

## Article

# (Mis)perception in Social Mobility: Optimistic Bias for Personal (but not Societal) Mobility Beliefs

Juan Matamoros-Lima , Guillermo Byrd Willis , Ginés Navarro-Carrillo  and Miguel Moya 

Universidad de Granada (Spain)

### Abstract

Cognitive biases affect how people perceive social class mobility. Previous studies suggest that people find it difficult to estimate actual economic social mobility accurately. These results have also noted differences between regions. While in the United States people overestimate actual economic social mobility, in Europe people tend to underestimate it. Across two independent cross-sectional studies, we examined whether cognitive biases operate in the Spanish context and, if so, whether they depend on the type of social mobility. In Study 1 ( $N = 480$ ), we tested whether people in Spain have an accurate estimation of actual upward economic societal mobility. The results showed that people in Spain have a pessimistic view of upward societal mobility. In Study 2 ( $N = 274$ ), we analyzed whether people in Spain are more or less optimistic according to the type of social mobility: Personal vs. societal. We found that Spaniards are more optimistic when estimating their own mobility (i.e., personal mobility) than when estimating the mobility of the Spanish society (i.e., societal mobility). Contrary to our predictions, we found that meritocratic beliefs do not play a relevant role in determining any type of social mobility. These results extend previous research on social mobility and its psychosocial consequences. Furthermore, they are well aligned with a new psychosocial perspective suggesting that social mobility is a multidimensional construct. We also discussed the psychosocial implications of this optimistic bias for personal mobility.

**Keywords:** meritocratic beliefs; (mis)perception; objective social mobility; optimistic bias; subjective social mobility

(Received: 27 December 2023; revised: 19 July 2024; accepted: 23 July 2024)

Cognitive biases affect how people perceive economic reality (Eriksson & Simpson, 2012; Hadavand, 2018; Trump, 2018). This is also true for social mobility (i.e., the change in the socioeconomic status of a person or group over time; Day & Fiske, 2019). Whereas some people tend to overestimate social mobility (Cheng & Wen, 2019; Davidai & Gilovich, 2015; Kraus & Tan, 2015), others tend to underestimate it (Alesina et al., 2018). Social class mobility is an ambiguous and controversial construct, as it is influenced by the multiple theoretical and methodological perspectives from which it is approached (Kerbo, 2003/2010). Thus, the social sciences differentiate between various types of social mobility (see for detail Echeverría Zabalza, 1999). In this paper, we study some of them. This research aimed to ascertain whether cognitive biases operate in the Spanish context and, if so, whether they depend on the type of social mobility beliefs (Davidai & Wienk, 2021): personal (i.e., prospects of own mobility) or societal (i.e., prospects of general mobility); intragenerational (i.e., prospects of mobility during the course of one's life) or intergenerational (i.e., prospects of mobility between generations); upward (prospects of improving

subjective status over time) or downward (prospects of getting worse subjective status over time).

### *Social Mobility (Mis)perception*

Subjective (or perceived) reality is important for understanding and explaining human behavior (Asch, 1952; Benabou & Ok, 2001; Davidai et al., 2012; Gugushvili, 2016). However, subjective economic reality often does not correspond to objective reality (Gimpelson & Treisman, 2018; Hauser & Norton, 2017; Willis et al., 2022). Indeed, different empirical studies suggest that people find it difficult to accurately estimate actual economic social mobility (Alesina et al., 2018; Duru-Bellat & Kieffer, 2008; for occupational social mobility see Jaime-Castillo & Marqués-Perales, 2014). These results have also highlighted notable differences between regions. While in the United States, people overestimate actual economic social mobility (Cheng & Wen, 2019; Davidai & Gilovich, 2015; Kraus & Tan, 2015; see also Chambers et al., 2015), in Europe, people (e.g., those from France, Italy, Sweden, and the United Kingdom) tend to underestimate it (Alesina et al., 2018).

These cognitive biases have important individual and societal consequences (Alesina & La Ferrara, 2005; Cruces et al., 2013; Karadja et al., 2017; Präg & Gugushvili, 2021). For instance, Brown-Iannuzzi et al. (2015) found that experimentally manipulated high subjective social status in laboratory tasks decreased support for redistribution. These findings are consistent with existing research showing that when individuals overestimate their perceived

**Corresponding author:** Correspondence concerning this article should be addressed to Guillermo Byrd Willis. Universidad de Granada. Centro de Investigación Mente, Cerebro y Comportamiento (CIMCYC). Departamento de Psicología Social. Granada (Spain). E-mail: gwillis@ugr.es

**Cite this article:** Matamoros-Lima, J., Willis, G. B., Navarro-Carrillo, G., & Moya, M. (2024). (Mis)perception in Social Mobility: Optimistic Bias for Personal (but not Societal) Mobility Beliefs. *The Spanish Journal of Psychology* 27, e29, 1–9. <https://doi.org/10.1017/SJP.2024.23>

standing in society and are presented with their actual status (which tends to be poorer), they often exhibit a more favorable outlook toward redistribution (Alesina & La Ferrara, 2005; Cruces et al., 2013). Conversely, when people mistakenly underestimate their true standing in society, they tend to be less approving of redistributive policies (Karadja et al., 2017). Therefore, people could overestimate (optimistic view) or underestimate (pessimistic view) their status in society, which, in turn, could lead to unequal support for policies that would promote economic equality.

Importantly, these biases could be shaped by the type of social mobility that is being examined. People may think of mobility in personal terms (*personal mobility*) or general societal terms (*societal mobility*). Although it is plausible that societal mobility beliefs affect personal mobility beliefs (e.g., Day & Fiske, 2017), other variables may also be at play. For example, in the US context, people tend to overestimate their experienced mobility (e.g., Duru-Bellat & Kieffer, 2008) and their future mobility (Kraus & Tan, 2015), as well as to believe in “The American Dream” to a greater extent for themselves than for other people of their society (Hanson & Zogby, 2010). Likewise, when people are presented with actual mobility rates, their mobility beliefs decrease but do so more strongly for societal mobility beliefs than for personal mobility beliefs (Shariff et al., 2016). Therefore, they may be important differences when estimating *personal mobility* and *societal mobility*.

#### *Bias in Personal vs. Societal Mobility*

Previous research has shown that people tend to be optimistic when thinking about their own personal future, believing that their own chances of experiencing a negative event are lower than can possibly be true (Weinstein, 1980). For example, people underestimate the likelihood of getting into an automobile accident (Robertson, 1977), or being affected by a health problem (McGee & Cairns, 1994; McKenna et al., 1993). Interestingly, although people seem to be optimistic about themselves and their families, they also tend to feel pessimistic about the fate of their fellow citizens and of their nation (Galdi et al., 2020).

