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Migrants' regrets: The role of regulatory focuses, social comparison, discrimination, and uncertainty aversion

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Abstract

The present study examines immigrants' regret about their decision to emigrate. One hundred and ninety-six immigrants who had emigrated to the UK completed a questionnaire containing scales measuring regulatory focus (prevention and promotion), social comparison with compatriots in the country of origin, uncertainty aversion, perceived discrimination and regret. As expected, the results showed that immigrants with a predominance of prevention (vs. promotion) focus experienced more regret about their decision to emigrate. Furthermore, upward social comparison with compatriots in the country of origin, uncertainty aversion and perceived discrimination were all associated with greater regret. Interestingly, interactive effects also emerged among the key variables of the study. First, the relationship between negative social comparison with compatriots in the country of origin and regret was more pronounced among individuals with a greater prevalence of prevention (vs. promotion) focus. Second, the relationship between perceived discrimination and regret was more pronounced among individuals with a greater prevalence of prevention (vs. promotion) focus. Third, the relationship between uncertainty aversion and regret was more pronounced among individuals with a greater prevalence of prevention (vs. promotion) focus. Theoretical and applied implications of these findings are discussed.

Key words: regulatory focus; regret; immigrant; discrimination; uncertainty aversion

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Introduction

Various studies have highlighted that immigrants and refugees experience high levels of stress (Eggert & Flynn, 2020; Fazel et al. 2005; Rumbaut, 1991; Segal & Mayadas, 2005; Sternberg et al. 2016; Yakushko et al. 2008). They face many challenges, such as finding suitable employment and housing, adapting to a new culture, building a new social network, and many others. Several authors have discussed the negative social and psychological challenges and outcomes associated with immigration and settlement in an unfamiliar environment (e.g. Berry, 1997; Birman, 1994; Furnham & Bochner, 1986; Ogbu, 1994), but very few, to our knowledge, have discussed the issue of regret among immigrants (e.g. Knausenberger et al., 2022). Regret has been studied extensively by researchers in the field of social cognition and decision making (e.g., Connolly & Zeelenberg, 2002; d’Avelar, 2022; Feiler & Müller-Trede, 2022; Gilovich & Medvec, 1995; Medvec et al., 1995; Towers et al., 2016; Zeelenberg & Pieters, 2007). Today, examples of regret research can be found in many different areas, and more recently, regret research has increasingly focused on life regrets and their impact on individual well-being. Several studies have shown that people who experience regret often have lower life satisfaction (e.g. Buchanan et al., 2016; Sijtsema et al., 2022; Wrosch et al., 2005). It is therefore surprising that regret has received little attention in the field of immigrant acculturation. One study found that regret among immigrants is predicted by discrimination experienced in the host society (Knausenberger et al., 2022). Discrimination has been identified as a major stressor affecting the well-being of immigrants and their integration process (e.g., Szaflarski & Bauldry, 2019).

This study examines the extent to which immigrants in the UK regret their decision to emigrate in relation to social comparisons with co-nationals in the country of origin. We expect that immigrants who perceive their compatriots as better off than themselves will experience more regret about their decision to emigrate. We further hypothesise that this relationship may be strengthened by perceptions of discrimination in the host country and by the feeling of uncertainty, and can be moderated by motivational factors, such as self-regulatory focuses of prevention and promotion. The rationale for these hypotheses is explained below.

Regret

Regret is a common experience, familiar to most, if not all of us, and can affect people from all cultures, including immigrants (Gilovich et al., 2003). Regret has been described as referring to experiences that people wished had turned out differently, whether these were things they had done or failed to do, bad decisions, unfulfilled ambitions or something else. Regret can be induced by small choices or day-to-day behaviours, as well as by major decisions related to major tasks and life transitions. Sometimes people regret decisions they made a long time ago. Two commonly used definitions of regret come from Landman (1993), who describes it as “a more or less painful cognitive and emotional state of feeling sorry for misfortunes, limitations, losses, transgressions, shortcomings, or mistakes” (p. 36), and

Zeelenberg (1999), who describes it as “a negative, cognitively based emotion that we experience when we realise or imagine that our present situation would have been better if we had acted differently” (p. 326). Thus, regret is a comparison-based emotion that results from receiving information about alternatives that were foregone or rejected. This type of comparison between an actual outcome and alternative outcomes that could have been achieved may depend on the process of social comparison (e.g., Sanna, 1996, 2000).

