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Abstract

Fatalism has been a core construct in the study of psychological and social processes related to well-being and life quality in social sciences. The objective of the present research is to develop a new instrument, the Social Fatalism Scales (SFS), which allows us to study the influence of individualist and collectivist fatalism on well-being across Hispanic cultures. The parallel and exploratory factor analyses suggest a multidimensional structure composed by four factors (Study 1). Confirmatory factor analysis showed that this four-factor structure is adjusted perfectly to the data (Study 2). All the SFS presented an adequate reliability in the two examined samples. As expected, fatalism in an individualist culture (Spanish sample) negatively correlated with subjective well-being and social well-being indicators. However, in a collectivist sample (Colombian), fatalism was negatively related to social and psychological well-being but positively to subjective well-being. In collectivist cultures, social fatalism is manifested as a useful strategy to adapt to certain aspects of life.

Keywords (separated by '-') Fatalism - Well-being - Measurement - Hispanic

Footnote Information



3 **Fatalism and Well-Being Across Hispanic Cultures:** 4 **The Social Fatalism Scales (SFS)**

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8 **Abstract** Fatalism has been a core construct in the study of psychological and social
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11 study the influence of individualist and collectivist fatalism on well-being across Hispanic
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17 indicators. However, in a collectivist sample (Colombian), fatalism was negatively related to
18 social and psychological well-being but positively to subjective well-being. In collectivist
19 **AQ3** cultures, social fatalism is manifested as a useful strategy to adapt to certain aspects of life.

20 **Keywords** Fatalism · Well-being · Measurement · Hispanic
21

22 **1 Introduction**

23 **AQ4** Social fatalism has traditionally been a theoretical framework for the study of psycho-
24 logical and social processes related to well-being and quality of life in cultural contexts

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21 marked by collectivism and pure economic development (e.g. Goodwin et al. 1999;
22 Goodwin et al. 2002). In this case, it can be defined as “a basic attitude towards life”
27 (Martin Baró 1989, p. 156), a solid scheme of cultural and/or religious beliefs characterized
28 by a passive, resigned and uncritical attitude. From this point of view, fatalism was
29 connected to the culture of poverty (Lewis 1969). Nowadays, it is also part of the cognitive
30 scheme of people belonging to individualist cultures who live in a developed economic
31 context. In this case it is characterized by a state of loneliness, uncertainty, insecurity and
32 helplessness against the demands and threats from the risk society (Beck 1998).

33 In fact, the second modernity has eroded two principles that defined the transition to
34 modernity: a sense of community (affective bonds, cohesion, solidarity, and interpersonal
35 trust) and a feeling of control. As a result of these phenomena, research up to now could be
36 classified based on a double vision of fatalism, as indicated by Blanco and Díaz (2007).
37 Firstly, it can be defined as a phenomenon framed within a culture characterized by what
38 Durkheim called “mechanical solidarity” and may be described by the similarities of
39 consciousness and weak individualization. Secondly, fatalism may be understood as a
40 cultural vision of an uncertain world full of threats and risks and as a feeling of isolation
41 and loneliness due to the loss of community that characterizes the “organic solidarity”
42 (Durkheim 1893). In both cases, fatalism provokes a loss of power and confidence in the
43 person and a decrease in self-efficacy.

44 1.1 The Evolution of Fatalism

45 In the area of health sciences, especially in clinical settings, there are various scales that
46 analyze the impact of fatalistic beliefs on quality of life related to health (e.g. PFI: Powe
47 1995; FATElims: Straughan and Seow 1998; RHFQ: Franklin et al. 2008). In social
48 sciences, despite the importance and the interest that the phenomenon of fatalism has
49 received, there are, at present, few instruments to measure it globally from a socio-cultural
50 perspective. One of the few developed instruments from this perspective is the “Fatalist
51 Cultural Values Scale (FCVS; Dake 1992). However, the concept of fatalism measured by
52 this scale is unidimensional and closely linked to cultural values. Additionally, the
53 instruments developed so far, in both the areas of health and social sciences, do not account
54 for the double view of collectivist/individualist fatalism.

55 Actually, most authors who have developed theoretical proposals agree that fatalism
56 encompasses at least the following factors: *predetermination* (e.g. Straughan and Seow
57 1998), *lack of internal locus of control* (e.g. Neff and Hoppe 1993) and *pessimism/hope-*
58 *lessness* (e.g. Powe and Johnson 1995). However, some authors have proposed that
59 fatalism could be conceptualized as having a unidimensional first order factor (e.g. Powe
60 1997), although little empirical support for this affirmation has been provided. On the other
61 hand, other researchers have argued in favor of a second-order unidimensionality of
62 fatalism (e.g. Shen et al. 2009).

