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THE RELATIONSHIP BETWEEN POPULIST ATTITUDES, POLITICAL EFFICACY, TRUST AND COGNITIVE BELIEFS: A NETWORK ANALYSIS APPROACH

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Abstract
Political attitudes, trust and political efficacy are important indicators of the state of democratic countries. Along with cognitive beliefs, they shape the way people approach political and societal problems or situations. This study aims to (1) examine the relationship between populist attitudes, external political efficacy, trust and cognitive beliefs in a global network model, and (2) test the invariance of the network structures across several moderating variables. A sample based on representative quotas for gender, age, education and region of Slovakia (N = 254) was analysed. The structure of a network of populist attitudes and related variables was examined using a network analysis and moderation analysis. Within the network, mistrust of experts and a conspiracy mentality scored highest on both the strength and closeness index, while the belief in simple solutions had the smallest centrality indices. For moderating variables, relative deprivation, anger, anxiety and powerlessness caused invariance in the network's global strength or structure. Efforts aimed at reducing populist attitudes may be more effective if they prioritise the enhancement of trust in experts while mitigating tendencies toward conspiracy beliefs. Further replication of the proposed network analysis is, however, needed.

Keywords: *Populist attitudes, Trust, Cognitions, Political efficacy, Network analysis, Moderators.*

INTRODUCTION

Populist attitudes have garnered considerable attention due to their influence on political landscapes, trust and the perceived credibility of information sources that polarise public discourse and intergroup

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relations (Egelhofer et al., 2022; Loew, Faas, 2019; Martínez et al., 2022). Populist attitudes, being a multifaceted phenomenon, coexist with various cognitive beliefs, external political efficacy and trust and collectively shape individuals' responses to diverse situations and problems (Hameleers et al., 2019; Mudde, Rovira Kaltwasser, 2017).

The relationship between populist attitudes and beliefs, political efficacy and trust can vary depending on sociodemographic and socioeconomic characteristics (Pruysers, 2021), perceptions of one's own disadvantage compared to that of others (Spruyt et al., 2016) and emotions (Rico et al., 2020).

Gaining a comprehensive understanding of the intricate interconnections among these constructs is crucial for comprehending the current state of a country and devising effective interventions to address populist attitudes. Although previous research has focused on the relationship between populist attitudes and related variables (e.g., Erisen et al., 2021; Geurkink et al., 2020; Rico, Anduiza, 2019), it has provided no further insights into the underlying structure of these relationships.

This study´s main aim is to explore the network of relationships between the components of populist attitudes, cognitive beliefs, external political efficacy and trust. The secondary aim is to research the role of moderating variables in the network. These aims contribute to existing literature on populist attitudes and related constructs, offering valuable insights for developing targeted interventions and strategies to mitigate their adverse effects on societal well-being.

Consequently, there are two main research questions: 1. What is the underlying structure of the relationships between populist attitudes, cognitive beliefs, external political efficacy and trust? 2. How is this structure affected by moderating variables?

This study adopts a network analysis approach to identify central variables and uncover contextual factors influencing the configuration and dynamics of interconnections within the network. A Slovak sample (N = 254) based on representative quotas was analysed. The structure was examined through network analysis and moderation analysis, using R software. Centrality indices (strength and closeness) were utilized to access in-network associations.

Populism has gained widespread support in many countries, with economic problems, cultural causes, globalisation, digitalisation and policy failures being contributing factors. Regional issues, inequality, spatial imbalances and migration also fuel its acceleration. While existing research

has examined populist attitudes in relation to many relevant constructs, such as belief in conspiracies, trust or external political efficacy (Eberl, et al., 2021; Geurkink et al., 2020), the findings of these studies do not provide insights into how populist attitudes operate within the structure of relationships with related variables. Moreover, despite the success of populism in Slovakia, populist attitudes are under-represented in the research, with research focusing more on the supply side of populism or electoral behaviour (Gazarek, Uhrecký, 2022; Kevický, 2022). Recent research has confirmed the relationship between populist attitudes and relative deprivation, a belief in simple solutions, external political efficacy, trust towards experts and a conspiracy mentality (Loziak, Piterová, 2023; Piterová, Loziak, 2024), but to date we are not aware of any studies that use networks to show their relationships and to examine their dynamics and structure.

Addressing a research gap, this study examines relationships between populist attitudes, external political efficacy, various trust types (political trust, trust towards the media and mistrust of experts), and cognitive beliefs (including a conspiracy mentality and belief in simple solutions) within a comprehensive network model. Additionally, the research explores moderating variables such as sociodemographic and economic factors (age, education and relative deprivation) and emotions (anger, anxiety, powerlessness and threat). The contribution of this study, then, is the comprehensive and interconnected findings that provide new insights into populist attitudes in the context of multiple variables that reflect the complex realities of social, psychological and political relations.