Social comparisons can be either upward or downward. Research examining people’s life regrets has found that upward social comparisons (with people who are better off) are associated with greater regret, whereas downward social comparisons (with people who are worse off) are consistently associated with a reduction in the intensity of regret (Bauer et al., 2008), especially among those who perceive few opportunities to undo their regrets (Bauer & Wrosch, 2011). Previous research has shed little light on how immigrants compare to co-nationals who remained in the country of origin (as an exception, see Feliciano, 2005).

Many immigrants long for their home country and talk about regretting their decision to emigrate. They may compare themselves with people in their country of origin and with co-nationals living in the host country. In this way, they may receive confirmation that their circumstances are better or worse than those of others. We hypothesise that upward social comparison will induce regret about the decision to emigrate. More specifically, regret about the decision to emigrate is likely to result from upward social comparison with co-nationals, either in the host country or in the country of origin. Furthermore, we investigated which factors might play a protective role and which might even strengthen the relationship between perception of life circumstances, social comparison and regret. We expected that the relationship between upward social comparison and regret might be stronger if immigrants perceived discrimination in the host country. In addition, we hypothesised that this relationship might be moderated by regulatory focuses (RFT; Higgins, 1997). We expected that individuals with a predominant prevention focus might be more sensitive to regret than individuals with a predominant promotion focus, as found in previous research (Leder et al., 2013).

Regulatory Focus Theory

Regulatory focus theory (Higgins, 1997, 1998) proposes that individuals can adopt different motivational orientations - a promotion focus or a prevention focus - and that these orientations determine the strategies people use to achieve their goals or make decisions.

Promotion-focused individuals are primarily concerned with achieving growth-related goals, hopes, aspirations, achievements, and the need for advancement. Goals are seen as ideals, and there is a strategic concern with approaching gains (the presence of positive outcomes) and avoiding non-gains (the absence of positive outcomes).

Prevention-focused individuals are primarily concerned with security-related goals, safety, responsibility and obligation (Higgins & Tykocinski, 1992; Idson, Liberman, & Higgins,

2000). Goals are seen as ought, and there is a strategic concern with approaching non-loss (the absence of negative outcomes) and avoiding loss (the presence of negative outcomes). Both prevention and promotion regulatory focuses are conceptualised along a continuum and represent individual differences that can be measured using a dispositional scale (chronic regulatory focus) or induced by varying it across situations (momentary regulatory focus). The two variables are considered independent of each other, so that some people may have one regulatory focus higher than the other (one predominates over the other), or may have strong tendencies towards both focuses, or may have weak tendencies towards both focuses.

Leder and collaborators (2013) found that promotion-focused and prevention-focused individuals differ in the amount of regret they experience. In general, prevention-focused self-regulation is associated with a greater likelihood of experiencing regret for negative decision outcomes. In line with this study, we assume that more promotion-focused individuals will regret their decision to emigrate less than more prevention-focused individuals because they have made a decision in line with their motivational orientation. In general, people are more satisfied when they act according to their motivational concerns (Avnet & Higgins, 2003). This also makes it easier for them to justify the decision, and more justifiable decisions are associated with less regret (Zeelenberg & Pieters, 2002). Thus, a dominant promotion focus may protect individuals from regret even under conditions of negative upward social comparison. Instead, we suggest that individuals with a dominant prevention focus may be particularly sensitive to regret resulting from negative upward social comparisons, i.e., when they evaluate themselves and their outcomes more negatively relative to other relevant individuals.

Uncertainty aversion

Several studies have already confirmed the link between uncertainty aversion and regret (e.g., Krähmer & Stone, 2013). Uncertainty aversion is the tendency to prefer the known to the unknown and is associated with feelings ranging from discomfort to fear (Buhr & Dugas, 2002). From a clinical perspective, uncertainty aversion, defined as "an individual's excessive tendency to regard the possibility of a negative event occurring as unacceptable", is one of the risk factors for the development of anxiety disorders and emotional tension (Dugas et al., 1998). Based on this research, we hypothesised a positive relationship between uncertainty aversion and regret. We tested our hypotheses in a study involving 196 immigrants living in the UK.