63 *Predetermination* is one of the main dimensions of fatalism. Specifically, fatalism
64 involves the notion of predestination (i.e., there are some things in life that would occur
65 regardless of the actions we take; Straughan and Seow 1998). For example, there are
66 external forces, beyond the control of people, that influence life through destiny (Flórez
67 et al. 2009), luck (Franklin et al. 2008), nature (genetic determinism—Shen et al. 2009) or
68 God (Martín-Baró 1987; Powe 1997; Dixey 1999; Morgan et al. 2008). It is similar to the
69 “transcendent fatalism” that Hundeide (1999) observed among the residents of the suburb
70 of Begumpur, India.



Another key factor in fatalism is the *lack of (internal) control*, which is the inability to master the environment and to interact effectively with it (Neff and Hoppe 1993). This dimension is the core concept of various fatalism scales, such as the Fatalistic Cultural Values Scale (Dake 1992). This phenomenon may occur for various reasons: a political context marked by collective totalitarianism which has to be accepted passively (Markova et al. 1998), extreme poverty (Lewis 1961, 1969) or incapacity to face threats and risks that characterize the globalized world (Beck 1998).

Fatalism is not only cognitive in nature, but it is also emotional (Powe 1995), as reflected in the *pessimism/hopelessness* dimension. Social conditions linked to fatalism (poverty, social isolation, loneliness, social exclusion, etc.) may provoke negative feelings and affect a person's health (House et al. 1988). If these conditions are maintained on a daily basis, individuals may experience perceptions of pessimism, hopelessness and powerlessness (Fromm and Maccoby 1973; Martín-Baró 1987).

Another important factor, from a socio-cultural point of view, is *presentism*, which was often neglected in most health-focused approaches to fatalism. Martín-Baró (1973), in one of his first works on fatalism observed a presentistic way of thinking in a Salvadoran peasant: "there is no need to regret the past or plan the future; the only thing that can be done is to think in the present, for better or for worse." Thus, presentism is "the only realistic alternative when each path is already predetermined and nothing can be changed" (Martín Baró 1989, p. 158). Inside the evil cycle that consists of cultural, historical and socioeconomic factors (poverty, unemployment, segregation, discrimination, social exclusion, etc.), people tend to focus on day-to-day survival (Powe 1995). In fact, the future is too uncertain for a person to make serious plans (Dake 1992). In periods of crisis and economic and political insecurity, such as the one existing currently, presentism is increasingly present.

Having determined the more relevant theoretical dimension of fatalism, the first objective of the present research is to develop a new instrument to measure social fatalism: *The Social Fatalism Scales* (SFS). The second and main aim is to study the relationship between the phenomenon of fatalism and well-being, taking into consideration the differences in collectivist and individualist societies. In previous literature, fatalism has been associated with low well-being (e.g. Cattell 2001; Goodwin et al. 2002). As already mentioned, fatalism in individualist cultures (vs. collectivist cultures) is characterized by a state of loneliness that cannot be changed, a deep feeling of isolation and uncertainty due to a lack of social integration (e.g. Durkheim 1893; Beck 1998). This lack of control over events that rule one's life negatively affects satisfaction with life (e.g. Palmore and Luikart 1972). For these reasons and according to previous literature, it is hypothesized that fatalism will be negatively related to subjective well-being (i.e. satisfaction with life) and social well-being in individualist (vs. collectivist) cultures. On the contrary, in collectivist cultures (vs. individualist cultures), fatalism is characterized by a passive, resigned and uncritical attitude. In this case, fatalism affects goal setting by reducing people's expectations about life. In fact, in these cultures, reaching a goal is rarely seen as possible, and when reached, it is not perceived as the result of personal work, but as a result of luck or predetermination (Martín-Baró 1987). Fatalism also strongly affects social capital, the sense of community, support networks, and the sense of belonging and social safety (Martín-Baró et al. 2001). For all these reasons, we hypothesize that in collectivist cultures, fatalism correlates negatively with social and psychological well-being and positively with subjective well-being (i.e. life satisfaction), since it serves as a regulatory mechanism that lowers people's about life and desires. In this sense, a greater fatalism leads to greater life satisfaction. In order to test these hypotheses, two studies were conducted. In the first



study, a Spanish sample was selected, which is a sample mainly characterized by individualist fatalism (e.g. Blanco and Díaz 2007). The second study was conducted using a sample characterized by a collective fatalism (e.g. Higuera-Pedraza et al. 2010): Colombian citizens who were forced to leave their homes due to violent conflicts.

2 Study 1

2.1 Methods

2.1.1 Participants

Two-hundred two people from the general population of Spain, recruited via advertisements, voluntarily participated without compensation. Nine-hundred eighty-six applications to participate were received, from which 210 were selected using a simple random sampling method. Eight of the selected participants failed to conduct the study. Selected participants were 53 men (26 %) and 149 women (72 %) between 18 and 53 years old. The mean age was 21.20 years ($SD = 4.92$). The average number of people in their household was 3.88 ($SD = 1.32$). The maximum educational level reached to 12 % of primary education, 60 % higher no university education, 17 % hold a university degree and 11 % a PhD.

