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General self-efficacy in various domains of human functioning: Evidence from five countries

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Based on social-cognitive theory (Bandura, 1997), this paper examined whether perceived self-efficacy is a universal psychological construct that accounts for variance within various domains of human functioning. Perceived self-efficacy is not only of a task-specific nature, but it can also be identified at a more general level of functioning. General self-efficacy (GSE) is the belief in one's competence to tackle novel tasks and to cope with adversity in a broad range of stressful or challenging encounters, as opposed to *specific* self-efficacy, which is constrained to a particular task at hand. The study aimed at exploring the relations between GSE and a variety of other psychological constructs across several countries. Relations between general self-efficacy and personality, well-being, stress appraisals, social relations, and achievements were examined among 8796 participants from Costa Rica, Germany, Poland, Turkey, and the USA. Across countries, the findings provide evidence for associations between perceived general self-efficacy and the selected variables. The highest positive associations were with optimism, self-regulation, and self-esteem, whereas the highest negative associations emerged with depression and anxiety. Academic performance is also associated with self-efficacy as hypothesized. The replication across languages or cultures adds significance to these findings. The relations between self-efficacy and other personality measures remained stable across cultures and samples. Thus, perceived general self-efficacy appears to be a universal construct that yields meaningful relations with other psychological constructs.

Se basant sur la théorie sociale-cognitive (Bandura, 1997), l'efficacité de soi perçue fut examinée comme un construit psychologique universel contribuant à la variance dans divers domaines du fonctionnement humain. L'efficacité de soi perçue n'est pas seulement reliée à une tâche de nature spécifique, mais elle peut aussi être identifiée comme un niveau de fonctionnement plus général. L'efficacité de soi générale est la croyance qu'une personne possède la compétence pour faire face aux tâches nouvelles et pour gérer l'adversité dans un large éventail d'événements représentant un stress ou un défi, à l'opposé de l'efficacité de soi *spécifique* qui est restreinte à une tâche particulière. Cette étude visait à explorer les relations entre l'efficacité de soi générale et une variété d'autres construits psychologiques à travers les pays. Les relations entre l'efficacité de soi générale et la personnalité, le bien-être, l'évaluation du stress, les relations sociales et les accomplissements furent examinées parmi 8,796 participants du Costa Rica, de l'Allemagne, de la Pologne, de la Turquie et des États-Unis. À travers ces pays, les résultats fournissent des évidences d'associations entre l'efficacité de soi générale et les variables sélectionnées. Les plus fortes associations positives furent avec l'optimisme, l'autorégulation et l'estime de soi, tandis que les plus fortes associations négatives ont émergé avec la dépression et l'anxiété. Tel qu'attendu, la performance académique fut également associée avec l'efficacité de soi. La reproduction à travers les langues et les cultures ajoute une valeur à ces résultats. Les relations entre l'efficacité de soi et les autres mesures de personnalité demeurent stables à travers les cultures et les échantillons. Ainsi, l'efficacité de soi générale

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apparaît être un construit universel qui produit des relations convaincantes avec les autres construits psychologiques.

Con base en la teoría social-cognitiva (Bandura, 1997), se exploró si la auto-eficacia percibida es un constructo psicológico universal que explica la varianza dentro de diversos dominios del funcionamiento humano. La naturaleza de la auto-eficacia percibida no sólo es específica de la tarea, sino que puede identificarse en un nivel más general de funcionamiento. La auto-eficacia general (AEG) es la creencia en la competencia propia para resolver tareas nuevas y afrontar la adversidad en un amplio espectro de situaciones estresoras y desafiantes, en contraste con la auto-eficacia específica que se restringe a una tarea particular dada. El estudio se propuso explorar las relaciones entre la AEG y una variedad de constructos psicológicos entre países. Se examinaron las relaciones entre la auto-eficacia general y la personalidad, el bienestar, la evaluación del estrés, las relaciones sociales, y el desempeño entre 8,796 participantes de Costa Rica, Alemania, Polonia, Turquía, y los Estados Unidos. De un país a otro, los hallazgos sugieren asociaciones entre la auto-eficacia general percibida y las variables seleccionadas. Las asociaciones positivas más fuertes fueron el optimismo, la autorregulación y la autoestima, en tanto que las asociaciones negativas más altas se dieron con la depresión y la ansiedad. Tal como se hipotetizó, el desempeño académico también se asocia con la auto-eficacia. La réplica a través de idiomas y culturas añade importancia a estos hallazgos. Las relaciones entre auto-eficacia y otras medidas de personalidad permanecen estables entre culturas y muestras. Por lo tanto, la auto-eficacia general percibida parece ser un constructo universal que se relaciona con significado a otros constructos psicológicos.

