Article

Cultural Syndromes in a Changing World: A Longitudinal Investigation of Brazilian *Jeitinho* Social Problem-Solving Strategies

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Abstract

We report a longitudinal study of *Jeitinho brasileiro* (salient cultural characteristic of Brazil) during a period of significant political instability. Previous historical and anthropological sources have pointed to the importance of political instability for cultural changes in behaviors such as *jeitinho*. We are the first to examine possible individual-level dynamics over time, reporting a 3-year longitudinal study ($N = 205$) of two dimensions that differentiate keeping a socially pleasant social climate (*simpatia*) from trickery and breaking social norms. Using longitudinal network analysis, we found (a) reinforcing links between behavioral nodes within each of these two *jeitinho* clusters over time, (b) few between-cluster links, (c) within-person and between-person components were distinct, and (d) only the between-person structure resembled the overall factor structure. Overall, our data show that cultural behaviors are systematically changing during a political crisis, offering first insights how cultural systems may change via shifts in individual behavior.

Keywords

jeitinho brasileiro, cultural syndromes, social influence strategies, network analysis, corruption, longitudinal, political crisis

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What are the impacts of political crises on culturally salient behaviors? Cultural behaviors displayed by individuals are thought to be products of a larger stable cultural system that is transmitted over generations. Some theorists have argued that current cultural differences are the result of century- or even millennia-long processes (Hofstede, 2001), which points to longer evolutionary dynamics associated with the evolution of large-scale civilizations (Boyd & Richerson, 1988; Turchin, 2015). As a consequence, political instabilities, short of a system-collapse, may not be expected to find reflections in the behavior of individuals. At the same time, cultural systems need to be dynamic, to respond to changing social, economic, and ecological conditions at relatively short notice. Such internal politics and negotiations of social hierarchies and alliances in turn may lead to instabilities in the larger cultural system over longer periods (Cohen, 2001; Turchin, 2016). Power struggles at a political level within a society may create sociocultural dynamics, which shift behaviors and lead to new emerging equilibria, especially if these cultural characteristics play a role in the larger political process. Here, we are aiming to provide first responses to these overarching questions on cultural stability versus change by reporting longitudinal data covering responses of individuals over a 3-year period that is marked by political upheaval and power struggles within the larger democratic system.

Our focus is on culturally salient behavior syndromes that have been extensively studied in anthropology and increasingly in cultural psychology. Specifically, we are focusing on Brazilian *jeitinho* (pronounced jay-tchee-nyoo, can be translated as the "Brazilian little way") which is described as a "special way to solve a problem, or a difficult or prohibited situation . . . [that involves] finding a creative solution for dealing with emergencies, whether in the form of conciliation, cunningness, or skill" (Barbosa, 2006, p. 41). *Jeitinho* is a characteristic behavioral trademark of Brazilian culture which is thought to have emerged as a flexible problem-solving behavior in a highly hierarchical and bureaucratic system and which has received attention from Brazilian and international scholars and commentators (Almeida, 2007; Amado &

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Brasil, 1991; Duarte, 2006; Goslin, 2008; Ledeneva, 2017). At the same time, the overall cultural syndrome of *jeitinho* is credited for the political and economic instabilities that plague the larger political system (Barroso, 2017; Neto, 2015; Way, 2016).

In recent years, psychologists have made progress in identifying core dimensions of this behavioral construct and outlining psychological and social correlates (Ferreira et al., 2012; Miura et al., 2019; Pilati et al., 2011). A number of studies have also shown that these culture-specific behavioral syndromes share communalities with other indigenous informal social influence processes in different cultures that have similar economic and social features (Smith, Huang, et al., 2012; Smith, Torres, et al., 2012; C. V. Torres et al., 2015). Our study extends these analyses by focusing on the temporal dynamics to explore how behavioral indicators of *jeitinho* change over time. We are using a novel network-based approach that is ideally suited for uncovering and differentiating temporal dynamics, within-person and between-person dynamics. By applying this novel method, we can contribute to a number of discussions. First, our longitudinal data will provide insights on how political dynamics within a larger sociocultural system can influence behavioral dynamics of individuals and populations, therefore shedding light on political and cultural evolution dynamics. Second, by using longitudinal network statistics, we provide a better understanding of how individual processes may be distinct or similar to between-individual, sample-level characteristics. Psychological research is typically focused on sample-level characteristics, which may or may not describe dynamics for any single individual (Beckmann & Wood, 2017; Brose et al., 2015; Fisher et al., 2018). By examining how behavioral dynamics change within individuals over time, we can start to understand both individual- and sample-level dynamics, bridging the gap from describing average statistical features at the sample level to understanding temporal and within-person dynamics of individuals as agents embedded within a cultural system.

Brazilian *Jeitinho* as a Social-Cultural Syndrome

To understand the salience and importance of Brazilian *jeitinho*, it is important to briefly introduce the historical and cultural context of Brazil. Brazil is a former Portuguese colony and currently the world's sixth largest country and the largest country in South America, both in terms of territory and population. From the beginning of the colony to modern times, the exploration of the rich natural resources, including timber, gold, coffee, sugar cane, rubber and more recently soybeans, took priority over an adequate development of norms, laws, and institutional structures, with many regulations and institutional structures copied from Portugal (de Holanda, 1936/2015). This led to an acute dissociation between the sociocultural realities of Brazil as a former colony with complex ethnic and cultural compositions and the formal, often rigid, and coercive legal structures (Zimmermann, 2009). The colonial administration had put in place a patriarchal family structure that gave the patriarch complete power over individuals and property, which then extended to the larger communities via family-run latifundia systems (Freyre, 1993). As a result, a few families dominated large communities and they used legal structures to cement their control over the larger population. This paternalistic authoritarian structure with rigid legal bureaucracies favoring the powerful provided few options for the disenfranchised majority to resolve problems or obtain resources without breaking some imposed regulations or laws that limited access. The reliance of a small elite on a de-facto cooperation of the majority as well as the extension and expectation of paternalistic behavior of the large estate owners toward the laborers within the realm of the community also required a more informal and personal relationship, which resulted in a more informal system that prioritized affection and social relationships. Hence, the hierarchical structure with large inequalities was counterbalanced by a more informal personalized relationships focusing on the individual. Through this informal way of interacting across hierarchical lines, marginalized individuals were able to obtain resources via the cultivation of amicable social relationships with both powerful individuals and through creation of extended horizontal social networks that could be called upon in times of need. Both the individual granting privileges and the powerless asking for favors in these interactions needed to use social and interpersonal skills to navigate these delicate power imbalances, with both siding negotiating resources that were not available legally (Motta & Alcadipani, 1999). Over historical periods, this has led to the emergence of the modern Brazilian stereotype of relative intimate and informal relationships at all hierarchical levels (Amado & Brasil, 1991).

