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EXPERIENCES AND TOOLS

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VALUES AND WORK VALUES

Values' function as guides

Values can be conceived as criteria or standards to evaluate decisions and actions (Rokeach, 1973; Williams, 1968). They provide an interpretative system, abstract and generalizable, with high temporal stability¹, that is articulated in a priority structure. This structure represents the guiding principles of an individual's behavior, which gives life to not only a general value system but also to specific and diverse social "objects" (affective relationships, social citizenship, etc.).

Similar to other human experiences, work experiences are "objects" rich in meaning and defined by both individual and collective values. Indeed, values contribute to ideally delineating the job with respect to potential and/or favorable goals/aims to pursue (*finalism*); what is right to do (*work ethic*); and what activates direction and sustains or inhibits action, defining priorities and choices (*motivational valence*) (Sarchielli, 2003). Analogous to general values, work values may be defined as ideal evaluation parameters regarding the desirability of different work aspects (e.g., retribution, work conditions, level of autonomy) or the potential outcomes which may be attained (e.g., satisfac-

tion or prestige) (Lyons, Duxbury & Higgins, 2006). Work values function as guides during diverse phases of a workers' journey, from job hunting and choosing a job, to initial work-related socialization experiences, to the management of professional activities and the evaluation of outcomes (satisfaction/dissatisfaction).

Examination of the recent scientific literature highlights several studies on the relationship of values with work interests and work attitudes (Gorge & Jones, 1997; Schulenberg, Vondracek & Kim, 1993), educational and professional choices (Judge & Bretz, 1992; Le Blanc & Laguerre, 2001; Pace & Lo Presti, 2005; Shenghua & Xue, 2005) and orientation and counseling interventions (Perron, 1997; Plant, 1997). On a more specific level of analysis, a notable amount of research focusing on work values is dedicated to revealing the specific value "assets" which sustain the motivation of those who are employed within similar trades. In particular, much attention has been given to the so-called "helping" professions – such as social welfare workers, nurses, mental health workers, and teachers – wherein the hypothesis that an interpersonal "care" orientation influences work choices (Winter, Newton & Kirkpatrick, 1998) in addition to impacting role expectations and professional identity (Wilks, 2004).

Dynamic changes in the value structure

Within the dynamic process of adaptation between individuals and context, values support expectations and motivations (and thus, indirectly behaviors) and contribute to evaluating the coherence between both diverse intrapersonal judgments (e.g., comparisons between two different values, both of which are considered important) or interpersonal judgments (e.g., personal values and work group values).

Within an evolutionary perspective, many studies have been dedicated to analyzing the definition and the *dynamic development* of personal work value systems, referring to values within the life cycle. Several authors have revealed the existence of important stages – in particular, adolescence – involved in the change and solidifying of values (Porfeli, 2005; Sinisalo, 2004; Johnson Kirkpatrick, 2002; Johnson Kirkpatrick & Elder, 2002; van der Velde, Feij & van Emmerik, 1998). Other authors have further investigated the study of the social factors which influence the construction of value systems. For example, in a broad longitudinal study on socialization processes, Cotton and colleagues (1997) demonstrated the important role of parental relationships, the modality of initial work socialization experiences, and ethnic group status in addition to the significant influence of gender and developmental phase on the selection and stability of work-related values². Moreover, some researchers have shown how a value system is not entirely sta-

1. For example, Rokeach defines a value system as "an enduring organization of [values] along a continuum of relative importance" (Rokeach, 1973, p. 5), assuming it is a relatively stable and coherent priority structure.

2. Other research studies have examined the influence of specific social conditions, for instance different familial and multi-generational models (e.g., Mannheim & Seger, 1993; Bellotto & Zatti, 1999; Smola & Sutton, 2002), small groups (e.g., Dose, 1997; Brandler, 1999), and institutional agencies (e.g., Gregson 1991; Kern, 1998; Haynes, 1999).

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ble but rather, dynamically influenced by socio-cultural factors. The specificity of diverse cultures and contexts, the changing work world, and transformations in production activities tend to influence individuals' goals and preferences with respect to work-related choices and behaviors (Fraccaroli, 1994), increasing the variability of personal responses and strategies.

On an individual level, some research studies have examined how socio-cultural factors³ may influence and differentiate between work values without however, reaching a unitary conclusion, presumably because of the particular sample characteristics or because the complexity of the analyzed set of variables.

In addition, a significant number of studies have sought to reveal the specificity of value systems within diverse *national contexts* (e.g., Sedani & Gardner, 2000; Stein & Kotze, 2004; Karabati & Iseri, 2005). In contrast, other studies have made *cross-cultural comparisons* in order to identify similarities and differences (e.g., Altman, 1992; Charles, 2000; Lebo, Harrington & Tillman, 1995; Selmer & de Leon, 1996; Spony, 2003) or to analyze questions and changes in phases of socio-political transition (e.g. Borg & Braun, 1996; Larsen et al., 1993) or finally to reveal, in a broader sense, changes in the value system of the current western culture (e.g., Harding & Hikspoors, 1995).

Finally, the coexistence of multiple interpretative levels in diverse social contexts determines, in individuals, the potential ungluing – and at times, incoherence – between elaborate and applied theories or also between superfi-

cial interests and preferences and more deeply-rooted desires. For instance, the priority structure of a value system may change when applied to specific questions, at times creating a contradictory picture with respect to a general hierarchical organization or an abstract value system (Seligman & Katz, 1996). Therefore, individuals are bearers of a multitude of value systems wherein the management of the *coherence/incoherence* of the diverse systems on an intrapsychic level generates a dynamic process of contextualization of principals and choices in diverse contexts.

The relationship between general values and work values has also been a source of discussion in literature (e.g., Roe & Ester, 1999). Although both general and work value systems are distinct and include diverse content and priorities, according to some authors their structure is similar (Elizur & Sagie, 1999). However, other authors have argued that the hierarchical relationship within a general value structure promotes specific value expressions in the workplace. For example, some research has examined the relationship between personal and work value systems, considering the latter an expression of personal values within a professional context (Ros, Schwartz & Surkiss, 1999).

