressed lexically through modal verbs such as $\mu\pi o\rho\omega$ (can, may) epistemic lexical verbs such as $\pi\rho o\tau\epsilon i\nu\omega$ (suggest, propose), $\theta\epsilon\omega\rho\omega$ (consider, regard as), or $\varphi\alpha i\nu\epsilon\tau\alpha\iota$ (seems, appears), epistemic adverbs and adverbials such as $i\sigma\omega\varsigma = maybe$, perhaps and $\pi\iota\theta\alpha\nu\delta\nu = possibly$, $\sigma\chi\epsilon\delta\delta\nu = almost$, approximately, and $\sigma\chi\epsilon\tau\iota\kappa\alpha = relatively$, epistemic adjectives ($\pi\iota\theta\alpha\nu\delta\varsigma = possible$, $\lambda o\gamma\iota\kappa\delta\varsigma = logical$), epistemic nouns ($\pi\rho o\sigma\pi\alpha\theta\epsilon\iota\alpha = attempt$, effort), numerals ($\mu\iota\alpha \epsilon\rho\mu\eta\nu\epsilon\iota\alpha = one$ interpretation), expressions such as $\epsilon\nu\alpha\varsigma/\mu\iota\alpha/\epsilon\nu\alpha$ ($\alpha\lambda\lambda\sigma/\eta/\sigma$) (another) ($\alpha\lambda\lambda\eta$) expressions such as $\alpha\lambda\sigma/\eta/\sigma$ (another) ($\alpha\lambda\eta$). It is additionally expressed through whole sentences that refer to limitations of the study, the technique or the methods used, and to lack or limited knowledge (Hyland 1996, 1998, Koutsantoni 2003).

Claims can be expressed emphatically through attitude, certainty and common knowledge markers (Koutsantoni 2003, 2004a). Attitude markers emphasize authors' personal attitude and opinion. Certainty markers emphasize authors' certainty and conviction to propositions, while common knowledge markers emphasize common knowledge and shared understandings in the community. Attitude is expressed by adjectives and adverbs such as $\sigma\eta\mu\alpha\nu\tau\iota\kappa\dot{o}\varsigma=significant$, $\iota\delta\iota\alpha\dot{\iota}\tau\varepsilon\rho\alpha=particularly$, obligation and necessity expressions and modals ($\varepsilon\dot{\iota}\nu\alpha\iota\alpha\alpha\alpha\rho\alpha\dot{\iota}\tau\eta\tau = it$ is necessary, $\pi\rho\dot{\epsilon}\pi\varepsilon\iota=must$, should), and discourse-based negative evaluations of previous research. Certainty is expressed by adjectives and adverbs such as $\varphi\alpha\nu\varepsilon\rho\dot{o}=obvious$, $\xi\varepsilon\kappa\dot{\alpha}\theta\alpha\rho\alpha=clearly$, verbs such as $\kappa\alpha\tau\alpha\delta\varepsilon\iota\kappa\nu\dot{\omega}\omega/\delta\varepsilon\dot{\iota}\chi\nu\omega=demonstrate/show$, $\theta\alpha$ -future forms = will/be going to, and discourse-based expressions of confidence in results or contributions of research. Common knowledge is invoked by adjectives such as

γνωστό = well-known, συνηθισμένο = typical, and expressions of generalized attribution such as όπως είναι γνωστό = as known, or γνωρίζουμε = we know (Hyland 1998, Koutsantoni 2003, 2004a).

Hedges and emphatics can be either personally attributed or impersonally expressed. Personal attribution is expressed by first person singular and plural verbs ($\theta \varepsilon \omega \rho \omega = I$ assume, $\theta \varepsilon \omega \rho \omega \omega \omega = we$ assume), first person singular and plural subjunctives that may follow an impersonal verb ($\alpha \xi i \zeta \varepsilon \iota \nu \alpha \sigma \eta \omega \varepsilon i \omega \sigma \sigma \upsilon \omega = it$ is worth that we note), and personal and possessive pronouns such as $\omega \alpha \zeta = us$, our, ours), and $\omega \omega = us$, mine). Impersonality is achieved with impersonal expressions ($\alpha \xi i \zeta \varepsilon \iota \nu \alpha \sigma \eta \omega \varepsilon i \omega = it$ is worthwhile noting) and passive voice ($\eta \tau \rho \sigma \sigma \varepsilon \gamma \gamma \iota \sigma \eta \omega \varepsilon i \omega = it$ is worthwhile noting) and passive voice ($\eta \tau \rho \sigma \sigma \varepsilon i \omega = i$

The methodological approach adopted in this study is both quantitative and qualitative. The quantitative approach served to identify differences in the density of occurrences and to produce comparable data, while the qualitative approach was used to identify differences in pragmatic usage. Tentative and emphatic language in the articles was quantified through identification and counting of the lexical and discourse-based items that operated as hedges and emphatics. Following that, the functions of all the items were examined qualitatively based on their actual occurrences in context. Following Crismore et al. (1993), densities were calculated by dividing the number of items by the number of lines of the articles and student writing samples.

Hedging claims or asserting them emphatically, being impersonal or using personal attribution are rhetorical strategies that are used by scientific communities worldwide as they spring from both epistemological and social goals of disciplinary communities. However, even if we assume that epistemological factors are the same across cultures, it appears that the social factors are different. As Becher (1989) writes, scientists of the same field all over the world know what they are talking about, even if they say it differently. The basic values, ideologies, and methodologies of science are similar in all scientific communities; what is different is the ways knowledge is socially constructed in these communities, and the ways scientists of various nationalities build their arguments and make their claims. Even though the same conventions may be employed by scientists in national disciplinary communities it is argued that the motivation behind their employment may be different, due to cultural characteristics and values.

Galtung's four intellectual styles are certainly an indication that knowledge is not constructed in the same way in all cultures. Rorty (1979) claims that knowledge is the social justification of belief, which means that knowledge is negotiated in communities and the beliefs that

come to be accepted as knowledge are the ones about which the community is persuaded. What individuals find persuasive changes from culture to culture, and the rhetorical strategies that authors adopt in order to persuade the community are, thus, differentiated. Knowing the audience's frame of reference can assist an author to decide on how to meet the audience's expectations, how to encourage desired responses from it, how to establish credibility, and how to deliver a persuasive message (Gilsdorf 1987).

Greek cultural characteristics and academic writing

The analysis of writing samples of Greek academics reveals certain patterns and trends, as well as similarities and differences between both research articles and curriculum genres.