Anthropologists called the resulting behavioral syndromes a "Brazilian dilemma" (DaMatta, 1984), the outcome of being caught between the opposing social practices of a rigid hierarchy and a preference to establish intimate relationships to circumvent and flatten those hierarchies. In a series of classic treatments of Brazilian culture, DaMatta (1997, 1984) defined Brazilian *jeitinho* as a social navigation strategy to negotiate the excessive formality and legal restrictions of Brazilian society, allowing individuals to travel between the informality of the street (*rua*) and the patriarchal hierarchy of the home (*casa*). This may require individuals to use interpersonal strategies to achieve a goal (e.g., obtaining a document from a state bureaucrat), often by trying to establish a relationship or common social ground with the official (identifying a common friend, a family connection, supporting the same football team, etc.) to appeal to the good faith and generosity of the official. By involving others emotionally in one's problem, "seducing them" (Motta & Alcadipani, 1999), the person is trying to

get past a bureaucratic obstacle faster and more efficiently, even if this means breaking some social norms or official law. These strategies are particularly useful and appealing if those individuals acting as gatekeepers of the rule of law have the power to facilitate the process. As can be imagined, this strategy is more effective if individuals have honed their social skills and are successful in forming spontaneous affective links and are able to maintain good social relations with the largest number of individuals, increasing the chances of relying on such improvised networks on future occasions (even if just by name).

To maintain good relations and an effective network, this strategy may involve the occasional "white lie" or some ingenuity to not offend others in case of disagreement. However, these behaviors are ultimately geared toward solving problems, so they require acting on opportunities in a fast and efficient way (which may not be legal or in line with social norms) as well as creativity in finding solutions on the fly in case of unforeseen obstacles. Even though these behaviors may seem innocent at the surface, at the more extreme ends, these behaviors often blur into straightforward corruption, nepotism, and abuse of power which explains the ambiguous nature and controversial status of this concept in Brazilian society (Barbosa, 2006; Ferreira et al., 2012) and may further contribute to the political malaise and instability. Hence, anthropologists have documented widespread use and recognition of this prototypical behavioral strategy within Brazilian society, whereas political scientists, economists, and judges have commented on its potentially destabilizing and counterproductive social effects (Barroso, 2017; Lee Park et al., 2018; Neto, 2015). In summary, the syndrome is thought to reflect the historical conditions of individuals living in a bureaucratic state which impedes the satisfaction of basic needs, therefore requires ingenuity to overcome bureaucratic obstacles and to achieve personal objectives through social means, which nevertheless may break laws or social norms if it was necessary and therefore further destabilizes the larger system (Almeida, 2007; Barbosa, 2006; DaMatta, 1986).

Brazilian *Jeitinho* as a Psychological Trait

Building on these anthropological and sociological studies, psychologists have started to unravel the psychological dimension and correlates of this behavioral strategy. Anthropologists had noted already that the concept is likely multifaceted, involving asking and granting favors, creativity in social contexts, trickery, and even outright corruption and nepotism (Almeida, 2007; Barbosa, 1992; Rega, 2000). Pilati et al. (2011) conducted interviews in two large Brazilian centers and elicited typical behavior and situations in which *jeitinho* may occur. Through thematic analyses, seven underlying themes were identified and cross-validated: (a) simpatia (showing interpersonal empathy); (b) behaviors that harm others; (c) trickery or *malandragem* (which is a behavioral syndrome that involves creative social norm breaking by individuals at the margins of society); (d) a disregard for social rules; (e) innovation in social and work environments to solve problems; (f) strong power differentials; and (g) motivation to obtain compensation or rewards. These themes could be arranged along the positive versus negative favor—*jeitinho*—corruption continuum described by anthropologists (Barbosa, 1992). In a subsequent study, Ferreira et al. (2012) administered scenarios derived from these interviews to diverse samples and found three components: (a) a creativity, (b) a social norm breaking, and (c) a corruption component. These three situational *jeitinho* components correlated in meaningful ways with moral concerns, values, and social hierarchy beliefs. Furthermore, these dimensions align with other work conducted in Latin American samples and more recent interview studies investigating *jeitinho*. Park et al. (2018) identified creativity and corruption as two major components in interviews with 28 Brazilian professionals. Focusing on the *simpatia* component, Triandis et al. (1984) described *simpatía* a cultural script that reflects a general relationship-oriented behavioral syndrome to (a) give importance to values of loyalty, respect, duty, and politeness; (b) emphasize cooperation and interpersonal helping; and (c) a willingness to sacrifice oneself for one's family. More recently, a scale has been developed to measure *simpatia* in Hispanic populations (Acevedo et al., 2020). To summarize,

> In psychological terms, *jeitinho* refers to a voluntary act that variously uses creativity, deception, interpersonal empathy and cordiality to solve an unexpected problem or to obtain favours. In doing so, an individual may be creative or bypass norms, break laws or transgress moral values in order to solve a problem and attain a personal objective. (Ferreira et al., 2012, p. 333)

Focusing more directly on individual differences around these strategies, Miura et al. (2019) developed a personality-like inventory with self-descriptors derived from the interviews and anthropological descriptions. A factor analysis indicated that these self-descriptions form a *simpatia* (maintaining warm social relationships, being creative) and a trickery (breaking social norms, lying to obtain goals) factor. Further analyses demonstrated that *jeitinho* behavior could be partially understood as culturally specific expressions of broader and potentially universal personality dynamics. These behaviors are therefore culturally modulated expressions of broader psychological dynamics that may be encountered in other cultural contexts (see also Smith, Torres, et al., 2012). These psychological studies have helped to identify the core psychological characteristics of this cultural concept and linked *jeitinho*-specific behaviors to systematic individual differences that have been described in the broader personality literature. In other words, *jeitinho* can be seen as a culture-specific expression of probably universalistic personality and social behavior dynamics.

Macro-Political Dynamics and Possible Effects on Individual Behaviors

Cultural systems need to be both stable over time, but also malleable and flexible to adjust to changes in the internal or external environment. Cohen's (2001) equilibrium perspective of culture explicitly highlighted the importance and interaction of actors, historical conditions, and the meanings created by actors and audiences at specific times. These interactions lead to decision points and junctures at which individual actions in their aggregate can lead to shifts and transitions in the larger social system when tipping points are being reached. Previous experimental work on *jeitinho* (Fischer et al., 2014) demonstrated that presentation of images of corruption or cultural symbols of norm breaking can temporarily increase the intention to engage in *jeitinho*-related behaviors. Hence, contextual cues can shift behavioral responses in specific situations. If these cues are presented with increasing frequency and across different contexts, this may lead to subtle behavioral changes that in their aggregate can lead to noticeable shifts at the population level (Oyserman & Lee, 2008). These ideas have been central to culture as situated cognition theories of culture (Oyserman, 2011). To the extent that political crises highlight and broadcast the ubiquity of amoral and corrupt behavior, individuals might be incentivized to use relevant behaviors more. Hence, a political crisis could shift behavioral responses via situated priming mechanisms.

Complementary, individuals are not just passive recipients reacting to stimuli within their environment, but rather are active agents within a complex social environment in which they act on opportunities and proactively engage with other actors to pursue relevant goals. Evolutionary research has suggested that there are a relatively small number of salient goals for humans (Chulef et al., 2001; Cosmides & Tooby, 2013; Neel et al., 2016; Read & Miller, 2002; Tooby & Cosmides, 1992). A few of these goals are of particular interest in rapidly changing social contexts, including goals around self-protection, seeking group affiliation, as well as status protection and advancement. These goals have been linked to individuals' behavioral strategies. For example, Neel et al. (2016) previously reported greater church attendance and involvement with various social groups among individuals for whom group affiliation was a salient motive, whereas self-protection motives were associated with a higher likelihood to enroll in self-defense classes and to punch or yell at somebody. In times of political upheaval, individuals might be motivated to both maintain and strengthen personal relationships with ingroup members and possible coalition partners as well as manipulate others to obtain personal goals. Recent evidence in the United States suggests that unstable social and political contexts might be exploited by individuals to advance personal agendas and motivations for social advancement (Petersen et al., 2018) and greater social and economic instabilities are associated with increasing social hierarchy endorsement (Kunst et al., 2017).

