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Human Values in the Team Leader Selection Process

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The selection process of team leaders is fundamental if the effectiveness of teams is to be guaranteed. Human values have proven to be an important factor in the behaviour of individuals and leaders. The aim of this study is twofold. The first is to validate Schwartz's survey of human values. The second is to determine whether there are any relationships between the values held by individuals and their preferred roles in a team. Human values were measured by the items of the Schwartz Value Survey (SVS) and the preferred roles in a team were identified by the Belbin Self Perception Inventory (BSPI). The two questionnaires were answered by two samples of undergraduate students (183 and 177 students, respectively). As far as the first objective is concerned, Smallest Space Analysis (SSA) was performed at the outset to examine how well the two-dimensional circular structure, as postulated by Schwartz, was represented in the study population. Then, the results of this analysis were compared and contrasted with those of two other published studies; one by Schwartz (2006) and one by Ros and Grad (1991). As for the second objective, Pearson correlation coefficients were computed to assess the associations between the ratings on the SVS survey items and the ratings on the eight team roles as measured by the BSPI.
Keywords: human values, Belbin team roles, teamwork, leadership, undergraduate students.

El proceso de selección de los líderes de los equipos de trabajo es fundamental para garantizar el éxito de estos. Los valores humanos han demostrado ser un factor importante en el comportamiento individual y del líder. Este estudio tiene doble objetivo. El primero es validar el test de valores humanos de Schwartz. El segundo es determinar si existen relaciones entre los valores de los individuos y sus preferencias de rol en el trabajo en equipo. Los valores humanos han sido medidos por los ítems del test de Schwartz (SVS) y las preferencias de roles de trabajo en equipo han sido identificadas por el cuestionario de autopercepción de Belbin (BSPI). Ambos cuestionarios han sido respondidos por una muestra de estudiantes universitarios (183 y 177 estudiantes respectivamente). En relación al primer objetivo se ha llevado a cabo un análisis espacial (SSA) para ver si se adapta a la estructura de dos dimensiones, postulada por Schwartz, en esta población de estudio. A continuación, los resultados obtenidos de este análisis se han comparado y contrastado con dos estudios anteriormente publicados, el de Schwzartz (2006) y el de Ros y Grad (1991). En cuanto al segundo objetivo, se han calculado los coeficientes de correlación de Pearson para evaluar la relación entre los ítems del test SVS y los ocho roles de trabajo en equipo, medidos por el BSPI.
Palabras clave: valores humanos, roles de Belbin, trabajo en equipo, liderazgo, estudiantes universitarios.

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The systematic development of students' leadership competency is an explicit learning goal for the School of Chemical Engineering at the Universitat Rovira i Virgili (Tarragona, Spain) (Alabart, Özgen, Medir, & Witt, 2008). Approximately one third of fourth-year students enrolled on the Project Management in Practice (PMP) course are selected to lead design project teams made up of first year students (Özgen, Alabart, & Medir, 2008). The selected students combine the experience of leading the project teams with the training provided on the principles of leadership and such personal development activities as writing a personal learning journal and receiving personal coaching. The team leadership experience lasts two consecutive 15-week periods.

The process of selecting team leaders is central to team success. For this reason, a three-step screening process is carried out to identify the potential team leaders. In the first step, two prerequisites are established: candidates must have no courses pending from the first year and be sufficiently motivated to lead the project teams. In the second step students were given a personality profile test with the following three instruments: (a) the Belbin Self Perception Inventory (Belbin, 1981, 1993), which defines the team roles preferred by individuals; (b) the Myers-Briggs Type Indicator (Myers, 1991), which defines the 16 personality types; and (c) the Managerial Style Questionnaire (Hay Group, 1994), which identifies the styles used by leaders. In the third stage, students are given a behaviour-based interview to examine their potential for taking on the leadership role. During the interviews, students were asked questions like "Describe a time you had to make a decision that you knew would be unpopular" or "Summarize a situation when you took the initiative to get others going on an important issue, and played a leading role to achieve the results needed" (Hoevemeyer, 2006).

That being said, values have been claimed to be an important factor in leadership behaviour. In this regard, Westwood and Posner (1997) maintain that "the personal values held by managers have increasingly been shown to have an impact on their behaviour and performance, and ultimately, on organizational performance." Values have been shown to affect leaders in seven ways (England & Lee, 1974): (a) they affect leaders' perceptions of situations; (b) they affect the solutions leaders adopt to problems; (c) they play a role in interpersonal relationships; (d) they influence perceptions of individual and organizational success; (e) they provide a basis for differentiating between ethical and unethical behaviour; (f) they affect the extent to which leaders accept or reject organizational pressures and goals; (g) they may affect managerial performance.