2.1.2 Procedure

This study was part of a research project funded by the Spanish Agency for International Development Cooperation (AECID) and was approved by the ethics committee of the coordinating university (Universidad Autónoma de Madrid). Participants were told that they would participate in a study about personality traits, beliefs and attitudes. They were placed in individual lab cubicles and after being told that all collected information was confidential and anonymous, they signed an informed consent. Each participant filled in a booklet containing, in order of appearance, the Social Fatalism Scales, the Fatalist Cultural Values Scale, the Rotter Internal-External Scale, the Satisfaction With Life Scale and the Social Well-being Scales.

2.1.3 Measures

2.1.3.1 Social Fatalism Scales (SFS) Following several authors' recommendations (Wiggins 1973; Ryff 1989) and the revised model of the European Federation of Psychologists' Associations (EFPA) for the evaluation of the quality of tests (Evers et al. 2012), the construction process began by defining the dimensions of the instrument, taking into consideration previous theoretical approaches to fatalism and looking for points of convergence among the different theories.

Next, four experts in the field of fatalism each generated a total of 5 items (1 reverse scored) for each of the four dimensions, resulting in 80 (16 reverse scored) different items overall. These items were subjected to a preliminary analysis by discarding those that did not meet any of the following criteria: ambiguity or redundancy, low fit to the dimension's established definition, low distinctiveness in relation to other scale items, and inability of items to produce response variance. To reduce the scale in order to facilitate its



implementation and improve its psychometric properties, the remaining 50 items (10 reverse scored) were administered in a pilot study to a sample of 90 Spanish Psychology students (*Mean Age* = 19, *SD* = 2, 84 % females). Participants responded to items using a response format with scores ranging from 1 (strongly disagree) to 6 (strongly agree). The selection of items included in the final version of the instrument was determined according to the following criteria: items with item-total scale correlation superior to 0.30 that also presented low cross-loadings on other scales (<0.40) in the factor analysis (Ferguson and Cox 1993). In addition to these technical criteria, theoretical ones such as theoretical consistency and apparent validity were also taken into account.

The final scale consisted of 17 items (Predetermination: 6 items, e.g. “I think there is a pre-written script about things that are going to happen in life”; Lack of Control: 4 items, e.g. “I do not have the ability to change things”; Pessimism: 3 items, e.g. “One cannot trust in people”; Presentism 4 items, e.g. “All that matters is the present, the ‘here’ and ‘now’”). Reverse scored items were not retained for several reasons. First, all reverse items showed lower item-scale correlations and were less internally consistent than the selected items. Also, the reverse items were atypically answered more often than the no reverse ones (for similar results see Carlson et al. 2011). Second, some authors argue that reverse-worded items do not prevent response bias (acquiescent answering) or inattentive answering and instead can cause confusion (Van Sonderen et al. 2013). Finally, prior research suggests that any potential problems associated with including reverse scored items are more pronounced in cross-cultural settings (e.g. Lai and Yue 2000).

2.1.3.2 Fatalist Values Fatalist values were assessed by the use of Dake’s (1992) Fatalistic Cultural Values Scale, which includes items such as “I feel that life is like a lottery.” Participants answered 10 items on 5-point scales anchored at very strongly disagree to very strongly agree ($M = 2.13$, $SD = .71$). In the present study, the items showed acceptable reliability ($\alpha = .71$).

2.1.3.3 Locus of Control Locus of control was measured using the 10-item version (Ferguson 1993) of the Rotter Internal–External scale (Rotter 1966). The Rotter Internal–External scale is designed to assess the tendency to attribute the causes of outcomes to the self or to factors outside the self. This scale has been a reliable and valid instrument (e.g., Lange and Tiggenmann 1981 and Rotter 1966) across a wide range of populations (O’Brien and Kabanoff 1981), including Hispanic populations (Tyler et al. 1986). In the present study, the items showed acceptable reliability both overall ($\alpha = .74$; $M = 2.88$, $SD = .96$) and for the external ($\alpha = .71$; $M = 2.53$, $SD = .91$) and internal ($\alpha = .68$; $M = 3.23$, $SD = .72$) scales individually.

2.1.4 Well-Being Measures

2.1.4.1 Subjective Well-Being Indicators To measure life satisfaction, the scale proposed by Diener et al. (1985) and validated in Spanish by Cabañero et al. (2004) was used. This scale consists of five items and has been shown in different studies (e.g. Pavot and Diener 1993; Rodríguez-Carvajal et al. 2010) to have good psychometric properties. Participants answered on 5-point scales anchored at very strongly disagree to very strongly agree ($M = 3.36$, $SD = .72$). In the present study, the items showed acceptable reliability ($\alpha = .84$).