The article is divided into four parts. The first section provides a concise overview of the literature and is intended to introduce current research in the field. The second part covers the research methodology and the measurement tools employed. The third part presents the results of the research. The fourth section discusses the most important findings and situates them in the context of previous findings.

1 POPULIST ATTITUDES AND RELATED CONSTRUCTS

In numerous countries across the globe, populism has attracted significant popular support (Mudde, 2019). This may be attributed to "economic problems, cultural causes, the speed of change generated by globalisation and digitalisation, and last but not least the failure of policy to manage a transition to higher welfare, globally and locally. It accelerates

with regional problems, inequality, spatial disequilibria and migration" (Aigigner, 2020, p. 38). In part, the populist attitudes held by citizens may also play a role, but they are not clearly connected to voting behaviour (Jungkunz et al., 2021). Populist attitudes encompass a range of beliefs, including anti-elitist sentiments, which involve challenging distant elites (such as political and academic elites and the media) who are considered disconnected from the needs and realities of ordinary people (Fawzi, 2019; Mede, Schäfer, 2020; Schulz et al., 2018). Another key component is the demand for popular sovereignty, aiming to empower ordinary individuals by placing power in their hands. Additionally, populism emphasizes a sense of homogeneity among people, promoting the idea that they are unified and share common values and interests. The relationship between the people and the elite is often portrayed in an antagonistic manner, adopting a Manichean perspective that dichotomises good and evil (Schulz et al., 2018).

Populist attitudes coexist and are connected with several other beliefs and attitudes. They are associated with a conspiracy mentality and belief in conspiracy theories (Balta et al., 2022; Castanho Silva et al., 2017; Eberl et al., 2021; Erisen et al., 2021; Papaioannou et al., 2023; van Prooijen et al., 2022). A conspiracy mentality refers to a general tendency to perceive significant events as being covertly controlled by powerful and sinister groups (Imhoff, Bruder, 2014). This belief system has gained considerable attention in modern psychology and sociology, as the proliferation of internet and social media platforms has vastly accelerated the spread and impact of conspiracy theories (Cinelli et al., 2022). Individuals who hold such beliefs tend to perceive the world as a dichotomy between powerful elites and vulnerable individuals. Populist attitudes involve criticising those in power positions (Vittori, 2017), which aligns with the underlying premise of a belief in conspiracies. On the other hand, the development of a conspiratorial mentality arises from resentment towards elites, authority figures (Imhoff, Lamberty, 2018) and even experts or scientists (Oliver, Rahn, 2016), who are purportedly involved in conspiratorial acts against the broader population (van Prooijen, van Vugt, 2018). Anti-elitism is further linked to a lack of trust in the media: leading individuals who harbour mistrust towards the political elite also hold negative views of various media outlets that could be perceived as influenced by the (political) elite (Fawzi, 2019). The collective scepticism directed at elites, authorities and experts thus establishes a connection between populist attitudes and a conspiratorial mindset and reflects a faith in common wisdom (Oliver, Rahn, 2016). A lack of trust in political institutions and in established, universally accepted

truths is connected to favouring simplistic explanations or solutions for complex problems (Erisen et al., 2021). In fact, the belief that society can be divided into virtuous individuals and corrupt elites, often referred to as a Manichean worldview, represents an oversimplified perspective of reality. Populist attitudes, but mostly anti-elitism, are connected to the belief that the political system is not responsive to people's demands (external political efficacy), thereby emphasizing the detachment of elite groups and their apparent disinterest in meeting the demands of the general public (Geurkink et al., 2020). However, "the antagonism between the pure people and the corrupt elite and the notion of the general will are absent in the concept of external political efficacy" (Geurkink et al., 2020, p. 252). External political efficacy is also related to institutional trust but those two constructs are conceptually different (Geurkink et al., 2020; González, 2020).

The relationships between these beliefs and attitudes (the structure of the belief system) can differ depending on sociodemographic or socioeconomic characteristics. Higher levels of populist attitudes are frequently linked to lower levels of education (Fatke, 2019; Geurkink et al., 2020; Pruysers, 2021; Rico et al., 2020) or increased age (Pruysers, 2021; Rico et al., 2020). Support for populism is associated with perceptions of relative deprivation, whereby individuals perceive themselves as being disadvantaged compared to others (Spruyt et al., 2016). Consequently, people holding populist attitudes firmly believe that their personal circumstances or the state of the nation are tainted by imminent threats and scarcity (Hameleers et al., 2016).