INTRODUCTION

The construct of perceived self-efficacy

Perceived self-efficacy is the belief in one's competence to tackle difficult or novel tasks and to cope with adversity in specific demanding situations. Self-efficacy makes a difference to how people feel, think, and act (cf. Bandura, 1997, for a review of the evidence). People with high self-efficacy choose to perform more challenging tasks. They set themselves higher goals and stick to them. Actions are preshaped in thought, and once an action has been taken, highly self-efficacious people invest more effort and persist longer than those low in self-efficacy. When setbacks occur, they recover more quickly and remain committed to their goals. High self-efficacy also allows people to select challenging settings and explore their environment or create new ones. Thus, it represents a belief in one's competence in dealing with all kinds of demands. This implies an internal-stable attribution of successful action and a prospective view. These characteristics make it a unique theoretical construct different from related ones such as self-esteem, locus of control, or self-concept of ability. Self-esteem has an emotional connotation (''I feel that I have a good character'' or ''I am proud of myself''). Locus of control refers to an attribution of responsibility for outcomes (internal agency versus external causation), and self-concept of ability pertains to a judgment of one's competence (''I am good at math'') without reference to any subsequent action. Only self-efficacy (''I am certain that I can quit smoking even if my partner continues to smoke'') is of a *prospective* and *operative* nature, which furnishes this construct with additional explanatory and predictive power in a variety of research applications. In sum, perceived self-efficacy can be characterized mainly as being competence-based, prospective, and action-related, as opposed to similar constructs that share only part of this portrayal (Bandura, 1997, 1999).

Self-efficacy is commonly understood as being task-specific or domain-specific. But some researchers have also conceptualized a generalized sense of self-efficacy that refers to a global confidence in one's coping ability across a wide range of demanding or novel situations (Schwarzer & Jerusalem, 1995; Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982). General self-efficacy (GSE) aims at a broad and stable sense of personal competence to deal effectively with a variety of stressful situations. It might reflect a generalization across various domains of functioning in which people judge how efficacious they are. The present authors agree with Bandura (1997) that, for the majority of applications, perceived self-efficacy should be conceptualized in a situation-specific manner. However, GSE may explain a broader range of human behaviours and coping outcomes when the context is less specific.

In the following section, variables that are hypothesized to be conceptually related to self-efficacy are described. In the subsequent Method section, operationalizations for these variables that were employed in the present research are provided.

Self-efficacy and related constructs

The present study aims to explore the relations between GSE and a variety of other psychological constructs. Therefore, it is described here why and how certain variables should be related to GSE. According to social-cognitive theory, people are considered to be self-organizing, self-reflective, self-regulative, and to make judgments about themselves based on their own activity. Moreover, self-efficacy beliefs influence personal motivational processes, affect, and behaviours, and they should be related to certain personality characteristics as well as to stress perception, life satisfaction, and achievements throughout different areas of functioning (Bandura, 1997).

Self-efficacy and personality. Persons with low self-efficacy have low *self-esteem* and harbour pessimistic thoughts about their accomplishments and personal development (Bandura, 1997). Self-esteem refers to a conviction about one's worth, whereas self-efficacy pertains to judgments of personal ability to act (Bandura, 1997). Individuals with high self-esteem should have high self-efficacy, since they undertake more challenging goals than those with low self-esteem (Bandura, 1997). Self-regulation among persons with high self-esteem works more efficiently because the belief in potential capabilities enables individuals to achieve ambitious goals.

Similar to self-efficacy, *optimism* is theorized to influence human behaviour through its effect on goal striving and motivation. As a disposition, it is expected that optimism has relevance across diverse situations. Optimism is a generalized expectancy regarding future outcomes (cf. Scheier, Carver, & Bridges, 1994). Optimists, who hold positive expectancies for their future, should also harbour optimistic beliefs about their own ability to accomplish various goals. The pursuit lasts as long as optimistic beliefs about possible success (that is, self-efficacy) are sufficiently favourable (cf. Scheier et al., 1994).