2.1.4.2 Social Well-Being Indicators Participants completed Keyes' Social Well-being Scales (1998) validated and translated to Spanish (Blanco and Díaz 2005). This instrument consists of five scales (social integration, social acceptance, social contribution, social actualization and social coherence), which in previous studies have shown good internal consistency (e.g. Keyes 1998). The proposed five-dimensional structure with or without second order general factor has been tested using confirmatory factor analysis including Spanish samples (Keyes 1998; Blanco and Díaz 2005). Participants responded to items using a response format with response options ranging from 1 (strongly disagree) to 5 (strongly agree). In the present study, internal reliability was acceptable for all scales, including social integration ($M = 2.93$, $SD = .83$, $\alpha = .68$), social acceptance ($M = 3.55$, $SD = 1.02$, $\alpha = .81$), social contribution ($M = 3.74$, $SD = .70$, $\alpha = .71$), social actualization ($M = 3.99$, $SD = 1.06$, $\alpha = .76$), social coherence ($M = 3.87$, $SD = 1.07$, $\alpha = .68$), and the second order general factor ($M = 3.62$, $SD = 1.01$, $\alpha = .78$).

3 Results

3.1 Social Fatalism Scales development

3.1.1 Factorial Validity: Exploratory Analyses

In Study 1, we conducted exploratory analysis to delineate the factor structure of the SFS. Following various authors' recommendations (e.g., Glorfeld 1995; Díaz et al. 2011), data dimensionality was first analysed using common/principal axis factor parallel analyses (PA). To do so, we used SPSS syntax developed by O'Connor (2000) to calculate the 95th percentile for each of the eigenvalues of the 100 randomly generated data sets. To complement this approach, we examined eigenvalues and scree plot graphs, which produced results consistent with the PA.

Thus, following the criterion established by the parallel analysis of the number of factors to be extracted, an exploratory factor analysis (EFA; estimation method: maximum likelihood) was conducted. Because of the theoretical relationship between the dimensions, we expected them to correlate; therefore, oblique rotation method was employed. Among the existing methods, direct quartimin method was selected because it permits moderate correlations between factors, but not extremely high correlations like other rotation methods do (Gorsuch 1983). As shown in Table 1, all the items of Predetermination Scale essentially loaded on the first factor, explaining 35 % of the variance. All the items from the Pessimism/Hopelessness Scale loaded on the second factor, explaining 13 % of variance. The items from the Presentism Scale all loaded on the third factor, also explaining a 13 %, and the items from the Lack of Control Scale loaded on the fourth factor, explaining 7 % of variance. Table 2 lists the means and standard deviations for each factor.

3.1.2 Convergent Validity

Table 3 presents Pearson correlation coefficients among the SFS and the validating scales measured in Study 1. The scales were related to SFS in the expected direction. All SFS were significantly positively correlated with the Fatalistic Cultural Values Scale, highlighting the link with Pessimism, Presentism and Lack of Control Scales. However, the Predetermination Scale, which is the core dimension of fatalism (35 % variance obtained), had the lowest convergent validity with the Fatalistic Cultural Values Scale.



Table 1 Exploratory factor analyses of social fatalism scales items

Items	Study 1: Spanish Sample			
	1	2	3	4
Predetermination 1	.84			
Predetermination 2	.89			
Predetermination 3	.77			
Predetermination 4	.90			
Predetermination 5	.78			
Predetermination 6	.87			
Pessimism 1		.86		
Pessimism 2		.88		
Pessimism 3		.84		
Presentism 1			.67	
Presentism 2			.85	
Presentism 3			.81	
Presentism 4			.77	
Lack of control 1				.83
Lack of control 2				.80
Lack of control 3				.75
Lack of control 4				.60
% Cumulative variance	35	48	61	68

Presented is the structure matrix of a maximum likelihood extraction with direct quartimin rotation. The table only presents loadings above .40

Table 2 Means, standard deviations, reliabilities, and factor intercorrelations

	Predetermination	Pessimism	Presentism	Lack of control	<i>M</i>	<i>SD</i>
Study 1: Spain						
Predetermination	(.92)				2.27	1.16
Pessimism	.58	(.82)			1.84	0.71
Presentism	.53	.50	(.77)		3.37	1.15
Lack of control	.51	.51	.35	(.75)	2.20	1.09
Study 2: Colombia						
Predetermination	(.81)				4.19	1.64
Pessimism	.63	(.82)			2.62	1.49
Presentism	.57	.61	(.73)		4.68	1.34
Lack of control	.59	.66	.46	(.75)	4.33	1.67

** All $p < .01$

Regarding the relationship of *SFS* with locus of control, Predetermination and Absence of Control Scales were positively correlated with external locus of control, and negatively with internal locus of control. Results were the same for the Presentism Scale. Finally, the Pesimism Scale only had a positive significant correlation with external locus of control.

3.1.3 Reliability

All dimensions of *SFS* showed a good internal consistency ($\alpha \geq .73$, see Table 2). All item-total correlations were greater than .35.