Congruency management among diverse actors

An important construct is that of “congruency” (Meglino, Ravlin & Adkins, 1992) which evidences the relevance of the social dimension in the genesis of value structures through the process

of reciprocal modeling between actors who share a context (for example, in the work place, a new employee and his/her supervisor) until there is a sharing – more or less homogeneous – of fundamental beliefs of what is preferable within the life of the organization (Schein, 1990) and of what contributes to founding the organizational culture.

More specifically, several studies have investigated the presence of diverse value systems within work groups. Among others, Dose and Klimosky (1999) demonstrated the importance of the homogeneity of values within a group in mitigating the negative effects due to socio-demographic differences. Other research has analyzed value differences between organizational members and leaders, comparing for instance, the values of pairs of supervisors and subordinates and revealing that the level of value affinity influences work efficacy (Meglino, Ravlin & Adkins, 1992).

Finally, other studies have focused on the relationship between individual values and values which characterize the organizational culture. For example, some authors have found that greater coherency in I-O values leads to improved work *performance* (e.g., Knezevic & Ovsenik, 2001), increases work *satisfaction* (e.g., Sagy, 1997; Cheung & Scherling, 1999), reinforces organizational *culture* (e.g., Psimmenos & Kassimati, 2003), and reduces *stress* (e.g., Siu, 2003; Siu et al., 2005). It is therefore important to evaluate the coherence of personal and organizational values during employee selection procedures (Parsons, Cable & Wilkerson, 1999) or

3. For example, the following variables have been examined: gender (Akhtar, 2000; Mannheim, 1993; Rowe & Snizek, 1995) religion (Browne, 2002); race (Carter et al., 1994); genetics (Arvey et al., 1994; Keller et al., 1992); and individual characteristics and personality (Guastello et al., 1992; Berings, Fruyt & Bouwen, 2004; Furnham et al., 2005; Singh & De Man, 1991; Singh, 1994; Rao, Reddy & Samiuliah, 1997).

during contract negotiation phases, in order to encourage the likelihood of reciprocal adaptation (Finegan, 2000; Kalliath, Bluedorn & Strube, 1999).

Instruments revealing values within work contexts

Beginning in the 1970s, much research has been conducted in the area of values and numerous theoretical studies have been published. In particular, there has been a review of the value-related literature (Sagie, Elizur & Koslowsky, 1996), a review of value-related measurement instruments (Evers, 1995). A few volumes have emerged from international conferences dedicated to the topic, in addition to the special edition of *Applied Psychology: An International Review* entitled, "Values and Work" published in 1999.

An analysis of the recent literature with respect to measurement instruments⁴ reveals, however, that there are few publications and the majority refer to previously validated instruments. Only a few studies utilized qualitative instruments involving vignettes (Brandler, 1999; Wilks, 2004) or stories (Krumboltz et al., 1994). Research which has proposed the objectives of validating or adapting already consolidated value system measures, have mostly utilized the *WVI – Work Values Inventory* (Super, 1970), the *WIS – Work Importance Study* (Super & Sverko) and the *PVQ – Portrait Values Questionnaire* (Schwartz, 2003)⁵.

The WVI was developed by Donald Super in the 1970s to measure professional values (Super, 1970; 1973) and later modified by Seifert and Bergman in 1993. The instrument proposes to measure 15 work values, both intrinsic and extrinsic, by way of 210 items. A synthesis of Super's model and other developments is presented by Zytowski (1994). Numerous research studies have used the WVI to demonstrate specific findings and several publications have been dedicated to its adaptation and application to specific research hypotheses (Dagenais, 1998; Zalewska, 2000; Heller, Drexler & Fleischhacker, 2002).

The WIS may also be considered to have developed from the WVI: the result of an international research project coordinated by Super (Super & Sverko, 1995) aimed at examining the meaning of work, generating a measure which makes it possible to construct individual profiles of work-related values. The analysis and comparison of results obtained across ten countries allows for the regrouping of value dimensions along two axes, which describe different conceptions of work with polar opposites. The first axis refers to a *paternal* conception of work values (work conceived of in terms of status, power, prestige, authority, etc.) versus a *maternal* conception (work conceived of in terms of social relationships, interactions, work conditions, etc.). The second axis involves an *instrumental* conception of

work values (advancement, economic earnings, etc.) versus an *expressive* conception (life style, personal growth and development, etc.) or work-related activities. The two axes generate four quadrants in which it is possible to place diverse nations on the basis of their prevailing cultural orientation.

Finally, other contributions make reference to Schwartz's *PVQ – Portrait Values Questionnaire* (Ros & Grad, 1991; Sagiv & Schwartz, 1995). This questionnaire measures the importance attributed to the ten value types (power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security) considered to be universally recognized motivations of men and women across different cultures (Schwartz, 1992). This instrument is composed of 40 items, each of which provides a brief description of a hypothetical person and refers to different needs reflecting the ten value categories. Participants respond to items by evaluating the extent to which they perceive the person to be similar to themselves on a 6-point scale. The questionnaire and numerous versions developed over the years are founded on the idea of compatibility (e.g., autonomy-universalism) or rather, opposition (e.g., autonomy-conformity) between diverse value "contents", consequently resulting in a relatively stable value structure.

Schwartz's universal theory of values is also the basis of research

4. The following review includes publications since 1991 from search engines such as PsycInfo and PsycArticles and utilizes the keywords, "work value and questionnaire", "work value and scale" or "work value and inventory".

5. Within this research literature, other published measures include: Perron's (1986) *QVT – Questionnaire de Valeurs de Travail*; the *WVS – Work Values Scale* (Porto & Tamayo, 2003); the *SWVI – Social Work Values Inventory* (Pike, 1996), an instrument measuring values related to social welfare professions; the two self-assessment scales, *Work Value Instruments* (Boyle, 1996) and the *COPES – Career Orientation Placement and Evaluation Survey* (Knapp-Lee, 1996); the *Questionario dei Valori Professionali* (Catalano et al., 2006), an instrument which aims to reveal 11 value dimensions; and the *IVP – Inventario dei Valori Professionali* (Boerchi & Castelli, 1998; 2000), constructed to study 11 different types of value orientations (i.e., relational, goals, advancement, leadership, retribution, self-improvement, innovation, variety, responsibility, mobility, physical activity). A review of the work value and professional interest measures is presented in Evers (1995).