Future orientation is defined as a general preoccupation with the future or future events, and the ability to plan for the future (Strathman, Gleicher, Boninger, & Edwards, 1994). Persons with high future orientation are characterized as pursuing their goals and engaging in daily planning of their activities, and preferring a problem-solving approach (cf. Strathman et al., 1994). Those who are highly future-oriented believe in their own ability to produce a desired effect and to lead a more active and self-determined life. Therefore, they should also be more self-efficacious.

Self-efficacy describes individuals' beliefs in their capabilities to exercise control over challenging demands and over their own functioning. In contrast, *self-regulation* refers to any effort by an individual to alter his or her own responses, overriding impulses, and substituting them with another response that leads the person's behaviour towards a selected aim (cf. Luszczynska, Diehl, Gutiérrez-Doña, Kuusinen, & Schwarzer, 2004a). Thus, persons with high self-regulation are expected to be highly self-efficacious.

Social comparison orientation is a tendency to compare oneself with others in different areas of life (Gibbons & Buunk, 1999). The tendency to make social comparisons involves uncertainty about one's own capabilities. Comparison-oriented people assess their own ability on the basis of other people's judgments, not their own beliefs about personal capabilities (Gibbons & Buunk, 1999). Therefore, it might be expected that GSE beliefs should remain either negatively related or unrelated to the tendency to make social comparisons.

Self-efficacy and stress appraisals. Self-efficacy determines the cognitive appraisal of stressful situations (Bandura, 1997). People with strong self-efficacy recognize that they are able to overcome obstacles and focus on opportunities, and, therefore, they perceive stressful situations as more challenging than those who harbour self-doubts about their ability to overcome difficulties (cf. Jerusalem & Schwarzer, 1992).

Self-efficacy and well-being. Self-efficacy is related to positive and negative emotions. One of the sources of self-efficacy is emotional arousal, that is, one may experience a low level of negative emotions in a threatening situation and, as a result, may feel capable of mastering the situation (Bandura, 1997). Self-efficacy leads to effective problem solving, followed by increase of *positive emotions*. A low sense of self-efficacy is associated with *negative emotions* and helplessness. Persons who are burdened with a belief of self-inefficacy suffer distress and negative emotions, such as anxiety and depression (cf. Bandura, 1997; Schwarzer, 1992).

Self-efficacy, achievements, and social relations. A strong sense of competence facilitates information processing and performance in a variety of settings, including quality of decision-making and *academic achievement* (Bandura, 1997). Those who are high in self-efficacy are more successful in

solving conceptual problems at school or at work (Bandura, 1997, 1999). Self-efficacy can enhance motivation. Involvement in different social activities as well as personal aspirations and school achievement depend on an individual's beliefs about their own capabilities. High efficacy beliefs are also related to the expansion of *satisfying social relations* that bring about life satisfaction to an individual (Bandura, 1997). Therefore, social quality of life and satisfaction with accomplishments should be high in self-efficacious individuals.

Associations between self-efficacy and related constructs across cultures

General self-efficacy is a universal construct, which means that it characterizes a basic belief that is inherent in all individuals. A cross-cultural commonality of beliefs about efficacy to produce effects by personal action might be expected (Bandura, 2002). Therefore, it might be assumed that associations between self-efficacy and related constructs might be similar across the cultures. These assumptions, however, have not been tested so far across countries that differ in social, economical, and cultural background.

The present study examines the hypothesized relations between GSE and the variables that have been described in the previous section. According to social-cognitive theory (Bandura, 1997), GSE should be related to selected personality or individual difference variables, negative and positive affectivity, quality of life, school or job performance, and satisfaction, as portrayed above. It was hypothesized that associations between self-efficacy and related constructs should be similar in different cultures. Countries included in the study represent three continents, and they might vary in terms of culture, in ways that reflect their differences in economic development, religion, and current and previous social and political situations. The study included economically developed countries (Germany and USA) from different regions of the world, a post-communist developing country (Poland), a developing country from Latin America (Costa Rica), and an Asian developing country (Turkey).

METHOD

Participants

The GSE scale was completed by 8796 respondents, both men (47.2%) and women, in five countries: Costa Rica (n=1865), Germany (n=5106), Poland (n=660), Turkey (n=626), and the USA (n=539). In Costa Rica and Germany, several samples in each country were collected and combined. In all cases, samples cannot be presumed to be representative for the population in each country.

