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Individual Resilience: A Comparative Analysis of CZ, SK, DE and SWE

Abstract:

This study introduces the Index of Individual Resilience (IIR) as a multidimensional tool designed to measure personal resilience and compares resilience levels across four European countries: the Czech Republic, Slovakia, Germany, and Sweden.

1. Background:

Resilience has become an increasingly important concept in social science, public policy, and psychology, particularly in the context of global uncertainty, social fragmentation, economic instability, and rising mental health challenges. Existing literature on resilience focuses predominantly on the macro level, focusing on how states, institutions, or economic systems respond to crises. However, resilience also exists at the micro level, shaping how individuals cope with adversity, adapt to change, and maintain well-being despite stress or disruption. Understanding the determinants of individual resilience is therefore essential, especially as societies face complex challenges such as pandemics, geopolitical conflict, climate-related threats, and social polarization. Measuring resilience in a systematic and comparable way remains a methodological challenge.

This paper proposes a new analytical tool, the Index of Individual Resilience (IIR), and applies it in a cross-country comparison to identify patterns and differences in resilience across the Czech Republic, Slovakia, Germany, and Sweden. The study aims not only to measure resilience levels but also to explore the social, health-related, and institutional factors that shape resilience in different sociocultural contexts.

2. Method:

2.1 Design and sample

The study employed a quantitative, cross-sectional, and comparative design. The target population consisted of individuals aged 16–75. Representative samples were obtained in the Czech Republic (N = 1,235; CAWI 620, CAPI 615; fieldwork 23–29 May 2025 via the agency SC&C) and in Slovakia, Germany, and Sweden (each N = 1,000; CAWI; fieldwork 31 July–20 August 2025 via the agency Talk Online Panel).

2.2 Index construction

The IIR is constructed as the sum of 60 items across eight dimensions (maximum score 226 points). Items were scored, standardized, and aggregated. Sociodemographic variables (gender, age, and education) were not included in the index. The dimensions and their weights were as follows: Values (14%), Trust in Institutions (7%), Social Cohesion (6%), Adaptability (18%), Mental Health (11%), Skills (6%), Material Security (18%), Physical Activity and Health (20%).

2.3 Dimensions

A purely proportional allocation would imply a weight of 12.5% per dimension. However, the actual weights range from 6% to 20%, which does not represent a significant imbalance but rather reflects the empirical relevance of specific domains for overall resilience. The structure was intentionally designed to maintain a balance between two broader components of resilience. The first represents relatively objective factors that can be externally verified – such as physical health, mental well-being, material security, and practical skills – together accounting for 55% of the index. The second part captures more subjective and psychosocial aspects of resilience – including value orientation, institutional trust, social cohesion, and adaptability – which together represent 45% of the index. This division allows the index to reflect both tangible life conditions and psychological coping resources, avoiding overemphasis on either purely material or purely subjective indicators.

2.4 Analysis

Descriptive statistics and cross-country comparisons were used (mean, median, min–max). Secondary analysis included related indicators such as BMI, WHO-5, physical activity, and trust.

3. Results:

For more information concerning each individual dimension, see the linked articles.

3.1 Overall Resilience Level

Mean IIR scores: CZ = 102; SK = 97; DE = 100; SWE = 104; score ranges varied between 10–197 points across countries, indicating substantial individual variability.

The largest cross-national differences were found in “Trust in Institutions” (mean values SWE 50.7, SK 37.3) and “Skills/Adaptability” (SWE above average).

Although the overall resilience scores across the four countries appear relatively close, this similarity does not imply identical resilience profiles. Instead, comparable total IIR scores result from different combinations of strengths and weaknesses across countries. These patterns

