Article

Reconciling Theory and Context in Comparative Nonprofit Research

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Abstract

The article reviews a family of multilevel models that can be used to build general theories of the nonprofit sector that are still sensitive to variations in context. The comparative study of the nonprofit (or nongovernmental) sector presents formidable challenges to social scientists who are attempting to advance theory on the sector. Ostensibly, the goal is to model and test theories that are generalizable. Yet, as scholars study topics such as volunteerism, donations, governance, management, advocacy, accountability, and the like in different political, economic, and cultural contexts, they often find different patterns across cases. After reviewing the issues and introducing the idea that time (or more specifically events) can be thought of as context as well, we present an analytical approach for doing comparative research using the framework of hierarchical linear modeling.

Keywords

nonprofit sector, multilevel modeling, comparative case analysis, theory development

Introduction

Although the goal of social science is to construct and test theories that are generalizable, scholars often encounter variation in the cultural, social, political, economic, and historical contexts in which human and organizational behaviors are embedded. This article offers an analytic strategy to model these contextual effects over time. We

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extend the extant literature by focusing on the impact of societal-level events as context. This includes elections, pandemics, recessions, terrorist attacks, wars, and a host of serendipitous happenings. Although it is a challenge to draw generalizations across a variety of contexts, it is not impossible (Stryker, 1996).

Although there are different methods to analyze longitudinal data (see Halaby, 2004; Verbeke et al., 2014), we explore the potential of two-piece multilevel hierarchical growth curve models (Raudenbush & Bryk, 2002). We are not the first in the field of nonprofit studies to use growth curve models or to assess the impact of events or happenings on nonprofit outcomes. Nonprofit researchers used growth curve models to explain changes in individual income (Shantz et al., 2019), volunteering (Kim & Jang, 2017), the survival of immigrant organizations (Vermeulen et al., 2016), and the growth/decline in nonprofit expenditures (Galaskiewicz et al., 2006). They have also looked at the impact of major events such as natural disasters and hosting a Super Bowl on corporate giving (Tilcsik & Marquis, 2013), the Kosovo war and Stockholm bombings on people's trust (Geys & Qari, 2017; Kijewski & Freitag, 2018), and terrorist attacks on people's volunteering and giving (Berrebi & Yonah, 2016; Beyerlein & Sikkink, 2008). However, we found no studies in the field of nonprofit studies that use growth curve models *and* study events or happenings. Our goal is to present an analytical strategy to do this.[1]

To illustrate our approach, this article focuses on the proposition that people who join voluntary associations (VAs) should have higher levels of generalized trust than those who do not (Putnam, 1995, 2000). Hardin (2001) defined generalized trust as "trust in random others or in social institutions without grounding in specific prior or subsequent relationships with these others . . ." (p. 13). In simpler terms, it is trust in strangers. Paxton (2007) argued, "The most obvious way in which voluntary associations promote trust among their members is through the norms and social sanctions embedded in their social structures" (p. 50). This makes interaction more predictable and thus other group members more trustworthy. However, it is problematic how this translates into generalized trust. She argues that this happens if joiners can use their different memberships to build networks through which they diffuse trust across the community. Thus, those who belong to connected (or bridging) VAs will trust a broader array of people than those who belong to isolated (or bonding) VAs. Paxton (2007) and others (e.g., Delhey & Newton, 2003; Mewes, 2014; Park & Subramanian, 2012) have shown that levels of generalized trust are affected by national context as well. We extend this proposition by arguing that national context and key events can also help explain people's willingness to trust strangers and when VAs might impact trust more.

To set the stage for our later discussion the article begins by contrasting inside-out and outside-in approaches to comparative research. The former refers to research that prioritizes unique conditions within national contexts; the latter refers to research that seeks to draw broad generalizations across national contexts, that is, context matters little. We then offer a third approach, formulating General but Contextually Sensitive (GCS) theories of generalized trust, that incorporates country-level characteristics into the model to explain variation across contexts. Finally, we extend the literature by suggesting how happenings and events can be studied along with individual- and country-level effects to explain

variation in generalized trust. Throughout the article, we show how multilevel modeling can help us incorporate context into empirically testable theories.

Thinking About Context in Comparative Research[2]

Both the strategic management and the public management (Meier et al., 2017; O'Toole & Meier, 2015) literatures have joined other social scientists in trying to understand how to better theorize contextual effects. Should researchers import theories formulated in the West to study behavior in non-Western societies, ignoring the local context, or should they gain a deep understanding of the local context and focus on local patterns? Tsui (2006) labeled the former outside-in theory and the latter inside-out theory. Li et al. (2012) labeled the latter indigenous theory. Whetten (2009) offered a different option. He argued that, if possible, context should be incorporated into our theories (see also Tsui et al., 2007). Whetten (2009) offered two approaches: contextualizing theory (that is, making theory more context sensitive) and theorizing about context (that is, identifying the effects of context on outcomes). Social origins theory is an exemplar of contextualizing theory and remains the gold standard for comparative research (Anheier, 2014; Anheier et al., 2020; Salamon & Anheier, 1998; Salamon et al., 2017).

Typically, context refers to culture, material conditions, geography, and societies' political, social, and economic institutions (Tsui et al., 2007), but it can also refer to happenings or events. According to Griffin (1992), "An event . . . is a historically singular happening that takes place in a particular time and place and sequentially unfolds or develops through time" (p. 414). Griffin (1992) continued. One can study the temporal sequencing of events over time, for example, how different events lead to the beginnings/endings of wars; colligations of particular events or happening that as a whole represent some era or epoch, for example, the Great Depression; or the outcomes of some serendipitous event on people who experience it, for example, such as a hurricane or flood. Because these events (or collections of events) are often unique and unanticipated, our theories have difficulty predicting outcomes. Typically, we study a limited number of cases using a variety of methods, for example, event sequence analysis (Abbott, 1983), narrative analysis (Stryker, 1996), or qualitative comparative analysis (Ragin, 1987), and try to identify patterns and regularities. Although difficult to study, happenings or events can transform social structures and institutions and thus are worthy of study (Sewell, 1996).

Context-Specific Theories of Generalized Trust: Inside-Out Theories

The inside-out approach argues that one can explain patterns of behavior only by understanding the local context. That is, theories that explain how people behave in one context may be applicable in other contexts as well, but only really work in the context being studied. Li et al. (2012) labeled this indigenous research: the study of a unique local phenomenon or a unique element of a local phenomenon from a local

perspective to understand its local relevance. Ideally, this may give us clues to understanding patterns in other cases, which are similar, but the focus is on understanding the case.

