

RIETI Discussion Paper Series 21-E-097

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Network Analysis of the Determinants of Attitudes towards Immigrants across Regions¹

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Abstract

Widespread anti-immigrant sentiment during the COVID-19 pandemic has shown that attitudes towards immigrants are a pertinent issue for policymakers aiming to create effective immigration and integration policy. However, previous research has mainly focused on European and a select group of Anglophone countries, like the United States, Canada, the UK. As a result, policymakers outside of these contexts may find this research inapplicable to their context. This study analyzes regional differences in the determinants of attitudes towards immigrants in over 50 countries by employing four signed and weighted bipartite networks of large regions of countries connected through migration. Using data from Wave 6 of the World Values Survey, four bipartite networks of countries and determinants of attitudes towards immigrants are constructed and projected into onemode networks: one of the countries and one of the attitudes, beliefs, and values which influence attitudes, or "features." Community analysis detects which features are correlated in determining attitudes, allowing for the reduction of hundreds of features to key determinants of attitudes in a region. The study finds that prejudices towards out-groups, especially racial prejudice, are important determinants irrespective of region and can be considered a generalizable determinant of attitudes towards immigrants. Moreover, analysis of racial prejudice's links with other determinants and its subcommunity structure finds that intergroup conflict theory is influential in the Eastern Europe/Central Asia and Western Europe/North Africa networks, while neither social identity theory nor intergroup conflict theory are present in the Africa, Americas, or Asia networks. Results are mixed in the Middle East and Southeast Asia networks. Finally, values-based attitudes, such as the importance a person puts on fairness or benevolence, are more prominent in networks containing European countries, while they are not in other regions. This finding suggests that values-based communications on migration, which are often considered best practice, may not be effective in other regions, and highlights the need for greater research into cultural differences in the determinants of attitudes.

Keywords: migration, political attitudes, network science, political economy JEL classification: F22, J15

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¹This study is conducted as a part of the Project "Macro-Economy under COVID-19 influence: Data-intensive analysis and the road to recovery" undertaken at the Research Institute of Economy, Trade and Industry (RIETI). The author is grateful for helpful comments and suggestions by Prof. Hideaki Aoyama (Kyoto Univ.) and Discussion Paper seminar participants at RIETI.

1. Introduction

The advance of globalization has brought new goods, streams of capital, and interconnection into the lives of people around the world. Equally, it has brought new people to once homogenous countries and areas. While the benefits of migration can be large and immediate for migrants and their receiving societies – one optimistic estimate puts the global gains to GDP from eliminating all policy barriers to migration in the tens of trillions (Clemens, 2011) – the inclusion of migrants into a society has often been met with staunch opposition by local populations. Anti-immigration and anti-immigrant sentiment were powerful motivators in both Brexit and the election of Donald Trump in the U.S., but anti-immigrant sentiment has been growing around the world. With the spread of COVID-19, anti-immigrant, in particular, anti-Asian immigrant harassment and assaults became headlines in multiple countries.

The study of why some people and some countries show greater resistance towards immigrants is not new. Some of the earliest work of sociology aimed to understand the consequences of the arrival of European immigrants arrived in American cities in the 19th century. However, the current literature still suffers from this overemphasis on European and Anglophone countries. As such, research is still limited on how the determinants of attitudes differ in other regions, in countries where immigration is relatively new, and in non-democratic governments. Cross-national studies often limit themselves to a single country or region, with few seeking to explain global variations. Those cross-national studies which do examine global attitudes often assume that determinants are the same regardless of region. However, this assumption effaces the marked cultural, historical, and political differences amongst regions and risks the neglect of important factors that have not been already hypothesized by the literature. Moreover, studies often assume that determinants of attitudes are independent factors. However, the social psychology research makes clear that determinants of attitudes towards immigrants are deeply interrelated, reinforcing and contradicting one another throughout the formation of attitudes.

Given the global salience of this issue, this study aims to fill this research gap by examining in greater detail the determinants of attitudes towards immigrants in different regions using an innovative methodology that places attitudes in a network structure. This study builds on previous work which first employed network science to examine attitudes towards immigrants in Asian countries (Kawasaki & Ikeda, 2020) and on a global scale (Kawasaki & Ikeda, 2021). By creating four regional networks of countries and determinants of attitudes, this study will clarify 1) what determinants can be considered generalizable or common to all regions and contexts, 2) how regions differ in their determinants of attitudes towards immigrants, and 3) comment on the literature of determinants of attitudes towards immigrants.

This study first separates countries into regions by putting countries with strong migrant ties together into communities. Each regional network is then made into a bipartite network and projected into two one-mode networks of countries and features. Community detection is then applied to find first, which countries are similar in their determinants and then, which features act in concert as determinants.

A brief explanation of network science terms

Networks allow for the study of complex phenomenon by analyzing the structure of the connections (*edges*) between relevant entities (*nodes*). Edges can be weighted and signed, with greater edge weights denoting greater closeness between two nodes and signs representing direction. Analyzing the structure of the ties between edges is called *community detection*,

wherein nodes are identified as belonging to a community, with stronger ties between nodes of the same community and weaker edges between communities. A community which contains only one node is considered a *singleton community*.

The simplest type of network is a *one-mode* network, meaning that any node can have connections with another node. A more complex form of network is a *bipartite* network, a type of network commonly used to show membership. For example, a bipartite network of a social network may show which people attended which parties, with one class of nodes denoting social events, one class of nodes representing parties, and an edge between a person and an event denoting that the person attended that event. In a bipartite network, it is impossible for edges to exist between nodes in the same class, i.e. between two people nodes or between two event nodes.

2. Related Work

2.1. Attitudes and network science

Broadly, the term attitude refers to an evaluation or judgement of an object. These evaluations can include both cognitive judgments ("*beliefs*"), and affective judgements, i.e. the person's feelings about an object – for example, whether the person likes/dislikes, is disgusted by the object, etc. Attitudes allow for the synthesis of multiple points of information about and reactions to an object, expressing some degree of favor or disfavor (Albarracín et al., 2017). While attitudes, beliefs, and affects are deeply interconnected, Albarracín et al. distinguish between attitudes and beliefs by stating that beliefs are in principle verifiable, whereas attitudes are generally not. Attitudes and affective reactions differ in that an emotional reaction may still be in conflict with a person's overall evaluation – for example, someone may enjoy the experience of gambling, but still have a negative evaluation of the activity because of its deleterious financial and social effects.

An important concept to the formation of attitudes is that of values. While definitions vary to some degree, *values* are generally defined as the stable guiding principles that allow a person evaluate newly encountered objects. They denote desirable ends – how things ought to be and how people ought to act. As Boer and Fischer state, "the common definitions of values in psychology are context-free" (Boer & Fischer, 2013: 5). In other words, values are assumed to represent higher-order cognitive representations than attitudes, "the stable, meaning-producing" (Rohan, 2000: 257) structure that allow people to judge what is good/bad, desirable/unfavorable. They differ from attitudes in that they help a person form their attitudes and are not tied to the evaluation of a specific situation. Based on the stable value which states that a concept such as fairness or tradition is most important, a person is able to reach an evaluation of a specific situation of gender equality policies or the appropriate level of immigration in a country. Schwartz identifies 10 universal values, recognized in all cultures: Conformity, Tradition, Security, Power, Achievement, Hedonism, Stimulation, Self-Direction, Universalism, and Benevolence (Schwartz, 2003).

While researchers generally agree on the evaluative aspect of attitudes, how attitudes form remains a subject of debate, with conceptualizations of attitudes as the result of stable representations stored in the memory and attitudes as being creating on the spot according the influence of various stimuli constituting the two poles (Bohner & Dickel, 2011). As the definition of values suggest, many researchers posit a causal relationship between values and attitudes, with values determining attitudes (Boer & Fischer, 2013). However, other theories, such as the connectionist theory, take a more horizontal approach to attitudes. Connectionist

theories does not assume that values are a higher-order cognitive representation but instead posit that attitudes form through the horizontal influence of other, related evaluations and values. As such, a specific attitude arises through the interconnected influence of other attitudes, values, and beliefs. The advantage of this model for attitude formation is that it 1) does not assume the hierarchical relationship between values and attitudes, 2) models the structure of the brain which consists of neurons connected by synapses, and 3) explains why some attitudes remain constant while other can be more easily changed depending on the context, such as the wording of a question (Dalege et al., 2017; Monroe & Read, 2008; Van Overwalle & Siebler, 2005). Several studies have used network science to model and explain the formation of attitudes according to connectionist theories.² The Causal Attitude Network model (CAN) creates a network structure of interrelated evaluative reactions towards an object by regressing each node against another (Dalege et al., 2017). The parameters of the logistic regression are then used to quantify the strength of the ties between nodes. Schlicht-Schmälzle et al.'s apply this model to evaluate the determinants of post-national citizenship identities in OECD countries (Schlicht-Schmälzle et al., 2018). This study builds on this work by putting attitudes in a bipartite network, allowing for direct comparison of countries.

The academic study of attitudes has suffered from a Western bias, both in the countries surveyed and the conceptualizations of attitudes that are used (Goodwin et al., 2020). Common definitions of values are "based on the Western assumption of an autonomous, self-contained, and individualistic view of humans" (Boer & Fischer, 2013: 5). However, experimental evidence has shown that the influence of values, affect, beliefs, and social norms on attitudes vary widely across cultures, with some cultures having more stable (context-dependent) attitudes, more influenced by affect (cognition), and more dependent on personal preferences (normative expectations) (Nisbett et al., 2001). In more collectivist cultures, attitudes are more likely to serve the function of fulfilling social norms and deepening interpersonal relationships rather than expressing individuality and personal preferences (Boer & Fischer, 2013). For this reason, affect is stronger in determining the attitudes of respondents who see themselves as an individual (independents) than those who see themselves as part of a social context (interdependents). Moreover, independents are more satisfied with choices they made based on affect, because their priority is more oriented to self-satisfaction, than interdependents, who more highly regard decisions more reliant on cognitive evaluations, likely because decisions have to be justifiable to others (Hong & Chang, 2015). Respondents from collectivist East Asian cultures may have more ambivalent attitudes and less decisiveness in answering (Ng et al., 2012; Ng & Hynie, 2014), more willingness to include contradictory information in their attitudes (Spencer-Rodgers et al., 2010), and believe that everything needs to be evaluated in its context (Nisbett et al., 2001). Finally, attitudes may be less predictive of behavior than social norms and practices in East Asian countries (Eom et al., 2016). In sum, research shows that cultures differ in how attitudes form, though research on attitudes does not always reflect these differences.

