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Party System Institutionalization: Do We Need a New Concept?

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Abstract This paper revises the conceptualization of party system institutionalization, as defined in Mainwaring and Scully's (1995) groundbreaking work. Regarding the rules of aggregation involved in conceptual structure, my argument resonates with Goertz and Mahoney's (2012) identification of two different "cultures" in contemporary social science. They understand one culture as building what Goertz calls "family resemblance" concepts, usually measured through a latent variable approach. The other culture understands concepts as structured in terms of "necessary and sufficient" elements, which can then be measured using an ontological approach. I claim that party system institutionalization has an implicit "family resemblance" structure and show that conceptual structure to be empirically and theoretically inadequate. In its current form, the concept of party system institutionalization also suffers from deficiencies when it comes to indicator validity and aggregation, as per (Munck and Verkulien, Comp Polit Stud 35(1):5–34, 2002) criteria. Problems of validity are caused by analysts' frequent reliance on a single indicator for operationalizing the concept. Problems of aggregation and conceptual structure arise from inconsistencies between the implicit theoretical assumption that party system institutionalization is conceptually linear and non-linear patterns that are not only theoretically plausible but also empirically observable in a large set of cases. Therefore, this paper advocates revising the concept and the way it is currently applied in the comparative party system literature. Such revision will permit better understanding of both the characteristics and dynamic evolution of party systems.

Keywords Party system institutionalization · Conceptualization · Operationalization · Latent variable measurement · Programmatic rootedness · Party system overtime dynamics

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Introduction

Mainwaring and Scully's (1995) concept of party system institutionalization (hereafter, PSI) and its subsequent elaborations (see, e.g., Mainwaring 1999; Mainwaring and Torcal 2006) is to date the most commonly accepted comparative framework for analyzing party systems in the developing world.[1] Drawing on this concept, party systems can be placed on a continuum ranging from institutionalized to fluid or inchoate. The concept of PSI has undoubtedly advanced our understanding of how the working of party systems in developing countries differs from their operation in established democracies. The concept has also shifted the focus of party system analysis from "format" (Sartori 1976) to "substance." This paper offers a necessary methodological revision of the concept of PSI and thus of Mainwaring and Scully's key contribution.

For conceptualizing and measuring PSI, many analysts have "mono-operationalized" it by using electoral volatility as their sole indicator. Others, by contrast, have operationalized PSI additively, measuring it by averaging various indicators. Mono-operationalization is frequently found in replications of Mainwaring and Scully's original framework by other scholars, whereas the additive conceptual structure was already present in their original 1995 measurement strategy.

Neither such way of operationalizing PSI is satisfactory. Electoral volatility is an inadequate proxy for PSI, but operationalizing the concept additively is also theoretically problematic because it is implicitly premised on the assumption that the empirical relationship between different dimensions (and indicators) of PSI is linear. In reality, however, this assumption does not hold empirically. Different dimensions of PSI therefore should not be conflated and thus cannot be "averaged" into a single measure. PSI instead needs to be unpacked and then eventually repacked in a more theoretically tenable, non-additive way.

The paper is organized as follows: The next section presents an overview of the impact of the concept of PSI. Through close exegesis of key texts on the concept, it also identifies and analyzes its implicit conceptual structure. An additional section in the online appendix (http://thedata.harvard.edu/dvn/dv/jpluna) analyzes recent modifications and criticisms of PSI, noting their limits in terms of addressing underlying problems of operationalization through either sole reliance on electoral volatility or linear-additive approaches.

The rest of the paper identifies serious problems presented by these ways of addressing PSI. Considering PSI a one-dimensional construct, with an underlying additive structure, has detrimental effects, not only when it comes to measurement but also for causal inference. PSI's operationalization is deficient due to both issues of validity and aggregation, as understood using Munck and Verkulien's (2002) criteria. These issues are also illuminated using Goertz's (2005) distinction between understanding concepts in terms of "family resemblance" and understanding them as defined in terms of "necessary and sufficient" conditions. In the theoretical discussion that follows, the paper analyzes variance on different dimensions of PSI across cases and

[1] Party system institutionalization is not to be confused with party institutionalization. On the latter, see, e.g., Panebianco (1988), Dix (1989), Randall and Svåsand (2002), Pedahzur and Brichta (2002), and Levitsky (2003).

across time. The paper then analyzes the relationship between stability and programmatic rootedness. These two dimensions of PSI have up to now been treated as related to a one-dimensional construct. The evidence from my empirical analysis, however, conflicts with that and other aspects of the received underlying theoretical conceptualization and measurement of PSI. The concept of PSI, particularly at the level of conceptual structure, and the criteria of aggregation used in operationalizing this influential concept therefore need to be significantly revised.

The Concept and the Literature: the Broad Impact of PSI

Mainwaring and Scully's groundbreaking contribution to party system theory has rapidly diffused in the study of party systems around the globe, extending its influence to Africa (see, e.g., Kuenzi and Lambright 2001; Mozaffar, Scarritt, and Galaich 2003; Linberg 2007; Riedl 2008), East and Southeast Asia (see, e.g., Ufen 2008; Croissant and Völkel 2012; Hicken and Kuhonta 2011), and Eastern Europe (Bielasiak 2002; O'Dwyer and Kovalčík 2007; Thames and Robbins 2007). The concept has also been applied to case studies characterizing given party systems in depth (see, e.g., Mainwaring 1999 and Zucco 2014 (unpublished) on Brazil; Tan 2006 on Indonesia; Morgan, Hartlyn, and Espinal 2008 on the Dominican Republic; Luna and Altman 2011 on Chile; Markowski 2000 on Poland; and Abeje 2013 on Ethiopia). The concept has even been applied to describing subnational party systems in such federal states as Russia and Brazil (Epstein 2008).[2]

Google Scholar citations offer a rough indicator of the impact of Mainwaring, Scully, and Torcal's conceptualization of PSI. Their three works presenting and extending the concept of PSI (Mainwaring and Scully 1995; Mainwaring 1999; Mainwaring and Torcal 2006) had by January 2014 garnered nearly 3,000 citations, including almost 750 in works published in the last 5 years. The concept of PSI is thus clearly very influential and remains vibrant.

PSI has been used not only descriptively but also for causal inference. PSI is considered a significant cause of such highly relevant political phenomena as the quality of democracy (see, e.g., Mainwaring and Scully 1995 and Payne et al. 2003 for Latin America; Stockton 2001 for Southeast Asia; and Thames and Robins 2007 for Eastern Europe); programmatic representation (see, e.g., Luna and Zechmeister 2005); quality of the policy-making process (see, e.g., BID 2006; Mainwaring and Scully 2008); pursuit of second-generation economic reforms (O'Dwyer and Kovalčík 2007); and key characteristics of the "new left" in Latin America (Flores-Macías 2012).

