

**Familiarity and disappointment:
A culture-specific dimension of emotional experience in Greece?**

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Abstract

The analyses on the GRID data from Greece resulted in five factors. The first four were congruent to the GRID four factors. The purpose of this chapter is to present and discuss the fifth factor as related to the culture and social context of Greece. It seems that the emotion dimension defined by the fifth factor concerns the frequent and familiar practice in the Greek cultural setting, in which unforeseen situations demand the individual's attention. Undefined procedures combine with chance events in unpredictable circumstances that may either facilitate or inhibit the individual's handling of the situation or eliciting event. Therefore, this factor may be described as the emotional reaction of a Greek when trying to function effectively and adapt to events within the social context. The fifth factor is discussed on the basis of the placement of Greece on Hofstede's four value dimensions as well as the cultural specific findings of social axioms. It is stated that the transitioning nature of the Greek culture may account for the idiosyncratic dimension in the conceptual space of emotion terms.

1. Culture and psychological differentiation

The constructionist approach to culture views culture as a dynamic set of cognitions, specific knowledge, attitudes, and theories closely intertwined (Hong, Morris, Chiu, & Benet-Martinez, 2000). This network is internalized by the individuals, who form schemas based on culture's social norms, values, attitudes, and expectations. These schemas are situation-bound and are called on when the

appropriate environmental conditions elicit them to guide the person's thoughts, emotions, and behaviour. According to Kitayama, Marcus, and Matsumoto (1995), emotional experience is thus fundamentally interrelated with culture.

Matsumoto, Yoo, Fontaine, Anugas-Wong, Arriola, *et al.* (2008b) suggest that although the nature of emotions is neurophysiological, some aspects of self-reported emotions, such as beliefs, attributions, and opinions, are culturally based. Therefore, they are associated with larger cultural differences (Matsumoto 2006). Some cultural differences in expressions are also related to the cultural differences in the kinds of events that trigger emotions. The individuals have to calibrate and adapt “the universal, biologically based, core emotion system to culturally available events, so that individuals learn to have appropriate emotional reactions to events in their cultures. Because different events occur in different cultures or have different meanings in different cultures, individuals learn to have different emotional reactions across cultures, thus producing different expressions” (Matsumoto, 2009:271).

Explaining the human behavioural reaction has been a longstanding research effort based on psychological constructs, including motivational constructs, such as values, and cognitive constructs, such as social axioms (Bond *et al.*, 2004). Hofstede's (1980) groundbreaking work on values resulted in the most widely known five cultural dimensions at the cultural level of analysis. In this approach, the averages of individuals' responses within each nation were submitted to factor analysis across cultural groups. In contrast, Leung and Bond (2004) presented a five-factor model based on generalized expectancies (termed “social axioms”) at the individual level of analysis. In this approach, responses from individual respondents were submitted to factor analysis within each cultural group.

1.1 The Social Axiom five-factor structure

Social axioms are generalized beliefs about oneself, the social and physical environment, or the spiritual world, and are in the form of assertions about the relationship between two entities or concepts (Leung, Bond, De Carrasquel, Muñoz, Hernandez, *et al.*, 2002, p. 289).

They are built on the individuals' life experience within their culture. Social axioms are thought to guide behaviour that addresses everyday and stressful encounters that demand the attention of the individual. Social axioms constitute basic premises as to how the world functions and how particular entities are related, e.g., "good things happen to good people." Within an individual's belief system, social axioms promote instrumental, ego-defensive, and value-expressive functions.

Analysis of social axioms has identified a structure of five factors: (a) Social Cynicism, represents a negative assessment of human nature, lack of trust in the social institutions, and rejection of legitimate means in achieving one's goals (e.g., "Kind-hearted people usually suffer losses"); (b) Reward for Application, refers to the belief that investment of human resources, knowledge, and planning will lead to positive outcomes (e.g., "Hard working people will achieve more in the end"); (c) Social Complexity, refers to the view that there are multiple solutions to a problem, the outcome of events is uncertain, and human inconsistency across situations is acceptable (e.g., "One has to deal with matters according to the circumstances"); (d) Fate Control, refers to the general belief that social events are influenced by impersonal, external forces (e.g., "Fate determines one's successes and failures"); and (e) Religiosity, refers to the view that spiritual forces influence the human world and

that religious institutions exert a positive effect on social outcomes (e.g., “Religious people are more likely to maintain moral standards”).

