Your cultural participation depends not only on you but also on where you live: The role of a country's socioeconomic and cultural modernization in the relationship between social position and cultural participation

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Abstract: This study explores individual and country-level differences in cultural participation across Europe, using a most-different-systems design and the 2008 debt crisis as a quasi-experimental treatment. We identified distinct patterns of highbrow (six withing-country patterns and three between-country clusters) and lowbrow (four patterns and three clusters) cultural participation by analyzing Eurobarometer, European Values Study, and World Bank data with multilevel latent class regression modeling. Results show that in socioeconomically and culturally modernized countries, an individual's social position has less impact on cultural participation. Additionally, these countries experienced a less pronounced negative effect from the 2008 debt crisis on cultural participation. (99 words)

Keywords: cultural participation, modernization thesis, quasi-experimental design, European systematic heterogeneity, country cultural differences

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1. Introduction

Research into the social sources of unequal cultural participation (CP) – to date focused mainly on within-country differences – points to a homology between the social position of individuals and their pattern of CP, first a distinction pattern, and more recently, an omnivorous pattern (Bourdieu, 1984; Peterson and Kern, 1996). The homology thesis proposes that the unequal social distribution of capital – whether economic, social, or cultural – leads to differential social restraints and opportunities and, in turn, divergent habits and behavioural patterns: from the distinction pattern to a juxtaposition of popular and highbrow culture, and the omnivorous pattern to a juxtaposition of univorous and omnivorous forms of participation.

However, the meaning of social position and its impact on CP is unlikely to be the same in countries that differ in socioeconomic and cultural development levels (Beck, 1992; Inglehart and Welzel, 2005; Savage et al., 2015). Social position restrictions according to class and capital endowment are less rigid in modern countries with higher levels of socioeconomic development, greater wealth, less inequality, less traditional class or religious milieus, and higher levels of self-expression values (Vaughan-Whitehead, 2014). Consequently, the link between social position and CP can be transformed and weakened by individual agency, which may vary according to the country's modernization level (Beck, 1992; Bourdieu, 1984). This is evident in research into the digital divide in Europe, which indicates that digital inequality predominantly depends on education level; however, for less well-educated Europeans, their nation's digital development level may serve as a national resource that compensates for the lack of cultural resources (Lamberti et al., 2021).

Therefore, within-country analyses of relationships between social position and CP fail to disentangle the relationship between CP and social position from the influences of the national context and the corresponding CP level. Furthermore, not only may the influence of

social position on the level of CP differ, but also the impact of an economic crisis. In the latter case, if the government and the overall modernization level of a country do not mitigate the impact of an economic downturn, people will need economic capital to avoid the negative impact of the crisis on CP, which thus enhances the importance of social position.

We hypothesize, therefore, that more modern countries are characterized both by higher and more stable CP levels in times of crisis and by a lower correlation between social position and CP. Given the 2008 European debt crisis and its aftermath, Eurostat data collected in 2007 and 2013 represent an opportunity to study (1) systematic variation in the association between social position and highbrow CP (HCP) and lowbrow CP (LCP) and the differences between European countries, and (2) the impact of a country's socioeconomic and cultural modernization levels on CP during an economic crisis.

We designed a comparative inquiry with two levels of analysis: individual and country. In also comparing two temporal points, we added a quasi-experimental treatment to the study, namely, the level of CP during an economic downturn (Minkus et al., 2019). This research design is a variation on the standard most-different-systems design (Przeworski and Teune, 1970), motivated to uncover the determinants of CP at the individual and country levels. First, we analyse if relationships between CP and social position are similar across countries. Using latent class modelling we grouped individual relationship patterns between social positions and CP into clusters of individuals and clusters of countries according to the different theoretical relationships found. If the relationship between CP and social position differs across country clusters, then country-level differences will be significant in explaining the types of relationships found at the individual level.

The statistical model that made it possible to simultaneously find relationships between CP and social position and variations by country was a multilevel latent class regression model (Finch et al., 2019; Gelman and Hill, 2006; Vermunt, 2003). This model uncovered

heterogeneity in the relationship between Europeans' social position and their CP and identified differences between clusters of European countries. To determine how the impact of social position on CP patterns was related to a country's modernization level, we conducted an ex-post facto analysis and built a modernization space that located countries according to their indicators of modernization. This modernization space goes beyond conventional socioeconomic measures, as it reflects different value types and social inequality measures, as well as current research relating modernization with CP levels.

As far as we are aware, no research to date has studied (1) systematic variations in the effect of social position on both individual HCP and LCP according to a broad conception of the modernization level of the country of residence, and (2) the role played by modern economies in terms of the level and breadth of CP and in tackling the impact of an economic shock on CP. Although some studies have explored the moderating role of country indicators on HCP (Gerhards et al., 2013; van Hek and Kraaykamp, 2013), no study (as far as we are aware) has explored LCP, while only one study has described, although only partially, the unequal distribution of the negative impact of the 2008 debt crisis on CP by country (Lizardo, 2023).

Therefore, to provide a comprehensive interpretation of countries' moderating role in CP, we aimed to uncover (1) systematic variations in the relationship between CP and individual social position considering country of residence, (2) systematic heterogeneity in European countries according to their mix of individual CP patterns, and (3) how European countries classified in different clusters are located in the space of socioeconomic and cultural values.

2. Theoretical framework

2.1. The social influences on cultural patterns

Apart from some few exceptions (Falk and Katz-Gerro, 2016, 2016; Gerhards et al., 2013) , there is a general lack of comprehensive international research into CP, although some conclusions can be drawn from studies conducted in specific countries (Chan, 2010; García-Álvarez et al., 2007; Katz-Gerro, 2011; Katz-Gerro and Sullivan, 2010; Peterson, 2005) . The evidence is that CP has become more diversified and differentiated, so that high-status persons tend to show an omnivorous pattern of CP, including both HCP and LCP (Eijck and Knulst, 2005; Peterson, 2005), even as the association between CP and social position persists as societies modernize (Gerhards et al., 2013) (.

This means that while well-educated individuals still exhibit HCP (Gerhards et al., 2013), they also enjoy popular cultural expressions (Peterson and Kern, 1996). As for LCP, its connection with younger and better-educated generations is the outcome of generational differences in socialization and an aggregated higher education level. As noted by researchers (Coulangeon, 2005; Peterson, 2005; Weingartner and Rössel, 2019), the relationship between education and HCP is weakening. Furthermore, according to Gerhard, Hans, and Mutz (2013), a European individual's social position has less impact on HCP in nations with higher Human Development Index (HDI) scores. Similarly, van Heik and Kraaykamp (2013) found that education and family wealth influence HCP less in more affluent countries with greater social mobility and cultural funding.