Our first hypothesis is that some variable, such as joining VAs, has different effects on individuals' trust depending on societal context and each country has a unique context that cannot be explained by a common factor (Hypothesis 1 [H1]). Essentially, comparative research would be a collection of distinct case studies. Equations 1-2 restate H1 in hierarchical linear modeling (HLM) notation.

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{1ij} + r_{ij}, \tag{1}$$

$$\beta_{0j} = \gamma_{00} + u_{0j}, \tag{2}$$

$$\beta_{1j} = \gamma_{10} + u_{1j}, \tag{3}$$

where Y_{ij} is the level of generalized trust of individual i in country j. X_{1ij} is a dummy variable measuring something about individual i in country j, for example, whether someone joined a VA ($X_{1ij} = 1$) or not ($X_{1ij} = 0$).[3] β_{0j} is the intercept for each country j (or expected value of Y_{ij} for the person whose score on X_{1ij} is 0). β_{1j} is the expected change in Y given a unit change in X in country j. γ_{00} and γ_{10} are the predicted (or average) intercept and slope across countries. r_{ij} is the error term for actor i in country j, and u_{0j} and u_{1j} are error terms for country j. The intercept, β_{0j}, and the slope, β_{1j}, describing the effects of X on Y are composed of error terms because the inside-out model assumes that they vary randomly across countries (or contexts). That is, you may be able to explain the effect of VA membership status on generalized trust within the context of a given country, but this effect varies randomly across countries. If there is no country-level variable, W_j, that can explain variation in $\hat{\beta}_{0j}$ or $\hat{\beta}_{1j}$, and there is significant variation across countries, H1 is confirmed.

The primary purpose of an indigenous nonprofit theory is to illustrate the unique developmental trajectory of some phenomenon as a result of the history and cultural tradition, political institutions, economic conditions, or historical events that are unique to that context. An example is Suárez and Marshall (2014), which proceeds inductively using data from international nongovernmental organizations (INGOs) and nongovernmental organizations (NGOs) in Cambodia to develop a typology of NGO capacity that is faithful to the Cambodian context but may not be useful in other settings. Another example is Kijewski and Freitag (2018) which studied the influence of civil conflicts in Kosovo on residents' generalized trust. They emphasized that their research was distinct from research on places that are peaceful and stable. However, it does not follow that local patterns can *never* be replicated elsewhere. For instance, other countries have civil wars too. Thus, the task is to compare cases with similar and dissimilar contexts and see whether general patterns emerge across cases. In explaining generalized trust, for instance, scholars could start from some localities as a starting point and use the

local patterns as building blocks to build theories that can be also applicable to similar contexts. Therefore, although generalizability is usually not the main goal of inside-out theorists, scholars may be able to apply their findings to similar cases at times.

Generalizable Theories of Generalized Trust: Outside-In Theories

In the extreme, outside-in theories argue that in every societal context studied, the same factors explain the same outcomes. A critique of the approach is that it often uses theories developed in the West to understand behaviors and patterns in the non-Western context (Barney & Zhang, 2009). Tsui (2006) called it a literature-driven approach in defining what to study in the non-Western context. If the goals of social science are to build theories that have scientific and practical utility, theories need to be tested in different contexts so that we learn their scope conditions. Thus, the distinguishing feature of the outside-in approach is not that the theories come from the west, but that the researcher attempts to take a general theory and see whether it works in different contexts.

We might hypothesize that joiners have higher levels of generalized trust regardless of context (Hypothesis 2 [H2]). That is, the effect is the same for all cases included in a study. Equations 4-6 describe H2 in HLM notation:

$$Y_{ij} = \beta_{0j} + \beta_{1j} X_{1ij} + r_{ij}, \tag{4}$$

$$\beta_{0j} = \gamma_{00} + u_{00}, \tag{5}$$

$$\beta_{1j} = \gamma_{10}, \tag{6}$$

where Y_{ij} is the level of generalized trust of individual i in country j and again X_{1ij} is whether someone is a nonjoiner $(X_{1ij} = 0)$ or joiner $(X_{1ij} = 1)$. Because X_{1ij} is a dummy variable, the intercept, β_{0j}, is the expected outcome for the person in country j whose value on X_{1ij} is equal to 0 (i.e., nonjoiners). The slope, β_{1j}, is the expected change in Y given a unit change in X in country j. Again, we hypothesize that it is positive. The error term, r_{ij}, represents a unique effect associated with person i in country j. γ_{00} is the average intercept across the Level 2 units (e.g., countries), and γ_{10} is the average regression slope across the Level 2 units (again, countries and hypothesized to be positive). Note, u_{1j} is set to 0. To put it simply, if you know the slope for the entire sample, you will have a good estimate of the slope for each case.

Paxton (2007) and Park and Subramanian (2012) found several factors that explained generalized trust across contexts, for example, education, employment, and age. However, it is more common to find effects significant in some contexts but not others. We use gender as an illustrative example. Paxton (2007) and Park and Subramanian (2012) found no significant effect of gender. Mewes (2014) used data

from 16 European countries surveyed between 2002 and 2010 and found that females are consistently less trusting than males. Delhey and Newton (2003) compared several individual-level and national-level predictors of generalized trust in seven regions, namely, East and West Germany, Hungary, Slovenia, South Korea, Spain, and Switzerland between 1999 and 2001. They found that being a female lowers the level of generalized trust relative to a male in Switzerland, but it has no effect in other regions. Given the inconsistent findings regarding gender effects, perhaps national context matters. For example, Mewes (2014) also found that a "country's level of gender equality in labour force participation mediates the association between gender and generalized trust" (p. 373).

Whetten (2009) argued that the purpose of testing theory across contexts is to locate its contextual boundary beyond which it may not be applicable. Once a theory survives this cross-contextual test, scholars have more confidence in stating that context plays a minimal role and the theory that they developed is generalizable. However, we believe, it is better to systematically incorporate context into our theories rather than to minimize its impact.

General but Context Sensitive (GCS) Theories of Generalized Trust

Whetten (2009) struggled with the issue of how to mesh context and theory. He writes,

> The term "context effects" is broadly defined as the set of factors surrounding a phenomenon that exert some direct or indirect influence on it—also characterized as explanatory factors associated with higher levels of analysis than those expressly under investigation (p. 31).

In other words, there are cross-level direct effects and cross-level interaction effects. Park and Subramanian (2012) found that ethno-racial homogeneity was positively associated with the average degree of generalized trust in a country, a cross-level direct effect. They also found that the positive effect of voluntary association membership on generalized trust weakens with higher levels of income inequality, a cross-level interaction effect.

