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When Great Transformations Ebb Out
How to Study the Discontinuance of Democratic Diffusion

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Abstract

This paper puts focus on the discontinuance of democratic diffusion. Since 1900, the number of democracies has increased from a dozen to over 110. Previous studies have explained this development as the result of waves of democratization, whereby autocratic regimes have fallen like dominoes following the democratization of surrounding states. The diffusion of democracy has, however, discontinued unexpectedly under the waves of democratization. Previous research on democratic diffusion has not paid attention to the discontinuance of democratic diffusion. Therefore, there is a lack of knowledge on the discontinuance of democratic diffusion, which also limits our understanding of why the waves of democratization end. One reason to this lack of knowledge is that conditions for examining the discontinuance of democratic diffusion are missing. The aim with this paper is therefore to develop conceptual and methodological conditions that enable the studying of the discontinuance of democratic diffusion. In the paper, the concept of the discontinuance of democratic diffusion is defined and specified, and methods to study the discontinuance of democratic diffusion are developed. Based on that, possibilities to identify cases of discontinuance of democratic diffusion are developed, which is essential for empirical analyses of discontinuance of democratic diffusion. The developed methods are also used in empirical analyses to illustrate the possibilities to identify where and when the democratic diffusion has discontinued. The empirical analyses show that the choice of method has an impact on the outcome, but also that all methods indicate that discontinuance of democratic diffusion has occurred, and that the democratic diffusion has discontinued in different contexts and repeatedly since 1946.

1. Introduction

The democratization under the last century is one of the greatest transformations in contemporary politics. Since 1900, the number of democracies has increased from a dozen to over 110. Previous studies have explained this development as the result of waves of democratization, whereby autocratic regimes have fallen like dominoes following the democratization of neighbouring states. The breakdown of an autocratic regime has increased the probability that autocratic regimes in neighbouring states will also fall. This spread of democratic ideas among states is the essence of democratic diffusion. The diffusion of democracy has, however, discontinued unexpectedly under the waves of democratization (Brinks & Coppedge 2006; Gleditsch & Ward 2006; O'Loughlin et al. 1998; Wejnert 2005). Instead of continuing to spread to all states, the diffusion of democratic ideas has stopped at some states, thus ending the domino effect. This paper puts focus on this: the discontinuance of democratic diffusion.

Previous research on democratic diffusion has not noticed that the democratic diffusion has discontinued. Instead, previous research on democratic diffusion has focused on the occurrence of diffusion (Brinks & Coppedge 2006; Gleditsch & Ward 2006; Lehtinen 2014; O'Loughlin et al. 1998; Wejnert 2005; 2014), the time aspects of democratic diffusion (Brinks & Coppedge

2006; Gleditsch & Ward 2006; O'Loughlin et al. 1998; Wejnert 2014), and which conditions affect the effects of democratic diffusion (Denk & Lehtinen 2016; Pevehouse 2005; Wejnert 2014). Even though previous studies have examined different aspects of democratic diffusion, and noted its importance as an explanation of the waves of democratization, none of these studies have paid attention to the discontinuance of democratic diffusion. Therefore, there is a lack of knowledge on the discontinuance of democratic diffusion, which also limits our understanding of why waves of democratization end. One reason to this lack of knowledge is that conditions for examining the discontinuance of democratic diffusion are missing. The concept as well as the measurement of discontinuance of democratic diffusion have not been developed in previous studies. It is hence unclear what the concept refers to and how we may measure the occurrence of discontinuance of democratic diffusion. The aim with this paper is therefore to develop conditions that enable the studying of the discontinuance of democratic diffusion.

To reach the aim, this paper focuses on the development of conceptual and methodological conditions that makes it possible to study the discontinuance of democratic diffusion. The concept of the discontinuance of democratic diffusion is defined and specified, and what is meant with discontinuance of democratic diffusion will thus be clarified. Methods to study the discontinuance of democratic diffusion are also developed. Based on that, possibilities to identify cases of discontinuance of democratic diffusion are developed, which is essential for empirical analyses of discontinuance of democratic diffusion. The developed methods are also used in empirical analyses to illustrate the possibilities to identify where (states) and when (years) the democratic diffusion has discontinued. Since this paper focuses on conceptual and methodological assignments, it means that this paper is not trying to explain why democratic diffusion discontinues. The paper does neither try to make conclusions about the correct way to study the discontinuance of democratic diffusion. Instead, the ambition is to create conditions to systematically study the discontinuance of democratic diffusion, and to illustrate how we possibly may study the discontinuance of democratic diffusion, but also to raise questions that arises when we attempt to study democratic diffusion in general, and more specifically, when we attempt to study the discontinuance of democratic diffusion.