Other works analyze the possible drivers of PSI. Mainwaring and Zocco (2007), among others, argue that political socialization before the advent of mass media contributed to party systems' rooting in "old" democracies. In a similar vein, Dalton and Weldon (2007) consider partisanship fundamental as an underpinning for high levels of party system institutionalization. Both works present evidence from a large cross section of party systems. Analyzing Eastern–European party systems, Tavits (2008) argues that party system instability is significantly related to changes on the supply side and much less driven by changes among voters. In turn, Coppedge (1998)

[2] For a more thorough review of this literature, see Rosenblatt (2013).

argues that party system de-institutionalization in Latin America partly resulted from exogenous shocks (i.e., economic crises) affecting voters' allegiances to established parties. Finally, Mozaffar, Scarritt, and Galaich (2003) argue that the interaction between electoral institutions and the presence of active ethnic cleavages conditions levels of party system institutionalization in Africa.

In short, Mainwaring and Scully's concept has been massively adopted in the analysis of party systems around the globe. The next section describes the original concept's implicit theoretical underpinnings and their relation to PSI's shortcomings. Given the influence of PSI in the scholarly community, further refinement of the concept addressing such existing shortcomings is needed.

Party System Institutionalization: Underlying Theory

> "For a democratic party system to be institutionalized, four conditions must obtain. First and most important is stability in the rules and the nature of inter-party competition. Patterns of party competition must manifest some regularity, which is not to suggest that these pattern become 'frozen'[…] Second, the major parties must have somewhat stable roots in society; otherwise they do not structure political preferences over time and there is limited regularity in how people vote […] Third, in an institutionalized party system, the major political actors accord legitimacy to the electoral process and to parties […] Finally, in an institutionalized party system, party organizations matter." (1995 pp. 4–5).

> "[the] four dimensions of institutionalization need not go together, but they almost always do. Conceptually, a party system could be fairly institutionalized along one dimension but weakly institutionalized along another, but empirically, this is the exception." (Mainwaring 1999, p. 27)

Conceptually, Mainwaring and Scully (1995) identify four dimensions of party system institutionalization: (a) the stability and regularity of party competition patterns; (b) the presence of party roots in society, which helps to stabilize institutionalized systems; (c) parties' social legitimacy; and (d) parties that have well-developed organizations, as opposed to merely functioning as electoral vehicles for personalistic leaders. Their indicators for measuring PSI were derived from this multi-dimensional characterization. Table 1 presents the indicators originally used to measure PSI (in bold), along with those incorporated by Mainwaring (1999) and Mainwaring and Torcal (2006) in their subsequent revisions of the concept.

The information conveyed in Table 1 suggests that electoral volatility, as a proxy for the stability of competition (and of the rules of the game), has been the most consistently used indicator in subsequent works. As argued in the next section, as well as in Rosenblatt's (2013) thorough review of the literature on PSI, the same has held true for scholars measuring PSI elsewhere. Table 1 also suggests that these various indicators of PSI have been regarded as "substitutable," at least for their original proponents. For instance, in their original conceptualization, Mainwaring and Scully (1995) did not directly include the presence of ideological linkages between voters and their partisan

Table 1 Indicators of PSI in Mainwaring and Scully (1995), Mainwaring (1999), and Mainwaring and Torcal (2006)

Dimension	Indicators
Stability of rules of the game and competition	**Pedersen index of volatility of votes and/or seats** (Mainwaring and Scully 1995; Mainwaring 1999; Mainwaring and Torcal 2006)
Roots in society	**Age of parties** (Mainwaring and Scully 1995, Mainwaring 1999) **Congruence in executive and legislative elections** (Mainwaring and Scully 1995, Mainwaring 1999) **Identification with parties** (Mainwaring 1999, Mainwaring and Torcal 2006). **Ideological linkages between parties and voters** (Mainwaring and Torcal 2006). **Non-partisan or antiparty candidates' chances of electoral success** (Mainwaring 1999)
Legitimacy	**Conceded by elites** (Mainwaring and Scully 1995) **Measured through public opinion: legitimacy, trust, "parties are indispensable"** (Mainwaring 1999)
Party organizations	**Not measured**. See Mainwaring (1999, p. 27 and pp. 36–38) for a series of arguments regarding party organizations, its theorized relation to other dimensions, and its possible indicators)

representatives as an indicator of social rootedness. However, in later works (particularly in Mainwaring 1999 and Mainwaring and Torcal 2006), when new indicators became available, ideological linkages between voters and parties gained prominence in empirical analyses of party systems' social rootedness.

Along with indicator substitutability, a linear, additive approach to conceptualizing and measuring the relationship among PSI's four constitutive dimensions was also pursued by its original proponents. The original assumption was that high levels of PSI on one dimension almost always correlate with high levels on the other three. That underlying assumption allowed for incorporation and addition of new indicators of PSI that could even be substituted for earlier ones when it came to measurement. Scholars then also typically computed an overall index of PSI by averaging indicators available for any given subset of the original four dimensions.

For example, introducing a new indicator for social rootedness, Mainwaring and Torcal (2006) note that: "Personalistic linkages between voters and candidates tend to be stronger when party roots in society are weaker. They also tend to be stronger with weak party organizations and weakly institutionalized parties" (p. 21). This thinking justifies their "focus on three issues (high electoral volatility, weak ideological linkages, and personalism)" in computing an index of PSI for various advanced industrial and newly democratized countries. The authors proceed this way even though, as they themselves acknowledge, each of these issues "relate principally to the first two dimensions of party system institutionalization: the stability of interparty competition and party roots in society" (Mainwaring and Torcal 2006, p. 8). Were it not for their assumption that the different dimensions of PSI will, in any case, almost always covary, measurement of PSI using indicators for only two of the four dimensions identified would immediately appear much more problematic.

The ubiquity of reliance on the scope of ideological cleavages as an indicator for measuring parties' roots in society is defended as follows:

> "Because ideological linkages between voters and parties are an important means by which voters become attached to parties and hence an important means by which parties become rooted in society, in general, where ideological linkages to parties are weaker, electoral volatility is higher. Although programmatic or ideological linkages are not the only ways to create party system stability, they are the main way that such stability is achieved" (pp. 16–17).

As this last sentence shows, electoral stability and party roots in society (operationalized through ideological linkages between parties and voters) are understood here as closely correlated a priori, both conceptually and empirically. Yet, in reality, that assumption is not borne out by the data.

Figure 1 plots electoral volatility against the presence of ideological linkages as presented in Mainwaring and Torcal (2006). To facilitate interpretation, I decided to plot an inversed measure of electoral volatility. Therefore, countries presented as low on that dimension are those with greater levels of electoral turnover. I also identify three hypothetical scenarios: (1) high volatility/weak ideological linkages, (2) low volatility/strong ideological linkages, and (3) low volatility/weak ideological linkages. Whereas scenarios 1 and 2 are consistent with Mainwaring and Scully's theoretical expectation (with scenario 1 representing inchoate party systems and scenario 2 representing

Fig. 1 Electoral volatility (stability) and ideological anchoring (rootedness in society) as measured by Mainwaring and Torcal (2006). Source: Own construction on the basis of data reported in Mainwaring and Torcal (2006)

institutionalized ones), scenario 3 is plainly inconsistent with their theoretical expectations.

