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Measuring Party System Change: A Systems Perspective

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Abstract

The term 'party system', explained Giovanni Sartori, refers to the pattern of interactions among relevant parties. That pattern can be represented as a type and treated as a proper unit of analysis. When 'party system' is defined in this way, it becomes clear that the scholarship lacks a direct measure of 'party system change'. The Sartori approach to party system change is not the only legitimate way to understand this concept, but it does target an undoubtedly important feature of political systems – namely the stability of interactions among relevant parties. This article develops a new indicator, the index of fluidity, which measures the extent of such stability. Applying the index to Africa, we show that there is significant cross-national variation in fluidity and weak correlation between fluidity and (Pedersen) volatility.

Keywords

party systems, party system change, Africa, Sartori typology, fluidity

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Political scientists often emphasise the importance of party systems for understanding how political systems operate and the outcomes they deliver (see, for example, Mainwaring and Scully, 1995; Tsebelis, 2002). Early research concentrated on party systems' *static* properties (i.e. their composition at a point in time), which were theorised in two contrasting ways. One approach followed Duverger (1954) and Sartori (2005 [1976]) by treating party systems as types and examined the effects of different types on governance outcomes. The use of types captures the theorisation of party systems as proper *systems*, that is, as distinct entities with system-level, or emergent, properties (Bardi and Mair, 2008; Collier and Adcock, 1999; Sartori, 2005). 'The concept of system is meaningless', Sartori

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(2005: 39) confirms, 'unless the system displays properties that do not belong to a separate consideration of its component elements', namely 'the parties'. The various types embody the fundamental differences among party systems or their 'functional properties' (Sartori, 2005: 113). Therefore, any other contrast, or the variation within a type, holds less significance.

Another line of inquiry rejected this strict systems perspective, especially its theorisation of party systems as types (e.g. Laakso and Taagepera, 1979; Rae, 1967). A 'logic of gradation' was assumed instead (Sartori, 2005: 263), and a 'party system' becomes, then, the collection of parties 'that simply happen to share a common political setting' (Bardi and Mair, 2008: 152; see also Katz, 2015). Differences among party systems are differences of degree, rather than of kind, and can be summarised with continuous measures of attributes such as the number of parties (fragmentation) or their ideological separation (polarisation). And the effects of party systems can be investigated by correlating such measures against outcome variables. Thus, there is no need to differentiate and compare types. This approach, which is probably now the more prevalent theory (see, for example, Wolinetz, 2006), was rejected by Sartori, who argued that measurement could be valid only if it followed and incorporated classification – 'the either-or treatment cannot be bypassed', he explained (Sartori, 2005: 265).

In recent decades, there has been growing recognition of the importance of the *dynamics* of party systems (i.e. their propensity to change over time), which, it has been argued (Mainwaring and Scully, 1995), matters as much as their static properties. A 'party system' can 'change' irrespective of how its static attributes are conceptualised. If a party system is assumed to be a fully fledged system, then system change refers to change of type (Mair, 1979, 1989a, 1989b). Whereas if a party system is assumed to be no more than the collection of parties, then system change refers to change in the make-up of that collection. 'Party system change' in this second sense can refer to developments that do not produce type change, including change in the identity of parties or marginal change in fragmentation or polarisation. Crucially, although we can think about system change while assuming that a 'party system' is (1) a fully fledged system or (2) a collection of parties, the current scholarship provides no way to *measure* system change in the first sense. This article aims to address this gap.

We develop a measure of system change in which party system types form the unit of analysis; it therefore attempts to operationalise the Duverger/Sartori theorisation of party systems as proper systems. We draw on the Sartori framework, especially its typology, for this purpose. Despite its imperfections, the framework provides the most credible basis for a systems-based measure of party system change. It was a landmark contribution to systems theorising about parties. Sartori's typology, which captures how parties can interact in democratic and non-democratic settings, remains widely used (see, for example, Bardi and Mair, 2008; Mair, 1997; Ware, 1996; Wolinetz, 2006). Furthermore, the value of the framework for understanding party system change is well established. It is the point of departure for theoretical studies (Mair, 1989b; Smith, 1989) and for empirical studies of system change in specific countries (Bardi, 2007; Mair, 1979, 1989a; Quinn, 2013; Ware, 2009). The framework has influenced the design of quantitative indicators of system change (e.g. Bartolini and Mair, 1990; Bértoa and Enyedi, 2014; Chiaramonte and Emanuele, 2015; Pedersen, 1979, 1980; Powell and Tucker, 2013). However, none of these indicators treat 'the system' as a distinct entity, which means that they do not measure the magnitude of 'party system change' when this notion is understood in Sartori terms. The measure we develop aims to capture exactly this quantity.

We apply the new tool, which we call the *index of fluidity* (following Sartori's description of unstable party systems as 'fluid'), to examine the dynamics of party systems in Sub-Saharan Africa. Previous studies use Pedersen's (1979, 1980) index of volatility for this purpose. However, this index was not designed to capture the stability of systems but flux within systems as indicated by change in parties' electoral strength (Pedersen, 1979: 3). It can be problematic to draw conclusions about the stability of systems based on observations of volatility because, as Mair (1989b, 1997, 2006) explained, a system can remain stable despite exhibiting moderate or even high volatility (see also Katz, 2015; Toole, 2000). The index of fluidity measures, directly, the stability of systems. Our empirical analyses using it show that there is not only considerable diversity in the dynamics of African party systems but also weak correlation between fluidity and volatility index scores, which confirms that (in Africa at least) there is no straightforward connection between flux of parties within systems and flux of the systems themselves.

The remainder of the article is organised as follows. In the next section, we draw on the Sartori framework to flesh out a theoretical account of party system change; the new measure aims to operationalise this account. The second section presents the index of fluidity and explains why the phenomenon which fluidity taps – the stability of competition among system-defining (or 'relevant') parties – is not well captured by existing indicators. The third section applies the index to study system change in Sub-Saharan Africa. Our arguments in these sections engage with theoretical research on party system change (e.g. Mair, 1989b; Smith, 1989), efforts to devise measures of this phenomenon (e.g. Bartolini and Mair, 1990; Bértoa and Enyedi, 2014; Pedersen, 1979, 1980; Sikk, 2005; Tavits, 2008), and research on African party systems (e.g. Bogaards, 2008; Erdmann and Basedau, 2008; Kuenzi and Lambright, 2001; Lindberg, 2007). We discuss these connections with the existing scholarship at appropriate points in these sections. The concluding section reviews the preceding analyses and identifies several important questions that fall beyond the scope of this article.