This basic social axiom structure varies to some extent across cultures in the relative importance of each factor (Neto, 2006). Replication of the basic structure has also revealed a sixth factor in Greece (Gari, Panagiotopoulou, & Mylonas, 2009) and other cultures (e.g., Safdar, Lewis, & Daneshpour, 2006). For the Greek sample, the sixth factor appears to represent a notion of *Competition* that derives from the struggle of the individual to address effectively the perceived complexity of the societal reality. This notion combines the Social Cynicism dimension (e.g., “Competition brings about progress”) with the Social Complexity dimension (“One has to deal with matters according to the specific circumstances”) in a contrasting fashion. The human parameter is one of the complexities of the world that incorporates instability, a variety of alternative solutions and individual’s efforts for specific outputs. The sixth factor’s core meaning refers to a possibly competitive and cruel world, in which competition may or may not hinder progress, and in which the individual causing cruelty is divinely punished and eventually isolated.

1.2 Cultural Dimensions of Values

The most widely known attempt to define culture and subsequently explain human behaviour has been based on values and conducted by Hofstede at the cultural level of analysis. Individualism-Collectivism, Power Distance, Uncertainty Avoidance, and Masculinity-Femininity are used as organizing and explanatory constructs in many disciplines. A fifth dimension named Short-term versus Long-term orientation has been later added to the first four (Hofstede, 1980, 1991).

In Hofstede's structure (2001), Greece is placed in the middle of the Power Distance index and the Individualism index, highest (first) on the Uncertainty Avoidance index, and relatively high on the Masculinity index. Such a ranking pictures Greece as a society where individuals higher in the hierarchy are in position to exert some control over those lower in the hierarchy, while the converse is also possible. Based on the Uncertainty Avoidance ranking, Greeks appear to be facing extreme uncertainty, which entails intolerable anxiety. Technology, as the sum of human artefacts that can help face nature's uncertainties, and the enforcement of the law, as the official means of reducing social uncertainties, are not very well developed in Greece. Religion remains a powerful means of coping with the inherent uncertainty of life in the face of which individuals seek advice from a spiritual advisor (Gari *et al.*, 2009). In addition, Greece (as well as Germany, Great Britain, Italy, and Spain) has demonstrated high positive correlation between Uncertainty Avoidance scores and the expression of affect, which is associated with high cultural levels of anxiety (Edelmann, Asendorpf, Contarello, Zammuner, Georgas, & Villanueva, 1989).

In this chapter we discuss a culture-specific factor emerging from the Greek GRID using a mixed approach from cultural and cross-cultural psychology. The profile of Greece on the four cultural dimensions of Hofstede will constitute the theoretical framework of the cross-cultural aspect of our approach. The culture-specific factor arising from the social axioms survey in Greece will contribute to the cultural-indigenous approach. It may be said that in our cross-cultural effort to discuss the Greek cultural specific – noted as emic hereafter – factor of the GRID based on the Hofstede's dimensions we will be committing the ecological fallacy (Hofstede, 1980). However, because the GRID survey in Greece was carried out in a

representative and highly reliable sample, we contend that Hofstede's measurements can be used for this purpose (Smith & Bond, 1997).

2. Translation Equivalence of Emotion Terms

The back-translation methodology is a standard methodological approach to ensure a modicum of cross-cultural comparability among assessment instruments, such as questionnaires. However, it is possible that the intuitions of bilingual translators faced with isolated words may fail to capture every aspect of the meaning of a word, especially when there are usage-related or other differences between the linguistic communities that preclude a perfectly matching term. In the context of the GRID methodology, this means that the resulting emotion terms in a language other than the original may constitute translational approximations but not necessarily optimal renditions of the original terms. However, the GRID methodology engenders an opportunity to verify translational validity inasmuch as it does not treat emotion terms as primitives (undifferentiated wholes) but decomposes them into features that may turn out to cluster differently in different languages.

The GRID dataset itself may, then, be used to examine the degree of cross-linguistic matching between the hypothesized corresponding emotion terms, to the extent that back-translation of the questionnaire has resulted in reasonably equivalent rating scales between the two languages. The ratings of each emotion term on the set of 144 emotion features constitute vectors defining the location of each emotion term in the feature space. Translation equivalence of the terms should result in perfect matching between the corresponding feature vectors, an unreasonably strict criterion.