2.2. Attitudes towards immigrants

A multitude of studies have investigated what factors are important in the formation of attitudes towards immigrants. For an full review of the literature, see the works conducted by Hainmueller and Hopkins and by Ceobanu and Escandell (Ceobanu & Escandell, 2010;

² For an example of a study that uses network science to model a more hierarchical approach to values and attitudes, see (Boutyline & Vaisey, 2017)

Hainmueller & Hopkins, 2014). The following section will briefly explain the two major theories that predict attitudes towards immigrants and other out-groups, before detailing some of the major findings in the literature of pertinent country-level and individual-level factors.

Two longstanding theories have sought to explain why anti-immigrant sentiment and other negative attitudes towards out-groups arise. The first, intergroup conflict theory, posits that the non-immigrant population perceives the immigrant group as a threat to their material well-being, either through replacing them in jobs or through burdening welfare systems (Campbell et al., 2006; Dustmann et al., 2007; Mayda, 2006). An extension to intergroup conflict theory states that this threat can be triggered over more symbolic resources, like social value and esteem (Esses et al., 1998). Accordingly, this theory predicts that people who are in competition with immigrants for employment or who have a higher sensitivity to threat are more likely to have negative attitudes towards immigrants. The second theory, social identity theory, states that anti-immigrant prejudice occurs as the social group consolidates and defines their own identity in opposition to the immigrant group, creating greater intra-group cohesion through the exclusion of the immigrant out-group (Tajfel & Turner, 1978). As a consequence, individuals with a stronger sense of group identity, whether it be national, regional, or racial, will have more negative attitudes towards immigrants than those who are less invested in these identities (Kunovich, 2009).

The empirical evidence, though limited in its geographic scope to mostly European and Anglophone countries, has found several individual-level factors that correlate with more negative attitudes towards immigrants. Within Europe and the Anglophone countries, education has been found to one of the most consistent and strongest predictors of attitudes towards immigrants, with people with higher education tending to have more positive attitudes towards immigrants and immigration (Freeman et al., 2013; Lancee & Sarrasin, 2015). However, the relationship between education and attitudes becomes more mixed as the geographic scope is enlarged. In comparison to Western European countries, Southern and Eastern European countries see a smaller effect of education on attitudes (Coenders & Scheepers, 2003; Hello et al., 2002). The effect of education on attitudes was found to be insignificant in a cross-national survey of 10 Latin American countries and in single-country analyses outside of Europe and the Anglophone countries (Meseguer & Kemmerling, 2018; Nakata, 2017). Respondents who hold cultural homogeneity in higher regard are also more likely to have negative attitudes towards immigrants (Sides & Citrin, 2007). Political orientation has also been found to be significant in determining attitudes, with people who identify as further right on the political spectrum or as who hold more neoliberal attitudes showing more restrictive attitudes towards immigration (Igarashi & Ono, 2019; Kunovich, 2009). Greater dissatisfaction with democracy in one's country has also been found to have a negative effect on attitudes towards immigrants (Weldon, 2006).

One of the practical implications of research on attitudes towards immigrants is in policy messaging. Migrant advocacy groups almost uniformly suggest that communications should align with a person's core values in order to more effectively sway their opinion (Du Bled et al., 2019). Using data from the European Social Survey, Du Bled et al. find that strongly antiimmigration Europeans are more likely to value conformity, security, tradition and power, while pro-immigration respondents were more likely to place higher value on universalism. Therefore pro-immigration political messages should highlight how migrants can contribute to the security of a country or conform to the expectations of the society in order to convince people who lean anti-immigration. Conversely, to energize their supporters and collect donations, proimmigration advocacy groups may choose to appeal instead to the values of universalism. These findings are supported by research which show that framing and highlighting the social and economic benefits can increase support for immigration, even in non-Western contexts, in both the long and short-term (Facchini et al., 2017).

In addition to individual-level factors, research has found that country-level factors can affect attitudes towards immigrants. While the level to which an individual's economic well-being may affect attitudes towards immigrants has mixed evidence, Coenders et al. find that a person's perception of the overall economic health of the country is more important in determining attitudes (Coenders et al., 2008). Finally, the size of the migrant population has a complex relationship with attitudes towards immigrants, with some studies finding that attitudes towards immigrants become more negative as the migrant population increases due to the increased perceived threat (Schneider, 2008), while others find that attitudes become more positive due to increased contact between individuals (Schlueter & Wagner, 2008). Finally, Hopkins finds that whether inflows of migrants provoke negative attitudes depends on the local demographics and history of immigration to the area (Hopkins, 2020). Large-scale events, like natural disasters, can affect people's risk-sharing behaviors and have positive effects on intergroup relations, though this effect is tempered by whether a person experienced the disaster directly and the history of intergroup conflict (Kashiwagi, 2018).

3. Data and methodology

3.1. Data

Data of attitudinal features of 56 countries are taken from the World Values Survey (WVS) Wave 6, conducted from 2010 to 2014. The survey applies a common questionnaire of over 200 questions to measure attitudes, values and beliefs across countries. Each country survey contains a representative sample of at least 1200 people. The dependent variable measures explicit bias against migrants with a dummy variable, 1 indicating that respondents would not like to have immigrants/foreign workers as neighbors and 0 indicating they did not mention whether or not they would mind living near immigrants/foreign workers.

Data for the migrant stock network comes the UN Department of Economic and Social Affairs' 2010 International Migration stock matrix. This bilateral matrix estimates the number of international migrants in a country and their origin, based on population censuses (UN DESA Population Division, 2020).

3.2. Migration network

Countries were assigned to networks based on the results of a Walktrap clustering of the migrant stock data from the UN DESA. First, a network was constructed from a weighted adjacency matrix S, where $S = \{s_{ab}\}(a = 1, ..., 197; b = 1, ..., 197)$. $s_{ab} \in \mathbb{R}^+$ equals the number of migrants from origin country *a* residing in destination country *b*. Often migration between two countries is not equal in both directions; in other words, many more people may move from country *a* to country *b* while relatively few people from country *b* immigrate to country *a*. For this reason, s_{ab} and s_{ba} may not be equal.

The Walktrap algorithm calculates the similarity of nodes through the use of random walks (Pons & Latapy, 2006). A network W is associated to its adjacency matrix S. Random walks calculate the probability P_{ab}^t that node a will traverse from node b in t random steps to an adjacent node. The transition probability at each step is

$$P_{ab} = \frac{s_{ab}}{d(a)} \tag{1}$$

where $d(a) = \sum_{b} s_{ab}$, the sum of all weights of edges from node *a*.

When using the Walktrap algorithm for community detection, nodes are first assigned to their own communities. The distance between communities is calculated, using the following equation:

$$r_{C_n C_m} = \sqrt{\sum_{k=1}^{n} \frac{\left(P_{C_n k}^t - P_{C_m k}^t\right)^2}{d(k)}}$$
(2)

where C_n and C_m are two communities and k their neighbors. In the case of the migrant stock network, t=10. The two closest communities are then merged, the distance between communities is then computed again, and the process is repeated until the modularity of the network is maximized. Modularity uses density to judge the partition of a graph, comparing the weight of edges inside a community and the combined weight of edges outside of a community.

$$Q = \frac{1}{2m} \sum_{c} \left(e_c - \gamma \frac{K_c^2}{2m} \right) \tag{3}$$

Where *m* equals the number of edges in the network, e_c represents the fraction of edges inside community *c*, K_c is the sum of degrees of nodes in community *c* and γ is the resolution parameter, which in this case is equal to 1. Modularity is also the basis of Louvain clustering, the method which is used to partition the attitude networks and which will be described in the following section.

3.3. Attitude network

The construction of the attitude and country network comprises two steps: first, deriving the coefficients and second, the network analysis of each of the region networks. Figure 1 shows an overview of the methodology for analyzing a region network. This process was repeated for each network, resulting in a feature network showing the determinants of attitudes in each region and a country network, showing which countries were similar in their determinants of attitudes. In total, 4 feature networks and 4 country networks were created.



Figure 1 Flow diagram of attitude network analysis for one region

For each country c, the results of the WVS are organized in a matrix $D: \{d_{fg}\}(f = 1, ..., F; g = 1, ..., G$, where F equals the number of respondents for that country and G represents the number of features. During data preparation, variables that could not be interpreted in a network structure were eliminated from the data preliminarily. These variables included questions that were dependent on how respondents answered previous questions or where the answers respondent could select varied depending on the country. Finally, as the focus of the study is the autochthonous population's attitudes towards immigrants, immigrants were removed from the sample.

where for each x_i , a node *m* representing a region R_m with N_m observations, the number of times that the observed value y_i is equal to the class *k* is calculated. This process is recursively done until the minimum node size $n_m=1$. The imputed value is equal to

$$\hat{C}_{rf}^{B} = majority \ vote \left\{ \hat{C}_{b}(x) \right\}_{1}^{B}$$
(5)

where $\hat{C}_b(x)$ is the class prediction of the *b*th random-forest tree. Due to the random nature of the initial partition, results from the random forest could vary. For this reason, the random forest

imputation was repeated 1000 times and the mean imputed value was used. Computation was completed with the use of the supercomputer system of Academic Center for Computing and Media Studies, Kyoto University.

LASSO regression was then performed to identify significant determinants for attitudes towards immigrants in each country. Coefficients are derived from the following formula

$$\hat{\beta}^{lasso} = argmin\left\{\frac{1}{2}\right\} \sum_{i=1}^{N} \left(y_i - \beta_0 - \sum_{j=1}^{p} x_{ij}\beta_j\right)^2 + \lambda \sum_{j=1}^{p} |\beta_j|$$
(6)

where N is equal to the number of cases, yi the outcome. λ is the tuning parameter obtained through 10-fold cross-validation. Because the random partition of data at the beginning of cross-validation can affect the results, cross-validation was performed 100 times, and the median value for the λ value one standard error from the minimum was selected.