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which has adapted the questionnaire to the work context (e.g., Ros & Grad, 1991). An elaboration of Schwartz's value questionnaire is the *Work Values Scale EVAT 30* (Arciniega & Gonzales Fernadez, 2000). The instrument includes 30 items which operationally define the ten types of values proposed by Schwartz and contextualizes them within a work context.

The questionnaire utilized in the present research, the WVQ also reflects the value typology identified by Schwartz. In particular, the current work will present the adaptation and validation of an *ad hoc* instrument, developed from Shalom Schwartz's taxonomy and proposed to measure work-related values.

According on theories discussed above, values may have context-specific contents and priorities, but they tend to maintain coherent relationships among themselves.

This research aims: 1) to set up an inventory for the study of values in work contexts, the *Work Values Questionnaire*, based on a general value structure, proposed by Schwartz and his colleagues (Schwartz & Bilsky, 1990; Sagiv & Schwartz, 1995); 2) to verify if, even changing the context and the relative importance of each value, the overall structure is similar and, then, generalizable to a work context.

THE WVQ – WORK VALUES QUESTIONNAIRE

Methodology for the construction of the WVQ

The WVQ, an inventory for the study of work values, was con-

structed *ex novo* but originates from the value structure proposed by Schwartz and his colleagues (Sagiv & Schwartz, 1995; Schwartz & Bilsky, 1990), which identifies ten universal values. These value dimensions – which have been widely found to be both an important guide of individuals' actions and a reference criteria for defining preferences and priorities – are considered basic requisites of human existence. Cross-cultural research has also verified the values' generalizability within diverse local and national cultures (Schwartz, 1992; Schwartz & Sagiv, 1995). The instrument presented in this research applies Schwartz's ten values to organizational contexts, thus defining a potential map of work values which guide individuals in defining objectives and in making choices regarding their work-related activities. Indeed, the values function by differentiating individual motivations in so much as the adhesion (or level of importance attributed to) a value defines precise goals and, consequently, determines individuals' actions.

Items were created to reflect example situations in typical everyday work contexts and were constructed to be concrete⁶. The scale is composed of ten dimensions taken from Schwartz's typology of universal values and contextualized by the present authors in a work context: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security. In the following pages, the parameters and content of each dimension are described, modifying

the general definitions proposed by Sagiv and Schwartz (1995) to more adequately reflect an organizational context:

1. *POW – Power*: adhesion to this value involves placing importance on one's social status and on the attainment of a prestigious or authoritative position, interest in increasing one's influence or in the ability to control other members of the organization and the acquisition of resources.
2. *ACH – Achievement*: adhesion to this value implies interest in obtaining personal success and growth and the demonstration of one's competence in accordance with cultural and contextual standards (e.g., capacity, experience, ambition).
3. *HED – Hedonism*: this value places importance on aspects of gratification, satisfaction, entertainment, and pleasantness which are possible within one's work life and ensuring that one's work does not interfere with one's private or leisure time.
4. *STI – Stimulation*: this value emphasizes the importance of challenge, novelty, curiosity, exploration all of which makes one's work life exciting and generates new sources of interest.
5. *SDI – Self-direction*: this value attributes importance to the possibility that, while at work, individuals may openly express themselves, engage in autonomous thinking, make independent choices, utilize one's creativity and fully use and demonstrate one's intelligence.

6. It should be noted that some value typologies, while conserving a theoretical basis, may assume a meaning which differs from that initially proposed by Schwartz during the "contextualization" process. For example, items referring to the *universalism* dimension reflect actual and specific relationships with work colleagues and only implicitly refer to universalistic values which regulate relationships with "others" (humanity in general). Similarly, items regarding the *security* value refer to typical security problems and concepts found in the work place, which are obviously different from those potentially found in society at large.

6. *UNI – Universalism*: adhesion to this value determines the importance of assuming a tolerant, understanding, appreciative and protective position towards others (organizational colleagues and more generally, individuals one meets).
7. *BEN – Benevolence*: adhesion to this value type reflects the importance of actively committing to favoring the well-being of all those one comes into contact with during one's professional activities, thus demonstrating oneself as honest, sincere, open to helping and responsible.
8. *TRA – Tradition*: this value considers as central the contextual habits and customs, adhesion to ways of thinking and consolidating commitment to preserving cultural tradition.
9. *CON – Conformity*: this value involves the adhesion to rules, expectations and social pressure, thus demonstrating self-discipline and "loyalty" to elders' suggestions but also restricting one's network of actions and/or conditioning one's choices, inclinations, impulses and desires.
10. *SEC – Security*: adhesion to this value refers to the importance of preserving order, stability, harmony and security within the physical environment, work-related relationships, and professional activities.

The questionnaire items are brief statements which reveal diverse aspects of each value type (3 items per dimension, for a total of 30 items⁷) and describe a work situation considered important by a hypothetical person (e.g., "*for him/her it is important... to be loyal to work colleagues*").

Participants are asked to evaluate the extent to which they view themselves as similar to the person in the item on a 5-point Likert scale (from 1 = "Not at all like me" to 5 = "Very much like me").

Procedure and sample description

The questionnaire, which begins with a section gathering socio-demographic data, was administered to 1834 participants, ranging in age from 20 to 65 (48% males). With respect to participants' level of education, more than half of the younger sample declared having a high school diploma (57.6%) and approximately a quarter had a university degree (23.4%). In terms of professional activities, the majority of the young adult group were employed students (79.1%) while 20.3% reported being employed. The remaining 0.6% did not respond to the item. Of the older adult sample, 35.2% were non-administrative employees, 23.6% freelance professionals, 11.7% managers and/or directors, 10.6% unskilled laborers, 6% business owners, 3.9% craftsmen, 0.2% farmers, and 7.9% reported "other". The remaining 1.3% did not respond to the question.