These results suggest the existence of an optimistic personal bias (Mezulis et al., 2004; Taylor, 1989), which appears to be consistent across countries (Sharot, 2011), and a pessimistic societal bias (Galdi et al., 2020). For instance, a survey conducted in twenty-seven European countries after the 2008 economic crisis showed that, when respondents were asked whether the economic crisis impacted on their personal situation, only 56% of them gave an affirmative answer. However, 90% or more of the respondents agreed that the economic crisis impacted on the world economy, the European economy, and the national economy (European Commission, 2012). In the same vein, a recent survey in the Spanish context showed that, whereas 66.1% of Spaniards described their economy as very good or good, only 20.4% did so for the country's economy (Centro de Investigaciones Sociológicas, [Sociological Research Centre], 2022).

This optimistic bias is also shown when estimating personal social mobility. Regardless of whether they had improved (upward mobility) or worsened (downward mobility) their social position compared to the past, people believed that they would improve their social position in the future (Du et al., 2021; Kelley & Kelley, 2009). This social mobility bias may be explained by dispositional optimism; that is, the fact that people tend to view personal future events positively (e.g., getting a good job, salary increase, etc.; Scheier et al., 1994).

In most Western countries, most people believe that the social hierarchy is a mirror of hard work and effort, that is, a consequence

of meritocracy (Mijs, 2018). People's meritocratic beliefs refer to the belief that moving from one social position to another is due to individual talent and/or hard work (Mijs, 2021). When people perform meritocratic attributions about success, they believe that it is easier to climb the social pyramid upward. In this way, another explanation for this cognitive bias may lie in how people perceive their personal accomplishments and those of their peers (meritocratic beliefs). These meritocratic attributions about future success could lead to increased optimism about personal mobility in the future as people could believe that their own efforts will be rewarded (Mijs et al., 2022).

Briefly, there is strong evidence to support the thesis that people have an optimistic bias when they think about their own future and a pessimistic view when they think about the future of other people or society. However, this approach has not been tested directly in a societal mobility beliefs framework.

#### *Overview of the Current Research*

People have difficulties in estimating the actual economic social mobility in their country, and this leads to a biased view of reality. Whereas some people overestimate the existing level of mobility, others underestimate it. Here we will use the term “optimistic” to refer to the overestimation of mobility and “pessimistic” to refer to the underestimation. The overestimation or underestimation of social mobility can be analyzed in several ways. In this paper, we have chosen two of them. The first is by comparing the objective actual economic mobility with the perceived or estimated one. This can only be done logically concerning the past because people have yet to know about future. The second is by asking people if they think that in the future, they (or their children) will be economically better off (optimism) or worsen off (pessimism).

The overestimation or underestimation of subjective social mobility—compared to economic social mobility—has been tested in different European countries, but not in Spain. Moreover, although past research has shown that people perceive their personal economies more optimistically than their countries' economies (Galdi et al., 2020), little attention has been paid to the fact that people may be more optimistic when estimating their own mobility (personal mobility) than in general (societal mobility).

The main goals of this research were to determine: (a) The extent to which the Spanish people accurately perceive actual economic social mobility, to examine whether there are some differences between personal and societal mobility perceptions; and (b) whether meritocratic beliefs are related with people's social mobility beliefs. In general, we hypothesize that personal mobility beliefs will be higher than societal mobility beliefs and that meritocratic beliefs will be positively related to social mobility beliefs. To achieve these purposes, we conducted two independent cross-sectional studies. All the analyses were conducted using R software (R Core Team, 2022)<sup>1</sup>.

#### **Study 1**

This study aims to explore to what extent the perception of upward societal mobility matches actual upward economic societal mobility in Spain; that will allow us also to analyze whether an optimistic

<sup>1</sup>Preregistrations, R code to reproduce analyses, and supplementary material are available at [https://osf.io/x2p7w/?view\\_only=cc9dc681996d4d92b3cf82446a5f4cac](https://osf.io/x2p7w/?view_only=cc9dc681996d4d92b3cf82446a5f4cac)

(more perceived mobility than actual) or a pessimistic perspective (less perceived mobility than actual) exists.

To compare the reality and the perception of societal mobility in Spain, we compare statistics about actual economic mobility during 18 years with the subjective estimation of mobility in this period.

## Method

### Participants and Procedure

The sample size was calculated in a prior power analysis using G\*Power (Faul et al., 2009) for a one-sample *t*-test (two tailed,  $\alpha = .05$ , 80% Power, Cohen's  $d = 0.15$ ; Lovakov & Agadullina, 2021), to check the differences among actual upward intergenerational economic societal mobility and upward intergenerational societal mobility beliefs. A minimum of 351 participants was required. The final sample was composed of 480 participants. A sensitivity analysis showed that a sample size of 480 allowed us to achieve a Cohen's  $d \geq 0.12$  ( $\alpha = .05$ , 80% Power).

After granting informed consent, a total of 553 participants were collected. Seventy-three participants were excluded according to the pre-registered exclusion criteria. The final sample included 480 participants, 65% female (33.54% male and 1.46% other), with  $M_{age} = 24.62$  ( $SD = 7.74$ ) and,  $M_{income} = \text{€}1,482.86$  per month ( $SD = 4,980.43$ ). Most of the participants were single (62.71%), had a higher secondary education (99.37%), and students (63.33%) (see Table S1 from the supplementary material).

All participants were reached online through the university's institutional email. Participants were asked to complete a confidential and anonymous survey which took approximately 20 minutes to be completed. They voluntarily agreed to participate and were informed that they could leave the study at any time. A monetary incentive was provided to participants. The study was conducted after receiving approval from the local Ethics Committee.

### Measures

In the preregistration plan, we pre-registered others measures for exploratory purposes related to different research goals.

**Actual Upward Intergenerational Societal Mobility.** The data on intergenerational economic social mobility provided by the Felipe González Foundation in collaboration with the Cotec Foundation were extracted. To calculate the intergenerational social mobility index, the Felipe González Foundation, in collaboration with the Cotec Foundation, extracted household income data in 1998 and 2016 through the Spanish Tax Agency. Using the household identifier, they matched parents with children and filtered out children born between 1984–1990 (between 8 and 14 years old in 1998). From this point they calculated income percentiles for each child in 2016 and their parents in 1998. At this point, we obtain the income percentile to which Spaniards aged 26 to 32 belong in 2016 and that of their household of origin. Using both data, intergenerational social mobility is calculated and the data are shown in income quintiles.