With this ambition to improve and illustrate the options to study the discontinuance of democratic diffusion, this paper contributes to the research on democratic diffusion in several ways. First, since the discontinuance of democratic diffusion has not been studied before, the

paper draws attention to an unexamined phenomenon. Second, options for further studies of the discontinuance of democratic diffusion are offered as methods to study the discontinuance of democratic diffusion are developed. The use of these different methods also shows that the choice of methods has an impact on the outcome when the methods are applied in empirical analyses, which is a third contribution. Fourth, based on the empirical analyses, the paper shows that the discontinuance of democratic diffusion should be considered when we study democratization. The rationale for these four contributions is presented in the following sections. In the next section, the concept of discontinuance of democratic diffusion is defined and how democratic diffusion discontinues is specified. The third section presents methods to measure the discontinuance of democratic diffusion and to identify cases of discontinuance of democratic diffusion. These methods are then applied in empirical analyses in the fourth section. In the last section, the contributions mentioned above are further discussed and assignments for forthcoming studies of discontinuance of democratic diffusion are presented.

2. Conceptualization

Definition of the discontinuance of democratic diffusion

The discontinuance of democratic diffusion can be understood in relation to a basic model of diffusion. Most research on democratic diffusion is based on the diffusion model by Rogers (1995) that defines diffusion as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers 1995: 5). Based on the model, diffusion is seen as a process with four distinguished elements: a) innovation, b) communication through certain channels, c) actors in social systems, and d) time. Therefore, for diffusion to occur, an innovation is required, that is communicated from actors in a social system to actors in other systems. Different processes may illustrate how the innovation can be spread among states through different forms of communication (Franzese & Hays 2008). *Compulsion* means that stronger actors force or persuade weaker actors to adopt the innovation. If the innovation is spread through *competition*, the innovation is regarded as giving the states advantages in relation to other states. The innovation may also be spread when experiences of the innovation are transferred to actors in the states, who are then *learning* about the innovation from other actors. If actors adopt the innovation because they strive to imitate states that are seen as role models, the innovation is spread through *imitation*. If actors move from one state to another state, they may bring with them the innovation, which is then spread as a result of

migration. Irrespective of process, diffusion occurs between actors in social system that are open for interaction and communication with actors in other systems. That diffusion occurs between actors in social systems that are open involves two fundamental assumptions. The first assumption is that the innovation is communicated by and among actors. The second assumption is that the states are social systems that are open to innovations from their surroundings. But diffusion is not only about spreading innovations over space, but also about spreading innovations over time, as it takes time to formulate and send messages that convey the innovation, and it takes time for the messages to be spread and for actors to absorb them. A further assumption is therefore that there is time to communicate the innovation.

Innovations may hence be spread between states through diffusion. According to the diffusion model, there are five necessary components for diffusion. There is one substantial component (innovation) and four process components (communication channels, actors, openness and time) necessary for diffusion. The four process components are necessary for the spread of the substantial component, and without the substantial component there is no innovation to communicate even if the process components exist. In democratic diffusion, the substantial component concerns democratic values, norms and institutions, which are related to the construction of political regimes and are considered to be represented by democratic institutions in surrounding states (Easton 1965). According to this view, through democratic diffusion, democratic ideas are spread between states. Based on the diffusion model by Rogers, studies on democratization has hence defined democratic diffusion as the spread of democratic ideas between states over time (Brinks & Coppedge 2006; Gleditsch & Ward 2006; Wejnert 2005; 2014).

When democratic ideas spread, and democratic diffusion thus occurs, there is assumed to be a connection between the extent of democratic institutions in the state and the extent of democratic institutions in the state's surroundings. Based on the diffusion model, the spread of democratic institutions is, however, assumed to discontinue if one or more of the necessary process components are missing even though the substantial component (democratic institutions in surrounding states) exists. Democratic diffusion may thus discontinue if the communication channels between states are missing, if the actors that pass on the ideas are missing in the surrounding states or in the receiving state, if the actors are located in closed systems or if there is not enough time to communicate the ideas or transform the ideas to democratic regimes. Then the spread of democratic institutions does not occur between the

states, and a disconnection between the state and the surrounding states, concerning the extent of democratic institutions, arises. This disconnection between the state and its surrounding suggest that the democratic diffusion has discontinued. However, previous studies has neither defined nor specified the concept of discontinuance of democratic diffusion. Based on the definition of democratic diffusion as the spread of democratic ideas between states over time, this paper defines discontinuance of democratic diffusion as *the discontinuance of the spread of democratic ideas between states over time*.

