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Decision-making patterns, conflict sytles, and self-esteem

Ramón Alzate Sáez de Heredia, Francisco Laca Arocena and José Valencia Gárate
Universidad del País Vasco

In light of the increasing amount of literature available in English regarding personal decision-making styles or patterns, we have adapted the *Melbourne D.M.Q.* by Leon Mann (1997) to our particular purposes. This questionnaire is itself a revised version of the *Flinders D.M.Q.* (1982), both instruments being based on the decisional conflict model proposed by Irving Janis and Leon Mann in 1977. Two studies were carried out with a threefold objective: (1) to validate our adaptation of Mann's instrument (1982, 1997) from a psychometrical point of view; (2) to analyse, within our context, the similarities and differences between our own university students and those from other cultures as regards decision patterns and decision-making self-esteem; and finally (3), to study the possible relationship between decision patterns and conflict coping styles. Finally, the paper examines the theoretical implications of the aforementioned results.

Patrones de decisión, estilos de afrontamiento del conflicto y autoestima. Dado el creciente interés en la literatura en lengua inglesa respecto a patrones o estilos personales en la toma de decisiones, el presente artículo adapta el «Melbourne d.m.q.» del profesor Leon Mann (1997) a nuestro contexto. Este cuestionario es, a su vez, una revisión del «Flinders d.m.q.» (Mann, 1982), estando ambos instrumentos soportados en el modelo de conflicto de decisión propuesto en 1977 por Irving Janis y Leon Mann. Se llevan a cabo dos estudios con un triple objetivo: (1) validar psicometricamente nuestra adaptación del cuestionario de Mann; (2) analizar en nuestro contexto similitudes y diferencias entre nuestros universitarios y los de otras culturas respecto al uso de patrones de decisión y autoestima como tomadores de decisiones; y finalmente, (3) estudiar la posible relación entre patrones de decisión y estilos de afrontamiento del conflicto. Por último, el artículo examina algunas implicaciones teóricas de los resultados mencionados.

A Decisional Conflict Model

In 1977, Irving Janis and Leon Mann proposed a descriptive model of the decision making process, in which they advanced the idea that the need to make a decision involves a conflict which engenders a certain degree of stress, the excess or absence of which is in turn a major determinant of the subject's failure to make a good decision, since it is associated with unproductive information search, assessment and decision making patterns. This stress stems from two concerns: on the one hand, a worry about the objective personal and material losses that may result from the chosen alternative; and on the other, a worry about the subjective losses that may lower self-esteem (Janis and Mann, 1979). It is, in short, a cognitive assessment model very similar in some aspects to other cognitive models such as those developed by Bandura (1977) or Lazarus and Folkman (1984). All these models involve a double assessment: (a) assessment of the demands of a specific environment, and (b) self-assessment of the personal resources available to respond to these demands. In Janis and Mann's model, the most decisive resource affecting a decision making process is the time available.

In this model, the presence or absence of three antecedent conditions determines which decisional conflict pattern the subject chooses to follow: (1) awareness of a serious risk if nothing is done, (2) hope of finding a better alternative and (3) belief that there is enough time to learn about and assess the situation and choose the best alternative. The five resulting patterns are: unconflicted adherence, unconflicted change, defensive avoidance, hypervigilance and vigilance. According to the definition offered by the model, only the last of these, vigilance, is adaptive, being characterised by the systematic search for information, careful consideration of all viable alternatives and the unhurried, non-impulsive making of the final decision.

The model proposed by Janis and Mann (1977) has been widely acclaimed among researchers working in the field of decision making. Stress theorists have deemed it an interesting contribution (see Lazarus and Folkman, 1986) and it has inspired research into decision making under threat-engendered stress (Keinan, 1987) and suggested new frameworks for decision making in complex situations such as air traffic control (O´Hare, 1992). Equally, some studies have emphasised the role assigned to stress in this model as a factor which distorts information and triggers pre-programmed, stereotyped responses, which do little towards encouraging a constructive method of handling conflicts (Folger, Poole, and Stutman; 1997). In short, the procedures recommended in Janis and

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Correspondencia: Ramón Alzate Sáez de Heredia
Facultad de Psicología
Universidad del País Vasco
20080 San Sebastián (Spain)
E-mail: pbpalsar@ss.ehu.es

Mann's model for making balanced decisions are seen by Weitzman and Weitzman (2000) as a means of counteracting the egocentric biases which conflicts so often engender.