Theorising Party System Change

This section uses the Sartori framework to develop a theoretical account of party system change. This account is necessary because while Sartori's book contained only a handful of explicit statements on party system change, it does suggest a general approach to this topic, which we aim to flesh out. We build on previous efforts, notably by Mair (1989b) and Smith (1989), to do likewise but concentrate on two shortcomings of these previous accounts. First, we show that power alternation, the 'latent' dimension of Sartori's framework (Nwokora and Pelizzo, 2014; see also Quinn, 2013), provides crucial leverage in the detection of system change. Previous accounts overlook this possibility and its implications. We develop this argument in the first subsection. Second, we analyse the framework's implications for measurement of system change. While previous accounts avoid this issue (see, for example, Mair, 1989b: 273), we confront it in the second subsection. The account that results should be understood as a particular interpretation, or conceptualisation, of system change, which is distinctive because of its emphasis on the systemic aspect of this phenomenon. We do not argue that it represents the only valid interpretation of system change. Such a stance, in our view, would be difficult to reconcile with the diversity that exists in theories of party system change (see Katz, 2015). Our account simply aims to capture and develop one influential line of theorising.

Detecting Party System Change: The Leverage of Power Alternation

In the Sartori framework, the term 'party system' refers to the 'patterned interactions' of system-defining or 'relevant' parties (Sartori, 2005: 39, 107).[1] There are seven basic patterns, or *types*, of interaction: the one-party system, the hegemonic party system, the predominant party system, the two-party system, moderate pluralism, polarised pluralism and the atomised system. A 'party system change' occurs whenever the pattern of interaction changes; in other words, when it becomes necessary to *reclassify* a party system (Mair, 1989b: 256). As time passes, a party system will certainly evolve. But whether this constitutes system change in the framework's terms depends on whether the interactions of relevant parties are affected. If they are transformed and the party system is (or should be) reclassified as a result, then system change has occurred. We can assume that relevant parties compete and coordinate differently than they did in the past. However, if reclassification is not warranted, then system change has not occurred; relevant parties continue to interact as they did in the past.

Following this perspective, the basic task when analysing system change is to identify the circumstances when reclassification is warranted. If this is the goal, then the criteria that Sartori used to derive the types are the obvious place to start. They were, he explained, derived from *fragmentation*, or the number of relevant parties, and *polarisation*, the ideological distance covered by these parties, and each type is a product (or 'compound') of attributes from these dimensions (Sartori, 2005: 110). Although this line of argument has become conventional wisdom (see, for example, Mair, 1997; Ware, 1996), it is also incomplete because it is not possible to derive the full range of types on the basis of fragmentation and polarisation alone. It is also necessary to take account, as Sartori actually did, of the *pattern of power alternation* in a party system. This observation has important implications for the detection of system change.

The predominant party system can be used to show that fragmentation and polarisation are insufficient to define the full range of Sartori types (see also Nwokora and Pelizzo, 2014). This type captures the situation where a party remains in power for a prolonged period in a regime that is a legitimate democracy – elections are free, fair and competitive (Sartori, 2005: 173). For a party system to be considered 'predominant', a party must win at least three consecutive elections. Fragmentation is necessary to define this type: a predominant party system has one relevant party. However, one relevant party is also an attribute of two other types, the one-party and hegemonic systems. If the full range of types can be derived from fragmentation and polarisation alone, then we should be able to differentiate between the predominant, one-party and hegemonic types on the basis of polarisation. In fact, this is not possible because these types have the same polarisation characteristic, namely that polarisation is no more than trivial. Sartori defined polarisation as the ideological distance between relevant parties, so there can be no such distance when there is only one relevant party.

Is there a dimension that can be used, alongside fragmentation, to distinguish between these three types? The predominant type differs from the hegemonic and one-party types because it pertains to democracy while the others are autocratic types. To explain this regime difference in terms of party system attributes, we need to introduce distinctions that relate to *power alternation among governing and opposition parties*. An essential feature of a democratic regime is that power alternation through democratic processes – elections and coalition negotiations – is possible (see, for example, Katz, 2006; Sartori, 1987). When this condition holds, a party system with one relevant party is predominant,

Table 1. The Sartori Types Defined in Three Dimensions.

	Type	Fragmentation	Polarisation	Power alternation
Autocracy	One-party (e.g. China)	1	Trivial	Impossible
	Hegemonic (e.g. Zimbabwe)	1 + *n*	Trivial	Impossible
Democracy	Predominant (e.g. Japan)	1 + *n*	Trivial	Infrequent
	Two-party (e.g. United States)	2 + *n*	Low	Regular and wholesale
	Moderate pluralism (e.g. Germany)	3–5 + *n*	Medium	Regular (wholesale or partial)
	Polarised pluralism (e.g. Italy)	6–8 + *n*	High	Regular but partial
	Atomised (e.g. Vanuatu)	8+	Extreme	Patternless

but when it does not, a party system with one relevant party is hegemonic or one-party. Power alternation is also needed to distinguish between predominance and two-partism. In a predominant system, alternation is possible but does not occur (or at least not regularly). In a two-party system, alternation is both possible and regular. The threshold for what constitutes 'regular' can be debated – and it might be argued that Sartori's three-election rule is not stringent enough. But the principle that a party system in which power does not alternate should not be described as a two-party system is relatively uncontroversial following the logic of the framework.

Since power alternation is needed to define the predominant type, we argue it should be considered as essential to the framework as a whole. The typology can be recast on this basis, which means that it now has three explicit dimensions undergirding it instead of two. Table 1 presents the attributes of the types in these dimensions.[2] Two of the dimensions, fragmentation and polarisation, are those which Sartori explicitly identified as undergirding his typology. Our innovation is to place power alternation *alongside* fragmentation and polarisation, rather than viewing this dimension as beyond the Sartori framework (see especially Smith, 1989: 351; see also Mair, 2006). This approach also differs from the argument we make in our previous article on the Sartori framework (Nwokora and Pelizzo, 2014), where we proposed that because power alternation is critical to this framework, it might be used to generate additional types and sub-types beyond those that Sartori discussed. Here, we do not aim to extend the Sartori typology but merely to ensure that system changes that occur within its parameters are detected and not overlooked.

All three dimensions are divided into categories to reflect the fact that types are constructed on the basis of thresholds, cut-offs and qualitative differences. In the fragmentation dimension, the categories are represented by numerical integers and, in some cases, the letter *n*. The numerical integers give the number of relevant parties that are associated with a type. The presence of the term *n* indicates a type that can coexist alongside an unspecified number of non-relevant parties. There is a clear ordering of categories in the fragmentation dimension, which spans from the types with one relevant party (one-party and hegemonic party systems) to the atomised system, which has at least eight such

parties. The polarisation dimension is also divided into ordinal categories, differentiating types with 'trivial', 'low', 'high' and 'extreme' polarisation. The power alternation dimension has a partial ordering. The one-party, hegemonic, predominant and two-party types are well ordered in this dimension, from types where alternation is 'impossible' (one-party and hegemonic) to those where alternation is 'regular' (two-party and moderate pluralism). The other types – polarised pluralism and the atomised system – do not easily fit on a spectrum spanning from 'lesser' to 'greater' alternation. In polarised pluralist systems, one should observe 'peripheral turnover', Sartori (2005: 123) explains, while there is no consistent pattern of alternation in an atomised system.