Method

Participants

The study involved 196 first-generation immigrants to the UK (126 women and 70 men). They were mainly from some African and Asian countries. The mean age of the participants

was 33.39 years ($SD = 10.33$) and their mean length of residence in England was 9.66 years ($SD = 10.44$). In terms of relationship status, most of the participants reported being married or engaged (74.5%). Others were divorced, widowed, or single (25.5%). Educational level was measured by asking participants to indicate the highest level of education they had completed (1 = primary school; 5 = master's degree or doctorate). Most of the participants had completed secondary education (45.4%) or a university degree (46.4%). The majority of participants were employed (55.1%), followed by those who were students (17.9%) or unemployed (14.3%). Some participants did not answer this question (12.8%).

Methods. Data were collected in 2015 through the Science, People and Innovation survey agency, and people were asked to complete an anonymous online questionnaire. The study was approved by the Ethical Research Committee of the first author's department.

Measures

The questionnaire included several scales described below and some socio-demographic characteristics (age, gender, partnership status, educational level, country of origin, and length of stay in the host country).

Regulatory focus measure. After completing the socio-demographic data, participants completed the regulatory focus measure (Lockwood, Jordan, & Kunda, 2002), which included 9 items for promotion focus (e.g., 'I often imagine how I will achieve my hopes and aspirations') and an additional 9 items for prevention focus (e.g., 'In general, I am focused on preventing negative events in my life'), both using a 6-point Likert-type scale (1 = not at all true of me; 6 = very true of me). We created an index of promotion focus ($M = 3.94$; $SD = 1.01$; $\alpha = .91$) and an index of prevention focus ($M = 4.59$; $SD = 0.85$; $\alpha = .87$) by aggregating responses to the 9 items. Finally, we calculated a difference index by subtracting promotion focus from prevention focus, with positive values indicating a predominance of prevention focus and negative values indicating a predominance of promotion focus.

The social comparison scale with people in the country of origin was proposed by the authors of this study. For 3 items on a 6-point Likert scale (1 = strongly disagree; 6 = strongly agree), participants were asked to indicate whether people they know in their country of origin have a better job, more free time and more opportunities to help their family than they do. Principal axis factoring revealed a one-factor structure explaining 62.18% of the variance. An index of social comparison with compatriots in the country of origin was calculated by aggregating responses to all items ($M = 3.78$; $SD = 1.26$; $\alpha = .83$). Higher scores indicate more upward social comparison with people in the country of origin.

Measure of perceived discrimination. Participants were asked to rate the extent to which they felt discriminated against in the host society on a scale from 1 (not at all) to 6 (very much) ($M = 2.61$; $SD = 1.55$).

Uncertainty Aversion Scale. Participants were asked to rate their level of agreement with these two items on a scale from 1 (not at all) to 6 (strongly): Uncertainty makes me

feel uncomfortable, anxious or stressed; I get worried when a situation is uncertain. An index was calculated by summing the mean scores of the responses. Higher scores indicate greater uncertainty aversion ($M = 3.60$; $SD = 1.29$).

Scale of regret. We developed a scale of regret for immigrants. Participants were asked to indicate how often they experienced each of four regrets on a 6-point Likert scale (1 = strongly disagree; 6 = strongly agree): ‘I regret coming to this country’; ‘I regret leaving my country of origin’; ‘I should never have come to this country’; ‘I should have stayed in my country of origin’. Principal axis factoring produced a factor that explained 88.23% of the variance. An index of regret was calculated by aggregating responses to all items ($M = 2.62$; $SD = 1.59$; $\alpha = .97$, see Table 1). Higher values indicate greater intensity of regret about the decision to emigrate.

Results

Correlations

First, we calculated the correlations between the measured variables (Table 1). We can see that regret for immigrants is strongly associated with a predominance of prevention (vs. promotion) focus, with upward social comparison with people in the country of origin, with perceived discrimination and with uncertainty aversion. Prevention focus is positively correlated with upward social comparison with people in the country of origin, perceived discrimination and uncertainty aversion.

Multiple regression analyses

In order to test our hypotheses concerning the relationship between regulatory focus, social comparison with people in the

country of origin, perceived discrimination and uncertainty aversion on the one hand, and regret among immigrants on the other, we conducted a multiple regression analysis using the index of regret as the criterion variable.

Socio-demographic variables (gender, age, length of stay and education), the index of preference for prevention (vs. promotion), the index of social comparison with nationals in the country of origin, perceived discrimination and uncertainty aversion were considered as predictors. All predictors were standardised. In addition, we included as predictors the interaction between the index of predominance in prevention (vs. promotion) focus and social comparison, the interaction between the index of predominance in prevention (vs. promotion) focus and perceived discrimination, and the interaction between the index of predominance in prevention (vs. promotion) focus and uncertainty aversion (see Table 2).