Flinders D.M.Q. (1982)

In order to assess the patterns proposed by the aforementioned model, in 1982 Leon Mann presented the *Flinders Decision Making Questionnaire, Flinders. D.M.Q.* (31 items), consisting of a vigilance scale (6 items), a hypervigilance scale (5 items) and a defensive avoidance scale (5 items); as well as another three scales measuring different expressions of defensive avoidance, namely procastination or postponement (5 items), buck-passing (5 items) and rationalisation (5 items). Psychiatric research has also used the *Flinders* scales, linking scores on the hypervigilance and defensive avoidance scales to the severity of some disturbances (Redford, Mann, and Kalucy, 1986). Similarly, research has also been carried out into the relationship between the scores on the procrastination scale and the tendency to ruminate on past or future states rather than focus on immediate plans of action (Kuhl, 1985). On a slightly different note, the *Flinders D.M.Q.* has also been used as a means of assessing the tendency to use different decision making styles during the course of academic life (Beswick, Rothblum, and Mann, 1988). In this sense, modest, albeit significant correlations have been found between vigilance patterns in first-year university students and the academic performance of the same students during their second year. A significant correlation has also been found between scores on the defensive avoidance and hypervigilance scales (the two typically non-vigilant coping patterns) and poor academic results (Burnett, Mann, and Beswick, 1989). Furthermore, a modest relationship has been found between self-esteem as a decision-maker and the patterns assessed by the *Flinders D.M.Q.* (Burnett, 1991). Research evidence linking decision making with self-esteem, although still fairly scarce, nevertheless suggests that a subject's positive image of him/herself as a decision-maker is associated with the use of productive decision making criteria, while a negative self image is linked to the use of non-productive criteria (Burnett, 1991). Empirical evidence has been found linking the vigilance pattern with self-satisfaction levels in university students (Fletcher and Wearing, 1992), and decision patterns have also been studied in connection with women's decisions regarding whether or not to undergo cancer screening tests (White, Wearing and Hill, 1994). In our country, Barbero, et al. (1993) presented an adaptation of the *Flinders D.M.Q.* which was administered to 605 subjects of both sexes aged between 18 and 45.

This adaptation constituted the first Spanish language version of Mann's questionnaire. Using exploratory factorial analysis, the researchers identified five factors in their sample, several of which they organised somewhat differently from the original patterns defined by Mann in 1982.

Melbourne D. M. Q. (1997)

Using a strategy based on the data obtained, Mann, Burnett, Radford and Ford (1997) subjected the *Flinders D.M.Q.* to a number of structural equation analyses with the aim of reducing the number of items (31) comprising the instrument. The resulting 22 items became the *Melbourne D.M.Q.* The authors tested three basic models: a first, two-factor model, comprising vigilance as one factor and the remaining coping patterns as the other; a second, three-factor model, comprising vigilance as the first factor, hypervigilance as the second factor and the remaining defensive avoidance patterns as the third factor; and finally, a third model comprising six factors grouped as follows: vigilance, hypervigilance, buck-passing, defensive avoidance, postponement or procrastination and rationalisation.