However, best approximation to translational equivalence should be evident in (a) very high correlation coefficients between the feature ratings of the corresponding terms in the two languages, and (b) greater correlations between the corresponding terms than between noncorresponding terms.

Therefore, to verify the validity of English-to-Greek translation, we calculated the correlation coefficients between the ratings of the Greek emotion terms and their respective English terms. Table 1 shows the correlation coefficients among all pairs of terms. For each Greek term (across each row) the greatest coefficient is indicated in boldface. Ideally, this should be on the diagonal for every term, indicating best matching to the corresponding term. Actually, the majority of correlations among corresponding terms (on the diagonal) were .90 or higher, with two terms below .80, of which only one (contempt) was less than .70. As shown in Table 1, for 20 of the 24 basic Greek terms, the maximum correlation was found with the corresponding English term. However, an approximately equal or slightly higher coefficient was found with a different English term for the following 4 Greek terms: *contentment*, *happiness*, *stress*, and *contempt*.

More specifically, Greek *contentment* (*ευχαρίστηση*) was correlated at .89 with English *pleasure*, vs. only .85 with English *contentment*. In fact, English *happiness*, *pride*, and *joy* were all more highly correlated with Greek *contentment* than the translationally corresponding term (English *contentment*) was. This indicates that there is a cluster of positive feelings that are so closely interrelated that it is difficult to distinguish among them, and that the Greek term for contentment does not pick out very successfully the particulars of Greek *contentment*. This is not so surprising, as the Greek term indicates a relatively mild and nonspecific pleasurable state, which can easily match aspects of all the correlated English terms. In the same cluster, Greek

happiness (ευτυχία) was very highly correlated at .91 with English *joy*, about as highly as with English *happiness*. Examination of the relative positions of these terms along the GRID dimensions in both languages suggests that the Greek usage for this word may fail to capture a fine distinction in English between the somewhat more exogenous and unpredictable *joy* as compared with *happiness*, while introducing a potential valence distinction such that Greek happiness appears more positive than *joy* (χαρά; 1.74 vs. 1.50, respectively).

Another slight departure from the diagonal was observed for Greek *stress* (στρες), which was somewhat more highly correlated with English *anxiety*, at .92, than with English *stress* (.89), perhaps reflecting an ongoing state of flux for this recent loan in the Greek language, as the emotion it represents is gradually absorbed and assimilated into the culture along with the foreign term itself. Finally, the most interesting and egregious departure from translational equivalence concerns Greek *contempt* (περιφρόνηση), which correlated only .66 with English *contempt*. Its greatest correlation was observed with English *disgust*, reaching a value of only .69, indicating a poor match overall. It is worth noting that Greek *contempt* also showed by far the lowest internal reliability coefficient of all Greek terms, which raises questions regarding the semantic difference of the terms in English and in Greek. The low reliability indicated that perhaps the low correlation with the corresponding English term may not be due so much to a poor fit to the meaning of the English term as perhaps to a genuine confusion about the usage of the Greek term in the context of the study. Part of the problem may be due to an ambiguity in this Greek term, which is usually taken to refer to the expression of contempt toward another person, as in English; however, the phrasing of the GRID questionnaire may have allowed an alternative interpretation as the feeling of being despised by another. That is, a

person's using the term "contempt" (as was neutrally phrased in the GRID questionnaire) may normally be taken to express disdain for another person, but can also conceivably be construed as expressing perception of another person despising him/her. Unfortunately, this distinction could not be made adequately in the Greek questionnaire, as it would require rewording and thereby jeopardize the validity of back-translation. Therefore, this issue should be taken up in future semantic analyses of the Greek term.

Overall, the correlations between the Greek and English terms indicate that the GRID methodology exhibits high translational equivalence between emotion terms in the two languages, as the great majority of Greek terms showed very high correlations with the corresponding English terms and also no higher correlations with other terms. This is only a preliminary analysis; the encouraging results warrant more extensive scrutiny of the translational equivalence issue including data from more languages and additional kinds of analyses.