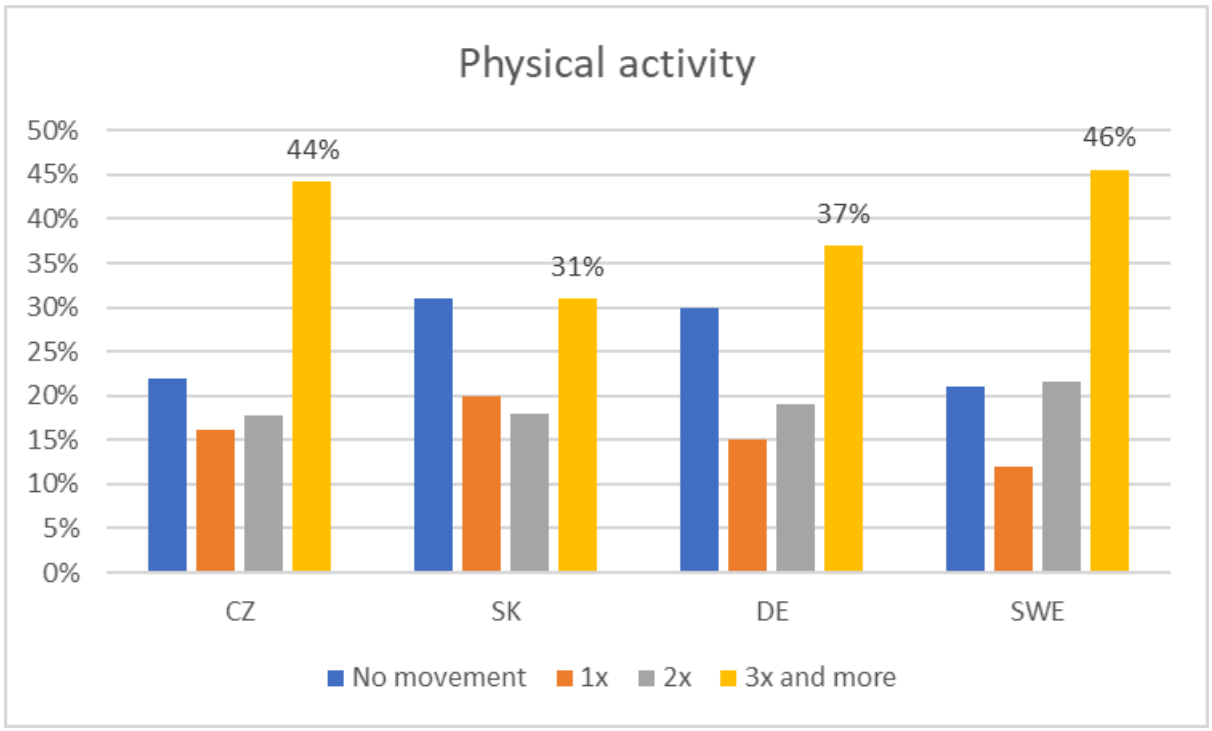
indicate that resilience can be built through multiple pathways, with countries relying on different sets of protective factors shaped by their historical experience, social structure, and cultural norms.

3.2 Health and Lifestyle

Health status is a fundamental component of individual resilience, as it directly affects a person's ability to cope with stress, maintain productivity, and recover from adversity. Therefore, the Index of Individual Resilience includes both physical health indicators and lifestyle-related behavioural measures.