In Poland, Turkey, and the USA, participants were students who were recruited in schools and who responded to the questionnaires after class. Data were collected at six high schools from the urban areas of Lublin and Warsaw in Poland, four high schools in Ames, Iowa, USA, and seven high schools in Izmir, in Turkey (cf. Luszczynska, Gibbons, Piko, & Tekozel, 2004b).

In Germany and Costa Rica, the composition of participants was more diverse. Three German samples were combined. The first sample includes East German migrants who moved to the West after the German reunification in 1989, and others who remained in East Germany (Schwarzer, Hahn, & Jerusalem, 1993). There were no substantial differences between the two groups in the variables under investigation, and therefore they were treated as one homogeneous sample. The second German sample consists of schoolteachers from various German states who participated in a project called "Self-Efficacious Schools" (Schwarzer & Jerusalem, 1999). The third German sample includes high school students from the same schools as in the second German sample. The first Costa Rican sample consists of university students (cf. Schwarzer, Bäßler, Kwiatek, Schröder, & Zhang, 1997a), and the second of factory workers employed by two international companies.

Table 1 displays the number and the mean age of participants, broken down by nation and gender.

Procedure

Respondents did not receive any compensation for their participation in the study. The questionnaires were self-administered under supervision of research team members, who were responsible for ensuring confidentiality and who responded to participants' questions.

Measures

The German version of the General Self-Efficacy (GSE) scale, developed by Jerusalem and Schwarzer in 1979, originally consisted of 20 items. In 1981, it was reduced to 10 items and subsequently adapted to 28 languages (cf.

TABLE 1
Number of participants, mean age and mean General Self-Efficacy Scale (GSES) scores broken down by country and gender

			Mean (SD) age			*Mean (SD) GSES*	
Country/sample	*n Men*	*n Women*	*Men*	*Women*	*Age range (total)*	*Men*	*Women*
Costa Rica							
Students	356	607	21.00 (6.27)	21.30 (6.85)	16–77	34.44 (4.14)	33.06 (4.58)
Workers	515	387	30.90 (7.58)	30.60 (7.13)	19–69	30.32 (4.54)	28.84 (4.84)
Germany							
East Germans	734	801	30.00 (8.70)	28.00 (9.10)	18–68	30.27 (4.37)	28.31 (4.96)
Teachers	104	209	–	–	23–65	29.24 (4.75)	29.02 (4.12)
Students	1663	1592	15.90 (1.54)	15.80 (1.67)	14–16	30.00 (3.90)	29.40 (4.01)
Poland							
Students	230	430	16.83 (16.83)	16.75 (0.97)	13–20	29.71 (4.25)	27.60 (4.81)
Turkey							
Students	300	326	16.83 (0.95)	16.67 (1.03)	14–19	32.33 (4.18)	31.92 (4.86)
USA							
Students	248	290	16.38 (1.00)	16.22 (1.12)	13–19	31.52 (4.48)	30.64 (4.45)

Schwarzer & Jerusalem, 1995). A typical item is, "Thanks to my resourcefulness, I can handle unforeseen situations." Scoring is done by adding the responses made to the 10 items. Possible responses were 1 = *not at all true*, 2 = *hardly true*, 3 = *moderately true*, and 4 = *exactly true*, yielding a total score between 10 and 40. Bilingual native speakers adapted the 10 self-efficacy items to foreign languages, based on the German and English versions of the GSE scale (cf. Scholz, Gutiérrez-Doña, Sud, & Schwarzer, 2002). The adaptations followed the "group consensus model," with several bilingual translators participating. The procedure included back translations and group discussions.

High reliability, stability, and construct validity of the GSE scale were confirmed in several studies (Leganger, Kraft, & Røysamb, 2000; Schwarzer et al., 1997a; Schwarzer & Born, 1997; Schwarzer, Born, Iwawaki, Lee, Saito, & Yue, 1997b; Schwarzer, Mueller, & Greenglass, 1999). The GSE scale appears to be configurally equivalent across 28 nations, and it corresponds to only one global dimension. The assumption of unidimensionality was supported by confirmatory factor analysis (Leganger et al., 2000; Scholz et al., 2002). The following Cronbach's alphas were obtained for the GSE scale: .85 (workers from Costa Rica), .90 (students from Costa Rica), .88 (East German migrants), .86 (German teachers), .79 (German students), .81 (Polish students), .79 (American students), .82 (Turkish students). Means and standard deviations of the scale, broken down by gender and country, are displayed in Table 1.