Given that values play an important role in individual and leader behaviour, it would be illuminating for us to know whether the values held by students drive their preferences for certain roles in a team (for example leadership). In other words, we wish to know whether values are linked to individuals' preferences for a particular role in a team.

To conceptualize and measure value systems, we use an approach developed by Schwartz (1992, 2006), which will be explained in detail in the following section. We use the Belbin team role inventory (1981), also described in detail below, as we are interested in the roles that the students prefer to adopt in a team.

The study has two main objectives. The first is to validate Schwartz's human values survey. The second is to determine the relationships between Schwartz's human values and Belbin's team roles.

The purpose of the first objective is to validate the survey in a two-dimensional structure, as stated by Schwartz in his theory, in which he propounds that values serve individual interests (emphasizing independence) or collectivist interests (emphasizing the interests or the well-being of others) (Gómez & Martínez, 2000; Ros & Grad, 1991; Schwartz, 2006).

For the second objective, the correlation between ratings on the items of Schwartz's values survey and the ratings on Belbin's team roles are analyzed to examine whether there is a relationship between these two variables. It is assumed that there might be positive correlations between team roles and values that are characteristic of the role. Another assumption is that there may also be negative correlations between team roles and values that are not related or that are opposite to the role's characteristics.

Human values

Values are central to human behaviour and identity (Dose, 1999) and serve as the guiding principles in people's lives, motivating them to take action (Bardi & Schwartz, 2011; Inglehart, 1977; Kluckhohn, 1951; Rokeach, 1973; Schwartz, 1992). Values are core beliefs that guide or motivate attitudes and actions, and determine how people behave in certain situations (Rokeach, 1973).

Given their importance, human values have been an object of study since the beginning of the last century in such fields as sociology, psychology and anthropology (Alderfer, 1964; Maslow, 1954; Rokeach, 1973; Ros & Gouveia, 2001; Thomas & Znaniecki, 1918-1920). Sociology has made such important contributions as the one by Thomas & Znaniecki (1918-1920), who spoke about attitude and values. The personality psychologists Maslow (1954) and Alderfer (1964) have contributed their hierarchical models of human needs, and Rokeach (1973) defined values as hierarchically structured beliefs. Rokeach designed the first instrument for measuring values, the RVS (Rokeach Value Survey), which inspired subsequent authors (Ros & Gouveia, 2001).

Schwartz (2001) defines values as "desirable, trans-situational goals, varying in importance that serves as guiding principles in people's lives. […] They can motivate

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action, giving it direction and emotional intensity, they function as standards for judging and justifying action, and they are acquired both through socialization to dominant group values and through the unique learning experiences of individuals" (Schwartz, 2001).

Subsequently, Schwartz made various studies of human values, and specifically of individual values, in which he shows how values are used to characterize societies and individuals, to plan changes over time and to explain the motivational bases of attitudes and behaviour (Schwartz, 2006).

Schwartz defines ten universal values: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security. These are grouped in four different types—self-enhancement, openness to change, self-transcendence and conservation—which are organized into two opposing bipolar dimensions. These allow us to understand the opposition between the values. One dimension contrasts openness to change with conservation, groups of totally opposite values, with different ends and the other dimension contrasts self-enhancement with self-transcendence, also groups of opposite values (Schwartz, 2006).

According to Schwartz's theory (1992), values appear in a circular form with a dynamic structure. The contiguous values inside the circle are compatible while the opposite values are contradictory and can also generate conflict. For instance, the value of achievement may conflict with benevolence: people seeking success may have personal difficulties if they also wish to be helpful or improve the well-being of others. However, being helpful can be compatible with accepting cultural and religious customs, within tradition, since both values go in the same direction (Schwartz, 2001). Figure 1 represents the structure of the values according to Schwartz.