We carried out the average intergenerational economic social mobility of people born between 1984–1990, who aged in 2016 between 26 and 32. To calculate the percentage of people from the poorest quintile who moved into richer quintiles, we subtracted from the total percentage of people (100%) the number of people who remained in the poorest quintile. Specifically, we obtained an objective indicator of upward intergenerational societal mobility of people belonging in his youth —people between 8–14 years in 1998

— to the poorest quintile who moved to richer quintiles when they were between 26–32 years in 2016. Higher scores mean higher actual upward intergenerational economic societal mobility.

**Upward Intergenerational Societal Mobility Beliefs.** To contrast the actual intergenerational societal mobility, we created an indicator of perceived intergenerational societal mobility using a period of years similar to that of our indicator of actual social mobility (between 26–32 years), comparing the income quintile of origin of a person born in the poorest quintile with the quintile of destination. For this purpose, we used a ladder scale, which has been used to estimate social mobility perception in prior studies (Alesina et al., 2018; Davidai, 2018).

Specifically, perceived upward societal mobility was measured by asking participants about the number of people born in 1988–1994 that have moved from the poorest quintile to richer quintiles in 2020. Afterward, participants were asked to imagine that the Spanish population has been reduced to 100 people, and divided by income quintiles. Then, we presented two social status “ladders”, divided by income quintiles, which represent where each person is on the income scale at two different moments: The moment of its birth (1988–1994) and 2020 (the year this study was run). The participants were asked to indicate the number of people in the poorest quintile (born between 1988–1994), assuming that there were 20 people in each quintile, who remain in the poorest quintile and who moved to other richer quintiles, in the current affairs (2020; see Figure S1 from the supplemental material). As we did for actual social mobility, we calculated the percentage of people who move from the poorest quintile to the richer quintile. Higher scores mean higher upward intergenerational societal mobility beliefs.

**Sociodemographic Factors.** Finally, we asked about age, gender (*male, female, other*), marital status (*single, with partner, married, divorced, widowed*) occupation (*unemployed, student, student and part-time worker, part-time worker, full-time worker, retired*), participant's income (it was calculated by dividing monthly net household income by the number of people living in the household), educational level (from 1 = *no schooling* to 5 = *postgraduate*), and political orientation (1 = *far-left* to 7 = *far-right*).

## Results

### Preliminary Analysis

Descriptive statistics and Pearson correlations between all variables included in Study 1 are reported in Table S2 (see supplemental material).

### Exploratory Analysis

We examined potential differences between actual upward intergenerational societal mobility and upward intergenerational societal mobility beliefs. The objective data showed that the percentage of people who moved from the poorest quintile to other quintiles was  $M = 75.2$ . Participants thought (subjective data) that the percentage of people who moved from the poorest quintile to the richer quintiles was  $M = 53.57$  ( $SD = 27.59$ ). We run a one-sample *t*-test using *rstatix* package (Kassambara, 2023) to check whether there were significant differences between participants' perceived and actual social mobility. We found significant differences between actual upward intergenerational societal mobility and upward intergenerational societal mobility beliefs ( $t_{(479)} = -17.18$ ,  $p < .001$ , Glass's  $\Delta = 0.78$ , 95% CI  $[-1.18, 2.75]$ ).

## Discussion

Results from Study 1 suggest that participants from the Spanish population had an inaccurate view of social mobility in Spain. Specifically, the results indicated that the respondents underestimated the probability (pessimistic view) of a person from the poorest quintile reaching richer quintiles (upward intergenerational societal mobility). This finding, which is in line with the existing literature (Alesina et al., 2018), could be due to the perceptual difference between social (more pessimistic) and personal (more optimistic) events (Galdi et al., 2020). That is, it is possible that people are pessimistic when asked about societal mobility, and not so much when asked about their personal mobility. To explore this further, we conducted a conceptual replication of Study 1. Concretely, in Study 2 we investigated whether there are substantial differences between personal and societal mobility.

## Study 2

The main goal of this study was to replicate and extend the findings obtained in Study 1. We compared personal and societal mobility beliefs to test whether the pessimistic perception of societal mobility in Spain depends on the type of mobility: Personal and societal. In other words, if Spanish population are pessimistic when estimating mobility in Spain (societal mobility)—as it was found in Study 1—but nevertheless they are more optimistic when estimating their own mobility (personal mobility). We also tested whether these differences are affected by the type of time-based mobility; that is, we analyzed if this difference exists in both perceived intragenerational (i.e., the social mobility of an individual) and intergenerational mobility (i.e., the social mobility of different generations).

Furthermore, to shed light on the role of ideological variables in personal and societal mobility beliefs, we tested the predictive contribution of meritocratic beliefs to personal and societal mobility beliefs while controlling for the influence of the person's level of dispositional optimism.

Our preregistered hypotheses were:

**Hypothesis 1:** Intragenerational personal mobility beliefs will be higher than intragenerational societal mobility beliefs (i.e., the participants will perceive that in 15 years, they will be better off than other people of the same socioeconomic status [SES]).

**Hypothesis 2:** Intergenerational personal mobility beliefs will be higher than intergenerational societal mobility beliefs (i.e., the participants will perceive that in 35 years, their children will be better off than the children of other people of the same SES).

**Hypothesis 3:** Participant's meritocratic beliefs will positively predict: Intragenerational personal mobility beliefs ( $H_{3a}$ ); Intergenerational personal mobility beliefs ( $H_{3b}$ ); Intragenerational societal mobility beliefs ( $H_{3c}$ ); and Intergenerational societal mobility beliefs ( $H_{3d}$ ).

## Method

### Participants and Procedure

After granting informed consent, answers from a total of 284 participants were collected. Ten participants were excluded according to the pre-registered exclusion criteria. The final sample ( $N = 274$ ) consisted of 71.17% female (28.83% male), with  $M_{age} = 36.57$  ( $SD = 14.63$ ) and,  $M_{income} = €1,482.16$  per month ( $SD = 4,980.43$ ). Most of the participants were in a relationship or married

(60.22%), had secondary education or higher (95.97%), and were full-time workers (46.72%) (see Table S1 from the supplemental material).

A sensitivity analysis was performed using the *pwr* package (Champely, 2020) by R software (R CoreTeam, 2022). This analysis suggests that for a paired *t-test* (one tailed,  $\alpha = .05$ , 80% Power) our final sample ( $N = 274$ ) allows detecting an effect size of Cohen's  $d \geq 0.15$ .

Data collection was reached online through the university's institutional email and different social networks (e.g., Facebook, Twitter, etc.). People voluntarily agreed to participate and were informed that they could leave the study at any time. In the end, participants were fully debriefed and thanked. The study was conducted after receiving approval from the local Ethics Committee.