The social mechanisms by which education influences HCP operate at both the individual and country levels; however, while an individual's education positively influences CP, at the country level in more socio-economically and culturally modernized nations, a higher overall education level is less predictive of the probability of HCP, as pointed out in several studies (Coulangeon, 2005; Peterson, 2005; Weingartner and Rössel, 2019). Katz-Gerro (2002)

also reports variations between countries in the relationship between social position and HCP; thus, HCP is associated with all social positions in Italy and West Germany, but only with the highest social positions in Israel, Sweden, and the USA. Furthermore, according to Falk and Katz-Gerro (2016), while HCP appears to be mainly organized around an individual's education and wealth, there are significant differences according to age and gender. Age discriminates in terms of preferences for contemporary (younger people) and legitimate (adults) cultural expressions (Coulangeon, 2017; Tampubolon, 2008a, 2008b), while women more than men tend to favour legitimate cultural expressions (Bihagen and Katz-Gerro, 2000; Tampubolon, 2008a). The gender gap, however, is smaller in more gender-equal nations with higher HDI ratings (Lagaert and Roose, 2018).

As already indicated, comparative research on CP is still scarce, and the research that does exist to account for CP diversity has focused mainly on between-country socioeconomic differences, such as in gross domestic product (GDP) and HDI (Gerhards et al., 2013; van Hek and Kraaykamp, 2013). Overall, the impact of social position on HCP is reduced in more socioeconomically developed European countries, with HCP and LCP patterns varying according to an individual's social position and country of residence. We consequently propose the following research questions:

RQ1. Are the statistical relationships between an individual's social position and CP similar for all Europeans or are there different groups of individuals with differing statistical relationships between social position and CP?

RQ2. To what extent can countries' heterogeneity regarding the mixing of Europeans' cultural participation patterns be reduced to a few clusters of countries?

2.2 Socioeconomic and cultural modernization and the debt crisis

We call the 2008 European debt crisis a quasi-experimental treatment (Minkus et al., 2019) because all European countries faced the same debt crisis, but its effects may have varied. We

can thus treat the debt crisis as an external shock and study its pre- and post-impact on CP. We assume that how individuals experienced the debt crisis differed according to their country's level of socioeconomic and cultural modernization. It follows that (1) the individual relationship patterns between social position and CP and (2) the effect of the debt crisis on CP will depend on the country's level of socioeconomic and cultural modernization, i.e., the higher the level of socioeconomic and cultural modernization, the lower the impact of social position and the debt crisis on CP. To explain the decline in the importance of social position for CP in more modernized societies, we draw on the theories of reflexive modernization and of value change.

The theory of reflexive modernization, put forward by Ulrich Beck, assumes that the structure of social inequality in advanced, affluent societies is becoming increasingly irrelevant in explaining social action and the attitudes and social identity of individuals (Beck, 1992). This is the so-called elevator effect. After the Second World War, Western societies experienced unprecedented growth in disposable income, leisure time, and social security, which meant that the conditions for class formation, such as alienation and impoverishment, no longer existed (Beck, 1992; Maddison, 2001; Pierenkemper, 1987). A second argument for his thesis lies in the erosion of traditional social milieus: the effects of social position are strongly linked back to the existence of pre-capitalist class traditions and social milieus, which allowed the formation of social classes in emerging industrial capitalism and thus buffered market-mediated individualization processes (Beck, 1992). Beck also sees these pre-industrial, estate-based traditions as having been undermined by the modernization of recent decades (Beck, 2016; Pakulski and Waters, 1996). The expansion of the education system has led to more and more young people moving away culturally from their milieu of origin. In addition, social and spatial mobility processes continue to undermine the stability of such milieus, the expansion of market relations is replacing solidary and communal ties with the principle of

competition, and the historical upheaval from inner-city working-class neighbourhoods to socially mixed urban settlements is leading to a further weakening of once strong ties to specific social milieus (Beck, 1992). Therefore, the impact of social position on different types of behaviours, including CP, is no longer supported by cohesive social milieus tied to social position.

Inglehart's theory of modernization and value change comes to broadly similar conclusions as Beck's reflexive modernization; adopted from modernization theory is the idea that the economy, culture, and political institutions follow coherent patterns of change and are therefore developmentally predictable (Inglehart, 1990, 1997; Inglehart and Welzel, 2005). The core of Inglehart's analysis of worldwide cultural change is a statistical evaluation of the World Values Survey that seeks support for a large number of central values in numerous societies (Inglehart, 1997). Inglehart understands values to be relatively deep-seated, unchanging, and generalized ideas of life goals (Inglehart, 1990). In his study, two dimensions crystallize that bundle together a large part of the cultural differences between societies.

The first dimension describes the change from traditional, often religiously legitimized, authorities to rational-legal, i.e. secular, authorities; one could also speak here of a cultural modernization dimension. Inglehart focuses his explanation primarily on the significance of the industrialization process, i.e., the transition from agrarian societies to industrial societies (Inglehart, 1997; Inglehart and Welzel, 2005). The second dimension represents the contrast between survival values on the one hand and well-being and self-realization values on the other, associated with a far-reaching detachment from external authorities and a focus on the individual and their freedom of choice (Inglehart and Welzel, 2005). One could also call this a process of individualization or cultural postmodernization (Inglehart, 1990, 1997; Inglehart and Welzel, 2005). Inglehart explains the development of self-expression values with reference to the emergence of a post-industrial society. Two sets of causes are emphasized: material

security generated by industrial and post-industrial economic growth, and greater personal autonomy in post-industrial societies (Inglehart, 1990, 1997; Inglehart and Welzel, 2005). However, it is straightforward to assume that self-expression values focusing on freedom of choice decrease the importance of social position for CP, no longer bound by traditional normative ideas about cultural affinities between certain social classes and categories and cultural participation.

We thus formulate the following hypotheses:

Hypothesis 1. The higher a country's level of socioeconomic and cultural modernization, the lower the impact of an individual's social position on their CP.

Hypothesis 2. The higher a country's level of socioeconomic and cultural modernization, the lower the impact of an economic crisis on CP.

We label Hypothesis 1 the *inclusion hypothesis* (reflecting the differing impact of individual drivers on CP given a specific country context), and label Hypothesis 2 the *stabilization hypothesis* (reflecting the impact of country drivers on overall CP given an economic shock).