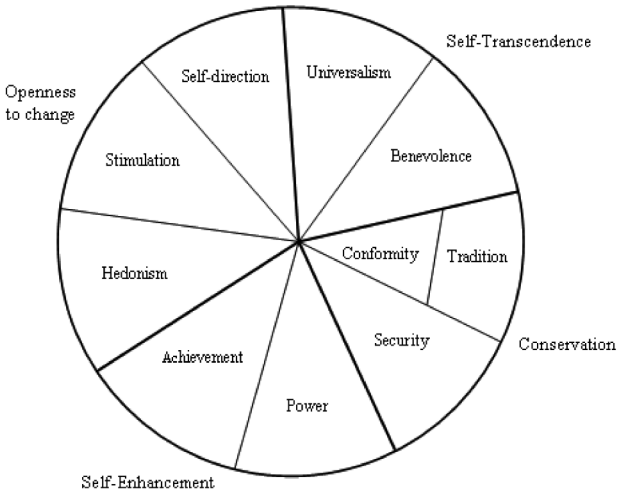


Figure 1. Theoretical model of relations among value types and dimensions (Schwartz, 1992, 2006).

Belbin's Team Role Theory

Belbin's team role framework (1981) has come to be widely used in counseling and in a variety of team and management development practices (Partington & Harris, 1999; Senior, 1997; Van de Water, Ahaus, & Rozier, 2008) probably because the published inventory (Belbin, 1981) makes it easy to use to determine an individual's team role and because of the powerful claim that balanced teams (i.e. those have a variety of team roles) have a higher propensity to perform better than unbalanced teams.

Belbin's work (1981, 1993) is based on nearly a decade of observation, experimentation, and hypothesis testing with *management teams* playing management games at Henley Management College. His work focused on team composition and effectiveness. Initially, he investigated teams composed of people who were all very similar in terms of mental ability and the results revealed that teams of very clever individuals collectively performed badly (Apollo syndrome, Belbin, 1981). He then investigated teams that had been formed on the basis of the members' personalities and experiments were carried out using teams of similar personalities. The results demonstrated that teams with similar people had characteristic strengths and weaknesses. Consequently, clusters or patterns of behaviours that make a positive contribution to team effectiveness were identified; that is to say, "team roles". Team role is defined by Belbin as (1993, p.24): "a tendency to behave, contribute, and interrelate with others at work in certain distinctive ways."

Belbin (1981) maintained not only that team roles exist as behaviours and thinking styles but also that individuals tend to have distinctive preferences or "natural" roles which they assume on most occasions. He also argued that these team roles are critical to effective team functioning. Belbin initially identified eight separate team roles which he believed were necessary for a team to be successful. These roles are briefly described in Table 1. In 1993, he introduced the ninth-team role, the "specialist", and renamed two of the roles. The "chairman" became "co-ordinator" and the "company worker" became the "implementer". The "plant" is the major source of original ideas and challenges the traditional way of thinking about things. The "implementer" turns concepts and plans into practical working procedures and works very hard to do what has to be done, even if it is not interesting or pleasant. The "teamworker" tends to be skilled at listening to others, facilitating communications and dealing with difficult people and tries to increase harmony and reduce conflict. The "resource investigator", rather than generate ideas, picks up the ideas and information from people, usually external to the team, and develops them. This person tends to be communicative and usually has the strongest contacts and networks in the group. The "monitor evaluator" is able to step back and evaluate ideas and suggestions so that the team can take balanced decisions. The "completer finisher" is motivated to finalize anything

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that is started, drives the deadlines, and ensures that they are achieved; follows through relentlessly and is effective at checking the details. The "specialist" provides specialist skills and knowledge.

Of these roles, those of the shaper and the co-ordinator are those which stand out as the two distinct types of leaders (Belbin, 1993). On the one hand the shaper is challenging, dynamic, and has the drive and courage to overcome obstacles. The co-ordinator, on the other hand, organizes and controls the activities of the team, clarifies the goals to be attained, promotes decision-making and delegates well (Belbin, 1993). These are the two roles, then, that have been used, preferably, for selecting the team leaders among fourth-year students (Özgen, Alabart, & Medir, 2008).

Method

Participants

Data were collected from 183 undergraduate students (44.26 % female) at the School of Chemical Engineering (ETSEQ) at the Universitat Rovira i Virgili during the academic year 2008-09 by administrating two instruments: the Schwartz Value Survey (SVS) and the Belbin Self Perception Inventory (BSPI). During the administration, 6 participants did not hand in the BSPI, so the final sample size was of 177 participants (44.63 % female). The average age of the students was 20.11 years *(SD* = 1.76).