To detect system changes, we need to observe whether and how a party system's characteristics in these three dimensions have changed over time. Crucially, the dimensions are not equally useful for this purpose. Fragmentation and power alternation bring significant leverage. If we cannot observe these dimensions, or if they are not treated as fundamental to the framework, we will overlook situations when reclassification is warranted – in other words, legitimate party system changes would go undetected. However, if we are unable to observe change in polarisation, our ability to accurately detect system changes is not impaired so long as we can observe the other dimensions. This is because the system changes that polarisation enables us to detect can still be detected using fragmentation and power alternation. And if this is the case, it must be possible to detect *all* system changes using fragmentation and power alternation: these dimensions together provide enough information to identify the type currently in operation and to determine whether and when any system changes occur. This point has practical implications because it is usually easier to collect data on fragmentation and power alternation than on polarisation. We exploit this fact in the empirical section of this article, where we detect system changes in Africa on the basis of fragmentation and power alternation. It is well known that polarisation data are often impossible to collect in Africa.[3]

The Problem of Measurement

Having clarified how system change can be detected, we now consider how such change might be measured. Measurement involves the placement of entities along a numerical scale. For our purposes, two kinds of entity can be the subject of measurement: the various *types* of party system and *polity* party systems by which we mean the party systems of countries or regions. The measure we propose in the next section aims to capture the stability of polity party systems, which is the more difficult interpretation to operationalise.

When *type* is the subject of measurement, the aim is to assess and compare the tendency of different types to be stable or unstable. Sartori (2005: 177) suggested that some types were likely to be more stable than other types, in particular that:

> the predominant and the twoparty systems share a peculiar kind of fragility: Small differences in returns, or the mere changing of the electoral system, can more easily transform the nature of the system (Sartori, 2005: 177).

To test this conjecture, we need to detect the system changes to and from these types (see the previous subsection) using an appropriate sample of countries. Then, with the resulting data, we can see whether spells of predominance and two-partism tend to be shorter lived than those of the other types.

When *polity* is the subject of measurement, we aim to assess and compare the stability of country or regional party systems. Mair (2006: 63) argued, along these lines, that polity party systems 'scarcely change at all' when they are conceptualised in Sartori terms. Studies that analyse the dynamics of specific countries' party systems, such as the Irish and Italian party systems (Bardi, 2007; Mair, 1979, 1989a), provide mixed evidence on this point: system change certainly occurs, but it does seem to be rare (see also Quinn, 2013; Ware, 2009). But case studies are far from ideal for testing hypotheses such as Mair's that are cast as generalisations. A large-n research design is better suited for this task. We would then need to measure the *extent of system change*. The problem, however, is that this is not an obvious quantity, and it is not tapped by existing indicators (as we explain later). The index we propose attempts to address this problem by synthesising three distinct interpretations of the extent of system change:

- First, it can refer to the frequency of change. Thus, a polity party system A is more changeable than another, B, if A undergoes a greater number of system changes than B during a particular historical period.
- Second, it can refer to the scope of change or the extent to which the polity functions differently because of a system change. All party system changes modify the functioning of the political system since they all involve a shift in the pattern of political-elite competition, but we should expect some changes to alter polity functioning more drastically than other changes. For instance, system change from two-partism to predominance, which entails change in the frequency of alternation, can be assumed to be less significant than that from two-partism to polarised pluralism, which entails changes to alternation, fragmentation and polarisation. The first transition will not alter the direction of inter-party competition, only the strength of competitive drives (Quinn, 2013). The second will mean that centripetal competition is replaced by centrifugal competition, a change which could undermine the stability and quality of democracy (Sartori, 2005: 120).
- Third, it can refer to the variety of change, so a party system is more changeable to the extent that it experiences a diversity of types. To illustrate, imagine that two systems both experience three transformations. However, while the first system changed between two types, from type x to type y then back to x, the second changed between three types, from x to y to z. The second system is more changeable, in an important sense, than the first because it experienced a more diverse range of types.

These three expressions do not necessarily correlate. It is possible for a country's party system to be highly changeable in one sense but stable in another. To illustrate, consider the party systems of two polities, Country A and Country B, during the historical period T1 through to T10. During this time, Country A's party system underwent one type change, from the hegemonic type to two-partism at T3. Country B's party system underwent two changes, from moderate pluralism to polarised pluralism at T3 and from polarised pluralism back to moderate pluralism at T6. Which polity has the more stable party system? The answer depends on whether frequency, scope or variety is measured. In terms of frequency, A is more stable than B; in terms of scope, B is more stable than A; and in terms of variety, the systems are equally stable. We do not see a persuasive reason why any one interpretation should be prioritised ahead of the others. In fact, we view them as being complementary, since they each capture a distinct aspect of stability and are consistent

with the logic of the Sartori framework. Therefore, the measure we propose gives equal weight to the frequency, scope and variety of system change.

Measuring Party System Change: The Index of Fluidity

This section presents the index of fluidity, a tool to capture the stability of polity party systems. It combines the three expressions of the extent of system change which were elaborated earlier. The index and its components can be summarised as follows:

1. *Frequency* = Number of Party System Changes / Number of Elections
2. *Scope* = Distance between the Two Most Different Types
3. *Variety* = Number of Different Type Changes
4. ***Fluidity*** = *Frequency* * *Scope* * *Variety*

To solve these equations, it is necessary to use the Sartori typology to analyse the dynamics of the party systems under investigation. This analysis should yield a mapping of the system changes that have occurred in each country; fluidity is calculated from information in that mapping. To detect system changes, it will often be necessary to observe a party system over multiple elections. For instance, to determine whether a party system has become predominant, we need observations from at least three elections. But in some circumstances, results from a single election will be sufficient to indicate a system change.[4] This would be the case, for example, if the number of parties increased sharply at an election, say from 'two' to 'six', which would indicate change from two-partism to polarised pluralism; or if the election was the first free and fair election in the country, which would be evidence of system change from an autocratic type (i.e. one-party or hegemonic party system) to one of the democratic types.

To calculate frequency, equation (1), we count the number of reclassifications of a country's party system, which gives its Number of Party System Changes. Taken on its own, this score remains decontextualised in a way that could be misleading. If we accept that every time an election is held there is a chance of system change, then a party system which changes 5 times over 10 elections should be considered more stable than another which undergoes the same number of changes (5) over fewer elections. This conclusion seems reasonable because the same number of changes is observed despite greater opportunities for change in the first country than in the second. To take account of such variation in the length of election cycles, we suggest that Number of Party System Changes should be divided by Number of Elections.