Hedging and emphatic assertions of claims. In the RAs, even though Greek engineers take care to hedge their claims when offering them to the scientific community, they seem to be more emphatic than tentative. The density of emphatics is slightly higher than the density of hedges in their articles, as can be seen in Table 1, which shows the densities of hedges and emphatics in the RAs. Greek engineers hedge their claims, when they offer only tentative explanations and acknowledge limitations, with formulations such as the following:

- 1. Μια πιθανή ερμηνεία των παρόντων αποτελεσμάτων μπορεί να επιχειρηθεί με αναφορά (A possible interpretation of these results can be attempted by reference to) (Sideridis et al. 1999) 12
- 2. Αυτό μπορεί να έχει μεγάλη σημασία γιατί εκ πρώτης όψεως η ομοιότητα μπορεί να θεωρηθεί σαν μια ένδειξη της μη ύπαρξης μέγιστου ευσταθούς μεγέθους σωματιδίων. (This might be of great importance because at first sight the similarity may be regarded as an indication of the non-existence of greatest stable size of particles.) (Kostoglou and Karabelas 1999)
- 3. Τα μοντέλα δύο εξισώσεων δεν απέδωσαν με ακρίβεια τα χαρακτηριστικά της ροής στην περιοχή αποκατάστασης όπου πιθανώς είναι απαραίτητη η χρήση μοντέλου τύρβης υψηλότερης τάξης. (The

Table 1. Densities of hedges and emphatics in RAs

	Emphatics	Hedges	
No of items	113	84	
Density per line	0.06	0.05	
Lines	1626		

two-equation models *did not portray in detail* the characteristics of the flux in the replacement area, where the use of a turbular model *is likely to be necessary.*) (Koronaki et al. 1999)

They express claims emphatically by showing satisfaction with the study's findings:

4. Από τα πρώτα αποτελέσματα φάνηκε ότι είναι δυνατός ο διαχωρισμός των λευκών αιμοσφαιρίων στις διάφορες υποκατηγορίες τους ενώ σε σημαντικό βαθμό επιτυγχάνεται και (From the initial results it was shown that the separation of white blood cells into their various subdivisions is possible while the separation of red and white cells is also achieved to a considerable extent and . . .) (Evaggelou et al. 1999)

Or, they stress the original contributions and implications of their study:

- 5. Επίσης προβλέπεται ότι το εργαλείο ΕΔΕΜ θα αποτελέσει τη βάση για τη δημιουργία ενός ολοκληρωμένου περιβάλλοντος διαχείρησης εκπαιδευτικών μεταδεδομένων που θα παρέχει μια σειρά από πρόσθετες υπηρεσίες. (In addition, it is predicted that the EDEM tool will form the basis for the creation of an integrated operating environment for educational metadata, which will offer a range of additional functions.) (Karadimitriou et al. 2000)
- 6. Η καινοτομία στο έργο ΓΑΙΑ είναι ότι εκμεταλεύεται τις πρόσφατες εξελίξεις στις τρισδιάστατες τεχνολογίες και παρέχει αναπαραστάσεις σε 3 διαστάσεις. Το φανερό πλεονέκτημα αυτής της προσέγγισης είναι (The novelty of GAIA is that it takes advantage of recent developments in 3D technologies and provides representations in 3 dimensions. The obvious advantage of this method is) (Papageorgiou et al. 2000)
- 7. Η νέα βελτιωμένη μέθοδος όχι μόνο μπορεί να χρησιμοποιηθεί για οποιοδήποτε αριθμό παραμέτρων αλλά επίσης έχει την ικανότητα να διακρίνει τις ουσιαστικές τάσεις ακόμα και ανάμεσα σε μεγάλα ποσοστά θορύβου. (Not only can the new and improved method be used for any number of parameters but it also has the ability to distinguish essential tendencies even between large percentages of noise.) (Kostoglou and Karabelas 1999)

With formulations such as the above, Greek authors present and emphasize their evaluation of the results to elicit a positive evaluation of the same results by the readers. Such expressions acquire significance within the discourse community and its understandings and value system. Methods, techniques, or tools acquire positive value depending on the research that has been conducted before, the gaps in that research, the community's needs and expectations of any new research

in the field. Even though such expressions impose the authors' evaluations on the readers, they do so by creating a sense of solidarity between authors and readers (Koutsantoni 2003, 2004a).

Greek authors are openly critical of previous research and use highly attitudinal language when attempting to create a niche for themselves:

- 8. Οσον αφορά τα γνωστά μοντέλα ρύπανσης από κολλειδή είναι προφανής η απουσία θεώρησης φυσικοχημικών αλληλεπιδράσεων σε αυτά καθώς επίσης και η ποσοτική και ποιοτική αναντιστοιχία με τις πειραματικές παρατηρήσεις. (As regards the well-known models of pollution by colloids, their failure to consider physicochemical interreactions in them is evident as well as their quantitative and qualitative disagreement with experimental observations.) (Giantsios and Karabelas 1999)
- 9. Στη πράξη η μέθοδος πάσχει για διάφορους λόγους. (In practice, the method is defective for various reasons.) (Kostoglou and Karabelas 1999)
- 10. Η προσέγγιση όμως με τρείς όρους είναι πολύ φτωχή για να αναπαραστήσει μια οποιαδήποτε συνάρτηση. (The three terms approach is *too poor* to be able to represent any equation.) (Kostoglou and Karabelas 1999)

A similar tendency, though in a different context, was observed by Sidiropoulou (1994) in her comparative study of English and Greek newspaper reporting from a translation perspective. Sidiropoulou observed a tendency among Greeks to take up the role of denier and contradicter and to be highly argumentative. According to Tannen and Kakavá (1992) disagreement is not unusual in Greek conversations, and contentiousness is often used as a form of sociability. Vassiliou et al. (1972) also confirm Greeks' love for arguments. In responses to questionnaires Greeks showed extreme agreement with statements such as "I enjoy a good rousing argument" (1972:323). Tannen and Kakavá (1992) explain that even though disagreement is traditionally seen as a form of power and agreement as a form of solidarity, disagreement can also create involvement and solidarity. Georgakopoulou's (2001) study of Greek colloquial conversations revealed that disagreement did not constitute an exhibition of the power of individuals' views but the joint scrutiny of different points of view in order to arrive at a shared perspective. Greek people certainly seem to view disagreement as an indicator of solidarity. Mackridge (1992:114) reports that Greeks think that foreigners are being "cold, haughty, and secretive because they refuse to engage in an argument," and, by refusing to engage, foreigners fail to enter into expected relations of solidarity. The negative evaluation of the research of others and the disagreement with it are attempts to align themselves with colleagues who are of the same opinion, seeking their approval and agreement and, thus, creating an atmosphere of shared opinion and solidarity.