As the scatterplot clearly illustrates, the two dimensions are not linearly related. Although there is a linear trend between the two variables,[3] a sizable group of cases fall below the regression curve. Empirically, these represent cases closer to scenario 3. Therefore, even though ideological voting is strongly associated with low electoral volatility, many systems with low electoral volatility that are therefore stable lack high levels of ideological voting. Indeed, the triangular distribution observed in Fig. 1 is typical of causal relations that are "necessary but not sufficient" (Ragin 2008). In this case, party systems displaying high programmatic rootedness constitute a clearly delimited subset of stable party systems. However, having a stable party system does not suffice for ensuring one will find significant levels of programmatic rootedness.

In sum, the theory identified here as underlying PSI's conceptualization lacks empirical support. Yet, that underlying theory has directly guided how PSI has been operationalized and measured. The following sections of the paper elaborate on this point. An additional section included in the online appendix to this article assesses how the idea of PSI has been replicated and criticized in the literature.

PSI as a One-Dimensional Latent Variable: Making Operationalization Explicit

In line with the underlying linear assumption embedded in the original concept of PSI, scholars frequently operationalize it in ways assuming a linear, additive relation among indicators of PSI's four dimensions. Such an additive relation is usually captured through a simple index based on averaging different available indicators for any given subset of the original four dimensions. Also, when comparative data for one or more dimensions are missing, other indicators are often used as surrogates. Heavy reliance on electoral volatility, in conjunction with other indicators or even alone, has resulted. PSI has thus often been treated, albeit implicitly, as a one-dimensional latent variable.

A large body of literature, going back to the founding work of Lazarsfeld (1950) and Blalock (1964), discusses the use of latent variables (i.e., variables that are not directly observed but inferred from other directly observable ones) in the social sciences (see Bollen 1989, 2002 and Goertz 2005 for useful reviews). Two issues are particularly relevant for our analysis of PSI. First, there is disagreement in the measurement literature on how a latent variable is conceived and defined and, in particular, on to the extent to which the dimensions of a latent variable must be highly correlated (see, e.g., Bollen 2002).

According to some, including those defining latent variables in terms of local independence and expected values (see Bollen 2002, pp. 609–10), different conceptual dimensions of a latent variable should tap into relatively distinct facets of the directly unobservable phenomenon. The different dimensions therefore should not be correlated when the common variance that pertains to the latent variable is subtracted from a given

[3] The linear correlation is .24, but it is not statistically significant (sig.=.23, obs=27). Furthermore, the Cronbach's alpha scalability coefficient for this pair of indicators is low (.55), indicating that the components do not scale well on a one-dimensional index. In more technical statistical terms, they do not relate (and measure) linearly.

matrix. In contrast, however, less restrictive definitions of latent variables like those treating them as non-deterministic functions of observed variables or in terms of sample realization (see Bollen 2002, pp. 611–613) do allow for correlations, and even causal relations, among different dimensions of the latent variable. Within dimensions, according to both views, empirical indicators for the same dimension should be highly correlated and might therefore be substitutable.

For instance, the latent variable of intelligence, a phenomenon which we cannot directly observe, could be defined in terms of spatial, verbal, and logical ability. Although partially correlated, those dimensions are expected to tap into different phenomena and thus are not thought of as strongly correlated. However, various empirical indicators of each dimension (i.e., right or wrong answers on each of a set of questions measuring an individual's logical ability) should be highly correlated. If an indicator of verbal ability is absent for an individual, an available surrogate for that dimension can readily be substituted for it. For instance, in the absence of opportunity to observe an individual's reading comprehension, one could instead seek to infer the person's verbal ability from the scope of her oral vocabulary.

The measurement literature also distinguishes between causal and effect indicators of a latent variable (Blalock 1964, pp. 162–69; Edwards and Bagozzi 2000; Bollen 2002, p. 616). Most measures of latent variables in the social sciences are assumed to be effect indicators (Bollen 2002, pp. 616–7), in which observed variables (e.g., responses to verbal ability exercises) are caused by an unobserved latent variable (verbal ability). However, it might also be possible to observe causal indicators of a latent variable (e.g., time spent with friends, with family, and with co-workers could be thought of as causal indicators of the latent variable time spent in social interactions; Bollen 2002, p. 616). An incorrect specification as to whether indicators are causal or effect might lead to misleading measurement models and, where techniques such as factor analysis or structural equation systems are used, to incorrect and biased estimations (Bollen 2002, p. 616). In other words, latent variable models are defective when causal and effects indicators of the unobserved variable are averaged together and thus theoretically conflated in a single measurement model.

Existing conceptualizations of PSI need to be revisited in light of each of these two issues concerning latent variables. With this literature in mind, one first needs to ask whether existing indicators and dimensions of PSI are either causes or effects consistently across dimensions and indicators. In my view (but see also Zucco 2014 (unpublished) and Torcal 2014 (unpublished) for similar arguments), the original formulation of the concept mixes up these two types of indicators. For instance, Mainwaring and Torcal (2006) claim that ideological or programmatic linkages (rootedness) are the main way in which stability (low electoral volatility) is achieved. They therefore designate ideological linkages as causal indicators. And indeed, high rootedness and strong partisan organizations could very well be conceived as causes of high institutionalization, as they enable the party system to relate to society in ways that facilitate parties' successful entrenchment in the social fabric, and thus its stability and legitimacy. Alternatively, however, one could also quite plausibly claim that the electoral stability and legitimacy of a party system figure as symptoms (effects) of its being highly institutionalized, with established parties therefore regularly supported at the polls and popularly perceived as legitimate. In sum, the conceptualization of PSI is at best ambiguous regarding the status of different dimensions and indicators of PSI as

either causes or effects. At worst, the original conceptualization of PSI mixes (averages-out) causes and effects of PSI in the same operationalization.

What about the theorized relationship between the various indicators or dimensions of PSI and the general concept? Are they conceived as strongly correlated or as potentially orthogonal dimensions? The implicit logic driving PSI's conceptualization in Mainwaring and Scully's (1995) work is more systematically advocated in Mainwaring (1999), where an assumption that they are all closely correlated clearly drives the description of PSI (p. 27). On this view, stable party systems are also those most likely to have high rootedness in society, enjoy greater levels of political legitimacy, and have well-entrenched and enduring partisan organizations. While the possibility that inconsistencies among those dimensions might arise is explicitly entertained, such inconsistencies are expected to be exceptional.

Statistically, this means that high and positive correlations are expected between the indicators measuring different dimensions of PSI. Developing an additive measure of PSI combining indicators of those four dimensions to calculate a grand average is therefore consistent with this view. Though less sophisticated than a measurement model technique (e.g., a factor analysis, a multi-dimensional scaling technique, or a structural equation latent variable construct), which additionally allows one to identify multiple orthogonal or oblique underlying dimensions, averaging also relies on the linear addition of different indicators, in this case, resulting in a one-dimensional index.