The results of the LASSO regressions for each country in a region network were then combined into a set of sets to create a weighted adjacency matrix for bipartite network.

$$A: \{a_{ij}\} (i = 1, \dots, C; j = 1, \dots, V)$$
(7)

Rows represent countries, and columns represent features. Elements, a_{ij} , equal the coefficient of the LASSO regression for that feature in that country; if a feature *j* is not significant in a country *c* LASSO regression, a_{ij} equals to 0.

Having created the bipartite network, a one-mode network of countries was projected from the bipartite network. First, Matrix A is rewritten using row-wise country vector $c^{(i)}$ (i = 1, ..., C):

$$A = \begin{pmatrix} c^{(1)} \\ c^{(2)} \\ ... \\ c^{(C)} \end{pmatrix} = \left\{ c_j^{(i)} \right\}$$
(8)

So that the value measuring similarity between countries would be scaled from -1 to 1, country vectors were normalized according to the following formula:

$$\hat{c}^{i} = \frac{c^{i}}{\sqrt{\sum_{j=1}^{V} (c_{j}^{i})^{2}}}$$
(9)

Normalizing the country vectors resulted in the normalized vector

$$\hat{A} = \begin{bmatrix} \hat{c}^{(1)} \\ \hat{c}^{(2)} \\ \vdots \\ \hat{c}^{(C)} \end{bmatrix} = \left\{ \hat{c}^{(i)}_j \right\}$$
(10)

The normalized matrix is then multiplied by its transpose, to result in the matrix $\Phi = {\phi_{ij}} = (i = 1, ..., C; j = 1, ..., C).$

$$\Phi = \hat{A} \cdot \hat{A}^T \tag{11}$$

$$\phi_{ij} = \sum_{k=1}^{j} \hat{c}_k^i \hat{c}_k^j \tag{12}$$

Through matrix multiplication, ϕ_{ij} is a scalar value that measure the degree of similarity between the determinants of attitudes for two countries, *i* and *j*. If ϕ_{ij} equals 0, this indicates that the country vectors are orthogonal, and the determinants of attitudes towards immigrants in each countries have no relationship. If ϕ_{ij} equals 1, this indicates that countries *i* and *j* have the exact same coefficients for each feature, whereas if ϕ_{ij} equals to -1, this indicates that coefficients have the same sign but opposite weights.

Louvain clustering was then applied in order to detect the internal structure of the country networks. This clustering optimizes modularity, or the density of edges, as defined in Equation 3. As the networks are signed and weighted, a generalization of the Louvain algorithm which maximizes the sum of positive edges and minimizes the sum of negative edges inside communities was employed (De Nooy et al., 2006).

For the feature networks, the same process sans normalization was applied. Feature vectors were not normalized before projecting the network so that more important features, as measured by higher coefficients in the LASSO regression, would have larger edge weights, reflecting their larger importance in determining attitudes. To project the bipartite network, Matrix A was rewritten using column-wise feature vectors $v^{(j)}(j = 1, ..., V)$. The matrix takes the following form

$$B = \begin{bmatrix} v^{(1)} & v^{(2)} & \dots & v^{(V)} \end{bmatrix} = \left\{ v_i^{(j)} \right\}$$
(13)

Multiplying *B* by its transpose B^T results in the matrix of the one-mode projection of the features.

$$\Psi = \underset{C}{B^T} \cdot B \tag{14}$$

$$\psi_{ij} = \sum_{k=1}^{5} v_k^{(i)} v_k^{(j)} \tag{15}$$

As with the country network, Louvain clustering (Equation 3) is then applied in order to show the underlying structure of the feature network. In order to interpret the meaning of the clustering, representative nodes were selected based on their centrality, the reasoning being that the most centrally located node would be the most influential in determining other nodes in the community and its meaning could be used to interpret the overall meaning of the community. Representative nodes were chosen according to their absolute node strength, or the absolute value of the sum of the weights of their edges.

$$ns_i = \sum_{j=1}^{V} |\psi_{ij}| \tag{16}$$

4. Results

4.1. Migrant Stock Network

By applying the Walktrap clustering, the UN DESA migrant stock network was partitioned into 8 communities with a modularity of 0.51. Table 1 details the clustering and the number of countries per community.

Community	1	2	3	4	5	6	7	8
Community	SE Africa	W. Africa	Middle East & Asia	Europe & Africa	Americas and Asia	W. Africa	W. Africa	E. Europe & Central Asia

Table 1 Walktrap clustering – UN DESA Migrant Stock Network

Number of countries	25	2	31	50	59	10	6	14
Number of countries	2	0	12	11	17	2	0	10
in WVS		-					_	

Because Community 1 and Community 6 contains too few nodes to conduct a meaningful network analysis, as shown in the fourth row of Table 1, the countries in these communities were subsumed into the network containing the next largest migrant link. For all countries, their strongest migration ties were in Community 5.

UN DESA does not collect migrant stock data for Taiwan and for Palestine. In this case, external sources of migrant stock data from the survey year were used instead to find the strongest migration link. In the case of Palestine, the largest migrant stock population was in Lebanon and Jordan, causing Palestine to be included in Community 3 (Di Bartolomeo et al., 2011). Taiwan's ties to the United States and China brings it into Community 5 (Lin, 2012).

After condensing and assigning communities for areas not included in the UN DESA data, Table 2 shows the final regional networks. A map of these regions is shown in Figure 2.

Table 2 Regional networks

	Number of		
Network	countries	Countries	
Middle East and	10	India (IND); Iraq (IRQ); Jordan (JOR); Kuwait (KWT); Lebanon (LDN): Libua (LDN): Malauria (MYS): Balaistan (DAK): Ostar	
Southeast Asia	12	(QAT); Singapore (SGP); Thailand (THA)	
Western Europe and		Algeria (DZA); Cyprus (CYP); Germany (DEU); Morocco (MAR);	
North Africa	12	Netherlands (NLD); Poland (POL); Romania (ROU); Slovenia	
North Alfica		(SVN); Spain (ESP); Sweden (SWE); Tunisia (TUN); Turkey (TUR)	
		Australia (AUS); Brazil (BRA); Chile (CHL); China (CHN);	
		Colombia (COL); Ecuador (ECU); Ghana (GHA); Haiti (HTI); Japan	
Africa, Americas,	าา	(JPN); Korea, Rep. (KOR); Mexico (MEX); New Zealand (NZL);	
and Asia		Nigeria (NGA); Peru (PER); Philippines (PHL); Rwanda (RWA);	
		South Africa (ZAF); United States (USA); Uruguay (URY);	
		Zimbabwe (ZWE)	
Eastern Europa and		Armenia (ARM); Azerbaijan (AZE); Belarus (BLR); Estonia (EST);	
	10	Georgia (GEO); Kazakhstan (KAZ); Kyrgyz Republic (KGZ);	
Central Asia		Russian Federation (RUS); Ukraine (UKR); Uzbekistan (UZB)	



Figure 2 Map of regional networks

4.2. Middle East and Southeast Asia Network

The Middle East and Southeast Asia network consists of 12 countries and 278 features. Normalizing the country vectors and projecting the network results in the country network shown in Figure 3. The ME/SEA country network contains 63 edges; only one edge is negative. The Louvain algorithm partitioned the ME/SEA country network into 2 communities, with a modularity of 0.2815.



Figure 3 Country network - Middle East and Southeast Asia. Green edges represent positive edges, red edges represent negative edges. Node color represents community membership

The feature network, shown in Figure 4, comprises 278 nodes and 10569 edges. Compared to country networks, feature networks contain a much larger proportion of negative edges. In the case of the ME/SEA feature network, 50.26% of edges are negative.



Figure 4 Feature network - Middle East and Southeast Asia. Solid lines represent positive edges; dashed lines represent negative edges. Community membership is denoted by node color. Figure created in Pajek software

Following community detection, the ME/SEA feature network is found to contain 23 communities, of which 16 are singleton communities containing only one node. The modularity of the partition is 0.3591. Table 3 details the number of nodes per community from this partition.

Table 3 Communities a	and number of	nodes - Middle	East and Southeast	t Asia network
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Community	Number of nodes
C1	121
C2	73
C3	47
C4	17
C23	2
Singleton communities: C5, C6, C7, C8, C9, C10, C11, C1	2, C13, C14, C15, C16, C17, C18,
C19, C20, C21, C22	

Due to the large sizes of Community 1, Community 2, Community 3, and Community4, these communities were subjected to an additional community detection. A subgraph of the community was created, in which only the nodes and edges within the community were included. The Louvain clustering was then applied again to reveal the interior structure of these communities. Table 4 shows the results of this partition.

Table 4 Subgraphs - Middle East and Southeast Asia

	Number of	Number of subgraph	
Community	nodes	communities	Modularity
C1	121	6	0.3390

C2	73	3	0.2858
C3	47	4	0.3043
C4	17	1	0.0000

The structure of the Community 1, Community 2, and Community 3 are shown the Figure 5 below.



(c) Community 3 Figure 5 Subgraph networks - Middle East and Southeast Asia

Having detected communities and subcommunities in the network, representative nodes were selected in order to identify to what determinant of attitudes each community corresponds and to interpret the meaning of the communities. In the case of some communities, the strength of the representative node is negligible, suggesting that while the feature's influence on attitudes was unique and not correlated to other variables, their effect is vanishingly small. Representative

nodes with a node strength below the median node strength for the feature network were ignored in the subsequent analysis. Table 5 details the final selection of the representative nodes from the ME/SEA network.