To link this specifically to previous historical and anthropological discussions of *jeitinho*, a number of writers have pointed out that core components of *jeitinho* such as social norm breaking behavior while navigating bureaucratic and hierarchical contexts (related to the concept of *malandragem*) but also creativity and ingenious problem-solving attempts were particular salient during social crises and episodes of instability, when individuals had to rely on their own devices to survive (Oliven, 2010; J. C. Torres, 1973). Some of the classic icons of Brazilian culture connected to the concept of *jeitinho* such as Ze Malandro emerged during rapid social and political transformations at the beginning of the last century. Commercials such as the 1976 Vila Rica ad coining the term 'Gerson's law' (referring to a national soccer player, who proclaimed that you have to take advantage of situations—break the rules to advance) were aired during a period of increasing instability of the military dictatorship and tentative steps toward democratization. The large-scale movement of marginalized groups from rural areas and the North and Northeast to the population centers in the South-East and Center-West during the dictatorship and the re-democratization in the 1980s and 1990s also has led to major transformations in the demographic landscape (de Lima Amaral, 2013). Such movements in the history of Brazil have been accompanied by social strategies to develop social and affective links to others in the new environment, within and across social hierarchy lines (Freyre, 1933; Ribeiro, 1995). Therefore, these political and demographic transformations are likely to have accentuated and increased *simpatia*-related elements of Brazilian culture.

Recent Political Dynamics in Brazil

Brazil is South America's largest democracy, but has had a checkered history of military dictatorships and a return to full parliamentary democracy in the mid-1980s. Brazil enjoyed strong economic growth and relative political stability in the first decade of the 2000s. Starting in the middle of 2013, street protests started all over the country voicing diverse political and economic demands, including a decrease of the public transportation fares that many people rely on and requesting broader changes in the political system to reduce nepotism and corruption. This set off an unprecedented political crisis that has been widely reported by the international press. In 2014, the economy officially went into a recession, accompanied by raising inflation and the beginnings of criminal investigation of corruption at the highest levels (called "lava jato," translated as "car wash investigation"). In this context of a wider economic downturn, the 2014 presidential elections were extremely fiercely debated, and the sitting President Dilma Roussef narrowly won against her opponent Senator Aécio Neves. The relatively small margin of victory triggered questions about the

legitimacy of the election outcome in parts of the population. The freshly re-elected president was immediately greeted by large protests, this time mainly attended by the Brazilian middle class. The ongoing corruption investigation at this point reached the highest levels of government and industry, with criminal sentences for dozens of executives and politicians involved in fraud and embezzlement schemes, in which money from state companies had been paid to political parties and individual politicians. International observers pointed out that during this period half of the congress was under criminal investigations. For example, during the middle of 2013 around 40% of all deputies and Senators were actively involved in criminal processes at Brazil's supreme court. In this context, the concept of *jeitinho* has been repeatedly discussed in wider social and public discourse and various books and commentaries have commented on the negative repercussions of this cultural syndrome for the larger political system. *Jeitinho* has been used as a reference point to understand corruption scandals in Brazil, from being cited by supreme court ministers (Barroso, 2017), to analyses of major corruption scandals (Valarini & Pohlmann, 2019) and citizens that decided to publish their own experiences (Neto, 2015).

Further increasing political instability, impeachment proceedings against President Dilma Roussef were opened using technical formalities and in May 2016 she was officially impeached. The vice-president Michel Temer, even though actively under investigation and being personally named in the Panama papers (Barcelos, 2017), took over the presidency. Although Temer enjoyed low rates of public support, he managed to rally support inside Congress, successfully defeating three impeachment attempts and approving several economic bills weakening worker rights while aiming to stimulate the stagnating economy within the remaining 2.5 years of his term. In the lead-up to the 2018 presidential election, Jair Messias Bolsonaro, a barely known former army captain (who had been discharged disgracefully from the military), launched his presidential bid after having served 6 times as a deputy in the lower chamber of Congress. He presented himself as a political outsider and ran on an extreme far-right conservative law-and-order agenda. He was explicitly supported by pentecostal religious groups, a significant part of the business elite interested in a more liberal economic agenda, and former army officials interested in regaining greater political influence. During a campaign rally, he was stabbed in the stomach and spent most part of the remaining time up to the election campaigning from his hospital bed, using social media as a surrogate form of communication. The whole period of the election was marked by continuing protests and demonstrations both in favor and against Bolsonaro's candidacy. He won the presidency in the run-off against a surrogate of the imprisoned popular former president Luiz Inácio "Lula" da Silva, the founder and leader of the worker party that was in power from 2003 until the impeachment of Roussef. The election marked the most polarized Brazilian election in the history of Brazilian democracy, accompanied by great political and social turmoil, record unemployment and economic instability, the emergence and strengthening of large political movements at both ends of the political spectrum and rampant increase of fake news in a largely uncontrolled social media environment.

As we noted above, previous political and economic instability have been discussed by historians and anthropologists to explain the emergence of *jeitinho* as a cultural syndrome. The current context of political turmoil with heightened polarization and uncertainty provides an excellent test case to study these processes at the individual level. On one hand, the political crises and public debate highlighted unethical behavior, corruption, and the negative impact of behaviors associated with *jeitinho*. There is previous evidence that activating corruption-related content, even when portrayed in negative terms, can lead to a temporary increase in endorsement of *jeitinho* scenarios (Fischer et al., 2014). On the other hand, the major economic downturn and crisis may also have activated social affiliation tendencies to establish or strengthen possible social networks that may be needed in the future. Therefore, the political crisis offered an opportunity to study effects that have either been discussed historically or via short-term experimental studies in real-life contexts.

A Longitudinal Network Perspective

We followed a sample of Brazilian citizens during this turbulent political crisis. We focused on the individual behavioral indicators associated with Brazilian *jeitinho* as culturally relevant problem-solving strategies. As we outlined above, these individual behaviors may have both positive and negative connotations and consequences and are consensually recognized as salient cultural practices (Ferreira et al., 2012; Smith, Torres, et al., 2012). Tracking individuals' responses about their behavior during this period allows us to examine patterns of behavioral tendencies during a period of great instability, which may require adjustment and shifts in social behaviors to adapt to an uncertain environment.