### Measures

**Personal Mobility Beliefs.** Participants' subjective socioeconomic status was measured using the MacArthur Subjective Socioeconomic Status (SSS) scale (Adler et al., 2000). It comprises 10 rungs ranging from 1 (*worse off status*) to 10 (*better off status*). Participants answered the scale three times: (a) At the present; (b) thinking about the position on the scale in the next 15 years; (c) thinking about the position on the scale of their son/daughter when he/she will be 35 years old. We calculated two personal mobility indexes, which capture social mobility beliefs taking into account two types of temporal mobility: Intragenerational and intergenerational mobility. For *intragenerational personal mobility beliefs*, we calculated the difference between the participant's position on the scale in the next 15 years and the participant's subjective position on the scale at the present; for *intergenerational personal mobility beliefs*, we calculated the difference between the place of the participant's child on the scale and the participant's position in the scale at the present. Therefore, positive scores reflect an upward intra/intergenerational personal mobility belief, while negative scores reflect downward intra/intergenerational personal mobility beliefs.

**Societal Mobility Beliefs.** Participants were presented with the same MacArthur SSS scale (Adler et al., 2000) and were asked to indicate: (a) What position will a person of the same socioeconomic status be on the scale in the next 15 years; (b) What position will this person's son/daughter be on the scale in the next 15 years. We also calculated two societal mobility indexes as did before. For *intragenerational societal mobility beliefs*, we calculated the difference between the place on the scale of a person with the same participant's socio-economic status in the next 15 years and the place on the scale of a person with the same participant's socio-economic status (i.e., participant's position in the scale at the present); for *intergenerational societal mobility beliefs*, we calculated the difference between the place on the scale of this person's son/daughter when he/she will be 35 years old and the place on the scale of a person with the same participant socio-economic status (i.e., participant's position in the scale at the present). Positive scores reflect an upward intra/intergenerational societal mobility belief, while negative scores reflect downward intra/intergenerational societal mobility beliefs.

**Meritocratic Beliefs.** The scale was composed of 6 items, which assesses beliefs about how hard work and skill are rewarded and how much people are perceived as deserving of their achievements (Spanish adaptation by García-Sánchez et al., 2022; Zimmerman & Reyna, 2013). Some examples of items are: "People who work hard succeed in their lives"; "If people work hard, they do get what they want". Answers were provided on a 7-point Likert scale ranging

**Table 1.** Regression Coefficients of Meritocratic Beliefs on Intra/Intergenerational Personal and Societal Mobility Beliefs in Study 2

Predictors	Intragenerational Personal Mobility Beliefs			Intergenerational Personal Mobility Beliefs			Intragenerational Societal Mobility Beliefs			Intergenerational Societal Mobility Beliefs						
	Estimates	SE	95% CI	p	Estimates	SE	95% CI	p	Estimates	SE	95% CI	p	Estimates	SE	95% CI	p
(Intercept)	0.94	0.25	[0.45, 1.43]	<.001	0.65	0.31	[0.03, 1.27]	.040	0.82	0.26	[0.31, 1.33]	.002	0.62	0.31	[0.01, 1.22]	.046
Meritocratic Beliefs	-0.08	0.07	[-0.22, 0.06]	.267	-0.01	0.09	[-0.20, 0.17]	.878	-0.13	0.08	[-0.28, 0.02]	.087	-0.05	0.09	[-0.22, 0.13]	.618
Observations	274				274				274				274			
R <sup>2</sup> / R <sup>2</sup> adjusted	0.005 / 0.001				0.000 / -0.004				0.011 / 0.007				0.001 / -0.003			
Deviance	688.242				1,103.336				740.362				1,057.352			
AIC	1,035.936				1,165.251				1,055.937				1,153.587			

from 1 (*totally disagree*) to 7 (*totally agree*). High score means high meritocratic beliefs ( $\alpha = .87$ ).

The same other measures from Study 1 were used in Study 2: Political orientation, and sociodemographic characteristics.

### Analysis Plan

To test Hypotheses 1 and 2 we carried out two paired *t-test* using *rstatix* package (Kassambara, 2023). We compared the difference between the means of the following variables: (a) Intragenerational personal mobility beliefs vs. intragenerational societal mobility beliefs; (b) intergenerational personal mobility beliefs vs. intergenerational societal mobility beliefs.

After testing the assumptions, four regression analyses were performed to test Hypothesis 3 ( $H_{3a}$ ,  $H_{3b}$ ,  $H_{3c}$ ,  $H_{3d}$ ). Our criterion variables were: Intragenerational personal mobility beliefs ( $H_{3a}$ ), intergenerational personal mobility beliefs ( $H_{3b}$ ), intragenerational societal mobility beliefs ( $H_{3c}$ ), and intergenerational societal mobility beliefs ( $H_{3d}$ ), and our predictor variable was meritocratic beliefs. Moreover, we replicated these regression analyses controlling for sociodemographic factors, ideological variables, perceived inequality, and dispositional optimism.

### Results

#### Preliminary Analysis

Descriptive statistics and Pearson correlations between all variables included in Study 2 are reported in Table S3 (see supplemental material).

#### Pre-registered Hypotheses

Regarding Hypothesis 1, we found significant differences between scores on intragenerational personal mobility beliefs ( $M = 0.68$ ,  $SD = 1.59$ ) and scores on intragenerational societal mobility beliefs ( $M = 0.41$ ,  $SD = 1.66$ ),  $t(273) = 3.45$ ,  $p < .001$ , Cohen's  $d = .16$ , 95% CI [.07,.26]. We also found significant differences between scores on intergenerational personal mobility beliefs ( $M = 0.61$ ,  $SD = 2.01$ ) and scores on intergenerational societal mobility beliefs ( $M = 0.47$ ,  $SD = 1.97$ ),  $t(273) = 1.90$ ,  $p = .029$ , Cohen's  $d = .06$ , 95% CI [-0.00,.13], confirming Hypothesis 2.

As for Hypothesis 3, contrary to our predictions, meritocratic beliefs did not predict any of the different types of personal and societal mobility beliefs assessed (see Table 1): Intragenerational personal mobility,  $H_{3a}$ :  $\beta = -0.08$ ,  $p = .267$ ; 95% CI [-0.22, 0.06]; Intergenerational personal mobility,  $H_{3b}$ :  $\beta = -0.01$ ,  $p = .878$ ; 95% CI [-0.20, 0.17]; Intragenerational societal mobility,  $H_{3c}$ :  $\beta = -0.13$ ,  $p = .087$ ; 95% CI [-0.28, 0.02]; Intergenerational societal mobility,  $H_{3d}$ :  $\beta = -0.05$ ,  $p = .618$ ; 95% CI [-0.22, 0.13].