The second set of factors that can potentially influence the network of beliefs and attitudes revolves around emotions. The increasing support for populist parties partly originates from the emotional appeals employed by populist movements to mobilise voters (Hameleers et al., 2016; Wodak, 2015). Populist attitudes reflect an identification with non-elite segments of society and a perceived lack of influence over important societal decisions (external political efficacy). Consequently, empirical evidence suggests a robust correlation between populist attitudes and feelings of powerlessness (Papaioannou et al., 2023; Rico et al., 2020). Emotions characterised by other-person control (anger) influence trust (Dunn, Schweitzer, 2005) and predict the populist attitudes (Rico et al., 2020). Furthermore, anxiety regarding perceived economic threats (Dennison, Turnbull-Dugarte, 2022) arises from individuals comparing their own economic circumstances with those of others (relative deprivation).

2 METHOD

Data collection took place from the end of December 2022 to the beginning of January 2023, utilizing an online panel operated by 2muse research agency. The sample of participants was selected based on population quotas for gender, age, education groups and the eight regions in the Slovak Republic. The agency approached individuals who met the established quotas, and those who completed the questionnaire were rewarded with credits redeemable for products offered by the agency.

Out of the initial 278 respondents who met population quotas, the final sample consisted of 254 participants who correctly responded to two attention check items and did not exhibit longstring or Mahalanobis distance exceeding two standard deviations. The final sample, which represents the Slovak population, comprised 48% men and 52% women, and encompassed individuals ranging in age from 18 to 75 years, with an average age of 44.8 years (SD = 15.4). Regarding education level, 39% had primary and lower secondary education, 34.6% had upper secondary education and 26.4% had tertiary education. The regional affiliation of the sample aligned with that of the overall population.

2.1 Measures

Variables were derived from multiple items combined through Confirmatory Factor Analysis (CFA) using the lavaan package (Rosseel, 2012). For scales with only three items, the CFA model becomes saturated, which means we cannot calculate standard fit indices. Instead, we provide the reliability of these scales using McDonald's Omega to assess their consistency.

The populist attitudes scale, developed by Schulz et al. (2018), comprises 12 items distributed equally across three dimensions: anti-elitism (e.g. "MPs in Parliament very quickly lose touch with ordinary people"), popular sovereignty (e.g. "The people should have the final say on the most important political issues by voting on them directly in referendums"), and homogeneity of people (e.g. "Ordinary people all pull together"). The scale includes a Manichean outlook that cuts across all dimensions. The scale has been translated and validated on a Slovak sample by Ivana Piterová and Kováčová Holevová (2022). It demonstrated a good fit with our data, as indicated by the following fit indices: CFI = .984, TLI = .988, SRMR = .054, RMSEA = .093. All items exhibited adequate factor loadings ranging from

.623 to .934 on the three factors, which showed moderate correlations (r = .35 to .63). The internal consistencies of the dimensions were satisfactory: anti-elitism (ω = .83), popular sovereignty (ω = .91), and homogeneity of people (ω = .91).

The conspiracy mentality questionnaire (CMQ), developed by Bruder *et al.* (2013), consists of 5 items (e.g. "I think that many very important things happen in the world, which the public is never informed about") rated on an 11-point scale ranging from "0% certainly not" to "100% certain." The fit indices for the CMQ were as follows: CFI = .972, TLI = .979, SRMR = .042, RMSEA = .206. The internal consistency of the CMQ was good (ω = .89).

The belief in a simple solution was measured by scale that was developed by van Prooijen (2017) and comprises 3 items (e.g. "With the right policies, most problems in society are easy to solve") measured on a 7-point scale ranging from "Totally disagree" to "Totally agree." The reliability of the scale was initially low (ω = .59), but increased to an acceptable level (ω = .68) when one item was removed. We thus used 2-item version of the scale.

Mistrust of experts was assessed using 3 items (e.g. "I´d rather put my trust in the wisdom of ordinary people than the opinions of experts and intellectuals") based on the research of Oliver and Rahn (2016), employing a 5-point scale ranging from "Totally disagree" to "Totally agree." The scale demonstrated good reliability (ω = .81).

Trust in politicians was measured using 3 items from the European Social Survey (2020), assessing trust in Slovak politicians, political parties and parliament on an 11-point scale. The scale exhibited high reliability (ω = .93).

Trust in the media was evaluated using 3 items (e.g., "I think you can trust most news most of the time.") based on the research of Kalogeropoulos et al. (2019), employing a 5-point scale ranging from "Totally disagree" to "Totally agree." The scale demonstrated good reliability (ω = .89).

External political efficacy was assessed using 2 items (e.g. "How much would you say the political system in [country] allows people like you to have a say in what the government does?") from the European Social Survey (2020) on a 5-point scale ranging from "not at all" to "a great deal." The scale exhibited good reliability (ω = .84).