A set of measures to assess personality variables, positive and negative affect, quality of life, life satisfaction, stress appraisals, and social relationships/achievements, was chosen for each of the samples. Measures were selected that have an English version as well as a language version for a respective country. Only measures with good psychometric properties across the language versions were included. Names of scales, item examples, numbers of items, response format, and Cronbach's alphas for all samples are shown in Table 2. The psychometric properties of the English version, translation procedures and psychometric properties of the German, Spanish, Polish, and Turkish versions were analysed in previous studies (cf. Table 2). All measures included in the study had obtained satisfactory validity and reliability. Missing values were treated by pairwise deletion.

RESULTS

GSE and personality

According to the structural features described above, it was expected that GSE should be related to constructs described in personality theories that refer to self-regulatory beliefs. The correlation coefficients (absolute values) are shown in Figure 1. As expected, optimism, self-regulation, self-esteem, and orientation towards the future were positively related to GSE. The coefficients were moderate to low. The relationship between GSE and self-regulation was significant, positive, and strong. Relations between GSE and the social comparison orientation were nonsignificant.

GSE and affect

As hypothesized, positive correlations between GSE and positive affect measured with subscales

TABLE 2
Description of personality, positive and negative emotions, stress appraisal, and social relationships measures

Variable (Name of measure or item example)	*Used in sample number*[a]	*Number of items*	*Answers range*	*Range of α*	*Differences in correlations*[b]
Personality					
Dispositional Optimism (LOT–R; Gutiérrez-Doña, 2003; Scheier et al., 1994; Wieland-Eckelmann & Carver, 1990)	1, 2, 3, 5	6	1–4	.70–.84	7.79
Self-esteem scale (Feffing & Filipp, 1996; Rosenberg, 1965)	3	9	1–4	.81	
Future orientedness (The Consideration of Future Consequences [shortened]; Luszczynska et al., 2004b; Strathman et al., 1994)	6, 7, 8	6	1–5	.70–.81	15.16***
Self-regulation (Luszczynska et al., 2004a)	2, 4	10	1–4	.75–.82	1.10
Social comparison tendencies (Scale of Social Comparison Orientation; Gibbons & Buunk, 1999; Luszczynska et al., 2004b)	6, 7, 8	11	1–5	.77–.81	0.98
Positive and negative affect					
Anxiety (Hopkins Symptoms Checklist; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974; Gutiérrez-Doña, 2003)	1, 2, 3, 5	6	1–4	.77–.83	111.06***
Depression (Hopkins Symptoms Checklist; Derogatis et al., 1974; Gutiérrez-Doña, 2003)	1, 2, 3, 5	11	1–4	.70–.86	41.36***
Negative affect (PANAS; Gutiérrez-Doña, 2003; Watson, Clark, & Tellegen, 1988)	2	10	1–4	.87	
Positive affect (PANAS; Gutiérrez-Doña 2003; Watson et al., 1988)	2	10	1–4	.83	
Anger (STPI, trait–anger subscale; Schwarzer & Schwarzer, 1982; Spielberger, 1979)	3	10	1–4	.73	
Quality of life (psychological aspect; QoL–BREF, Power, Bullinger, Harber, & WHOQoL-group, 1999; Gutiérrez-Doña, 2003)	2	6	1–5	.82	
Life satisfaction (The Satisfaction with Life Scale; Diener, Emmons, Larsen, & Griffin, 1985)	6, 7, 8	5	1–7	.81–.88	29.05***
Stress perception					
Challenge (Cognitive Appraisal Scale; Gutiérrez-Doña, 2003; Schwarzer & Jerusalem, 1995)	2, 4, 5	3	1–4	.61–.64	30.56***
Social relationships/work					
Quality of Life (social; QoL–BREF; Gutiérrez-Doña, 2003; Power et al., 1999)	2	3	1–5	.67	
School grades (“What grades do you usually get in school?”)	6, 7, 8	1	1–7		13.36***
Job satisfaction (job satisfaction items from Job Diagnostic Survey; Gutiérrez-Doña, 2003; Hackman & Oldham, 1975)	2, 4, 5	3	1–4	.69	24.00***