To calculate scope, equation (2), we need to estimate the effects of party system change on polity functioning. As we explained earlier, this relationship is likely to be *variable*: some system changes are more transformative than others. But this general idea now needs to be cast more tightly. For this purpose, we draw on Sartori's (2005: 112–113) observations concerning how the types relate to the distribution of power in a political system. Sartori explained that power could be *concentrated* in a few groups or *dispersed* widely among many. The type of party system influences the location of a political system along this spectrum. One-party systems tend to produce a highly concentrated distribution of power, while the atomised type is associated with extreme power dispersion. The other types can be placed between these types in the following order (from 'concentrated' to 'dispersed'): hegemonic, predominant, two-party, moderate pluralism and polarised pluralism. We use this rank ordering to measure Scope. Accordingly, we use a

scale that runs from 0 (one-party system) through to 6 (atomised system). Scope can now be defined more precisely as *the difference between the two most different types* that occur in a country's history. For example, if a country experienced spells of moderate pluralism, predominance and two-partism during its history, scope equals 2, the difference between predominance (2) and moderate pluralism (4).

To operationalise variety, equation (3), we count the number of different types observed during a historical period. So a party system that transitions from moderate pluralism to two-partism and then back to moderate pluralism will have a Variety score of 2. With this score in hand, fluidity can be calculated by multiplying the three components, as shown in equation (4). A fluidity index score indicates the stability of a polity party system when 'the system' is understood to mean the pattern of interactions among relevant parties. There are two important aspects to this notion: the focus on *patterns of interaction* and the focus on *relevant parties*. The index's concentration on these aspects is due to its origins in the Sartori framework. In that framework, patterns of interactions are discrete units that are treated as fully fledged types, and the various types encapsulate the range of ways that relevant parties can interact.

The new index is distinctive because it operationalises these ideas. The volatility index (Pedersen, 1979, 1980), a popular measure of 'party system change', captures change in parties' vote (or seat) totals between elections.[5] However, it does not target patterns of interaction – individual parties, rather than types, are the unit of analysis. And the index (as formulated by Pedersen) is calculated across all parties, not just for relevant parties. Thus, a party system can be moderately or highly volatile, although the vote returns of relevant parties remain stable. In this situation, the observed volatility would be due to vote switching among minor parties. Recent amendments of Pedersen's index divide volatility into classes but without isolating the volatility that occurs among relevant parties. Bartolini and Mair (1990) distinguish between the volatility that occurs within a cleavage block and volatility across cleavage lines. Powell and Tucker (2013) distinguish between volatility due to vote switching among existing parties and volatility due to vote switching to new parties (see also Chiaramonte and Emanuele, 2015; Mainwaring et al., 2009; Sikk, 2005; Tavits, 2008). We do not argue that these divisions are less important than the distinction between relevant and non-relevant parties, but they are certainly quite different from it. Furthermore, in addition to this contrast, the amendments of Pedersen's index continue to treat parties rather than patterns of interaction (types) as the unit of analysis.

The closure index, recently proposed by Bértoa and Enyedi (2014), does not build on Pedersen's index and instead operationalises the conceptualisation of 'party system change' in Mair (2006). This conceptualisation is premised on the assumption that system change in Sartori terms is exceedingly rare. Therefore, a conceptualisation is needed in which system change can occur even when there has not been type change, argued Mair. A problem with this argument, which we alluded to earlier, is that it assumes what needs to be shown, namely that system change in Sartori terms is actually very rare. The notion of system change that Mair goes on to develop dispenses with types and the dimensions of the original Sartori framework. We do not argue that Mair's revisions result in an inferior conceptualisation of party system change, but they do mean that the closure index does not measure the Sartori conceptualisation of the phenomenon. For instance, while the evolution of a party system *within* a type would not count as system change in Sartori terms (and would yield a fluidity score of 0), it would produce change in the country's closure score. On the other hand, the fluidity index captures a wider range of macro-level

changes which fall beyond the parameters of the Bértoa/Enyedi index, including changes between more extreme patterns of competition. Given these differences, the Bértoa/Enyedi index seems well suited for analysis of regions with party systems that approximate a single type (or at least a small range of types),[6] while the fluidity index seems well suited to regions such as Africa, where party systems display considerable diversity.

Party System Change in Sub-Saharan Africa

In this section, we apply the new index to study party system change in Sub-Saharan Africa. By doing so, we aim to address the absence of research on system change in Sartori terms – that is, focused on patterns of interaction – in this region. Sartori's book was first published in 1976, but it remains influential in the recent scholarship on African party systems (e.g. Bogaards, 2008; Erdmann and Basedau, 2008). However, there have been no serious efforts to use the framework to analyse system change in specific countries, in the manner of Mair (1979, 1989a), Bardi (2007) or Ware (2009; see also Quinn, 2013). Nor have there been efforts to directly measure the stability of countries' party systems. Analyses of party system change in Africa tend to use Pedersen's index and thus focus on change in parties' strength rather than their patterns of interaction. For example, Bogaards (2008) calculates average volatility for the Sartori types that can be observed across the continent, but he assumes that one type endures over time in each country and thus discounts the possibility of system change. The new index helps to address these gaps in the scholarship: to compute fluidity, the dynamics of party systems have to be mapped, and the resulting index scores can be used to compare the stability of countries' party systems.

To compute fluidity, we must first map party system dynamics using the Sartori typology. However, this can be done only after we decide *which* typology to use, because Sartori (2005: 226–231) developed a second typology specifically for Africa. He argued that types should not be used to study African party systems; so this second typology consists of *provisional categories*. The conclusion that types are inappropriate in the African context is based on two propositions: first, types can be used to represent party systems that are reasonably stable but not those in a 'state of flux' (Sartori, 2005: 227) and second, African party systems are chronically unstable. The first claim is *theoretical* as it does not depend on empirical evidence to be valid. However, the second proposition is *empirical*: it is valid if, and to the extent that, African party systems are in fact highly unstable. This is a crucial point because it means that a party system should be described in provisional terms only *after* it has been shown to be unstable. How might this be done? The index of fluidity provides a direct way to assess system stability. Pedersen's index could also be used but only if we assume that volatility and system stability are tightly correlated, which is a questionable assumption.[7] Sartori concluded that African party systems were unstable based on the observation that they lacked mass parties. This approach, based on the logic from the Lipset and Rokkan (1967) framework,[8] is a highly indirect and unreliable test of party system stability.