Table 1
The brief definitions of Belbin's nine team roles

Name	Behavioral descriptor	Positive Qualities	Allowable Weaknesses
Shaper (SH)	Demanding, coercing, confrontational leader. Pushes members to excel.	Challenging, dynamic, thrives on pressure. Has the drive and courage to overcome obstacles.	Can provoke others. Hurts people's feelings.
Co-ordinator (CO)	Guiding and controlling leader. Knows the abilities of the members well.	Mature, confident, a good chairperson. Clarifies goals, promotes decision-making, delegates well.	Can be seen as manipulative. Delegates personal work.
Plant (PL)	Innovator and problem solver, the "idea" member.	Creative, imaginative, and unorthodox. Solves difficult problems.	Ignores details. Too preoccupied to communicate effectively.
Implementer (IMP)	Implements agreed upon plans.	Disciplined, reliable, conservative, and efficient. Turns ideas into practical solutions.	Somewhat inflexible. Slow to respond to new possibilities.
Teamworker (TW)	Facilitates team functions and mediates issues within the team.	Cooperative, mild, perceptive, and diplomatic. Listens, builds, averts friction, and calms the waters.	Indecisive in crunch situations. Can be easily influenced.
Resource investigator (RI)	Contact person for resources external to the team, brings resources into the team.	Extrovert, enthusiastic, curious, communicative. Explores opportunities. Develops contacts.	Overoptimistic. Loses interest once initial enthusiasm has passed.
Monitor evaluator (ME)	Analyzes, evaluates proposed solutions and choices.	Sober, unemotional, prudent strategic, and discerning. Sees all options. Judges accurately.	Lacks drive and ability to inspire others. Overly critical.
Completer finisher (CF)	Focuses on details and meeting deadlines.	Painstaking, conscientious, anxious. Searches out errors and omissions. Delivers on time.	Inclined to worry unduly. Reluctant to delegate. Can be a nit-picker.
Specialist (SP)	Professional expertise.	Single-minded, self-starting, dedicated. Provides knowledge and skills in rare supply.	Contributes only a narrow front. Dwells on technicalities. Overlooks the "big picture".

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Measures

Two instruments were used to collect data: (a) the Schwartz Value Survey (Schwartz, 1987); and (b) and the Belbin Self Perception Inventory (Belbin, 1981).

The Schwartz Value Survey (SVS) was developed to measure people's values, and it contains 57 items, each of which express one aspect of the motivational goal of a value. An explanatory phrase is provided in parenthesis to further specify the meaning of the item. For example, PLEASURE (gratification of desires) is one aspect of the hedonism value. The minimum number of items that measure a value is three (hedonism) and the maximum is eight (universalism). The participants were asked to rate the extent to which the values were principles that guided their lives on a 9 point-scale from "Opposed to my values" (-1) to "Of supreme importance" (7). The alpha coefficients reported for value types ranged from .45 to .79 (Sarros & Santora, 2001; $N_T = 181$). The alpha values are low largely due to the small number of items per scale. In this study, the Spanish version[1] of SVS was used.

The Belbin Self Perception Inventory (BSPI) was developed to identify an individual's natural propensity to fill each of the eight team roles (Belbin, 1981). It consists of seven sections and each section includes eight sentences that describe a particular personal behaviour in a team (e.g., I am not at ease unless meetings are well structured and controlled and generally well conducted.). The respondents are asked to distribute a total of ten points in each section among the sentences which they think best describes their behaviour; the more points they give to a particular statement, the better that statement matches his or her personal behaviour. Some participants prefer to assign a lot of points to a few statements and others prefer to spread the points more evenly. On the basis of the points distribution, each individual is given a total score on each of the eight team roles. The highest score obtained on a team role represents the "primary team role preference". The second highest score shows the "back-up roles" and the two lowest scores imply "areas of weakness".

Procedure

The two instruments (SVS and BSPI) were administered to the students in class sessions at different periods of the academic year, in groups of 20 to 25 people at a time. The approximate time of administration was 20 minutes for both tests. Students participated voluntarily in the study and they were ensured that their responses would remain confidential and anonymous.

For the first objective of the study, Smallest Space Analysis (SSA) (Guttman, 1968) was performed using the ratings provided on the 57 items of the SVS and the PROXCAL environment of SPSS. SSA is a non-metric multidimensional scaling technique widely used in the literature on work and life values (Elizur, 1984; Elizur, Borg, Hunt, & Beck, 1991; Levy, 1990; Schwartz, 1992, 1994) and it has proven to be more appropriate for testing multifaceted structural hypothesis than other techniques such as factor analysis (Sagie, 1994). SSA represents value items as points in a multidimensional space and the distances between the points represent the observed correlations between the value items. The distance between the items is relatively small when the correlation between two items is high. Conversely, the distance between the items is relatively large when the correlation between the two items is low.