Sociodemographic and socioeconomic characteristics were assessed using the following measures: age (in years), highest level of education (primary, lower secondary, upper secondary, tertiary), and relative deprivation, which was measured using 7 items (e.g. "It is always other people who can profit from all kinds of advantages offered in this society") adapted

from Elchardus and Spruyt (2016) on a 5-point scale ranging from "Totally disagree" to "Totally agree". The fit indices for the relative deprivation scale were as follows: CFI = .974, TLI = .982, SRMR = .042, RMSEA = .102. The internal consistency of the relative deprivation scale was satisfactory (ω = .87).

Emotions were assessed in terms of feelings of anger (including angry, outraged and disgusted), anxiety (including anxious, nervous, and worried), and powerlessness (powerless) regarding the future prospects of people in the country. This measurement was adapted from Suhay and Erisen (2018). The anger scale demonstrated good reliability (ω = .94), as did the anxiety scale (ω = .9). Also, as an emotion-related variable, perceived economic threat was measured using a 5-point scale ranging from "Totally disagree" to "Totally agree" with 4 items indicating fear of the future (e.g. "I'm afraid I'm going to lose my job in the near future") proposed by Stephan *et al*. (2009). The fit indices for the perceived economic threat scale were not satisfactory: CFI = .846, TLI = .691, SRMR = .071, RMSEA = .232. One item was removed from the scale due to a low loading (.30). The shortened scale demonstrated acceptable reliability (ω = .73) and was used in the analysis.

2.2 Network analysis

Domestic and foreign research on populist attitudes focuses on relationships with other variables, but less on their structure and dynamics. In recent years, network analysis has become increasingly popular as a valuable method in social sciences (Epskamp et al., 2018). It has gained recognition across diverse fields of psychology, including social psychology (Dalege et al., 2016). However, it is important to note that there is a limited amount of research applying the network analysis approach to the study of populist attitudes. To date, only one paper has been published on this topic using network analysis (Pellegrini, 2023). Further exploration and investigation using network analysis could shed light on the intricacies of populist attitudes and their underlying dynamics.

This approach helps us comprehend complex psychological behaviours by examining the relationships between different factors. Through network analysis, a visual representation is created wherein nodes represent observed variables and edges depict their connections and associations (Epskamp *et al*., 2018). Network analysis uses centrality measures to help reveal the nodes that play crucial roles within a network. These measures are invaluable for understanding the significance of nodes and

their contributions to the overall structure and dynamics of a network. Two common centrality measures are strength and closeness. Strength is the sum of the weights of the edges connected to a node, which reflects how much a node interacts with others (Isvoranu et al., 2022). Closeness is the inverse of the average distance from a node to all other nodes in the network, which reflects how quickly a node can reach others (Isvoranu et al., 2022).

Identifying the core components of a belief system poses a significant challenge. However, this study aims to tackle this challenge by representing populist attitudes and related beliefs as interconnected nodes within networks. The study delves into the centrality of adhering to populist attitudes and examines their association with external political efficacy, trust in politicians, media and experts, a conspiracy mentality and belief in simple solutions. Through this approach, the paper investigates the role of the three dimensions of populist attitudes (anti-elitism, demand for popular sovereignty, belief in the homogeneity of people) within the larger framework of the belief system.

2.3 Data analysis

Data were analyzed in R software (R Core Team, 2022; RStudio team, 2019). The initial removal of careless responses was performed using a careless package (Yentes, Wilhelm, 2021). The reliability (McDonalds' omega) of scales is presented. The structure of the network was examined using a network analysis (Epskamp *et al.,* 2018). Within the framework of the network approach, nodes represent indicators, and the connections between them are depicted as edges (a relationship's strength is reflected by the thickness of the corresponding edge; blue lines represent positive relationships, red lines represent negative relationships). The strength (how strongly a node is directly associated with others) and closeness (how strongly a node is indirectly associated with others) indices were estimated. Bootstrapping examines the network accuracy and stability of centrality indices. The correlation stability (CS) coefficient, which signifies the percentage of cases that could be removed from the analysis while still maintaining a correlation of at least 0.70, was estimated. For the moderation analysis, the networktree function (Jones et al., 2021) was utilised to find an optimal splitting point (a threshold that leads to a significant alteration in the network structure). The analyses were conducted in R software using the following packages: bootnet (Epskamp et al., 2018), networktree (Jones

et al., 2021) and NetworkComparisonTest (van Borkulo et al., 2022). Data and coding are publicly available at OSF (OSF Storage, 2024).

3 RESULTS

The descriptive statistics (means, scales, standard deviations and 95 % confidence intervals of means) of all the measures used are reported in Table 1. This table highlights the response tendencies of the sample and presents how populist attitudes, conspiratorial attitudes, belief in simple solutions and trust in experts, politicians and the media are pronounced. The table also provides descriptive statistics for the so-called moderating variables (e.g. age and levels of anxiety, anger and helplessness), which illustrate the overall profile of the characteristics of the surveyed sample.