Accordingly, in my interpretation of Mainwaring and Scully's conceptualization of PSI, the four dimensions are theorized as highly correlated and, in at least some cases, as causally related. In Mainwaring and Scully's view, that relationship is characterized by a positive linear pattern: due to positive causal feedback, stable systems are expected to be more rooted, more legitimate, and have stronger partisan organizations. Therefore, PSI was originally operationalized by identifying a series of available indicators for each of the four theorized dimensions. Volatility was thus used to measure electoral stability, party age was used as a proxy for rootedness, and so forth. Because they were theoretically assumed to be strongly correlated, the four dimensions thus measured were then theoretically subsumed into a one-dimensional construct. If dimensions are linearly related, then their empirical indicators should behave accordingly. In that case, the indicators can also then be integrated into a linear summary index, such as the one subsequently constructed for PSI by averaging the scores for each case on each indicator for each dimension. This way of operationalizing PSI, both by Mainwaring and Scully as well as subsequently by others, has thus been consistent with Mainwaring and Scully's own implicit theory of PSI and how its various dimensions relate to one another. While simpler than more sophisticated models of latent variable measurement, the way that PSI has been operationalized has thus followed the logic of latent variables (Goertz 2005).

Where substitutability obtains, indicators that are empirically available can validly be used to substitute for others that are unavailable but with which they are expected to be strongly correlated. The structure of the concept of PSI as it was originally theorized has led subsequent works to treat indicators for one or two of PSI's original dimensions as substitutable measures for the entire concept. In particular, electoral volatility came to substitute for more empirically scarce indicators, in the process even coming to be treated as representative of PSI per se (see, e.g., Hicken and Kuhonta 2011).

However, because some indicators of PSI have figured as causes whereas others have figured or could plausibly be conceived as effects, the established way of operationalizing PSI as a latent variable has also thereby confounded causal and effect indicators (and possibly whole causal versus effects dimensions of PSI). Operationalizing the concept of PSI this way has had several important but unrecognized limitations, as addressed in the next two sections.

First Challenge: Electoral Volatility as PSI (Mono-Operationalization)

As stressed by Munck and Verkulien (2002) and Munck (2009), choosing empirical indicators for a concept is the first decision one needs to confront when devising a given measure. For the concept to be validly operationalized, those indicators should be equivalent across cases and time periods. One of the most common problems in the construction of comparative datasets is lack of attention to the various empirical manifestations (possible indicators) of a given conceptual attribute (Munck and Verkulien 2002 and Munck 2009). When multiple possible indicators exist, measuring a concept using a single indicator can introduce important biases or even invalidate the measure when it comes to making comparisons across time and space.

The received conceptualization and measurement of PSI has allowed researchers lacking data on the second, third, or fourth dimensions of the concept to measure PSI using electoral volatility as the single indicator for the concept. Given its specific characteristics, electoral volatility, as a comparative indicator, could even exacerbate potential comparative biases. On the one hand, its computation potentially commits a gross ecological fallacy, imputing aggregate electoral results (the difference between the electoral return of each party at times t and $t+1$) to individual behavior (the stability of voters' party allegiance). Given changes in the composition of the electorate itself from one election to the next, this implicit causal assumption is not always warranted. On the other hand, especially when comparing fluid party systems in which parties switch labels often or simply appear and then vanish after just one election, researchers' decisions regarding which parties are relevant to include in the calculation can also introduce important biases. Moreover, the need to make comparisons across systems that function under very different electoral institutions, which present parties with higher or lower entry barriers, can also reduce electoral volatility's capacity to act as a valid indicator of PSI (i.e., as a surrogate for other dimensions of the concept, such as rootedness, legitimacy, and party organizations) across time and space.[4] Finally, as argued extensively by Sánchez (2009) and Tavits (2008), regular electoral volatility measures can neither identify the locus of instability (i.e., whether it relates to changes in support for more established parties) nor its specific drivers (i.e., whether it results from dynamics related to change in supply or in demand).[5]

[4] To be sure, scholars can and do often control for electoral system characteristics when comparing electoral volatility across systems.

[5] See also Luna and Altman (2011) for an extensive argument along these lines and illustration with the Chilean case.

Second Challenge: Conceptual Structure (Linear Addition)

If validity problems are especially worrisome for single-indicator operationalizations of PSI, multiple indicator operationalizations also face important challenges. Available multiple indicator measures of PSI rely on the linear addition (averaging) of several measures related to PSI's different dimensions. In this way, PSI's operationalization is implicitly based on a conceptual structure approximating what (Goertz 2005) calls "family resemblance." Alternatively, those working in the mixed methods or qualitative tradition seek to identify the ontological properties of concepts, usually deriving from such ontology the "necessary and sufficient" dimensions of a concept. They (usually) assemble those dimensions in conceptual typologies and then, finally, worry about indicators and measurement (see also Mahoney and Goertz 2006).

To be sure, "family resemblance" conceptual structures can be multi-dimensional (particularly if different empirical indicators for different conceptual dimensions are theoretically conceived and/or empirically found to be orthogonal). However, this type of conceptual structure seems to have an elective affinity with the construction of one-dimensional indexes. Those indexes subsume different conceptual dimensions (and their indicators) into a single aggregate measure, often through the linear addition of available indicators.

Under specific conditions, the use of this type of aggregation rule is perfectly reasonable. However, according to Munck and Verkulien's (2002) analysis of democracy indexes, decisions regarding aggregation rules seem to be relatively "unconscious" in conventional methodological practice and often seem to be overly influenced by the objective of building a parsimonious measure that can then be used for statistical analyses. This type of reasoning may also have guided measurements of PSI.

Were PSI to prove a multi-dimensional phenomenon whose composite dimensions are *not* all linearly related, aggregating indicators in the way conventional operationalizations do would lead to loss of valuable information by rendering theoretically relevant differences among cases invisible. As Munck and Verkulien (2002) have warned, forcing a multi-dimensional phenomenon into a one-dimensional metric yields invalid measures. Unfortunately, the composite dimensions of PSI are not all linearly related (see Fig. 1), and existing measures of PSI have therefore suffered from precisely this problem. The following sections present a theoretical and empirical argument that suggests that PSI is indeed a multi-dimensional concept, which should not be subsumed into a single aggregate measure.

Back to Theory: Why PSI Dimensions Might Not Relate and Evolve Linearly?

That PSI is not self-evidently uni-dimensional and is, in fact, multi-dimensional can be shown both theoretically and empirically. The four dimensions conflated in the PSI concept do not relate linearly. In fact, they can present contradictory configurations and eventually evolve in different directions over time. A stylized account of some of the Latin American party systems that first inspired the conceptualization of PSI suffices to show this to be so.

To illustrate the possible shortcomings of current measures of PSI, Table 2 displays six different party system configurations across PSI's four dimensions: stability,

Table 2 Five (cross-sectional) hypothetical scenarios of PSI

Country	Stability	Ideological rootedness	Legitimacy	Organization	PSI average	PSI (mono-operationalized as electoral stability)
A	4	1	1	4	2.5	4
B	2	3	3	2	2.5	2
C	4	1	4	1	2.5	4
D	4	4	4	4	4	4
E	1	1	1	1	1	1

programmatic rootedness, legitimacy, and partisan organization. For simplicity's sake, each party system is ranked from a minimum of 1 to a maximum of 4 on each dimension and for the PSI total derived by averaging. Given the frequent operationalization of PSI through the single indicator of electoral volatility, the table also shows the PSI total that would be obtained for each case if only the first dimension of PSI were to be empirically observable.