If it is accepted that the fluidity index provides an efficient way to identify unstable party systems, then a two-step procedure can be used to study system change in Africa. A 'first-cut' analysis is needed to identify countries with highly unstable party systems. The conventional method for calculating fluidity, with the standard types as the unit of analysis, should be used for this purpose. Then, as the second step, these fluidity scores should be used in conjunction with appropriate cut-off points to distinguish between those countries

with relatively 'stable' party systems and those with 'unstable' party systems. For countries in the latter group, the dynamics of their party systems can be reinterpreted using the provisional categories. This reinterpretation should be straightforward because of correspondence between provisional categories and full types. As Sartori (2005: 228) explained, each provisional category 'points to a possible future consolidation' as a full type.[9]

Another complication in the African context is that, often, political regimes have not held popular elections. We exclude such regimes from our calculations because their inclusion could distort the comparison of countries' fluidity scores. Therefore, we restrict the computation of fluidity to *electoral regimes*. This class includes all legitimate democracies and authoritarian regimes that hold elections; it excludes authoritarian regimes that do not hold elections. Nonetheless, fluidity can still be computed in a wider range of circumstances than the commonly used volatility index. The latter requires 'information from consecutive multiparty elections' (Bogaards, 2008: 114). In other words, volatility can only be calculated when a regime is *democratic* (at least procedurally); it cannot be calculated, or loses its meaning, in autocratic settings. More specifically, there cannot be any volatility if there is only one state-sanctioned party; and this index cannot provide reliable information about the stability of parties' standing in the electorate if election results are marred by fraud or violence. In contrast, these non-democratic scenarios provide information that can be used to identify a party system's type and, on this basis, to calculate its fluidity. When only one party is allowed to contest elections, we can be sure that a one-party system operates; and when a governing party remains in power partly through electoral fraud and political violence, we can be sure that a hegemonic system operates. Thus, fluidity can be calculated and has substantive significance in every situation where volatility can be calculated but also in the context of electoral authoritarianism.

Having settled these preliminary issues (regarding the choice of typology and the problem of non-electoral authoritarianism), we can now progress to more directly empirical concerns. We calculate first-cut fluidity index scores for each country in Sub-Saharan Africa for the period from the end of World War II or the first popular election after (or immediately preceding) independence, until 2012. To calculate these scores, we rely on data from Nohlen et al. (1999) and the African Elections Database. In particular, we identify party system types using information about the number of parties and the pattern of power alternation, as explained earlier. In theory, a party system must, at any moment, correspond to one and only one type. But in practice there are 'hard' cases where the appropriate classification is not obvious. Our approach in such circumstances is to apply the Sartori typology as carefully as possible and to supplement it where necessary with finer-grained criteria, which are presented in the online Appendix.[10] In addition to these criteria, we assume that a formal, pre-election alliance among multiple parties is functionally equivalent to a single party – the fact that alliance members do not compete against each other, and frequently coordinate on campaign strategy and policy proposals, means that they operate like institutionalised factions of a unified party (Golder, 2006: 3).[11]

The online Appendix also contains the mappings of countries' party system dynamics, which we use to compute their fluidity index scores. A mapping will be uninterrupted – it will span from the earliest possible date until 2012 – if a country has experienced only electoral regimes throughout its history. For countries that have had spells of non-electoral authoritarianism, the domain of the mapping is restricted to electoral regimes. As an example, Nigeria's fluidity score is calculated across the periods 1959–1966, 1979–1983 and 1998–2012; the periods of non-electoral authoritarianism, 1966–1979

and 1983–1998, are excluded. We assume that an electoral regime exists if at least one election is held during a political regime. And we define 'political regime', quite conventionally, as the constitutional architecture that determines how political actors exercise power. A political regime change occurs not only whenever an authoritarian regime transitions to become a democracy or vice versa, but also whenever there is a coup in an authoritarian regime.[12] Thus, we assume that regime and governing party are fused in an autocracy – the regime collapses if the governing party loses power – but not in a democracy (see, for example, Sartori, 1987).

The fluidity index scores for Sub-Saharan Africa are summarised in Table 2 below. Their range, from 0 to 20, suggests that there is considerable variation in the stability of patterns of interaction. This point should be stressed whenever generalisations are made about the dynamics of African party systems. Some African party systems have been remarkably stable, an observation which counters Sartori's empirical assumption (see above). The party systems of South Africa and Namibia post the lowest possible index score (0).[13] This reflects the fact that, in both cases, system change from predominance has yet to occur and confirms the widespread view of these party systems as stubbornly rigid.

Fluidity scores are low, but not zero, in several other countries including Botswana, Mozambique, Tanzania and Zimbabwe. In these countries, there has been movement away from an initial pattern of interaction, but system changes have been infrequent and restricted to a narrow range of types with functionally similar properties. Approximately half the countries in the dataset have fluidity index scores that are greater than 3 but less than 10. The sample average (4.57) falls within this range. What are the dynamics of these party systems? There is no clear pattern in their *trajectory*: in some cases, power has become increasingly dispersed over time, while the opposite is observed in other cases. But they are similar in terms of the *extent of system change*. In each case, there has been a moderate extent of system change, typically involving three or four transitions among types that are significantly different but not poles apart.

Finally, there are also several countries that register relatively high fluidity scores and which therefore comport with Sartori's empirical assumption. These cases include Equatorial Guinea, Mauritania, Senegal, Sierra Leone and Sudan. One could justify describing these party systems using Sartori's provisional categories. The Sudanese party system is the most unstable in the region. Its index score of 20 suggests that it has frequently lurched between radically different patterns of interaction. We identify nine system changes, among six distinct types, spanning from the one-party system to the atomised type. This extremely high fluidity score accords with historical accounts, emphasising regular and drastic flux in the pattern of political-elite interactions in this country. For example, Timothy C. Niblock (1974: 412), attempting to map the Sudanese political system in the early 1970s, encountered the problem that:

> Many of those who played a central part in planning the institutions … are no longer on the political scene today. The last three years have seen a substantial change in the character of the Sudanese leadership, and with that has come a changed attitude towards the objects and purposes of the political structure (Niblock, 1974: 412).

To explore historical trends, we computed the index scores that would have been observed at three points in time prior to 2012. These data, summarised (by region) in Figure 1 below, show that fluidity has increased steadily over time in every African region. This

Table 2. Fluidity in Sub-Saharan Africa.