We use a longitudinal networks approach that allows us to separate temporal trajectories from both average within-person dynamics and between-person mean differences (Epskamp, 2020). In addition to tracking individual development patterns on average, it also allows an examination of the within-person dynamics from sample-level between-person differences. A number of recent studies have challenged psychologists to critically examine whether sample-level between-person dynamics typically studied in social and personality psychology may actually represent individual-level processes (Fisher et al., 2018). Recent advances in longitudinal network analyses (Epskamp, 2020) offer additional opportunities and insights into the similarity and divergence of psychological processes. Specifically, the network can be

broken down into a temporal network, mapping out how variables influence each other (including auto-regressive effects) over time. This is in some way comparable to a cross-lagged panel model, except that it differentiates stable individual differences from true temporal effects (Hamaker et al., 2015). Second, after accounting for these temporal effects, it is possible to examine the relationship between all variables at the level of the individual. As we are using a panel approach, this can be interpreted as the average within-person associations. Finally, because we have the means of each variable and each individual across time, it allows for the calculation of a between-person structure that is based on the person's means. This analysis is most similar to typical sample-level analyses that are common in psychology. We separated temporal, within-person, and between-person effects; we can therefore get a better understanding of (changing) individual behavior tendencies vis-a-vis stable individual differences, opening up a more detailed understanding of how individual behavior may lead to both cultural stability and change. In summary, our aim is to investigate the dynamics of *jeitinho* indicators during this turbulent political environment. How do people navigate their social environment and adjust their behavior to place themselves better in an environment in which social and hierarchical dynamics are fluid, contested, and uncertain? We use an individual difference perspective on cultural problem-solving behavior, which has two components—a socially focused *simpatia* component and a self-enhancing and manipulative trickery component. We do not have specific hypotheses on the developmental trajectories and therefore our analysis is exploratory in nature.

Method

Participants

We sampled Brazilian citizens via social media and social networks. The first data was collected in April 2016, the second wave was collected in September 2017, and the final sample was collected in September 2018. The data collections coincided with the impeachment proceedings against President Rousseff (Wave 1), corruption charges against interim president Temer (Wave 2), and the run-up to the first election round (Wave 3). We were able to match 205 participants across all three measurement points. Given previous average absolute correlations of .20 of our *jeitinho* measure with related and unrelated variables (Miura et al., 2019), we used this estimate to calculate appropriate sample sizes for our correlation-based network model. Assuming an alpha level of .05 and a power of 80% (Faul et al., 2009), we needed 193 participants.

Our sample was predominantly female ($N = 144$, 70%), with a mean age of 36.2 years ($SD = 13.3$). The majority of our sample was employed ($N = 111$, 57.5%), 23.3% ($N = 45$) were students, 12.4% ($N = 24$) were self-employed and the remainder were in various other employment forms. The sample came from all over the country, with 35.4% being resident in the capital Brasilia, 13.7% from the state of Sao Paulo, 9.5% each from Rio de Janeiro and Minas Gerais, 7.9% from the Northeastern state of Ceara, and 5.3% from Paraiba. The remainder of the respondents came from other states. Our sample was overall more left-leaning ($M = 2.7$, $SD = 1.47$ on a scale from 1 to 7). The largest group of 43.4% classified themselves as moderately left-leaning. The data and scripts are available on the OSF: https://osf.io/8cyh3.

Measures

We measured *jeitinho* behaviors with eight Likert-type scale items that asked individuals whether the individuals described in the behavioral statements resembled them or not (ranging from 1 "Does not look like me" to 7 "Looks very much like me"). We used this indirect measurement to avoid social desirability effects (Schwartz et al., 2001; see Ferreira et al., 2012, for applications with *jeitinho*). The items included were the highest loading items from Miura et al. All items in Portuguese and English can be found in Table 1. To determine the structure of the *jeitinho* measure, we initially ran a parallel analysis with 1,000 samples to determine the best fitting structure. We found that a two-component solution provided the best fit to the data at the first measurement point, with both components having Eigenvalues > 1 after adjusting for bias due to item frequency (1.81, 1.49). We subsequently extracted the two-component solution using a principal components analysis with a varimax rotation. Together the two components explained 47% of variance and showed a clear separation with all items loading substantially and uniquely on one component (see Table 1), replicating the factor structure reported by Miura et al. (2019).

When we tested this solution for temporal invariance across the three measurement points using a multi-group confirmatory factor analysis, we found good structural equivalence (comparative fit index [CFI] = .976, root mean square error of approximation [RMSEA] = .033[.000, .059], standardized root mean square residual [SRMR] = .043), but when we constrained the item loadings to be equal the model showed a substantial drop in CFI (ΔCFI = .050) indicating that while the two component structure of *jeitinho* was robust over time the importance of the individual indicators varied substantially, precluding temporal comparisons on the overall constructs (see Table 2). Therefore, we decided to focus on the cross-temporal relationships of the individual items rather than the overall constructs. The correlation matrix between all items across all time points is shown in Table 3. Standardized internal consistencies for the *sympatia* component were .64, .56, and .64, and for trickery .58, .56, and .66 at time 1, 2, and 3, respectively. These internal consistencies can be seen acceptable for research purposes, considering the brief scale and the generally lower consistency estimates for cultural constructs (see Schwartz et al., 2001).

Table 1. *Jeitinho* Behaviors and Factor Loadings at Time 1.

Short Label	Portuguese	English	Component 1 (Simpatia)	Component 2 (Trickery)
Creative	Ele(a) se mostra bastante criativo(a) ao enfrentar problemas no trabalho.	He/she is creative when needing to solve problems at work	.75	
Loved	As pessoas se sentem queridas perto dele(a).	Other people feel loved around this person	.73	
Helping	Ele(a) oferece ajuda aos colegas de trabalho.	S/he offers help to colleagues at work	.66	
Climate	Ele(a) gosta de manter o clima social agradável	S/he likes to keep a pleasant social climate	.62	
Phone	Ele(a), sabendo que certa pessoa ligará em determinado horário, desliga o celular e diz que estava sem bateria.	S/he is aware that a certain person is going to call at a specific time, and therefore switches of her/his phone, but later claims that the battery ran out		.83
Lying	Ele(a) mente em prol de um objetivo.	S/he is plainly lying to obtain something		.71
Monday	Ele(a) está cansado(a) na segunda-feira e liga no trabalho falando que está doente.	S/he is tired on Monday morning and calls in sick at work		.68
Free party	Ele(a) entra em uma festa sem pagar por conhecer o produtor da festa.	S/he enters a party without paying because s/he knows the producer of the party		.42

Table 2. Results of the Temporal Invariance Analysis.

	CFI	RMSEA	SRMR	ΔCFI
Configural	.976	.033 [.000, .059]	.043	
Metric	.926	.053 [.030, .074]	.066	.050
Scalar	.915	.053 [.032, .071]	.069	.011

Note. CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

Estimation of Network Structures

We estimated our network model using the psychometrics package (Epskamp, 2021, version 0.8) in R (R Core Team, 2021). The data were analyzed with the *panel-lvgvar* model, which is a multilevel model with random effects on the mean structure. It utilizes two different network models, the Gaussian graphical model (GGM) and the Graphical Vector-Autoregression Model (GVAR). The GGM models the variance-covariance matrix and is conceptually compatible (but not identical) to the models typically estimated using structural equation modeling (SEM). The GVAR extends the GGM (and therefore SEM-type models) for data where observations are temporally dependent by estimating a temporal and a contemporaneous network. The matrix B encodes temporal within-person effects, which under the assumption of stationarity in parameters over time is equivalent to the regression of each observation on the previous time point. The matrix in its standardized form shows the partial directed correlations. The contemporaneous model in sequence presents the effects between all variables at the same measurement time point after accounting for temporal effects of the previous measurement point. This allows us to examine the relationship between observations within a person at a random measurement point while adjusting for their temporal dependence. This can be interpreted as the average within-person network. Finally, the mean structure across individuals can be modeled with a GGM and shows the variability between individuals independent of temporal variation, which is the person level. Any variables that do not vary across time points (e.g., gender, geographic location) are captured in this between-person network.