Assuming that all indicators are available and are linearly added to generate the total PSI index, countries A, B, and C all end up with the same PSI score. However, their scores across dimensions reflect very different party system configurations. In the case of country A, parties are very stable and have very well-entrenched organizations but have minimal legitimacy and ideological rootedness. By contrast, in the case of country B, parties instead have relatively high levels of legitimacy and rootedness, with relatively low levels of stability and organization. Finally, country C exhibits maximum stability and legitimacy, with minimum levels of rootedness and organization.

Whereas country A approximates a scenario typically described for systems having well-entrenched clientelistic (and quasi-hegemonic) party machines, country B approximates a situation where electoral-professional parties compete (and gain legitimacy) on the basis of programmatic orientations. Even if a modicum of stability and organization are present in this scenario, the indicators are much lower than in country A. Country C, in contrast, approximates a scenario in which one or several charismatic leaderships are able to electorally stabilize the system and sustain legitimacy, despite a near absence of partisan organizations and ideological mobilization appeals signaling rootedness in society. Were they forced into a one-dimensional measure, these three very distinct configurations would be confounded, rendering the striking differences among them invisible. The danger of treating PSI this way is thus precisely the kind of methodological error regarding which Munck and Verkulien (2002) rightly caution.

Let us now assume that only the first indicator were to be available, as has happened in the case of several studies seeking to operationalize PSI in recent years. If this single-indicator operationalization were pursued, countries A and C would have a maximum level of PSI (scoring 4), while country B would have only half of that (scoring 2). This way of operationalizing PSI thus places a high premium on stability while disregarding significant and even—potentially more relevant—variance on other dimensions.

In short, while the full operationalization runs the risk of conflating different phenomena, the restricted one introduces a pro-stability bias that neglects other phenomena that are at least equally important. Countries D and E illustrate instances that

are fully consistent with the linear assumption underpinning the conceptualization of PSI. These are instances that can withstand use of either an additive conceptual structure or a single-indicator operationalization to measure their overall PSI level. In so far as such cases are empirically frequent, one should find strong linear correlations between indicators of the four dimensions of PSI over larger sets of countries. However, contrary to that expectation, a linear relationship between different dimensions of PSI instead seems to be empirically rare.

The online appendix considers an additional complication, by introducing variation across time. As Zucco (2014, unpublished) argues for the case of Brazil, it is possible that some dimensions can undergo significant change while others remain constant. As spelled out in the online appendix, the analysis of the evolution of PSI totals on the basis of the four-component index provides only a rough (though somewhat robust) estimator of movement across time. The estimator is rough because it does not allow for fine distinctions between qualitatively different evolutions. However, if information is restricted to the first, most commonly available indicator (electoral volatility), the index becomes significantly less robust.

In light of these theoretical cases and their trajectories, existing methods of operationalizing PSI would therefore appear to be in serious need of revision. However, if the four dimensions of PSI could be shown to behave in a linear fashion empirically, then unpacking PSI could nonetheless prove unnecessary in practice. Before suggesting to unpack the concept, it therefore first needs to be demonstrated empirically that the different dimensions conflated in the concept of PSI do not relate and evolve together in a linear fashion.

Empirical Screening I: a Stylized Narrative of Latin American Cases

This section illustrates the implications of sticking to an additive conceptual structure of PSI, following Mainwaring and Torcal's (2006) proposal that ideological linkages be taken as a central component of "rootedness." Conceptually, the traditional definition of PSI assumes a linear and positive relationship between stability and programmatic structure.[6] Were this assumption empirically founded, then it should be possible to place Latin American party systems on a continuum ranging from inchoate to well institutionalized, with the more inchoate systems also being more volatile and uprooted and the better institutionalized ones being more stable and rooted. Mainwaring and Scully (1995) did originally also apply a residual category, "hegemonic party systems in transition," to the cases of Mexico (under the PRI) and Paraguay (under the Colorado Party). However, this category neither greatly influenced the theoretical definition of PSI nor subsequent efforts to measure it empirically.

If electoral volatility and programmatic party-voter linkages should be theoretically unpacked, what would be a reasonable way to go about it? I will argue that low volatility at best can be reframed as a necessary but insufficient condition for

[6] Usually, this assumption is based on a reevaluation of the Venezuelan party system, which collapsed a few years later, despite having qualified as "institutionalized" in 1995. In light of this case, excessive institutionalization was later theorized as a possible, if theoretically exceptional, hindrance to representation (Crisp 2000; Mainwaring 1999; Morgan 2012).

programmatic party-voter linkages existing in a given party system.[7] The causal relationship between the two dimensions is therefore neither linear nor symmetrical.

Given this alternative view of the relationship between stability and programmatic linkages, the three scenarios identified in Fig. 1 are all theoretically possible. Scenario 1 ("inchoate" systems characterized by volatility and up-rootedness) and scenario 2 ("institutionalized" systems with stable and rooted parties) are both consistent with Mainwaring and Scully's continuum running from inchoate to institutionalized systems.

However, a third scenario is also plausible. In scenario 3, there are both stable patterns of inter-party competition (operationally approximated by the lack of electoral volatility) and low levels of programmatic structure. This scenario is consistent with the presence of strong incumbents who do not compete programmatically but are able to ward off challengers. Historically, the case of the Mexican PRI until 2000 was a prototypical example of this situation (see Magaloni 2006 and Greene 2007). An alternative party system configuration, also consistent with this scenario, would be one in which traditional parties (usually two) share access to state resources, which contribute to feeding their clientelistic machines. The historical cases of Colombia (1958–1991) and Uruguay (1919–1973), as well as the case of Venezuela under the *Punto Fijo* Pact (1958–1999), approach this configuration. Scenario 3 should therefore also be observed in highly stable and competitive party systems with non-programmatic linkages between parties and voters.[8] The party systems of Colombia, Venezuela, and Uruguay were all classified as relatively "institutionalized" in Mainwaring and Scully (1995).

On the basis of a stylized historical interpretation of the evolution of party systems in Latin America (see, e.g., Dix 1989; Collier and Collier 1991; Mainwaring and Scully 1995; and Kitschelt et al. 2010), it is possible to theorize that scenarios 1 and 3 should be the kinds most frequently observed in the region. Viewed from a long-term perspective informed by studies analyzing party system turmoil in the 1990s (Coppedge 1998; Roberts and Wibbels 1999), scenario 3 could be theorized as one that becomes more frequent when economic voting translates into pro-incumbent (or pro-status quo) support. In twentieth century Latin America, this coincides with periods of significant state expansion and good economic times, i.e., with the easy phase of import-substitution industrialization in the 1930s, 1940s, and early 1950s, and possibly with the post-2002 "commodity boom."