East		West		Central		South	
Burundi (1962–1966; 1970–1974; 1977–1980; 1991–2012)	9.60	Benin (1960–1961; 1964–1965; 1968–1969; 1970–1972; 1991–2012)	2.70	Angola (1977–2012)	3.60	Botswana (1965–2012)	0.20
Comoros (1978–1999; 2002–2012)	4.50	Burkina Faso (1959–1966; 1970–1974; 1977–1980; 1991–2012)	6.86	Cameroon (1965–2012)	2.40	Lesotho (1965–1986; 1993–2012)	4.50
Djibouti (1977–2012)	4.29	Cape Verde (1975–2012)	3.38	Central African Republic (1959–1966; 1981–2003; 2005–2012)	12.00	South Africa (1994–2012)	0.00
Eritrea (no elections)	——	Côte d'Ivoire (1960–1999; 2000–2012)	4.80	Chad (1960–1975; 1996–2012)	6.85	Swaziland (1964–2012)	0.80
Ethiopia (1955–1974; 1987–2012)	3.60	Gambia (1960–1994; 1996–2012)	0.66	Congo-Brazzaville (1960–1963; 1992–1997; 2002–2012)	6.00		
Kenya (1963–1991; 1992–2012)	2.40	Ghana (1960–1966; 1979–1981; 1992–2012)	6.00	Congo-Kinshasa (1960–1997; 2006–2012)	5.14		
Madagascar (1965–2009)	6.00	Guinea (1957–1984; 1993–2008; 2010–2012)	7.11	Equatorial Guinea (1968–1969; 1982–1991; 1991–2012)	12.00		
Malawi (1961–1993; 1994–2012)	6.67	Guinea Bissau (1972–1980; 1984–2003; 2005–2012)	0.89	Gabon (1961–2012)	1.33		
Mauritius (1959–2012)	1.09	Liberia (1951–1980; 1984–1990; 1997–2001; 2003–2012)	2.45	Niger (1965–1974; 1989–1991; 1993–1996; 1999–2010; 2011–2012)	1.00		
Mozambique (1977–1990; 1994–2012)	0.67	Mali (1957–76; 1979–2012)	8.88	South Sudan (2010–2012)	0.00		
Namibia (1994–2012)	0.00	Mauritania (1959–1960; 1961–1978; 1992–2005; 2007–2008; 2009–2012)	12.00	Sudan (1953–1958; 1965–1985; 1993–2012)	20.00		
Rwanda (1965–1973; 1978–91; 2003–2012)	0.28	Nigeria (1959–1966; 1979–1983; 1998–2012)	1.33				
Seychelles (1970–1977; 1979–1991; 1999–2012)	2.70	Senegal (1963–1963; 1966–1974; 1978–2012)	10.00				
Somalia (1964–1969; 1976–1991)	1.50	Sierra Leone (1957–1967; 1971–1991; 1996–1997; 1998–2012)	12.80				
Somaliland (1997–2012)	2.67	Togo (1961–1961; 1963–1967; 1979–1991; 1993–2012)	2.00				
Tanzania (1962–2012)	1.10	São Tomé (1975–1990; 1991–2012)	8.00				
Uganda (1961–1966; 1980–1980; 1989–2012)	6.00						
Zambia (1968–2012)	4.36						
Zimbabwe (1980–2012)	1.00						

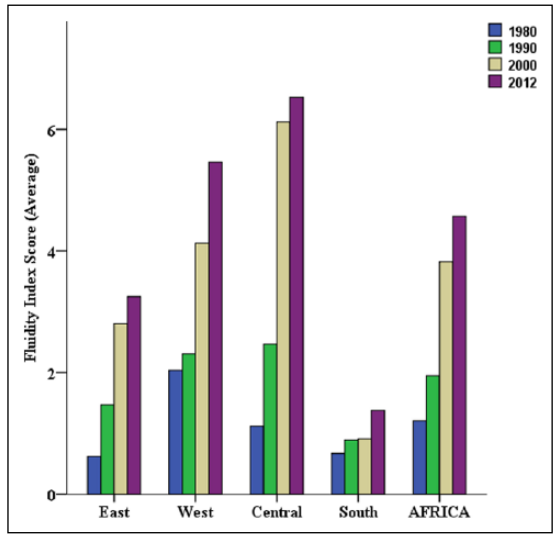

Figure 1. Historical Fluidity Index Scores in African Regions.

trend can be partially accounted for by the spread of democracy across the continent in the immediate post-Cold War years (Cheeseman, 2015). However, what followed single-party rule, in many cases, was not only multiparty politics but also patterns of competition that were more transient than those of the past.[14]

The 2012 fluidity index scores are broadly consistent with recent assessments of the dynamics of African party systems (e.g. Kuenzi and Lambright, 2001; Lindberg, 2007), including Erdmann and Basedau's (2008) rigorous study. They caution against generalising about the stability of African party systems and are sceptical of the method Sartori used to determine whether a party system is fluid – his 'close focus on the mass party could be misleading', Erdmann and Basedau (2008: 245) explain. Thus, these scholars encounter the problem we have been dealing with here, how to assess the stability of party systems. Their approach to this problem diverges quite sharply from ours, however. We aim to directly measure system stability, while Erdmann and Basedau measure *institutionalisation* (Mainwaring and Scully, 1995), a multidimensional concept that includes party system stability alongside three other dimensions: the rootedness of parties in society, the legitimacy of elections and parties, and the strength of party organisations (see also Luna, 2014). Hence, while Erdmann and Basedau ultimately reduce party system institutionalisation to features attributable to individual parties (rootedness, legitimacy and strength), we measure stability at the systemic level and on a functional basis.

To determine whether a party system has achieved 'a minimum of institutionalisation', Erdmann and Basedau (2008: 245) observe its level of (Pedersen) volatility, the age of its parties, whether it has held three consecutive elections and whether there has been serious political violence. There is less than perfect correspondence between this operationalisation of institutionalisation and the concept itself. For our purposes, the problem is the gap between their definition of party system stability, which follows Sartori, and their measurement of this notion using the Pedersen index. The fluidity index would be a more appropriate measure. Despite this fact, and the fact that Erdmann and Basedau operationalise a concept, institutionalisation, that encompasses more than system stability, their

findings broadly resemble the results from using the fluidity index. There are, however, a few conflicting observations: the party systems of Gambia, Nigeria and Zimbabwe post low fluidity scores but are classified as uninstitutionalised by Erdmann and Basedau,[15] and the party systems of Equatorial Guinea and Mauritania (and perhaps also São Tomé) post high fluidity scores but are considered to be institutionalised in Erdmann and Basedau's classification.

A key reason for these conflicting findings is the conceptual difference between party system stability and institutionalisation. As institutionalisation can include more, less and sometimes things other than stability, it is possible for a party system to be stable without it necessarily being institutionalised. For example, Zimbabwe's party system has low fluidity but does not qualify as institutionalised because elections have been marred by civil unrest. Political violence is relevant to institutionalisation, but it has no direct connection with system stability. The case of Zimbabwe shows that inter-party interactions can be violent *and* stable, and indeed that the violence may be largely a result of the stable, autocratic party system, as Bates (2008) argues. Another source of mismatch is the difference between change in parties' electoral strength (volatility) and change in their interactive relations (fluidity). For example, the Zimbabwean party system, when compared to other party systems in the region, has had high volatility but low fluidity, while the Mauritanian party system has had the opposite combination, relatively low volatility alongside relatively high fluidity.[16] These divergences mirror similar observations made of party system dynamics in other regions, such as in Eastern Europe (e.g. Sikk, 2005; Toole, 2000).