For our estimation, we used full information maximum likelihood estimation (FIML). Following the analysis sequence, we therefore first fitted a model across time points in which we constrained the effects between waves to be equal. This is the *temporal network*. This allows us to examine the unique temporal relationships between the behaviors and also allows for the presence of reciprocal paths as well as self-edges in which each variable can have an effect on itself over time (Epskamp, 2020). Second, a model representing the cross-sectional relationship between all the observations at a specific time point while accounting for the temporal relationships was fitted. As explained above, this is called the *contemporaneous network* and represents the average within-person network controlling for changes

Table 3. Means, Standard Deviations, and Correlations With Confidence Intervals.

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Time 1																									
1. Climate	5.80	1.19																							
2. Creative	5.19	1.38	.28** [.15, .40]																						
3. Help	6.19	0.93	.22** [.09, .35]	.38** [.26, .49]																					
4. Love	5.39	1.27	.31** [.18, .43]	.39** [.27, .50]	.28** [.15, .40]																				
5. Event	1.93	1.45	−.11 [−.25, .02]	.05 [−.09, .19]	−.04 [−.17, .10]	.00 [−.14, .13]																			
6. Lie	2.36	1.52	−.08 [−.22, .06]	−.09 [−.22, .05]	−.06 [−.19, .08]	−.06 [−.20, .08]	.11 [−.02, .25]																		
7. Monday	1.81	1.52	.05 [−.09, .19]	−.02 [−.16, .11]	−.04 [−.17, .10]	.05 [−.09, .18]	.08 [−.06, .22]	.25** [.12, .38]																	
8. Phone	2.79	1.88	−.06 [−.20, .08]	−.13 [−.26, .01]	−.06 [−.19, .08]	−.16* [−.29, −.02]	.26** [.13, .39]	.46** [.34, .56]	.40** [.28, .51]																
Time 2																									
9. Climate	5.55	1.25	.46** [.34, .57]	.13 [−.01, .27]	.22** [.08, .35]	.23** [.09, .36]	.01 [−.14, .15]	.01 [−.13, .15]	.08 [−.07, .22]	−.03 [−.17, .11]															
10. Creative	5.17	1.34	.11 [−.03, .25]	.62** [.53, .70]	.26** [.12, .38]	.31** [.18, .43]	.01 [−.13, .16]	−.10 [−.24, .05]	.03 [−.11, .17]	−.10 [−.24, .05]	.02 [−.12, .16]														
11. Help	6.19	0.91	.27** [.13, .40]	.16* [.02, .30]	.43** [.31, .54]	.23** [.09, .36]	.05 [−.09, .19]	−.12 [−.26, .02]	−.05 [−.19, .09]	−.15* [−.29, −.01]	.28** [.14, .40]	.21** [.07, .34]													
12. Love	5.46	1.12	.33** [.20, .45]	.24** [.10, .37]	.32** [.19, .44]	.59** [.49, .67]	.11 [−.03, .25]	−.08 [−.22, .06]	.01 [−.13, .15]	−.02 [−.16, .12]	.35** [.22, .47]	.19** [.05, .32]	.43** [.31, .54]												
13. Event	1.87	1.40	−.10 [−.24, .04]	−.06 [−.20, .09]	−.03 [−.17, .11]	.04 [−.10, .19]	.56** [.45, .65]	.15* [.01, .29]	.21** [.07, .34]	.27** [.13, .39]	.01 [−.13, .15]	−.06 [−.20, .09]	.11 [−.03, .25]	.09 [−.06, .22]											
14. Lie	2.31	1.50	−.12 [−.26, .02]	−.06 [−.20, .08]	−.07 [−.21, .08]	−.06 [−.20, .08]	.14 [−.00, .28]	.45** [.33, .56]	.10 [−.04, .24]	.20** [.06, .33]	−.03 [−.17, .12]	.02 [−.12, .16]	−.03 [−.17, .11]	−.01 [−.15, .14]	.20** [.06, .33]										
15. Monday	1.43	1.07	−.13 [−.27, .01]	−.10 [−.24, .05]	.00 [−.14, .15]	−.04 [−.18, .10]	.13 [−.02, .26]	.15* [.00, .28]	.30** [.16, .42]	.21** [.07, .34]	−.21** [−.34, −.07]	.06 [−.08, .20]	−0.06 [−.21, .08]	.01 [−.14, .15]	.20** [.06, .33]	.30** [.16, .42]									
16. Phone	2.25	1.61	−.16* [−.29, −.02]	−.03 [−.18, .11]	.06 [−.09, .20]	−.01 [−.16, .13]	.16* [.02, .29]	.23** [.09, .36]	.23** [.09, .36]	.43** [.31, .54]	−.06 [−.20, .08]	−.05 [−.19, .09]	−.01 [−.15, .13]	−.06 [−.20, .08]	.27** [.13, .40]	.20** [.06, .33]	.26** [.12, .39]								
Time 3																									
17. Climate	5.59	1.22	.52** [.41, .61]	.14 [−.00, .27]	.10 [−.04, .23]	.19** [.06, .32]	−.09 [−.23, .05]	−.02 [−.16, .12]	−.01 [−.14, .13]	−.09 [−.22, .05]	.57** [.47, .66]	.10 [−.05, .23]	.27** [.13, .40]	.39** [.26, .50]	−.09 [−.23, .05]	−.04 [−.18, .10]	−.16* [−.29, −.01]	−.15* [−.29, −.01]							
18. Creative	5.23	1.34	.18** [.05, .31]	.55** [.45, .64]	.30** [.16, .42]	.34** [.22, .46]	−.06 [−.19, .08]	−.11 [−.24, .03]	−.04 [−.18, .10]	−.18* [−.31, −.04]	.07 [−.08, .21]	.64** [.55, .72]	.13 [−.02, .26]	.18* [.04, .31]	−.06 [−.20, .08]	−.02 [−.16, .12]	−.04 [−.18, .11]	−.06 [−.20, .09]	.16* [.03, .29]						
19. Help	6.17	0.93	.10 [−.04, .23]	.33** [.21, .45]	.49** [.37, .58]	.29** [.16, .41]	.01 [−.13, .15]	−.09 [−.22, .05]	.01 [−.13, .14]	−.07 [−.20, .07]	.15* [.01, .29]	.36** [.23, .48]	.40** [.28, .52]	.29** [.15, .41]	.09 [−.06, .22]	−.09 [−.23, .05]	−.02 [−.16, .12]	.00 [−.14, .14]	.15* [.02, .28]	.39** [.27, .50]					
20. Love	5.60	0.95	.21** [.08, .34]	.34** [.22, .46]	.29** [.16, .41]	.52** [.41, .61]	.03 [−.11, .16]	−.10 [−.23, .04]	.03 [−.11, .17]	−.10 [−.23, .04]	.14* [.00, .28]	.23** [.10, .36]	.28** [.14, .40]	.57** [.47, .66]	.05 [−.09, .19]	−.09 [−.23, .05]	−.04 [−.19, .10]	−.07 [−.21, .08]	.30** [.17, .42]	.33** [.21, .45]	.48** [.37, .58]				
21. Event	1.82	1.37	−.01 [−.15, .13]	.01 [−.12, .15]	.07 [−.07, .20]	.12 [−.01, .26]	.47** [.36, .57]	.21** [.08, .34]	.23** [.10, .36]	.25** [.11, .37]	.03 [−.12, .17]	.08 [−.06, .22]	.12 [−.02, .26]	.14* [.00, .28]	.68** [.60, .75]	.24** [.10, .37]	.23** [.09, .36]	.12 [−.03, .25]	.02 [−.12, .16]	.03 [−.10, .17]	.10 [−.04, .23]	.11 [−.03, .24]			
22. Lie	2.21	1.34	−.09 [−.22, .05]	−.02 [−.16, .12]	.01 [−.13, .14]	−.01 [−.15, .12]	.14* [.00, .27]	.45** [.34, .56]	.12 [−.01, .26]	.22** [.09, .35]	.00 [−.15, .14]	.08 [−.06, .22]	−.01 [−.15, .13]	.00 [−.14, .14]	.28** [.15, .41]	.44** [.32, .55]	.23** [.09, .36]	.19** [.05, .32]	−.03 [−.16, .11]	.04 [−.10, .18]	.09 [−.05, .22]	.00 [−.14, .13]	.40** [.28, .51]		
23. Monday	1.49	1.14	−.03 [−.17, .11]	.00 [−.14, .13]	.09 [−.05, .23]	.10 [−.04, .23]	.18** [.04, .31]	.30** [.17, .42]	.41** [.29, .52]	.33** [.20, .44]	−.05 [−.19, .09]	.10 [−.04, .24]	−.10 [−.24, .04]	−.03 [−.17, .12]	.32** [.18, .44]	.28** [.14, .40]	.47** [.35, .58]	.27** [.13, .40]	−.13 [−.27, .00]	.05 [−.09, .19]	.06 [−.07, .20]	−.05 [−.18, .09]	.42** [.30, .53]	.28** [.15, .40]	
24. Phone	2.26	1.59	−.01 [−.14, .13]	−.06 [−.19, .08]	.01 [−.13, .15]	−.06 [−.20, .08]	.25** [.11, .37]	.28** [.15, .40]	.35** [.22, .47]	.56** [.46, .65]	.06 [−.08, .20]	−.06 [−.20, .09]	−.10 [−.24, .04]	.01 [−.13, .15]	.29** [.15, .41]	.19** [.05, .32]	.27** [.13, .40]	.51** [.40, .61]	−.02 [−.16, .12]	−.08 [−.21, .06]	.02 [−.12, .16]	−.04 [−.17, .10]	.27** [.14, .40]	.19** [.05, .32]	.44** [.32, .54]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014).
*$p < .05$. **$p < .01$.