The regression model accounted for 49% of the variance ($F[10, 195] = 17.56, p < .001$).

As expected, the prevalence of a prevention regulatory focus is positively associated with regret ($\beta = .28, t = 4.51, p < .001$). Immigrants who are predominantly prevention-focused, compared to predominantly promotion-focused, feel more regret about their decision to emigrate. In addition, the index of upward social comparison with nationals in the country of origin is positively associated with regret ($\beta = .25, t = 3.91, p < .001$). Those who perceive that people they know in their country of origin have a better job, more leisure time and more opportunities to support their family than they do, feel more regret about their decision to emigrate. Moreover, perceived discrimination also significantly predicts the level of regret ($\beta = .12, t = 2.11, p < .03$). Participants who feel discriminated against have more regret about emigrating than those who do not feel discriminated against. In addition, uncertainty aversion is also a significant predictor of regret ($\beta = .33, t =$

Tab. 1. Summary of the statistics and correlations between variables (N = 196)

Measures	M	SD	Min	Max	1)	2)	3)	4)	5)	6)	7)
1) Regret	2.63	1.59	1	6	-						
2) Prevention regulatory focus	3.94	1.01	1.67	6	.39**	-					
3) Promotion regulatory focus	4.59	.85	2.33	6	.05	.55**	-				
4) Predominance in prevention (vs. promotion) focus	-.65	.89	-3.44	.89	.40**	.60**	-.34**	-			
5) Social comparison with co-nationals in the country of origin	3.78	1.26	1	6	.46**	.39**	.26**	.19**	-		
6) Perceived discrimination	2.61	1.55	1	6	.38**	.34**	.13	.26**	.31**	-	
7) Uncertainty aversion	3.6	1.29	1	6	.57**	.42**	.08	.40**	.50**	.36**	-

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

Tab. 2. Summary of the Moderated Multiple Regression Analyses on immigrants’ regret about the emigration experience

	β	t	p
Predominance in prevention (vs. promotion) focus	.28	4.51	.001
Social comparison with co-nationals in the country of origin	.25	3.91	.001
Perceived discrimination	.12	2.11	.03
Uncertainty aversion	.33	4.87	.001
Difference between predominance in prevention (vs. promotion) focus x Social comparison with co-nationals in the country of origin	.12	2.06	.04
Difference between predominance in prevention (vs. promotion) focus x Perceived discrimination	.14	2.36	.02
Difference between predominance in prevention (vs. promotion) focus x Uncertainty aversion	.13	2.07	.04
Age	.17	2.25	.03
Gender	.01	.14	n.s.
Time of permanence	-.07	-.94	n.s.

4.87, $p < .001$): immigrants with higher uncertainty aversion feel more regret.

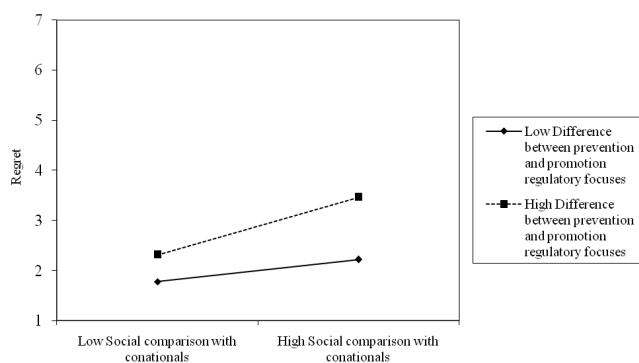
More interestingly, we found an interaction between the index of difference between prevention and promotion regulatory focuses and social comparison with nationals in the host country ($\beta = .12$, $t = 2.06$, $p < .04$), an interaction between the index of difference between prevention and promotion regulatory focuses and perceived discrimination ($\beta = .14$, $t = 2.36$, $p < .02$), and an interaction between the index of difference between prevention and promotion regulatory focuses and uncertainty aversion ($\beta = .13$, $t = 2.07$, $p < .04$).

Among the socio-demographic variables, we found a significant effect of age ($\beta = .17$, $t = 2.25$, $p < .03$), indicating that the older the immigrants, the more regret they felt.