The results obtained from the above mentioned analysis were subsequently compared with those of two other studies: (a) Schwartz (2006); and (b) Ros and Grad (1991), which was carried out with a Spanish population. First, the graphical solution was normalized so that both samples were comparable. Then, an orthogonal rotation was performed to reduce the distance with Schwartz's solution and finally the index of congruence (Tucker, 1951) was calculated between the points, the dimensions and the set of solutions (see table 2). Usually the threshold value for the index of congruence is of 0.85. Values bigger than this threshold suggest behaviour similar to that of the variable (or of the dimension), between the samples (see Lorenzo-Seva & Ten Berge, 2006, for a critical discussion on the values of this index). The results were obtained using the individual ipsative assessments.

For the second objective, the correlation between the 57 items of SVS and the eight Belbin team roles were assessed by computing Pearson correlation coefficients.

Results

The first section presents the results of the analysis of SVS and compares them with those of two other previous studies (Schwartz, 2006; Ros & Grad, 1991). The second section reports the correlations between the SVS items and Belbin's eight team roles.

Analysis of the Schwartz Value Survey (SVS)

SSA was performed to examine how well the two-dimensional circular structure, as postulated by Schwartz, was represented in the study population. The resulting map is provided in Figure 2.

[1] Obtained personally from Dr. Schwartz.

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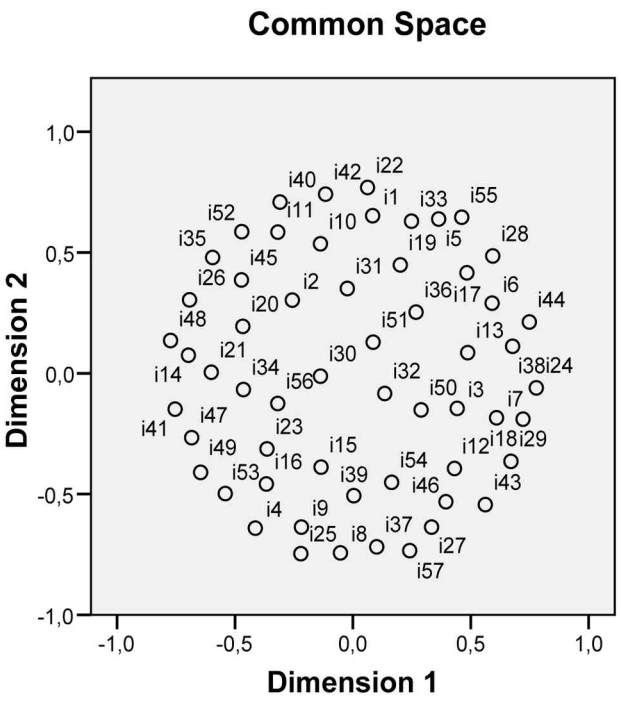


Figure 2. Smallest space analysis of SVS items.

Groups of items based on Schwartz's values can be seen in Figure 2. The items that explain the value "stimulation" are clearly grouped in the graph (i9, i25, i37), as are some of the items of "tradition" (i32, i51, i36, i6, i44), "self-direction" (i16, i53, i41, i14, i21, i48), "achievement" (i14, i34, i23), "power" (i3, i12, i27) and "security" (i42, i22). On the other hand, we can see that the items related to "conformity" (i11, i52, i40, i20, i33), "universalism" (i26, i35, i2, i30, i1, i17, i38, i24) and "hedonism" (i4, i50, i57) tend to stay in one dimension, though they are not grouped. Nevertheless, "benevolence" does not have a clear concentration; it is distinctly distributed throughout the graph (i45, i52, i10, i19, i7, i54, i49).

The graph shows that the distribution is circular as Schwartz argues in his theory, though the grouping of the items for each value is not clear. That being said, however, it can be seen that some value items are grouped. For instance, the value items of "tradition" are grouped together on the right-hand side of the map and the "stimulation" items are in the central bottom/left-hand side of the plot. The items of "self-direction", and "achievement" are grouped on the left-hand side of the figure. It appears, then, that there is a tendency for a two-dimensional value structure (individual values vs. social values).

On the other hand, although some value items are grouped together others such as "universalism", "benevolence", and "hedonism" are spread all over the map.