	Sub-			
Community	graph	Category	Question	Strength
	1	Demo.	V243x1: Mother immigrant	7.8233
1	2	Poli. culture & regimes	V141x.L: How democratically is this country being governed today	4.2505
	3	Demo.	V248x.L: Highest educational level attained	0.8841
	4	Social values	V4x3: Important in life: Family	1.6765
1		Ethical values	V205x^4: Justifiable: Divorce	5.4170
2	2	Social values	bcialV38x1: Would not like to have as neighbors:lluesPeople who have AIDS	
	1	Social values	V36x1: Would not like to have as neighbors: Drug addicts	5.0298
	2	Social values	al V37x1: Would not like to have as neighbors: es People of a different race	
3	3	Social capital	V164x.Q: Is a 70-year old boss acceptable	1.1308
	4 Securit		V172x.L: How frequently do the following things occur in your neighborhood: Alcohol consumed in the streets	0.8974
	NA	Social values	V44x1: Would not like to have as neighbors: People who speak a different language	25.9148
4	NA	Poli. culture & regimes	V142x.Q: How much respect is there for individual human rights nowadays in this country	2.3600

Table 5	Representative	nodes - Mi	ddle East	and Se	outheast Asia
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Figure 6 shows a subgraph of the representative nodes, with edges representing the inner product of the two features and node color representing the category of the representative node.



Figure 6 Representative node subgraph - Middle East and Southeast Asia network

4.3. Western Europe and North Africa network

The Western Europe and North Africa network is comprised of 12 countries and 80 features. Projecting the bipartite network results in the one-mode country network shown in Figure 7. The country network contains 66 edges, all of which are positive. The Louvain clustering partitioned the network into two communities. However, the modularity of the partition is low, at 0.0007. For this reason, the Western Europe and North Africa network is considered to be one community in the subsequent analysis.



Figure 7 Country network - Western Europe and North Africa

The feature network contains 108 features and 1549 edges, of which 49.97% are negative. As Figure 8 shows, the Louvain partition splits the network into 21 communities, of which 14 are singleton communities. The modularity of the clustering is 0.2234.



Figure 8 Feature network – Western Europe and North Africa.

Table 6 shows the number of nodes in each community. The larger communities, Community 1, Community 3, Community 4, Community 5, and Community 15.

Table 6 Communities and	d number of nodes -	Western Europe a	and North Africa	feature network
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Community	Number of nodes
C1	38
C2	5
C3	13
C4	10
C5	14
C12	3
C15	11
Singleton communities: C6, C7, C8, C9, C10, C11, C1	13, C14, C16, C17, C18, C19, C20, C21

Table 7 summarizes the results of the subgraph clustering. The community detection in Community 4 and Community 15 found that no partition was necessary, and that these communities should be considered an irreducible community.

Table 7 Subgraphs – Western Europe and North Africa

~ .		Number of subgraph	
Community	Number of nodes	community	Modularity
C1	38	2	0.2700
C3	13	2	0.1422
C4	10	1	0
C15	11	1	0

Figure 9 (a) and (b) shows the network graph of the subgraph communities for Community 1 and Community 3.



The nodes with the highest node strength in each community and subgraph community were then selected, Nodes with a node strength less than the median strength, 0.2836, were dropped. Table 8 details the final selection of the representative nodes for the Western Europe and North Africa network.

Comm	Sub-			
unity	graph	Category	Question	Strength
1	1	Social values	V38x1: Would not like to have as neighbors: People who have AIDS	7.9834
1	2	Social values	V37x1: Would not like to have as neighbors: People of a different race	39.2533
2	NA	Ethical values	V198x.C: Justifiable: Claiming government benefits to which you are not entitled	0.4618
2	1	Social capital	V107x.L: How much you trust: People of another nationality	6.3307
5	2	Poli. culture & regimes	V135x.L: Democracy: The army takes over when government is incompetent.	2.6084
4	NA	Social capital	V158x.C: Social position: People in their 40s	0.6195
5	NA	Poli. culture & regimes	V127x.C: Political system: Having a strong leader who does not have to bother with parliament and elections	1.4954
11	NA	Schwartz - Power	V71x.L: Schwartz: It is important to this person to be rich; to have a lot of money and expensive things	0.5397

12	NA	Econ. values	V101x.C: Wealth accumulation	1.1041
15	NA	Demo.	V232x^4: Nature of tasks: routine vs. creative	0.8225

Figure 10 depicts the representative nodes in a subgraph network.



Figure 10 Representative node subgraph - Western Europe and North Africa

4.4. Africa, Americas, Asia network

The Africa, Americas, Asia network contains 22 country nodes and 80 feature nodes. Figure 11 shows the projection of the country network. The country network contains 226 edges, with 6 negative nodes. The graph is partitioned into two communities, with a modularity of 0.2558.



Figure 11 Country network - Africa, Americas, Asia network

The one-mode projection of the feature network is shown in Figure 12. The feature network contains 1179, 50.47% of which are negative. The Louvain clustering detected 6 communities, 3 of which are singleton communities. The modularity of the partition is 0.2580.



Figure 12 Feature network - Africa, Americas, Asia

Table 9 describes the number of nodes in each community in the feature network. For Community 1, Community 2, and Community 3, an additional Louvain clustering is applied.

Table 9 Communities and number of nodes – Africa, Americas, Asia feature network

Community	Number of nodes
C1	19
C2	43
C6	15
Singleton communities: C3, C4, C5	

Table 10 shows the results of subgraph clustering. Both Community 1 and Community 6 have low modularity scores, and for this reason, these communities are treated as single communities in the subsequent analysis.

Table 10 Subgraphs - Africa, Americas, Asia feature network

Community	Number of nodes	Number of subgraph community	Modularity
C1	19	2	0.0166
C2	43	2	0.4167
C6	15	1	0

Figure 13 depicts the Community 2 subgraph.



Figure 13 Community 2 subgraph network - Africa, Americas, Asia

Having identified the community structure of the feature network, the representative nodes are selected. Representative nodes with a node strength below the median strength of 0.3765 are not included in the rest of the analysis.

Table 11 Repre.	sentative nodes-	Africa, A	Americas,	Asia
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Community	Subgraph	graph Category Question		Strength
1	NA	Social values	V37x1: Would not like to have as neighbors: People of a different race	52.6679
2	1 Social capital		V107x.L: How much you trust: People of another nationality	8.1255
2	2	Social values	V40x1: Would not like to have as neighbors: Homosexuals	8.8600
6	NA	Happiness & well-being	V10x.L: Feeling of happiness	1.2295

Figure 14 shows a subgraph of representative nodes from Table 11.



Figure 14 Representative node subgraph – Africa, Americas, Asia

4.5. Eastern Europe and Central Asia Network

The Eastern Europe and Central Asia bipartite network contains 10 country nodes and 175 feature nodes. The one-mode projection of the country network is shown in Figure 15. The Louvain clustering detecting no internal communities.



Figure 15 Country network - Eastern Europe and Central Asia

Figure 16 shows the feature network below. The network contains 4795 edges, 47.97 percent of which have a negative sign. In total, 13 communities were detected, with a modularity of 0.3327. 10 communities are singleton communities.



Figure 16 Feature network - Eastern Europe and Central Asia

Table 12 summarizes the number of nodes per community in the feature network. Community 1, Community 2, and Community 3 were analyzed further to reveal their internal community structure.

Table 12 Community and number of nodes - Eastern Europe and Central Asia feature network

Community	Number of nodes
C1	60
C2	38
C3	67
Singleton communities: C4, C5, C6, C7, C8, C9	

Table 13 shows the results of the subgraph clustering. While the partitions of Community 2 and Community 3 had significant modularity scores, Community 1 had a low modularity and was therefore considered one irreducible community.

Table 13 Subgraphs - Eastern Europe and Central Asia

		Number of subgraph	
Community	Number of nodes	community	Modularity
C1	60	3	0.0692
C2	38	2	0.2500
C3	67	5	0.3870

Figure 17 shows the internal structure of Community 2 and Community 3.



Table 14 describes the representative nodes for the significant communities with a strength above the median, 0.5967.

	Sub-			
Community	graph	Category	Question	Strength
1	NA	Social values	V37x1: Would not like to have as neighbors: People of a different race	40.8125
2	1	Social values	V43x1: Would not like to have as neighbors: Unmarried couples living together	12.5018
	1	Social capital	V158x.C: Social position: People in their 40s	2.5783
	2	Econ. values	V97x.L: Private vs state ownership of business	4.0301
3	3 3 Schwartz V74x.L: Schwartz: It is important to this person to do something for the good of society		0.6186	
	4	Social capital	V105x.Q: How much you trust: People you meet for the first time	1.8957
	5	Demo.	V237x4: Family savings during past year	1.7990

Table 14 Representative nodes – Eastern Europe and Central Asia

Figure 18 puts the representative nodes in a network structure.



Figure 18 Representative node subgraph - Eastern Europe and Central Asia

4.6. Comparing networks

Having partitioned all the country networks into communities, attitudes towards immigrants by network communities can be summarized in Figure 19, with countries from Community 2 of the Africa, Americas, and Asia network showing the most positive attitudes towards immigrants on average. Countries from Community 1 of the Middle East and Southeast Asia network having the most negative attitudes, where on average 47.4% of respondents state that they would not want to live next to an immigrant or foreign worker.



Figure 19 Attitudes towards immigrants by network and community

Figure 20 shows the number of migrants living in the countries, both in absolute numbers and as a percentage of the countries' populations. As Figure 20 shows, the ME/SEA Community 1 countries on average have the highest number of immigrants, both in terms of absolute numbers

and as a percentage of the population, due to the inclusion of countries like Qatar and Singapore which have large migrant populations.



(a) International migrant stock, log scale. Data for Hong Kong and Taiwan is not available.

(b) International migrant stock as a percentage of the population. Data for Hong Kong and Taiwan is not available.

Net migration measures the total number of immigrants minus the number of emigrants, allowing the characterization of countries as either net receivers or net senders of migrants. As Table 15 shows, the median country in Middle East and Southeast Asia are net receivers of migrants. All other networks have a negative median net migration.

|--|

	AfAmAs:	AfAmAs:	WE/NA:	EE/CA:	ME/SEA:	ME/SEA:
	C2	C1	C1	C1	C2	C1
Median net						
migration	-157787	-876518	-272652	-554700	555894	1126838

Finally, Table 16 summarizes the distribution of the number of representative nodes from each category for all the networks.