3. Methods

3.1. Data

Using data from two Eurobarometer surveys – ZA4529 Eurobarometer 67.1 from 2007 (European Commission, 2012) and ZA5688 Eurobarometer 79.2 from 2013 (European Commission, 2016) – we measured CP before and after the 2008 debt crisis.[1] From both

[1] The 2008 debt crisis has given researchers an opportunity to examine how economic crises affect the relationship between individual social position and CP according to the country of residence. The World Bank reports that, except for 1993, yearly variation in per capita GDP was positive, at about 2% on average between 1978 (the oil crisis) and 2008, but fell in 2009 by 4.6%. Consequently, we can expect that, in a temporal comparison, the impact of a crisis will vary according to the modernization level of individual countries.

surveys, we selected individuals in the age range 15-80 years, and evaluated the distribution of HCP and LCP activities and social positions and categories before and after the 2008 crisis (excluding indicators that were not available, removed from both datasets). After selecting data on CP frequencies, social position indicators, and social categories, consistency was checked between the 2007 and 2013 indicators to ensure the validity of our analysis.

3.2. Measurements

CP was measured by building HCP and LCP scales that differentiated between cultural patterns according to the nature of the activities. HCP was measured according to four activities that are highly positively correlated (Gerhards et al., 2013), indicating coherent highbrow cultural behaviour: (1) ballet and opera, (2) concerts, (3) theatres, and (4) museums and galleries. LCP was likewise measured in terms of four activities: (1) cinema, (2) sports events, (3) reading (books), and (4) viewing/listening to cultural programmes. Respondents indicated participation in the previous year according to four frequency levels (never=0 to ≥five times=3). Following Gerhards et al. (2013), we organized the corresponding activities on numerical scales ranging from 0 to 12 (where, in the previous year, no participation=0, and participation≥five times in each activity=12).

Three forms of capitals were considered as proxies for social position: (1) institutionalized cultural capital (ICC), (2) embodied cultural capital (ECC), and (3) economic capital (EC) (Bourdieu, 1986). For ICC, representing educational attainment, we used age on completing education as an indicator. For ECC, which from the Bourdieu perspective is "the ability to apply an aesthetic criterion to the evaluation of art objects" (i.e., reflecting practices that imply active involvement), we used the following Eurobarometer question: "*In the last 12 months, have you, either on your own or as part of an organized group: a) played a musical instrument, b) acted, c) written a text/poem, d) sung, e) danced, or f) made a film?"* Frequencies

were organized along two numerical scales (never=0 to ≥five times=3), one defined as highbrow embodied cultural capital (HECC), i.e., played a musical instrument, acted, or wrote a text/poem, and the other as lowbrow embodied cultural capital (LECC), i.e., sung, danced, or made a film. Finally, for EC, since no direct indicator of income was available, as a proxy we used possessions (properties, vehicles, computers, etc) measured in numerical units and summed on a scale ranging from no possessions=0 to many possessions=8 (Gerhards et al., 2013).

Finally, we included social categories as follows: gender; age; area of residence (rural area/village, small/medium town, and large town/city, labelled low, medium, and high density, respectively); and number of children in the household. Finally, to measure the impact of the 2008 debt crisis, we used 2007 and 2013 as before and after reference years, i.e., the temporal variable constituting our quasi-experimental treatment. Table 1 summarizes descriptive statistics.

[Table 1. Descriptive statistics for the different measures. **ABOUT HERE]**

Note that all measurements in this study follow Gerhards et al. (2013), with the main difference that we observed individuals in two different years and constructed a more comprehensive model that included LCP in addition to HCP to try to explain the systematic heterogeneity in European CP patterns and in European countries.

3.3. Statistical analysis

Comparative research allows for multiple levels of analysis, with identifiable units of observation at each level. The ultimate aim of comparative research is to establish general statements about human behaviour; therefore, the sampling process should be focused on achieving this objective. Because of the different European countries involved, we needed to

consider observations as nested in countries to uncover the heterogeneous relationship between social position indicators and CP. To uncover systematic heterogeneity in the relationships between CP and its social influences according to social positions and social categories, and to account for the heterogeneous mixing of relationships between social position and CP within country clusters, we used multilevel latent class regression (LCR) (Finch et al., 2019; Gelman and Hill, 2006; Vermunt, 2003). LCR is a statistical model that classifies observations into groups, called latent classes, which are latent because they indicate that the groups cannot be explicitly observed but are inferred from the heterogenous relationships between social position indicators and CP, while multilevel LCR (MLCR) simultaneously identifies groups of heterogeneous individuals whose distribution differs across specific clusters. Our MLCR model consisted of CP patterns at the individual level and mixed distributions of those patterns in country clusters, with regression parameters differing across CP patterns. Nesting individuals within countries made it possible to consider differences regarding the distribution of individual-level patterns of relationships between social position and CP in countries belonging to different country clusters.

The MLCR was implemented using LatentGOLD 4.5 statistical software (Vermunt and Magidson, 2005).

4. Findings

Below we report our results for HCP and LCP. First, we describe the uncovered CP patterns and the heterogeneous relationships between social position and CP, exploring the mean effects of capitals (ICC, ECC, and EC), social categories, and time (before/after debt crisis), and then we describe the mix of CP patterns in country clusters.

4.1 Highbrow cultural participation

The MLCR model was selected according to the Bayesian information criterion (BIC). Thus, starting with a simple model and gradually including more patterns and country clusters, the best solution was obtained with six HCP patterns (HCP1-HCP6) and three country clusters (H1-H3) (BIC: 149941; classification error: 0.4871; R^2: 0.82). Systematic differences between Europeans could thus be reduced to those six HCP patterns that depended on the mean effects of capitals (EC, HECC, and ICC), social categories, and time (before/after debt crisis) as the treatment variable of the quasi-experimental design.

Predictor estimates and the related statistics, overall and for each of the six patterns, allowed us to compare the effects of HCP predictors. Table 2 lists the indicators (with standard errors in parentheses) and their p-values, revealing whether predictor effects were significantly different between patterns. Also reported are R^2, pattern size, and mean HCP.[2] Note that mean HCP in both years was low, indicating that many individuals did not participate in activities, and thereby corroborating the findings of Gerhards et al. (2013) for 2007. The p-values indicate that differences for all the coefficients were significant. The predictive power of the overall model was low to medium (R^2=0.1754), but heterogeneous for the different patterns, with the highest and lowest R^2 values corresponding to patterns HCP5 (R^2=0.632) and HCP6 (R^2=0.172), respectively.

Regarding the mean effect of capitals, the overall model showed differences in the mean effects of EC, HECC, and ICC, with all three positively affecting HCP (β=0.364, β=0.167, and β=0.206, respectively). However, mean effects differed, with EC strongest for HCP5, HCP1, and HCP2, HECC strongest for HCP4, HCP1, HCP2, and HCP3, and ICC strongest for HCP1, HCP2, and HCP4.