Nonprofit scholars have brought context into play in several different ways. Using the language of multilevel analysis, we propose three approaches to model these contextual effects. First, we present a model where the Level 2 variable, for example, some characteristic of nations, is used to explain the average level of some outcome among lower-level units (random intercept model). Second, we present a model where the Level 2 variable is used to explain the effects of some Level 1 variable on an outcome (random intercept and random slope model).[4] Third, we present a model that incorporates events and time into the analysis to explain changes in an outcome over time (two-piece hierarchical growth curve model).

Cross-Level Effects—Random Intercept Models

A cross-level random intercept model has Y_{ij} measured at a lower level of analysis embedded in a larger unit of analysis, such as, individual i in country j. For instance, scholars have argued that in high trust societies, individuals should exhibit higher levels of generalized trust. High trust societies can be the product of the societal culture and inherited ethical habits (Fukuyama, 1995) or a widely shared sociocultural in-group identity (Park & Subramanian, 2012). They also can be the product of institutionalized social controls that operate to ensure that strangers can trust one another (Shapiro, 1987). In the latter case, public- and private-sector institutional social control operatives rely on institutionalizing norms, structural constraints, selection procedures, policing mechanisms, risk spreading, and insurance-like arrangements to ensure trust. However, Shapiro (1987) cautions that a blind faith in these institutions can also make people vulnerable to betrayal, and thus these institutional safeguards are not fail-safe.

In our model, the value of Y, the degree of generalized trust, on average, is contingent on the context, W, alone. Thinking about this in multilevel terms, our third hypothesis is that in contexts with strong institutional controls, the average level of trust among residents should be higher than in contexts with weak institutional controls (Hypothesis 3 [H3]):

$$Y_{ij} = \beta_{0j} + r_{ij}, \tag{7}$$

$$\beta_{0j} = \gamma_{00} + \gamma_{01}W_{1j} + u_{0j}, \tag{8}$$

where Y_{ij} is the individual-level dependent variable of interest (e.g., generalized trust), W_{1j} is the Level 2 regressor (e.g., $W_{1j} = 0$ if a country has weak institutional controls; $W_{1j} = 1$ if a country has strong institutional controls), and β_{0j} is the expected level of trust among all respondents in country j. r_{ij} and u_{0j} are Level 1 and Level 2 error terms. Equation 8 estimates the effect of W_{1j} on the average level of trust in country j, γ_{01}. If no Level 1 effect is significant and $\hat{\gamma}_{01}$ is positive and significant, H3 is supported. Note, it is rare to find studies that do not find any Level 1 regressors significant across cases, and often the Level 1 slopes will have a fixed value with random errors instead of being fitted with Level 2 regressors (Compion, 2017; Curtis et al., 2001; Kamstra et al., 2016; Paxton, 2007).[5]

Cross-Level Effects—Random Intercept and Random Slope Models

On top of the direct effect of a contextual variable (W) on the individual-level outcome (Y), a contextual variable can also modify the relationship between an individual-level regressor (X) and outcome (Y) (Whetten, 2009). Our fourth hypothesis is that trust among nonjoiners will be higher in contexts with strong institutional controls than in

contexts with weak institutional controls (Hypothesis 4 [H4]). We also hypothesize that in contexts with weak institutional controls, joiners will have higher levels of generalized trust than nonjoiners (Hypothesis 5 [H5]). Finally, we hypothesize that in contexts with strong institutional controls, joining will have little effect on generalized trust (Hypothesis 6 [H6]). That is, VA memberships are more effective in weaker institutional contexts where it is more risky to trust strangers, but have little effect in strong institutional contexts. Equations 9-11 restate these hypotheses in HLM notation:

$$Y_{ij} = \beta_{0j} + \beta_{1j} X_{1ij} + r_{ij}, \tag{9}$$

$$\beta_{0j} = \gamma_{00} + \gamma_{01} W_{1j} + u_{0j}, \tag{10}$$

$$\beta_{1j} = \gamma_{10} - \gamma_{11} W_{1j} + u_{1j}, \tag{11}$$

where Y_{ij}, X_{1ij}, W_{1j}, β_{0j}, and β_{1j} are defined as above. Here, we include a Level 1 regressor (X_{1ij}) and fit the expected effect of being a joiner on the dependent variable (β_{1j}) with two Level 2 parameters, γ_{10} and γ_{11}. As a reminder, the parameters in our equations are signed according to our hypotheses. Equation 10 tests whether the average levels of generalized trust of nonjoiners will be higher in strong institutional contexts. If $\hat{\gamma}_{01}$ is positive, then H4 is confirmed. Equation 11 tests if the positive effect of being a joiner on generalized trust is present in weak institutional contexts (i.e., γ_{10} when $W_{1j} = 0$) and less pronounced in strong institutional contexts (i.e., $\gamma_{10} - \gamma_{11}$ when $W_{1j} = 1$). If $\hat{\gamma}_{10}$ is positive, and $\hat{\gamma}_{11}$ is negative, H5 and H6 are confirmed. Random intercept and random slope models are no stranger to nonprofit scholars either (see Gesthuizen & Scheepers, 2012; Gundelach, 2016; Park & Subramanian, 2012; Quaranta & Sani, 2016).

Figure 1 summarizes a possible empirical outcome of testing the model presented above. For example, we might find that being in an institutionally strong context, $W_{1j} = 1$, raises the average level of trust among nonjoiners ($\hat{\gamma}_{01}$, H4) and being a joiner in an institutionally weak context raises trust levels as well ($\hat{\gamma}_{10}$, H5). Note, in Figure 1, the benefits of being in safe contexts for nonjoiners are greater than the benefits of being a joiner in weak contexts, $\hat{\gamma}_{01} > \hat{\gamma}_{10}$. Context also reduces the effect of VA memberships on generalized trust, that is, $-\hat{\gamma}_{11}$ (H6). If $\hat{\gamma}_{10} = \hat{\gamma}_{11}$, then the positive effect of joining on generalized trust is canceled out in institutionally strong contexts, that is, when $W_{1j} = 1$, $\hat{\beta}_{1j} = 0$ (note, the expected value of u_{1j} is 0), whereas prominent in institutionally weak contexts, that is, when $W_{1j} = 0$, $\hat{\beta}_{1j} = \hat{\gamma}_{10}$.