[a]Sample numbers: 1=university students, Costa Rica; 2=workers, Costa Rica; 3=East Germans; 4=German teachers; 5=German high-school students; 6=Polish high-school students; 7=Turkish high-school students; 8=high-school students in the USA.
[b]Differences in correlation coefficients between samples: χ^2 for at least three samples; Z for two samples.
*** $p<.001$.

of the PANAS and Quality of Life questionnaires were found. Strong efficacy beliefs were related to higher life satisfaction. GSE was negatively related to results obtained with inventories that assess anxiety, depression, anger, and negative affect. Quality of life correlated positively with self-efficacy. The relationships between GSE, affect, and quality of life were all significant with a low to moderate range of coefficients. Absolute values of the correlation coefficients for the samples are displayed in Figure 2.

GSE, stress appraisals, and social relationships

As hypothesized, GSE was positively related to appraising stressful situations as challenges. The correlation coefficient (the absolute value is

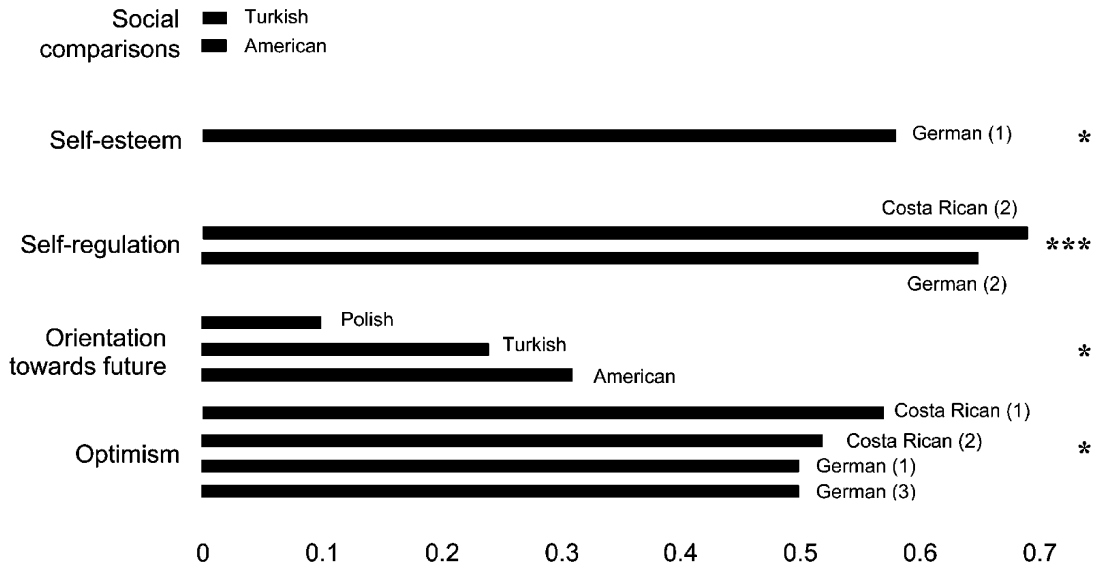

Figure 1. Correlation coefficients (absolute value) between General Self-Efficacy (GSE) and personality. * $p<.05$, *** $p<.001$, for all countries.