[2] Note that the HCP and LCP scales are numerical, ranging from 0 to N. Therefore, interpretation of the coefficients is as follows: a unit increase in the standardized variable increases the CP count by a factor of $a=e^{coefficient}$.

As for the social categories, the overall model suggests that HCP was highest in women (β=0.169), individuals living in large towns/cities (β=0.373), and households with no children (β=0.213), and also indicates that HCP increased with age (β=0.036). However, mean effects differed across patterns: age was strongest and positive for HCP5 (i.e., HCP was higher in older people) and lowest and negative for HCP4, HCP3, and HCP1 (i.e., HCP was lower in older people). The gender difference in favour of women was greatest for HCP1, HCP3, HCP2, HCP5, and HCP6 (in that order), with CP increasing by a factor of 1.52 to 1.07. Not having children increased HCP, with greater mean effects for HCP1 and HCP4. While living in large towns/cities was broadly associated with greater HCP, the effect was weaker for HCP2, HCP3, and HCP6.

Finally, as was expected, the time effect as measured by the year variable (reflecting the impact of the 2008 debt crisis on CP) had an overall negative effect on HCP (β=-0.13), corroborating findings elsewhere (Lizardo, 2023). The time effect was nonetheless heterogeneous, as it was greatest for patterns in which capitals had a stronger effect on CP.

[Table 2. MLCR results: Europeans' HCP patterns. **ABOUT HERE]**

Given that Europeans are nested in their countries of residence, once countries were clustered by a similar mix of CP patterns, three clusters resulted, denominated H1, H2, and H3, as described in Table 3. H3, with the highest HCP level and the lowest mean effect of capitals, was composed of mostly northern countries; H1 was composed of a mix of western, eastern, and Mediterranean countries; and H2 was composed of countries with the lowest HCP level.

Table 3. HCP: country clusters. **ABOUT HERE]**

Table 4 shows that H1 accounted for almost half (47.62%) of the countries, and that mean HCP was highest in H3 (2.40), followed closely by H1 (2.33). In terms of patterns, H1 comprised individuals classified in HCP1, HCP2, and HCP5, most influenced by EC and with a negative time effect. H2 comprised individuals classified in HCP1, HCP3, and HCP4, most influenced by EC and ICC, with HCP4 primarily influenced by age. Finally, H3 included a mix of HCP3, HCP5, and HCP6, with HCP3 and HCP6 showing the lowest impact of EC, HECC, ICC, and time.[3] This clearly indicates that the effects of social position and social category on CP differ between countries, and likewise the effect of the debt crisis.

[Table 4. HCP pattern distribution by country cluster. **ABOUT HERE]**

4.2 Lowbrow cultural participation

The same analysis was performed for LCP to explore how CP patterns were affected by capitals, social categories, and time. Again, we started by identifying the best model, which was found to be the model with four LCP patterns (LCP1-LCP4) and three country clusters (L1-L3) (BIC:194421.7; classification error: 0.4587; R^2: 0.8236). Thus, systematic differences between Europeans were reflected in those four patterns, which differed in terms of LCP level and, more importantly, in the mean effects of capitals, social categories, and time (before/after debt crisis) (Table 5).

Regarding capitals, the model suggests that the lowest mean effect was associated with LCP1, with the highest LCP level. The mean effect of EC for LCP3 was so high that an increase of one unit in the standardized variable increased the LCP count by a factor of

[3] MLCR analysis allows us to calculate the probability of belonging at the aggregate level (in our case, to the EU) in the same way as for the individual clusters. This means that countries can be classified according to different relationships between CP and its predictors.

$2.26=e^{0.8169}$. Likewise, for LCP4, LCP2, and LCP1, EC increased the LCP count by factors of 1.52, 1.13, and 1.08, respectively. The mean effect of ICC on the LCP count was lower (increases by factors of 1.77, 1.20, 1.21, and 1.07 in the four patterns), while the mean effect of LECC on the LCP count was highest for LCP4 and lowest for LCP1.

Table 5. MLCR results: Europeans' LCP patterns. **ABOUT HERE]**

Regarding the social categories, the mean effect of age was a gradual difference from LCP1 to LCP3 and LCP4, indicating increasingly lower LCP as individuals aged. Gender differences were strongest for LCP3 (women increased their LCP by a factor of 1.41) and weakest for LCP2. No children increased LCP in LCP3 by a factor of 1.16, but the mean effect was lower for the other patterns; from this, we can infer that not being responsible for children increased LCP opportunities. Living in large towns/cities was associated with higher LCP for all four patterns. Finally, comparing 2013 to 2007, LCP seemed to be reduced across Europe. However – as happened with HCP – there were some differences between patterns, with the time effect greatest whenever capitals had a greater impact on CP, again indicating that differences exist in the effect of social position and the impact of the debt crisis on CP between European countries that need to be explained.

Countries were classified in clusters as described in Table 6. Thus, northern and central European countries plus the UK were classified in L1, with the highest LCP level and the lowest mean effect of capitals; L2 comprised most eastern European countries plus some Mediterranean countries; and L3 comprised countries with the lowest LCP level.

Table 6. LCP country clusters. **ABOUT HERE]**

Regarding the mix of CP patterns into country clusters (Table 7), L1 mainly included LCP1, where the mean effect of capitals was lowest; L2 mainly reflected LCP2 (54.36%), LCP1 (26.14%), and LCP3 (14.55%); and L3 mainly reflected LCP2 (64.74%), LCP3 (24.72%), and LCP4 (10.44%).

Table 7. LCP pattern distribution by country cluster. **ABOUT HERE]**

4.3 Ex-post facto analysis: country locations in the socioeconomic and cultural modernization space

In this section we conduct an ex-post facto analysis of country level indicators of socioeconomic and cultural modernization to explain the heterogenous strength of the relationships between social position and debt crisis on the one hand and CP on the other. We created a modernization space with the set of cultural values and socioeconomic development indicators as used in Inglehart and Welzel (2005). Cultural values data were obtained from European Values Survey waves 1 (year 1981) to 5 (year 2009). To form the two dimensions of modernization and postmodernization according to Inglehart and Welzel (Inglehart, 1997; Inglehart and Welzel, 2005), we set sacred vs secular and survival vs self-expression values against each other.[4] As for socioeconomic indicators, we obtained GDP, Gini index, education, and agriculture, industry, and services sectoral employment data from the World Bank (The World Bank, 2023), and HDI data from the HDI website (United Nations, 2023).

Principal component analysis (PCA) was applied to shrink the modernization space according to the interdependence of the set of indicators. The first PCA axis correlated with self-expression values, post-industrial development, higher per capita GDP, and higher HDI

[4] Note that Welzel's (2013) online appendix explains how to compute cultural values from the survey waves and also provides a data frame for the Inglehart and Welzel (2005) scales updated to 2009.