How to understand the discontinuance of democratic diffusion

The discontinuance of democratic diffusion concerns a critical aspect in the understanding of democratization. The development of democratic states has in previous research been explained as waves of democratization, where autocratic regimes have fallen like domino bricks. This domino effect has, however, discontinued unexpectedly after periods of democratization. The study of the discontinuance of democratic diffusion concerns this: the discontinuance of the domino effect of democratization. In a situation of discontinuance of democratic diffusion, the democratic ideas have discontinued to spread between states over time, which means that the extent of democratization in the state does not match the extent of democratization in the surroundings. To determine the extent of democratization in the states and to identify discontinuance of democratic diffusion it is essential to first conceptualize what 'democratization' refers to. In the democratization research, there is a general discussion on what democratization in fact is. Some studies suggest that democratization concerns the level of democracy in the states, while other studies see democratization as the transition from autocratic state to democratic state (Boix et al. 2013; Coppedge 2012; Dahl 1971; Munck 2009). When we study democratization, we may therefore focus on democratization as the level of democracy in the states, or as the transition to democracy in the states, which we may also do when we study democratic diffusion, as we can see democratic diffusion as the spread of the level of democracy among states or as the spread of transitions to democracy among states. Accordingly, the study of the discontinuance of democratic diffusion may also focus on the level of democracy and the transition to democracy, meaning that the democratic diffusion has discontinued when the level of democracy in a state does not match the level of democracy in the surroundings, but also when the surrounding states are going through transitions from autocratic states to democratic states, but the state is not going through a transition to democracy. Based on this reasoning, the discontinuance of democratic diffusion occurs when

the level of democracy of a state does not match the level of democracy in the surroundings, or when an autocratic state is not going through a transition to democracy even though surrounding states are transformed from autocratic states to democratic states. Which of the ways to regard democratization that is the most accurate is an ongoing discussion, and something that is not decided on here. Therefore, discontinuance of democratic diffusion is regarded to occur in two situations: a) when a state is not affected by the level of democracy in the surroundings, and b) when a state is not affected by democratic transitions in the surroundings.

An aspect that needs to be clarified is that discontinuance of democratic diffusion is not the same as the occurrence of autocratic states. Figure 1 illustrates the differences and similarities between the discontinuance of democratic diffusion and the occurrence of autocratic states. The figure represents two regions with states, which are illustrated by bricks. Democratic states are colored bricks, while the autocratic states are not colored. As the figure illustrates, autocratic states may be surrounded by democracies or autocracies. Autocratic states surrounded by democratic states (state A in the figure) are regarded as cases of discontinuance of democratic diffusion, while autocratic states surrounded by autocratic states (state B in the figure) are not cases of discontinuance of democratic diffusion. All cases of autocratic states are therefore not cases of discontinuance of democratic diffusion, and discontinuance of democratic diffusion is thus not the same as the occurrence of autocratic states, as there are autocratic states that are not surrounded by democracies, and where there has hence not been any democratic diffusion to begin with. These autocratic states are not an effect of discontinuance of democratic diffusion, but may instead be the result of other conditions that prevent democratization. As this paper focuses on the discontinuance of democratic diffusion, it is states like state A that will be in focus, and identified as cases of discontinuance of democratic diffusion.

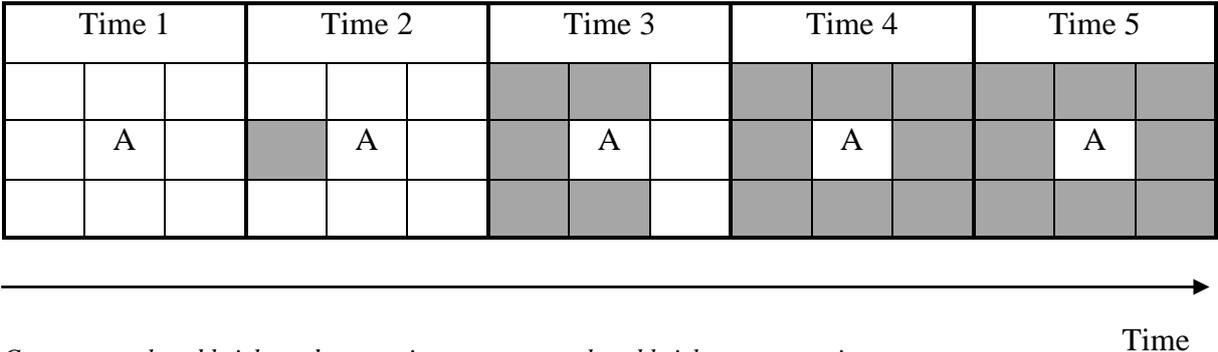
Figure 1: Autocratic states and the discontinuance of democratic diffusion

Region I			Region II		
	A			B	

Comment: colored bricks = democratic states; non-colored bricks = autocratic states