Table 3 Pearson correlations of fatalism dimensions with validity scales

	Predetermination	Pessimism	Presentism	Lack of control
Fatalism	.16*	.26**	.22**	.30**
External locus	.33**	.19*	.26**	.26**
Internal locus	-.34**	-.12	-.28**	-.22**

Study 1 (Spanish Sample)

* $p < .05$

** $p < .01$

3.1.4 Fatalism and Well-Being

All fatalism scales had a negative correlation with measures of well-being, both with subjective well-being indicators (i.e. life satisfaction) and with social well-being ones (i.e. social integration, social acceptance, social contribution, social actualization, and social coherence). As an exception, Predetermination and Presentism scales did not present significant correlations with Satisfaction and Integration measures. Therefore, the higher the fatalism, the less the well-being, both at personal and social levels (see Table 4).

4 Discussion

In the present study, we have developed a new scale to measure social fatalism and we have analyzed fatalism's relation with both subjective and psychological well-being in a Spanish sample, which is characterized by individualist fatalism. The final scale consisted of 17 items and included no reverse scored items. The PA, eigenvalues and scree plot graphs indicated a four factor structure, which is consistent with our theoretical proposal. The exploratory factor analyses showed that each item mainly loaded on the factor to which it had been designed. Also, the dimensions correlated strongly with each other, a fact that is consistent with theory.

The Predetermination Scale, which is conceptually the core dimension of fatalism, explained the greatest proportion of variance (35 %), followed by the Pessimism, Presentism and Lack of Control Scales. However, Predetermination had the lowest convergent validity with the Fatalistic Cultural Values Scale. These results can possibly be explained by Dake's (1992) theoretical conception of fatalism, which is based on Cultural Theory" (CT), developed by Douglas and Wildavsky (1982). CT emerged from a discussion about the impact of values and cultural settings on perception of risks. From this point of view, risk perception is socially and culturally framed. Thus, values of certain cultures shape individuals' perceptions and evaluations of risks (e.g. Rippl 2002). According to this framework, the highest correlation with the Fatalistic Cultural Values Scale should occur with the Lack of Control Scale, because lack of ability to control is strongly related to risk perception (e.g. Rippl 2002). The results on the convergent validity of the SFS support this assertion.

**Table 4** Pearson correlations of social fatalism with well-being indicators, social well-being general factor (SWB GF) and psychological well-being general factor (PWB GF)

	Predetermination	Pessimism	Presentism	Lack of control	General factor
Study 1: Spain					
Satisfaction	-.01	-.18*	-.02	-.21**	-.14*
Integration	-.01	-.35**	-.09	-.37**	-.18**
Acceptance	-.27**	-.68**	-.22**	-.38**	-.40**
Contribution	-.22**	-.35**	-.22**	-.50**	-.34**
Actualization	-.19*	-.37**	-.24**	-.33**	-.29**
Coherence	-.31**	-.27**	-.27**	-.31**	-.30**
SWB GF	-.24**	-.41**	-.21**	-.43**	-.36**
Study 2: Colombia					
Satisfaction	.37**	.23*	.44**	.18	.36**
Integration	.02	-.03	.10	-.22*	-.01
Acceptance	-.31**	-.47**	-.22*	-.28**	-.42**
Contribution	-.21*	-.04	-.22*	-.39**	-.28**
Actualization	.04	-.08	.09	.05	.05
Coherence	-.41**	-.30**	-.25*	-.20	-.38**
SWB GF	-.21*	-.20*	-.20*	-.27**	-.24*
Self-acceptance	.13	.05	.26*	-.07	-.16
Positive relations	-.12	-.09	.08	-.23*	-.23*
Autonomy	-.18	.00	-.24*	-.29**	-.24*
Enviromental mastery	-.33**	-.20	-.38**	-.05	-.26**
Personal growth	.12	.16	.19	.06	.15
Purpose in life	.17	.05	.20	-.07	.16
PWB GF	-.17	-.12	-.21*	-.18	-.21*

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

Finally, according to both of our hypotheses and previous literature, fatalism in an individualist culture (i.e. Spain) was negatively related to subjective and social well-being.

5 Study 2

In order to study the differences in fatalism between collectivist and individualist cultures, we conducted a second study with a population from Colombia. In this case, we introduce a new measure of psychological well-being, with the aim of studying the relation between fatalism and eudaemonic well-being indicators related to personal growth. Although in previous literature, the presence of fatalism is often associated with lower well-being, our hypothesis was that in this second study, fatalism would correlate negatively with psychological and social well-being but positively with subjective well-being (life satisfaction), since collectivist fatalism reduces life expectations and desires of the people. Finally, our ultimate goal was to use this second experiment to test the factorial validity of the SFS using confirmatory factor analysis.