(the postmodernization factor), and the second PCA axis correlated with secular values, greater inequality, and industrialization (the modernization factor).

The modernization theory predicts that the more modern a society, the greater the individual resource endowment, reliance on tech-sci knowledge, and desire for self-expression due to economic growth and other social advances, including a better distribution of socioeconomic opportunities. Since education and wealth are associated with CP, we expect that more modernized countries will have greater individual- and country-level HCP and LCP and a stronger relationship between modernization and CP for HCP.

Figures 1 and 2 show that H1 (intermediate-mean HCP cluster, in red) scored highest in terms of the modernization factor, H3 (highest-mean HCP cluster, in blue) scored highest in terms of the postmodernization factor, and H2 (lowest-mean HCP cluster, in green) scored lowest in terms of both the modernization and postmodernization factors.

Figure 1. HCP means by country clusters H1, H2, and H3. **ABOUT HERE]**

Figure 2. Location of HCP countries in clusters H1, H2, and H3 in the modernization space. **ABOUT HERE]**

Regarding LCP means for clusters L1, L2, and L3, and the location of countries in the modernization space, the association was similar to that for HCP. Figures 3 and 4 show that L1 (highest-mean LCP country-cluster, in red) had the highest postmodernization factor score (although the distribution of countries was scattered concerning both factors), L2 (intermediate-mean LCP cluster, in green) scored lower regarding the postmodernization factor and varied regarding the modernization factor, and L3 (lowest-mean LCP cluster, in blue) scored lowest in both the modernization and postmodernization factors.

Figure 3. LCP means by country clusters L1, L2, and L3. **ABOUT HERE]**

Figure 4. Location of LCP countries belonging to clusters L1, L2, and L3 in the modernization space. **ABOUT HERE]**

5. Discussion and conclusions

The systematic heterogeneity in the relationships between Europeans' CP and their social position can be reduced to six relational patterns for HCP and four for LCP, indicating that, while CP is linked to different mean effects of capitals and social categories, heterogeneity can be reduced to a handful of relational patterns. Furthermore, European countries differ in their mix of European cultural diets and statistical relationship patterns.

In both the case of HCP and LCP, the analysis reduced the systematic heterogeneity in mixed CP patterns to three country clusters in each case, indicating that, while different CP patterns were found in almost any European country, countries differed in terms of their distribution. Thus, more modernized countries had a greater distribution of Europeans with CP patterns reflecting a low mean effect of capitals (EC, ECC, and ICC) on both HCP and LCP. The same relationship patterns were found regarding the model's predictive capacity.

Those findings reject the assumption that relationships between social position and CP are similar across countries, providing evidence in favour of heterogenous cultural patterns and mixing in country clusters that differ in socioeconomic development. That is, (1) variations in the relationship between CP and Europeans' social position can be reduced to a few relationship patterns: six in the case of HCP and four in the case of LCP (the first research question); and (2) country heterogeneity regarding the mixing of Europeans' CP patterns can be reduced to three clusters of countries in each case. These findings contrast with traditional multilevel analyses (Gerhards et al., 2013), as it is supposed that when countries develop (according to the HDI), cultural practices become homogenous, i.e., Europeans differ according to the country

they live in. In contrast, our model found that Europeans CP practices differ even in more developed countries. However, the mixing of heterogenous Europeans varies according to socioeconomic and cultural modernization: the more modernized a country, the more Europeans for which the relationship between social position and CP is weak, and the fewer Europeans for which the relationship is strong.

The ex-post facto analysis of the relationship between Europeans' cultural diets and countries' indicators of socioeconomic development gives support to the *social inclusion hypothesis*. In modernized and socioeconomically developed countries, not only is the average CP higher; but also greater is the mixing of CP patterns in which social position is less influential on CP, allowing for greater inclusion of all citizens in CP (Coulangeon, 2005; Gerhards et al., 2013; Peterson, 2005; van Hek and Kraaykamp, 2013). Even though the overall association between social position and CP is still statistically significant, as suggested by both theory and evidence (Bihagen and Katz-Gerro, 2000; Bourdieu, 1984; Eijck and Knulst, 2005; García-Álvarez et al., 2007; Peterson, 2005; Peterson and Kern, 1996; Peterson and Simkus, 1992), country differences exist (Falk and Katz-Gerro, 2016; Katz-Gerro, 2002, 2011). However, systematic differences between Europeans' CP and between European country mixing of CP patterns have previously not been studied. Although Gerhards et al. (2013) found that the mean effect of capitals on HCP was reduced as countries improved their HDI, no systematic analysis has been published regarding HCP and LCP both, nor on the country-level mix of systematic heterogeneity in the relationships between CP and social position.

Pattern differences between social categories are less clear, particularly for age and gender. Regarding age, we found the mean effect to be negative but not statistically meaningful for some LCP patterns, even as strong differences in patterns are suggested. Different mean effects exist between the relational patterns, with mainly mixed positive effects in modernized countries, and negative effects in less modernized countries. The finding that age positively

correlates with some HCP patterns (Coulangeon, 2017; Tampubolon, 2008a, 2008b) fits with the interpretation by van Eijck and Knulst (2005) that younger generations favour contemporary cultural expressions. Nonetheless, our analysis suggests that young people need economic capital, i.e., the wealth provided by modernization, to express themselves through LCP. As for gender differences in the CP patterns of Europeans, while these are small for individuals living in modernized countries, they are relevant in less modernized countries, for both HCP and LCP. While previous research has found that women tend to favour legitimate cultural expressions (Bihagen and Katz-Gerro, 2000; Tampubolon, 2008a) and has reported a smaller gender gap in countries with higher HDI scores (Lagaert and Roose, 2018), there may still be gender-gap variations between countries. In households with no children, the relational pattern is the same for both HCP and LCP, although the impact of not having children is smaller in more modernized countries. As for residential area density, the mean effect points to the same relational pattern for both HCP and LCP: the larger the town/city, the greater the CP.

Regarding the quasi-experimental treatment, i.e., the time effect of pre- and post-debt crisis CP, although the 2008 crisis negatively impacted Europeans' CP, the impact was greater on HCP. The mean effect was broadly heterogeneous regarding relational patterns, with both HCP and LCP patterns mixed in more modernized European countries (i.e., northern countries), which experienced only a slight negative impact, if any, compared to other countries.

Those findings therefore support the *stabilization hypothesis*. The more modernized the socioeconomic and cultural development of a country, the lower the impact of an economic crisis on overall CP. Thus, and as was to be expected, even though the average effect of the debt crisis was negative (Lizardo, 2023), it was moderated by a country's modernization levels, i.e., the CP of Europeans in modernized countries was affected less by the debt crisis.