Table 1: *Descriptive statistics of all measures*

Variables	M	scale	SD	95 % CI	
				lower	upper
populist attitudes	5.28	1-7	0.89	5.17	5.39
network components					
anti-elitism	6.14	1-7	0.86	6.03	6.25
sovereignty	5.74	1-7	1.22	5.58	5.89
homogeneity	3.96	1-7	1.40	3.78	4.13
conspiracy mentality	6.57	0-10	2.45	6.27	6.87
belief in simple solutions	5.06	1-7	1.22	4.91	5.21
mistrust of experts	2.91	1-7	0.99	2.78	3.03
trust in politicians	1.92	1-10	1.96	1.68	2.16
trust in media	2.43	1-5	0.99	2.31	2.55
external political efficacy	2.07	1-5	0.98	1.95	2.19
moderating variables					
age	44.80		15.38		
relative deprivation	3.38	1-5	0.82	3.28	3.48
anger	4.09	1-5	0.94	3.98	4.21
anxiety	3.63	1-5	1.05	3.50	3.76

powerlessness	3.92	1-5	1.14	3.78	4.06
perceived economic threat	2.93	1-5	1.04	2.80	3.06

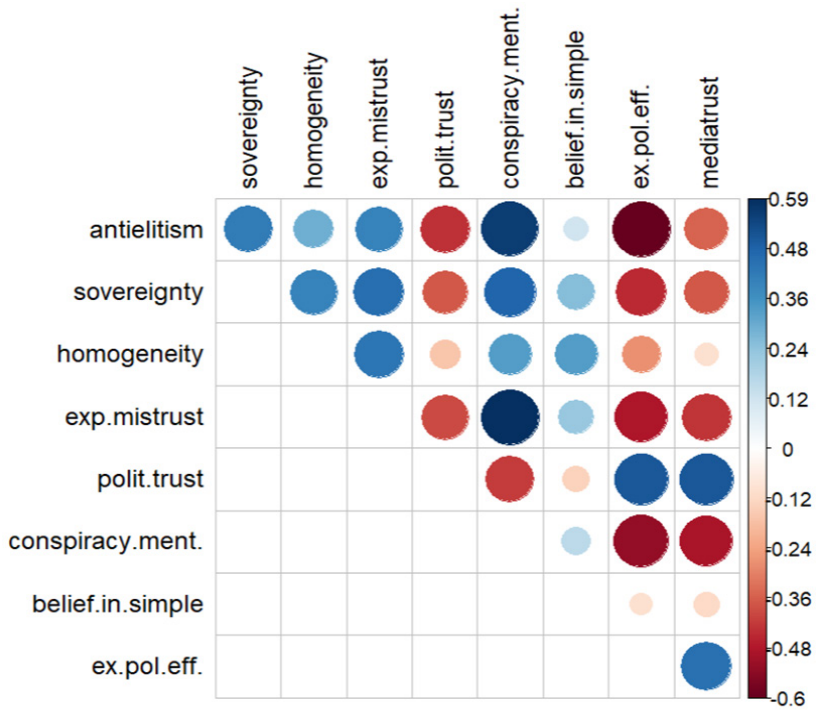
Source: Authors' own elaboration

As shown in Table 1, the average score for populist attitudes is quite high (5.28 out of a maximum of 7), indicating a significant prevalence of populist beliefs within the sample studied. Notably, one of the three dimensions of populist attitudes, homogeneity (the belief that ordinary people are united and share common values and interests), scored lower than the other dimensions, at 3.96 out of 7. This suggests that anti-elitism (dislike for distant elites disconnected from ordinary people, which scored 6.4 out of 7) and sovereignty (the belief that power should be placed in the hands of ordinary people, which scored 5.74 out of 7) are much more prominent. The average conspiracy mentality score is also alarmingly high. In terms of measured trust, the most notable result is the very low trust in politicians. Additionally, the sample expressed a considerable sense of relative deprivation and scored high on all three negative emotions, particularly anger, which, given the wording of the items, can be interpreted as significant frustration with the direction of societal events in the country.

In Figure 1, correlation relationships of the variables used in network analysis that are statistically significant ($p < 0.05$) are plotted. This analysis reveals the most significant relationships between the measured variables.

The analysis reveals the expected positive correlations between the dimensions of populist attitudes. These dimensions are also strongly positively correlated with a conspiracy mentality, aligning with previous research findings (Castanho Silva *et al.,* 2017). Conversely, they are negatively correlated with trust in politics and the media, as well as with external political efficacy. This negative correlation suggests that individuals with stronger populist attitudes are more likely to distrust political institutions and the media, perceiving them as untrustworthy or ineffective. Moreover, lower external political efficacy may reflect a belief that these institutions are not responsive to the needs or concerns of ordinary people, further reinforcing populist and conspiratorial mindsets.