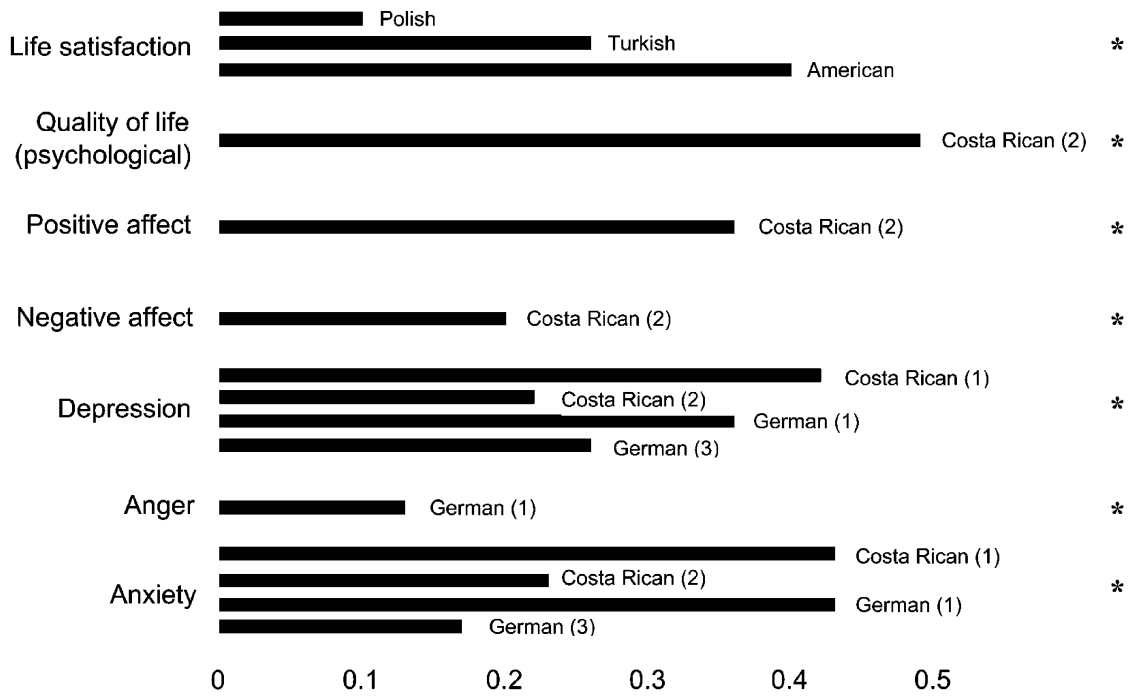

Figure 2. Correlation coefficients (absolute value) between General Self-Efficacy (GSE) and affect, psychological aspect of quality of life, and life satisfaction. * $p<.05$, for all countries.

displayed in Figure 3) was moderate. For further examination, measures of social aspects of quality of life, school grades, and job (or school) satisfaction were chosen (cf. Figure 3). In line with the expectations, GSE was positively related to quality of life (social aspect), job satisfaction or satisfaction with school, and school grades. The same result patterns were found irrespective of the sample.

Relations between self-efficacy and the other variables differ across samples. To examine this issue, the between-samples differences of correlation coefficients between self-efficacy and related constructs were calculated (cf. Table 2).

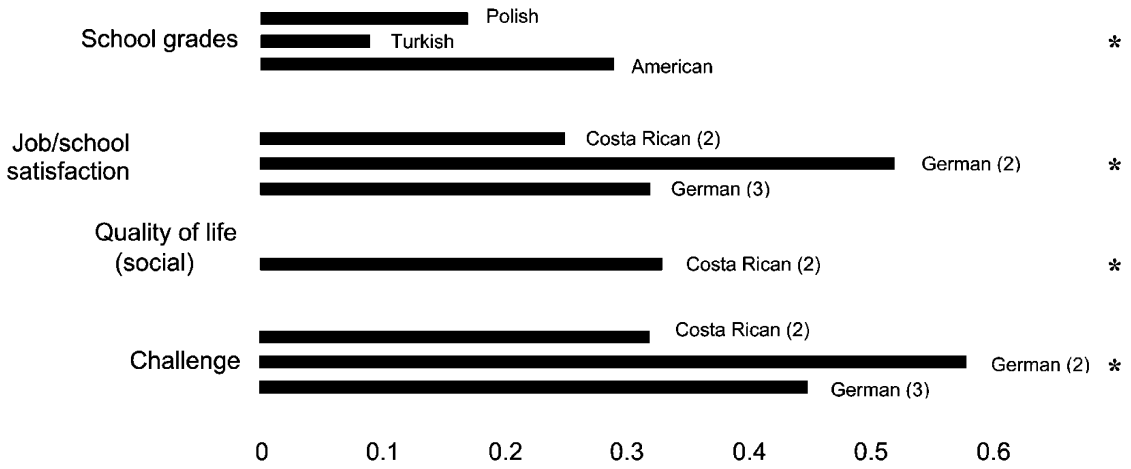

Figure 3. Correlation coefficients (absolute value) between General Self-Efficacy (GSE) and stress appraisal and social relationships. * $p<.05$, for all countries.

Correlation coefficients differed only in size, not in direction.

DISCUSSION

Across countries, general self-efficacy was related to the selected constructs, as hypothesized. The correlations between GSE and personality factors such as optimism, self-regulation, orientation towards the future, and self-esteem remained significant and mostly in the moderate range. Therefore, the amount of variance shared between these variables was moderate.