Cultural policy implications

Our findings suggest that CP depends not only on a European's social position but also on the modernization levels of the country of residence. The influence of economic and cultural capitals on CP depends on a country's socioeconomic development. National wealth and its distribution as well as self-expression values are instrumental to participation in contemporary cultural expressions, while education level is vital for participation in legitimate cultural expressions. Governments that implement automatic stabilization measures to protect citizens from economic downturns shape a more inclusive social stratification model (Esping-Andersen, 1990; Van Der Veen and Van Der Brug, 2013). Consequently, policies aimed at improving the level and social distribution of wealth within countries will generally improve CP and shield CP from an economic downturn, while policies to improve education levels will mainly increase HCP more than LCP.

6. Conclusions

Patterns of both HCP and LCP vary according to people's position in the social hierarchy and their country's level of socioeconomic development. Social changes brought about by a country's development result in (1) a weaker association in individuals between social position and CP, and (2) a stronger relationship between social categories and CP, resulting in greater CP, fewer class differences, and more differences by social categories (the social inclusion hypothesis). Regarding the negative impact of the 2008 debt crisis on CP, it was weaker for European residents in more socioeconomically developed countries (the stabilization hypothesis). In short, CP depends on Europeans' social position and their country of residence, with social position having a greater impact on Europeans living in less socioeconomically developed countries.

Data availability statement: The data underpinning this article are available in GESIS Data Archivem Cologne at https://www.gesis.org/en/home, and can be accessed at https://doi.org/10.4232/1.10983 (2007 data) and https://doi.org/10.4232/1.12577 (2013 data).

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Table 1. Descriptive statistics for the different measures.

Numerical variables	Mean	SE	Categorical variables	Freq.	%
HCP	1.82	2.31	**Sex:** female	25 611	55.9%
LCP	4.18	2.52	**Children:** 0	33 052	72.1%
EC	4.96	1.91	**Density:**		
HECC	0.17	0.46	Low	16818	36.7%
LECC	1.07	0.75	Medium	17 042	37.2%
ICC	18.86	4.68	High	11 984	26.1%
			Year: 2013	22 959	50.1%
			EU countries:		
			Austria	1 811	4.0%
			Belgium	1 729	3.8%
			Bulgaria	1 744	3.8%
			Cyprus	861	1.9%
			Czechia	1 862	4.1%
			Germany	2 716	5.9%
			Denmark	1 663	3.6%
			Estonia	1 709	3.7%
			Finland	1 701	3.7%
			France	1 806	3.9%
			Greece	1 745	3.8%
			Hungary	1 813	4.0%
			Ireland	1 677	3.7%
			Italy	1 765	3.9%
			Latvia	1 766	3.9%
			Lithuania	1 666	3.6%
			Luxembourg	847	1.8%
			Malta	862	1.9%
			Netherlands	1 732	3.8%
			Poland	1 711	3.7%

Portugal	1 646	3.6%
Romania	1 773	3.9%
Slovenia	1 685	3.7%
Slovakia	1 850	4.0%
Spain	1 642	3.6%
Sweden	1 784	3.9%
UK	2 278	5.0%

Number of observations: 45844. EC: economic capital; HCP: highbrow cultural participation; HECC: highbrow embodied cultural capital; ICC: institutional cultural capital; LCP: lowbrow cultural participation; LECC: lowbrow embodied cultural capital; SE: standard error.

Table 2. MLCR results: Europeans' HCP.

	HCP1	HCP2	HCP3	HCP4	HCP5	HC6	Overall	Walt p-value
Intercept	-0.937	0.554	0.210	-2.549	-0.508	1.363	0.228	<0.001
	(0.163)	(0.060)	(0.084)	(0.365)	(0.174)	(0.042)	(0.061)	
EC	0.680	0.291	0.162	-0.026	1.632	0.101	0.364	<0.001
	(0.055)	(0.021)	(0.028)	(0.095)	(0.118)	(0.012)	(0.038)	
HECC	0.234	0.180	0.135	0.401	0.074	0.062	0.167	<0.001
	(0.018)	(0.011)	(0.010)	(0.048)	(0.019)	(0.009)	(0.011)	
ICC	0.776	0.569	0.104	0.428	0.028	0.057	0.206	<0.001
	(0.035)	(0.023)	(0.012)	(0.047)	(0.021)	(0.013)	(0.031)	
Age	-0.018	0.022	-0.029	-1.28	0.514	0.047	0.037	<0.001
	(0.044)	(0.016)	(0.020)	(0.122)	(0.052)	(0.011)	(0.024)	
Sex: female	0.468	0.179	0.335	-0.402	0.173	0.074	0.169	<0.001
	(0.071)	(0.027)	(0.036)	(0.172)	(0.068)	(0.019)	(0.027)	
Children: 0	0.419	0.196	0.161	0.218	-0.046	0.165	0.213	<0.001
	(0.092)	(0.029)	(0.043)	(0.243)	(0.095)	(0.024)	(0.020)	
Density: medium	0.190	0.196	0.231	1.019	-0.053	0.127	0.183	<0.001
	(0.087)	(0.030)	(0.041)	(0.264)	(0.080)	(0.022)	(0.030)	
Density: high	0.533	0.334	0.484	1.062	0.150	0.269	0.373	<0.001
	(0.084)	(0.031)	(0.043)	(0.270)	(0.089)	(0.024)	(0.038)	
Year: 2013	-0.557	-0.159	-0.055	-0.061	-0.152	-0.019	-0.130	<0.001
	(0.072)	(0.027)	(0.033)	(0.182)	(0.066)	(0.018)	(0.029)	
R^2	0.553	0.505	0.285	0.594	0.632	0.172	0.175	
Pattern size	0.249	0.2139	0.165	0.136	0.128	0.108	1	
Mean HCP	1.511	3.312	2.050	0.441	1.299	5.118	1.824	

Standard error in brackets. EC: economic capital; HCP: highbrow cultural participation; HECC: highbrow embodied cultural capital; ICC: institutional cultural capital; MLCR: multilevel latent class regression.

Table 3. HCP country clusters.

H1	Austria, Belgium, Czechia, France, Germany, Hungary, Ireland, Lithuania, Malta, Slovakia, Slovenia, Spain, UK
H2	Bulgaria, Cyprus, Greece, Italy, Poland, Portugal, Romania
H3	Denmark, Estonia, Finland, Latvia, Luxembourg, Netherlands, Sweden

HCP: highbrow cultural capital.

Table 4. HCP pattern distribution by country cluster.