Figure 1: *Correlation figure of statistically significant relationships*

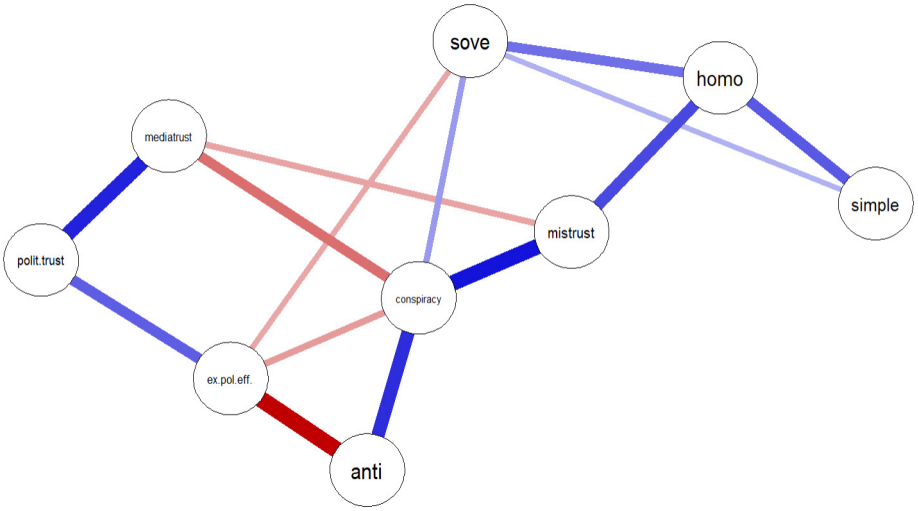


Source: Authors' own elaboration
Note. Blue indicates a positive relationship, red indicates a negative relationship. Size of dots indicates strength of relationships.

3.1 Network analysis

The network is visualised in Figure 2. The minimal threshold for edge inclusion has been set to 0.1 (for correlation coefficient). Visualising the network is a crucial step in network analysis because it allows for a clear and intuitive understanding of the relationships between variables, such as populist attitudes, a conspiracy mentality, trust in politics and the media, and external political efficacy. By representing variables as nodes and their relationships as edges, the network visualisation helps identify the strength of these connections. This approach makes it easier to detect clusters or patterns within the data, such as which dimensions of populist attitudes are most interconnected or how they are collectively related to a conspiracy mentality and other variables.

Figure 2: *Visualisation of the network*



Source: Authors' own elaboration
Note. Blue indicates a positive relationship, red indicates a negative relationship. Thicker lines indicate stronger relationships.
Note. polit.trust – political trust, mediatrust – trust in media, ex.pol.eff. – external political efficacy, anti – anti-elitism, conspiracy – conspiracy mentality, sove - popular sovereignty, mistrust – mistrust of experts, homo – homogeneity, simple – belief in simple solutions

In the figure, we observe that the dimensions of populist attitudes, distrust in experts, belief in simple solutions and a conspiracy mentality are positively linked, forming a cohesive cluster. This suggests that these beliefs mutually reinforce one another, with individuals who hold populist attitudes also likely to exhibit distrust in experts, a belief in simple solutions to complex problems, and to subscribe to conspiratorial thinking.

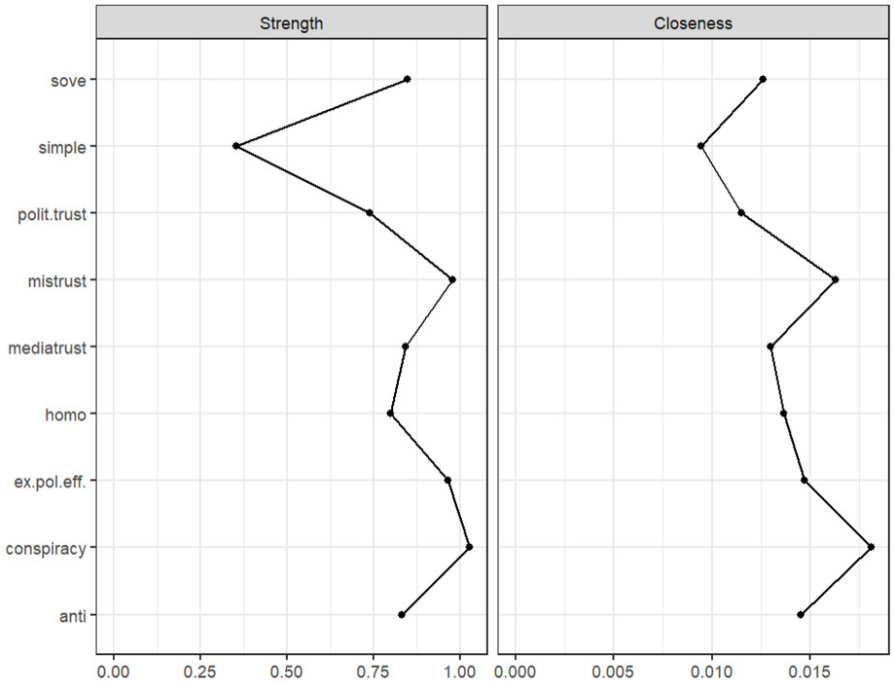
Simultaneously, another cluster emerges, consisting of positive relationships between trust in the media, trust in politicians and external political efficacy. This indicates that individuals who have faith in the media and political institutions are also more likely to believe that these institutions are effective and responsive to their needs.