When all three models were compared, the authors found that the goodness-of-fit indices were higher in model 3, and consequently adopted this model. A more focused analysis of this third model led them to reduce the number of factors from six to four. Firstly, they eliminated from the *Flinders* questionnaire those items whose squared multiple correlation was significantly less than 0.25. And secondly, in light of the high correlation between buck-passing and defensive avoidance, they merged these two factors to create a new factor called buck-passing. One item from the defensive avoidance scale (item 23) loaded highly with hypervigilance items (lambda 0.67) and was therefore added to that scale. Furthermore, item 10 of the defensive avoidance factor was also eliminated, since it did not belong with the hypervigilance scale loaded with the other avoidance items. Consequently, the definitive version of the *Melbourne D.M.Q.* instrument comprised 22 items divided into four scales. The goodness-of-fit indices significantly increased the adaptation of this model (Mann et al. 1997).

Self-esteem as a decision-maker

Although the model proposed by Janis and Mann (1977) basically asserts that information assessment and decision making patterns are in the repertoire of every decision maker, i.e. that they are individual, rather than cultural, it also acknowledges that individual tendencies to use some coping patterns more frequently than others may vary on the basis of cultural influences (Mann, Radford, Burnett, Ford, Bond, Laung, Nakamura, Vaughan and Yang, 1998). The authors suggest that subjects' confidence in their own decision-making ability, and therefore their self-esteem as decision-makers, also varies from culture to culture. They predict that in Western, individualist cultures, subjects will view themselves as more competent decision-makers than in more group-orientated Asian cultures (Mann et al. 1998). They postulate that Western cultures, in addition to granting a greater degree of individual freedom as regards decision making, also attribute a greater degree of responsibility for the resulting consequences. With the aim of testing both hypotheses: (a) that different decision-coping patterns are in the repertoire of every decision maker, regardless of their cultural environment, although the frequency of use may vary from one culture to another; and (b) that Western societies demand a greater level of decision self-esteem than Eastern cultures, Mann et al. (1998) carried out a cross-cultural study involving university students from six different countries: three Western (Australia, New Zealand and USA) and three Asian (Japan, Taiwan and Hong-Kong). Findings showed that the mean score for decision self-esteem obtained by Anglo-Saxon university students, measured in accordance with the *dmq-1* scale (8.44 out of a possible 12), was significantly higher than that obtained by Asian students (7.00).

The model proposed by Janis and Mann (1977) is a descriptive model of the internal conflict involved in the individual decision making process, and the decision patterns assessed by the *Melbourne D.M.Q.* correspond to possible courses of action that a sub-

ject may follow in response to this internal conflict. However, in addition to the internal conflict, subjects are frequently faced with external conflicts with other subjects. In such cases, the individual's freedom to choose is not only conditioned by his or her own decision making bias, but by the opposition of other people also. The decision patterns that apply to subjects faced with these external pressures can be understood in terms of conflict coping styles (Janis and Mann, 1979). We therefore feel it would be advantageous to correlate the decision patterns outlined by Janis and Mann's model with the conflict styles as measured in an instrument widely used by conflict theorists, in this case, the MODE instrument (Thomas and Kilmann, 1974).