Over Time Effects With Events as Context—Two-Piece Growth Curve Models

While random intercept and random slope models allow nonprofit scholars to theorize about and empirically test the direct and moderating effects of context on dependent variables of interest, they are static in the sense that these models ignore temporal
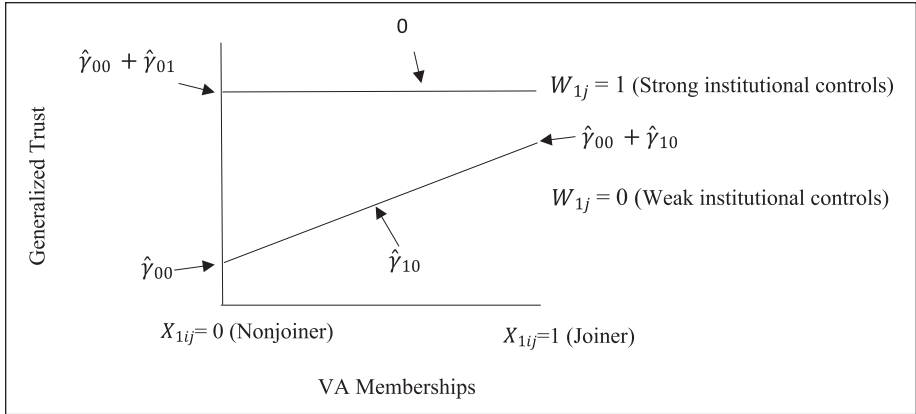
Figure 1. Illustrative example for Hypotheses 4, 5, and 6 (estimated effects).

variations in the effects of key variables (Bollen & Curran, 2006). Exogenous shocks such as natural disasters or other grand-scaled societal events, however, can often create a discontinuity in trajectories of social actors' attitudes and behaviors. For example, public support for democracy in Europe declined dramatically during and after the Global Financial Crisis of 2008 due to deteriorating national economies and growing political interference from international organizations such as the International Monetary Fund (Armingeon & Guthmann, 2014).

In this section, we show how researchers can do cross-national longitudinal studies taking time and/or events into account. Our example examines how events as well as national context and individual characteristics can impact increases or decreases in generalized trust. We first offer a two-piece two-level model where individual's generalized trust is measured at multiple points in time (Level 1) and personal factors are used to explain in(de)creases in trust before and after some exogenous shock (Level 2). The shock is modeled as a turning point in our time sequence. Next, we offer a two-piece three-level model. Observations of the individual at multiple time points are modeled at Level 1, individual characteristics are included at Level 2, and country-level variables are included at Level 3.

We theorize that VAs act to restore trust in the wake of a negative exogenous shock, but only under certain conditions. We can think of a shock like a recession, terrorist attack, natural disaster, or pandemic as a challenge to the social integration of nation-states as well as the global community. There is much research on the impact of disasters, and empirical findings are mixed. Some find that communities under threat come together and levels of social solidarity rise; others find that opportunists take advantage of the breakdown in social order and further their own interests at the expense of others (Quarantelli, 1987; Tierney, 2007). We argue that in times of crisis, VAs can be important integrative mechanisms. Thus, after some shock, being a joiner is going to be even more important in explaining generalized trust than before the shock. However,

whether this happens or not depends on the national context, for example, whether there are strong or weak institutional controls.

Although there are many different types of shocks, we will focus on global recessions. First, based on our earlier arguments, we retest H4 to H6. At the time of the recession, nonjoiners in stronger institutional contexts will have higher levels of trust than nonjoiners in weaker institutional contexts (H4), while joiners will have higher levels of trust than nonjoiners in contexts with weaker institutional controls (H5). Finally, the difference in trust of joiners and nonjoiners would be less in contexts with strong institutional social controls (H6).

Second, recessions are often preceded by a bubble period of great optimism. Although joiners may be more trusting than nonjoiners in institutionally weak societies and have similar levels of trust in institutionally strong societies, the average rates of increase in generalized trust in the bubble period should be comparable for joiners and nonjoiners in institutionally strong and weak contexts (Hypothesis 7 [H7]).

Third, after the recession, the generalized trust of nonjoiners should decrease at a much slower rate in institutionally strong contexts compared with institutionally weak contexts (Hypothesis 8 [H8]). Fourth, after the recession, in institutionally weak contexts, joiners' rates of decline would be more moderate than nonjoiners (Hypothesis 9 [H9]). This would be due to nonjoiners' sense of vulnerability, not having organizational supports, and looking for help in their own networks. Finally, we expect that in institutionally strong contexts, the effects of joining on trust would be weaker (Hypothesis 10 [H10]). In sum, VA memberships can compensate for the uncertainty in contexts with weak institutional controls. Especially in bad times, they can expand people's radius of trust and prevent them from reverting to tribalism. However, being in an institutionally secure context reduces the effect of joining on the rate of change in generalized trust in good and bad times.[6]

We use a two-piece multilevel growth curve model (Raudenbush & Bryk, 2002) to study this complex set of effects.[7] Level 1 units of analysis are time points, t; Level 2 units of analysis are now individuals, i; and Level 3 units are countries, j. The easiest way to understand the complexities of this model is to be familiar with the full set of equations that link the different levels of analysis together (see the appendix). Note, in the appendix, Q denotes the number of regressors at Level 2 and S denotes the number of regressors at Level 3. In the example below, we use only one regressor each in the Level 2 and Level 3 models; thus, the variables and their coefficients are subscripted 1 instead of q or s. Because we intend to translate our verbal theory into a formal model certain effects are omitted that would be included in an empirical analysis. Also the signs for the dependent and independent variables in the equations correspond to our hypotheses as they have in our previous examples.

In our example of a two-piece model, we distinguish time points into two periods: prerecession and postrecession periods. Thus, in the Level 1 model, we fit three parameters, one for each period and one for the turning point (the year of the recession). Here are our hypothesized effects expressed at Level 1:

$$Y_{tij} = \pi_{0ij} + \pi_{1ij}a_{1tij} - \pi_{2ij}a_{2tij} + e_{tij}, \tag{12}$$

where Y_{tij} is the value of the dependent variable at time t for person i who resides in country j (e.g., an individual's level of generalized trust). π_{0ij} is the predicted level of trust of individual i living in country j when the values of the regressors are 0 (in this model at the turning point, the year of the recession), π_{1ij} is the predicted growth rate of individual i's trust in the prerecession period who resides in country j (note, we expect this to be positive), $-\pi_{2ij}$ is the predicted growth rate in individual i's trust in the postrecession period who resides in country j (note, we expect this to be negative), a_{1tij} and a_{2tij} are coded variables that indicate the interval between time t and the turning point,[8] and e_{tij} is the random, within-actor error term at time t for actor i in country j.