over time. Finally, we fitted a network that modeled the relationship of the cross-temporal between-subject means (the *between-subjects network*). As mentioned previously, this captures the mean structures across individuals and therefore can be interpreted as a between-person network. As the analysis models both within and between-person variability, the networks need to be estimated in sequence (in comparison to SEM-type models which do not separate the within and between-person variability and therefore a single model can be estimated).

Results

The Cross-Temporal and Contemporary Relationship of Jeitinho *Behaviors*

We initially fitted a fully saturated network model linking all *jeitinho* behaviors. We pruned paths that were not significant at $\alpha < .05$ and subsequently implemented the model search algorithm (described in Epskamp, 2020, see also Epskamp et al., 2017) re-adding and removing paths at $\alpha < .05$ until no significant improvement in Bayesian information criterion (BIC) was possible. This resulted in a sparser model compared with the original model and showed improved fit to the data (CFI = .88, RMSEA = .057[.048, .066]). The resulting network models are shown in Figure 1 (Temporal), Figure 2 (Contemporaneous), and Figure 3 (Between-Subjects), and the accompanying parameters are displayed in Tables 4 to 6.

For the temporal relationships, the first notable result is that the paths are stronger between the *simpatia* behaviors. Behaviors that make others feel loved and resolve problems creatively were self-reinforcing over time. In addition, helping others and maintaining a pleasant social climate were also reciprocally reinforcing. Helping others also led to increases in responses to others feeling loved. The only negative relationship was from helping others to being creative at work, and increases in helping were associated with decreases in creativity. Therefore, the socially focused components were self- and mutually reinforcing overall. Among trickery items, getting into a party without paying due to knowing the host is self-reinforcing over time. At the same time, using a white lie in order not to respond to a phone call is associated with a decrease in getting into free parties. The self-reinforcing links were overall stronger than links between nodes over time.

Within persons, there were overall more links between nodes within the same behavioral cluster compared with between clusters. Making other people feel loved, maintaining a pleasant social climate, and helping others formed a triangle of positive relationships. Similarly, among the trickery items calling sick on Monday, white lies and lying to obtain an objective also formed a triangle of positive relationships. Using the white lie of a low cell phone battery when expecting a call was negatively associated with making other people feel loved (the only negative link within person). As can be seen in Table 5, the relationships were relatively weak.

Finally, focusing on the between-person mean structures, the linkages between nodes within the same behavioral cluster were compared with between clusters. Among trickery

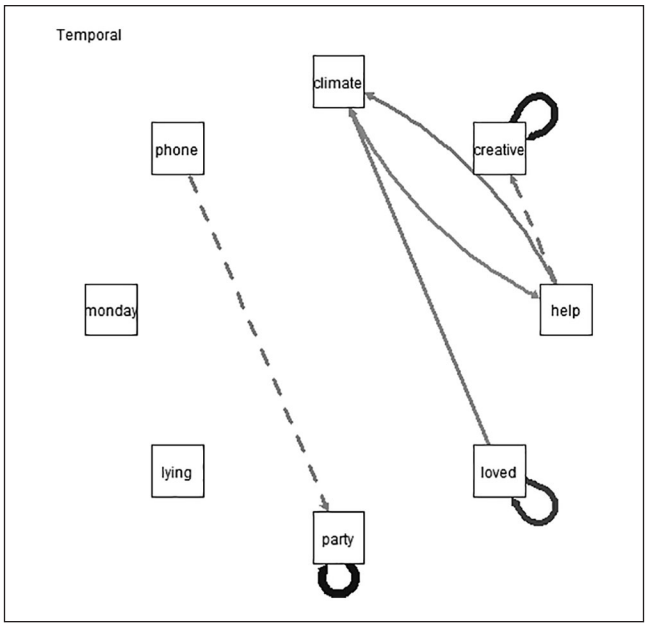

Figure 1. The temporal network structure.
Note. Dashed lines indicate directed negative relationships over time. Solid lines indicate directed positive relationships. Line thickness indicates strength of parameter estimate.