To gain a clearer understanding of the relationship between volatility and fluidity, we compared our fluidity index scores (for 2012) to the volatility scores presented in Bogaards (2008). For reasons that we explained earlier, volatility can be computed in only a subset of African countries for which fluidity can be computed; Bogaards's sample includes 20 countries, and he calculates volatility for multiple election years in each country. Although fluidity can be calculated for a larger number of countries, to facilitate correlation analysis we restrict our attention to those in Bogaards's sample. This analysis reveals a positive but weak, and statistically insignificant, correlation ($r = 0.23$) between fluidity and average volatility. This suggests that in Africa, like in other regions, change in parties' electoral strength is likely to be a poor proxy for change in their patterns of interaction.

Conclusion

The main purpose of this article has been to develop the index of fluidity, a tool for measuring the stability of patterns of competition among relevant parties. The new index operationalises the idea of system change suggested by the Sartori framework. A distinctive feature of the index is its treatment of *systems* as the unit of analysis. In so doing, we take seriously Sartori's argument that party systems are distinct entities – or 'bounded wholes' (Collier and Adcock, 1999) – with their own system-level properties. While existing indicators discount this idea, the fluidity index is built on it. To operationalise systems, we used the seven Sartori types; the index taps the extent of system change by measuring the frequency, scope and variety of type change. We then applied the new index to study party system change in Africa. We found significant variation in the fluidity of the region's party systems and, furthermore, found that fluidity index scores are weakly correlated with volatility index scores, which confirms that these measures capture distinct dynamic phenomena.

While developing and applying the index, we proposed two 'friendly amendments' of the original Sartori framework (Adcock and Collier, 2001: 533). The first was to integrate power alternation within the framework to enable system changes to be detected more accurately. The second amendment was to analyse the stability of African party systems in a two-stage process that includes use of the full types to compute 'first-cut' fluidity index scores. This approach contradicts Sartori's argument that provisional types should be used for Africa. However, Sartori's position depends on an empirical premise – that the continent's party systems are unstable – which he does not adequately substantiate.

The arguments presented in this article raise several issues that we have not been able to examine. One set of issues concerns the operationalisation of the index. We specify types using Sartori's criteria, but it might be interesting to assess how fluidity index scores respond to adjustments in classification rules. To compute index scores for Africa, we relied exclusively on electoral data, so our analysis does not incorporate system changes that occur between elections. It might be possible to amend the index to capture such dynamics, paralleling recent innovations that enable volatility between elections to be measured (Mershon and Shvetsova, 2013). A second set of issues concerns the relationship between the fluidity index and other measures of party system change. We found that fluidity is only weakly related to (Pedersen) volatility in Africa. Is this also the case in other regions? In recent years, new tools have been developed to examine party system change in Europe (e.g. Bértoa and Enyedi, 2014; Chiaramonte and Emanuele, 2015; Powell and Tucker, 2013). It would be interesting to assess how fluidity index scores relate to results obtained using these indices. A third set of issues concerns the consequences of party system change. Here, it would be useful to examine how the various indicators of party system change relate to indicators of 'good governance' (e.g. Kaufmann et al., 2014).

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Supplementary Material

Additional supplementary information may be found with the online version of this article.

Table S1: Observations for Party System Classification

Table S2: Party System Mappings for Sub-Saharan Africa

Notes

1. A party is 'relevant' when it stands a chance of governing (either on its own or as part of a coalition) or when its presence affects the tactics of potential governing parties.
2. The table also identifies several countries' party systems that have usually conformed to a certain type. We are not suggesting that these countries have never experienced system change, but it seems reasonable to speak of a 'default' or 'usual' type for countries such as China or the United States, where system change has been exceedingly rare.
3. This is not to say that African party systems lack polarisation, although it is not usually based on a left–right division (see LeBas, 2011).

4. In previous work (Nwokora and Pelizzo, 2014), we made the case for treating a one-period aberration as an 'interruption' and not a system change. However, we do not take account of such interruptions here because our approach follows the original Sartori framework.
5. Change in fragmentation has been used to indicate party system change (e.g. Laakso and Taagepera, 1979; Rae, 1967). But, as Pedersen (1980: 398) notes, this amounts to a 'static' analysis because time is not 'an essential variable in the indicator construction'. Pedersen's volatility index captures the more appropriate ('dynamic') specification, the rate of change of fragmentation.
6. Mair (1997) argued that there has been convergence on moderate pluralism in Western Europe.
7. The absence of a suitable measure of system change has meant that there have been no correlational tests of this relationship. Moreover, the relationship is theoretically ambiguous: in some situations, high volatility is likely to induce system change, but in other situations, such as transitions to the predominant type, low volatility makes system change more likely.
8. Following Lipset and Rokkan, an absence of mass parties indicates a party system without anchoring in basic social structures; such systems would have high potential for frequent and drastic transformation.
9. A dominant-authoritarian party system, if it 'crystallises', will become a one-party or hegemonic party system; the dominant non-authoritarian pattern is the fluid analogue of the predominant type; the two-party system, moderate pluralism and polarised pluralism are structured analogues of the non-dominant pattern; and an atomised system is the crystallisation of the pulverised pattern.
10. An alternative basis for classification, following Mainwaring and Scully (1995: 31), is to apply thresholds to the calculation of the effective number of parties. The resulting classifications correspond to ours in about 60% of possible cases. However, the outliers suggest, overall, the merits of our approach.
11. An electoral coalition may collapse following an election, but so can a political party, especially when it is institutionally weak, as most (but not all) parties are in this region (Basedau and Stroh, 2008).
12. The African Elections Database distinguishes regime types ('political systems') in a similar manner. We follow the Database's classifications to determine the duration of a regime.
13. South Sudan also posts an index score of 0, but it has held just one election.
14. Despite this, there are strong correlations between countries' fluidity scores observed at these points in time (e.g. comparing 2012 and 2000 scores, the coefficient (0.83) is significant at the 0.01 level).
15. Erdmann and Basedau use the term 'fluid' to describe party systems that are not institutionalised, but we reserve this term to describe party systems that are not stable.
16. In Bogaards (2008), the average volatility of the Zimbabwe party system (24.30) is well above the sample mean (19.27), while Mauritania's average volatility (17.5) is below the sample mean.

References

Adcock R and Collier D (2001) Measurement Validity: A Shared Standard for Qualitative and Quantitative Research. *American Political Science Review* 95 (3): 529–546.

African Elections Database (2016) *African Elections Database*. Available at: http://africanelections.tripod.com (accessed 1 June 2016).

Bardi L (2007) Electoral Change and its Impact on the Party System in Italy. *West European Politics* 30: 711–732.

Bardi L and Mair P (2008) The Parameters of Party Systems. *Party Politics* 14: 147–166.