The following equations suggest how being a member of VAs matters. It takes the parameter estimates from the Level 1 model as the dependent variables and incorporates a person-level variable as a regressor. Given three parameters at Level 1, Level 2 model has three equations:

$$\pi_{0ij} = \beta_{00j} + \beta_{01j}X_{1ij} + r_{0ij}, \tag{13}$$

$$\pi_{1ij} = \beta_{10j} + r_{1ij}, \tag{14}$$

$$-\pi_{2ij} = -\beta_{20j} + \beta_{21j}X_{1ij} + r_{2ij}, \tag{15}$$

where X_{1ij} is a variable measured on actor i in country j, for example, whether someone is a nonjoiner $(X_{1ij} = 0)$ or joiner $(X_{1ij} = 1)$. β_{00j} is the mean level of trust of nonjoiners in country j at the time of the recession (a_{1tij} and a_{2tij} equal 0), and β_{01j} is the average difference in the levels of trust of nonjoiners and joiners at the time of the recession in country j. Note β_{01j} is signed positive, meaning that joiners should have higher levels of generalized trust than nonjoiners at the time of the recession. β_{10j} is the average growth rate in generalized trust for nonjoiners in the prerecession period in country j, but because the growth rates of nonjoiners and joiners are hypothesized to be the same, β_{11j} is set equal to 0 (therefore omitted from Equation 14). $-\beta_{20j}$ is the average growth rate in trust for nonjoiners in the postrecession period in country j (note it is signed negative, meaning that their trust should decline after the recession), and β_{21j} is the average effect of being a joiner on the postrecession growth rates for country j. It is signed positive, meaning that the decline in trust of joiners will be less extreme compared with nonjoiners after the recession. Thus, VA memberships buffer joiners from the worse of the recession and help them to still trust strangers. r_{0ij}, r_{1ij}, and r_{2ij} are the random effects or error terms for actor i in country j.

Our theory said that national context should modify some of these effects, so we add a third level to the model. The Level 3 model takes the parameter estimates from the Level 2 model and makes these the dependent variables (see Equations A1 through A10 in the appendix for the full model). As before, W_{1j} is the country-level regressor (whether the country has weak institutional controls, $W_{1j} = 0$, or strong institutional controls, $W_{1j} = 1$). Note, we do not present the full model because we theorize that some effects are 0; in other words, these equations represent what we hypothesize to be significant effects:

$$\beta_{00j} = \gamma_{000} + \gamma_{001}W_{1j} + u_{00j}, \tag{16}$$

$$\beta_{01j} = \gamma_{010} - \gamma_{011}W_{1j} + u_{01j}. \tag{17}$$

Recall that in equations 10 and 11, we argued that context can increase the levels of generalized trust among nonjoiners and reduce the effect of joining on generalized trust as we move from institutionally weak to institutionally strong contexts (H4–H6). This is restated in Equations 16 and 17 where we look at the level of generalized trust at the time of the recession (when a_{1tij} and $a_{2tij} = 0$). In Equation 16, the mean level of trust among nonjoiners in country j at the time of the recession (β_{00j}) is a function of γ_{000} (the overall country average of the means of generalized trust of nonjoiners in institutionally weak contexts in the year of the recession) plus γ_{001} (the average differences in generalized trust of nonjoiners in strong and weak institutional contexts in the year of the recession). Thus, if $W_{1j} = 0$ (the country has weak controls), the generalized trust of nonjoiners is expected to be γ_{000}; if $W_{1j} = 1$ (the country has strong controls), then the generalized trust of nonjoiners is $\gamma_{000} + \gamma_{001}$. If $\hat{\gamma}_{001}$ is positive, H4 is reconfirmed.

Equation 17 tests whether the effect of joining on generalized trust at the time of the recession (β_{01j}) is a function of γ_{010} (the average effect of joining on generalized trust in the year of the recession in weak institutional contexts) plus γ_{011} (the average difference in the effects of joining on generalized trust in weak and strong institutional contexts in the year of the recession). If the country has weak controls $(W_{1j} = 0)$, the expected value of the difference between joiners and nonjoiners will be γ_{010}. If the country has strong controls $(W_{1j} = 1)$, the expected value of the difference between joiners and nonjoiners will be $\gamma_{010} - \gamma_{011}$. That is, the difference will be significantly less in strong institutional contexts. If $\hat{\gamma}_{010}$ is positive and $\hat{\gamma}_{011}$ is negative, H5 and H6 are reconfirmed.

Equation 18 is a test for H7:

$$\beta_{10j} = \gamma_{100} + u_{10j}. \tag{18}$$

The mean growth rate in generalized trust for nonjoiners in the prerecession period in country j (β_{10j}) is a function of γ_{100} (the between-country average rate of change in generalized trust among nonjoiners in the period prior to the recession). Note, because we do not expect that context, W_{1j}, will have an effect on β_{10j} (the average of the slopes in the Level 2 model) or β_{11j} (the effect of X_{1ij} on π_{1ij} which we hypothesized to be 0), neither $\gamma_{101}, \gamma_{110}, \gamma_{111}$, nor W_{1j} is included in our model. If $\hat{\gamma}_{100}$ is positive, and $\hat{\gamma}_{101}, \hat{\gamma}_{110}$, and $\hat{\gamma}_{111}$ are not significantly different from 0, then H7 is confirmed.

$$-\beta_{20j} = -\gamma_{200} + \gamma_{201}W_{1j} + u_{20j}, \tag{19}$$

$$\beta_{21j} = \gamma_{210} - \gamma_{211}W_{1j} + u_{21j}. \tag{20}$$
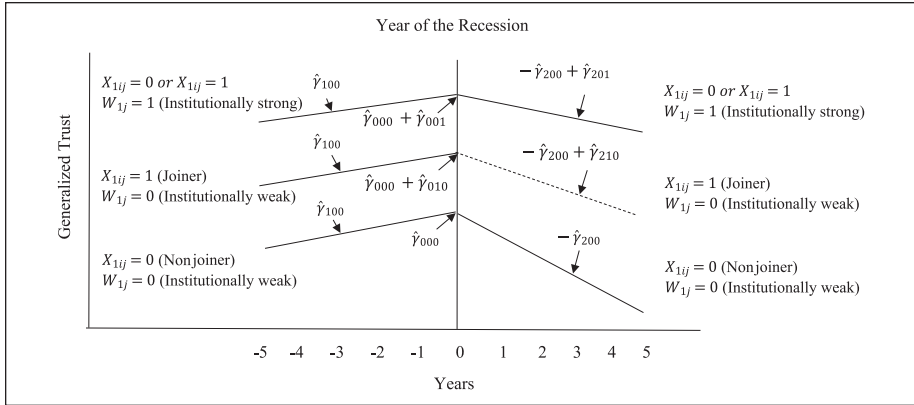
Figure 2. Illustrative example for Hypotheses 4 to 10 (estimated effects).