The Dual Concern Model

Based on the work carried out by Blake and Mouton (1964), this «dual concern model» has become an archetype within the field of conflict styles (Sorenson, Morse and Savage, 1999), inspiring a number of different sub-models (Hall, 1969; Thomas and Kilmann, 1974; Rahim, 1983; Pruitt, Rubin and Kim, 1994; Munduate, Luque and Baron, 1997) which, despite incorporating slight modifications, all agree with Blake and Mouton's basic argument regarding the relationship between the subject's cognitions and the selection of a particular conflict coping style. In this case, the subject's cognitions are related to the importance attached to the interests in conflict in this particular situation, and his/her relationship with the other people involved (Sorenson, Morse and Savage, 1999; Pinkley, 1990). In this sense, individuals faced with a situation of conflict have a double interest: interest in the personal results of the conflict, or assertiveness; and interest in their relationship with the other people involved, or co-operation. The model is therefore two-dimensional: assertiveness / cooperation. This dual concern model has generated a number of different instruments designed to assess subjects as regards the five conflict styles resulting from the possible combinations of their scores in both dimensions: assertiveness and co-operation. The first such instrument, the 'management grid' proposed by Blake and Mouton in 1964, has been followed by a succession of others, the MODE Conflict Instrument developed by Thomas and Kilmann (1974) and the ROCI-II instrument developed by Rahim (1983) being the two most used and referenced by current researchers. Despite slight differences in terminology, all these instruments assess subjects in accordance with this basic two-dimensional criterion (Van de Vliert and Kabanoff, 1990; Folger, Poole and Stutman, 1997; Munduate, Ganaza, Peiró and Euwema, 1999; Medina, Dorado, Cisneros, Arévalo and Munduate, 2003). The authors of the MODE instrument themselves, Kilmann and Thomas (1977), acknowledge the low reliability of their instrument (alpha: 0.60), although other studies such as that carried out by Nichols (1984) consider it to be somewhat higher (0.68). Points in its favour include the fact that it is considered to give scores that are uncontaminated by the bias of social desirability (Womack, 1988). We opted to use this instrument to assess conflict styles in our second study because it offers a more general outlook than other more specific instruments such as the ROCI-II (Rahim, 1983), which focuses on organisational conflicts between individuals of different statuses. The two studies outlined below, therefore, were carried out with a threefold objective: to validate a translation of the *Melbourne D.M.Q.*; to analyse the similarities and differences between subjects in our country and those living in Anglo Saxon cultures as regards the diverse decision patterns and decision self-esteem; and to explore the possible relationship between decision patterns and conflict styles.

First Study

Objective

To validate the *Melbourne D.M.Q.* (Mann et al. 1998) in our context and corroborate the hypothesis advanced by Mann et al. (1998) that the diverse decision patterns are valid across cultures.

Subjects

609 university students (105 male, 504 female), aged between 18 and 34, with a mean age of 21 and a standard deviation of 2.9.

Materials

Flinders. D.M.Q. (Mann, 1982; 31 items), psychometric data in Mann et al. (1997) and cross-cultural data in Mann et al. (1998).

Procedure and Data Analysis

All 31 items of the *Flinders D.M.Q.* were subjected to a structural equation analysis using the LISREL programme, with the aim of analyse the three models tested by Mann (Mann et al. 1997). The results are given in table I (models 4 and 5 in Mann et al. were deemed recurrent and were therefore not used in our study). We then calculated the mean, standard deviation and alpha for each of the four patterns in our version of the *Melbourne D.M.Q.*, illustrated in table II. Finally, we compared the scores obtained for the different patterns in our context with those obtained by Mann et al. (1998).

Results

The confirmatory factorial analysis of the 31 items carried out using the LISREL programme gave the goodness-of-fit indices (GFI), the adjusted goodness-of-fit indices (AGFI) and the root-mean-square residuals shown in table I. Subsequently, we subjected the third model to the same modification carried out by Mann et al. (1997). Similarly to Mann, we found that a reduction in the number of factors from six to four resulted in good indicators for the hypothesised patterns (GFI 0.85; AGFI 0.81; RMRS 0.08).

Leon Mann et al. (1998) carried out a cross-cultural study which compared the mean scores obtained for the four Melbourne *D.M.Q.* patterns by a wide-ranging sample of university students from Anglo-Saxon cultures (USA, New Zealand and Australia), with those obtained by a sample of students from Eastern cultures (Japan, Taiwan and Chinese Hong-Kong). Having grouped the three An-

Table 1
Goodness-of-fit indices for three substantive models (n= 609)

Model	GFI	AGFI	RMSR	X2 / df
Null	0.63	0.57	0.11	9.2
Model 1	0.72	0.68	0.10	7.4
Model 2	0.72	0.68	0.10	7.4
Model 3	0.78	0.74	0.09	6.0 (Melbourne)

glo-Saxon samples into a single sample labelled 'Western', and the three Asian samples into a single sample labelled 'East Asian' (in Mann et al. 1998), the scores were compared with those obtained by our 'Basque Country' sample in table III. Mann et al. (1998) found similar mean scores for all four decision patterns assessed by the *Melbourne. D.M.Q* in both the Anglo-Saxon sample and the East Asian sample (Japan, Hong-Kong, Taiwan), a finding that seems to corroborate the hypothesis that decision making resources are individual rather than cultural. As regards our sample of university students from the Basque Country, we found that the mean scores for Buck-passing and Procrastination (4.70 and 3.67) were similar to those obtained by Anglo-Saxon students. Scores for both the adaptive Vigilance pattern (10.28) and the maladaptive Hypervigilance pattern (5.08) were, however, somewhat higher.