HCP pattern	Country cluster		
	H1	**H2**	**H3**
HCP1	0.2841*	0.4251*	0.0085
HCP2	0.3182*	0.2219*	0.0162
HCP3	0.085	0.0016	0.4736*
HCP4	0.0961	0.2551*	0.0912
HCP5	0.1247*	0.0601	0.2026*
HCP6	0.0919	0.0361	0.2079*
Cluster size	0.4762	0.2619*	0.2619*
Mean HCP	2.3317	1.7559	2.4046

* Indicates a high probability of belonging. HCP: highbrow cultural participation.

Table 5. MLCR results: Europeans' LCP patterns.

	LCP1	LCP2	LCP3	LCP4	Overall	Wald p-value
Intercept	1.452	14.79	0.592	0.640	1.345	<0.001
	(0.013)	(0.023)	(0.145)	(0.530)	(0.009)	
EC	0.081	0.124	0.817	0.422	0,145	<0.001
	(0.004)	(0.007)	(0.053)	(0.160)	(0.003)	
LECC	0.069	0.192	0.573	0.188	0.088	<0.001
	(0.003)	(0.006)	(0.024)	(0.065)	(0.002)	
ICC	0.054	0.065	0.224	0.710	0.132	<0.001
	(0.003)	(0.008)	(0.037)	(0.042)	(0.002)	
Age	0.003	-0.023	-0.196	-0.167	-0.002	<0.001
	(0.004)	(0.007)	(0.043)	(0.121)	(0.002)	
Sex: female	0.108	0.058	0.342	0.090	0.113	<0.001
	(0.006)	(0.011)	(0.065)	(0.183)	(0.005)	
Children: 0	0.049	0.061	0.145	0.018	0.064	0.46
	(0.008)	(0.013)	(0.068)	(0.193)	(0.006)	
Density: medium	0.050	0.056	0.248	0.525	0.078	0.008
	(0.007)	(0.013)	(0.083)	(0.240)	(0.005)	
Density: high	0.135	0.110	0.251	0.568	0.149	<0.001
	(0.008)	(0.014)	(0.088)	(0.255)	(0.006)	
Year: 2013	-0.016	-0.098	-0.736	-1.920	-0.087	<0.001
	(0.006)	(0.011)	(0.070)	(0.403)	(0.005)	
R^2	0.149	0.251	0.671	0.678	0.195	
Pattern size	0.529	0.305	0.115	0.052	1	
Mean LCP	4.910	4.502	2.338	0.509	4.181	

Standard error in brackets. EC: economic capital; ICC: institutional cultural capital; LCP: lowbrow cultural participation; LECC: lowbrow embodied cultural capital; MLCR: multilevel latent class regression.

Table 6. LCP country clusters.

L1	Czechia, Denmark, Estonia, Finland, France, Germany, Latvia, Lithuania, Luxembourg, Netherlands, Slovakia, Sweden, UK
L2	Austria, Belgium, Bulgaria, Hungary, Ireland, Malta, Poland, Slovenia, Spain
L3	Cyprus, Greece, Italy, Portugal, Romania

LCP: lowbrow cultural participation.

Table 7. LCP pattern distribution by country cluster.

LCP pattern	Country cluster		
	L1	**L2**	**L3**
LCP1	0.927*	0.261*	0.001
LCP2	0.0004	0.544*	0.647*
LCP3	0.040	0.145	0.247*
LCP4	0.032	0.049	0.104*
Cluster size	0.476*	0.333	0.190
Mean LCP	4.665	4.096	3.550

* Indicates a high probability of belonging. LCP: lowbrow cultural participation.

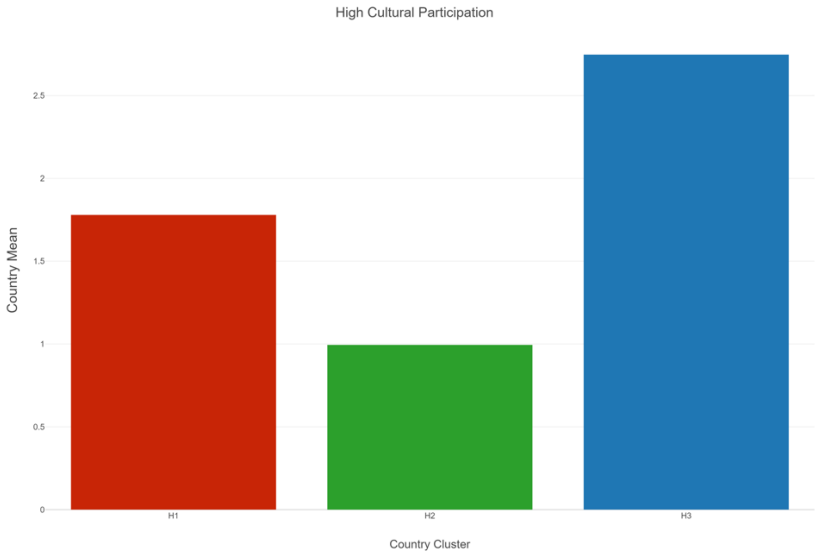

Figure 1. Highbrow cultural participation means by country clusters H1, H2, and H3