Another aspect that also needs to be clarified concerns time. As previously discussed, time is one of the necessary process components in the diffusion process, which means that the diffusion process is assumed to require time. In Figure 2, a dimension of time is included to illustrate the time dimension of the diffusion process. As in the previous figure, democratic states are coloured bricks, while autocratic states are not coloured. At the first point of time, none of the states in the region has a democratic regime, but at the second point of time, one state is democratized. Through democratic diffusion, the democratic ideas are then spread from this state to four neighbouring states, which are democratized (time 3). Later, at time 4, the democratic ideas are spread further to three other states in the surroundings. However, the democratic ideas are not spread to state A, which remains as an autocratic state, even in the fifth time period. Even though the democratic ideas have been spread in the surrounding states, state A is not democratized, and is hence a case of discontinuance of democratic diffusion. Figure 2 illustrates thus the discontinuance of democratic diffusion as a process over time.

Figure 2: The time dimension of the discontinuance of democratic diffusion



Comment: colored bricks = democratic states; non-colored bricks = autocratic states

Figure 2 does not only illustrate the time dimension in democratic diffusion, but also the critical issue of separating the discontinuance of democratic diffusion from the delay of democratic diffusion (rate of adaption). If only one point in time is analysed it is hard to know if the diffusion of democracy has discontinued or if the diffusion process just requires more time. To identify cases of discontinuance of democratic diffusion, we need therefore to include a time dimension. Research on democratic diffusion uses lagged variables, and in a similar way, the identification of discontinuance of democratic diffusion also needs to use variables that measure democratization at different points of time. Accordingly, the democratization in the states needs

to be compared to the democratization under preceding years in the surrounding states.¹ The identification of cases of discontinuance of democratic diffusion should also include a time dimension that identifies cases based on the assumption that the autocratic states differ from the development in the surrounding states for several years. As is illustrated in Figure 2, case A is not affected by the democratization in the surrounding states for a long time, but may be affected later. Therefore, to be regarded as a case of discontinuance of democratic diffusion, one condition that could be required is that the state has been deviant from the surroundings concerning the extent of democratization for a certain amount of years. However, in this paper, the model in Figure 1 will be in focus. This means that, even though the discontinuance of democratic diffusion will be studied for every year under a longer time period, the states do not have to be deviant for several years to be identified as cases of discontinuance of democratic diffusion. The dynamic model that is presented in Figure 2 will thus not be regarded here, but instead be studied in a forthcoming paper. But, to include one aspect of the time dimension, the democratization in the states is studied at a later point in time than the democratization in the surroundings.

It is not only the time dimension, but also several other aspects of the diffusion process that have been specified in this section. For democratic diffusion to occur, democratic institutions are required, which are spread from the surroundings to the states. This diffusion process consists of four necessary process components: communication channels, actors, openness and time. Based on this, the spread of democratic institutions may discontinue if one or more of these components are missing, which results in a disconnection between the states and the surroundings concerning the extent of democratization. In this paper, democratization is viewed as both the level of democracy and the transition to democracy. The discontinuance of democratic diffusion therefore occurs when the states are not affected by the level of democracy in the surroundings or the transitions to democracy in the surroundings. What is also discussed is that the discontinuance of democratic diffusion should not be mistaken as the same as the occurrence of autocratic states, as there are autocratic states that are not surrounded by democracies and are therefore not cases of discontinuance of democratic diffusion. Cases of discontinuance of democratic diffusion are, as is illustrated in Figure 1, autocratic states surrounded by democracies. The next section presents four methods to measure discontinuance

¹ The question of lagged variables is critical in studies of democratic diffusion. For example, diffusion variables can be lagged with different numbers of years. A future paper is planned to discuss this question in more detail.

of democratic diffusion, which also provide options to identify where and when democratic diffusion has discontinued.

3. Measurement of the discontinuance of democratic diffusion

General design

To study the discontinuance of democratic diffusion, we need to operationalize the concept of the discontinuance of democratic diffusion. As presented in the previous section, the concept of discontinuance of democratic diffusion was defined based on democratic diffusion. In the same way, we can operationalize the discontinuance of democratic diffusion based on how democratic diffusion is measured in previous studies. Previous studies have identified democratic diffusion as a correlation between the extent of democratization in the individual states and the extent of democratization in the surrounding states (Brinks & Coppedge 2006; Gleditsch & Ward 2006; Huntington 1991; O’Loughlin et al. 1998; Wejnert 2014). The studies have assumed that a strong correlation between the democratization in the states and democratization in the surrounding states indicates democratic diffusion. For example, when states have democratic regimes at the same time as their neighboring states have democratic regimes, the correlation is explained with theories of democratic diffusion. In a similar way, we can interpret a deviation between the democratization in states and the democratization in surrounding states as an indication of discontinuance of democratic diffusion. The discontinuance of democratic diffusion is, thereby, identified when the extent of democratization in a state is significantly lower than expected based on the general pattern of correlation between the democratization in the states and the democratization in their surrounding states.²