Another favorite technique is the use of expressions of obligation and necessity and modals which urge readers to take certain courses of action or direct their attention to points that the authors consider important:

- 11. Πρέπει να δίνεται ιδιαίτερη προσοχή στην αξιολόγηση πειραματιχών δεδομένων (Special attention *must be given* to the evaluation of experimental data) (Kostoglou and Karabelas 1999)
- 12. Πρέπει να σημειωθεί ότι η τιμή συγκέντρωσης οξυγόνου (It must be noted that the value of oxygen concentration) (Moisidis et al. 1999)

This creates a didactic tone, indicating that the authors adopt authoritative positions and seek to direct or control the behavior of the readers. Tannen and Kakavá (1992) explain that any show of solidarity involves power and, likewise, claiming intimacy entails an element of control. Members of the in-group and intimates are expected to agree with each other, which limits an individual's autonomy. Similarly, any show of power implies solidarity. When one controls others s/he involves them in a relationship of solidarity because one would not attempt to control anyone with whom s/he wishes to have no relationship at all (Tannen and Kakavá 1992). The extensive use of directives, by Greek authors, in the form of obligation and necessity expressions and modals displays a desire to control the thoughts and actions of their readers, to direct them to certain actions and inferences espoused by the authors, and to impose their opinion on readers. However, the implication is that these courses of action are necessary for the accurate understanding of procedures (Hyland 2001), the progress of the discipline, and the benefit of the whole scientific community, thus stressing the collective nature of scientific endeavour. The interplay between power and solidarity and the fact that they are manifested with the same linguistic means are clear in these cases.

In the context of televised panel discussions, Tzanne (2001) found similar strategies employed by Greek talk hosts. Tzanne found that Greek talk hosts interrupted a conversation and controlled its flow when they expressed their approval of points made by their guests, creating an atmosphere of solidarity and camaraderie.

Creation of solidarity is also achieved by another favourite technique, namely the solicitation of the readers' agreement by alluding to common knowledge and by referring to information that is considered factual or self-evident by the community. The Greek scientific community is rather small, and common understandings do not need to be

repeated as everyone is expected to be familiar with them. The use of common knowledge markers to explicitly bring together authors and readers in a negative evaluation and criticism of other people's research (e.g. 13) or to make them aware of problems that need to be resolved (e.g. 14, 15) indicates this strong sense of in-group solidarity:

- 13. Είναι όμως γνωστή η κριτική για τον εμπειρικό χαρακτήρα των δεικτών αυτών και τη αδυναμία τους να αντιπροσωπεύουν τις πραγματικές συνθήκες λειτουργίας και τις αλληλεπιδράσεις ρυπαντών και μεμβρανών. (However, it is known that these indexes are criticized for their empirical nature and their inability to represent the real functioning conditions and the inter-reactions of pollutants and membranes.) (Giantsios and Karabelas 1999)
- 14. Το φαινόμενο αυτό αποτελεί γνωστό πρόβλημα κατά την εγχάραξη οπών και αυλακιών. (This phenomenon constitutes a well-known problem in the incision of holes and channels.) (Kokkoris et al. 1999)
- 15. Ως γνωστόν, η πλημμύριση δημιουργεί σοβαρά λειτουργικά προβλήματα. (*It is well-known that* flooding causes serious functional problems.) (Vlachos et al. 1999)

Another strategy that has similar effects is the presentation of opinions as obvious and given:

16. Είναι φανερό, επομένως ότι δεν έχει δευκρινιστεί επαρχώς η επίδραση της γεωμετρίας και ιδιαίτερα της χαρακτηριστικής διάστασης στην πλημμύριση. (It is therefore clear that the influence of geometry and of characteristic dimension to flooding, in particular, has not been fully clarified.) (Vlachos et al. 1999)

By saying that an observation is $\varphi \alpha \nu \epsilon \rho \delta$, Greek academics imply that this is obvious not only to them but it should also be to their readers who are able to make the same inferences.

Similar trends for emphasis, albeit more pronounced, are observed in the writing produced by students (see table 2). The density of emphatics is significantly higher than the density of hedges in their writing. Students express certainty and conviction to the claims, while at the same time implying that the readers share their points of view with formulations such as:

Table 2.	Densities	of	hedges	and	emphatics	ın	students	writing	

	Emphatics	Hedges	
No of items	308	155	
Density per line	0.04	0.02	
Lines	617	1	

- 17. Στο σχήμα 3.1 φαίνεται ξεκάθαρα η ιδιαίτερη σχέση (In figure 3.1 the particular connection is *clearly* shown) (Kosmanis 1998)
- 18. Είναι ολοφάνερο ότι το D εξαρτάται από (It is very clear that D is dependent on) (Boulgouris 1998)
- 19. Το εύλογο ερώτημα από τη μέχρι τώρα μελέτη των κυματιδίων είναι ποιός ο λόγος εισαγωγής τους. Η απάντηση είναι ότι έχουν πολύ σημαντικές ιδιότητες που τα καθιστούν σημαντικότατα εργαλεία για διάφορους τομείς όπως η επεξεργασία σήματος και εικόνας. (The *obvious* question that arises from the study of wavelets so far is what the reason for their introduction is. The answer is that they have very important qualities which render them extremely important tools for various fields such as signal and picture analysis.) (Kosmanis 1998)

Certainty adjectives and adverbs are also used to emphasize the expectedness of propositions based on understandings shared within the community (White 2003):

- 20. Το ποσό της πληροφορίας που μπορεί κανείς να εξάγει από ένα οποιοδήποτε σετ δεδομένων, εξαρτάται φυσικά από τον αριθμό των παραδοχών που είμαστε προετοιμασμένοι να κάνουμε (The amount of information that one can extract form any data set depends, of course, on the number of assumptions we are ready to accept. . . .) (Argyriou 1998)
- 21. Σίγουρα οι εφαρμογές της ανάλυσης ιδιάζουσων τιμών δεν σταματούν εδώ. (*Certainly* the applications of singular value decomposition do not stop here.) (Oikonomidou 1998)

Students do not hesitate to stress the contribution of their research, and pronounce their positions without showing any fear of being wrong or being criticized by their lecturers/examiners:

- 22. Στο προηγούμενο κεφάλαιο καταδείχθηκε η μεγάλη επίδραση των παραθύρων στο φάσμα σήματος. (The great influence of windows on the signal phasma was *demonstrated* in the previous chapter.) (Boulgouris 1998)
- 23. Ο αλγόριθμος K-SNN είναι ο πρώτος αλγόριθμος που έχει παρουσιαστεί στη βιβλιογραφία και χρησιμοποιεί κριτήρια ομοιότητας ορισμένα στο πεδίο της ασαφούς ομοιότητας με πολύ καλά αποτελέσματα. (K-SNN algorithm is the first algorithm that has been presented in the literature which uses similarity criteria particular in the fuzzy similarity field for the grouping of data with very good results.) (Tolias 1998)
- 24. Μια άλλη εξαιρετικά σημαντική λειτουργία που μπορεί να αναπτύξει το εργαλείο είναι η υποστήριξη και επεξεργασία xml σχημάτων. (Another extremely important function that the tool can serve is the support and development of xml charts.) (Karadimitriou 2000)

An important part of their rhetorical strategy is to assume knowledgeable positions:

- 25. Η ακολουθία του συσσωρευτή τρίτης τάξης μπορεί εύκολα να υπολογιστεί ως (The sequence of the third class accumulator can easily be calculated as) (Kompatsiaris 1998)
- . . . and to attempt to control readers' inferences through directives:
 - 26. Γίνεται επομένως αντιληπτό ότι είναι αναγκαίος ένας διαφορετικός τρόπος αναζήτησης πηγών πληροφορίας στο διαδίκτυο. . . . (It is therefore understood that a different way of searching for information sources on the internet is necessary.) (Karadimitriou, 2000)
 - 27. Σε συγκεκριμένες εφαρμογές είναι απαραίτητο να ελεγχθεί (On particular applications it is necessary for . . . to be checked) (Kompatsiaris 1998)
 - 28. Οι παράμετροι που πρέπει να επιλεγούν είναι . . . Η βασιχή στρατηγική είναι πρώτα να διαλέξουμε (The parameters that need to be chosen are The basic strategy is to first choose) (Argyriou 1998)

They also tend to assume membership in the community by alluding to shared knowledge, which might seem inappropriate given their status as apprentices in the Engineering discourse community, and the asymmetrical power relations between students and their examiners:

- 29. Η γνωστή φασματική ισχύς είναι στη πραγματικότητα ένα μέλος της κλάσης των φασμάτων υψηλότερης τάξης. (The well-known phasmatic power is in fact a member of the higher order phasma class.) (Argyriou 1998)
- 30. Και σε αυτή τη μελέτη η μεθοδολογία λήψεως ήταν η κλασσική. (In that study the methodology of recording was the *classic* one, as well.) (Kontakos 1998)
- 31. Το σύστημα D*[] περιγράφεται κατά τα γνωστά από τις εξισώσεις. (System D*[] is described in the known way from equations....) (Karagiannis 1998)
- 32. Αυτές οι εκφράσεις ακολουθούν τις συνήθεις μορφές των μερικών συσχετίσεων. (These expressions follow the *usual* forms of partial associations.) (Sevastiadis 1998)
- 33. Χρησιμοποιώντας τη συνηθισμένη έχφραση του αθροίσματος (using the *usual* expression of the addition) (Sevastiadis 1998)

The Greek students' tendency for emphasis as opposed to the experts' balance of tentative and emphatic language may be seen as a sign of the students' unfamiliarity with the power struggles in scientific communi-

ties and the need for protection from possible criticism. It appears that Greek expert academics seem to know the benefits of hedging their positions, while Greek students appear to see emphasis as the main proof of knowledge and expertise. This could result from an unawareness of the different functions of various scientific genres and their conventions. Students could be assuming an emphatic tone in the writing by imitating the writing style of textbooks because imitation constitutes one of the ways in which students are acculturated in the academic community (Bartholomae 1985; Brooke 1988). However, textbooks differ from curriculum genres and research articles. Textbooks try to arrange accepted knowledge into a coherent whole, while other academic genres try to make the strongest possible claim for which they can get agreement (Myers 1992). Myers (1992) explains that this different function of textbooks results in the employment of certain rhetorical strategies. One of them is the presentation of claims as accredited facts that need no hedging.

However, it seems that the expression of certainty and conviction in claims, and an emphasis on community membership, are favored by the Greek scientific community. Similar tendencies for emphasis are reported by Sidiropoulou (1993) in Greek translations of EEC information material. Sidiropoulou found that the type of intervention on the text observed on the part of the Greek translator was a greater concern about givenness and emotive emphasis. It is argued that Greek authors' rhetorical behavior may be determined by Greek cultural characteristics because it is differentiated from the rhetorical behavior of native English speaking authors (both experts and students). Findings from a Ph.D. study on the differences in the rhetorical behavior of Greek and English speaking engineers (Koutsantoni 2003) indicate that native English speaking authors are more tentative and less emphatic in their writing. Native English speaking students, in particular, tend to refrain from assuming an authoritative or knowledgeable stance in their writing, and do not make any allusions to common knowledge (Koutsantoni 2003).

In English speaking scientific communities, emphatic assertions of claims are generally thought to be overstepping the boundaries of self-assurance and of respect for the views of their colleagues (Hyland 1998), and writers are criticized when they sound too dogmatic or overconfident.¹³ Additionally, emphatic assertions of claims are thought to be imposing their views on their readership, to control readers' inferences, to not allow room for disagreement or negotiations, and to regard readers as passive recipients of ideas unable to make their own evaluations and judgements (Hyland 1998). However, this rhetorical technique seems to constitute a powerful persuasive strategy that works

towards the acceptance of claims through the complex dynamics of power and solidarity. By emphasising certainty in and attitude towards claims, and by presenting them as given and shared, authors control readers' inferences and demand their agreement and sharing of their views. On the other hand, by alluding to shared understandings and common knowledge, they "oblige" readers to see views presented as consensual and to agree with them (Koutsantoni 2003, 2004b). The interrelationship of power and solidarity seems to be especially strong in the Greek scientific community due to the collectivism that characterizes Greek society. In collective societies, Hofstede (1980) claims, social relations are predetermined in terms of in-groups, and there is belief in group decisions. Vassiliou et al. (1972) maintain that Greek society places an emphasis on the in-group/out-group distinction, so emphatics may be used by Greek authors to indicate that the opinions they hold are representative of the in-group, that they defend positions shared by the in-group, and perceive such opinions as leading to the support for the in-group, the in-group in this case being the scientific community.

In addition to collectivism, Greek society's high uncertainty avoidance and high power distance can be used to explain the tendency of both expert and student authors to be more emphatic than tentative in their writing.

The high uncertainty avoidance that characterizes Greek culture and society, according to Hofstede (1980), means that Greeks feel a greater need for consensus, and tend towards rigidity, dogmatism, and intolerance of different opinions. Greek authors may use emphatics in order to join theirs and their readers' points of view and to achieve group consensus. This may also be facilitated by the size of the Greek scientific community, the smallness of which allows for allusions to become shared understandings and common knowledge. Additionally, the Teutonic structure of Greek Educational Institutions tends for more homogeneity and less diversity of opinion, and hence places more emphasis on shared views. High uncertainty avoidance countries are also characterized by a great showing of emotions, which can in academic writing be taken to be expressions of attitude and certainty to claims. High uncertainty avoidance countries are also characterized by their desire for absolute truth—scholars look for certainties, for a Theory with a capital T, the Truth (Hofstede 1980:138). This could explain Greeks' tendency to sound certain and categorical about their opinions and claims.

Hofstede's (1980) study has also showed that Greek society is a large power distance society, which means that there is great respect for experts and their knowledge. The expression of certainty and conviction to claims may be perceived by Greek scientists as necessary in order to

prove that they are presenting certified knowledge and to claim their readers' respect for their expertise. This explanation seems perfectly plausible for the rhetoric of expert academics. However, one would wonder about the reasons why students are allowed to adopt such authoritative stances in their writing, given the purpose and audience of curriculum genres. As explained earlier, curriculum genres are all involved in assessment purposes, and their authors are traditionally regarded as apprentices in the discipline, and not full-fledged members of the academic community (Bartholomae 1985; Berkenkotter and Huckin 1995). Master's assignments and final year undergraduate theses, especially, are to be read by lecturers who are a great deal more knowledgeable than their students. It would be expected that student authors would adopt less authoritative personas, and would choose to be deferential, driven from humility to their examiners and the discipline as a whole. Students writing in universities in the United Kingdom were found to be very deferential in their writing and to employ minimal number of emphatics (Koutsantoni 2003). However, Greek students' emphatic stance seems to not only be allowed but also given credit, as all of the assignments and dissertations of the analysis were characterized as "good" by the lecturers who supplied them.