Presented below are three aims of the current study, including specific research methodologies. The first objective involves the validation of the WVQ and the verification of its dimensionality and internal consistency using the following techniques: Exploratory Factor Analysis using Principal Axis Factoring (PAF); Confirmatory Factor Analysis (CFA); analysis of the scale reliability (Cronbach's alpha). The second aim regards the com-

parison of the results obtained with respect to workplace values and those which emerged within Schwartz's model of universal values (Schwartz, 1992). In order to test the circular arrangement of the work values, Smallest Space Analysis (SSA, Guttman, 1968) was used. This analysis represents a specific type of non-metric multidimensional scaling which allows the graphical representation of the correlations among the variables, each of which is represented as a point within the Euclidean space. Finally, the third aim proposes to verify the subjective perceptions of the importance of work values in relation to the participants' socio-demographic characteristics. To this aim, ANOVAs were conducted to analyze average group differences.

RESULTS

Work Values Questionnaire dimensionality and internal consistency

Descriptive statistics

The mean score of the five-point scale Likert items used to assess WVQ ranged from 2.12 to 4.16 ($M = 3.34$, $DS = 0.65$) (see table 1). None of the items have absolute skewness greater than 1. Although the distribution was slightly skewed for some items, most of the scores revealed a reasonably normal distribution.

Exploratory Factor Analysis. In order to examine the dimensionality of the scale, an exploratory factor analysis using Principal Axis Factoring with Promax rotation was conducted through the SPSS software. The scree test suggests a six-factor structure (45.99% of variance). Each

7. Items of the final version of the instrument were selected from a larger set of 60 items on the basis of conceptual criteria and on the results of a pretest trial.

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Table 1*WVQ – Work Values Questionnaire: Item means and standard deviations*

<i>Item</i>	<i>Mean</i>	<i>Standard deviation</i>
To assume a leadership position and have decision-making authority	2.74	1.18
To be the person in charge and tell others what to do	2.53	1.16
Get ahead in the working world and succeed more than others	2.91	1.13
To have ambition and be career oriented	3.27	1.22
To organize others' work	2.59	1.13
To be successful at work	3.51	1.11
To be attentive to colleagues' needs and emotional states	3.60	.94
To respect colleagues' work and make an effort to understand their point of view even if he/she does not share it	3.58	.97
To dedicate attention to and listen to colleagues he/she does not esteem very much	3.03	1.02
To be available when colleagues require his/her help	4.06	.85
To be open to forgiving a colleague who behaved incorrectly towards him/her	3.30	1.02
To be loyal to colleagues	4.16	.83
To do things in a traditional manner and use the customs learned	2.75	.95
To respect customs, rather than express his/her ideas	2.30	.97
To avoid expressing one's ideas if his/her boss or colleagues might criticize them	2.12	1.00
To adapt oneself to organizational requests, even if they go against his/her principals	2.35	1.01
Do not contradict his/her head or older colleagues	2.49	.95
To work while remaining loyal to traditions and without adhering to continuous changes	2.60	1.05
To have stimulating work activities even if unexpected organizational changes are involved	3.72	.98
To know how to manage repetitive changes at work	3.75	.89
To be interested in his/her work, be curious and attempt to more deeply understand every situation	4.12	.86
To learn different aspects of his/her work and acquire new competences	4.06	.86
To propose new ideas and express one's creativity within the workplace	3.85	.94
To seek out challenging objectives at work	3.34	1.07
To select a job which consents one to enjoy him/herself and life	3.61	1.08
To have a job which is fun and makes him/her feel good	4.01	.91
To find pleasant and entertaining occasions within the workplace	3.86	.98
To have a guaranteed and stable work position	3.93	.96
To work for an organization where employees' rights are protected	4.02	.97
To know that on the job site, safety norms and regulations concerning the prevention of accidents are respected	3.97	.99

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factor includes similar items corresponding to the same or adjacent value dimensions from Schwartz's model. (see Table 2). Within the first factor all POW and ACH items come together; the second factor includes the BEN and UNI items; the third factor is made up of CON and TRA items; the fourth factor includes STI and SDI items; the fifth factor is composed of the HED items; finally, the sixth factor includes the SEC items. These

six value dimensions appear to be internally consistent, given their Cronbach's alpha value (alpha were all $>.70$, except for the one involving security; see Table 2). Below, each value dimension will be briefly described.

The first factor brings together the six items which refer to the power and achievement dimensions. Their content reflects both the centrality and affirmation of the self in work contexts in a relational sense (for example,

exercising influence over other members of the organization and assuming a leadership position) or refers to internal parameters of success and professional recognition (for example, striving towards a particular career path and the attainment of positions of excellence). Similar to Schwartz's general value typology, this dimension represents a work value that may be synthetically described as *self-enhancement*.

Table 2

Factorial structure of the WVQ-Work Values Questionnaire including the loadings of the 30 items (Principal Axis Factoring, Promax rotation)

<i>Num.</i>	<i>Item</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>F4</i>	<i>F5</i>	<i>F6</i>
<i>Item 15</i>	POW To assume a leadership position and have decision-making authority	.850	.024	-.080	-.043	-.053	.006
<i>Item 12</i>	POW To be the head and tell others what to do	.850	.006	.011	-.092	-.047	-.013
<i>Item 3</i>	ACH Get ahead in the working world and succeed more than others	.697	-.041	.066	-.006	.026	.031
<i>Item 11</i>	ACH To have ambition and be career oriented	.665	-.124	.027	.137	.013	.078
<i>Item 4</i>	POW To organize others' work	.614	.253	-.005	-.059	-.066	-.102
<i>Item 22</i>	ACH To be successful at work	.587	-.141	.013	.127	.158	.119
<i>Item 9</i>	BEN To be attentive to colleagues' needs and emotional states	.060	.756	-.010	-.105	.083	-.023
<i>Item 13</i>	UNI To dedicate attention to and listen to colleagues he/she does not esteem very much	.079	.604	.162	.060	-.048	-.097
<i>Item 5</i>	UNI To respect colleagues' work and make an effort to understand their point of view even if he/she does not share it	-.017	.599	-.026	.031	-.055	.055
<i>Item 6</i>	BEN To be available when colleagues require his/her help	.008	.546	-.067	.032	.015	.163
<i>Item 25</i>	UNI To be open to forgiving a colleague who behaved incorrectly towards him/her	-.111	.541	.168	.139	.060	-.130
<i>Item 1</i>	BEN To be loyal to colleagues	-.025	.524	-.083	-.026	.018	.207
<i>Item 7</i>	TRA To respect customs, rather than express his/her ideas	-.100	-.018	.666	-.005	.018	-.014