To measure discontinuance of democratic diffusion we may use the correlation between the democratization in individual states and the democratization in surrounding states. For example, O’Loughlin et al. (1998) identifies cases of democratic diffusion as states that are democratized as expected according to strong correlations between the democratization in the states and the democratization in the surrounding states. Accordingly, states that are less democratized than

² This study focuses on the correlation between the democratization in the states and the democratization in geographically surrounding states, even though I am aware of that democratic diffusion may also occur in other networks than geographic networks.

expected based on these correlations could be regarded as cases of discontinuance of democratic diffusion. However, this way to identify cases of democratic diffusion and discontinuance of democratic diffusion has a major weakness. The method only includes a diffusion variable in the analyses and does not control for the importance of other conditions for democratization. This method tends hence to overestimate the effects of democratic diffusion. Previous studies on democratic diffusion have, therefore, used models that include variables that represent other conditions than democratic diffusion that are expected to affect the probability of democratization in states (e.g. Brinks & Coppedge 2006; Gleditsch & Ward 2006; Wejnert 2005). By including other variables in the empirical analyses, we can control for the possibility that the deviation from the democratization in the surrounding states does not express other conditions that affect the probability for democratization. For example, conditions that prevent democratization (e.g., population size and the number of democratic breakdowns) may explain deviation from the surrounding democracies, instead of the discontinuance of democratic diffusion. To measure discontinuance of democratic diffusion, I therefore also use models with control variables that according to previous studies are expected to affect the probability of democratization.³

When we include control variables in the analyses to measure the discontinuance of democratic diffusion, the models need to be analysed in two steps. In the first step, we use models that include the control variables, but not variables about democratization in surrounding states. The next step then uses models with both control variables and a variable about democratization in surrounding states (the diffusion variable). If democratic diffusion occurs (which is indicated in the analyses by significant positive effects of the democratization in surrounding states on the democratization in states, which increases the expected extent of democratization in the states), states that are cases of discontinuance of democratic diffusion are expected to have a more negative deviation from the model that includes democratic diffusion than the model that includes only control variables. For the cases of discontinuance of democratic diffusion, this means that the distance between the actual democratization and the expected democratization based on the empirical analyses are larger in the analyses in the second step than in the analyses in the first step, which is indicated by increasing negative residuals between the actual

³ Which control variables that are included, and how they are operationalized are presented in a later section.

democratization and the expected democratization in the second step compared to the first step.⁴ This relation between the actual and expected democratization is expressed by the following formula:⁵

$$DDD = | (Y_i - \hat{Y}_{iC}) | < | (Y_i - \hat{Y}_{iD}) | \text{ if } (\hat{Y}_{iC} < \hat{Y}_{iD})$$

where DDD stands for discontinuance of democratic diffusion, Y_i is the actual democratization in state i , \hat{Y}_{iC} is the expected democratization in state i according to the model with only control variables, and \hat{Y}_{iD} is the expected democratization in state i according to model with control variables and diffusion variable. As democratic diffusion is assumed to promote democratization, the expected extent of democratization needs to be bigger when the diffusion variable is included than when the model includes only control variables ($\hat{Y}_{iC} < \hat{Y}_{iD}$), otherwise the predicted values do not indicate an overall occurrence of democratic diffusion, which cases can deviate from. The forthcoming section explains and illustrates in more detail the implication of this formula when different concepts and levels of measurement are used to study democratization and democratic diffusion.

Specific methods

The general method to measure discontinuance of democratic diffusion is based on an increasing negative deviation between the actual democratization and the expected democratization when democratic diffusion is introduced in the empirical analyses. How this method is practically applied depends on how democratization is measured, which concerns how democratization is regarded, and the level of measurement that is used to measure democratization. First, previous studies on democratization and democratic diffusion have regarded democratization as either level of democracy or change of democratic level. The first mentioned alternative regards democratization as a situation, where the political regimes to different extent have democratic qualities. The other alternative sees democratization as a process of transition, where the qualities of the political regime change and become more

⁴ When cases are affected by democratic diffusion, the deviation between the actual democratization and the expected democratization is decreasing when democratic diffusion is introduced in the analyses (Brinks & Coppedge 2006; O'Loughlin et al. 1998; Ward & Gleditsch 2008; Wejnert 2014).