The key insight from this network is the existence of an inverse relationship between these two clusters. As trust in political and media institutions increases, the likelihood of holding populist, conspiratorial and simplistic beliefs decreases, and vice versa. Essentially, the stronger

one cluster's characteristics are within an individual's belief system, the weaker the characteristics of the opposing cluster tend to be. This reflects a dynamic where increasing distrust and a conspiracy mentality correlate with declining confidence in established institutions, highlighting how these belief systems operate in opposition to one another.

In order to further develop the analysis, calculation of centrality indices is needed. Centrality indices (strength, closeness) of network components are available in Figure 3. These indices are crucial as they help determine the relative importance and influence of each variable within the network, allowing us to identify key nodes that drive relationships across the network.

Figure 3: *Centrality indices of network components*



Source: Authors' own elaboration

The highest strength was observed in mistrust of experts, external political efficacy and conspiracy mentality. Mistrust of experts and conspiracy mentality also scored highest in closeness. Belief in simple solutions had the smallest centrality indices. The stability of the network can be considered sufficient (CSedges = .59; CSstrength = .52; CScloseness = .36).

3.2 Network Invariance (Moderation Analysis)

Network invariance was tested for socioeconomic characteristics and emotion-related variables. In the case of socioeconomic characteristics, significant alterations in the network structure were observed only for relative deprivation. We did not observe significant alterations according to age or level of education. For variables related to emotion, there were significant differences in anger, anxiety and powerlessness, but not in perceived economic threat (Table 2).

Table 2: *Network invariance across the moderating variables*

Moderating variable (significant splitting value identified)	Significance of alternation in network structure (p-value)
age	without alteration in network structure
primary - secondary education	without alteration in network structure
secondary - tertiary education	without alteration in network structure
primary - tertiary education	without alteration in network structure
relative deprivation	0.003
anger	0.047
anxiety	0.024
powerlessness	0.035
perceived economic threat	without alteration in network structure

Source: Authors' own elaboration

Even though alterations in the network structure were observed for relative deprivation and emotion-related variables, the analysis unfortunately could not pinpoint the exact nature of these changes. Despite this limitation, the findings still represent a significant contribution to our understanding of how relative deprivation, anger, anxiety and powerlessness affect the network dynamics. The alterations observed suggest that these factors have a meaningful impact on the relationships between variables, particularly in shaping populist attitudes and conspiracy thinking.

4 DISCUSSION

The results of the network analysis underline the interconnected nature of populist attitudes, external political efficacy, trust and cognitive beliefs, which form a dynamic network that undergoes changes when feelings of relative deprivation, anger, anxiety and powerlessness are considered.

Specifically, the results presented align with previous literature that has suggested a significant relationship between populist attitudes (anti-elitism and popular sovereignty), a conspiracy mentality (e.g., Balta et al., 2022; Castanho Silva et al., 2017; Eberl et al., 2021; Erisen et al., 2021; Papaioannou et al., 2023; van Prooijen et al., 2022) and external political efficacy (Geurkink et al. 2020). Additionally, within the network, we confirmed the relationship between external political efficacy and political trust, which is consistent with the results reported by Geurkink et al. (2020). Moreover, a conspiracy mentality is linked to a distrust of experts, which is likely to stem from the development of conspiratorial beliefs, often rooted in resentment towards elites, authority figures, experts or scientists (Imhoff, Lamberty, 2018; Oliver, Rahn, 2016). Belief in the homogeneity of the people is tightly interwoven within the network, particularly with a distrust of experts and a preference for simplistic solutions. This underscores how populist perspectives, characterized by a simplistic view of the world divided into two homogeneous groups, tend to seek uncomplicated solutions to complex problems (Erisen et al., 2021).