### Discussion

Results of Study 2 showed significant differences between personal and societal mobility beliefs. Participants were more optimistic when considering their own personal mobility (intragenerational personal mobility) compared to the mobility of a person of the same social position (intragenerational societal mobility; Hypothesis 1); and when they consider their children's mobility (intergenerational personal mobility) compared with the children of a person of the same social position (intergenerational societal mobility; Hypothesis 2). Furthermore, results showed that the optimistic

effect was higher for intragenerational than intergenerational mobility when we compared personal and societal mobility beliefs. In other words, the optimistic bias is stronger when people think about their own lifetime mobility (compared to the lifetime mobility of another person with the same status in society; intragenerational mobility) than when they think about the mobility of their children (compared to the mobility of the children of another person with the same status in society; intergenerational mobility). Regarding Hypothesis 3, meritocratic beliefs did not emerge as a significant predictor of intragenerational personal mobility ( $H_{3a}$ ), intergenerational personal mobility ( $H_{3b}$ ), intragenerational societal mobility ( $H_{3c}$ ), and intergenerational societal mobility ( $H_{3d}$ ).

Overall, these results indicate that people are more optimistic about their own mobility (personal mobility) than about the mobility of society (societal mobility). Moreover, our data suggest that meritocratic beliefs do not seem to be a relevant variable for the prediction of any of the different types of mobility studied.

### General Discussion

The aim of the present research was to examine whether Spanish participants tend to have a more optimistic or pessimistic outlook on social mobility. To do this, we first contrasted their perceived social mobility with the actual level of economic mobility; secondly, we examined whether they are more optimistic about their own social mobility (compared with the social mobility of others). In two cross-sectional studies conducted in Spain, we found that: (a) Spanish people underestimate the actual economic social mobility in Spain; (b) Spanish people are more optimistic when estimating their future mobility than when estimating the mobility of society; and (c) meritocratic beliefs were unable to explain the optimistic bias in the estimation of social mobility.

These findings align with previous studies suggesting that people find it difficult to accurately estimate actual economic social mobility (Alesina et al., 2018; Duru-Bellat & Kieffer, 2008). Spanish participants underestimated actual economic societal mobility; in particular, the probability that a person born in the poorest group of the Spanish population was likely to move to richer groups. This finding is important since it strengthens the previous hypothesis about contextual differences in social mobility perceptions. This hypothesis rose by Alesina and colleagues (2018), showed that people in the United States overestimate actual societal economic mobility (see also Cheng & Wen, 2019; Davidai & Gilovich, 2015; Kraus & Tan, 2015), while Europeans (including France, Italy, Sweden, and the United Kingdom) tend to underestimate it.

The differences between countries in economic, social, and educational policies may influence how people overestimate their expectations of social mobility. Based on data on social spending in Organization for Economic Cooperation and Development (OECD) countries (2024), the public social spending for Spain in 2022 was 28.1% of Gross Domestic Product (GDP): The sixth highest spending OECD country, higher than other countries such as the United States (22.7%) or the United Kingdom (22.1%). In this sense, Spanish people could overestimate their social position in the future when they perceive that the policies in their country favor social and educational opportunities to climb the social ladder (Alesina et al., 2018; Gugushvili, 2019). Future research could investigate further how economic, social, and educational policies affect people's overestimation or underestimation of their expectations of social mobility.

However, this pessimistic outlook only occurs when Spanish people are thinking about others—not when they are thinking about themselves. As such, people seem to have an optimistic view

of their own social mobility (*personal optimism*; McGee & Cairns, 1994; McKenna et al., 1993; Mezulis et al., 2004; Robertson, 1977; Sharot, 2011), but a pessimistic view about the social mobility of other people on their country (*societal pessimism*; Galdi et al., 2020). Importantly, these happened regardless of whether they were thinking about their own future mobility (intragenerational mobility) or the mobility of their children (intergenerational mobility).

A potential explanation for this bias could be related to people's egocentrism and focalism (Kruger, 1999; Kruger & Burrus, 2004; Windschitl et al., 2003). When estimating the probability of having a favorable outcome, individuals may be inclined to focus solely on their own chances of experiencing the event and neglect to properly consider the probability of someone else experiencing the same event. This egocentric tendency can lead to skewed, overly optimistic predictions about the likelihood of a positive outcome.

In short, we found that people tend to be more optimistic about their personal risks than about collective risks, and this bias could also have important consequences. Recent studies have shown that individuals tend to be less supportive of redistribution when they think optimistically about their future in relation to their personal risks, compared to their collective risks (Galdi et al., 2020). The present study provides evidence for a dual perception of social mobility. The personal optimism reflected by our studies could lead to less support for wealth redistribution policies, which should be explored in future studies.

Regarding the predictive capacity of meritocratic beliefs, we did not find an effect of meritocratic beliefs on personal and societal mobility. In Study 2, meritocratic beliefs were only found to predict intragenerational personal mobility. This could be due to several factors linked to economic and cultural variables. After the economic crisis of 2008, Spanish society experienced a significant reduction in the opportunities to get stable and prestigious positions (Salido, 2018). In addition, the Spanish cultural history, where the family plays a crucial role in supporting the growth or maintenance of descendants' social position, might have influenced how people value social capital compared to individual effort. This, taken together, might have influenced the importance given to hard work and effort (meritocracy; see also Mijs, 2021) to rise to better social positions (especially among the most affected groups, such as young people), attributing a higher value to acquired social capital, such as family connections and support networks (Chetty et al., 2022).

It is therefore plausible that other constructs play a more relevant role in determining the perception of mobility, such as *perceived control* or *self-efficacy*. Research has shown that people tend to be optimistic about their future because they believe it is under their control (Galdi et al., 2020). This finding is consistent with other studies positing that perceived control might be a relevant predictor of personal optimism and collective pessimism (Chambers et al., 2003; Harris, 1996; Klein & Helweg-Larsen, 2002).

This cognitive bias about social mobility could have important consequences related to the acceptance of redistributive policies to reduce economic inequality. Previous studies showed that individuals tend to be less supportive of redistribution when they think optimistically about their future in relation to their personal risks, compared to their collective risks (Galdi et al., 2020). In this line, when individuals who have previously overestimated their current position are shown their actual position, they tend to be more supportive of redistributive policies (Cruces et al., 2013). Thus, campaigns could be aimed at counteracting people's optimistic bias; for instance, through awareness-raising campaigns about the actual level of social mobility. Consequently, people could become

aware of the real difficulty of reaching the top of the social structure, which could favor positive attitudes towards redistributive policies.