Table 2 compares the congruence scores of the results of the present study with those of Schwartz (2006), Ros and Grad (1991). All the items are grouped in accordance with Schwartz's theory (2006).

The congruence indexes in both comparisons are .35 (comparison with Schwartz, 2006) and .19 (comparison with Ros & Grad, 1991), indicating that they are deficient in comparison to the threshold value.

An analysis of the results of items grouped for each value according to Schwartz (Table 2) shows that in the value "conformity", the item loyal has a high score , which indicates very similar behaviour in both samples. Items 20 and 47 also have high but negative scores, which indicates that they are alike but occupy an inverted position within the graph. In the value "tradition", we can see that most items have scores higher than .85, which indicates that this group of items may define this value in the samples compared. In the value "benevolence" items 6, 7, 45 and 52 have scores within the threshold but only in comparison to one of the samples, whereas item 10 is similar in both samples and 54 has a high negative congruence.

In the value "universalism", items 2 and 35 have values within the threshold in both samples; items 6, 26 and 30 in only one of the samples; and items 24, 29 and 38 also in only one of the samples but inversely (that is, with negative values).

The value "self-direction" has only one score within the threshold in item 16 in one of the samples. The value "stimulation" has representative scores in two of the three items 9 and 25 which would indicate that this value is also defined in the samples. The value "hedonism" shows that item 4 is similar in the samples and item 57 shows a contradiction between the samples studied.

In the value "achievement", items 14 and 39 are similar. Item 43 is also similar but only in one of the comparisons and item 55 shows a negative congruence in one of the comparisons. The value "power" shows congruence in both item 27 and item 12, though only in one of the comparisons.

Finally in the value "security" the most similar item is 13; 42 and 56 have negative congruencies.

Relation between Human Values and Team Roles at Work

Pearson correlation coefficients were calculated to examine whether there are any relationships between the 57 items of the SVS and the Belbin's eight team roles. Table 3 shows the significant correlations that have been observed between the above mentioned variables.

The role of "shaper" is positively associated with the items "social power", "authority", "ambitious", "influential", "capable", and "successful", and negatively with "sense of belonging", "unity with nature", "moderate", "accepting my portion in life" and "self-indulgence".

The role of "co-ordinator" is positively associated with the items "equality", "freedom", "influential", and "enjoying life", and negatively with "meaning in life" and "privacy".

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Table 2
Comparing the index of congruence values obtained in the present study with those from the study by Schwartz (2006) and Ros and Grad (1991)

Value	Description	Item	Schwartz	Ros
Conformity	Self-discipline	20	–0.34	–0.91
	Politeness	11	0.11	–0.68
	Loyal	33	1	0.49
	Honoring of parents and elders	40	0.29	–0.31
	Obedient	47	–1	–0.99
Tradition	A spiritual life	6	0.5	0.92
	Respect for tradition	18	0.59	1
	Moderate	32	0.54	0.33
	Humble	36	0.96	0.88
	Accepting my portion in life	44	0.99	0.86
	Devout	51	0.98	0.98
Benevolence	A spiritual life	6	0.5	0.92
	Sense of belonging	7	0.98	–0.33
	Meaning in life	10	0.87	0.98
	Mature love	19	0.81	0.67
	True friendship	28	0.63	–0.74
	Honest	45	0.37	0.91
	Helpful	49	–0.67	–0.21
	Responsible	52	0.46	0.87
	Forgiving	54	–0.85	–0.99
Universalism	Equality	1	0.78	–0.01
	Inner harmony	2	0.92	0.93
	A spiritual life	6	0.5	0.92
	A world at peace	17	0.51	–0.19
	Unity with nature	24	–0.7	–0.96
	Wisdom	26	0.77	0.9
	A world of beauty	29	–0.98	–0.3
	Social justice	30	0	0.88
	Broad–minded	35	1	1
	Protecting the environment	38	–0.29	–0.89
Self–direction	Freedom	5	–0.42	–0.76
	Creativity	16	0.49	0.87
	Independent	31	–0.35	–0.65
	Intelligent	48	–0.26	0.2
	Curious	53	0.7	0.69
Stimulation	An exciting life	9	0.98	0.82
	A varied life	25	0.88	0.76
	Daring	37	0.62	0.25
Hedonism	Pleasure	4	0.94	1
	Enjoying life	50	0.11	–0.37
	Self-indulgence	57	0.82	–0.94
Achievement	Self-respect	14	0.9	0.84
	Social recognition	23	–0.36	0.45
	Ambitious	34	–0.42	–0.37
	Influential	39	0.97	0.9
	Capable	43	0.99	0.52
	Successful	55	–0.42	–0.95
Power	Social power	3	0.73	0.34
	Wealth	12	0.97	0.52
	Social recognition	23	–0.36	0.45
	Authority	27	0.98	0.91
Security	Social order	8	–0.42	0.71
	National security	13	1	0.8
	Reciprocation of favors	15	–0.42	0.19
	Family security	22	0.45	–0.8
	Healthy	42	–0.48	–0.97
	Clean	56	–0.99	–0.15