Bartolini S and Mair P (1990) *Identity, Competition, and Electoral Availability: The Stabilisation of European Electorates 1885–1985*. Cambridge: Cambridge University Press.

Basedau M and Stroh A (2008) *Measuring Party Institutionalization in Developing Countries: A New Research Instrument Applied to 28 African Political Parties*. GIGA Working Paper, 69. Hamburg: German Institute of Global and Area Studies.

Bates RH (2008) *When Things Fall Apart: State Failure in Late-Century Africa*. Cambridge: Cambridge University Press.

Bértoa FC and Enyedi Z (2014) Party System Closure and Openness: Conceptualization, Operationalization and Validation. *Party Politics* 22 (3): 265–277.

Bogaards M (2008) Dominant Party Systems and Electoral Volatility in Africa: A Comment on Mozaffar and Scarritt. *Party Politics* 14: 113–130.

Cheeseman N (2015) *Democracy in Africa: Successes, Failures, and the Struggle for Political Reform*. Cambridge: Cambridge University Press.

Chiaramonte A and Emanuele V (2015) Party System Volatility, Regeneration and De-Institutionalization in Western Europe (1945–2015). *Party Politics*. Epub ahead of print 25 August. DOI: 10.1177/1354068815601330.

Collier D and Adcock R (1999) Democracy and Dichotomies: A Pragmatic Approach to Choices about Concepts. *Annual Review of Political Science* 2: 537–565.

Duverger M (1954) *Political Parties: Their Organization and Activity in the Modern State*. New York: Wiley.

Erdmann G and Basedau M (2008) Political Parties in Africa: Problems of Categorising and Explaining Party Systems. *Journal of Contemporary African Studies* 26: 241–258.

Golder SN (2006) *The Logic of Pre-electoral Coalition Formation*. Columbus, OH: The Ohio State University Press.

Katz RS (2006) Party in Democratic Theory. In: Katz RS and Crotty W (eds) *Handbook of Party Politics*.London: SAGE Publishing, pp.34–46.

Katz RS (2015) Party System Change in Western Europe. In: Magone JM (ed.) *Handbook of European Politics*. London: Routledge, pp.494–511.

Kaufmann D, Kraay A and Mastruzzi M (2014) *The Worldwide Governance Indicators (WGI) Project*. Available at: http://www.govindicators.org (accessed 1 June 2016).

Kuenzi M and Lambright G (2001) Party System Institutionalization in 30 African Countries. *Party Politics* 7: 437–468.

Laakso M and Taagepera R (1979) 'Effective' Number of Parties: A Measure with Application to West Europe. *Comparative Political Studies* 12: 3–27.

LeBas A (2011) *From Protest to Parties: Party-Building and Democratization in Africa*. Oxford: Oxford University Press.

Lindberg SI (2007) Institutionalization of Party Systems? Stability and Fluidity among Legislative Parties in Africa's Democracies. *Government and Opposition* 42: 215–241.

Lipset SM and Rokkan S (1967) Cleavage Structures, Party Systems, and Voter Alignment: An Introduction. In: Lipset SM and Rokkan S (eds) *Party Systems and Voter Alignments*. London: The Free Press, pp.1–64.

Luna JP (2014) Party System Institutionalization: Do We Need a New Concept? *Studies in Comparative International Development* 49: 403–425.

Mainwaring S and Scully TR (eds) (1995) *Building Democratic Institutions: Party Systems in Latin America*. Stanford, CA: Stanford University Press.

Mainwaring S, Espana A and Gervasoni C (2009) *Extra System Volatility and the Vote Share of Young Parties*. Paper presented at the annual meeting of the Canadian Political Science Association, Ottawa, ON, Canada, 27–29 May.

Mair P (1979) The Autonomy of the Political: The Development of the Irish Party System. *Comparative Politics* 11: 445–465.

Mair P (1989a) Ireland: From Predominance to Moderate Pluralism, and Back Again. *West European Politics* 12: 129–142.

Mair P (1989b) The Problem of Party System Change. *Journal of Theoretical Politics* 1: 251–276.

Mair P (1997) *Party System Change: Approaches and Interpretations*. Oxford: Clarendon Press.

Mair P (2006) Party System Change. In: Katz RS and Crotty W (eds) *Handbook of Party Politics*. London: SAGE Publishing, pp.63–74.

Mershon C and Shvetsova O (2013) *Party Systems in Legislatures Worldwide: Moving Outside the Electoral Arena*. Cambridge: Cambridge University Press.

Niblock TC (1974) A New Political System in Sudan. *African Affairs* 73 (293): 408–418.

Nohlen D, Krennerich M and Thibaut B (eds) (1999) *Elections in Africa: A Data Handbook*. Oxford: Oxford University Press.

Nwokora Z and Pelizzo R (2014) Sartori Reconsidered: Toward a New Predominant Party System. *Political Studies* 62: 824–842.

Pedersen MN (1979) The Dynamics of European Party Systems: Changing Patterns of Electoral Volatility. *European Journal of Political Research* 7 (1): 1–26.

Pedersen MN (1980) On Measuring Party System Change: A Methodological Critique and a Suggestion. *Comparative Political Studies* 12: 387–403.

Powell EN and Tucker JA (2013) Revisiting Electoral Volatility in Post-Communist Countries: New Data, New Results and New Approaches. *British Journal of Political Science* 44: 123–147.

Quinn T (2013) From Two-Partism to Alternating Predominance: The Changing UK Party Systems, 1950–2010. *Political Studies* 61: 378–400.

Rae D (1967) *The Political Consequences of Electoral Laws*. New Haven, CT: Yale University Press.

Sartori G (1987) *The Theory of Democracy Revisited*. Chatham, NJ: Chatham House Publishers, Inc.

Sartori G (2005 [1976]) *Parties and Party Systems: A Framework for Analysis*. Essex: ECPR Press.

Sikk A (2005) How Unstable? Volatility and Genuinely New Parties in Eastern Europe. *European Journal of Political Research* 44: 391–412.

Smith G (1989) A System Perspective on Party System Change. *Journal of Theoretical Politics* 1: 349–362.
Tavits M (2008) Party Systems in the Making: The Emergence and Success of New Parties in New Democracies. *British Journal of Political Science* 38: 113–133.
Toole J (2000) Government Formation and Party System Stabilization in East Central Europe. *Party Politics* 6: 441–461.
Tsebelis G (2002) *Veto Players: How Political Institutions Work*. Cambridge: Cambridge University Press.
Ware A (1996) *Political Parties and Party Systems*. Oxford: Oxford University Press.
Ware A (2009) *The Dynamics of Two-party Politics*. Oxford: Oxford University Press.
Wolinetz S (2006) Party Systems and Party System Types. In: Katz RS and Crotty W (eds) *Handbook of Party Politics*. London: SAGE Publishing, pp.51–62.

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