Second Study

Objective

To compare once again the mean scores obtained by our university students in the 4 *Melbourne* patterns with those obtained by the Anglo-Saxon students studied by Mann et al. (1998), and to incorporate the *DMQ-I* scale (Mann 1982, 1998) which measures subjects' self-confidence as decision makers. We also aimed to explore the relationship between the conflict styles proposed by the dual concern model and the decision patterns defined by Janis and Mann's model.

Subjects

160 university students and workers (71 male, 89 female), aged between 17 and 55, with a mean age of 23.

Materials

MODE Conflict Instrument (Thomas and Kilmann, 1974); *Melbourne D.M.Q.* (Mann, 1997), *DMQ-I* decision self-esteem scale (Mann, 1982), intercultural data in Mann et al. (1998).

Procedure and Data Analysis

Administration of questionnaires and analysis of the correlation between conflict styles (MODES) and decision patterns (Mel-

Table 2
Our adaptation of the Melbourne D.M.Q. with its statistics

items within each factor	Load	R 2
Vigilance (mean 10.28; sd. 1.76; alpha, 0.65)		
Me gusta considerar todas las alternativas	0.69	0.48
Intento encontrar las desventajas de cada alternativa	0.57	0.32
Tomo en consideración cuál sería la mejor manera de llevar adelante una decisión	0.60	0.36
Cuando tomo decisiones me gusta reunir cantidad de información	0.70	0.50
Intento ser claro en mis objetivos antes de elegir	0.55	0.30
Tomo muchas precauciones antes de elegir	0.62	0.39
Hipervigilance (mean 5.12; sd. 1.93; alpha 0.61)		
Siempre que afronto una decisión difícil, me siento pesimista respecto a poder encontrar una buena solución	0.65	0.42
Me siento como si estuviera bajo una tremenda presión de tiempo cuando tomo decisiones	0.50	0.25
La posibilidad de que alguna cosa de poca importancia pudiera salir mal	0.47	0.22
No puedo pensar correctamente si tengo que tomar decisiones apresuradas	0.59	0.35
Después de tomar una decisión, gasto cantidad de tiempo convenciéndome a mí mismo de que era correcta	0.65	0.42
Buck-passing (mean, 4.70; sd, 2.40; alpha 0.78)		
Evito tomar decisiones	0.79	0.63
No tomo decisiones a menos que no tenga más remedio	0.63	0.40
Prefiero dejarles a otros tomar las decisiones	0.80	0.63
No me gusta asumir la responsabilidad de tomar decisiones	0.70	0.49
Si una decisión podemos tomarla otra persona o yo, dejo a la otra persona que la tome	0.76	0.57
Prefiero que las personas que están mejor informadas decidan por mí	0.62	0.39
Procastination (mean 3.67; sd. 2.04, alpha 0.70)		
Pierdo cantidad de tiempo en cuestiones triviales de menor importancia antes de llegar a la decisión final	0.44	0.19
Incluso después de haber tomado una decisión, retraso ponerla en práctica	0.58	0.34
Cuando tengo que tomar una decisión, espero mucho tiempo antes de empezar a pensar en ello	0.51	0.27
Retraso tomar decisiones hasta que es demasiado tarde	0.85	0.72
Aplazo tomar decisiones	0.86	0.75

Table 3
Means in decision-making patterns in Mann et al. (1998) and in our first study (n= 609)