	Social values	Social capital	Demo.	Poli. culture & regimes	Ethical values	Econ. values	Schwartz	Happiness & well- being	Security	Total (per network)
ME/SEA	5	1	2	2	1				1	12
WE/NA	2	2	1	2	1	1	1			10
AfAmAs	2	1						1		4
EE/Ca	2	2	1			1	1			7
Total (per category)	11	6	4	4	2	2	2	1	1	33

Table 16 Representative nodes by network and category

As Table 16 shows, all networks have multiple representative nodes from the social values, attitudes, and stereotypes category, with 11 out of the 33 total representative nodes coming from this category. Moreover, nodes from this category have the highest node strength of all representative nodes in all networks. In particular, all networks contain the feature V37x1 (Would not like to have neighbors of a different race), the only feature to appear in all networks. This feature comes from a set of questions asking the respondent what groups of people they would want to live near, with the response variable also coming from this set. One other node from this set appears in multiple networks, namely V38x1 (Would not like to people who have AIDS as neighbors), which appears in both the ME/SEA and WE/NA networks.

The second category with the most number of representative nodes is social capital, trust, and organizational membership. Two features from this category appear in multiple networks: V158x.C (What is the social position of people in their 40s), a representative node in the EE/CA network and the WE/NA network, and V107x.L (How much do you trust people of another nationality), which appears in both the AfAmAs network and the WE/NA network.

As Table 16 shows, the ME/SEA network and the WE/NA network share many similar nodes. In particular, both networks have representative nodes from the political culture and political regimes category, demographics, and ethical values. However, the two diverge in the categories of economic values and Schwartz values, from which WE/NA pulls a representative node and ME/SEA does not, as well as the security category, from which only ME/SEA has a representative node. The WE/NA and the EE/CA networks also show several similarities, as both networks have representative nodes from the economic values and the Schwartz values categories. However, the EE/CA lacks any representative nodes from the political culture and political regimes, demography, and ethical values categories.

Table 17 allows for a closer reading of the how representative nodes are distributed amongst categories and unique features of networks.

	Social values	Social capital	Demo.	Poli. culture & regimes	Ethical values	Econ. values	Schwartz	Happiness & well- being	Security	Total (per network)
ME/SEA	42%	8%	17%	17%	8%				8%	100%
WE/NA	20%	20%	10%	20%	10%	10%	10%			100%
AfAmAs	50%	25%						25%		100%
EE/Ca	29%	29%	14%			14%	14%			100%

Table 17 Representative nodes by network and category as a percentage of network's total representative nodes

The ME/SEA network contains a large proportion of its representative nodes in political culture and demography. It is the only network to contain a representative node from security. AfAmAs has the fewest number of representative nodes, counting only 4 representative nodes in total. 75% of its representative come from the social values and social capital nodes. It is the only network that does not include a demography representative node, as well as only network to contain a representative node from happiness and well-being. In contrast, both the WE/NA network and the EE/CA contains no unique categories. Their representative nodes are also more equally distributed amongst categories and do not show the same large concentration of representative nodes from the social values category that is present in the ME/SEA and AfAmAs networks.

5. Discussion

As the analysis shows, the networks share some common characteristics, suggesting that some determinants of attitudes towards immigrants do not vary by country or region. Features from the social values, attitudes, and stereotypes category appear the most often, accounting for a third of all networks' representative nodes. Moreover, nodes from this category consistently had the highest node strength of all the representative nodes in every network by a double-digit margin. Even in networks where economic values were important in determining attitudes, such as the Western Europe and North Africa network and the Eastern Europe and Central Asia network, social values variables of which groups with whom respondents would not want to live were more centrally located and influential in determining attitudes. Moreover, racial prejudice, whether or not a person would want to live next to someone of another race, is the only feature to appear as a representative node in all networks. The analysis is conclusive in finding that people's prejudices, especially racial prejudice, are the most significant factor in determining their attitudes towards an outgroup like immigrants and foreign workers, regardless of the particularities of the country context.

Because of the network methodology, this study can also comment on whether prejudice is caused by intergroup conflict theory, which centers economic threat as the motivator for prejudice towards others groups, or caused by social identity theory, as people attempt to consolidate their group cohesion through opposition with out-groups. We can analyze the influence of social identity nodes and material well-being nodes on prejudice in two ways: first, by seeing if social identity features or material well-being features appears as a representative node and whether they have an influence on prejudice, as shown by a negative or positive edge. Second, we can look at the subcommunity structure of the racial prejudice representative node to see if social identity theory or intergroup theory is working indirectly to determine attitudes towards immigrants, by first motivating racial prejudice which then influences negative attitudes. Social identity features are defined as features in the national identity category, and features related to intergroup conflict are defined as features from the demographic and security categories.

First, representative nodes were evaluated to determine if intergroup conflict theory or social identity theory are directly influencing prejudice. As Figures 6, 10, 14, and 18 show, no network contains a representative node from the national identity category. The Africa, America, and Asia network contains no representative nodes from either the national identity category or the demographic and security categories, meaning there is not significant evidence for either intergroup conflict theory or social identity theory for countries in this network. However, the Middle East and Southeast Asia network, the Western Europe and North Africa network, and the Eastern Europe and Central Asia network all contain demographic variables related to material well-being. In the Middle East and Southeast Asia network, racial prejudice has no edge with highest education level, suggesting that material threat has little to do with the skill level of respondents. However, in Western Europe and North Africa as well as in Eastern Europe and Central Asia, whether a respondent's work is mostly routine or creative and how much a family is able to save have negative correlations with attitudes towards people of another race, suggesting that material concerns are related to prejudice in these regions. The weights of these edges, at -0.224 and -0.548 respectively, are significant. Based on the relationships between the representative nodes for racial prejudice and those for demographic factors, we can say that intergroup conflict theory is significant in determining attitudes towards immigrants in in

Western Europe and North Africa network and the Eastern Europe and Central Asia network, but not in the Middle East and Southeast Asia network or the Africa, Americas, Asia network.

Next, by looking more closely at the subcommunity structure of the racial prejudice cluster, we can see if intergroup conflict and/or social identity theory is working at the indirectly to influence attitudes towards immigrants by first motivating racial prejudice attitudes. The findings again reinforce the importance of intergroup conflict theory in determining negative sentiments towards people of another race and may help to explain why the material threats and racial prejudice have no relationship in the Middle East and Southeast Asia. As Figures 5c, 9a, and 13 show, only material well-being variables appear in the racial prejudice subgraphs in Eastern Europe and Central Asia network and the Western Europe and North Africa networks, suggesting that intergroup conflict theory is relevant in determining attitudes towards people of another race, which in turn influence attitudes towards immigrants. The Middle East and Southeast Asia network shows a more varied story. Both social identity and material threat features are present in the racial prejudice subgraph, with material threat features have a higher combined node strength of 0.6915 compared to the social identity feature's node strength of 0.1841. This finding suggests that in the Middle East and Southeast Asia, both theories are at work in determining racial prejudice. The confluence of these theories may help to explain why there is not a clear relationship between material threat representative nodes and racial prejudice at the representative node level. From analyzing the relationships between representative nodes and the subcommunity structure of racial prejudice, it becomes clear that intergroup conflict theory is active in determining attitudes in the Western Europe and North Africa network and the Eastern Europe and Central Asia network. Both intergroup conflict theory and social identity theory appear to be at work in the Middle East and Southeast Asia network, while neither are theory appears significant in the Africa, America, Asia network. Future research is necessary in order to ascertain why theories are applicable in some regional networks but not in others.

In terms of both the role of intergroup conflict theory and the selection of representative nodes, the Western Europe and North Africa category and the Eastern Europe and Central Asia networks show marked similarities. Looking more closely at the representative nodes in their shared categories suggests that the role of the state in economic affairs and individual value systems distinguish these two networks from others. For Eastern Europe and Central Asian countries, whether or not one believes that there should be greater private or government ownership of business and industry has a strong influence on whether or not a person has negative or positive attitudes towards immigrants, with this node having the third strongest node strength and the highest node strength when excluding the social values, attitudes, and stereotype representative nodes. This question has unique pertinence in this region which includes many former USSR states. Similarly, the representative node from the economic values category in Western Europe and North Africa asks the respondent whether or not they feel wealth can be shared or if it much be made at the expense of others. These questions reflect the unique history of the two regions, which up until thirty years ago were in an ideological dispute over capitalism and communism. This finding suggests that either these questions of how an economy should be run are still relevant to whether or not immigrants should be included in a society. It may also indicate that in both regions, government ownership of business and wealth accumulation remain the pertinent political divide, determining other important political debates. The inclusion of the Schwartz values question echoes this debate. In the Western Europe and North Africa network, the importance respondents place on being wealthy is significant in determining attitudes towards immigrants. Likewise, whether it was important to the respondent to do good for the rest of society or not was relevant to attitudes towards immigrants in Eastern European and Central Asian countries. The node strengths of the Schwartz values questions are lower compared to features from the economic values category, but they reinforce the prominent role of a respondents' views on how wealth should be shared and how economies should be run in determining other attitudes, including attitudes towards immigrants.

The analysis also shows that the Middle East and Southeast Asia network and the Western Europe and North Africa network show marked similarities, sharing the political culture and political regimes category, and the ethical values category. In the Western Europe and North Africa, both political culture and political regimes category questions relate to how a democracy should be run – whether it is essential that the army take over when the government is incompetent, and whether having a strong leader is a good way of governing their country. In contract, the representative nodes from the political culture category in the Middle East and Southeast Asia ask about the current state of democracy and human rights in the country. The node strength of the representative nodes in the political culture and regimes categories are also higher in the Middle East and Southeast Asia network compared to the Western Europe and Southeast Asia network. These findings suggest that while democracy and political governance are important in both regions, different aspects appear to be pertinent. While both networks also have a representative node from the ethical values section, they differ in both the topic of the ethical question and the node strength of the representative node. In the case of the Middle East and Southeast Asia, respondents' belief on whether or not divorce was justifiable was significant in determining attitudes towards immigrants, whereas in Western Europe and North Africa the ethical question related to whether or not individuals were justified in claiming government benefits to which they were not entitled. The ethical values are the fifth strongest node in the Middle East and Southeast Asia feature network, and the second strongest when disregarding social values, attitudes, and stereotypes features. In contrast, ethical values related to whether or not claiming government benefits was justifiable was significant but had the lowest node strength of all representative nodes from this region.