3. Reliability and Dimensions of the Greek GRID Data

As noted in Chapter X the Greek sample comprised 245 students at undergraduate, graduate, and doctoral level in a wide range of disciplines from several Greek universities. The majority of the respondents were women and the average age was 26 years.

Internal consistency (Cronbach's α) of the Greek item-level raw data was very high, ranging between .95–.98 except for compassion (*συμπόνια*, .90), surprise (*έκπληξη*, .93), and contempt (*περιφρόνηση*, .88) (see Table 2), indicating high

reliability of the great majority of the ratings. The excellent reliability of the Greek data allows greater confidence both in the results of the factor analysis and in the consideration of translation equivalence on the basis of correlation patterns among emotion features between the Greek- and English-speaking samples.

As presented in Chapter X, the analysis of the Greek GRID centred data has successfully reproduced the general cross-linguistic four-factor structure of emotion dimensions. However, when the analysis of the Greek GRID raw data was carried out without prior centring, thus allowing response tendencies of potential cultural significance to affect the covariance matrix, then an additional fifth factor was reliably extracted.

Specifically, initial factor analysis of the Greek raw (uncentred) data set extracted a four-factor solution. On the basis of the individual feature loadings, the resulting factor structure was judged to be poorly interpretable. The total proportion of variance explained was 76.8%. After applying Procrustes rotation towards the original Belgian/Swiss/UK solution, the resulting congruence indices (Tucker's Φ) were very high for the factors Evaluation (.94) and Power (.90) but moderate for Arousal (.84), and low for Surprise (.76).

A subsequent analysis, extracting five factors, resulted in a higher proportion of variance explained (80.9%) and better interpretability of the solution. Due to the high reliability of the data, the five factor structure was deemed acceptable. After Procrustes rotation of this structure, the first four factors were sufficiently congruent to the original Belgian/Swiss/UK four-factor solution, with Φ values of .94 (Evaluation), .91 (Power), .89 (Arousal), and .83 (Surprise). The corresponding proportions of variance taken up by the four dimensions were 45.8%, 10.5%, 9.5%,

and 7.6%, respectively. The remaining 7.4% was accounted for by the additional (fifth) factor, which did not appear in the cross-cultural analysis.

In the remainder of this chapter we present and discuss this fifth factor as reflecting the reality of life in Greece. In particular, we consider the possibility that the fifth factor is related to the culture and social context of Greece as this emerges from the aforementioned research on social axioms and cultural dimensions.

4. The fifth factor

Table 3 lists the emotion features loading on the fifth factor. There were no negative loadings among the 144 emotion features. On this dimension, Greek individuals classify the eliciting events of the ensuing emotion state with respect to frequency, suddenness, unpredictability, importance or relevance to one's goals, cause (chance or someone else's actions), unavoidability of consequences, result of irrevocable loss, consistence with one's expectations, and unpleasantness. The emotional state following the eliciting event is characterized by heartbeat and breathing slowing down, tiredness, exhaustion, submissiveness, showing tears, speech disturbances, dropping of the jaw, as well as in desire to tackle the situation, to overcome the obstacle, to take action or initiative, to control the situation, and to seek external support.

Based on this list of defining features, it seems that the emotion dimension defined by the fifth factor concerns the frequent and familiar experience in the Greek cultural setting that unforeseen situations demand the individual's attention. The situations constitute obstacles and are a cause for concern. Individuals are worn out in a constant struggle to maintain balance and progress in the face of potential negative

developments. They expect the unexpected in their everyday encounters. Effective management of such situations is a prerequisite for the individual's evolvment. Undefined procedures combine with chance events in unpredictable circumstances that may either facilitate or inhibit the individual's handling of the situation or eliciting event. Therefore, this factor may be described as the emotional reaction of a Greek when trying to function effectively and adapt to events within the social context. The emotional experience is indicative of either internalization or externalization of the situation. In other words the individual will either turn to himself for support or he will attempt to externalize his emotions and his course of action. The line between the two options is fine.

The significance of this description may be related to the statement by Matsumoto, Anguas-Wong, & Martinez (2008a) that norms, beliefs, and values are incorporated in schemas that differ among cultures, the individuals functioning within each culture internalize these schemas and are primed by them when in need to respond to cultural cues. From the perspective of cultural psychology which views culture and human soul as united, the emic sixth social axiom factor, which emerged in two surveys exploring the social axioms structure in Greece (Gari et al., 2009), possibly unravels part of the notion stated by Matsumoto et al. (2008a).