	WESTERN n= 975			**EAST ASIAN n= 1.019**			**SPAIN (Basque Country) n= 609**		
Pattern	**men**	**women**	**Total**	**men**	**women**	**Total**	**men**	**women**	**Total**
Vigilance	9.35 (2.31)	9.46 (2.21)	9.42 (2.24)	9.61 (2.19)	9.26 (2.18)	9.39 (2.20)	10.23 (1.73)	10.29 (1.76)	10.28 (1.76)
Buckpassing	4.07 (2.77)	4.47 (3.17)	4.33 (3.04)	5.27 (2.49)	5.45 (2.83)	5.36 (2.72)	4.05 (2.11)	4.83 (2.43)	4.70 (2.40)
Procastination	3.20 (2.08)	3.27 (2.33)	3.25 (2.23)	4.58 (2.28)	4.47 (2.39)	4.49 (2.36)	3.59 (2.26)	3.69 (2.00)	3.67 (2.05)
Hipervigilance	4.06 (2.23)	4.43 (2.36)	4.30 (2.32)	4.85 (1.95)	5.00 (2.23)	4.92 (2.14)	4.61 (1.63)	5.18 (1.80)	5.08 (1.79)

bourne). Also, comparison between the mean scores obtained by our university students for decision patterns (*Melbourne D.M.Q.*) and decision self-esteem (*DMQ-I*) and those obtained by students from Western and Asian cultures in Mann et al. (1998).

Results

The mean scores obtained by our subjects for the four patterns specified in the *Melbourne D.M.Q.* (table IV) were very similar to those obtained by the Anglo-Saxon students studied by Mann et al. (1998). Scores for the adaptive vigilance pattern were higher in this study also, although unlike in the previous study, our scores for the maladaptive hypervigilance pattern dropped from 5.08 to 4.34, a value practically identical to that obtained by Anglo-Saxon students (4.30). In our opinion, this difference may be the result of the greater heterogeneity of this second sample.

The mean score for decision self-esteem obtained by students in our study (8.48) was practically identical to that obtained by Anglo-Saxon subjects (8.44).

The two MODE conflict styles that correlated more significantly with *Melbourne* decision patterns were Collaboration and Avoidance (table V). The former, Collaboration (high assertiveness, high cooperation) correlated negatively with Hypervigilance and Procrastination, both of which show poor handling of the time available, Hypervigilance resulting in a premature conclusion to the problem and Procrastination in the indefinite putting off of the decisional conflict. Collaboration showed also a negative correlation with Buck-passing, a style which is basically maladaptive. Avoidance, on the other hand, which is a fairly non-constructive coping style, correlated positively with two maladaptive patterns defined by the Melbourne instrument as Buck-passing and Procrastination, both avoiding the decisional conflict. Finally, we explored the role could play the self-esteem (d.m.q.-I. Mann, 1998) mediating between decision-making patterns (Melbourne d.m.q.) and conflict styles (MODE).

Correlations between decision-making patterns and conflict styles with self-esteem as an intermediate variable are showed in table VI. The T test for correlation differences between two no-nindependant samples are also showed in the same table within a little square.

Table 4
Means in decision-making patterns and self-esteem as decision makers in Mann et al. (1998) and in our second study (n= 160)

	WESTERN n= 975 (U.S.A., Australia, N. Zelanda)			**EAST ASIAN n= 1.019** (Japón, Taiwán, Hong-Kong)			**SPAIN n= 160** (Basque Country)		
	1	**2**	**Total**	**1**	**2**	**Total**	**1**	**2**	**Total**
Self-esteem as decisión makers d.m.q.-I	8.83 (2.21)	8.22 (2.44)	8.44 (2.37)	7.24 (2.31)	6.84 (2.34)	7.00 (2.36)	8.61 (1.88)	8.37 (2.15)	8.48 (2.05)
Vigilance	9.35 (2.31)	9.46 (2.21)	9.42 (2.24)	9.61 (2.19)	9.26 (2.18)	9.39 (2.20)	9.95 (1.69)	10.27 (1.71)	10.15 (1.71)
Buckpassing	4.07 (2.77)	4.47 (3.17)	4.33 (3.04)	5.27 (2.49)	5.45 (2.83)	5.36 (2.72)	4.04 (2.44)	4.11 (2.76)	4.08 (2.63)
Procastination	3.20 (2.08)	3.27 (2.33)	3.25 (2.23)	4.58 (2.28)	4.47 (2.39)	4.49 (2.36)	3.44 (2.07)	2.99 (2.30)	3.17 (2.21)
Hipervigilance	4.06 (2.23)	4.43 (2.36)	4.30 (2.32)	4.85 (1.95)	5.00 (2.23)	4.92 (2.14)	3.98 (1.69)	4.58 (2.35)	4.34 (2.19)