Finally, a comparison of average attitudes towards immigrants in a network community and average migrant population as a percentage of the population, as seen in Figure 14 and Figure 15, appear to have some relationship, as countries with larger immigrant populations per capita appear to have more negative attitudes. However, as Figure 15 shows, the variance in migrant population per capita for each network is fairly large, with many networks having countries in the same range. Because of this overlap, it cannot be concluded from this analysis alone that migrant population per capita is related to related to negative attitudes.

In summary, in all networks, results show that social values, attitudes, and stereotypes representative nodes were the most influential nodes in all networks for determining attitudes towards immigrants, especially the racial prejudice feature. Looking more closely at the network structure of the representative nodes and the subcommunity structure of the racial prejudice representative node, the evidence suggests that intergroup theory is predominant in the Western Europe and North Africa network and the Eastern Europe and Central Asia network, neither social identity theory or intergroup theory appears to be relevant in the Africa, Americas, and Asia network, and results are in mixed in the Middle East and Southeast Asia network. This study is limited in that it cannot identify the causal mechanism behind these differences, for example, why intergroup conflict theory is relevant in some networks but not others. Nevertheless, we can note some broad differences amongst the regions. First, values-based representative nodes appear more frequently in networks containing European countries, namely

the Eastern Europe and Central Asia network and the Western Europe and North Africa network. Both networks contain representative nodes from the economic values and Schwartz values categories, while the Western Europe and North Africa network also contains a representative node related to the ethical value of wealth. Moreover, as both intergroup conflict theory is significance and the prevalence of representative nodes related to economic concerns suggests that the economic impact of immigrants is central to determining attitudes towards immigrants in these regional networks. Secondly, from the comparison of these network, we can conclude that in Middle East and Southeast Asia networks, questions about democracy are more important to determining attitudes towards immigrants, while in Eastern Europe and Central Asia questions related to the government's involvement in the economy take precedence. Western Europe shows a mix of importance of both economic organization and wealth as well as questions about democracy. Only two categories were present in only one network, with a security representative node appearing only in the Middle East and Southeast Asia network and a happiness and wellbeing representative node appearing in the Africa, Americas, and Asia network.

6. Implications for policy

The results of this study challenge the validity of some of the best practices suggested in Du Bled et al., 2019 outside of the European context. As the results show, few values-based representative nodes were found to be significant in the Middle East and Southeast Asia network and the Africa, Americas, and Asia network. Outside of representative nodes related to prejudice from the social values, attitudes, and stereotypes category, only one values-based representative node appears. In comparison, the two regional networks with European countries contain five values-based representative nodes. This finding reinforces some of the previous research on cross-cultural attitude formation, with personal values being more important in the formation of attitudes in individualist cultures, like European countries, than collectivist ones. As such, messaging that speaks to one's values may have limited success in Middle Eastern or Asian countries. Rather messaging in these contexts may seek to reduce prejudices, take into account the unique political circumstances of a country, and address immigrants' effects on people's happiness and security. However, in order to confirm the cultural influence on attitude formation, future research should compare networks based on cultural aspects, for example comparing individualist vs. collectivist, horizontal vs. vertical cultures.

From the analysis of the influence of intergroup conflict theory and social identity theory on prejudice, concerns about economic threats posed by immigrants are very salient to prejudice in the two networks with European countries – namely the Western Europe and North Africa network and the Eastern Europe and Central Asia network. While much of the discourse has focused on whether anti-immigrant sentiment has been fueled by racial prejudice or by those who have lost out from immigration and globalization more generally, this study suggests that the two should not be considered mutually exclusive. It is outside the scope of this study to comment on whether in reality respondents incurred material harm from immigration, only that the perception of the material loss associated with migration reinforces negative attitudes towards people of different races and negative attitudes towards immigrants. This link between material well-being and negative attitudes is not as clear in the other networks. Therefore, messaging on immigrants in countries in the countries in the Eastern Europe and Central Asia network and in the Western Europe and North Africa network would do well to address economic concerns, while these concerns may not be as pertinent in countries in the other networks.

7. Conclusion

In summary, the analysis of the regional networks shows up that social values, attitudes, and stereotypes are the most important determinant regardless of region. Racial prejudice in particular is an important feature in determining attitudes towards immigrants. However, different mechanisms are at play in determining racial prejudice, with intergroup conflict being relevant in the Western Europe and North Africa network and the Eastern Europe and Central Asia network, while both social identity and intergroup conflict working in the Middle East and Southeast Asia. Rather than conclude that either intergroup theory or social identity theory is predominant in determining attitudes, this study finds that which theory is at play depends on the region and that the two can exist side-by-side.

The results of this study find that in both Middle East and Southeast Asia and the Western Europe and North Africa network, questions about democracy are significant in determining attitudes, while economic values are significant in both Eastern Europe and Central Asia and the Western Europe and North Africa region. These similarities reflect the unique histories of the region and as well as ongoing debates about economic fairness and the role of government. Finally, we identified some key determinants that are unique to regions, i.e. happiness in the Africa, Americas, and Asia network and security in the Middle East and Southeast Asia network, but why these determinants are significant is beyond the scope of this work. Future study will establish more clearly how political and economic institutions and factors may be causing these differences. In conclusion, expanding the geographic and political study area has shown both that while generalizations can be made about determinants of attitudes towards immigrants, region and history remain salient, and not only are the determinants important, but also the relationships between them.

An area for continued research is how culture and economic factors contextualize attitudes towards immigrants. One extension and important point of comparison for this study is to assign countries to networks based on culture – for example, the degree to which a country is individualistic versus collectivist, horizontal versus vertical – in order to elucidate how differences in attitudes towards immigrants vary by culture and, more generally, to comment on how attitude formation differs by culture. Cross-cultural differences in attitudes and prejudice formation remain woefully under-researched and greatly limit the validity of the literature to non-European, non-Anglophone contexts. Future research should attempt to rectify this gap. Moreover, including understudied countries in the analysis would allow for greater insight into longstanding debates of country-level differences in contextualizing attitudes towards immigrants, such as welfare provision, immigration policy, and so on. This study provides a framework for continued cross-national study in this area, allowing for both micro-, meso-, and macro-levels of analysis, and hopes to illuminate future avenues of research in the formation of attitudes towards immigrants.

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Science, 50(2), 331-349.

9. Appendix: Variables and Thematic Categories Meaning of source acronyms

WVS	Categorization comes WVS wave 7 categorization
EVS	EVS longitudinal categorization
Schwartz	Categorization comes from Schwartz Theory of Basic Values (Schwartz,
	2003)
Big5	Categorization comes from the Big 5 Personality test (Goldberg, 1992)
WVS, EVS	Categorization comes from EVS survey and was merged with similar WVS
	categorization
	WVS
Author	Author's discretion

Variable	Question	Category	Source
V4x	Important in life: Family	Social values, attitudes, & stereotypes	WVS
V5x	Important in life: Friends	Social values, attitudes, & stereotypes	WVS
V6x	Important in life: Leisure time	Social values, attitudes, & stereotypes	WVS
V7x	Important in life: Politics	Social values, attitudes, & stereotypes	WVS
V8x	Important in life: Work	Social values, attitudes, & stereotypes	WVS
V9x	Important in life: Religion	Social values, attitudes, & stereotypes	WVS
V10x	Feeling of happiness	Happiness and well-being	WVS
V11x	State of health (subjective)	Happiness and well-being	WVS
V12x	Important child qualities: independence	Social values, attitudes, & stereotypes	WVS
V13x	Important child qualities: Hard work	Social values, attitudes, & stereotypes	WVS
V14x	Important child qualities: Feeling of responsibility	Social values, attitudes, & stereotypes	WVS
V15x	Important child qualities: Imagination	Social values, attitudes, & stereotypes	WVS
V16x	Important child qualities: Tolerance and respect for other people	Social values, attitudes, & stereotypes	WVS
V17x	Important child qualities: Thrift saving money and things	Social values, attitudes, & stereotypes	WVS
V18x	Important child qualities: Determination, perseverance	Social values, attitudes, & stereotypes	WVS
V19x	Important child qualities: Religious faith	Social values, attitudes, & stereotypes	WVS
V20x	Important child qualities: Unselfishness	Social values, attitudes, & stereotypes	WVS
V21x	Important child qualities: Obedience	Social values, attitudes, & stereotypes	WVS
V22x	Important child qualities: Self-expression	Social values, attitudes, & stereotypes	WVS, Author
V23x	Satisfaction with your life	Happiness and well-being	WVS
V24x	Most people can be trusted	Social capital, trust, & organizational membership	WVS
V25x	Active/Inactive membership: Church or religious organization	Social capital, trust, & organizational membership	WVS
V26x	Active/Inactive membership: Sport or recreational organization	Social capital, trust, & organizational membership	WVS
V27x	Active/Inactive membership: Art, music or educational organization	Social capital, trust, & organizational membership	WVS