⁵ This formula is almost a reversed version of the pathway criterion, which identifies pathway cases that represent a statistical pattern, which indicates a causal relation between a cause and an outcome (Gerring 2007; Weller & Barnes 2014): $| \text{Residual}_{\text{reduced model}} - \text{Residual}_{\text{full model}} | \text{ if } | \text{Residual}_{\text{reduced model}} | > | \text{Residual}_{\text{full model}} |$.

democratic. Second, previous studies have used different levels of measurement, and thus measured democratization with either categorical variables or continuous variables. A categorical variable classifies states as democratic states or autocratic states, while continuous variables measure democratization as an interval or a degree.⁶ Empirical analyses of democratic diffusion have combined the two sets of alternatives to measure democratization, which creates four combinations that Figure 3 illustrates (Boix et al. 2013; Brinks & Coppedge 2006; Coppedge 2012; Gassebner et al. 2012; Gleditsch & Ward 2006; Munck 2009; O’Loughlin et al. 1998; Teorell 2010; Wejnert 2014). As the following parts will present in more detail, these combinations also offer alternatives to measure the discontinuance of democratic diffusion in different ways.

Figure 3: Four combinations of dependent and independent variables of democratic diffusion

Democratization	Level of measurement	
	<i>Categorical</i>	<i>Continuous</i>
<i>Level of democracy</i>	Occurrence of democratic regime Share of democracies in the surrounding states	Level of democracy Average level of democracy in the surrounding states
<i>Change of democratic level</i>	Occurrence of democratic transition Share of democratic transitions in the surrounding states	Change of democratic level Average change of democratic level in the surrounding states

The first combination measures *democratization as level of democracy with a categorical variable*. Democratic diffusion occurs, according to this combination, when the occurrence of democratic regime in the states correlates with the share of democracies in the surrounding states. To identify the discontinuance of democratic diffusion, we need hence to identify when the share of democracies in the surroundings is not affecting the occurrence of democratic regimes in the states. This combination categorizes states as either democracies or autocracies. The analyses use, therefore, models of logistic regression with the occurrence of democratic

⁶ There is a third alternative: to measure democratization with ordinal variables, which categorizes the states as democratic, partly democratic or autocratic. However, I have limited the presentation to the two most common ways to measure democratization (Boix et al. 2013; Munck 2009).

regime as dependent variable and the share of democracies in the surrounding states as diffusion variable. In the first step, the analysis identifies states that have autocratic regimes and that are also expected to have autocratic regimes when only control variables are included. The second step identifies then states that have autocratic regimes, but that are expected to have democratic regimes, as the analysis in the second step includes also the diffusion variable. The results from the two steps are then compared to each other, and the cases of discontinuance of democratic diffusion are thus identified as autocratic states that are expected to have autocratic regimes when the diffusion variable is excluded and to have democratic regimes when the diffusion variable is included in the analyses. These states are thus expected to have democratic regimes based on the share of democracies in the surrounding states, but have autocratic regimes, and are hence regarded as cases of discontinuance of democratic diffusion.

In the second combination, *democratization is measured as democratic transition with a categorical variable*. According to this combination, democratic diffusion occurs when transitions from autocratic regimes to democratic regimes in surrounding states are spread to autocratic states, and the occurrence of democratic transition in a state thus correlates with the share of democratic transitions in the surrounding states. Therefore, to identify the discontinuance of democratic diffusion, we need to identify when the occurrence of democratic transitions in the surroundings does not lead to democratic transitions in the states. This combination categorizes states as cases with democratic transition or without democratic transition. Analyses with this combination also use logistic regression with the occurrence of democratic transition as dependent variable and the share of democratic transitions in the surrounding states as diffusion variable. In the first step, the analysis identifies autocratic states that are expected not to be cases of democratic transition when the model only includes control variables. In the second step, the analysis identifies autocratic states that are expected to be cases of democratic transition when the diffusion variable is included together with the control variables. Based on a comparison of the outcome from the two steps of analyses, the cases of discontinuance of democratic diffusion are identified as autocratic states that are expected not to be cases of democratic transition when the diffusion variable is excluded and to have experienced democratic transition when the diffusion variable is introduced in the analyses. These states are thus expected to have experienced democratic transition based on the share of democratic transitions in the surrounding states, but have not experienced democratic transition, and are therefore still autocratic states, and thus identified as cases of discontinuance of democratic diffusion.