294 5.1 Methods

295 5.1.1 Participants

296 A convenience sample of one-hundred Colombians (35 % male; $M_{\text{age}} = 36.34$,
297 $SD = 13.28$) voluntarily participated as part of a program of Spanish Agency for Inter-
298 national Development Cooperation (AECID). Specifically, these participants were people
299 who had been displaced by the violent conflicts that occurred within Colombia, which had
300 resulted from actions against the civilian population. The average number of people in
301 participants' households was 5.11 ($SD = 1.97$), and with respect to maximum education
302 levels, 82 % reported having received no more than primary education, 17 % completed
303 higher, non-university education, and 1 % held a university degree.

304 5.1.2 Procedure

305 The procedure was similar to the one employed in the previous study. However, in this
306 case, participants received a booklet containing the SFS, the Satisfaction With Life Scale,
307 the Psychological Well-being Scales and the Social Well-being Scales, presented in this
308 order. The study had the approval of the ethics committee of the coordinating university
309 (Universidad Autónoma de Madrid).

310 5.1.3 Measures

311 5.1.3.1 *Social Fatalism Scales* The same measure as in Study 1 was used.

312 5.1.3.2 *Well-Being Measures* The same scales as in Study 1 were used to measure
313 subjective and social well-being. As before, in Study 2, internal reliability was acceptable
314 for the subjective well-being measure, the Life Satisfaction Scale ($M = 3.06$, $SD = .67$,
315 $\alpha = .82$). In addition, internal reliability was also good for all social well-being scales,
316 including social integration ($M = 2.76$, $SD = .91$, $\alpha = .66$), social acceptance ($M = 2.78$,
317 $SD = .99$, $\alpha = .77$), social contribution ($M = 2.44$, $SD = .76$, $\alpha = .72$), social actual-
318 ization ($M = 3.04$, $SD = .96$, $\alpha = .73$), social coherence ($M = 2.97$, $SD = 1.01$,
319 $\alpha = .67$), and the second order general factor ($M = 2.74$, $SD = .99$, $\alpha = .73$).

320 To measure psychological well-being, participants also responded to the version of the
321 Psychological Well-being Scales proposed by Díaz and colleagues (2006). The instrument
322 consists of six scales (autonomy, self-acceptance, positive relations, control of the envi-
323 ronment, purpose in life and personal growth). This measure has 33 total items (4–6 items
324 per scale) to which participants responded using a response format with scores ranging
325 from 1 (strongly disagree) to 6 (strongly agree). The proposed six-dimensional structure of
326 the model, with or without a second order general factor, has been tested using confir-
327 matory factor analysis using Spanish samples (e.g. Díaz et al. 2006; van Dierendonck et al.
328 2008). In the current study, each of the six subscales shows good internal reliability,
329 including autonomy ($M = 3.46$, $SD = 1.23$, $\alpha = .88$), self-acceptance ($M = 4.57$,
330 $SD = .92$, $\alpha = .81$), positive relations ($M = 3.91$, $SD = 1.23$, $\alpha = .82$), control of the
331 environment ($M = 4.44$, $SD = 1.01$, $\alpha = .67$), purpose in life ($M = 4.86$, $SD = .73$,
332 $\alpha = .80$), personal growth ($M = 4.64$, $SD = .98$, $\alpha = .68$), and the second order general
333 factor ($M = 4.14$, $SD = 1.08$, $\alpha = .68$).



6 Results

6.1 Social Fatalism Scales Development

6.1.1 Factorial Validity: Confirmatory Factor Analyses

In Study 1 we identified a four-factor structure consistent with our hypothesis. Based on previous literature (e.g. Shen et al. 2009), we argued that fatalism should be conceptualized as multi-dimensional in the first order (i.e. Predetermination, Pessimism/Hopelessness, Presentism and Lack of Control) and unidimensional in the second order factor (i.e. Fatalism). The next step was to confirm this factorial structure by applying confirmatory factor analyses (CFA; estimation method: maximum likelihood) using the statistical program AMOS 21. Four models were proposed. Models 1 and 2 serve as null hypotheses. Model 1 asserts that there are as many latent constructs as indicators (i.e. indicators are independent). In contrast, Model 2 postulates that the relationship among indicators is the result of a single factor. Models 3 and 4 reflect our theoretical proposals about the factorial structure of fatalism (four dimensions with/without second-order factor called Fatalism).

As indicated in Table 5, the fit of the different theoretical models was measured using both absolute and relative fit indexes, following the recommendations of authors such as Hu and Bentler (1999). Specifically, the following indicators were used: Chi square (χ^2), Akaike Information Criterion (AIC), Comparative Fit Index (CFI), Incremental Fit Index (IFI) and RMSEA. The lower the values of χ^2 , AIC and RMSEA and the higher the values of CFI and IFI, the better the model fit to the data. Since the Chi square indicator is particularly sensitive to sample size, different researchers advise calculating a ratio between its value and the degrees of freedom. A result of this ratio between 0 and 2 is considered to be an indicator of a good model fit. With respect to other indexes, as a general rule we can say that the CFI and IFI values >0.95 and values of the RMSEA <0.060 indicate relatively good model fit (Hu and Bentler 1999). As can be seen in Table 5, Models 3 and 4, which correspond to our four-dimensional theoretical proposal for fatalism, fit the data better than Models 1 and 2. In fact, Models 3 and 4 not only fit the data better, but their computed adjustment indicators suggest excellent fit.