(table continues)

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Table 2 (continued)

<i>Num.</i>	<i>Item</i>	<i>F1</i>	<i>F2</i>	<i>F3</i>	<i>F4</i>	<i>F5</i>	<i>F6</i>
<i>Item 19</i>	TRA To do things in a traditional manner and use the customs learned	-.025	.055	.644	-.012	.019	.117
<i>Item 26</i>	CON To avoid expressing one's ideas if his/her head or colleagues might criticize them	.002	-.075	.641	-.038	.046	-.023
<i>Item 20</i>	CON To adapt oneself to organizational requests, even if they go against his/her principals	.076	-.006	.619	.066	-.010	-.038
<i>Item 14</i>	CON Do not contradict his/her head or older colleagues	.043	.072	.577	-.020	-.071	.090
<i>Item 10</i>	TRA To work while remaining loyal to traditions and without adhering to continuous changes	.032	.117	.499	-.013	-.009	.002
<i>Item 29</i>	STI To have stimulating work activities even if unexpected organizational changes are involved	-.035	-.017	.066	.734	.030	-.095
<i>Item 30</i>	SDI To be interested in his/her work, curious and attempt to more deeply understand every situation	-.041	.038	-.039	.685	-.020	.058
<i>Item 17</i>	STI To know how to manage repetitive changes at work	-.004	-.009	.027	.679	-.089	.070
<i>Item 18</i>	SDI To learn different aspects of his/her work and acquire new competences	-.051	.063	-.039	.653	-.098	.173
<i>Item 24</i>	SDI To propose new ideas and express one's creativity within the workplace	.084	.061	-.109	.571	.141	-.069
<i>Item 23</i>	STI To seek out challenging objectives at work	.260	.052	.004	.530	.026	-.162
<i>Item 27</i>	HED To select a job which consents one to enjoy him/herself and life	.012	-.072	.058	-.092	.761	.038
<i>Item 21</i>	HED To have a job which is fun and makes him/her feel good	-.094	.010	-.003	.093	.723	.040
<i>Item 2</i>	HED To find pleasant and entertaining occasions within the workplace	.056	.179	-.081	-.033	.572	-.053
<i>Item 16</i>	SEC To have a guaranteed and stable work position	.114	-.091	.129	-.062	.043	.658
<i>Item 8</i>	SEC To work for an organization wherein employees' rights are protected	-.008	.141	-.080	-.035	.018	.645
<i>Item 28</i>	SEC To know that on the job site, safety norms and regulations concerning the prevention of accidents are respected	-.059	.062	.053	.114	-.028	.581
<i>Cronbach's alpha</i>		.86	.78	.77	.83	.74	.69

The second factor includes the six benevolence and universalism items. These factors reflect

values oriented towards the collective and thus, highlights the external world in terms of focus-

ing on both "close" relationships (e.g., with colleagues) and the general principals that regulate

relationships with "others" in a general sense. Once again, similar to Schwartz's value structure, this dimension reflects a work value that may be labeled *self-transcendence*.

The third factor is composed of the six items which refer to both tradition and conformity values. These values reflect stability, acquiescence and respect for what is "given" to you. Similar to Schwartz's general value typology, this work value may be described as *conservation*.

The fourth factor groups together the six items related to self-direction and stimulation values. These items reflect an orientation towards change, an openness to putting oneself in play in new work situations and developments, and an ability to tolerate the unexpected. The value defined by this factor, similar to Schwartz's typology, may be labeled *openness to change*.

The fifth factor is composed of the three items which refer to the hedonism dimension (as described above) and, on their own, define the value of *hedonism*.

Finally, the sixth factor includes the three items regarding work-

place safety and defines the *security* value.

Table 3 presents the correlations among the six factors. The higher correlations are those involving *openness to change* (the fourth factor) with both *self-transcendence* (second factor), and *hedonism* (fifth factor).

Confirmatory Factor Analysis. In order to test the factor structure emerged from the exploratory factor analysis under more restrictive assumptions, a confirmatory factor analysis with the EQS software (Bentler, 2003) was conducted. To test the adequacy and appropriateness of the model, the following extensively used indices were examined: the chi-square test; the Comparative Fit Index (CFI); the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean-Square Residual (SRMSR).

The hypothesized model (Figure 1) includes the six oblique factors which emerged from the exploratory factor analysis. The goodness of fit indices of the posited model resulted in an acceptable range: $\chi^2 (390) = 2867.85$, $p < .001$; CFI = .93; RMSEA = .06 [.05, .06]; SRMSR = .06.