In one study, the factor Cynicism and Competition comprised Social Cynicism items (e.g., "Old people are usually stubborn and biased", "Young people are impulsive and unreliable") and some Reward for Application items (e.g., "Failure is the beginning of success", "The just will eventually defeat the wicked", "Good deeds will be rewarded, and bad deeds will be punished"). This dimension seemed to include stereotypic taxonomies and some "just world" beliefs, possibly reflecting specific socio-economic characteristics of Greece and the generation gap prominent

since the 1970's (Vassiliou & Vassiliou 1973). In a second study, the sixth factor named Socially Determined Cynicism comprised Social Cynicism items and Social Complexity items in a contrasting fashion. Through this thinking mode, complex societal reality becomes unidimensional and less complicated when the "human factor" is taken out of the societal frame: harsh laws prevail, young persons are restricted, the old are rejected and social issues do not matter. When the "human factor" is put back into the societal frame, people are hiding their feelings, there are complex solutions to a problem, and people are unstable in their behaviour and efforts. The Greek participants seemed to feel that this is a complex world and that the human parameter is one of its complexities that incorporates instability, a variety of alternative solutions, and individual's striving for specific outputs. Likewise, in the fifth GRID factor, unpredictable situations caused by others frequently lead to the need for effortful action in order to overcome obstacles and avoid unpleasant consequences.

From the cross cultural perspective, Greeks, living in a country high in Uncertainty Avoidance, "look for structure in their organizations, institutions, and relationships, which makes events clearly interpretable and predictable" (Hofstede, 2001, p.148). They may demonstrate a high sense of urgency, engage in dynamic problem solving, and become involved in risky behaviour in order to reduce ambiguity. They are used to living in a country with unstructured situations – novel, unknown, surprising, and different from usual – from which uncomfortable feelings ensue. Combined with a moderate level of Power Distance, the high level of Uncertainty Avoidance affects the way power is exercised (Hofstede, 2001).

Greece has been traditionally found to be a collectivistic culture, currently placed in the middle of the Individualism Index (Triandis, Bontempo, Betancourt,

Bond, Leung, et al., 1986; Hofstede, 1980, 2001). This placement is indicative of a transition from collectivism to individualism, switching from focusing on groups and relations towards a focus on the individual, their goals and expectations, as Greeks increasingly assess their own and not the group's needs in relation to the eliciting emotional events. Twenty years ago, Georgas (1989) already indicated that cultural values in Greece had shifted towards individualism. Recently, Nezleck, Kafetsios, & Smith (2008) also suggested that "Greece is [a] possible hybrid of individualism and collectivism." A recent analysis of Greece as transitioning between a *Gemeinschaft* and a *Gesellschaft* type of social organization based on linguistic data (Terkourafi, 2009) supports this claim. As Terkourafi puts it, "in the whims of a state bureaucracy that appears to be as unpredictable as fate, one apprehends a *Gesellschaft* structure put together from *Gemeinschaft* materials" (p. 278). In other words, both individualistic and collectivistic schemas are present in the Greek culture, resulting in conflicting schemas and constructions in everyday encounters that attract the individuals' attention and emotional reaction. As a traditionally collectivistic culture, Greeks focus on groups, contexts, and relationships; whereas as a budding individualistic culture they are associated with higher overall expressivity norms avoiding inward emotions such as contempt, irritation or anxiety (Matsumoto et al., 2008b). This state of flux may underlie the reduced predictability and increased need for coping expressed in the fifth Greek factor.

Table 4 lists the scores of the 24 basic emotion terms alongside the Greek fifth factor. The emotion terms scoring positively highest included disappointment, sadness, and being hurt, whereas the highest negative scores were found for disgust, guilt, shame, contempt, fear, hate, and love. Some of these high-scoring emotion terms refer to engaged emotions (e.g., sadness, shame, guilt; Kitayama, Markus, &

Kurokawa, 2000), which emphasize vulnerability, interdependence, and closeness with others. Embeddedness encourages fitting in with and being attuned to others, which is a feature of collectivism. Respect for authority and maintenance of social order, social norms, and social participation, which are features of hierarchical cultures like Greece (Schwartz, 2004), appear to be relevant for the conceptual definition of this factor, because disruptive emotions such as shame, guilt and fear score negatively high on this factor. However, emotions such as disgust, anger, and hate, which are expressed more in individualistic countries, also score high on this factor (Matsumoto, Nezleck, & Koopmann, 2007). Thus the set of emotions best exemplifying the fifth factor is consistent with a mix of individualist and collectivist aspects.