Meanwhile, scenario 1 should be more prevalent during times of state retrenchment, state failure, and economic crises, which have been proven significant to increase electoral volatility (Roberts and Wibbels 1999) and to induce massive "political representation crises" (Mainwaring, Bejarano, and Pizarro 2006). In twentieth century Latin America, these periods have coincided with the crisis of pre-1929 oligarchic democracies and with the "dual transitions" launched in the mid-1980s.

[7] Candidates relying on new technologies might now be better able to develop programmatic campaigns even in the absence of stable parties. However, at least theoretically, such candidate-centered programmatic links would not generate the kind of accountability over time usually attributed to programmatically structured party systems. Such accountability remains key for enabling responsible party government (Aldrich 1995; Kitschelt et al. 2010).

[8] Morgan, Hartlyn, and Espinal (2008) elaborate a similar narrative for the Dominican Republic, reporting increased stability ("institutionalization") with declining ideological polarization and increasing clientelism.

Finally, scenario 2—in which one finds both high stability and high levels of programmatic structuring—is historically rare. Given previous characterizations of the region's party systems (Dix 1989; Roberts 2002; Kitschelt et al. 2010), levels of programmatic structuring in Latin America are expected to be lower than those observed in Western-European countries. The Chilean case, especially in the pre-1973 era, might have approached scenario 2 (see Scully 1992). Contemporary Chile and Uruguay could also eventually approximate this theoretical configuration (Dix 1989; Scully 1992; Luna and Zechmeister 2005, Kitschelt et al. 2010).[9]

This stylized characterization suggests the need to unpack the concept of PSI. A possible way to do so is to approach PSI (ontologically) as a concept with a "necessary and sufficient" conceptual structure. To illustrate the implications of reconceptualizing PSI in terms of "necessary and sufficient" conditions, in what follows, I treat stability and programmatic rootedness as two independent dimensions of PSI. Even if only two of the four dimensions of PSI were to prove empirically not to be linearly related, that would be sufficient ground for revisiting the current underlying assumption that PSI should be conceptualized in terms of a family resemblance model and that its measurement as a latent variable can validly proceed accordingly.

Table 3 displays the comparative placement of Latin American party systems according to Mainwaring and Scully's original classification against one unpacking stability and programmatic rootedness as advocated here.[10] The data on electoral volatility presented in Table 3 corresponds to the dataset authored by Scott Mainwaring, Annabela España, Edurne Zoco, and Carlos Gervasoni (as of October 17, 2008).[11] For each country, I computed the average congressional volatility in each decade (1990–1999, 2000–2008).

To generate a proxy for programmatic rootedness for as many countries as possible, I relied on the last four waves of the World Values Survey. For those cases that participated in each of these waves, an average of their scores in the first two waves (1989–1990, 1995–1996) was used as an indicator of their programmatic structuring for the 1990s. The same was done for the 2000s using the third and fourth waves (2000–2001, 2005–2006). Those cases that only participated in one of these waves (or in one in each decade) were also included, with their score then based on their performance in the available wave.

Two different indexes of programmatic rootedness (symbolic and substantive) were then computed for each case on the basis of multinomial logistic regressions, using party choice as the dependent variable and left–right self-identification (symbolic) and issue positions (substantive) on three alternative competitive divides (regime, state/market, and moral conservatism) as independent variables in each of those two models. The intuition supporting this measure, shared by Mainwaring and Torcal (2006), is straightforward. A party system in which voters link to parties on the basis of ideological stances or programmatic platforms should have reasonable levels of programmatic/ideological differences among partisan electorates (those who declare having voted for different parties) and relatively high levels of programmatic/

[9] See Luna and Altman (2011) for a less positive appraisal of the Chilean case.

[10] Once again, it should be recalled that Mainwaring and Scully's original treatment did not necessarily consider programmatic rootedness, so this analysis is not pursued as a retrospective judgment but rather as an analytical exercise.

[11] I thank Scott Mainwaring for generously sharing this dataset.

Table 3 Classification of cases according to Mainwaring and Scully's party system institutionalization index and a two-dimensional unpacking of volatility and programmatic rootedness for the 1990s (average electoral volatility/average programmatic rootedness)

	Unstable and non-programmatic (scenario 1)	Stable and non-programmatic (scenario 3)	Stable and programmatic (scenario 2)
Institutionalized	Venezuela (43.7/.014)	Argentina (20.2/.01) Costa Rica (11.3/?) Colombia (24.4/.035)	Chile (17.2/.101) Uruguay (11.1/.168)
Inchoate	Perú (60.6/.009) Ecuador (29/?) Bolivia (32/?)	Brazil (22.9/.011)	
Hegemonic		Mexico (18.3/.019) Paraguay (?)	
Average volatility/rootedness	41.3/.015	19.4/.018	14.1/.13

Source: Own construction on the basis of Mainwaring and Scully (1995), Scott Mainwaring, Annabela España, Edurne Zoco, and Carlos Gervasoni's electoral volatility database, and data from the World Values Survey

ideological cohesion within each party's constituency. Where that is the case, ideological or programmatic stances should provide more leverage for predicting vote choice than in systems where alternative linkage types drive the vote. Finally, focusing on voters provides a better proxy for social rootedness than focusing on, say, legislators or partisan elites.

The measure I now present is the average pseudo-*R* square obtained for each country in these two indexes, for each decade.[12] The correlation between this measure and that of Mainwaring and Torcal is .75 for the 1990s index and .82 for the 2000s one.[13] With this indicator at hand, we can now turn to analyzing the empirical relationship between stability and programmatic rootedness, as well as their variance across time and space.

[12] To be sure, an estimation based on the comparison of (maximum-likelihood) pseudo-*R* squares across models (and cases) is not without perils (see, e.g., Long and Freese 2006). For that reason, I rely below on a different operationalization based on a more straightforward coding of expert surveys. The operationalization based on pseudo-*R* squares provides the opportunity to analyze programmatic rootedness across time (for the 1990s and 2000s). Moreover, it is similar to Mainwaring and Torcal's (2006), though the incorporation of the substantive component seeks to enhance robustness. For each wave and country, the dependent variable is defined as the party for which each respondent declares to have voted in the previous election. All parties obtaining more than 5 % of survey respondents in a given country sample and wave were included in each model. (In general, sample size was about 1,000 cases.) The 5 % threshold seeks to restrict the analysis to parties for which a sufficient number of observations is available in each national survey to improve reliability. The online appendix provides detailed documentation on the operationalization I chose, which is largely consistent with that of Mainwaring and Torcal (2006). Table A-2 in the online appendix displays the waves available for each country and the minimum and maximum values obtained for each case on the indicators of programmatic structuring discussed in this section. The number of parties considered for each measurement, which does not significantly correlate to the obtained pseudo-*R* squares, is also displayed.

[13] In both instances, the number of shared cases is 26. Discrepancies between the two indexes are not only caused by the addition of the substantive component to my proposed measure but also by coding decisions regarding relevant political parties in each case (i.e., my inclusion of all parties obtaining at least 5 % of survey responses).