Simple slope analysis (Aiken & West, 1991), showed that the relationship between social comparison with co-nationals and regret about the decision to emigrate is stronger for migrants with a predominant prevention focus ($\beta = .60$, $t = 6.61$, $p < .001$) than for those with a predominant promotion focus ($\beta = .27$, $t = 3.62$, $p = .001$). The two correlation coefficients are significantly different ($p < .003$), calculated by using MedCalc software.

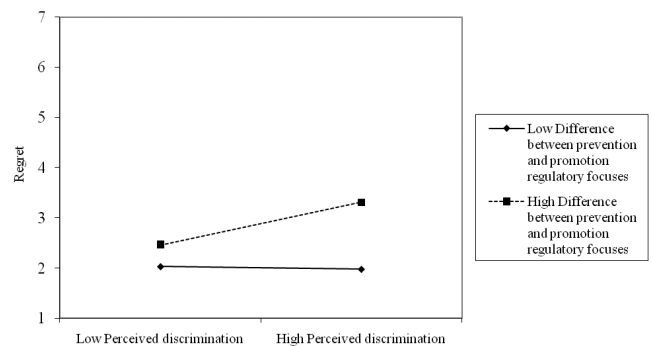
Immigrants with a predominant prevention focus and a high level of upward social comparison with co-nationals in the host country felt more regret about their decision to emigrate ($M = 3.68$; $SD = 1.60$), than immigrants with a predominant promotion focus and a high level of upward social comparison ($M = 2.27$; $SD = 1.47$). Upward (i.e. negative) comparisons with co-nationals in the host country led to regret only for individuals who were predominantly regulated by a prevention focus.

Fig. 1. Immigrants' regret as a function of Difference between Prevention and Promotion regulatory focuses and Upward social comparison with co-nationals in the home country: Predicted mean-value



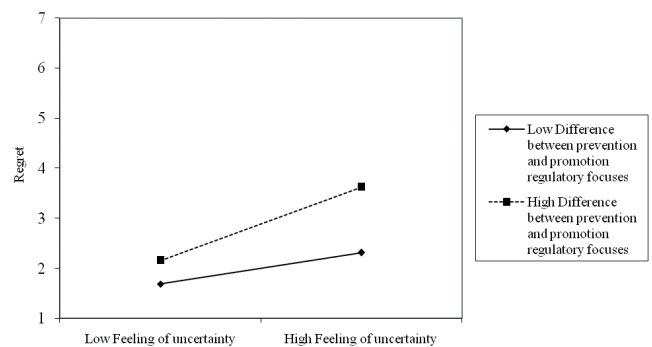
The second simple slope analysis revealed that the relationship between perceived discrimination and regret about the decision to emigrate is stronger for migrants with a predominant prevention focus ($\beta = .50$, $t = 5.68$, $p < .001$) than for those with a predominant promotion focus ($\beta = .07$, $t = .82$, $p = n.s.$). Immigrants with a predominant prevention focus and a high level of perceived discrimination feel more regret ($M = 3.66$; $SD = 1.48$), than immigrants with a predominant promotion focus and a high level of perceived discrimination ($M = 2.00$; $SD = 1.45$).

Fig. 2. Immigrants' regret as a function of Difference between Prevention and Promotion regulatory focuses and Perceived discrimination: Predicted mean-value



The third simple slope analysis revealed that the relationship between uncertainty aversion and regret is stronger for migrants with a predominant prevention focus ($\beta = .69$, $t = 8.13$, $p < .001$) than for those with a predominant promotion focus ($\beta = .27$, $t = 3.14$, $p = .002$). The difference between the two correlation coefficients is significant ($p < .001$). Immigrants with a predominant prevention focus and a high uncertainty aversion feel more regret ($M = 3.87$; $SD = 1.46$) than immigrants with a predominant promotion focus and a high uncertainty aversion ($M = 2.63$; $SD = 1.75$).