The rise of individualism is further supported by the finding that competition in interpersonal relations was the main emphasis in the sixth Social Cynicism dimension in the survey of Social Axioms, given that competition is salient in individualistic behaviour. In other words, research on social axioms introduced the parameter of competition as an important functional element for the dimension of Social Cynicism (Gari et al., 2009). Competition, as a dynamic feature of the relationship with out-groups, has been studied in the Greek cultural setting as a contrast to “*filotimo*”, a Greek culture-specific term whose meaning is associated with “cooperation, fairness and altruism” (Triandis & Vassiliou, 1972; Vassiliou & Vassiliou 1973).

It appears that as cultural value orientations emphasized in a society express the cultural ideals and shared concepts of what is good and desirable (Schwartz, 2004), the more complex and diverse the social construction is, the more complex the prevailing values are. Values like respect for authority, social norms, priority to

personal needs and goals, and individuals' readiness to face unforeseen events, shape and justify individual and group beliefs, actions, and goals. The values endorsed by the individuals influence their emotions.

The fifth Greek factor, then, may be related to the special circumstances of the emotional makeup of Greeks living today in a transitional culture resulting in certain frequent emotional conflicts and tensions between old-fashioned collectivism and emerging individualism, between the clear emic notion of "filotimo" and the enriched notion of Social Cynicism with social axioms referring to competition. The positioning of Greece on the fifth cultural dimension of Long term–Short term orientation (Hofstede, 1991), which was related to many more aspects of emotional responding compared with individualism versus collectivism (Matsumoto, Nezleck, & Koopmann, 2007), combining with its profile of placement on the other four dimensions could contribute to a better understanding of the psychological reality experienced by the Greek respondents. If this interpretation is on the right track, then other transitioning cultures with their unique cultural dimensions profile might also exhibit idiosyncratic dimensions in their conceptual space of emotion terms, in addition to the four general cross-cultural dimensions, specifically related to the particulars of their intermediate situation. In as much as dimensions used to describe nations at the cultural level, such as Hofstede's dimensions, do not necessarily align with the same qualitative and quantitative differences among cultural groups at the individual level, there is no guarantee of the stability of the findings from cultures placed highest or lowest on each dimension. What is implied is the existence of possible emic conditions in the intermediate cultures.

In that light Leung and Bond are currently testing an enlarged pool of axiom items contributed by collaborators in ten countries to reach a better pan-cultural

solution yielding better local solutions (Bond, 2009). In future work, the Greek results should be examined and discussed in comparison with results from other countries, taking into account the placement of each country on Hofstede's five cultural dimensions, as well as other psychological constructs like social axioms. Perhaps variation along several cultural dimensions might shed some light onto similarities and differences of languages and cultures along the emotional dimensions, as well as on how these interact and change over time.

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Table 1

Correlation coefficients (Pearson's r) between the emotion feature vectors of the Greek terms and the English terms.