V 20		Social capital, trust, & organizational	WWG
V28x	Active/Inactive membership: Labor Union	membership Social capital trust & organizational	WVS
V29x	Active/Inactive membership: Political party	membership	WVS
		Social capital, trust, & organizational	
V30x	Active/Inactive membership: Environmental organization	membership	WVS
V31x	Active/Inactive membership: Professional association	membership	WVS
	Active/Inactive membership: Humanitarian or charitable	Social capital, trust, & organizational	
V32x	organization	membership	WVS
V33x	Active/Inactive membership: Consumer organization	Social capital, trust, & organizational membership	WVS
V SSR	Netve inderve memorismp. Consumer organization		
V36x	Would not like to have as neighbors: Drug addicts	Social values, attitudes, & stereotypes	WVS
V37x	race	Social values, attitudes, & stereotypes	WVS
V20	Ward at the tabar of the me Decile whether ADS		WAVE
V 38X	Would not like to have as neighbors: People who have AIDS Would not like to have as neighbors: Immigrants/foreign	Social values, attitudes, & stereotypes	wv5
V39x	workers	Social values, attitudes, & stereotypes	WVS
V40x	Would not like to have as neighbors: Homoseyuals	Social values attitudes & stereotypes	WVS
VIUX	Would not like to have as neighbors: People of a different	Social values, annuces, a storeotypes	
V41x	religion	Social values, attitudes, & stereotypes	WVS
V42x	Would not like to have as neighbors: Heavy drinkers	Social values, attitudes, & stereotypes	WVS
	Would not like to have as neighbors: Unmarried couples		
V43x	living together	Social values, attitudes, & stereotypes	WVS
V44x	different language	Social values attitudes & stereotypes	WVS
V TIX	When jobs are scarce, men should have more right to a job	social values, annades, ce stereorypes	
V45x	than women	Social values, attitudes, & stereotypes	WVS
V46v	When jobs are scarce, employers should give priority to people of this country over immigrants	Social values attitudes & stereotypes	WVS
VTUA	If a woman earns more money than her husband, it's almost	social values, attitudes, & stereotypes	WVS,
V47x	certain to cause problems	Social values, attitudes, & stereotypes	Author
V/8x	Having a job is the best way for a woman to be an independent person	Social values attitudes & stereotypes	WVS, Author
VHOA	One of my main goals in life has been to make my parents	Social values, attitudes, & stereotypes	WVS,
V49x	proud	Social values, attitudes, & stereotypes	Author
V50x	When a mother works for pay, the children suffer	Social values, attitudes, & stereotypes	Author
	On the whole, men make better political leaders than women		
V51x	do	Social values, attitudes, & stereotypes	WVS
V52x	A university education is more important for a boy than for a girl	Social values, attitudes, & stereotypes	WVS
	On the whole, men make better business executives than		
V53x	women do	Social values, attitudes, & stereotypes	WVS
V54x	Being a housewife is just as fulfilling as working for pay	Social values, attitudes, & stereotypes	WVS
V55v	How much freedom of choice and control over own life	Hanniness and well-being	WVS
1 334	Do you think most people would try to take advantage of you	Social capital, trust, & organizational	
V56x	if they got a chance, or would they try to be fair?	membership	Author
V57x	Marital status	Demographics	WVS
V59	How many shildran da you have	Demographics	WAVE
VJOX	How many children do you nave	Demographics	wvs
V59x	Satisfaction with financial situation of household	Happiness and well-being	WVS
V66x	Willingness to fight for your country	Security	WVS
V67×	Future changes: Less importance placed on work in our lives	Social values attitudes & stareotypes	WVS
VU/A	Future changes: Less importance placed on work in our lives	social values, autuues, & stereotypes	
V68x	of technology	Social values, attitudes, & stereotypes	WVS
V69x	Future changes: Greater respect for authority	Social values, attitudes, & stereotypes	WVS
	Schwartz: It is important to this person to think up new ideas	,, ,, , p.c.	
V70x	and be creative; to do things one's own way	Schwartz - Self-direction	Schwartz

	Schwartz: It is important to this person to be rich; to have a		~ /
V71x	lot of money and expensive things	Schwartz - Power	Schwartz
V72x	person; to avoid anything that might be dangerous	Schwartz - Security	Schwartz
V73x	Schwartz: It is important to this person to have a good time; to "spoil" oneself	Schwartz - Hedonism	Schwartz
V74x	Schwartz: It is important to this person to do something for the good of society	Schwartz - Benevolence	Schwartz
V74Bx	Schwartz: It is important to help people living nearby; to care for their needs	Schwartz - Benevolence	Schwartz
V75x	Schwartz: Being very successful is important to this person; to have people recognize one's achievements	Schwartz - Achievement	Schwartz
V76x	Schwartz: Adventure and taking risks are important to this person; to have an exciting life	Schwartz - Stimulation	Schwartz
V77x	Schwartz: It is important to this person to always behave properly; to avoid doing anything people would say is wrong	Schwartz - Conformity	Schwartz
V78x	Schwartz: Looking after the environment is important to this person; to care for nature and save life resources	Schwartz - Universalism	Schwartz
V79x	Schwartz: Tradition is important to this person; to follow the customs handed down by one's religion or family	Schwartz - Tradition	Schwartz
V84x	Interest in politics	Political interest & political parties	WVS
V95x	Self positioning in political scale	Political culture & political regimes	WVS
V96x	Income equality	Economic values	WVS
V97x	Private vs state ownership of business	Economic values	WVS
V98x	Government responsibility	Economic values	WVS
V99x	Competition good or harmful	Economic values	WVS
V100x	Hard work brings success	Economic values	WVS
V101x	Wealth accumulation	Economic values	WVS, Author
V102x	How much you trust: Your family	Social capital, trust, & organizational membership	WVS
V103x	How much you trust: Your neighborhood	Social capital, trust, & organizational membership	WVS
V104x	How much you trust: People you know personally	Social capital, trust, & organizational membership	WVS
V105x	How much you trust: People you meet for the first time	Social capital, trust, & organizational membership	WVS
V106x	How much you trust: People of another religion	Social capital, trust, & organizational membership	WVS
V107x	How much you trust: People of another nationality	Social capital, trust, & organizational membership	WVS
V108x	Confidence: The Churches	Social capital, trust, & organizational membership	WVS
V109x	Confidence: The armed forces	Social capital, trust, & organizational membership	WVS
V110x	Confidence: The press	Social capital, trust, & organizational membership	WVS
V111x	Confidence: Television	Social capital, trust, & organizational membership	WVS
V112x	Confidence: Labour Unions	Social capital, trust, & organizational membership	WVS
V112v	Confidence: The police	Social capital, trust, & organizational	WVS
V11A	Confidence: The courts	Social capital, trust, & organizational	WVS
V114X	Confidence: The courts	Social capital, trust, & organizational	WVS
VII5x	Confidence: The government (in your nation's capital)	Social capital, trust, & organizational	wvs
V116x	Confidence: Political Parties	membership Social capital, trust, & organizational	WVS
V117x	Confidence: Parliament	membership Social capital trust & organizational	WVS
V118x	Confidence: The Civil service	membership	WVS

V110x	Confidence: Universities	Social capital, trust, & organizational	WVS
VIIJX		Social capital, trust, & organizational	***5
V120x	Confidence: Major Companies	membership	WVS
V121x	Confidence: Banks	membership	WVS
V122x	Confidence: Environmental organizations	Social capital, trust, & organizational	WVS
VIZZA		Social capital, trust, & organizational	***5
V123x	Confidence: Women's organizations	membership	WVS
V124x	Confidence: Charitable or humanitarian organizations	membership	WVS
V125_00x	Confidence: The European Union	Social capital, trust, & organizational membership	WVS
	Confidence: The APEC (Asia-Pacific Economic Cooperation	Social capital, trust, & organizational	
V125_01x	Conference)	membership Social capital, trust, & organizational	WVS
V125_02x	Confidence: CARICOM	membership	WVS
V125_03x	Confidence: The Arab Maghreb Union	Social capital, trust, & organizational membership	WVS, Author
	<u> </u>	Social capital, trust, & organizational	
V125_04x	Confidence: The Organization of the Islamic World Confidence: The NAFTA (North American Free Trade	membership Social capital trust & organizational	WVS
V125_05x	Agreement)	membership	WVS
V125_06v	Confidence: The MEPCOSUP	Social capital, trust, & organizational	WVS
V125_00X		Social capital, trust, & organizational	1115
V125_07x	Confidence: The CIS	membership Social capital truct & organizational	WVS
V125_08x	Confidence: The African Union	membership	Author
V125 00-	Confidence: The ASEAN (Association of South East Asian	Social capital, trust, & organizational	WW
V125_09X	Confidence: The CER (closer economic relations) with	Social capital, trust, & organizational	WVS,
V125_10x	Australia	membership	Author
V125 11x	Confidence: The Organization of American States (OAE)	Social capital, trust, & organizational membership	WVS
1105 10		Social capital, trust, & organizational	WILC
V125_12x	Confidence: SAARC	Social capital, trust, & organizational	WVS.
V125_13x	Confidence: UNASUR	membership	Author
V125_14x	Confidence: The Free Commerce Treaty (Tratado de libre comercio)	Social capital, trust, & organizational membership	WVS
V125_11A		Social capital, trust, & organizational	1115
V125_15x	Confidence: The Arab League	membership Social conital truct & creanizational	WVS
V125_16x	(GCC)	membership	WVS
V125 17	Confidence: Mainland accomment	Social capital, trust, & organizational	WVS,
<u>v123_1/X</u>	Connuence: Mannanu government	Social capital, trust, & organizational	Autioi
V126x	Confidence: The United Nations	membership	WVS
V127x	Political system: Having a strong leader who does not have to bother with parliament and elections	Political culture & political regimes	WVS
¥120	Political system: Having experts, not government, make		WW
V128X	decisions according to what they think is best for the country	Political culture & political regimes	wvs
V129x	Political system: Having the army rule	Political culture & political regimes	WVS
V130x	Political system: Having a democratic political system	Political culture & political regimes	WVS
V131x	Democracy: Governments tax the rich and subsidize the poor.	Political culture & political regimes	WVS
V132x	Democracy: Religious authorities interpret the laws.	Political culture & political regimes	WVS
V133x	Democracy: People choose their leaders in free elections.	Political culture & political regimes	WVS
V134x	Democracy: People receive state aid for unemployment.	Political culture & political regimes	WVS
	Democracy: The army takes over when government is		
V135x	incompetent.	Political culture & political regimes	WVS
V136x	oppression	Political culture & political regimes	WVS