1, men; 2, women.

Table 5
Relation between conflict styles and decision making patterns, second study (n= 160)

	Competing	**Collaborating**	**Compromising**	**Avoiding**	**Accommodating**
Vigilance	0.240	0.123	0.033	-0.115	-0.055
Signif,	0.766	0.120	0.680	0.148	0.486
Hipervigilance	-0.012	-0.199*	0.100	0.143	-0.039
Signif,	0.885	0.012	0.209	0.071	0.622
Buckpassing	-0.178*	-0.297**	-0.104	0.374**	0.183*
Signif,	0.024	0.000	0.191	0.000	0.021
Procastination	0.016	-0.398**	0.082	0.269**	0.008
Signif,	0.838	0.000	0.301	0.001	0.918

(*) Significance 0.05; (**) Significance 0.01

Generally, relationship values are lower mediating self-esteem (d.m.q.-I) but the differences are not so important to modifie significances. Only the relationship between «Compromising» (an intermediate conflict style) and «Hipervigilance» wins significance (0.172*), while the relationship between «Acommodating» and «Buckpassing» losses significance mediating self-esteem.

Discussion

Both the results of the confirmatory analysis obtained during the first study and the similarity found between the mean scores obtained using both the translation and the original instrument in both studies, tend to corroborate the validity of the translation. Given the importance of the model developed by Irving Janis and Leon Mann (1977) in decision making theorising and research, the significance of having an instrument such as the *Melbourne D.M.Q.* available in our language is self-evident.

As mentioned in the introduction, Eastern cultures tend to leave less matters up to the individual, with more decisions being made by the family or other social groups. This may explain Eastern subjects' greater tendency to shift responsibility for decision making (the mean score for Buck-passing was 5.36 in Eastern subjects, as opposed to 4.33 in Western ones; Mann et al. 1998). Similar results were found with regard to Procrastination or Postponement (Eastern subjects: 4.49; Western subjects: 3.25). The scores for Buck-passing and Procrastination obtained by our subjects (first study: 4.70 and 3.67; second study: 4.08 and 3.17) were very similar to those obtained by Western students in the cross-cultural study carried out by Mann et al. (see tables IV and V). In the first study (n 609), the mean scores obtained by our subjects for the maladaptive Hypervigilance pattern were higher than those obtained by Mann's Western subjects (5.08 as opposed to 4.30). In the second study (n=160), however, the mean score for Hypervigilance dropped to 4.34, practically identical to the result obtained by the Westerners (table V). We believe that this decrease in hypervigilance may be due to the composition of the sample. The first study was carried out with 609 university students aged between 18 and 34, whereas in the second study, which focused on a sample group aged between 17 and 55, approximately half the subjects were paid professional workers. It may be that job-related responsibilities are linked to a more reflexive, less hasty and, in short, less hypervigilant decision making style.