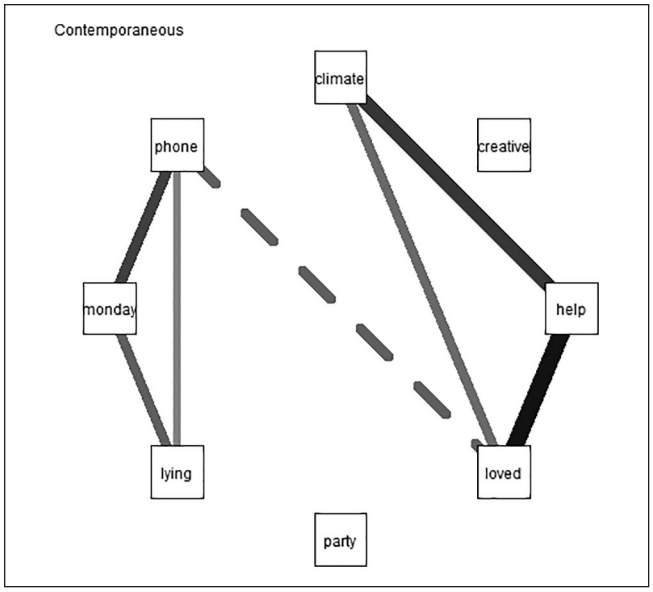

Figure 2. Contemporaneous (within-person) network.
Note. Dashed lines indicate negative associations within the average person. Solid lines indicate positive associations within the average person. Line thickness indicates strength of parameter estimate.

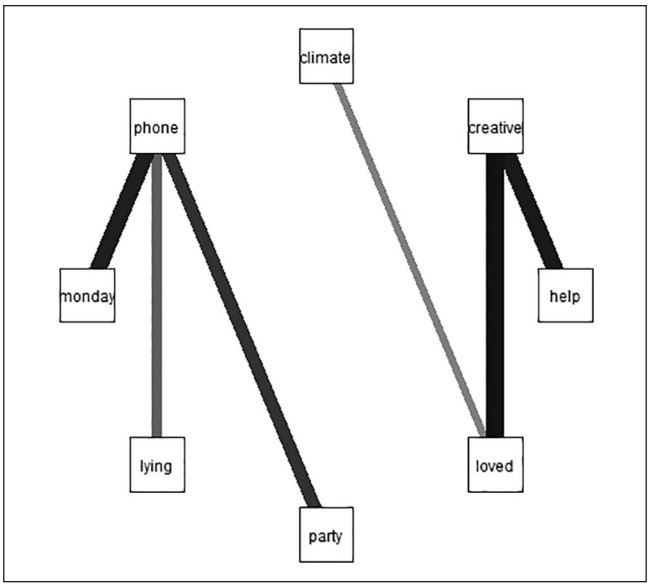

Figure 3. Between person network.
Note. Dashed lines indicate negative associations, solid lines indicate positive associations. Line thickness indicates strength of parameter estimate.

behaviors, using a white lie about low phone batteries was positively connected to the other three behavioral nodes. Therefore, the temporal paths over time are not in the same direction as the between-person mean structures. Similarly, positive links between helping others and being creative at work at the between-person level did diverge from the negative temporal relationships observed over time. Making people feel loved and maintaining a pleasant social climate and making people feel loved and creativity at work also showed positive relationships. Compared with the within-person level, the average path strengths were of greater magnitude.

Exploratory Analysis of the Within Versus Between-Person Structure

Because the emerging between-subjects network strongly resembled the factor solution of the items at the first time point, we examined the factor structure in the reduced network matrix in the undirected networks. To allow for the estimation of the factor structure, we set the diagonal self-edges in every matrix to 1. We initially ran a parallel analysis for the contemporary and between network and found no reliable clustering for the contemporary solution and a three components solution for the between network. (The loading matrix extracted with varimax rotation can be found on OSF.) To examine the convergence of the structure in the different networks with the original principal components analysis at time one, we extracted a two components solution for the contemporaneous (average within-person) and between-person network (a comparison of the two-component solution can be found in Table 7). To assess the structural similarity of the solution, we used procrustes rotation (Fischer & Karl, 2019). Using the between network as target and the contemporaneous network as loading matrix, we found that these solutions substantially differed, especially for dimension 1 (Φ = .69, .87). Using the original matrix at time one as target and the between matrix as loading matrix, we found that these solutions were very similar (Φ = .94, .97). In contrast, the solution extracted from the contemporaneous network showed lower congruence (Φ = .83, .93), especially for the first component capturing *simpatia*. This indicates that the cross-sectional relationship might capture between subject differences, but the average within-person structure of the construct might differ.

Discussion

We are the first to report longitudinal data on cultural problem-solving behaviors during a period of political instability. Our data show that these cultural problem-solving strategies change systematically over time, primarily via self-reinforcing links and reinforcing paths within each behavioral cluster. The within-person pattern also showed some divergence from the between-person patterns, the latter which showed higher resemblance to the factorial structure that is typically found in sample level analysis (e.g., using factor analysis). Finally, the two broad factors that emerged further highlight why Brazilian *jeitinho* is such a controversial phenomenon as noted by anthropologists and sociologists—at the psychological level the concept consists of two distinct social strategies which are relatively independent of each other and show relatively few interconnecting links either over time or within or between individuals. Therefore, one person's *jeitinho* may be distinct from another person's *jeitinho*.

Focusing on some of these patterns in a bit more detail, our focus on this culturally characteristic and salient behavioral syndrome shows that cultural behavior is not temporally fixed but rather can shift and adjust over time. Our analysis clearly showed within-person changes during this period of relatively political instability. For example, self-reinforcing links at individual nodes suggest that repeated engagement in behavior is likely to increase the behavioral strategies in the future. The performance of the behavior therefore is reinforcing. We observed particularly strong self-reinforcing linkages within the socially focused *simpatia* component of *jeitinho*. The only self-reinforcing link within the more manipulative component of *jeitinho* was also socially focused (attending parties for free because of knowing the host). Hence, cultivating social relationships pay dividends (see also the negative temporal link between using a white lie and being able to get into parties for free). This social focus is noteworthy: In a politically unstable situation, it may be particularly useful to establish strong social connections with other people within one's community. This provides psychological support for historical descriptions of the emergence of *jeitinho* (Ribeiro, 1995). This makes also

Table 4. Parameter Estimates for the Temporal Network, Showing the Network Parameters, Standard Errors, Significant Levels From the Graphical Gaussian Model as Well as PDC.

From	To	Est.	*SE*	*p*	PDC
Pleasant social climate	Help others	.13	0.05	.013	.16
Creative at work	Creative at work	.35	0.09	<.001	.33
Help others	Pleasant social climate	.23	0.09	.008	.17
Help others	Creative at work	−.25	0.08	.002	−.18
Others feel loved	Pleasant social climate	.18	0.07	.014	.17
Others feel loved	Others feel loved	.30	0.10	.001	.28
Free party entry	Free party entry	.39	0.11	.001	.37
Switch phone off	Free party entry	−.15	0.05	.002	−.18

Note. PDC = partial directed correlation.

Table 5. Parameter Estimates for the Contemporaneous (Within-Person) Matrix.

From	To	Est.	*SE*	*p*
Help others	Pleasant social climate	.18	0.05	.001
Others feel loved	Pleasant social climate	.12	0.05	.018
Others feel loved	Help others	.22	0.05	<.001
Switch phone off	Others feel loved	−.13	0.04	.003
Call in sick on Monday	Lying	.13	0.05	.005
Switch phone off	Lying	.10	0.05	.033
Switch phone off	Call in sick on Monday	.17	0.05	<.001

Note. The network is undirected, therefore the from and to column cannot be interpreted in terms of direction.

Table 6. Parameter Estimates From the Between (Person) Matrix.