V137x	Democracy: The state makes people's incomes equal	Political culture & political regimes	WVS
V138x	Democracy: People obey their rulers	Political culture & political regimes	WVS
V139x	Democracy: Women have the same rights as men.	Political culture & political regimes	WVS
V140x	Importance of democracy	Political culture & political regimes	WVS
V141x	How democratically is this country being governed today	Political culture & political regimes	WVS
V142x	How much respect is there for individual human rights	Political culture & political regimes	wvs
V142-		Della inconstruction of the second second second	WVS,
V145x	I ninking about meaning and purpose of file		EVS
V145X	How often do you attend rengious services		wvs
V140X	How often to you pray		wv5
V147x	Religious person	Religious values	WVS
V148x	Believe in: God	Religious values	WVS
V149x	Believe in: hell	Religious values	WVS
V150x	ceremonies vs To do good to other people	Religious values	WVS
V151x	Meaning of religion: To make sense of life after death vs To make sense of life in this world	Religious values	WVS
V152x	How important is God in your life	Religious values	WVS
	Whenever science and religion conflict, religion is always		
V153x	right	Religious values	WVS
V154x	The only acceptable religion is my religion	Religious values	WVS
V155x	All religions should be taught in public schools	membership	Author
V156x	People who belong to different religions are probably just as moral as those who belong to mine	Social capital, trust, & organizational membership	Author
V157x	Social position: People in their 20s	Social capital, trust, & organizational	Author
V15/X		Social capital, trust, & organizational	Aution
V158x	Social position: People in their 40s	membership Social capital, trust, & organizational	Author
V159x	Social position: People in their 70s	membership	Author
V160x	Is a 30-year old boss acceptable	Social capital, trust, & organizational membership	Author
V161x	People over 70: are seen as friendly	Social capital, trust, & organizational	Author
VIOIA		Social capital, trust, & organizational	Tutiloi
V162x	People over 70: are seen as competent	membership Social capital, trust, & organizational	Author
V163x	People over 70: viewed with respect	membership	Author
V164x	Is a 70-year old boss acceptable	Social capital, trust, & organizational membership	Author
V165x	Older people are not respected much these days	Social capital, trust, & organizational membership	Author
	Older people get more than their fair share from the	Social capital, trust, & organizational	
V166x	government	membership Social capital, trust, & organizational	Author
V167x	Older people are a burden on society	membership	Author
V168x	Companies that employ young people perform better than those that employ people of different ages	Social capital, trust, & organizational membership	Author
V169x	Old people have too much political influence	Social capital, trust, & organizational membership	Author
V160Ax	I see myself as someone who: is reserved	Big5 - Extraversion	Big5
V160Bx	I see myself as someone who: is generally trusting	Big5 - Agreeableness	Big5
V160Cx	I see myself as someone who: tends to be lazy	Big5 - Conscientiousness	Big5
V160Dv	I see myself as someone who: is relayed handles strass well	Big5 - Neuroticism	Big5

V160Ex	I see myself as someone who: has few artistic interests	Big5 - Openness	Big5
V160Fx	I see myself as someone who: is outgoing, sociable	Big5 - Extraversion	Big5
V160Gx	I see myself as someone who: tends to find fault with others	Big5 - Agreeableness	Big5
V160Hx	I see myself as someone who: does a thorough job	Big5 - Conscientiousness	Big5
V160Ix	I see myself as someone who: gets nervous easily	Big5 - Neuroticism	Big5
V160Jx	I see myself as someone who: has an active imagination	Big5 - Openness	Big5
V170x	Secure in neighborhood	Security	WVS
V171x	How frequently do the following things occur in your neighborhood: Robberies	Security	wvs
V172x	How frequently do the following things occur in your	Security	WVS
V1/2X	How frequently do the following things occur in your	Security	W V 3
V173x	neighborhood: Police or military interfere with people's private life	Security	WVS
V174x	How frequently do the following things occur in your neighborhood: Racist behavior	Security	WVS
V175x	How frequently do the following things occur in your	Security	WVS
V170x	Personal and the second state of a series during the past year	Security	WVS
V1/9X	Womies Looing my ich on at finding a ich	Security	WVS
VIOIX	Worries: Losing my job or not miding a job Worries: Not being able to give one's children a good	Security	wv5
V182x	education	Security	WVS
V183x	Worries: A war involving my country		WVS
V184x	Worries: A terrorist attack	Security	WVS
V185x	Worries: A civil war Worries: Government wire-tapping or reading my mail or	Security	WVS WVS,
V186x	email	Security	Author
V187x	Under some conditions, war is necessary to obtain justice	Security	Author
V188x	Gone without enough food to eat	Happiness and well-being	WVS
V189x	In the last 12 month, how often have you or your family: Felt unsafe from crime in your own home	Happiness and well-being	WVS
V100x	In the last 12 month, how often have you or your family:	Hannings and wall being	WVS
V190X	In the last 12 month, how often have you or your family:		W V 3
V191x	Gone without a cash income Science and technology are making our lives healthier, easier,	Happiness and well-being	WVS
V192x	and more comfortable Because of science and technology, there will be more	Science & Technology	WVS
V193x	opportunities for the next generation	Science & Technology	WVS
V194x	We depend too much on science and not enough on faith	Science & Technology	WVS
V195x	One of the bad effects of science is that it breaks down people's ideas of right and wrong	Science & Technology	WVS
V196x	It is not important for me to know about science in my daily life	Science & Technology	WVS
V197x	The world is better off, or worse off, because of science and technology	Science & Technology	WVS
V198x	Justifiable: Claiming government benefits to which you are not entitled	Ethical values and norms	WVS
V199x	Justifiable: Avoiding a fare on public transport	Ethical values and norms	WVS
V200x	Justifiable: Stealing property	Ethical values and norms	WVS
V201x	Justifiable: Cheating on taxes if you have a chance	Ethical values and norms	WVS
V202x	Justifiable: Someone accepting a bribe in the course of their duties	Ethical values and norms	wvs
V203x	Justifiable: Homosexuality	Ethical values and norms	wvs

V203Ax	Justifiable: Prostitution	Ethical values and norms	WVS
V204x	Justifiable: Abortion	Ethical values and norms	WVS
V205x	Justifiable: Divorce	Ethical values and norms	WVS
V206x	Justifiable: Sex before marriage	Ethical values and norms	WVS
V207x	Justifiable: Suicide	Ethical values and norms	WVS
V207Ax	Justifiable: Euthanasia	Ethical values and norms	WVS
V208x	Justifiable: For a man to beat his wife	Ethical values and norms	wvs
V209x	Justifiable: Parents beating children	Ethical values and norms	wvs
V210x	Justifiable: Violence against other people	Ethical values and norms	wvs
V211x	How proud of nationality	Political culture & political regimes	wvs
V212x	I see myself as a world citizen	National Identity	EVS
V213x	I see myself as part of my local community	National Identity	EVS
V214x	I see myself as part of the [country] nation	National Identity	EVS
V215_01x	I see myself as citizen of the [European Union]	National Identity	EVS
V215_02x	I see myself as citizen of the [APEC]	National Identity	EVS
V215_03x	I see myself as part of the [Northeast Asia Region]	National Identity	EVS
V215_04x	I see myself as part of [The Caribbean]	National Identity	EVS
V215_05x	I see myself as part of [Arab Maghreb Union]	National Identity	EVS
V215_06x	I see myself as part of the [Arab Union]	National Identity	EVS
V215_07x	I see myself as part of [North America]	National Identity	EVS
V215_08x	I see myself as part of the Latin-American Community	National Identity	EVS
V215_10x	I see myself as part of [Mercosur]	National Identity	EVS
V215_11x	I see myself as part of [CIS]	National Identity	EVS
V215_12x	I see myself as part of [The African Union]	National Identity	EVS
V215_13x	I see myself as part of the [ASEAN]	National Identity	EVS
V215_14x	I see myself as part of ASIA	National Identity	EVS
V215 15x	I see myself as part of the [UNASUR]	National Identity	EVS
V215_16x	I see myself as part of the [Islamic nation]	National Identity	EVS
V215_17x	I see myself as part of the Cooperation Council for the Arab states of Gulf (GCC)	National Identity	EVS
V215_18x	I see myself as part of [SAARC]	National Identity	EVS
V216x	I see myself as an autonomous individual	National Identity	EVS
V217x	Information source: Daily newspaper	Political interest & political parties	WVS
V218x	Information source: Printed magazines	Political interest & political parties	WVS
V219x	Information source: TV news	Political interest & political parties	WVS
V220x	Information source: Radio news	Political interest & political parties	WVS
V221x	Information source: Mobile phone	Political interest & political parties	WVS
V222x	Information source: Email	Political interest & political parties	WVS
V223x	Information source: Internet	Political interest & political parties	WVS
V224x	Information source: Talk with friends or colleagues	Political interest & political parties	WVS

V225.	How often use of a mercanal commutan	Delitical interest & political mention	WVS,
V 22JX		Fondear interest & pondear parties	EVS
V226x	Vote in elections: local level	Political interest & political parties	WVS
V227x	Vote in elections: National level	Political interest & political parties	WVS
V228Ax	How often in country's elections: Votes are counted fairly	Political interest & political parties	WVS
V228Bx	How often in country's elections: Opposition candidates are prevented from running	Political interest & political parties	WVS
V228Cx	How often in country's elections: TV news favors the governing party	Political interest & political parties	WVS
V228Dx	How often in country's elections: Voters are bribed	Political interest & political parties	WVS
V228Ex	How often in country's elections: Journalists provide fair coverage of elections	Political interest & political parties	WVS
V228Fx	How often in country's elections: Election officials are fair	Political interest & political parties	WVS
V228Gx	How often in country's elections: Rich people buy elections	Political interest & political parties	WVS
V228Hx	How often in country's elections: Voters are threatened with violence at the polls	Political interest & political parties	WVS
V228Ix	How often in country's elections: Voters are offered a genuine choice in the elections	Political interest & political parties	WVS
V229x	Employment status	Demographics	WVS
V231x	Nature of tasks: manual vs. intellectual	Demographics	WVS, EVS
V232x	Nature of tasks: routine vs. creative	Demographics	WVS, EVS
V233x	Nature of tasks: independence	Demographics	WVS, EVS
V234x	Are you supervising someone	Demographics	WVS, EVS
V235x	Are you the chief wage earner in your house	Demographics	WVS
V237x	Family savings during past year	Demographics	WVS
V238x	Social class (subjective)	Demographics	WVS
V239x	Scale of incomes	Demographics	WVS
V240x	Sex	Demographics	WVS
V242x	Age	Demographics	WVS
V243x	Mother immigrant	Demographics	WVS
V244x	Father immigrant	Demographics	WVS
V245x	Respondent immigrant	Demographics	WVS
V246x	Respondent citizen	Demographics	WVS
V248x	Highest educational level attained	Demographics	WVS