It is argued that formulations such as the ones below in which the students take insider (knowledgeable) positions, address their lecturers as equals, employ directives, and allude to common knowledge:

- 34. Η ανάγκη όμως για απ' ευθείας σύνδεση του $WN(\theta)$ με την κλίση (παρά με τη διασπορά) της εκτίμησης μας οδήγησε σε ένα νέο ορισμό. (The need, however, for direct connection of $WN(\theta)$ with the slope (rather than the dispersion) of estimation has led us to a new definition.) (Argyriou 1998)
- 35. Σημειώστε ότι η 3-32 μπορεί να γραφεί με το συνηθισμένο τρόπο ως.... (*Note* that 3-32 can be re-written in the *usual* way as....) (Sevastiadis 1998)

It may also be explained in terms of the large power distance in Greek culture because the consequences of a society with a large power distance are two-fold. On the one hand, students in Greek universities are exposed only to the authority and expertise of the lecturer (Mouzelis 1995). Therefore, lecturers/examiners are probably pleased to see their own ideas and rhetorical style repeated and imitated in the writings of their students. Students are expected to agree with the views of the lecturer, instead of contesting them. Criticisms of other people's research, common assumptions, and expressions of certainty in propositions that are expressed by the lecturer are not supposed to be challenged and, therefore, when repeated in the writing of the students

indicating that students assume fully-fledged membership in the community, are perfectly acceptable and do not threaten the balance of the power relationship between students and lecturers. On the contrary, speaking through the lecturer's voice empowers students and allows them to acquire authority. Students do not feel the need to hedge and protect themselves from possible criticism from lecturers/examiners. Even in the case of research work in theses and dissertations, student researchers feel less compelled to protect themselves from possible criticism, and feel safer in assuming common understandings and, due to the small size of the Greek scientific community, they possess better knowledge of the views shared by its members and their alignment with particular strands of research. The allusions to common knowledge and the presentation of their claims as being shared by the community seem to be the strategies they employ to protect themselves from potential criticism.

On the other hand, even though Greece is a high power distance society where the authority of experts is not easily challenged, lecturers are highly respected and students are expected to say things in ways their lecturers expect them to, it seems that students are still allowed to assume membership in the scientific community and to adopt a more authoritative stance. High power distance means that power differences are accepted and that the society is vertical. As O'Driscoll (1996) explains, in vertical societies, status does not preclude solidarity. There is a greater extent of mutual obligation and imposition among individuals of different ranks, and the superior member does not just control the other, but the pair is bound together in relationships that involve mutual responsibilities (Spencer-Oatey 1996). Greek students acknowledge the fact that their lecturers are of higher status. This means that they have to embrace the views and opinions of their lecturers. However, this is accepted as a natural obligation, and does not preclude solidarity relations. In contrast, it strengthens them and gives students the right to membership in the community.

Apart from the above, there are some additional possible explanations for the confident stance Greek students adopt in their writing. Their stance can be taken as a display of the Greeks' love of freedom and their hard-fought-for right to speak one's own mind. As Hirschon's (2001) points out, freedom and the exercise of free will are central to the Greek notion of selfhood.

Greek students' confident stance could also be understood if we take into account the fact that students in Greek universities are not without power. Students have political power in Greece. They actively participate in the politics of the country, and have a say in the decisions that are made about their education system and the curriculum. The

1982 law allows students to officially participate in departmental meetings, making higher education in Greece one of the most participatory systems for students in Europe (Hellenic Republic Ministry of National Education and Religious Affairs 2003). ¹⁴ Greek students are known to go on strike, to "take over" lecture rooms, and to stop lectures from taking place as a form of complaint against government decisions about higher education that they think are wrong. Their actions are in line with the Greek's general love for freedom and the right to complain against government decisions and policies. ¹⁵ It has to be noted, however, that since Greek universities are managed centrally by the state, students do not usually team up against their educators, but against "the system" (out-group authority). ¹⁶ They stand by their educators when they go on strike fighting for their rights, and, thus, demonstrating the solidarity of the in-group against the out-group authority.

Personal and impersonal expressions of hedges and emphatics. The rhetoric of Greek experts and students is not uniform in every respect. One observable difference is the density of personally attributed hedges and emphatics which they employ in their writing. Experts are on the whole impersonal. Of the total number of hedges in the RAs, only 5% of them are personally attributed, while there are no emphatics that are personally attributed (see Table 3). Expert authors tend to hide their agency and attribute the truth of their claims to inanimate sources:

- 36. Αξίζει να σημειωθεί ότι η αύξηση της ταχύτητας του ρευστού μειώνει τη σχετιχή αύξηση της εναποτιθέμενης μάζας, γεγονός που μπορεί να αποδοθεί στο μεγαλύτερο αριθμό (It is worth noting that increase in the speed of the liquid decreases the relative increase of the deposited mass, which can be attributed to the greater number of) (Andritsos and Karabelas 1999)
- 37. Η προσέγγιση αυτή θεωρείται όμως ότι δε συμβάλλει στη πλήρη αξιοποίηση του δυναμικού της εκπαιδευτικής τεχνολογίας, και δε βελτιώνει σημαντικά την εκπαίδευση αφού δε λαμβάνει υπόψη της τα ιδιαίτερα χαρακτηριστικά κάθε εκπαιδευόμενου. (This approach is not considered to contribute to taking advantage of the full-potential of

Table 3. Percentages of personally attributed hedges and emphatics in the RAs

Total hedges	84	
Of which personal	4	
% of personal hedges	5%	
Total emphatics	113	
Of which personal	0	
% of personal emphatics	0%	

- educational technology and to considerably improve education, since it does not take into consideration the individual characteristics of each learner.) (Sampson and Karagiannidis 2000)
- 38. Πρέπει να δίνεται ιδιαίτερη προσοχή στην αξιολόγηση πειραματιχών δεδομένων Ο σχεδιασμός διεργασιών δεν πρέπει να βασίζεται . . . αλλά πρέπει να χρησιμοποιείται. . . . (Special attention needs to be paid to the evaluation of experimental procedures the design of procedures must not be based on . . . , but must be used) (Kostoglou and Karabelas 1999)
- 39. Η σημασία των εκπαιδευτικών μεταδεδομένων για τη περιγραφή των πηγών εκπαιδευτικού περιεχομένου καθιστά αναγκαία τη δημιουργία εργαλείων για την εύκολη και γρήγορη διαχείρηση τους. Συγκεκριμένα, είναι απαραίτητη η ανάπτυξη εργαλείων που προσφέρουν τη δυνατότητα (The importance of educational metadata for description of educational content sources necessitates the development of tools for their easy and fast handling. In particular, it is necessary to develop tools that offer the possibility) (Karadimitriou et al. 2000)

This rhetorical strategy of Greek expert scientists is, on one hand, seen as an indication of interdiscursivity which draws on the generic conventions of the research article. Impersonality is one of the most prevalent conventions of scientific writing, as it emphasizes the image of science being rational and logical, stressing the collective responsibility of the academic endeavor (Gilbert and Mulkay 1984; Hyland 2001). Impersonality is seen as a way of emphasizing objectivity and gaining credibility (Bazerman 1988), resulting directly from the persuasive nature of the research paper and its function as a vehicle of new knowledge and of claims to knowledge.