An investigation of the theorized circular order of values

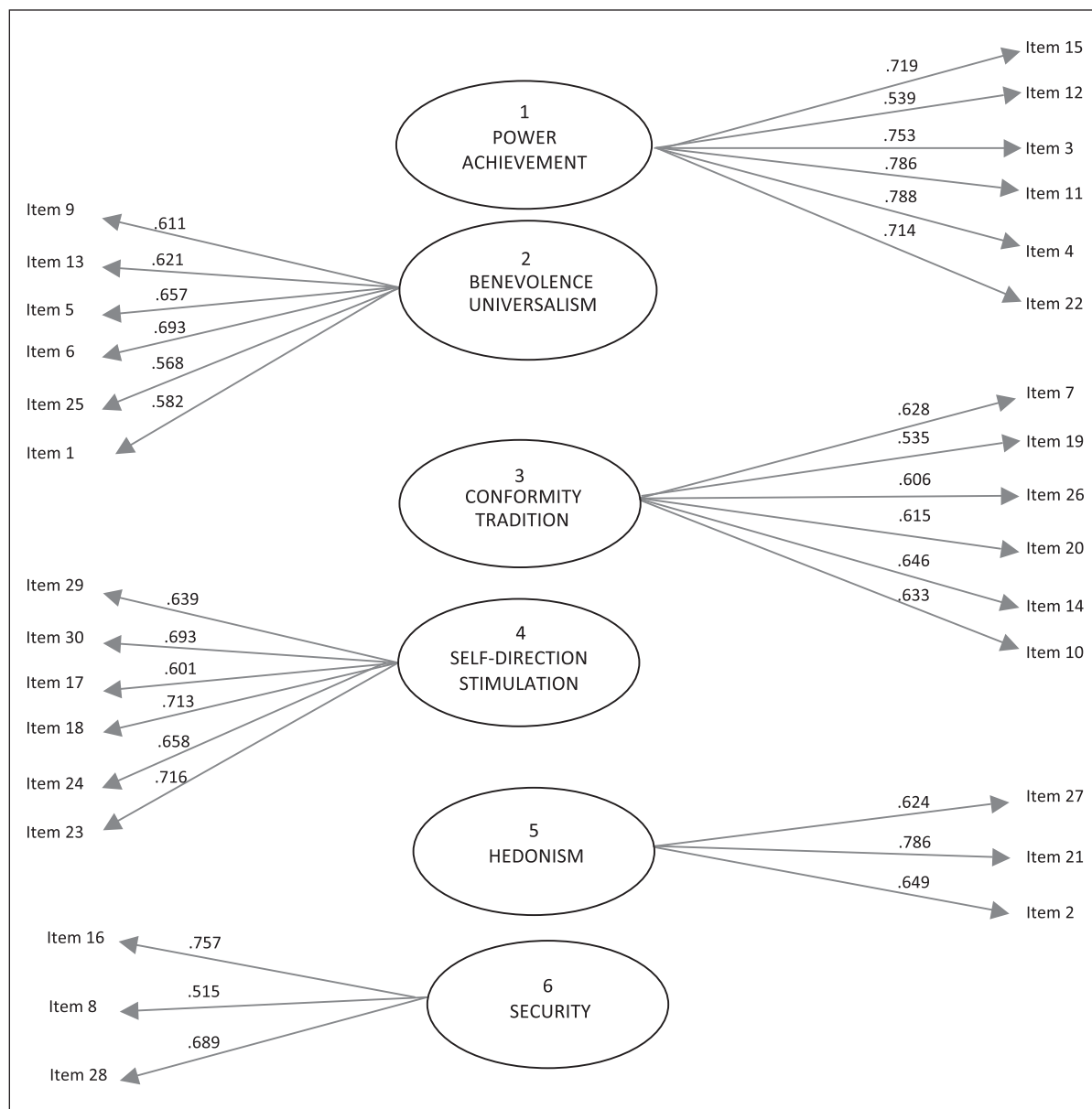
Multidimensional Scaling. In order to examine how work values are located in the space, a multidimensional scaling was performed using the HUDAP software (Reuven, 2005). A fundamental step of scaling procedures involves selecting the number of dimensions in which to represent the correlations among the variables. Analysis of the alienation coefficients (.08) suggests a three dimensional solution⁸. Figure 2 presents the results of the multidimensional scaling conducted on the 30 items of the WVQ. Items are represented using the first two dimensions, which provide the most interpretable solution. This solution allows for the identification of four main distinct regions, which correspond to *Openness to change*, *Conservation*, *Self-enhancement*, and *Self-transcendence*. The content of these dimensions as well as their reciprocal relations appear to be coherent with the value structure model outlined by Schwartz, and represented in Figure 3. Only three items (8, 16 and 28)

Table 3
Correlation matrix for the six factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Factor 1	–					
Factor 2	–.061	–				
Factor 3	.188	.065	–			
Factor 4	.363	.527	–.270	–		
Factor 5	.275	.212	–.128	.473	–	
Factor 6	.073	.394	–.031	.379	.337	–

8. The alienation coefficient indicates the level of correspondence between the correlation coefficients, the observed variables, and the distance between points in the Euclidean space (Borg & Lingoes, 1987). The lower the coefficient, the better the model's fit. Although a universally recognized cut-off criterion does not exist, the coefficient may be considered acceptable if it is smaller or equal to .15 (Guttman, 1968).

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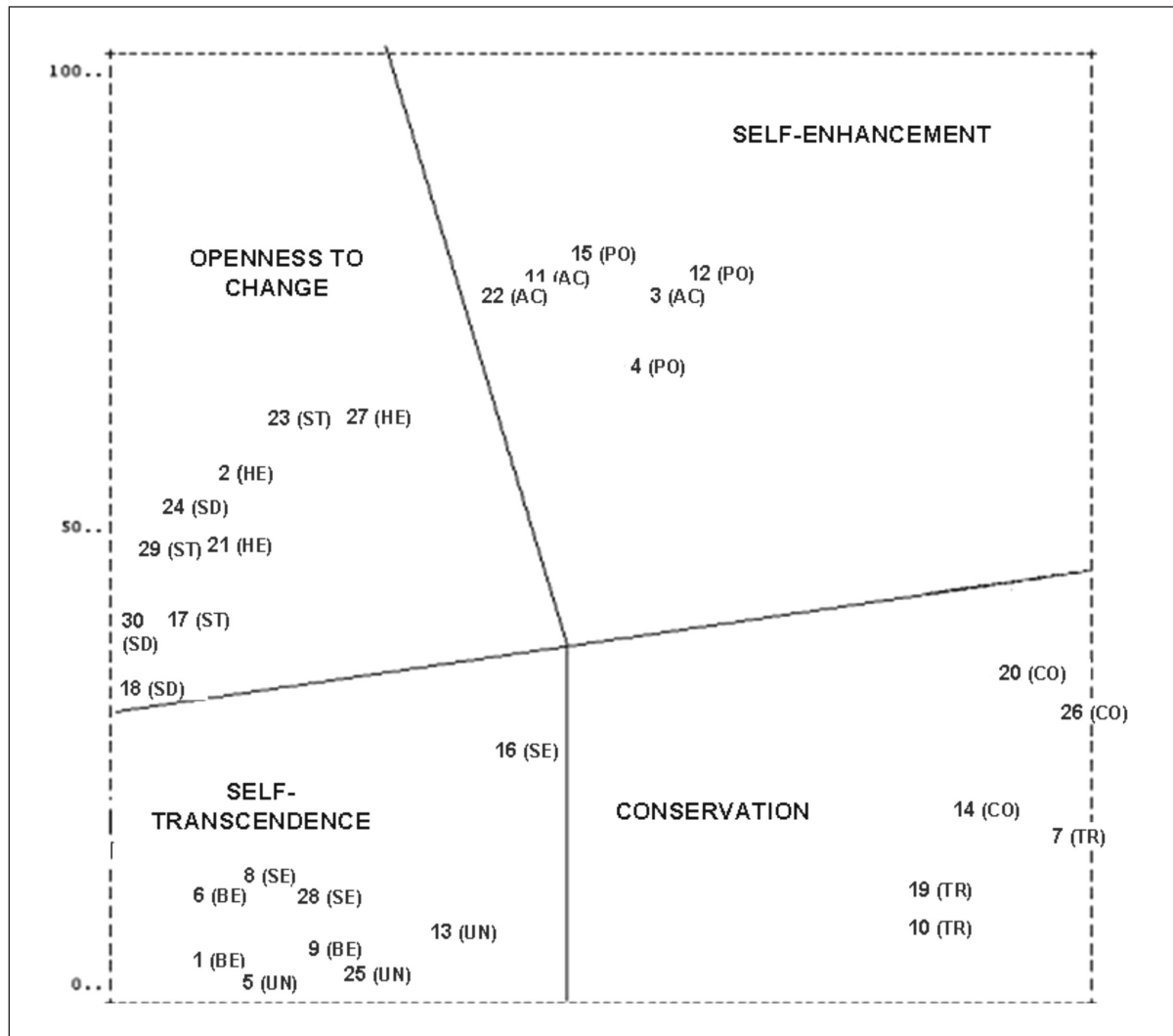
Figure 1*Confirmatory factor analysis of the WVQ*