Finally, equations 19 and 20 address H8-H10. We argue that the decline in trust among nonjoiners should be less in institutionally strong contexts, joiners should have less decline in trust than nonjoiners in institutionally weak contexts, but joining should have little effect on trust in institutionally strong contexts. Equation 19 tests whether the average growth rate in trust for nonjoiners in the postrecession period is a function of $-\gamma_{200}$ (the overall country average of growth rates in trust for nonjoiners in weak contexts which we expect to be negative) plus γ_{201} (the average differences in the growth rates of generalized trust of nonjoiners in strong and weak institutional contexts after the recession). If $\hat{\gamma}_{200}$ is negative and γ_{201} is positive, then H8 is supported.

Equation 20 tests if joiners' levels of trust decline at a much lower rate than nonjoiners in institutionally weak contexts (when $W_{1j} = 0$). It also tests whether the effects of joining on growth rates are significantly less in institutionally strong countries ($W_{1j} = 1$) compared with institutionally weak countries. If $\hat{\gamma}_{210}$ is positive and $\hat{\gamma}_{211}$ is negative, then H9 and H10 are supported. That is, joining dampens the decline in trust after the recession under weak institutional controls, while strong institutional controls weaken the effect of joining on changes in trust.

Figure 2 is a possible set of empirical results of our two-piece three-level growth curve model (Equations 12–20). $\hat{\gamma}_{000}$ and $\hat{\gamma}_{000} + \hat{\gamma}_{001}$ are the average levels of generalized trust of nonjoiners at the time of the recession, within institutionally weak and strong settings respectively (H4). $\hat{\gamma}_{000}$ and $\hat{\gamma}_{000} + \hat{\gamma}_{010}$ are the average levels of generalized trust of those who are nonjoiners and joiners at the time of the recession, respectively, but only within institutionally weak settings (H5). In Figure 2, $\hat{\gamma}_{001} > \hat{\gamma}_{010}$; thus, the levels of trust of nonjoiners in institutionally strong contexts are greater than joiners in institutionally weak contexts. Furthermore, $\hat{\gamma}_{011}$ is negative, confirming H6. If $\hat{\gamma}_{010} = \hat{\gamma}_{011}$, then being in an institutionally rich environment offsets the effect of

joining on trust at the time of the recession. The levels of generalized trust of both joiners and nonjoiners in institutionally strong contexts are represented by $\hat{\gamma}_{000} + \hat{\gamma}_{001} + (\hat{\gamma}_{010} - \hat{\gamma}_{011})$ or $\hat{\gamma}_{000} + \hat{\gamma}_{001}$, when $W_{1j} = 1$. These patterns are consistent with our earlier example for cross-sectional data.

Looking at the period prior to the recession, we do not expect that context matters in explaining changes in trust over time. $\hat{\gamma}_{100}$ is the average rate of increase in generalized trust in the prerecession period. It is the same for joiners and nonjoiners and in institutionally weak and strong contexts (H7).

Turning to the period after the recession, $-\hat{\gamma}_{200}$ is the average rate of change in generalized trust in the postrecession period for nonjoiners living in institutionally weak contexts. $-\hat{\gamma}_{200} + \hat{\gamma}_{201}$ is the rate of decline in trust for nonjoiners living in institutionally strong contexts. Note, it is less steep (H8). $-\hat{\gamma}_{200} + \hat{\gamma}_{210}$ is the average rate of change in generalized trust in the postrecession period for joiners who live in institutionally weak contexts. Note, the rate of change is much flatter than that of nonjoiners in institutionally weak contexts (H9). If $\hat{\gamma}_{211}$ is negative, then the effect of joining on rates of generalized trust is weakened in institutionally secure contexts (H10), and if $\hat{\gamma}_{210} = \hat{\gamma}_{211}$, then the rates of change in generalized trust of both joiners and nonjoiners in institutionally strong contexts are the same. That is, $-\hat{\gamma}_{200} + \hat{\gamma}_{201} + (\hat{\gamma}_{210} - \hat{\gamma}_{211}) = -\hat{\gamma}_{200} + \hat{\gamma}_{201}$, when $W_{1j} = 1$.

Conclusion

Comparatists are often concerned that efforts to establish the credibility of generalizable theories of the nonprofit sector, what we called outside-in theories, are both futile and disingenuous. It is futile because it ignores contextual differences, and disingenuous because many of the topics, theories, and concepts come out of the West and can miss the realities in other settings. They are also concerned about context-specific research, what we called inside-out theories. Issues of local context are addressed; however, our knowledge about the sector in general is fragmented, as we only have a collection of case studies.

Similar to Tsui (2006), we see a role for both inside-out and outside-in approaches (see Figure 3). The former can be invaluable to build theory. They focus on idiosyncratic events, local institutions, and context-specific narratives, and findings may be applied to similar settings. For instance, China is often described as exceptional, but there are other one-party rule governments in the world, and many countries are influenced by Confucian traditions. So inside-out research can be used to build general but context-sensitive theories. Outside-in approaches are equally valuable. They focus on global events, universalistic principles, and context-free narratives. If we can find theories that are generalizable, it would advance our field. However, we can only discover these by showing that contextual effects are minimal. One may see inside-out research as the first step in theory building and outside-in research as the last step in confirming that a theory is applicable across a variety of contexts.
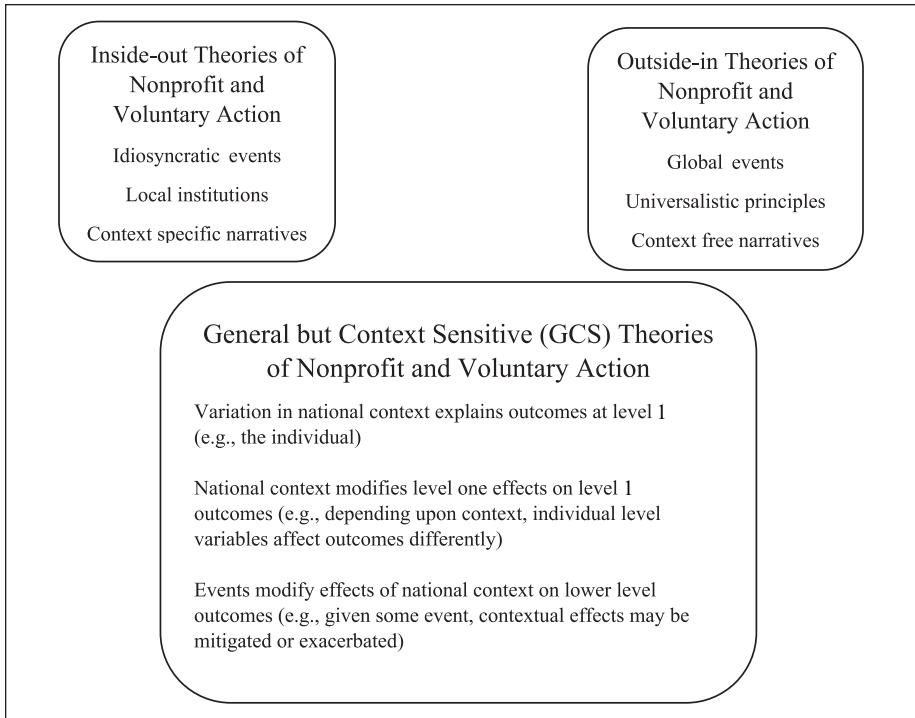
Figure 3. Summary of the contextualization discussion.