Additionally, the use of impersonality could be linked to the large power distance that characterizes Greek society and its respect for experts and their knowledge. The almost exclusive use of impersonality in Greek research papers renders them very formal, as impersonality and passive constructions are considered markers of formality in Greek (Sifianou 1992:108). Given that their audience is comprised of fellow scientists, Greek authors may feel the need, on the one hand, to show respect towards their colleagues by being formal, and, on the other, to command the respect of their colleagues by displaying the ability to use elaborate forms of expression. The ability to use formal language in Greek is considered an indication of good education. As Hirschon (2001:36) confirms, skilful use of the language is considered in Greek circles "a matter of pride in itself," "an art form," and in Greek academic life it is seen as "an appreciated quality." Hirschon adds that being concise is not as prevailing a value as being able to display one's skill with

the language, which can be linked with the Gallic intellectual style and its concern with artistic quality, elegance, and aesthetic appeal (Galtung 1981).

Conversely, students are highly personal in their writing. 37% of all hedges and 8% of emphatics are personally attributed in their writing (see Table 4).

The use of personal attribution by Greek students could be the result of their unfamiliarity with the convention of impersonality in scientific writing and the differences in the conventions of various genres used by the scientific community. Their use of personal attribution could probably be an imitation of the lecturers' verbal style or writing style. According to Myers (1992), another rhetorical strategy that is commonly found in textbooks is the use of collective personal attribution, which is again the result of textbooks presenting already established knowledge and achievements of the scientific community as a whole.

Most personal attribution in the writings of students is expressed in the first person plural:

- 40. Τελικά θα μπορούσαμε να θεωρήσουμε σαν γενική διαδικασία. . . . (After all we could consider as a general procedure) (Boulgouris 1998)
- 41. Θα ήταν πιο λογικό να προσπαθήσουμε να απομακρύνουμε (It would be more logical for us to try to remove) (Argyriou 1998)
- 42. Αξίζει να σημειώσουμε (It is worth us noting) (Boulgouris 1998)
- 43. Γνωρίζουμε ότι (We know that) (Tolias 1998)

Hyland (1996) maintains that impersonally attributed hedges aim to protect authors from personal criticism, while personally attributed hedges are motivated by interpersonal reasons, and the need to show deference to readers and allow for alternative opinions. Impersonally attributed hedges, Hyland explains, are "writer-oriented," whereas personally attributed hedges are "reader-oriented," wishing to allow for

Table 4. Percentages of personally attributed hedges and emphatics in students' writing

Total hedges	155	
Of which personal	57	
% of personal hedges	37%	
Total emphatics	308	
Of which personal	24	
% of personal emphatics	8%	

dialogic space (Hyland 1996:443, 447). However, the use of personally attributed hedges by students does not seem to be motivated by this reason, but rather by a desire to share the fallibility of the claim with the readers.

The first person plural attributed hedges were used by students somewhat impersonally and inclusively of the readers, since the first person plural could easily be replaced by $\varkappa\alpha\nu\varepsilon\iota\zeta$ (one), or second person singular/plural verbs, without the informational content of the sentence being changed (Kitagawa and Lehrer 1990).

The following sample of sentences shows how Greek authors acknowledge their lack of knowledge and their problems with definitions:

- 44. . . . για το οποίο θα ήταν μη ρεαλιστικό να πούμε ότι το γνωρίζουμε για κάθε συχνότητα. (. . . for which it would not be realistic to claim that we know about each frequency.) (Boulgouris 1998)
- 45. Αυτό όμως είναι μικρής σημασίας αφού δύσκολα γνωρίζουμε το . . . και σε κάθε περίπτωση αν επιθυμούμε να εκτιμήσουμε τον πλήρη τύπο της . . . το N αποφασίζεται από (This is, however, of little practical significance *since we hardly know* . . . and in any case if we wish to estimate the full formula of . . . N is decided from) (Argyriou 1998)

These sentence constructions may refer to the author, the readers, or the scientific community in general. Therefore, when student authors employ personal attribution to hedge propositions, it may be assumed that they to do so out of their desire to engage their readers by invoking a shared knowledge and by presenting limitations that are known and recognized by the whole of the community.

Similarly, all personally attributed emphatics are inclusive of the readers and are mainly expressions of obligation and necessity, as well as modals, which urge readers and the community as a whole to join in and take the suggested courses of action in order to achieve the common goal of furthering knowledge:

- 46. Πρέπει να έχουμε κάποια ιδέα (*We must have* some idea) (Argyriou 1998)
- 47. Πρέπει να θυμόμαστε (We must remember) (Karagiannis 1998)

Greek students' rhetorical strategy of collective personal attribution could, in this respect, be seen to be in accordance with the collective nature of the Greek society and its vertical nature, which allows students to assume equal positions with experts and membership in the scientific community.

Face and politeness. Greek expert authors employ very little personal attribution to hedge their claims. This makes their hedging mostly writer-oriented and unconcerned with interpersonal reasons or the desire to allow for a negotiation of claims. The concept of face and its needs may be one of the factors that affect the rhetoric of the scientific authors because, according to Ho (1976:883), "it is virtually impossible to think of a facet of social life to which the question of face is irrelevant," Myers (1989) extends Brown and Levinson's theory of politeness (1978) to academic writing and claims that criticising other researchers, or presenting novel claims that might challenge claims previously made by others are face threatening acts (FTAs), which authors try to redress by using tentative language. He explains that by modifying the strength of statements, authors avoid imposing their opinions on the readers and avoid forcing them to regard their statements as facts. Instead they mark their claims as provisional, pending their acceptance by the community. Following Brown and Levinson, Myers (1989) regards hedging as a negative politeness strategy aiming to protect the authors' autonomy and freedom of imposition. However, as Schmidt maintains, Brown and Levinson's "theory represents an overly pessimistic, rather paranoid view of human social interaction" (1980:104). Wierzbicka (1991) also points out that the Brown-Levinson theory has a strong Anglo-centric bias. Ting-Toomey (1988) maintains that it is the members of individualistic cultures that tend to use autonomy-preserving strategies, not the members of collectivistic cultures who, instead, tend to use approval seeking strategies. O'Driscoll (1996) also supports the view that the avoidance of imposition is greatly valued in individualistic societies. It could therefore be claimed that Myers' views are valid in individualistic societies and that hedging is conventionally employed by scholars in these societies to avoid imposing an opinion. However, it seems that in collectivistic societies, such as the Greek, hedging is not used for the same reason, but it is used out of desire for protection from personal criticism.