Although our findings expand the existing literature on social mobility beliefs (Cheng & Wen, 2019; Davidai & Gilovich, 2015; Kraus & Tan, 2015), the present research has some limitations. In Study 1, although we attempted to reduce the difficulty of mobility estimation, some of the perceptual bias could be explained by simple estimation errors. In Study 2, we controlled for some of the limitations of Study 1 by operationalizing social mobility beliefs through a subtraction using the SSS scale scores (Adler et al., 2000), as has been used in previous studies (Bucca, 2016; Du et al., 2021; Gimpelson & Monusova, 2014; Mijs et al., 2022). However, this approach may also have some limitations. For example, people often place themselves in intermediate positions when asked to report their subjective socioeconomic status (Evans & Kelley, 2004), which could introduce measurement errors and affect the results obtained. Therefore, future studies should replicate these results using different measures of social mobility. Another limitation could be related to the order in which we presented the variables. We first presented personal mobility and then societal mobility. This might have resulted in respondents using their personal mobility as a reference point—anchoring bias—when estimating societal mobility. Future studies should replicate these results by counterbalancing the administration of the two mobility measures to address this limitation.

Also, a limitation of our study is the composition of the sample, which consists mainly of undergraduate students. This group has perceptions and experiences of social mobility that might differ from those of the general population, given their educational level and potential for upward mobility. Therefore, the results should be interpreted with caution when generalizing to other contexts and demographic groups. Future studies might benefit from including more diverse samples to improve the generalizability of the findings.

The present research supports previous research showing that people find it difficult to accurately estimate actual economic social mobility and underestimate it in different European countries (France, Italy, Sweden, and the United Kingdom). Significantly, this research shows that this cognitive bias might relate more to personal mobility than societal mobility. Our results follow that people have a more substantial optimistic bias on estimating their own mobility (i.e., personal mobility) than when estimating societal mobility (i.e., societal mobility). Moreover, these differences occur regardless of whether people estimate their own mobility over their lifetime (i.e., intragenerational personal mobility) or between generations (i.e., intergenerational personal mobility). Overall, understanding the causes of errors in estimating social mobility and the optimistic bias present in personal mobility beliefs could be important for future research; for instance, research related to the maintenance of inequality, such as research about attitudes toward economic inequality or support for redistributive policies.

**Supplementary material.** To view supplementary material for this article, please visit <http://doi.org/10.1017/SJP.2024.23>.

**Acknowledgements.** Funding for open access charge: Universidad de Granada / CBUA.

**Authorship credit.** J. M.-L.: Conceptualization, data curation, formal analysis, investigation, methodology, recourses, visualization, writing – original draft, writing – review & editing. G. B. W.: Conceptualization, funding acquisition, methodology, recourses, investigation, supervision, validation, writing – review & editing. G. N.-C.: Conceptualization, methodology, recourses, investigation, validation, writing – review & editing. M. M. M.: Conceptualization, funding

acquisition, methodology, recourses, investigation, supervision, validation, writing – review & editing.

**Data sharing.** Analytic code data, materials, and supplemental material are available in Center for Open Science [https://osf.io/x2p7w/?view\\_only=cc9dc681996d4d92b3cf82446a5f4cac](https://osf.io/x2p7w/?view_only=cc9dc681996d4d92b3cf82446a5f4cac)

**Funding statement.** This research was supported by the Ministerio de Ciencia, Innovación y Universidades del Gobierno de España under Grant PID2019–105643GB–I00 funded by MCIN/AEI/10.13039/501100011033, Grant PID2020–114464RB–I00 funded by MCIN/AEI/10.13039/501100011033; and the Junta de Andalucía under Grant A–SEJ–72–UGR20, as appropriate, by “ERDF A way of making Europe”, and Grant P20\_00199

**Conflicts of interest.** None.

## References

- Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, white women. *Health Psychology, 19*(6), 586–592. <https://doi.org/10.1037/0278-6133.19.6.586>
- Alesina, A., & La Ferrara, E. (2005). Preferences for redistribution in the land of opportunities. *Journal of Public Economics, 89*(5–6), 897–931. <https://doi.org/10.1016/j.jpubeco.2004.05.009>
- Alesina, A., Stantcheva, S., & Teso, E. (2018). Intergenerational mobility and preferences for redistribution. *American Economic Review, 108*(2), 521–554. <https://doi.org/10.1257/aer.20162015>
- Asch, S. E. (1952). *Social psychology*. Prentice-Hall, Inc. <https://doi.org/10.1037/10025-000>
- Benabou, R., & Ok, E. A. (2001). Social mobility and the demand for redistribution: The POUM Hypothesis. *The Quarterly Journal of Economics, 116*(2), 447–487. <https://doi.org/10.1162/00335530151144078>
- Brown-Iannuzzi, J. L., Lundberg, K. B., Kay, A. C., & Payne, B. K. (2015). Subjective status shapes political preferences. *Psychological Science, 26*(1), 15–26. <https://doi.org/10.1177/0956797614553947>
- Bucca, M. (2016). Merit and blame in unequal societies: Explaining Latin Americans' beliefs about wealth and poverty. *Research in Social Stratification and Mobility, 44*, 98–112. <https://doi.org/10.1016/j.rssm.2016.02.005>
- Centro de Investigaciones Sociológicas. (2022). *Estimación de voto* [Voting estimates]. (Estudio No. 3388, Barómetro de diciembre 2022). [https://www.cis.es/documents/d/cis/3388\\_estimacion](https://www.cis.es/documents/d/cis/3388_estimacion)
- Chambers, J. R., Swan, L. K., & Heesacker, M. (2015). Perceptions of U.S. social mobility are divided (and distorted) along ideological lines. *Psychological Science, 26*(4), 413–423. <https://doi.org/10.1177/0956797614566657>
- Chambers, J. R., Windschitl, P. D., & Suls, J. (2003). Egocentrism, event frequency, and comparative optimism: When what happens frequently is “more likely to happen to me”. *Personality and Social Psychology Bulletin, 29*(11), 1343–1356. <https://doi.org/10.1177/0146167203256870>
- Champely, S. (2020). *pwr: Basic functions for power analysis* (Version 1.3-0; R package) [Computer software]. <https://cran.r-project.org/web/packages/pwr/pwr.pdf>
- Cheng, S., & Wen, F. (2019). Americans overestimate the intergenerational persistence in income ranks. *Proceedings of the National Academy of Sciences, 116*(28), 13909–13914. <https://doi.org/10.1073/pnas.1814688116>
- Chetty, R., Jackson, M. O., Kuchler, T., Stroebel, J., Hendren, N., Fluegge, R. B., Gong, S., Gonzalez, F., Grondin, A., Jacob, M., Johnston, D., Koenen, M., Laguna-Muggenburg, E., Mudekereza, F., Rutter, T., Thor, N., Townsend, W., Zhang, R., Bailey, M., ... Wernerfelt, N. (2022). Social capital I: Measurement and associations with economic mobility. *Nature, 608*(7921), 108–121. <https://doi.org/10.1038/s41586-022-04996-4>
- Cruces, G., Perez-Truglia, R., & Tetaz, M. (2013). Biased perceptions of income distribution and preferences for redistribution: Evidence from a survey experiment. *Journal of Public Economics, 98*, 100–112. <https://doi.org/10.1016/j.jpubeco.2012.10.009>
- Davidai, S. (2018). Why do Americans believe in economic mobility? Economic inequality, external attributions of wealth and poverty, and the belief in