Table 3 displays the average volatility and programmatic rootedness for 11 cases originally included in Mainwaring and Scully's classification. Volatility and programmatic rootedness averages are presented in brackets for each case and as group averages in the last row. As seen in Table 3, cases that were classified as institutionalized by Mainwaring and Scully have been placed into three different categories, consistent with scenarios 1, 2, and 3, respectively. In this classification, 6 out of 11 cases do not conform to the expectation of a linear and positive relation between stability and rootedness. These are the six cases corresponding to scenario 3: Argentina, Costa Rica, Colombia, Brazil, Mexico, and Paraguay. Those cases display less than half the average volatility of the "inchoate" party systems placed under scenario 1 (Peru, Ecuador, Bolivia, and Venezuela). However, the cases in scenario 3 display very low levels of programmatic rootedness: more than seven times lower than those displayed by the cases in scenario 2 (Uruguay and Chile). Surprisingly however, the cases in scenario 3 are nonetheless only marginally less volatile than those in scenario 2.

In sum, Table 3 supports an alternative understanding of PSI where "off-diagonal" or inconsistent combinations are allowed. That alternative understanding of PSI, which better accommodates 6 of the 11 cases considered here, would be better captured in a conceptual structure of the "necessary and sufficient" variety (Goertz 2005).

What about the dynamic evolution of programmatic rootedness and electoral volatility? With the advantage of hindsight, one can analyze the temporal evolution of both dimensions. Table 4 presents the averages obtained for the seven cases for which information for both decades and both dimensions is available. Taking the scores for the 1990s as base 100, the index in brackets for each case on each dimension indicates the direction and magnitude of change. The cases presenting a dynamic evolution consistent with a correctly signed evolution of both dimensions (i.e., decreasing volatility is matched by increasing rootedness and vice versa) have been classified as cases that moved in the "expected" direction as per Mainwaring and Scully's understanding of the concept of PSI. As shown in Table 4, however, three out of seven cases display an "inconsistent" evolution: Argentina and Colombia had both increased

Table 4 Stylized evolution of 11 cases in terms of stability and rootedness (diachronic)

	Average volatility in the 2000s (evolution 1990s=100)	Average rootedness in the 2000s (evolution 1990s=100)	Type of relationship between dimensions ("expected" stands for decreased volatility and increased rootedness and vice versa)
Argentina	Increase, 29.4 (145)	Increase, .028 (280)	Inconsistent
Brazil	Decrease, 14.6 (64)	Increase, .031 (281)	Expected
Chile	Decrease, 10.6 (61)	Decrease, .08 (79)	Inconsistent
Colombia	Increase, 47.6 (195)	Increase, .02 (181)	Inconsistent
Peru	Decrease, 44.1 (72)	Increase, .016 (177)	Expected
Uruguay	Increase, 26.7 (240)	Decrease, .15 (91)	Expected
Venezuela	Decrease, 40 (91)	Increase, .037 (264)	Expected

Overall correlation between the two trends over time is −.28. Source: Own construction based on Mainwaring and Scully (1995), Scott Mainwaring, Annabela España, Edurne Zoco, and Carlos Gervasoni's electoral volatility database, and data from the World Values Survey

volatility and increased rootedness, while Chile had both decreasing volatility and decreasing rootedness.

Moreover, even those cases that moved in the expected direction had levels of change differing too markedly from one dimension to the other to be clearly consistent with Mainwaring and Scully's underlying conceptual model of PSI. Take for instance the cases of Venezuela and Uruguay. The former presents a marginal (−9 %) drop in volatility but a very substantial gain in terms of its programmatic rootedness (+164 %). The opposite holds for Uruguay, where a marginal drop in programmatic rootedness (−9 %) is matched by a substantial increase in volatility (+140 %). At least these two cases, both of which I conservatively classified as moving in the "expected" direction, suggest that the relationship between the two dimensions is not monotonic. Indeed, they could be seen as cases in which mere stochastic variation in one dimension is matched by sizable changes in the other. And indeed, the correlation coefficient obtained when considering the evolution of the two trends from the 1990s to 2000s is −.28. While signed in the expected direction according to Mainwaring and Scully's assumption, the relationship only supports it weakly at best.

In sum, the linear assumption embedded in PSI's conceptual structure and consequent measurement does not seem to hold empirically even in the set of cases that originally inspired the concept of PSI. However, some may still want more systematic evidence of this problem before accepting this paper's proposal for conceptual revision. The next section therefore expands the set of countries observed beyond Latin America.

Empirical Screening II: Volatility and Programmatic Rootedness (Large N)

Drawing on the above-described measure for electoral volatility and a new measure for programmatic structure, this section expands the number of cases to include all OECD, Asian, Eastern European, and Latin American countries for which information on both dimensions is available. The new measure for programmatic linkages used here is based on an expert survey, a way of operationalizing that variable that avoids the drawbacks of comparing pseudo-*R* squares across maximum-likelihood models.[14]

The Democratic Accountability and Linkages Project implemented in 2009 provides an alternative way to assess the presence of programmatic linkages in a large set of cases (88 countries). The survey included an item gauging experts' opinions on the extent to which each party in their country sought to mobilize electoral support by "emphasizing the attractiveness of the party's positions on policy issues."[15] Experts were asked to assign a number from 1 to 4 to each party, with 1 indicating that the party did not engage in that type of mobilization ("not at all") and 4 indicating that the party

[14] Although the two measures of programmatic structure are only modestly correlated (.26, sig=.05, obs=54), the structure of their relationship to electoral volatility is essentially equivalent. Similarly, regional configurations regarding the combination of electoral volatility and programmatic structure are also closely related across the two measurements of programmatic structure. For the sake of transparency, the relationship between the pseudo-*R* square indicators of programmatic structure and electoral volatility for both the 1990s and 2000s is included in the appendix.

[15] I would like to thank Herbert Kitschelt for granting access to this dataset at an early stage of the research project. I also thank Yi-Ting Wang for providing assistance in working with the database. The survey item corresponding to programmatic strategies is E2.

made extensive use of that strategy ("to a great extent"). The country database produced on the basis of the survey includes an entry for each system's weighted average on each item. Weighting was based on parties' respective showing in the last two congressional elections before 2008. On the basis of the results available for each case, I computed each case's membership in a conceptual set: the set of cases in which programmatic mobilization is high.[16]

To facilitate interpretation, as in Fig. 1, I decided to plot an inversed measure of electoral volatility. Figure 2 displays the empirical relationship between programmatic structure and electoral volatility in the 2000s observed for 45 countries. Despite being based on a completely different type of measure for programmatic linkages, the scatterplot depicted in Fig. 2 clearly resembles that reproduced in Fig. 1. Once again, in spite of a .42 overall linear correlation (sig.=.001) observed between the two indicators, a sizable group of cases fall below the regression curve, empirically representing cases that approach scenario 3 (stable but non-programmatic systems).