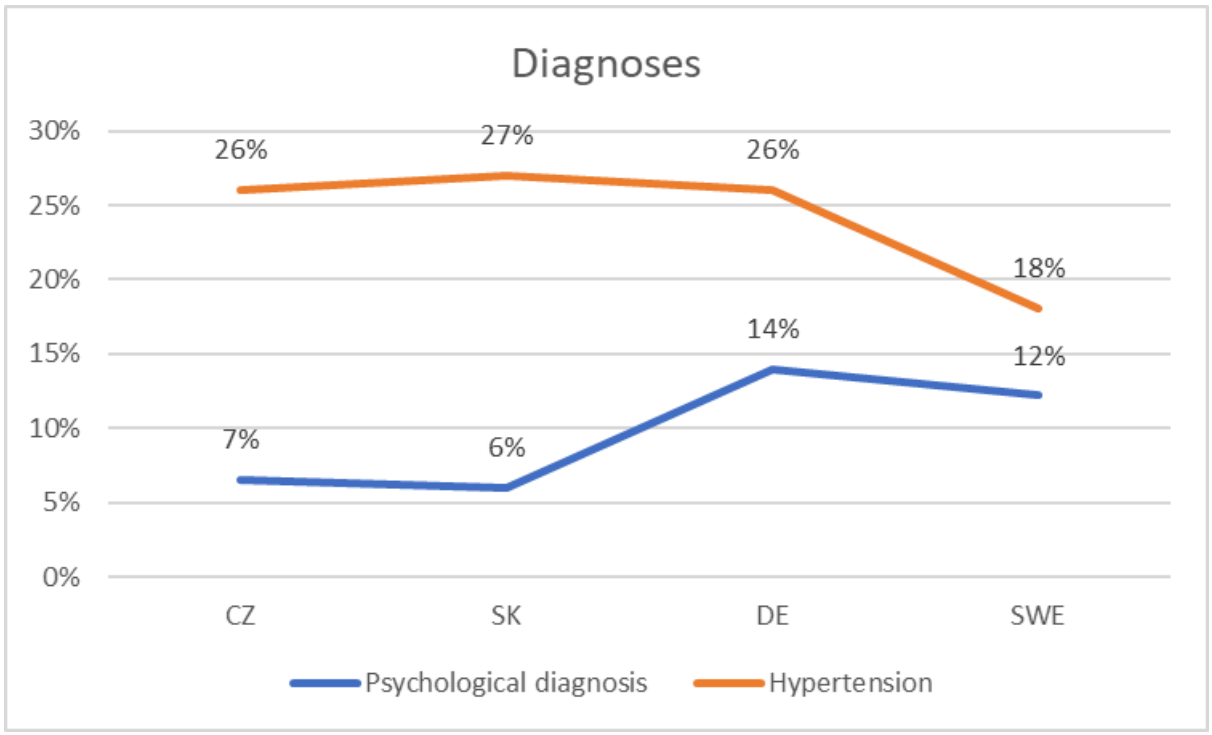
Body Mass Index (BMI) results show that all four countries fall, on average, within the overweight category, with Sweden (mean BMI 25.9) closest to the upper limit of the normal range, followed by the Czech Republic (26.6) and Germany (27.0), while Slovakia (27.3) reported the highest values. These findings indicate that weight-related health risks are a concern across Central Europe in particular. Although Sweden performs marginally better, the increasing prevalence of overweight and obesity represents a persistent public health challenge across Europe, with implications for long-term resilience and healthcare sustainability.

Physical activity, an important protective factor for both physical and mental health, showed greater cross-national variation. The share of respondents engaging in sport or exercise at least three times per week was highest in Sweden (46%), closely followed by the Czech Republic (44%). Germany (37%) showed moderate activity levels, while Slovakia (31%) reported the lowest frequency. This suggests that healthy lifestyle habits may serve as a compensatory resilience resource in the Czech Republic, despite its relatively high BMI levels.



Physical activity (≥3 times weekly): CZ 44%, SK 31%, DE 37%, SWE 46% - the Czech Republic is comparable to Sweden and well above Slovakia.

Health conditions were also analysed through the prevalence of selected chronic diagnoses. Hypertension was reported by 18% of respondents in Sweden, compared to 26–27% in the Czech Republic, Slovakia, and Germany. Meanwhile, the prevalence of psychological or psychiatric diagnoses requiring treatment was lowest in Slovakia (6%) and the Czech Republic (7%), but substantially higher in Germany (14%) and Sweden (12%). These results reflect possible differences in healthcare utilization, diagnosis rates, and stigma related to mental health rather than purely epidemiological differences.