The paper borrowed from Whetten (2009) who described ways that the management literature has dealt with the problem of context and theory. We called this a General but Context-Sensitive (GCS) approach. The idea is to incorporate context into our theories. Variation in context could explain outcomes at Level 1 (e.g., individual attitudes). Context could modify Level 1 effects on Level 1 outcomes (e.g., depending upon context, individual-level variables affect outcomes differently), and events could modify the effects of Level 2 context on Level 1 outcomes (e.g., given some event, contextual effects may be mitigated or exacerbated).

We added to Whetten's discussion in two ways. First, we showed how his contextual effects might be modeled using the framework of multilevel analysis and we give illustrations of nonprofit and voluntary action research that has used a context-sensitive approach to develop general theory. The added value of this family of models is that it makes our theorizing more precise and conscious of the various ways that context can matter. By expressing the relationships among our variables using equations such as we presented, our readers have a better idea of what our theories are trying to say and how we can test them.

Second, we introduced the idea that happenings or events should also be thought of as context and showed how two-piece hierarchical growth curve models can be used to capture the impact of events. As noted, lives and social systems change because of events that take place beyond the control of individuals. But it is often difficult to assess their impact empirically or to think about how national context may mitigate or exacerbate these effects. We argued that two-piece multilevel hierarchal linear growth models give us the tool to examine these phenomena and provided an example of how they could be applied. We believe that they allow the analyst to study patterns and behaviors that we have not been able to study before.

Lessons About Two-Piece Growth Curve Models

There are several issues to keep in mind when doing multi-level research (Paruchuri et al., 2018) and particularly multi-level two-piece growth curve models. One is that we should pay close attention to the turning point, when the analyst expects that the growth rate might change for some reason. In our example, this is captured in the coding of a_{1t} and a_{2t} (see Note 8). It is not necessary to center the turning point on the median value, and typically this decision is based on theoretical grounds. There need, though, to be enough time periods on each side of the turning point to compute a slope. In some cases, analysts might not know the turning points and need to discover them inductively. A recent paper by Ning and Luo (2017) gives some directions on how this might be done.[9]

A second issue is that national-level contextual effects are often endogenous, and simultaneity is often the cause. That is, the contextual variable is as much affected by the dependent variable as vice versa. In the case where individual-level behaviors or attitudes are at issue, self-selection can be a concern, that is, trusting people are attracted to countries with strong institutional social controls. Endogeneity can also be caused by omitted variables or measurement error. Doing analyses over time also can be problematic because contextual effects may be caused by factors happening earlier in time that go unmeasured. Events and happenings can also have endogeneity problems. While seemingly exogenous, that is, being unexpected events that just happen, they may be induced by local context. For example, a nation's fiscal policies may contribute to global recessions and a country's population density and position in the global transportation network can affect the severity of a pandemic. Thus, we should be cautious not to infer causality without a specific treatment effect built into the models.

A third concern is that measurement error is a major problem in doing comparative, cross-national analysis. For example, many of the contradictory findings on generalized trust may be due to validity issues, that is, the measurement of generalized trust across national and cultural contexts (Freitag & Bauer, 2013; Lundmark et al., 2016). The question used by Paxton (2007, p. 56) and others is the item from the World Values Survey, "Would you say that most people can be trusted or that you can't be too careful in dealing with others?" However, the cross-national differences in trust may have less to do with the level of trust and more with the radius of trust (Fukuyama,

1999), a research direction that scholars of generalized trust are exploring (Delhey et al., 2011; Van Hoorn, 2014; Welch et al., 2007).

Future Directions

We see an important place for two-piece growth curve models in future research that aims to build General but Context-Sensitive (GCS) theories of generalized trust. Recently, nonprofit scholars have started to use hierarchical linear growth curve models to study changes of nonprofit activities and outcomes over time (Galaskiewicz et al., 2006; Kim & Jang, 2017; Shantz et al., 2019; Vermeulen et al., 2016). While still relatively scarce in the field, they have produced valuable insights suggesting the relevance of time as an important context to nonprofit theories. We believe the two-piece specification of growth curve models that we illustrated in this article can offer important extensions to this emerging body of work. By breaking an overall linear trajectory into two separate time components, the two-piece specification allows researchers to see how occurrences of societal events can change the developmental trajectories of nonprofit outcomes. In other words, the piecewise model specification enables scholars to account for potential discontinuities in outcomes by comparing key effects before and after the occurrence of some critical events, which is missing from the existing nonprofit studies using more general forms of linear growth curve models.

For example, these models can advance our understanding of volunteering. Kim and Jang (2017) found that the rates of change in religious attendance and volunteering are positively related, and according to Shantz et al. (2019), income growth of volunteers is higher than that of nonvolunteers over time but with faster growth for male than female volunteers. Although these two studies focus on the antecedent and consequence of volunteering, they are similar in terms of their model specifications that treat the relationship between volunteering outcomes and time as linear. How can our piecewise specification of growth curve models extend these findings?

One interesting direction that future research can take is to consider the time span of these studies: 1986–2002 in the study of Kim and Jang (2017) and 2001–2007 in Shantz et al. (2019). Wilson (2012) suggested that there are trends in volunteering that are influenced by events as well as cohort effects. What factors, for example, may weaken the relationship between religious attendance and volunteering? He cites school policies mandating community service in high schools and college admissions looking at volunteering as a credential for college entry. The rise of corporate volunteer programs can also account for increases in volunteering that are independent of religiosity.