Most Latin American cases approach either scenario 3 (stable but non-programmatic: Honduras, Brazil, Mexico, Chile, and El Salvador) or 1 (unstable and non-programmatic: Bolivia, Peru, Venezuela). Of course, these are not the only cases with lower levels of programmatic structure, but the region is overrepresented in the low-programmatic zone of the graph, where Argentina and Ecuador are also located. In short, Latin American cases seem to pivot between equilibriums 1 and 3. This seems to be a region-specific pattern, with Costa Rica and Uruguay as exceptions that approach scenario 2, a situation far more typical of advanced capitalist societies and some East European cases such as the Czech Republic or Hungary. In turn, most East European countries, as well as Asian ones, also approach either scenario 1 or 3.

What these results show is that volatility and programmatic structure are correlated but nonetheless distinct and empirically separable phenomena. Furthermore, the relationship between them is subject to major changes over time and does not seem to be very constrained in terms of directionality. The actual nature of the empirical relationship between these two dimensions of PSI therefore does not conform to the assumption built into the original PSI concept. As a result, customary practices for measuring PSI are empirically invalid and in need of revision.

The preceding analysis supports my argument that electoral volatility (as a proxy for the stability of the party system) and the extent to which partisan options are influenced by voters' programmatic stances (as a proxy for the presence of social rootedness) should be treated as orthogonal dimensions. They are only marginally correlated and evolve differently. In fact, in a significant subset of cases, they even move in opposite directions.

[16] Membership in the set was calibrated. To calibrate, I relied on the direct method presented in Ragin (2008), which was applied using the fuzzy.ado module in Stata 12. The direct method relies on the researcher's identification of three anchors: a minimum threshold for set membership (below which cases are definitely considered not to be members of the set), a crossover point (above which cases are more likely than not to be members of the set), and a maximum threshold (above which cases are definitely considered set members). Although specific criteria could be used to calibrate each variable, for the sake of transparency, I decided to set independent variable anchors using three percentiles: minimum threshold=25 %, crossover point=75 %, and maximum threshold=90 %. The appendix includes the list of countries and their degree of membership in the set of cases in which programmatic mobilization is high. Naturally, the calibrated version is significantly and strongly correlated with the original 1–4 scale (.84, sig=.000, obs=88).

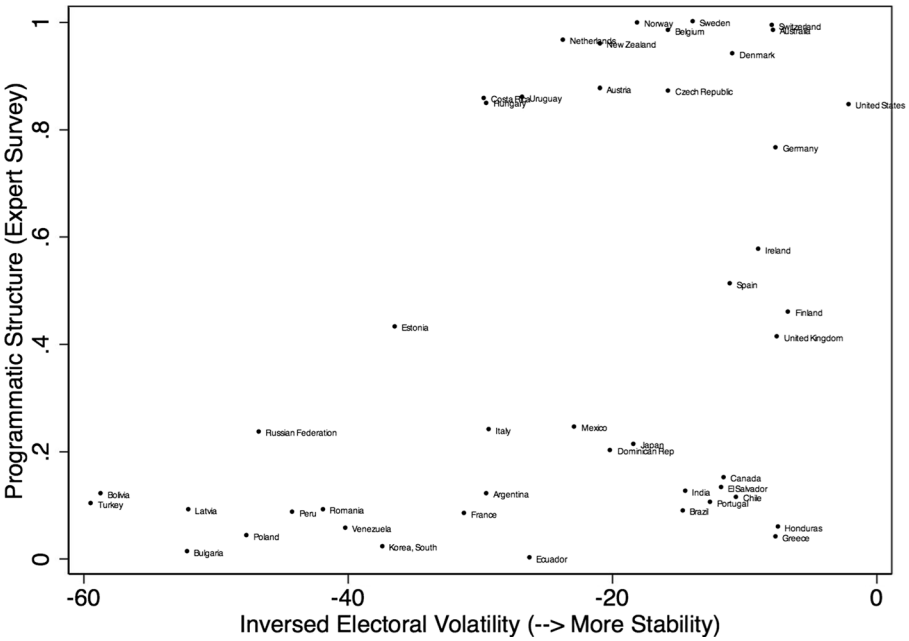

Fig. 2 Electoral volatility and programmatic structure (2000s). Source: Own construction on the basis of Scott Mainwaring, Annabela España, Edurne Zoco, and Carlos Gervasoni's electoral volatility database and data from the Democratic Accountability and Linkages Project (2009)

As a result, collapsing the two phenomena in a linear (additive) latent variable measurement is misleading. Although future research is needed to explore the relation between the two dimensions unpacked here and the remaining theoretical dimensions and indicators included in Mainwaring and Scully's conceptualization of PSI, the analysis of the relationship between these first two dimensions presented in this paper already constitutes sufficient ground for claiming that the concept's structure (family resemblance) and aggregation rule (linear addition of dimensions and their indicators into a single index) need to be revised.

Conclusion

I have argued that current operationalizations of the concept of PSI, while faithful to Mainwaring and Scully's original theory, suffer from significant problems regarding their validity. Those problems relate to PSI's presumed conceptual structure, to methodological decisions built in the operationalization of the concept (choices of indicators and aggregation rules), and to the inconsistency between the theory of PSI and observed empirical patterns.

PSI needs to be reconceptualized, not in terms of devising a new "family resemblance" measure, as it hitherto has been, but rather in terms of a "necessary and sufficient" conceptual structure. Such a reconceptualization of PSI would allow analysts to retain Mainwaring (et al.)'s original insight concerning the central importance of the phenomena it encapsulates while requiring analysts to adopt valid new empirical

approaches to measurement that do not conflate PSI's distinct dimensions. Revising the concept and its measurement this way will allow the field of comparative party systems to move to applying a better idea of what PSI is and how it works, one that promises substantial payoffs not only in terms of making the concept much more subtle and precise for purposes of descriptive inference but also in thereby making it more useful and predictively powerful as a tool for causal analysis and comparative understanding of processes of change over time.

Moreover, while more intensive, and less parsimonious, a necessary and sufficient conceptual structure would be more consistent with Mainwaring and Scully's normative and teleological argument regarding PSI and its association with high democratic quality and virtuous political representation and policy-making. A less extensive definition of PSI would make it possible for analysts to distinguish party systems that are both relatively stable and programmatic (mostly in advanced capitalist countries) from systems that are also stable but lack programmatic structure. In some cases, lack of programmatic structure is associated with lower quality of representation and democracy, as argued above for some Latin American cases. This scenario is also consistent with recent research on the institutionalization (electoral stabilization) of hegemonic one-party rule in African regimes (see Lindberg 2007; Kuenzi and Lambright 2001).

In short, the revised conceptual structure proposed here would distinguish between stable party systems that have weak programmatic rootedness (which could then become stabilized around non-programmatic linkages) and those that are both stable and rooted around programmatic appeals, the latter being normatively preferable to the former. A feasible and perhaps more productive alternative would be to completely unpack the different dimensions currently conflated in the concept, treating them as different and independent theoretical and empirical phenomena, with specific traits that could affect the quality of democracy and political representation in different and possibly contradictory ways.

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