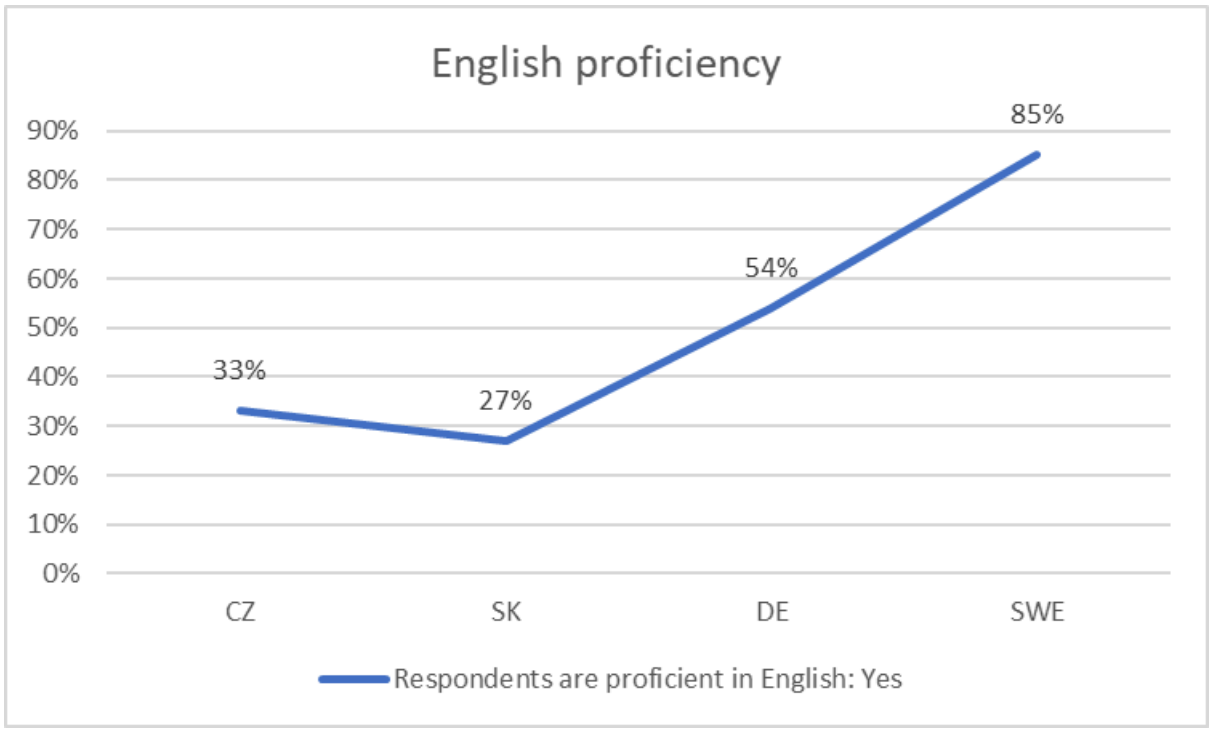


Diagnoses: Hypertension: CZ 26%, SK 27%, DE 26%, SWE 18%; psychological diagnosis requiring treatment: CZ 7%, SK 6%, DE 14%, SWE 12%.

3.3 Adaptability and Skills

Adaptability and practical skills represent key components of individual resilience, as they determine a person's ability to respond flexibly to changing circumstances, access new opportunities, and function independently in uncertain or crisis situations. This dimension combines behavioural indicators, preparedness strategies, and competencies relevant to coping with societal and economic challenges.

A significant cross-national gap emerged in English language proficiency, a proxy for cognitive flexibility and global connectedness. The proportion of respondents reporting a "good" command of English was highest by a large margin in Sweden (85%), followed by Germany (54%), while considerably lower levels were reported in the Czech Republic (33%) and Slovakia (27%).



English proficiency (“good” level): CZ 33%, SK 27%, DE 54%, SWE 85%.

A more uniform pattern was observed in driving licence ownership, with rates ranging from 73% to 81% across all four countries. This suggests a generally high level of mobility competence in the European context, enabling individuals to relocate for work or safety if necessary.