Greek terms	English terms																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1 Being hurt	.92	.89	.81	.71	-.16	.88	-.51	-.71	-.64	-.61	-.62	-.62	-.60	.18	.90	.76	.73	.76	.68	.52	.59	.47	.71
2 Sadness	.89	.92	.80	.74	-.04	.87	-.46	-.68	-.61	-.60	-.58	-.59	-.57	.20	.91	.74	.75	.76	.57	.47	.51	.44	.71
3 Shame	.85	.76	.91	.85	-.13	.76	-.35	-.65	-.54	-.52	-.50	-.52	-.61	.27	.80	.76	.81	.77	.58	.44	.53	.43	.61
4 Guilt	.77	.72	.86	.92	-.10	.69	-.34	-.64	-.56	-.49	-.51	-.54	-.61	.16	.76	.70	.79	.71	.54	.37	.43	.38	.61
5 Compassion	-.16	.02	-.12	.00	.82	-.08	.48	.42	.41	.41	.41	.39	.43	.00	-.13	-.18	-.10	-.16	-.18	-.14	-.23	-.08	-.11
6 Disappointment	.82	.89	.77	.68	-.15	.90	-.58	-.67	-.68	-.69	-.66	-.66	-.62	.09	.87	.66	.64	.65	.53	.39	.49	.36	.71
7 Love	-.47	-.43	-.40	-.29	.60	-.53	.88	.70	.79	.78	.81	.77	.54	.09	-.50	-.36	-.32	-.38	-.34	-.32	-.40	-.27	-.51
8 Contentment	-.69	-.66	-.65	-.52	.49	-.71	.78	.85	.88	.86	.89	.86	.73	-.04	-.72	-.56	-.57	-.60	-.44	-.33	-.44	-.33	-.61
9 Happiness	-.59	-.59	-.57	-.46	.48	-.67	.84	.74	.91	.84	.90	.91	.68	.15	-.63	-.46	-.45	-.45	-.38	-.27	-.38	-.22	-.51
10 Pride	-.61	-.69	-.60	-.47	.39	-.72	.75	.72	.86	.92	.84	.85	.70	.08	-.71	-.45	-.49	-.51	-.29	-.17	-.29	-.16	-.51
11 Pleasure	-.60	-.59	-.54	-.45	.45	-.65	.81	.79	.86	.80	.91	.86	.63	.06	-.63	-.50	-.48	-.50	-.42	-.32	-.42	-.28	-.51
12 Joy	-.56	-.60	-.55	-.42	.46	-.66	.83	.68	.91	.84	.89	.93	.71	.22	-.62	-.40	-.39	-.41	-.31	-.21	-.30	-.16	-.51
13 Interest	-.58	-.64	-.57	-.43	.58	-.66	.75	.64	.85	.82	.79	.85	.89	.23	-.64	-.38	-.36	-.39	-.28	-.19	-.25	-.10	-.41
14 Surprise	.10	-.08	-.02	.02	.22	-.10	.43	-.05	.38	.30	.35	.45	.34	.79	.01	.16	.29	.33	.12	.17	.13	.28	.21
15 Despair	.88	.85	.78	.69	-.17	.82	-.48	-.75	-.61	-.63	-.60	-.58	-.58	.25	.93	.80	.78	.81	.60	.51	.55	.50	.71
16 Stress	.82	.63	.74	.74	-.09	.60	-.25	-.74	-.38	-.37	-.42	-.34	-.34	.53	.75	.89	.92	.88	.68	.63	.69	.67	.71
17 Anxiety	.80	.64	.68	.71	.02	.59	-.23	-.71	-.36	-.37	-.40	-.33	-.26	.53	.74	.84	.90	.89	.70	.62	.66	.68	.71
18 Fear	.83	.69	.71	.68	-.14	.64	-.32	-.75	-.47	-.50	-.47	-.42	-.43	.52	.81	.79	.87	.93	.63	.57	.59	.59	.71
19 Jealousy	.75	.51	.60	.55	-.16	.55	-.30	-.64	-.36	-.33	-.38	-.33	-.31	.37	.62	.76	.66	.70	.90	.69	.77	.71	.71

20	Hate	.61	.36	.43	.37	-.24	.35	-.37	-.65	-.40	-.29	-.44	-.33	-.25	.33	.46	.65	.55	.62	.77	.86	.78	.84	.71
21	Irritation	.68	.40	.53	.50	-.17	.43	-.29	-.68	-.30	-.26	-.37	-.24	-.18	.51	.53	.81	.70	.72	.80	.85	.89	.89	.81
22	Anger	.63	.35	.47	.44	-.17	.35	-.25	-.63	-.26	-.20	-.33	-.20	-.15	.48	.47	.75	.62	.66	.79	.88	.86	.90	.71
23	Disgust	.77	.63	.67	.61	-.24	.64	-.48	-.74	-.53	-.57	-.54	-.49	-.45	.37	.73	.74	.73	.79	.66	.65	.71	.62	.81
24	Contempt	.65	.61	.61	.50	-.34	.68	-.63	-.58	-.64	-.60	-.62	-.63	-.50	-.01	.59	.50	.44	.48	.58	.50	.59	.40	.61
25	Erotas	-.29	-.38	-.26	-.18	.46	-.47	.85	.50	.73	.71	.75	.73	.46	.32	-.37	-.16	-.12	-.16	-.16	-.15	-.22	-.06	-.31
26	Lypi	.83	.91	.76	.70	.06	.86	-.40	-.55	-.54	-.54	-.50	-.54	-.54	.09	.88	.67	.68	.67	.52	.40	.44	.35	.61
27	Sygkinisi	.37	.41	.34	.37	.47	.32	.36	.01	.19	.18	.25	.20	.01	.39	.35	.27	.42	.35	.18	.08	.07	.12	.11
28	Agonia	.71	.49	.57	.60	.01	.45	-.12	-.65	-.24	-.24	-.27	-.20	-.19	.59	.63	.83	.85	.86	.69	.61	.65	.67	.71