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Table 3
Significant correlations between SVS items and Belbin's eight team roles

Co-ordinator		Shaper	
Equality	0.161*	Social power	0.239**
Freedom	0.148*	Sense of belonging	–0.238**
Meaning in life	–0.152*	Unity with nature	–0.171*
Privacy	–0.179*	Authority	0.251**
Influential	0.152*	Moderate	–0.183*
Enjoying life	0.148*	Ambitious	0.296**
		Influential	0.309**
		Capable	0.203**
		Accepting my portion in life	–0.15*
		Successful	0.243**
		Self-indulgence	–0.186*
Implementer		**Plant**	
Freedom	0.171*	Politeness	–0.185*
Creativity	–0.191*	Self-respect	–0.18*
Privacy	0.156*	Creativity	0.322**
A world of beauty	–0.165*	Unity with nature	0.275**
Loyal	0.154*	A world of beauty	0.199**
Ambitious	–0.158*	Loyal	–0.223**
Humble	0.196**	Humble	–0.151*
Daring	–0.249**	Intelligent	0.213**
Obedient	0.156*	Clean	–0.346**
Forgiving	–0.149*		
Resource Investigator		**Monitor evaluator**	
Family security	–0.151*	Equality	–0.148*
Moderate	–0.256**	Self-respect	0.185*
Humble	–0.233**	Wisdom	0.178*
Daring	0.244**	Moderate	0.21**
Obedient	–0.24**	Intelligent	0.266**
Intelligent	–0.154*		
Curious	0.194**		
Teamworker		**Completer Finisher**	
Equality	0.166*	Politeness	0.18*
Social power	–0.218**	National security	0.159*
Sense of belonging	0.255**	Self-respect	0.196**
Social order	0.166*	Privacy	0.154*
Mature love	–0.186*	Unity with nature	–0.165*
Wisdom	–0.21**	A world of beauty	–0.176*
Authority	–0.168*	Humble	0.163*
Ambitious	–0.16*	Daring	–0.15*
Influential	–0.216**	Protecting the environment	–0.173*
Choosing own goals	–0.152*	Influential	–0.166*
Capable	–0.239**	Obedient	0.227**
Intelligent	–0.338**	Enjoying life	–0.215**
Curious	–0.263**	Devout	0.148*
Forgiving	0.174*	Clean	0.161*
Successful	–0.204**	Self-indulgence	–0.164*
Self-indulgence	0.162*		

*$p < .05$ **$p < .01$

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The role of "implementer" is positively associated with the items "freedom", "privacy", "loyal", "humble", and "obedient", and negatively with "creativity", "a world of beauty", "ambitious", "daring" and "forgiving".

The role of "plant" is positively associated with the items "creativity", "unity with nature", "a world of beauty", and "intelligent" and negatively with "politeness", "self-respect", "loyal", "humble" and "clean".

The role of "resource investigator" is positively associated with the items "daring", and "curious" and negatively with "family security", "moderate", "humble", "obedient" and "intelligent".

The role of "monitor evaluator" is positively associated with the items "self-respect", "wisdom", "moderate", "intelligent" and negatively with "equality".

The role of "teamworker" is positively associated with the items "equality", "sense of belonging", "social order", "forgiving", and "self-indulgence", and negatively with "social power", "mature love", "wisdom", "authority", "ambitious", "influential", "choosing own goals", "capable", "intelligent", "curious" and "successful".

The role of "completer finisher" is positively associated with the items "politeness", "national security", "self-respect", "privacy", "humble", "obedient", "devout", and "clean", and negatively with "unity with nature", "a world of beauty", "daring", "protecting the environment", "influential", "enjoying life" and "self-indulgence".