from security values have an inadequate positioning, being located in the self-transcendence region. This may be due to the fact that some aspects of the security items refer to protecting the rights of all workers. Given that in the present research the

security dimension occupied a different position than that suggested by the theoretical reference model, further examination of this value is required in order to know whether it assumes a specific meaning when applied to work contexts.

The importance attributed to work values and their relation with socio-demographic variables

Relative importance. Given the sample examined in the present research, it is possible to make

Figure 2*Multidimensional Scaling of the 30 items from the Work Values Questionnaire*

mean comparisons between each of the six factors emerged from the factor analysis (Table 2). Overall, higher importance is attributed to three work values: *security* ($M = 3.97$), *hedonism* ($M = 3.83$) and *openness to change* ($M = 3.81$), followed by *self-transcendence* ($M = 3.62$). In contrast, relatively low importance is given to both *self-enhancement* ($M = 2.93$) and *conservation* ($M = 2.43$).

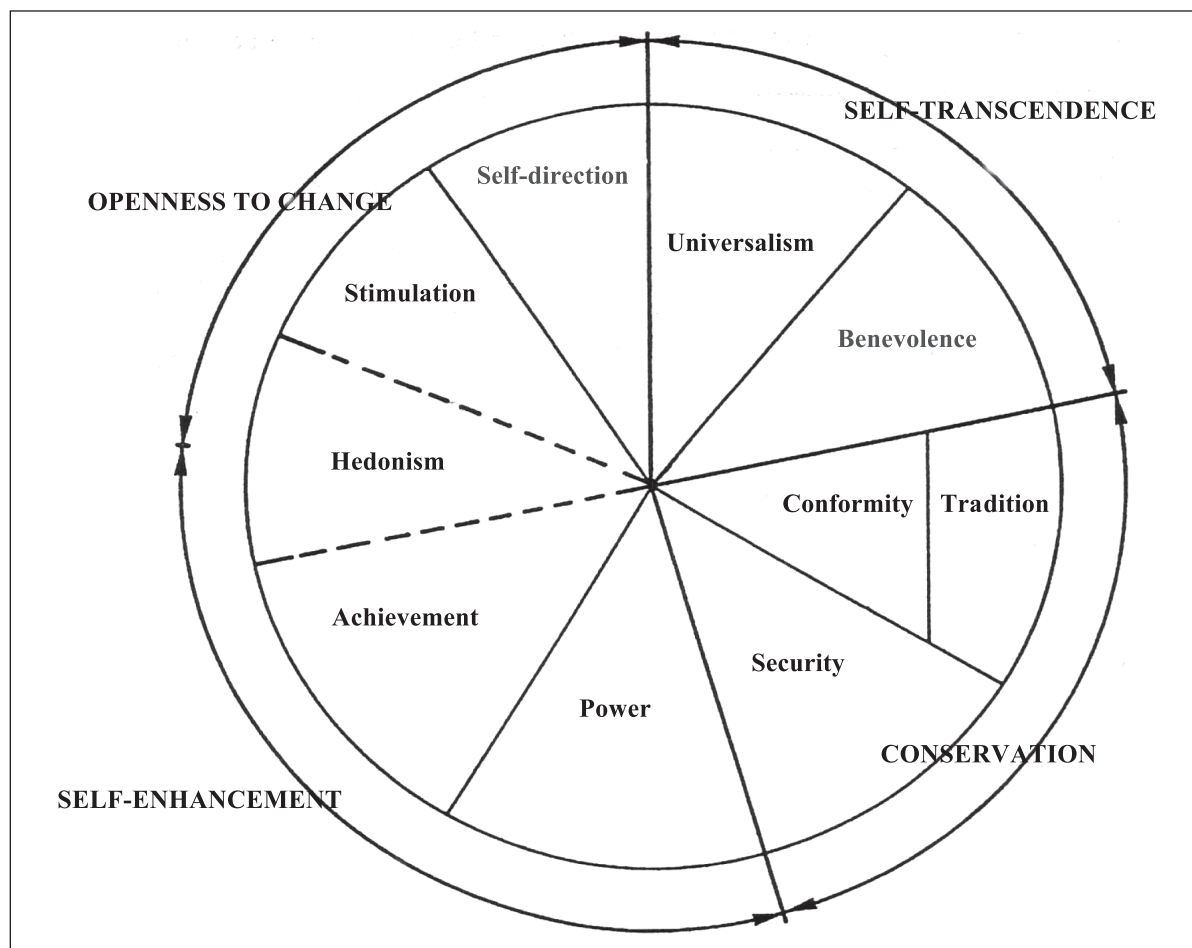
Group sample differences. To analyze average group differences, ANOVAs were conducted with SPSS software. Group differences within the sample, resulted in some significant findings. In particular, significant differences in age, gender and educational level were found (Table 4). When considering age, young adults are more likely to consider *self-enhancement* and *hedonism* work values as more important than

older adults, who place more importance on *self-transcendence* and *conservation* values. In terms of gender differences, females report *self-transcendence* and *security* values as being more relevant to their own work, while males indicated *self-enhancement* as being most important.