Furthermore, the centrality indices suggest that when aiming to reduce populist attitudes in the population, it could be effective to focus on decreasing both the conspiracy mentality and distrust of experts because they can potentially contribute to the deactivation of interactions between variables. However, due to the nature of the data examined, we do not assume causality and further studies are needed to confirm these results. Nevertheless, these results are significant and need to be interpreted and highlighted in the context of Slovakia, which is one of the countries with the highest conspiracy index (GLOBSEC, 2022). Slovakia's high conspiracy index reflects a societal landscape where distrust in institutions and expert knowledge is deeply entrenched. In this context, our findings suggest that efforts to reduce populist attitudes must directly address these deeply rooted beliefs. Targeted interventions aimed at fostering trust in experts and debunking conspiracy theories could play a critical role in shifting public opinion. These measures are vital for stabilising Slovakia's political landscape and ensuring a healthier, more informed public discourse.

Regarding the stability of the network structure, it was relatively consistent across various moderators, including age, education and perceived economic threat. However, significant alterations in the network structure were observed concerning relative deprivation, anger, anxiety and powerlessness. This suggests that when individuals experience feelings of disadvantage compared to others, or anger, anxiety and powerlessness about the future of people in the country, the network of relationships can undergo changes. These emotional and psychological factors that introduce heterogeneity into the network could possibly be considered when designing interventions targeting populist attitudes, but further studies are needed to confirm these results. The role of emotions in populism are supported by other studies that have found that anger expressed in the context of an economic crisis is associated with support for populism (Rico et al., 2017); or that in the context of the pandemic "anger is positively related to populist attitudes while fear is negatively linked to populist stances" (Filsinger et al., 2023). In simple terms, anger is positively correlated with populist attitudes, while fear is negatively correlated with them. In the Slovak context, the interplay of emotional drivers like anger and anxiety may be particularly impactful, given the country's high conspiracy index and the existing distrust of political elites, and this suggests that emotional appeals could further fuel populist sentiments. Indeed, research in Slovakia has shown that populist radical right parties have experienced greater electoral success when leveraging anger-based appeals (Gazarek, Uhrecký, 2022).

Nevertheless, it is important to interpret these results with caution, as the study has several limitations: 1) The research sample, while representative in some aspects (gender, age, education, regional affiliation), is drawn from a single-country online panel, potentially excluding certain population segments and introducing non-naivety biases. 2) Due to its cross-sectional design, the study does not encompass the intra-personal dynamics of relationships across different time points and cannot establish causation or the direction of relationships between dimensions of populist attitudes and other variables. 3) This network analysis is exploratory, necessitating validation through replication in additional samples. 4) Unobserved or uncontrolled variables (confounding variables) could influence the interpretation of network relationships. 5) The use of arbitrary thresholds for edge inclusion (determining which relationships between nodes in a network are considered significant enough to be included) may impact the interpretation of network connections and potentially exclude meaningful relationships.

Despite these limitations, this study advances the literature by applying a network analysis approach that has offered a novel perspective on variables that have not been previously explored using this methodology. While prior research in populist attitudes predominantly concentrated on examining correlation and mediation relationships, the use of network analysis has allowed for a deeper understanding of the structure of their relationships. By emphasizing the strengths of direct and indirect interactions, network analysis has illuminated intricate relationships that might have been overlooked by traditional approaches. Future studies can build on these findings, using network analysis to investigate populist attitudes and related variables across different contexts and datasets, contributing to a more comprehensive understanding in this field.

CONCLUSION

The present study offers a unique perspective on the relationships among populist attitudes, external political efficacy, various forms of trust and cognitive beliefs, all of which hold significant relevance for shaping how individuals approach political and societal challenges. Our network analysis findings suggest that the underlying structure of these relationships is characterized by strong positive links between populist attitudes, a conspiracy mentality and distrust in experts, while trust in political and media institutions is inversely related to these clusters. This indicates that individuals who are more inclined toward populist and conspiratorial thinking tend to reject traditional sources of authority and expertise, while those with higher levels of trust in institutions are less likely to exhibit populist attitudes.

Our network analysis findings suggest that efforts aimed at reducing populist attitudes may be more effective if they prioritise the enhancement of trust in experts while mitigating tendencies toward conspiracy beliefs. These variables were strongly linked to the three dimensions of populist attitudes and had the greatest strength and centrality in the network. Also, the closedness of the political system to the people (external political efficacy) played a role in the network, with a direct link to more negative anti-elitist attitudes and higher distrust of politicians. The structure of connections found in the network changes when emotions such as anger, anxiety, powerlessness or feeling disadvantaged in comparison to others are taken into account. This may suggest that emotional states can act as amplifiers of negative attitudes toward elites and political institutions, deepening the divide between trust and distrust clusters within the network.

Given the exploratory nature of our study, it is essential to replicate these findings in future research and conduct studies employing repeated-measures designs. Moreover, broadening the scope of network analysis to encompass other psychological constructs would contribute to a more comprehensive understanding of the intricate relationships among these variables.

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Data availability statement: All data and code underlying the results presented in this study are available from OSF: https://osf.io/7nhqt/files/osfstorage.