According to the third combination, *democratization is measured as level of democracy with a continuous variable*. Studies that use this combination assume that democratic diffusion occurs when the level of democracy in states correlates with the average level of democracy in surrounding states. This means that, to identify the discontinuance of democratic diffusion we have to identify when the average level of democracy in the surroundings is not affecting the level of democracy in the states. As both the dependent and diffusion variable are continuous variables, the analyses use linear regression to examine the connection between democratization in the states and the surrounding states, where the level of democracy is included as dependent variable, and the average level of democracy in the surrounding states is included as diffusion variable. The discontinuance of democratic diffusion needs to be measured in a different way when continuous variables are used compared to when categorical variables are used. In the first step, when only control variables are included in the analysis, the analysis identifies the distance between the actual level of democracy in the states and the expected level of democracy in the states. This distance is the residual when the analysis includes only control variables. The second analysis identifies then the distance (residual) between the actual level of democracy in the states and the expected level of democracy in the states when the model also includes the diffusion variable. The distances from the two analyses are then compared to identify the discontinuance of democratic diffusion. When democratic diffusion has discontinued, the residual is more negative when the model that includes the diffusion variable is used compared to when the model that only includes control variables is used. The discontinuance of democratic diffusion is hence measured as increasing negative residual between the first and the second analysis. The outcome is thus not categorical – cases of discontinuance of democratic diffusion – when the analyses are using continuous variables. Instead, the discontinuance of democratic diffusion is measured as an increasing degree of negative deviation (residual) between the expected democratization and the actual democratization. This means that, when discontinuance of democratic diffusion occurs, the inclusion of diffusion variable increases the overestimation of democratic level compared to when the diffusion variable is not included, and the level of democracy in the states are hence not correlating with the average level of democracy in the surrounding states.

In the last combination, *democratization is measured as change of democratic level with a continuous variable*, where an increasing level of democracy indicates democratization. In diffusion studies that use this combination, the dependent variable is the change of democratic level in the states whereas the diffusion variable is measured as the average change of

democratic level in surrounding states, and linear regression analysis is applied. According to diffusion theories, the change of democratic level in the surrounding states are expected to spread to the individual states and result in change of democratic level also in these states. Democratic diffusion is thus expected to occur when the change of democratic level in the states correlates with the average change of democratic level in the surrounding states. To identify discontinuance of democratic diffusion, we need hence to identify when the changes of democratic level in the surrounding states do not affect the change of democratic level in the states. As democratization in this combination is also measured with continuous variable, the discontinuance of democratic diffusion is measured as increasing negative residual between the first and the second analysis. The first step of the analyses identifies the residual between the actual changes of democratic level in the states and the expected changes of democratic level in states based on the model that includes only control variables. The second step of analyses identifies the residual between the actual changes of democratic level in the states and the expected changes of democratic level in states based on the model that includes both control variables and the diffusion variable. When discontinuance of democratic diffusion occurs, the negative residual increases with the second model compared to the first model. In states with lower change of democratic level than expected, based on the average change of democratic level in the surrounding states, discontinuance of democratic diffusion is hence assumed to occur.

In a similar way that democratization is measured in different ways, the discontinuance of democratic diffusion may hence be measured in different ways, which means that the discontinuance of democratic diffusion may be studied as the discontinuance of the spread of level of democracy, or the discontinuance of the spread of change of democratic level, and be measured with either a categorical or continuous variable. The different combinations of variables affect thus both how the discontinuance of democratic diffusion is measured and what qualities the measurement indicates. As Munck (2009) discusses in more detail, the selection of level is not obvious, but an issue based on how democratization is conceptualized. Therefore, in the forthcoming analyses, the four different methods will be applied, which means that the empirical analyses illustrate all four methods to identify when and where democratic diffusion has discontinued since 1946. However, before applying the methods, four critical choices for the empirical analyses are clarified below: a) the measurement of democracy, b) the identification of states, c) the identification of surrounding states, and d) the control variables.

Measurements of democracy

To measure the discontinuance of democratic diffusion according to the four combinations of variables (Figure 3), we need measurements of democracy at both categorical and continuous level. Previous studies on democratization have developed several alternatives to measure democracy on different measurement levels. To illustrate the methods to measure the discontinuance of democratic diffusion, I have selected two indices. The selection of the two indices is without any claim that these indices are superior to any other indices. First, the analyses will use materials from the database *Democracy and Dictatorship* (DD) to illustrate how the discontinuance of democratic diffusion is measured with a categorical variable. The database provides a classification of states in democratic and autocratic states, but also information about democratic transitions (where and when autocratic regimes are transformed to democratic regimes). Second, the analyses will use a new database – *Varieties of Democracy* (V-Dem) – to illustrate how the discontinuance of democratic diffusion is measured with a continuous variable. The database provides several indices of democracy on continuous level, which are based on different conceptualization of democracy. The selected index (liberal democracy) aims to measure a similar concept of democracy as the DD, but measures the level of liberal democracy with a scale that ranges from 0 to 100.⁷

Identification of states and surrounding states

Another difference between DD and V-Dem is the criteria used to identify internationally recognized states. DD builds upon a list of states that is offered by the database *Correlates of War* (COW). According to COW, a state is internationally recognized if it has a membership in the United Nations (UN) or the state has more than 500,000 inhabitants and have established diplomatic relationships with at least two great powers.⁸ Based on this, COW identifies 199 states during the time period studied, which are included in the analyses that uses DD to measure democratization. V-Dem, on the other hand, uses nine criteria to identify internationally recognized states: a) formal (legal) sovereignty, or at least claims to sovereignty, b) continuity with a contemporary nation-state, c) defined borders (even if imprecise or under

⁷ Although there are some differences between the indices, both indices aim to measure political institutions with conceptual inspirations from Dahl (1971; 1989; 1998), who presents what is regarded as a minimalistic definition of democracy as procedure (Boix et al. 2013; Munck 2009; Møller & Skaaning 2013).