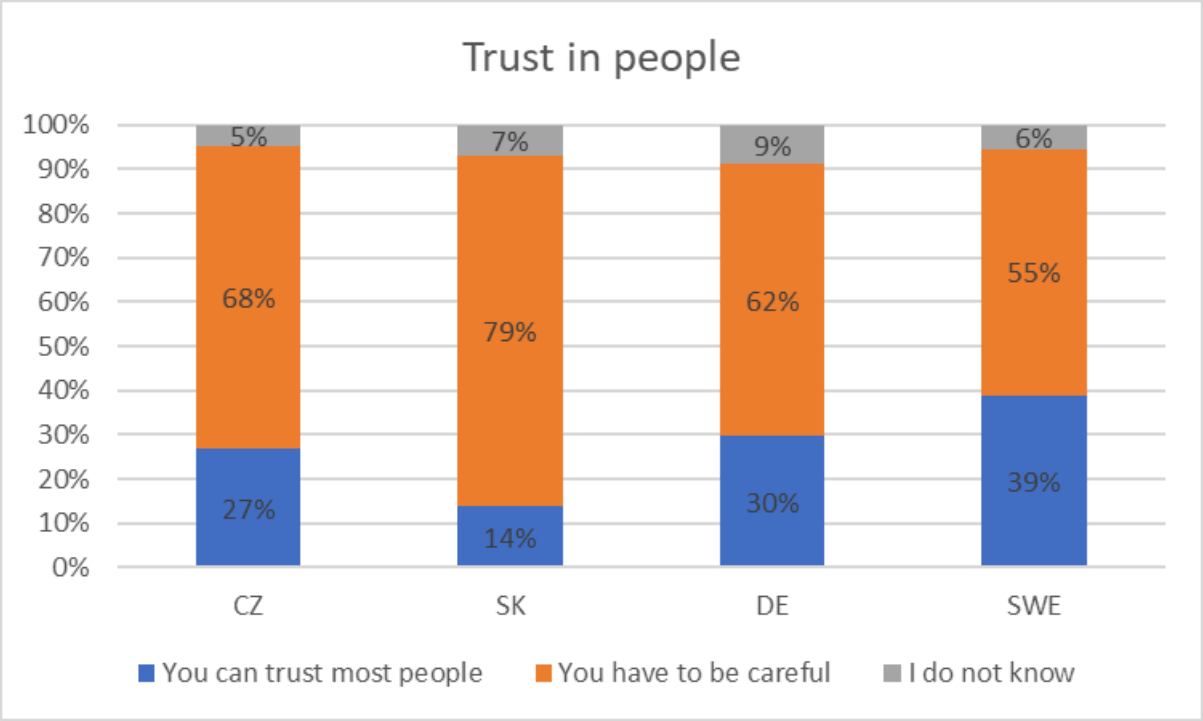
Preparedness behaviour was further examined using the indicator of cash reserves kept at home, which varied substantially between countries. Slovakia (48%) and the Czech Republic (41%) reported the highest proportion of households maintaining cash reserves, while Germany (24%) and Sweden (17%) showed much lower levels. These results reflect culturally specific strategies of risk management.

3.4 Social Cohesion and Support Networks

Social cohesion and interpersonal trust represent essential components of resilience, as they reflect the capacity of individuals to access informal support and engage in cooperative behaviour during adversity. The data reveal notable cross-national variation in these areas.

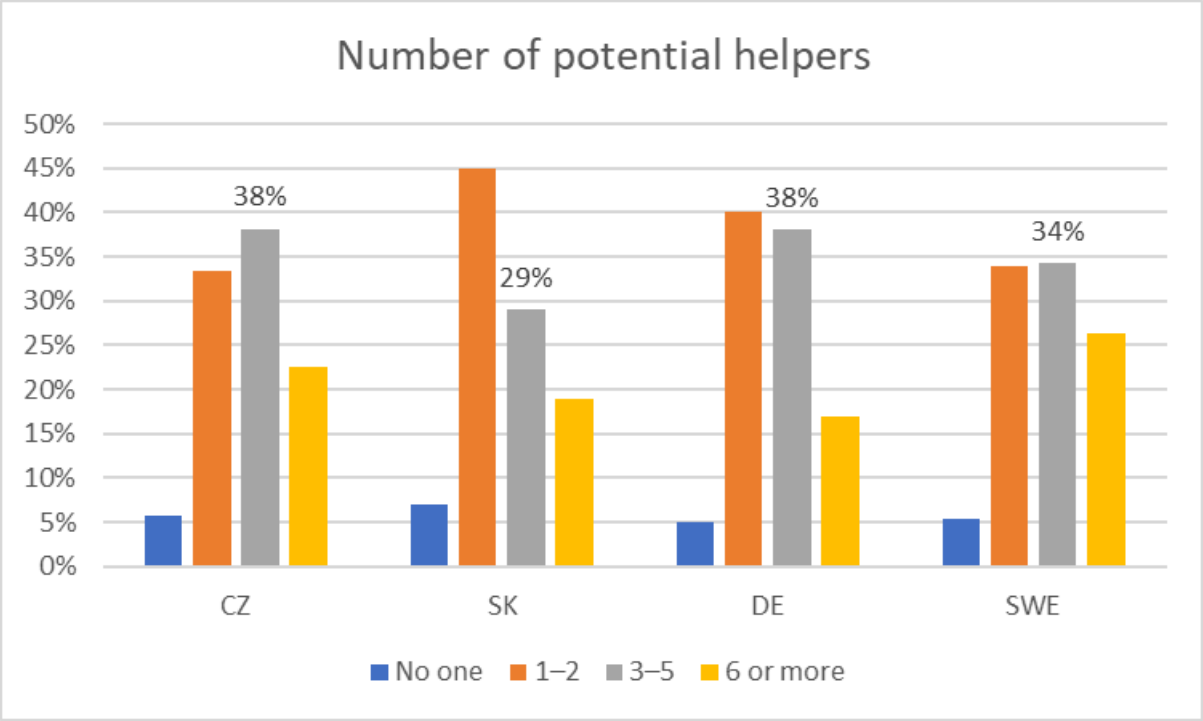
Generalized trust, measured by agreement with the statement “most people can be trusted”, was highest in Sweden (39%), followed by Germany (30%) and the Czech Republic (27%), while Slovakia reported the lowest level (14%). This pattern aligns with broader European trends showing stronger social trust in Nordic countries compared to Central and Eastern