Note: The largest coefficient in each row is indicated in boldface.

Table 2

Reliability of the feature ratings of the Greek emotion terms.

Emotion term	<i>N</i>	Cronbach's α
being hurt	35	.96
sadness	34	.96
shame	31	.96
guilt	35	.96
compassion	26	.90
disappointment	26	.96
love	28	.96
contentment	36	.97
happiness	34	.98
pride	33	.96
pleasure	30	.97
joy	29	.97
interest	33	.96
surprise	27	.93
despair	36	.97
stress	37	.97
anxiety	31	.96
fear	28	.96
jealousy	30	.95
hate	32	.95
irritation	36	.97
anger	30	.96
disgust	29	.95
contempt	27	.88

Note: *N* is the number of participants rating this emotion term.

Table 3

Emotional features with highest loadings on the fifth Greek factor, in descending order (only features with loadings of .30 or greater are shown).

Emotion feature (emotion component)	Loading
how frequently experienced (general)	.63
familiar (evaluation)	.51
enough resources to avoid or modify consequences (evaluation)	.51
heartbeat slowing down (physical symptoms)	.51
wanted to tackle the situation (action tendency)	.49
breathing slowing down (physical symptom)	.49
caused by somebody else's behaviour (evaluation)	.49
showed tears (expression)	.48
wanted to overcome an obstacle (action tendency)	.45
produced a long utterance (expression)	.43
felt tired (subjective feeling)	.43
had the jaw drop (expression)	.41
changed the melody of her or his speech (expression)	.40
suddenly (evaluation)	.39
caused by chance (evaluation)	.38
wanted someone to be there to provide help or support (action tendency)	.38
wanted to act, whatever action it might be (action tendency)	.36
consequences avoidable or modifiable (evaluation)	.36
important and relevant for person s goals (evaluation)	.36
important and relevant for goals of somebody else (evaluation)	.35
unpredictable (evaluation)	.35
wanted to take initiative her/himself (action tendency)	.34
wanted to be in control of the situation (action tendency)	.34
felt an urge to be attentive to what is going on (action tendency)	.34
consequences able to live with (evaluation)	.33
irrevocable loss (evaluation)	.33
moved toward people or things (expression)	.32
inconsistent with expectations (evaluation)	.32

showed the emotion to others more than s/he felt it (regulation)	.31
to what extent is it socially accepted (general)	.31
confirmed expectations (evaluation)	.31
felt exhausted (subjective feeling)	.31
wanted to be near or close to people or things (action tendency)	.31
felt submissive (subjective feeling)	.30
in itself unpleasant for somebody else (evaluation)	.30

Note: Corresponding feature categories indicated in parentheses. There were no features with high negative loadings ($< -.30$) on this factor.

Table 4

Scores of individual emotion terms on the Greek fifth factor.

Emotion term	Regressed 5 th -factor value
Disappointment	1.62
Sadness	1.42
Being hurt	.92
Interest	.83
Anger	.72
Despair	.64
Anxiety	.55
Compassion	.54
Stress	.46
Contentment	.45
Joy	.45
Irritation	.32
Jealousy	.24
Pleasure	.17
Surprise	−.06
Happiness	−.33
Pride	−.70
Love	−.70
Hate	−.91
Fear	−.96
Contempt	−1.03
Shame	−1.53
Guilt	−2.09
Disgust	−2.19