Discussion

The first objective of this study was to examine how well the two-dimensional structure of values, as postulated by Schwartz, was represented in our sample. Our findings demonstrate that the survey items are circularly distributed as he suggested (Schwartz 2001, 2006), though the distribution of the points does not group the 10 universal values. However, it should be noted that the values of "stimulation", "tradition", "self-direction" and part of "achievement" group the items in the space analysis, respecting in the two dimensions that Schwartz contended: individual interests or collectivist interests (Gómez & Martínez, 2000; Ros & Grad, 1991; Schwartz, 2006).

The indexes of congruence calculated for the comparisons between Schwartz's study and Ros' study generally indicate lower values (.35 and .19, respectively) than normal threshold values, indicating that the items in the survey do not group in the same way as in the samples that have been used for comparison (Table 2). On the other hand, however, congruencies were high for several items in both studies: for example, "humble", "accepting my portion in life", "devout", "meaning in life", "inner harmony", "broad-minded", "pleasure", "self-respect", "influential", and "authority".

However, we acknowledge that the relatively small sample size and the specific and homogeneous sample used are a major limitation which makes it difficult to draw definite conclusions. Bearing this limitation in mind, there is a need to replicate the study using larger samples from different populations.

The second objective of the study was to test whether there are any significant relationships between the values held by individuals and their preferred roles in a team. In this regard, the 57 items of the SVS were correlated by Belbin's eight team roles and several significant correlations were detected.

First and foremost, "shaper" and "co-ordinator" were the only two roles that correlated significantly and positively with the value item "influential". This finding is quite revealing as these two roles were, in fact, defined as the two distinct leader roles in Belbin's theory. In this regard, the ability to influence people has been viewed as critical to managerial and leadership effectiveness (Bass, 1990). In fact, Yukl (1998) asserts that "influence is the essence of leadership". Therefore, the findings of the study suggest that of the eight team roles defined, only two may have some form of influence on people. Further study is required to shed light on the influence exerted by these two roles on team members (e.g. satisfaction, commitment) and team outcomes (e.g. team performance, team climate).

Another interesting finding was the positive correlation between the "plant" role and the value items "creativity" and "intelligent". Plants, in fact, have been identified as the most potentially creative profile in Belbin's study (Belbin, 1981, p. 35) and they have "been found to be clever, even very clever" (Belbin, 1981, p. 39). Therefore, the detected positive correlation between these two value items and the "plant" role is very understandable.

An equally interesting correlation was observed between the "resource investigator" role and the value item "curious". A careful examination of Table 2 reveals that the word curious was one of the definitions used for this role in Belbin's team roles theory, which makes this observed relationship understandable.

The correlation between the "monitor evaluator" role and the value items "self-respect", "wisdom", "moderation", and "intelligence" also seems to be consistent with the role description provided by the team role theory (Table 2).

These findings suggest that there does appear to be a relationship between the values held by individuals and their preferred ways of behaving in a team, as expressed by Belbin's team roles. Therefore, the findings from this study lend weight to the claims for the construct validity of Belbin's model in which a role is defined by the following six factors (Aritzeta, Swailes, & Senior, 2005): (a) current values; (b) personality; (c) mental ability; (d) field constraints; (e) experience; and (f) role learning. Future research should focus on investigating how much of the variance in a team role is explained by these factors. Future research should investigate the links between Schwartz's ten motivational types of values (e.g. benevolence, power)

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and the eight team roles. This analysis will provide insightful information on the link between the values and the preferred ways of behaving in a team.

In team leader selection processes, more information should be collected so that the best candidate for the leadership role can be selected. Our initial hypothesis was that there are positive correlations between team roles and values that are characteristic of the role itself. In this case, the "shaper" and "co-ordinator" roles, which are used as the leader's roles in the process, are found to be related to the value item "influential", which was correlated only with these two roles, thus suggesting that some influence will be exerted on the members only by these two roles. Therefore, using these two roles in the leadership selection process seems to be acceptable. However, more data are needed on the leadership effectiveness of these two roles if the quality of the selection process is to be improved and modified.

In conclusion, we have analyzed Schwartz's survey of human values and failed to replicate it in the ETSEQ's student population. On the other hand, the instrument can be used to analyze the items individually and enrich the process of selecting team leaders. Belbin leader roles used in the selection process (i.e. shaper and coordinator) are significantly related to such values as Influential. The hypotheses of this study have been confirmed: human values that are characteristic of certain team roles are related positively and vice versa, and human values that are opposite to the characteristics of certain roles are related negatively. The conclusions of this study provide more information for work teams to be successful.

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