6.1.2 Reliability

All SFS showed good internal consistency with Cronbach's α values ranging between .73 and .92 (Second-Order Fatalism: $\alpha = 0.89$, see Table 2).

Table 5 Fit indices of confirmatory factor analyses (maximum likelihood estimation) of social fatalism scales

Model	χ^2	df	AIC	CFI	IFI	RMSEA
Independence	685.68	136	719.68	.00	.00	.22
One factor	326.86	119	394.86	.62	.63	.14
Four Factors	111.60	101	215.60	.98	.98	.04
Four factors, second order factor called <i>Fatalism</i>	110.33	101	214.33	.98	.98	.03



6.1.3 Fatalism and Well-Being

In this second study, there is a different pattern of results than in Study 1 (see Table 4). In this case, the higher the values of fatalism, the greater the subjective well-being. On the other hand, increasing fatalism is associated with lower general social well-being (social acceptance, social contribution, social coherence) and general psychological well-being (positive relations, autonomy, environmental mastery).

7 Discussion

In the second study, the factorial validity of the SFS was analyzed using confirmatory factor analysis. The proposed four-factor structure with/without a second order factor called general fatalism fits the data well. The SFS showed good internal consistency, and Cronbach's α values were similar to those obtained in Study 1 (Spanish sample). This similarity is important because a measure of internal reliability is specific to the scores on a test for a given sample of examinees; therefore, if a scale demonstrates similar reliability in different samples, it indicates a degree of reliability generalization (Vacha-Haase et al. 2002).

Regarding the relationship between fatalism and well-being and according to our hypothesis, fatalism negatively correlated with social and psychological well-being. A particularly interesting result is that the variable that correlated most strongly with fatalism was social acceptance (as in Study 1); however, the relationship between fatalism and self-acceptance was not significant. In this sense, it seems that fatalism is related to the loss of trust in others, and the presence of negative attitudes toward others (as a generalized category), but not with attitudes towards oneself.

Finally, unlike the results found in the first study, fatalism was positively related to subjective well-being (i.e. life satisfaction). These results indicate the existence of a single phenomenon framed within two different contexts; the first study focused on the "organic solidarity" context whereas the second one focused on "mechanical solidarity."

8 General Discussion and Conclusions

The main objective of this research was to develop a multidimensional instrument (SFS) that allows us to assess the social fatalism and to study its relation to well-being using the distinction between individualist and collectivist fatalism. As already mentioned, this taxonomic proposal (Blanco and Diaz 2007) is based on Émile Durkheim's model of social structure and organization. This theoretical framework is characterized by two concepts. The first is "mechanical solidarity," which is defined by the "similarity of consciences" and "weak individuation." The second, which has its roots in the division of social labor, is "organic solidarity," which results from the interests, motivations, desires and objectives dominate social life and relationships (Durkheim 1893).

In order to assess these two sides of fatalism from a socio-cultural perspective, we developed the SFS. The analyses indicate that the scales have good psychometric properties. In the first study, we conducted a parallel analysis and an exploratory factor analysis that indicated the existence of a multidimensional structure of four factors. The results of the confirmatory factor analysis of the second study indicated that this model (with or without the second-order factor) provided excellent data fit. Using this model (with a



second order factor) as a baseline model for the two samples (Spain and Colombia), we tested the factor invariance with a multi-group confirmatory factor analysis (MGCFA). The MGCFA is the most frequently used technique for an empirical assessment of cross-cultural factor invariance (e.g. Sirigatti et al. 2013). We used a model with factor loadings, factor correlation, and error variances constrained to be equal across the groups. The results of the analysis (χ^2 202.40; *df* 176; CFI 0.97; IFI 0.97; RMSA 0.05) permit us to maintain the hypothesis that factor loadings, factor correlation and error variance were equivalent in the Spanish and Colombian samples. The different scales of fatalism also showed adequate internal consistency with similar values in both the Spanish and the Colombian samples, indicating reliability generalization (Vacha-Haase et al. 2002).

Finally, the SFS have shown evidence of convergent validity because all scales selected as a validation criterion were related to Social Fatalism Scales in the expected direction. All SFS scales correlated significantly and positively with the Fatalistic Cultural Values Scale. However, since both instruments are based on different conceptualizations of fatalism, the Predetermination Scale, which is the core dimension of fatalism (both theoretically and statistically), had the lowest convergent validity with the Fatalistic Cultural Values Scale, although all the correlations were moderate. The relationship between SFS and Locus of Control was also consistent with predictions. The scales of Predetermination, Lack of Control, Presentism and Pessimism were positively correlated with External Locus of Control and negatively correlated (with the exception of Pessimism) with Internal Locus of Control. These results are consistent with the idea that fatalism provides a worldview based on the lack of perception of control, on the belief that everything that happens in life depends on external and uncontrollable forces (e.g. a higher power, fate) against which it is not worth fighting. Finally, fatalism is marked by a series of beliefs based on passivity and submission and by feelings of helplessness and resignation that define, as already noted, some of the features of external control as proposed by Rotter (1966).