- economic mobility. *Journal of Experimental Social Psychology*, **79**, 138–148. <https://doi.org/10.1016/j.jesp.2018.07.012>
- Davidai, S., & Gilovich, T. (2015). Building a more mobile America—One income quintile at a time. *Perspectives on Psychological Science*, **10**(1), 60–71. <https://doi.org/10.1177/1745691614562005>
- Davidai, S., Gilovich, T., & Ross, L. D. (2012). The meaning of default options for potential organ donors. *Proceedings of the National Academy of Sciences*, **109**(38), 15201–15205. <https://doi.org/10.1073/pnas.1211695109>
- Davidai, S., & Wienk, M. N. A. (2021). The psychology of lay beliefs about economic mobility. *Social and Personality Psychology Compass*, **15**, Article e12625. <https://doi.org/10.1111/spc3.12625>
- Day, M. V., & Fiske, S. T. (2017). Movin' on up? How perceptions of social mobility affect our willingness to defend the system. *Social Psychological and Personality Science*, **8**(3), 267–274. <https://doi.org/10.1177/1948550616678454>
- Day, M. V., & Fiske, S. T. (2019). Understanding the nature and consequences of social mobility beliefs. In J. Jetten & K. Peters (Eds.), *The social psychology of inequality* (pp. 365–380). Springer International Publishing. [https://doi.org/10.1007/978-3-030-28856-3\\_23](https://doi.org/10.1007/978-3-030-28856-3_23)
- Du, H., Liang, Y., Chi, P., & King, R. B. (2021). Chinese perceive upward social mobility: How future mobility is influenced, but not limited by past mobility. *International Journal of Psychology*, **56**(6), 951–960. <https://doi.org/10.1002/ijop.12771>
- Duru-Bellat, M., & Kieffer, A. (2008). Objective/subjective: The two facets of social mobility. *Sociologie Du Travail*, **50**, e1–e18. <https://doi.org/10.1016/j.soctra.2008.07.001>
- Echeverría Zabalza, J. (1999). La movilidad social en España, 1940–1991 [*Social mobility in Spain, 1940–1991*]. Istmo.
- Eriksson, K., & Simpson, B. (2012). What do Americans know about inequality? It depends on how you ask them. *Judgment and Decision Making*, **7**(6), 741–745. <http://doi.org/10.1017/S1930297500003284>
- European Commission. (2012). *Special Eurobarometer/Wave 76.1-TNS opinion & social* (Crisis report). <https://www.europarl.europa.eu/at-your-service/files/be-heard/eurobarometer/2011/europeans-and-the-crisis-iv/aggregate-report/en-aggregate-report-europeans-and-the-crisis-iv-201201.pdf>
- Evans, M. D. R., & Kelley, J. (2004). Subjective social location: Data from 21 nations. *International Journal of Public Opinion Research*, **16**(1), 3–38. <https://doi.org/10.1093/ijpor/16.1.3>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, **41**(4), 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>
- Galdi, S., Maass, A., & Robbiani, A. (2020). The bright side of pessimism: Promoting wealth redistribution under (felt) economic hardship. *PLOS ONE*, **15**(12), Article e0243486. <https://doi.org/10.1371/journal.pone.0243486>
- García-Sánchez, E., Castillo, J. C., Rodríguez-Bailón, R., & Willis, G. B. (2022). The two faces of support for redistribution in Colombia: Taxing the wealthy or assisting people in need. *Frontiers in Sociology*, **7**, Article 773378. <https://doi.org/10.3389/fsoc.2022.773378>
- Gimpelson, V., & Monusova, G. (2014). Perception of inequality and social mobility (Higher School of Economics Research Paper No. WP BRP 84/EC/2014). SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.2538527>
- Gimpelson, V., & Treisman, D. (2018). Misperceiving inequality. *Economics & Politics*, **30**(1), 27–54. <https://doi.org/10.1111/ecpo.12103>
- Gugushvili, A. (2016). Intergenerational objective and subjective mobility and attitudes towards income differences: Evidence from transition societies. *Journal of International and Comparative Social Policy*, **32**(3), 199–219. <https://doi.org/10.1080/21699763.2016.1206482>
- Gugushvili, A. (2019). A multilevel analysis of perceived intergenerational mobility and welfare state preferences. *International Journal of Social Welfare*, **28**(1), 16–30. <https://doi.org/10.1111/ijsw.12316>
- Hadavand, A. (2018). Misperceptions and mismeasurements: An analysis of subjective economic inequality. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.2988271>
- Hanson, S. L., & Zogby, J. (2010). The polls-trends: Attitudes about the American dream. *Public Opinion Quarterly*, **74**(3), 570–584. <https://doi.org/10.1093/poq/nfq010>
- Harris, P. (1996). Sufficient grounds for optimism?: The relationship between perceived controllability and optimistic bias. *Journal of Social and Clinical Psychology*, **15**(1), 9–52. <https://doi.org/10.1521/jscp.1996.15.1.9>
- Hauser, O. P., & Norton, M. I. (2017). (Mis)perceptions of inequality. *Current Opinion in Psychology*, **18**, 21–25. <https://doi.org/10.1016/j.copsyc.2017.07.024>
- Jaime-Castillo, A. M., & Marqués-Perales, I. (2014). Beliefs about social fluidity and preferences for social policies. *Journal of Social Policy*, **43**(3), 615–633. <https://doi.org/10.1017/S0047279414000221>
- Karadja, M., Mollerstrom, J., & Seim, D. (2017). Richer (and holier) than you? The effect of relative income improvements on demand for redistribution. *The Review of Economics and Statistics*, **99**(2), 201–212.
- Kassambara, A. (2023). Rstatix: Pipe-friendly framework for basic statistical testspwr: Basic functions for power analysis (Version 0.7.1; R package) [Computer software]. <https://cran.r-project.org/web/packages/rstatix/index.html>
- Kelley, S. M. C., & Kelley, C. G. E. (2009). Subjective social mobility: Data from thirty nations. In M. Haller, R. Jowell, & T. Smith (Eds.), *Charting the globe: The international social survey programme 1984–2009* (pp. 128–146). Routledge.
- Kerbo, H. R. (2010). *Estratificación social y desigualdad: El conflicto de clase en perspectiva histórica, comparada y global* [Social stratification and inequality: Class conflict in historical, comparative, and global perspective] (M. T. Casado, Trans; 5<sup>th</sup> Ed.). McGraw-Hill. (Original work published 2003).
- Klein, C. T. F., & Helweg-Larsen, M. (2002). Perceived control and the optimistic bias: A meta-analytic review. *Psychology & Health*, **17**(4), 437–446. <https://doi.org/10.1080/0887044022000004920>
- Kraus, M. W., & Tan, J. J. X. (2015). Americans overestimate social class mobility. *Journal of Experimental Social Psychology*, **58**, 101–111. <https://doi.org/10.1016/j.jesp.2015.01.005>
- Kruger, J. (1999). Lake wobegon be gone! The “below-average effect” and the egocentric nature of comparative ability judgments. *Journal of Personality and Social Psychology*, **77**(2), 221–232. <https://doi.org/10.1037/0022-3514.77.2.221>
- Kruger, J., & Burrus, J. (2004). Egocentrism and focalism in unrealistic optimism (and pessimism). *Journal of Experimental Social Psychology*, **40**(3), 332–340. <https://doi.org/10.1016/j.jesp.2003.06.002>
- Lovakov, A., & Agadullina, E. R. (2021). Empirically derived guidelines for effect size interpretation in social psychology. *European Journal of Social Psychology*, **51**(3), 485–504. <https://doi.org/10.1002/ejsp.2752>
- McGee, H. M., & Cairns, J. (1994). Unrealistic optimism: A behavioural sciences classroom demonstration project. *Medical Education*, **28**(6), 513–516. <https://doi.org/10.1111/j.1365-2923.1994.tb02728.x>
- McKenna, F. P., Warburton, D. M., & Winwood, M. (1993). Exploring the limits of optimism: The case of smokers' decision making. *British Journal of Psychology*, **84**(3), 389–394. <https://doi.org/10.1111/j.2044-8295.1993.tb02490.x>
- Mezulis, A. H., Abramson, L. Y., Hyde, J. S., & Hankin, B. L. (2004). Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychological Bulletin*, **130**(5), 711–747. <https://doi.org/10.1037/0033-2909.130.5.711>
- Mijs, J. J. B. (2018). Visualizing belief in meritocracy, 1930–2010. *Socius: Sociological Research for a Dynamic World*, **4**. <https://doi.org/10.1177/2378023118811805>
- Mijs, J. J. B. (2021). The paradox of inequality: Income inequality and belief in meritocracy go hand in hand. *Socio-Economic Review*, **19**(1), 7–35. <https://doi.org/10.1093/ser/mwy051>
- Mijs, J. J. B., Daenekindt, S., de Koster, W., & van der Waal, J. (2022). Belief in meritocracy reexamined: Scrutinizing the role of subjective social mobility. *Social Psychology Quarterly*, **85**(2), 131–141. <https://doi.org/10.1177/01902725211063818>
- Organization for Economic Cooperation and Development. (2024, June 24). *OECD social expenditure database*. <https://www.oecd.org/els/soc/expenditure.htm>
- Präg, P., & Gugushvili, A. (2021). Subjective social mobility and health in Germany. *European Societies*, **23**(4), 464–486. <https://doi.org/10.1080/14616696.2021.1887916>