Fig. 3. Immigrants' regret as a function of Difference between Prevention and Promotion regulatory focuses and Uncertainty aversion: Predicted mean-value



Discussion and conclusions

The results of this study showed that, as predicted, a predominance in the prevention (vs. promotion) regulatory focus was significantly related to regret about the decision to emigrate. The more individuals were prevention (vs. promotion) focused, the more they regretted their decision to emigrate, as they are more sensitive to negative outcomes such as being less successful (e.g. having a worse job or other conditions). This can be explained by the fact that prevention-focused individuals are oriented towards fulfilling responsibilities and duties and avoiding losses and failures. They are therefore generally more likely to focus on the negative consequences of a decision. This confirms findings from previous research on anticipated regret (Leder et al., 2013) and extends these findings to the context of experienced regret for major life

decisions. Furthermore, prevention-focused individuals are more sensitive than relevant others to social feedback about negative outcomes, such as being less successful (having less money, a worse house, a worse job...). Instead, promotion-focused individuals see themselves as striving to achieve positive outcomes and ideal goals. Deciding to emigrate in order to gain an opportunity is very much in line with a promotion focus and makes it easier for them to justify this decision, even if it turns out badly. Justifiability is an important factor that can reduce regret (Zeelenberg & Pieters, 2002).

Furthermore, this study confirms previous findings (e.g., van Harreveld, van der Pligt, & Nordgren, 2008; White et al., 2006) that comparing oneself to others who are more successful, i.e., making upward social comparisons, can increase the intensity of regret. Also, it is shown that regret depends on the target of the social comparison. In our study, more regret emerged when immigrants compared themselves with personally known others living in the country of origin. The realisation that these people have a better quality of life than they do leads to regret about the decision to emigrate. This type of comparison is associated with regret about the decision to emigrate, especially for immigrants with a higher predominance of prevention (vs. promotion) focus. It seems that prevention-focused immigrants interpret the feedback from this comparison as a confirmation of their failure, and this leads to more regret about their decision to emigrate.

In addition, immigrants who feel discriminated against experience more regret when they have a higher predominance of prevention (vs. promotion). Similar results were found for uncertainty aversion: immigrants who feel uncertain report more regret when they have a higher prevention focus.

These findings may have important implications for professionals working with immigrants. Indeed, our findings suggest that a focus on duties and obligations (i.e., a prevention focus) may not only lead to regret, but may also exacerbate the negative effects on regret of upward social comparison (with people from one's country of origin), uncertainty aversion, and perceived discrimination. The literature suggests that although regulatory focus orientations reflect relatively stable individual differences, they can also be induced under certain environmental circumstances and activated by specific factors (Higgins, 1988; Van-Dijk & Kluger, 2003). For example, a promotion focus can be induced by helping people to focus on their aspirations, ideals, and desires (Higgins, 1988; Van-Dijk & Kluger, 2003). Given this, one might think that immigrants should be helped to switch off their focus on duties and obligations (i.e. a prevention focus) and to activate their focus on aspirations and ideals (i.e. a promotion focus). In other words, it may be useful to help immigrants to reduce their regret about their decision to emigrate, and thus also to reduce possible negative consequences of this on their general well-being, by getting them to think positively about their future, by focusing on what they want and how they should act in order to achieve their goals in society, rather than focusing on what they should do in order to avoid being rejected and not integrated into the host society.

This study has some limitations. For example, it is based on a highly educated sample, which calls into question the generalisability of the findings. Future studies should consider

a more diverse group of participants in terms of educational level. In addition, this study is correlational and does not allow us to understand causal effects. It would be important to test the findings in an experimental setting. For example, future research could manipulate/prime migrants with upward social comparisons with natives in the country of origin (vs. no priming) and examine the effects on regret, which could be crossed with individual differences in self-regulatory focus or a manipulation of self-regulatory focus. Furthermore, it would be important for future research to examine whether and under what conditions immigrants prefer to make downward social comparisons with personally known others, and whether this strategy is associated with less regret and long-term emotional benefits for them. This highlights the need for longitudinal research on regret and the regulatory mechanism that immigrants may use.

We recognise that there are other important factors that may determine regret among immigrants, such as personality characteristics (e.g. perceived uncertainties, optimism, coping strategies; e.g., Scheier & Carver, 1985; Suls & Martin, 2005) or contextual factors (e.g. lack of opportunities). Future research should seek to further explore self-protective strategies and mechanisms that may prevent or alleviate regret and contribute to immigrants' quality of life.

Ethical approval

The research complies with the Ethical Code of the Italian Association of Psychology.

Data availability statement

Requests for access to the data reported in this study should be made to the corresponding author.

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Authors' contribution

Project administration and conceptualization: AK; Methodology: AK; Data curation: AK; Formal analysis: AK; Writing—original draft preparation: AK and SL; Writing—review and editing: AK, SL, GP. All authors have read and agreed to the submitted version of the manuscript.

Declaration of Conflicting Interests

The authors declare no conflict of interest.

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