Once we developed an instrument to measure social fatalism, our main goal was to analyze the relationship between fatalism and well-being. Our hypothesis was that the relationship would be different depending on whether fatalism was individualist or collectivist in nature. Consistent with prior literature, it was expected that in individualist cultures fatalism would be negatively related to both subjective and social well-being. Results of Study 1 confirmed our hypothesis and indicated that in an individualist culture the greater the fatalism, the lower all well-being indicators were on both individual and social levels. Strong pessimism and the lack of control were associated with lower levels of satisfaction with life, one of the components of subjective well-being related to the overall assessment that a person makes of his own life (Diener et al. 1985). Additionally, the relationship between all levels of fatalism (particularly pessimism) and social acceptance is specifically relevant. The loss of trust in the community is one of the fundamental characteristics of organic solidarity of individualist fatalism. This distrust influences one's general opinion of other members of the community, generating an unfavorable view of the human nature. The destruction of the sense of community is also negatively related to social contribution. People stop believing that they are vital members of society and that they have anything to offer to the world. Individualist fatalism is also related to beliefs about the potential of a society, with the belief that society does not evolve. Finally, as noted earlier, the lack of perceived control is one of the central features of fatalism. Therefore, it seems reasonable that fatalism is closely related to the lack of ability to understand societal dynamics and to the feeling of being unable to find logic and predictability in one's environment, which is the negative pole of social coherence.



On the other hand, as expected, the results indicated that fatalism in a collectivist culture was different. That is, fatalism is negatively related to social and psychological well-being, but positively related to subjective well-being. Interestingly, as in Study 1, all levels of fatalism were closely related to social acceptance, but in the collectivist sample, trust in others was the core of the equity pattern, meaning that the loss of confidence is particularly harmful. On the other hand, in the second study, fatalism was not related to its counterpart, self-acceptance. In other words, collectivist fatalism is related to general evaluations of others but not of oneself. Moreover, although all scales of fatalism were related to social actualization in Study 1, in Study 2 the relation between collectivist fatalism and this indicator of social well-being was not significant. Several factors could explain these results. Although classic authors have contended that a defining characteristic of individualist fatalism is low confidence in the positive evolution of society (e.g. Lefcourt 1982), in collectivist cultures fatalism may produce more realistic goals for society, which gives rise to a certain sense of progress to re-address the lack of confidence. The results also indicated other differences between cultures. Many dimensions of fatalism were related significantly to social well-being indicators only in the sample characterized by individualist fatalism. For example, pessimism was only correlated with social integration, contribution and actualization in the Spanish sample but not in the Colombian one. Similarly, lack of control was only correlated with coherence and actualization in study 1 but not in study 2. Predetermination was likewise only associated with actualization in the Spanish sample. In fact, individualist fatalism, probably due to the increased risk perceptions that characterizes it, was more strongly related to the social well-being general factor than collectivist fatalism.

Finally, of particular interest is the relation between collectivist fatalism and subjective well-being. Confirming our hypothesis, in Study 2, satisfaction with life was positively correlated with fatalism even though the same correlation was negative in Study 1. This indicator of subjective well-being is especially important in the study of well-being as it has a crucial role in people's positive functioning (e.g. Diener et al. 1999). In this sense, fatalism is manifested as a smart and realistic (beneficial) adaptation strategy to specific conditions (e.g. Lewis 1969; Fromm and Maccoby 1973; Goodwin and Allen 2000). Specifically, according to Martin Baró (1989) "fatalism prevents the peasant from the frustration of fruitless efforts, from the waste of trying to go through the wall that is the intransigence of the ruling classes." Since life satisfaction is closely related to the set of goals and expectations (Michalos 1980) and is a comparison between what one wants and what one actually has, fatalism probably increases life satisfaction by lowering expectations and desire, by marking goals that are easier to be fulfilled, or even by eliminating some of these goals. However, this strategy has a high price. Although it may increase subjective well-being, as already seen, it decreases social well-being, since the greater the fatalism, the lower social contribution, social acceptance and social coherence. These results are particularly relevant because these indicators measure the sense of purpose and the sense of having something useful to offer the world. This can make the world a more predictable place and may increase trust to people's help in order to achieve own's goals. Finally, these indicators measure the confidence that people can contribute to the improvement of the society in which they live. Contribution is synonymous with utility, profit, trust in change, effectiveness and participation in the common good (Talò et al. 2014). Thus, collectivist fatalism is a perverse cognitive strategy that makes people have a higher level of satisfaction with their lives, but inhibits action to transform social reality.



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