Europe. Low levels of interpersonal trust may limit the willingness to cooperate beyond close social circles and can inhibit community-level resilience.



Share of respondents agreeing that “most people can be trusted”: CZ 27%, SK 14%, DE 30%, SWE 39%.

Support network size was assessed by the number of people respondents could rely on in difficult life situations. The share of individuals reporting 3–5 potential helpers was roughly similar in the Czech Republic (38%) and Germany (38%), while slightly lower in Sweden (34%) and lowest in Slovakia (29%). In all four countries, only a minority of respondents reported having access to six or more reliable helpers, suggesting that extended support networks are relatively rare.



Number of potential helpers (3–5 persons): CZ 38%, DE 38%, SK 29%, SWE 34% — lowest social cohesion observed in Slovakia.

Overall, Slovakia appears to be the most vulnerable in this dimension, with both the lowest interpersonal trust and the smallest social support networks. In contrast, Sweden exhibits the strongest generalized trust, although support networks are not necessarily larger, indicating a more institutionalized than family-based model of social support. The Czech and German results reflect moderate cohesion, where practical support networks compensate for somewhat lower levels of generalized trust. These findings suggest that while social cohesion contributes to resilience, its cultural forms and mechanisms may vary significantly across countries—from trust-based cohesion in Sweden to kinship-based support in Central Europe.

3.5 Institutional Trust

Highest trust was consistently attributed to emergency services and fire brigades (8.0–8.6/10) and to employers; political institutions (government, parliament) showed the lowest trust levels across countries.

Sweden reported the highest overall levels of trust, reflecting strong confidence in public institutions, governance, and civic infrastructure. Germany and the Czech Republic followed with similar mid-range levels of trust, indicating partial confidence in key institutions but also a

degree of skepticism, particularly toward political bodies. The lowest institutional trust was found in Slovakia, where respondents reported limited confidence not only in political institutions but also, to a lesser extent, in the judicial system and public administration[1].

Across all countries, the most trusted institutions were emergency and rescue services, including ambulance and fire services, which received very high trust ratings (8.0–8.6 on a 10-point scale). Employers also ranked consistently high, suggesting that immediate and tangible institutions enjoy more credibility than abstract or distant political bodies. By contrast, parliamentary institutions and national governments scored the lowest in every country, confirming a broader trend in Europe of declining trust in traditional politics.

Discussion:

The Index of Individual Resilience shows that the foundation of resilience lies in a combination of 8 dimensions (Values, Trust in Institutions, Social Cohesion, Adaptability, Mental Health, Skills, Material Security, Physical Activity and Health). Cross-national differences concentrate in institutional trust and skill/language profiles; Sweden consistently performs the highest in these areas, while Slovakia shows the lowest trust and cohesion. High resilience does not necessarily imply high institutional trust. The Czech profile combines relatively good health/activity and material security with lower trust, which may strengthen strategies of self-reliance but weaken collective response in crises. The Swedish model shows a synergy of competencies and institutional trust.

Conclusion:

Resilience is a multidimensional construct based on a combination of health, material, and socio-institutional resources. The results demonstrate that individual resilience varies both

between countries and within populations. Cross-cultural differences highlight the importance of institutional trust and skills alongside individual health. These findings highlight that resilience is not only a personal attribute but also deeply shaped by broader socioeconomic and cultural environments.

[1] These findings correspond to the political context during the data collection period and reflect broader trends of public dissatisfaction with political institutions.

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