From	To	Est.	*SE*	*p*
Others feel loved	Pleasant social climate	.28	0.09	.001
Help others	Creative at work	.57	0.11	<.001
Others feel loved	Creative at work	.60	0.13	<.001
Switch phone off	Free party entry	.49	0.13	<.001
Switch phone off	Lying	.36	0.07	<.001
Switch phone off	Call in sick on Monday	.55	0.09	<.001

Note. It is an undirected network, therefore the from and to columns cannot be interpreted in terms of direction.

sense evolutionarily speaking: strong social networks are essential for survival in uncertain environments. Hence, the political crisis may further increase the tight social organization of society, which obviously can have further destabilizing effects if there is little connection across networks. One of the interesting questions for further research is to follow these changes over longer periods of time to examine whether changes will level off at some stage or stop changing when reaching a certain optimal set-point within a specific social and cultural context. A second question of interest would be to test relationships across social cliques, communities, and so-called "social bubbles." To what extent are these socially focused relationship strategies strengthened across political lines (e.g., decreasing polarization) or do strengthened social ties within one's social network lead to greater polarization across social communities? Yet, the pattern clearly suggests that behavior of individuals that is associated with stereotypical cultural patterns is dynamic and can systematically change over time. Our study opens a window into cultural dynamics at the individual level, by demonstrating how social connections are strengthened in situations of crisis. Therefore, we are moving from broad historical and sociological theorizing to individual-level dynamics over time.

Previous anthropological and sociological work had pointed to the complex and contradictory nature of Brazilian *jeitinho*. Using a recently developed psychological instrument that captures individual differences in core behavioral strategies that have been identified in ethnographic research clearly shows two distinct behavioral clusters. On one hand, there is a clear *simpatia* component, behaviors that are focused on establishing and maintaining harmonious and pleasant social relations with a maximum number of

Table 7. Two-Dimensional Principal Components Solutions, Showing Original Solution at Time One and Procrustes Rotated Matrices Extracted From the Contemporaneous and Between Subject Network (Rotated Toward Time 1 Matrix).

Items	Time 1 solution		Between network		Contemporaneous (within-person) network	
creative	.75	−.05	.93	.00	.00	.00
loved	.73	−.04	.73	.00	.68	−.14
help	.66	−.03	.62	.00	.72	.05
climate	.62	−.03	.24	.00	.60	.07
phone	−.13	.83	.00	.95	−.13	.67
lying	−.09	.71	.00	.42	.05	.58
monday	.09	.68	.00	.64	.05	.68
party	−.01	.42	.00	.57	.00	.00

individuals. On the other hand, there is also a calculating and manipulative aspect that involves lying (if deemed necessary or advantageous), exploiting relationships, and breaking social norms. Overall, there were few links between these two clusters over time or at the within or between-person level. There was some evidence that using white lies (to avoid people) may have negative social consequences and that increasing socially focused behavior is associated with less manipulative behavior at the average within person level, that is individuals may not use some forms of white lies if they are typically interested in maintaining pleasant social relationships. Yet, both over time and focusing on individual differences, there were no strong and consistent linkages suggesting that these two behaviors are essentially orthogonal both within and between individuals. At the within-person level, the orthogonal relationship implies that individuals within specific situations need to select one or the other strategy to solve a problem. At the between person level, it suggests that the strategies are independent of each other, with some individuals using both strategies, some people only using one and some not using either. Overall, this provides some insights into why different individuals may understand and use different aspects of the behavioral syndrome and helps to explain why there is so much ambiguity and controversy around the concept in public discourse. While many outspoken individuals publicly condemn *jeitinho* by focusing on what we called trickery here, others focus on the social aspect focusing on maintaining close social relationships, which is seen as a much cherished aspect of Brazilian identity (Barbosa, 2006). To address the negative aspects of the norm breaking and corruption linked aspect of *jeitinho* while acknowledging the positive social character of Brazilian society, public discourse needs greater nuance and attention to the finer behavioral (and psychological) distinctions that form this larger cultural syndrome.

The application of modern network tools also offers new opportunities for social and personality psychologists. One of the clear insights emerging from our data that dovetails with other recent studies is that temporal and within-person effects may not resemble stable individual differences (Brose et al., 2015; Fisher et al., 2018). For example, within individuals being anxious about work assignments can lead to greater efforts and more conscientious behavior, but Neuroticism (which is the overarching behavioral difference that includes predispositions to feel anxious) is typically negatively related to consciousness (Beckmann et al., 2010). The clear implication is that we need more longitudinal studies and the application of modern statistical tools to separate individual and temporal dynamics within a cultural system more clearly. Previous cultural research has been lacking a focus on how individual behaviors may maintain and change cultural dynamics over time. We believe future studies using similar designs can advance our insights across levels and time in this regard.

Our data are limited in that we had to use short measures to apply them in online samples. At the same time, using network models even single behaviors (nodes) can provide useful information when embedded in a larger behavioral network. Using an online sample, we were unable to more randomly sample individuals and had to rely on those individuals that self-selected into participating in our study. Given the political dynamics at the time of our study, more individuals from some of the greater regional centers that experienced major demonstrations responded. Representation from the Northern and more rural parts of the country was substantively lower. As a result, our participants are generally more left-leaning, have higher income and with higher education compared with the national average. For this reason, we may underestimate the broader temporal patterns and dynamics of cultural change given the restrictions in our sample and given some of the historical observations of the importance of *jeitinho* in more rural areas. Effects may potentially be larger when considering the greater geographic and socioeconomic diversity of the country. Finally, our statistical approach comes with a number of assumptions that are shared with a range of other contemporary longitudinal analytical methods. At a more general level, the classification of deviations from around different mean structures as "Within-person" and "between-person" are mathematical representations based on the current data, considering what data points are stable and variable within the specific time window. An under-appreciated aspect is that between- and

within-person relationships may operate at different time scales and may appear differently across different time windows. Within a human life span that is biologically patterned and restricted (e.g., we all die), very few psychological dynamics are purely within-person. As noted by Epskamp (2020), patterns that appear at the between-person level are the product of within-person relations on a different time scale. Therefore, the selection of individuals and time points within what time points become crucial theoretical questions, which to date receive relatively attention. Our data were motivated by the specific political dynamics that were taking place at the time of our project and culminated with the election of a political outsider on an extremist political platform, therefore, capturing the crucial period as the traditional democratic process unraveled. Future studies certainly need to explore theoretically meaningful time windows and time points within those time windows.

Cultural problem-solving strategies are systematically changing, at least during the turbulent political period in which we collected our data. We found reinforcing tendencies within two different behavioral clusters over time. Considering the broader patterns, our data show how cultural systems can change over time, but also maintain stable individual differences. These temporal patterns differed from those found at both the within and between person level. The factor structures found at time 1 were most similar to between-person differences during the period overall. Hence, our data help to address some of the previous discussions around the concept of *jeitinho*, demonstrating that cultural syndromes can be behaviorally complex.

Authors' Note

Data and script are available at: https://osf.io/8cyh3.

Author Contributions

R.F. and R.P. conceived and designed the study. R.P. collected the data. J.A.K. and R.F. analyzed the data. R.F. wrote the first draft. All authors revised the manuscript and have read and agreed to the final version of this manuscript.

Declaration of Conflicting Interests

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