Big events like national emergencies, for example, 9/11, natural disasters, pandemics, and recessions can also motivate people to help out (see Beyerlein & Sikkink, 2008). However, there may be contingencies. Wilson (2012) described various ways that contexts influence volunteering such as schools, neighborhoods, cities, states, regions, or countries. For example, the size of the nonprofit sector (Ballesteros & Gatignon, 2019; Rotolo & Wilson, 2012) or the capabilities of government relief efforts in a given region may matter. In communities with a stronger government and

weaker nonprofit sector, people may not volunteer in a crisis and first-responders may take charge, whereas in communities with a smaller government and larger nonprofit sector, people volunteer. Thinking in terms of the models we outlined, an individual's religious attendance (a Level 2 variable) may explain in(de)creases in volunteering prior to 9/11, but in the wake of 9/11, the relative strength of the communities' government and nonprofit sectors (Level 3 variables) might affect patterns of volunteering.

Findings of Shantz et al. (2019) on the returns to volunteering may also be vulnerable to exogenous shocks. Their data were collected just before the Great Recession. In a period of economic growth, volunteering may be an effective way for employees to distinguish themselves from their co-workers. In the wake of the recession, the coupling of volunteering with incomes may be weakened because, in the wake of the recession, there may be an increase in volunteering but a decrease in earnings. Interestingly, Wiertz and Lim (2019) found that when people become unemployed, they are *more* likely to start volunteering and *less* likely to stop, thus decoupling volunteering and financial returns. Local contexts may also mitigate or exacerbate the effect of the recession on the volunteering-income correlation.

It should be clear that by revisiting prior studies using two-piece growth curve models, our primary goal is not to show their limitations, but rather to build on these excellent studies and develop a refined understanding of how the origins and consequences of trust or volunteering can change over time, particularly as a result of unanticipated societal events. The greater value of two-piece growth curve models to future research, relative to more general forms of these models, lies in their capacity to account for different contextual effects at the same time. For scholars working on General but Context-Sensitive (GCS) nonprofit theories, the task for future researchers is to explain not only temporal changes of key outcomes but also the direct or moderating influences of contexts on these changes.

Appendix

Full Two-Piece Three-Level Hierarchical Growth Curve Model

Level 1 Equation:

$$Y_{tij} = \pi_{0ij} + \pi_{1ij}a_{1tij} + \pi_{2ij}a_{2tij} + e_{tij}. \tag{A1}$$

Level 2 Equations:

$$\pi_{0ij} = \beta_{00j} + \sum_{q=1}^{Q_0} \beta_{0qj}X_{qij} + r_{0ij}. \tag{A2}$$

$$\pi_{1ij} = \beta_{10j} + \sum_{q=1}^{Q_1} \beta_{1qj}X_{qij} + r_{1ij}. \tag{A3}$$

$$\pi_{2ij} = \beta_{20j} + \sum_{q=1}^{Q_2} \beta_{2qj}X_{qij} + r_{2ij}. \tag{A4}$$

Level 3 Equations:

$$\beta_{00j} = \gamma_{000} + \sum_{s=1}^{S_0} \gamma_{00s} W_{sj} + u_{00j}. \tag{A5}$$

$$\beta_{0qj} = \gamma_{0q0} + \sum_{s=1}^{S_0} \gamma_{0qs} W_{sj} + u_{0qj}. \tag{A6}$$

$$\beta_{10j} = \gamma_{100} + \sum_{s=1}^{S_1} \gamma_{10s} W_{sj} + u_{10j}. \tag{A7}$$

$$\beta_{1qj} = \gamma_{1q0} + \sum_{s=1}^{S_1} \gamma_{1qs} W_{sj} + u_{1qj}. \tag{A8}$$

$$\beta_{20j} = \gamma_{200} + \sum_{s=1}^{S_2} \gamma_{20s} W_{sj} + u_{20j}. \tag{A9}$$

$$\beta_{2qj} = \gamma_{2q0} + \sum_{s=1}^{S_2} \gamma_{2qs} W_{sj} + u_{2qj}. \tag{A10}$$

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Notes

1. Ding et al. (2013) and Paxton et al. (2010) are two useful examples from outside the field of nonprofit studies using hierarchical growth curve models to assess the effects of events on outcomes more broadly.
2. We borrow ideas introduced in an editor's forum on the Future of Chinese Management Research in *Management and Organization Review, 5*(1), 2009.
3. As shown in Paxton (2007), operationalizing joining is difficult and complex. There are active and inactive memberships, some VAs are interconnected (bridging) and some are isolated (bonding), and people can belong to both interconnected and isolated VAs. By focusing on joining, we make it easier to understand our models, but we acknowledge the complexities of measuring this behavior.
4. Random intercept and random slope models are well studied and used in other fields such as political science (Gilardi, 2010; Steenbergen & Jones, 2002; Stegmueller, 2013), public administration (Brudney et al., 2005; Heinrich & Lynn, 2001; Miller & Moulton, 2014) and sociology (Bryan & Jenkins, 2016; Ceobanu & Escandell, 2010; Heisig & Schaeffer, 2019).
5. Several studies have tested for higher-level contextual effects on individual behaviors without using these models (e.g., Almeida, 2012; Aydinli et al., 2016; Cao, 2001; Curtis et al., 1992; Einolf, 2017; Handy et al., 2010; Healy, 2000; Kamerade et al., 2016; Katz-Gerro et al., 2015; Nesbit & Gazley, 2012; Themudo, 2009; Wemlinger & Berlan, 2016).
6. Clearly our predictions would be more compelling if VAs were bridging rather than bonding, however, for the sake of presentation we will focus only on joining.
7. The description in this section does not address all the complexities of testing these models. For example, an important step in model selection/testing is to examine the variance across time periods, the variance across individuals, the variance across people within countries, and the variance among countries. If there is insufficient variance within or across levels, this dictates what types of higher order models to test. For a fuller description of these issues, see Raudenbush and Bryk (2002: Chapter 8).
8. The coding of these time indicators is flexible. In our example, we compare growth rates in two different periods, one option is to stipulate that the turning point was midway through the study period, and the researcher would collect data for years before and after. With 11 time periods, the values a_{1t} would be $-5, -4, -3, -2, -1, 0, 0, 0, 0, 0, 0$ (where the sixth period is the turning point) and the values for a_{2t} would be $0, 0, 0, 0, 0, 0, 1, 2, 3, 4, 5$. For a discussion of alternative coding schemes for a two-piece growth curve model, see Raudenbush and Bryk (2002: 179).
9. Although this article focused on two-piece growth curve models, it is possible to estimate n-piece growth curve models where several time periods can be analyzed in a single model (see Flora, 2008; Jaggars & Xu, 2016 for examples of three-piece growth curve models).

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