Brown and Levinson's (1987) distinction between negative and positive face has been characterized as "unfortunate" by Ting-Toomey and Cocroft (1994:310), while other researchers have used alternative concepts to explain politeness behavior. An examination of the realization of the social psychology concepts of *autonomy* and *affiliation* (Benjamin 1974), which Bravo (1996, in Hernández-Flores 1999) uses instead of negative and positive face, in the Greek context may explain Greek authors' rhetorical strategies.

In their studies of Spanish politeness, Bravo (1996) and Hernández-Flores (1999) have shown that one way in which *autonomy* is achieved is by self-affirmation and indication of an individual's special personal

qualities, with the view of these being appreciated by the social group. By means of self-affirmation, individuals can stress their positive qualities and stand out from the group. Greek authors' tendency for emphasis seems to fit in very well with this realization of autonomy, which might be one of the factors that affect their social behavior. It is also in accordance with Hirschon's (2001) earlier mentioned contention that freedom and exercise of free will are central to the Greek notion of selfhood. This, Hirshon argues, results in a "continual struggle to maintain one's position vis-à-vis others, a constant battle to assert one's position" (2001:22). Evidence of the above is the often heard rhetorical question during arguments among Greeks «και ποιός είσαι εσύ;» (and who are you?), which Hirshon explains as "you aren't greater than I am, so what gives you the right to assert your will over mine?" (2001:26). This could also explain the tendency of Greek authors to employ writer-oriented hedges, and to be concerned with protecting themselves from negative criticism. Writer-oriented hedges allow them to make claims without compromising their positions and to protect themselves by attributing their positions to the data.

Autonomy is not equivalent to Brown and Levinson's negative face as it does not always mean being unimpeded by others and having freedom of action. In the Spanish context, it means standing out in the group, not by being independent, but by showing concern for the group and its opinion. The emphasis on community membership is in accordance with the collectivist nature of Greek society, and it seems to agree with one of the realizations in Bravo's (1996, in Hernández-Flores 1999) affiliation category in the Spanish context. According to Bravo (1996) and Hernández-Flores (1999), affiliation is achieved by stressing membership in the group and behaving in an intimate and solidarity-building way. This, Hernández-Flores explains, is the need to achieve closeness, which in the Spanish, as in the Greek context, is valued as positive and stresses the acceptance of the individual by the group. Affiliation, therefore, is not equivalent to Brown and Levinson's positive face, as it does not always mean being appreciated and approved by others, but stresses "the confirmation of the right to belong to a particular group" (Hernández-Flores 1999:41). Hernández-Flores (1999) adds that this right may be stressed even more by individuals who have less than close relationship with members of the group, but who aim to be accepted by the group "by acting as if they had a close relationship" (Hernández-Flores 1999:41). Greek students' tendency for emphasis and inclusive personal attribution could be explained as just that; as their attempt to "fit in" with the group, and behave as if they are full-fledged members in the scientific community, even though they would not traditionally be thought to be members of it yet.

On the whole, the rhetoric of Greek authors confirms an orientation towards solidarity in their politeness behavior as their attempts for both autonomy and affiliation are oriented towards the group, are interdependent with the group, and never independent of the group.

Conclusion

A complex web of factors affects the rhetoric of Greek scientific authors, determines their style of persuasion, and the way in which they are expected to present their claims to the scientific community. This web ranges from cultural characteristics (such as uncertainty avoidance, individualism/collectivism, and power distance, which define relations of power and solidarity) to notions of what is polite behavior, interdiscursivity, and the degree of each individual's socialization in a given disciplinary community.

The research papers written by engineers and the samples of student writing that were analyzed in terms of hedges and emphatics indicated that Greek authors tend to project a rather authoritative and knowledgeable persona, and that their main persuasive technique is the presentation of claims as certain, consensual, and self-evident. Greek authors—both experts and students—were found to be more emphatic than provisional in their claims, and this was more so with the students than with the experts. Greeks used emphatics to underscore their certainty and commitment to claims, to justify claims by alluding to shared understandings, and to stress in-group solidarity. This was thought to be in accordance with Greek society's collectivist nature, its solidarity orientation, and the importance ascribed to the in-group. It was also related to the high uncertainty avoidance that characterizes Greek society, its need for certainty and absolute truth, and therefore its rigidity, dogmatism, and need for a consensus. Rigidity and dogmatism can also be the result of the high power distance which is also a characteristic of Greek culture and affects the structure of institutions. Like Teutonic academic institutions, Greek universities are hierarchical and authoritarian. Individuals at the top of the hierarchy are highly respected and their authority and expertise are uncontested. According to Galtung (1981), the structure of institutions affects the cultural products their employees produce, and this can explain the dogmatism that can be observed in Greek writing.

Greek expert authors differed from students in that they were found to be virtually impersonal in their writing whereas the students were highly personal. Greek expert authors seemed to adopt the prevalent scientific convention of impersonality as a means to emphasize objectivity, gain credibility, and protect themselves from personal criticism. As for the students, their use of personal attribution was taken as indication of their unfamiliarity with the conventions of scientific writing, and it was hypothesized that they imitated their lecturers' verbal or written style.

The use of personal attribution by students was of an inclusive function, including the readers in the making of claims and the deductive process. The rhetoric of the student seems to have been in accordance with the collectivist nature of Greek society and the sense of in-group solidarity and group membership. However, it also indicates that students tend to assume membership in the academic community, even at beginning stages of apprenticeship, and that they assume equal status with their examiners. This indicates a wish on their part to belong to this particular community, to affiliate with it and be part of the ingroup. Despite the high power distance that characterizes Greek society, the students' stance does not seem to threaten the power relations between examiners and students, and appears to be perfectly acceptable. This makes sense if we consider the vertical nature of Greek society, and the complex dynamics of power and solidarity in it. High power distance does not preclude solidarity and intimacy in Greek society, and lecturers' expertise is unquestioningly accepted by students, their opinions and evaluations are adopted by them, and empower them. On the other hand, professional authors' formality and impersonality can be taken as a signifier of their own high absolute status and of their acknowledgement that their audience is of similar high status and, therefore, needs to be addressed formally.

This paper has attempted to put together information from sociological, anthropological, and politeness studies in order to explain Greek authors' rhetorical behavior in academic writing. An effort was made to show that the values that characterize Greek culture are discernible in its written products. The study, however, constitutes an initial effort to relate Greek cultural values to Greeks' written rhetorical behavior, as most cultural and politeness studies in the Greek context focus on conversational data. It would be useful, therefore, for the findings of this study to be confirmed and validated by further analyses of writing produced by Greek members of academia.