With respect to educational level, significant differences were found on *conservation* and *openness to change* values. The first

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Figure 3
Prototypical structure of value systems (Schwartz, 1992)



values is considered more important by participants with a lower level of education (i.e., middle school) in comparison to those with a high school diploma or university degree. In contrast, the openness to change value is considered less important to participants with lower educational attainment than it is to individuals with a medium-high level of education (professional/technical training, high school diploma, university degree). It is interesting to note that all participants rated the importance of security and self-enhancement work values as similar.

CONCLUSIONS

The findings of the present research demonstrated that the *WVQ – Work Values Questionnaire* may be considered a valid and reliable instrument. Indeed, present results confirmed the internal consistency of the measure. From a conceptual point of view, they supported the theoretical structure of values, demonstrating the construct validity of the *WVQ*. Moreover, they confirmed the appropriateness of applying the content of the ten value types to work contexts.

The outcomes of the present work also supported the general structure proposed by Sagiv and Schwartz (1995), according to which values may be organized in different areas according to their conflicts and compatibilities. Although the inventory is based on a theoretically founded model, tested in many studies and in different countries, future research should examine its construct validity comparing results from general and work values, or using similar questionnaires.

Overall, these findings provided a comprehensive framework of

Table 4
ANOVA analyses: Age, gender, and education differences

Factor 1 Self- enhancement	Factor 2 Self-transcendence	Factor 3 Conservation	Factor 4 Openness to change	Factor 5 Hedonism	Factor 6 Security
AGE					
F = 13.86 p = .000 **	F = 19.94 p = .000 **	F = 31.12 p = .000 **	F = 7.18 p = .007 *	F = 30.66 p = .000 **	F = .000 p = .990 n.s.
younger M = 2.99 older M = 2.82	younger M = 3.57 Older M = 3.72	younger M = 2.36 older M = 2.55	younger M = 3.84 older M = 3.75	younger M = 3.90 older M = 3.68	younger M = 3.97 older M = 3.97
GENDER					
F = 29.89 P = .000 **	F = 34.82 p = .000 **	F = .95 p = .329 n.s.	F = 5.63 p = .018 *	F = .36 p = .547 n.s.	F = 32.44 p = .000 **
Males M = 3.05 females M = 2.82	Males M = 3.53 females M = 3.71	males M = 2.44 females M = 2.41	males M = 3.77 females M = 3.85	males M = 3.84 females M = 3.82	males M = 3.87 females M = 4.07
EDUCATIONAL LEVEL					
F = 1.77 P = .131 n.s.	F = 4.41 p = .001 *	F = 10.13 p = .000 **	F = 19.70 p = .000 **	F = 4.21 p = .002 *	F = .07 p = .989 n.s.
Middle m = 2.79 tech. m = 2.91 high sch m = 2.96 degree m = 2.91	Middle M = 3.46 tech. M = 3.62 high sch M = 3.63 degree M = 3.69	Middle M = 2.67 tech. M = 2.48 high sch M = 2.40 degree M = 2.34	Middle M = 3.42 tech. M = 3.73 high sch M = 3.84 degree M = 3.92	Middle M = 3.66 tech. M = 3.81 high sch M = 3.89 degree M = 3.77	Middle M = 3.97 tech. M = 3.99 high sch M = 3.98 degree M = 3.97

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how participants (from a broad sample, although not entirely representative of the Italian population) considered values related to their professional lives. In an ideal sense, the higher importance was given to *security* and *hedonism* values within the workplace. A similar although lower level of importance is attributed to the *openness to change* dimension. Less important are considered *self-transcendence*, *self-enhancement* and *conservation* dimensions. Consequently, work-related motivations appear to be supported by physical and emotional well-being and by the opportunity of personal development.

The importance attributed to values also significantly differed in terms of socio-demographic characteristics, such as gender, age and educational level. In particular, males tend to demonstrate greater "self-centeredness" in terms of work values (*self-enhancement*), while females place more importance on the relational context and on professional development (*self-transcendence*). Moreover, younger adults reported a greater emphasis on *self-enhancement* and *hedonism* values, while older adults consider *self-transcendence* and *conservation* values as most important.

Further research is needed in order to verify the extent to which this finding depends from the different temporal perspectives of the two age groups (younger participants presumably have their future still ahead of them, invest more energy, expectations and hopes on the their work). One should also consider the possibility that results were affected by recent changes in the workplace, which make difficult to view one's work as stable (a source of security), and as a basis for the construction of one's social identity. Moreover, it could be interesting studying

specific organizational contexts, differing for structure, type or cultural models.

In conclusion, the WVQ – *Work Values Questionnaire* may be considered a useful instrument for exploring and understanding the world of values within a specific arena, the workplace (i.e. gaining knowledge of a specific social or organizational reality) and gathering knowledge of oneself with respect to work-related values and future work preferences. Finally, the questionnaire may provide a useful framework to address the dynamic analysis of the relationships constructed through the process of work socialization or organizational culture.

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SUMMARY. Introduction: The present article stems from an analysis of the research contributions in the existing literature related to the study of work values and presents the adaptation and validation of the Work Values Questionnaire (WVQ), an instrument for measurement of work values which derives from Shalom Schwartz's taxonomy. **Methods:** Participants were 1834 subjects, ranging in age from 20 to 65 years (48% males). **Results:** Exploratory and confirmatory factor analysis revealed a six factor structure. Multidimensional scaling allows for the identification of four broad regions: *Openness to change*, *Conservation*, *Self-enhancement*, and *Self-transcendence*, that appear to be coherent with the

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structure outlined by Schwartz. Analysis of variance showed some significant differences with respect to gender and educational level.

Conclusions: Implications of results and potential applications of the instrument are presented and discussed.

Keywords: *Work Values Questionnaire*

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