Self-appraisal through social comparisons is seen as a way to raise or weaken self-efficacy beliefs. Individuals who perceive themselves as performing better than others have higher self-efficacy than those who perceive themselves as performing worse than others (Bandura, 1997). In the present study, correlations between GSE and social comparison orientation were negligible. The Scale of Social Comparison Orientation measures the general tendency to compare oneself with others, without any reference to the direction of such comparisons. Some individuals might generate more upward comparisons, others more downward comparisons. This might result in a lack of significant relations between the general tendency to produce social comparisons and GSE. The nonsignificant relation between GSE and social comparison orientation suggests that individuals reported their self-efficacy irrespective of their need for social approval.

The second group of variables consisted of measures of positive and negative affect, life satisfaction, and quality of life. As mentioned before, according to both the theory and the growing body of evidence, high self-efficacy is expected to be related to low negative affect, high positive affect, higher achievement, and more life satisfaction. The relations between GSE and positive and negative affect obtained in the present study were similar to previous findings. Among Norwegian adolescents, Leganger et al. (2000) found significant correlations between this GSE scale and positive affect and life satisfaction, and reverse coefficients with negative affect. In two other German longitudinal samples (obese women and residents of senior citizen homes), GSE was consistently moderately related to depression and anxiety (cf. Schwarzer, 1993). Analysing data from cardiac surgery patients, Schröder, Schwarzer, and Konertz (1998) found that patients with high GSE had recovered better 1 week after surgery and experienced better quality of life half a year later than their low GSE counterparts.

GSE was related to the appraisal of stressful situations as challenges. The positive relations between self-efficacy and stress appraisals were also found in other samples. As has been demonstrated in a laboratory experiment, persons with high GSE perceived stressful anagram tasks as being more challenging than low GSE individuals did (Jerusalem & Schwarzer, 1992).

Workers with higher social life satisfaction and higher job satisfaction and students with higher school achievements had high GSE scale scores. These results are in line with other studies regarding social relationships that provide further confirmation of the validity of the GSE measure. In a study among East German refugees, those with high GSE were socially better integrated and more frequently employed 2 years after the

stressful transition than their low GSE counterparts (Schwarzer et al., 1993).

Other studies on GSE and personality, affect, and social relationships, in which other measures of GSE were used, showed moderate associations with personal control, ego strength, self-esteem (Lennings, 1994; Sherer et al., 1982), and mental health (Hays & Buckle, 1992). GSE was also related to school or university accomplishments, although the relationships remained low in most cases (Lennings, 1994). General self-efficacy is a very close concept to hope, which taps the self-referential, cross-situational beliefs that the person will initiate and continue goal-directed actions (cf. Snyder, 2002). Further studies should address the relations between these two constructs.

The hypothesis regarding similar associations between self-efficacy and related constructs across the countries was only partially supported. The present study shows that relations between GSE and other variables remained at different magnitudes, depending on the sample. These results are in line with Triandis' (1977) model, suggesting that cognitions and social determinants of behaviours (and relations between them) are influenced by such variables as culture, ecology, social situation, and historical background. Differences between countries and samples may reflect differences in other variables that might determine the variation of both self-efficacy and other variables in the present study. For example, discrepancies in socioeconomic status between the samples might moderate relations between self-efficacy and other variables (cf. Luszczynska et al., 2004b). In most cases, differences were found for relations between self-efficacy and social functioning, stress appraisals, emotions, or future orientation that might be under stronger influence of education or socioeconomic status. Relations between self-efficacy and personality constructs remained similar across samples. The intracultural diversity that might result from differences in education and socioeconomic status can be broader than intercultural diversity.

Given the character of the samples, the present study has various limitations. The subsamples employed in this study were not representative for the countries. Participants from the subsamples differed in terms of proportions of gender, age, and occupation. Many constructs used here were assessed only in some selected samples, not across all samples and countries. Besides the role of culture, the direct effects of other variables (such as social and economic status) that might moderate the associations between self-efficacy and related constructs should be considered. Future research should also aim at testing the relations between GSE and task-specific self-efficacy.

Regardless of discrepancies between countries, some conclusions might be drawn. All hypothesized relations between self-efficacy and other variables were confirmed by the data. The coefficients were different, but of low or moderate size, except for the relation between self-efficacy and self-regulation. GSE is connected to a broad range of psychological constructs pertaining to various domains of human functioning, and it may be a useful addition to task-specific self-efficacy measures in future studies within and across cultures.

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