The scores for decision making self-esteem, which were practically identical for both our subjects (8.48) and Anglo-Saxon subjects (8.44), are consistent with the equally similar results for decision patterns and, according to Mann et al. (1998), situate our subjects within the parameters of Western culture. However, our country differs from Anglo-Saxon ones (USA, Australia and New Zealand, which constitute the 'western' sample in the study carried out by Mann (1998)) as regards the four cultural dimensions identified by Geert Hofstede (1999), which are the criteria used by Mann when assigning countries to cultural groups (1998). Specifically, with the aim of explaining the very similar scores obtained for decision making self-esteem by both our subjects (8.48) and Anglo-Saxon subjects (8.44), the most relevant Hofstede cultural dimension (in accordance with Mann's association of self-esteem levels with levels of cultural individualism) would be the individualism index. With 51 points in this dimension, our country is closer to certain eastern cultures, such as Japan (46), than to, for example, the USA (91) or Australia (90) (Hofstede, 1999). We cannot, therefore, explain the fact that the scores obtained by our subjects were practically identical to those obtained by Anglo-Saxon university students exclusively in terms of Hofstede's 'individualism-collectivism' cultural dimension.

As regards the relationship between the conflict styles defined by the *MODE* instrument (Thomas and Kilmann, 1974) and the decision patterns outlined in the *Melbourne. D.M.Q.* (Mann, 1997), the most significant correlations were found between maladaptive patterns (Hypervigilance, Buck-passing and Procrastination) and the styles of Collaboration (negative correlation) and Avoidance (positive correlation). See table VI. Hypervigilance and Procastination correlated negatively with Collaboration, the theoretically most constructive coping style that requires both high assertiveness and high empathy levels. This significant negative correlation between maladaptive patterns and the most constructive style is indicative of a 'coherence between models', since it seems logical that both factors should move in opposite directions. On the other hand, the negative correlation between this constructive style – Collaboration – and the maladaptive Buck-passing pattern shows this model´s coherence. Avoidance, for its part, correlates positively with two maladaptive patterns: Buckpassing and Procastination (table VI). This significant positive correlation between a non -constructive conflict style (Avoidance) and maladaptive

Table 6
Values relationship between Melbourne and MODE mediating self-esteem as decision maker

	Competing	Collaborating	Compromising	Avoiding	Accommodating
Vigilance	0.005	0.107	0.021	-0.088	-0.039
Signif,	0.952	0.180	0.795	0.272	0.627
T test corrs, dif,	**1.30**	**0.12**	**-0.72**	**-1.73**	**-1.36**
Hipervigilance	0.078	-0.138	0.172*	0.015	-0.127
Signif,	0.328	0.082	0.030	0.853	0.110
T test corrs, dif,	**4.85***	**2.88***	**5.85***	**5.12***	**3.88***
Buckpassing	-0.104	-0.248**	-0.053	0.276**	0.119
Signif,	0.191	0.002	0.507	0.000	0.134
T test corrs, dif,	**3.97***	**2.70***	**4.61***	**7.99***	**6.63***
Procastination	0.100	-0.365**	0.144	0.171	-0.065
Signif,	0.210	0.000	0.070	0.030	0.416
T test corrs, dif,	**4.68***	**0.26**	**5.21***	**5.80***	**3.84***

decision patterns appears to be yet another indication of a certain degree of coherence between the dimensions which underlie both the 'Dual Concern' model and Janis and Mann's model.

This relationship between conflict styles and decision patterns, along with the fact that self-esteem is related to the frequency with which different decision patterns are used (the higher the self-esteem, the less the tendency towards buck-passing and procrastination, for example), raises certain questions regarding the possible role of self-esteem as a mediator in this style-pattern relationship. Table VI shows the r correlations between decision-making patterns and conflict styles, and in the right-hand columns are showed partial correlations controlling for the self-esteem variable. It was generally observed that, in almost all cases, self-esteem has the effect of weakening slightly the corresponding correlation, although not enough to change its status from significant to insignificant in the majority of cases. In all cases except that of the Vigilance pattern, this difference between pattern-style correlations is significant. In other words, the subject's level of self-esteem is effectively seen to be mediating the relationship between conflict styles and decision patterns. What exactly is the effect of this mediation? Our observations lead us to the conclusion that self-esteem tends to weaken the pattern-style relationship, or to put it another way, a subject with high self-esteem would be better able to separate his/her conflict styles from his/her decision patterns.

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