NOTES

Acknowledgments. I would like to thank Dr. I. Markopoulos and Professor S. Panas from the Aristotle University of Thessaloniki who supplied me with their students' writing samples. I would also like to thank Dr. C. Karagiannidis and T. Papageorgiou from the Institute of Informatics and Telematics in Thessaloniki who supplied me with their articles. Acknowledgements and thanks also go to Dr. Y. Tolias and K. Sandalis who let me have and analyse their work.

¹ Or intergenericity (Ivanič 1998:49).

² It could be argued that it is most probably the case that the Teutonic and Gallic styles were originally influenced by classical Greece. Classical Greece has exercised a tremendous influence on Western civilization. As Babiniotis (1995:233) maintains, "forms, heroes, symbols, myths, patterns, and literary structures which originated in ancient Greek literature or art, inspired European writers and artists." Rhetoric, as it is understood through Western European history, originates in classical Greece as well. Binary thinking, logical contradictions, acceptance and indulgence of open contention and rivalry are all features of Western rhetoric originating in classical Greek (Kennedy 1998). The Greeks first identified rhetoric as a distinct, academic discipline that could be taught, studied, and practised, defined the goal of rhetorical training as one of how to persuade and how to win, and introduced the 'canons' of rhetoric, that is the series of steps essential for the composition of a speech, and its division into proemium, narration, proof, and epilogue (Kennedy 1998). Aristotle's $\dot{\eta}\theta o \varsigma$, $\lambda \dot{o} \gamma o \varsigma$, and $\pi \dot{\alpha} \theta o \varsigma$ as the basic means of persuasion are still central in Western rhetoric. However, in the eighteenth century Greek intellectuals were much influenced by the French Enlightenment, and for the century following independence from the Turks, German and French educational and cultural fashions were models for the Greek elite (Legg and Roberts 1997). Greek originating elements which were borrowed by foreigners were re-borrowed by Greeks, and worked as "antiloans," as Babinitiotis (1995:231) calls them. The Renaissance, the movements of the modern European classicism and idealism, and certain neo-classical and romantic movements inspired Greeks indirectly and led them to a rediscovery of the ancient Greek writers. Reconnection with the ancient world took place through the foreign component (Babinitiotis 1995).

³ The density of universities in Greece (not including the Hellenic Open University) per one million inhabitants is about 1.9 and the respective density of the overall higher education institutions is about 3.4. These figures are somehow lower than the current EU average (Greek National Report on the implementation of the Bologna process 2003).

⁴I am indebted for this comment to one of the anonymous reviewers of this paper.

⁵ This practice is additionally re-enforced by the great numbers of students and the limited resources of libraries. Students are given one "free" textbook, on which all teaching is based and which exam questions are derived from. (I am indebted for this comment to one of the anonymous reviewers of this paper.)

⁶ Examples include the close ties in Greek families, which are hierarchical and the members of which have mutual obligations towards one another. Respect toward older members of the family is expected, sometimes V forms are employed to address older persons, and individuals are expected to visit relatives on their name days, go to family weddings and funerals, and generally fulfil what are referred to as "social obligations" (Hirschon 2001).

⁷ This stands in contrast to the *independent* face and the need for autonomy and establishing boundaries (Morisaki and Gudykunst 1994).

⁸ Becher (1989) explains that sciences have been classified into hard and soft, pure and applied, and that Engineering has been classified as a hard applied science.

⁹ The Institute of Informatics and Telematics is a non-profit organization, which was founded in 1998 and is based in Thessaloniki, Greece. The director of the Institute is Professor Michael Strintzis, from the Department of Electrical and Computer Engineering of the Aristotle University of Thessaloniki. The Institute exhibits research activity, both basic and industry-oriented, as well as technology transfer actions, in the following areas: Multimedia and Internet Technologies, Educational and Cultural Technologies, Virtual Reality, Computer Vision, Telemedicine Applications and others. More information on the Institute can be found at www.iti.gr.

¹⁰ Due to their great length, dissertations and theses were not analyzed in their entirety but specific sections were selected. The format of the theses analyzed fell into two categories: the traditional thesis with Introduction, Literature Review, Methods, Results/Discussion and Conclusions, and each chapter's compilation thesis, with a general Introduction and Summary/Conclusion, but with chapters having their own introduction, method, results, and conclusions. In the case of chapter compilation theses, the general introduction, and conclusions/recommendation for further work, together with one complete chapter reporting experimental procedures were selected for analysis. In the case of theses following the traditional format the introductions, results/discussions and conclusions were examined. These three parts were selected as they constitute the most rhetorically complex parts of this kind of text and they are considered to be more evaluative than, for instance, methodology sections. Essays were analysed in their entirety as they were much shorter.

¹¹ The analysis comprised 1.626 lines of RAs and 6.174 lines of student writing.

 $^{\rm 12}\,\mathrm{A}$ complete list of all articles and samples of students' writing is given in the Appendix.

¹³ Gosden's (1995) research on revisions usually suggested to non-native English speaking writers shows that 22% of textual revisions were made at the level of the expression of writers' claims, and comprised additions of hedging devices and modalities. Woodward-Kron (2004), in her study of tutor feedback on student assignments, found that two of the types of tutor intervention on students' work were modification of high modality to lower modality, and modification of strong expressions of thinking and feeling.

¹⁴ According to the Greek National Report on the implementation of the Bologna process (2003), students in Greek universities participate at a percentage which varies between 35% and 40% in the senates of the universities, and reaches almost 30% in the assemblies of the faculties, while it exceeds 40% in the bodies which elect the Rector and the Vice Rectors of the University and the Head of each Faculty (I am indebted to one of the anonymous reviewers of this paper for alerting me as to students' participation in the higher education system in Greece).

 15 University campuses are "sanctuaries," i.e., places where the police do not have the right to enter, no matter what the circumstances.

¹⁶ As Triandis and Vassiliou (1972) maintain, relations with authority figures and with persons with whom one is in conflict are also conditioned by the in-group/out-group contrast in the Greek context. The relationship of Greeks with authority figures depends on whether the authority figure belongs to the in-group or the out-group. In the in-group it is seen as benevolent and concerned, while in the out-group as competitive. If it is benevolent, the responses of subordinates are characterized by submissive acceptance and warmth and are blindly accepted, while if it is competitive, the responses of subordinates are avoidance and hostility. Useless and unjustified authority is rejected by the Greeks, who, as a result, consider revolution a good thing. Triandis and Vassiliou maintain that these beliefs are remainders of the years of Ottoman occupation, and of the dictatorship

of 1967–74. Greek society's reluctance to submit to hierarchical authority is manifested in the nature of the Greek economy, in the tendency for Greek enterprises to be family based, and the distrust of outside expertise (Legg and Roberts 1997).

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