- R Core Team.** (2022). *R: A Language and environment for statistical computing*. R Foundation for Statistical Computing. <https://www.R-project.org/>
- Robertson, L. S.** (1977). Car crashes: Perceived vulnerability and willingness to pay for crash protection. *Journal of Community Health, 3*(2), 136–141. <https://doi.org/10.1007/BF01674235>
- Salido, O.** (2018, July). Crisis económica y clases sociales: Todos perdemos, sobre todo los más pobres [Economic crisis and social classes: We all lose, especially the poorest]. *Observatorio La Caixa*. <https://elobservatoriosocial.fundacionlacaixa.org/es/-/crisis-economica-y-clases-sociales>
- Scheier, M. F., Carver, C. S., & Bridges, M. W.** (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology, 67*(6), 1063–1078. <https://doi.org/10.1037/0022-3514.67.6.1063>
- Shariff, A. F., Wiwad, D., & Aknin, L. B.** (2016). Income mobility breeds tolerance for income inequality: Cross-national and experimental evidence. *Perspectives on Psychological Science, 11*(3), 373–380. <https://doi.org/10.1177/1745691616635596>
- Sharot, T.** (2011). The optimism bias. *Current Biology, 21*(23), R941–R945. <https://doi.org/10.1016/j.cub.2011.10.030>
- Taylor, S. E.** (1989). *Positive illusions: Creative self-deception and the healthy mind*. Basic Books/ Hachette Book Group.
- Trump, K.-S.** (2018). Income inequality influences perceptions of legitimate income differences. *British Journal of Political Science, 48*(4), 929–952. <https://doi.org/10.1017/S0007123416000326>
- Weinstein, N. D.** (1980). Unrealistic optimism about future life events. *Journal of Personality and Social Psychology, 39*(5), 806–820. <https://doi.org/10.1037/0022-3514.39.5.806>
- Willis, G. B., García-Sánchez, E., Sánchez-Rodríguez, Á., García-Castro, J. D., & Rodríguez-Bailón, R.** (2022). The psychosocial effects of economic inequality depend on its perception. *Nature Reviews Psychology, 1*(5), 301–309. <https://doi.org/10.1038/s44159-022-00044-0>
- Windschitl, P. D., Kruger, J., & Simms, E. N.** (2003). The influence of egocentrism and focalism on people's optimism in competitions: When what affects us equally affects me more. *Journal of Personality and Social Psychology, 85*(3), 389–408. <https://doi.org/10.1037/0022-3514.85.3.389>
- Zimmerman, J. L., & Reyna, C.** (2013). The meaning and role of ideology in system justification and resistance for high- and low-status people. *Journal of Personality and Social Psychology, 105*(1), 1–23. <https://doi.org/10.1037/a0032967>