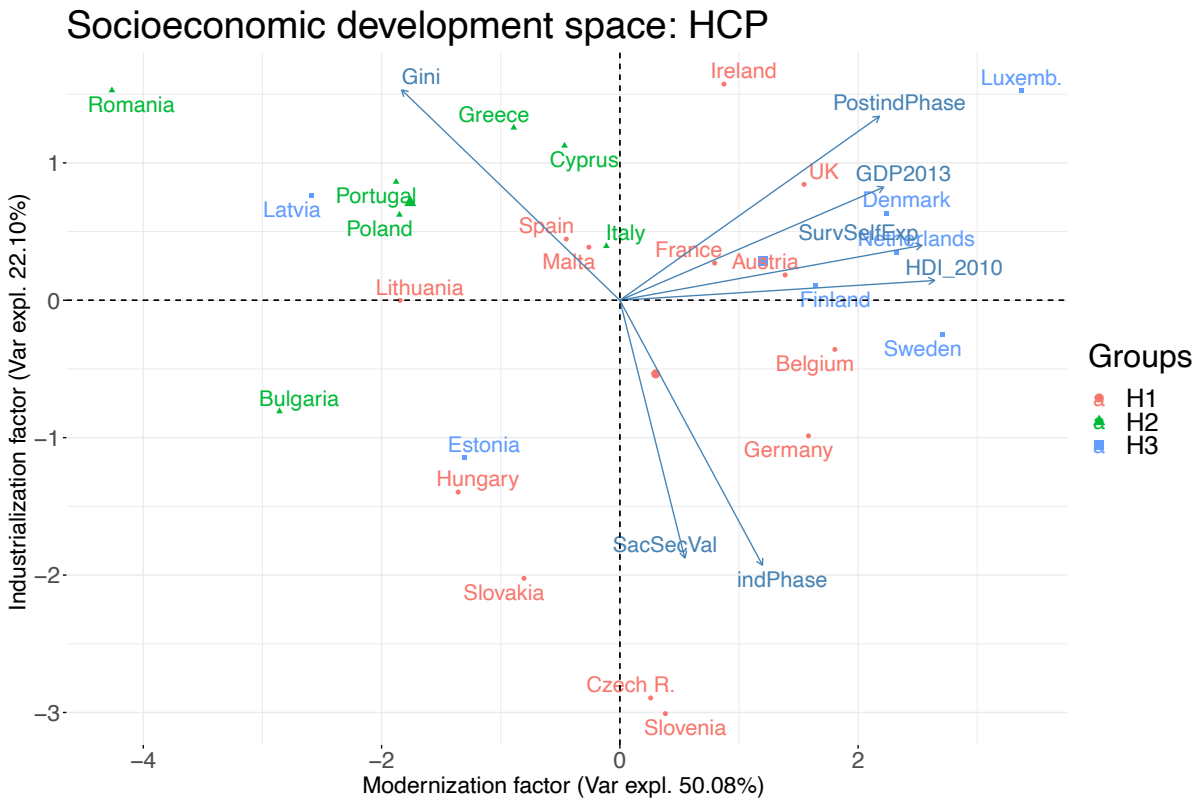

Figure 2. Location of highbrow cultural participation (HCP) countries belonging to clusters H1, H2, and H3 in the modernization space.

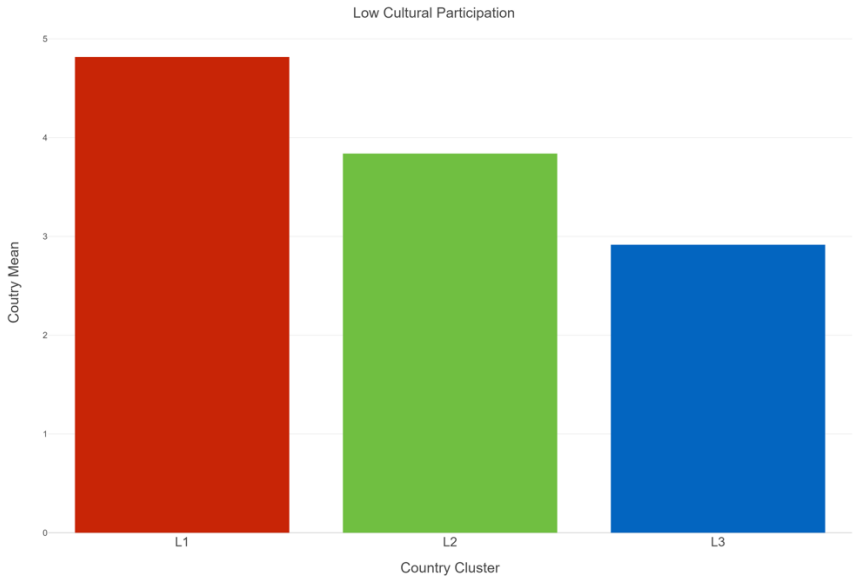

Figure 3. Lowbrow cultural participation means by country clusters L1, L2, and L3.

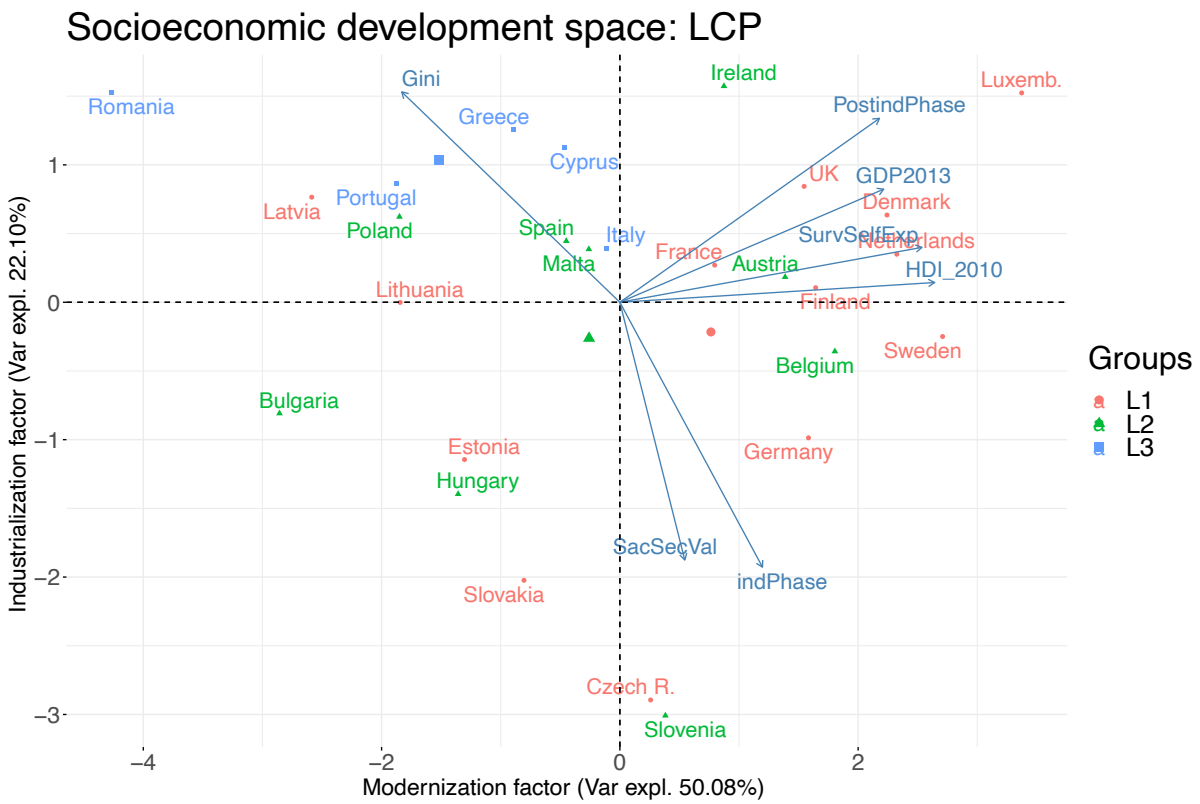

Figure 4. Location of lowbrow cultural participation (LCP) countries belonging to clusters L1, L2, and L3 in the modernization space.