⁸ During the period in question, the following states were regarded as great powers: China (1950–2008), France (1946–2008), Germany (1991–2008), Great Britain (1946–2008), Japan (1991–2008), the Soviet Union/Russia (1946–2008), and USA (1946–2008). More detailed information is available at the website for the database (<http://www.correlatesofwar.org/>).

dispute), d) a capital (i.e., a single locus of claimed sovereignty), e) a person or body that exercises executive powers (i.e., a head of state and/or head of government), f) self-rule, at least with respect to domestic affairs, g) a distinct governing style and/or quality of democracy relative to surrounding territories, h) a distinct constitution from the surrounding territories or the wider polity the country might be subservient to, and i) lacking (equal) representation at the central level of the wider polity it might be subservient to (Coppedge et al. 2016). When applying these criteria, the database identifies 174 states during the time period in question, which are included in the analyses that use V-Dem to measure democratization.

The differences in how independent states are identified affects not only the cases included in the analyses, but also how the surrounding of the states is identified and democratization in the surrounding states (the diffusion variables) is measured. The surrounding of the states is identified as states in the sub-regional surrounding. According to a basic assumption that frequently occurs in studies on democratic diffusion, conditions in surroundings that are geographically close to the state tend to affect the state more than conditions that are geographically more distant. For example, previous studies have noted that conditions in surrounding states affect the states to a greater extent than global or regional conditions (Brinks & Coppedge 2006; Gassebner et al. 2012; Gleditsch & Ward 2006; Franzese & Hays 2008; Lehtinen 2014; O'Loughlin et al. 1998; Teorell 2010; Wejnert 2014). Based on the assumption about the importance of geographic closeness for democratic diffusion, the surrounding is identified as 19 sub-regions according to the geographic position of the states that the V-Dem project has established based on the classification of regions offered by UN (UN 2013).⁹ The diffusion variables measure a) the share of democracies, b) the share of democratic transitions (categorical variables), c) the average level of democracy, and d) the average change of democratic level (continuous variables) in these sub-regions for each year. The diffusion variables measure democratization in the sub-region differently not only as a consequences of different levels of measurement or measurements of democratization, but also as a consequence of differences in how independent states are identified, as different states are included in the sub-regions depending on how the states are identified.

⁹ The sub-regions included are the Caribbean, Central Africa, Central America, Central Asia, East Asia, Eastern Africa, Eastern Europe, North America, Northern Africa, Northern Europe, Oceania, South America, South Asia, South-East Asia, Southern Africa, Southern Europe, Western Africa, Western Asia, and Western Europe. The classification offered by UN is presented in more detail at <http://unstats.un.org/unsd/methods/m49/m49.htm>.

Control variables

In the following sections, empirical analyses will illustrate the four ways to measure the discontinuance of democratic diffusion. As discussed in this section, all four ways require analyses that include control variables. The selection of control variables is a critical step, and it is also a challenge to select the control variables. Previous studies on democratization have included a variety and diversity of variables. For example, Gassebner et al. (2012) presents a list of 59 variables that occur in previous studies on democratization. However, Gassebner et al. (2012) also shows with empirical analyses that only a limited set of the variables are robust determinants of democracy and of transition to democracy. Based on their results and previous studies on democratic diffusion (Brinks & Coppedge 2006; Gleditsch & Ward 2006; Wejnert 2014), the forthcoming analyses includes gross domestic product (GDP) per capita, growth of GDP, petrol production as share of GDP, number of democratic breakdowns, duration of political regime, level of urbanization, and population size as control variables.¹⁰ The list of control variables and how they are measured are presented in Table 1. This selection of control variables does not provide a complete list of control variables, but the selection is sufficient for the analyses to illustrate the methods to measure the discontinuance of democratic diffusion, and to illustrate how to identify where and when democratic diffusion has discontinued.

Table 1: List of control variables

Variables	Description	Source
GDP/capita (log)	Log of GDP per capita, Purchasing Power Parity (constant 2000 international \$)	World Bank The Maddison-Project (2013)
Growth of GDP (%)	GDP growth (annual %)	World Bank Haber & Menaldo (2011)
Petrol production/GDP	Total income from petrol production as share of GDP	Ross & Mahdavi (2015) Haber & Menaldo (2011)
Number of democratic breakdowns	Number of previous transitions between autocracy/democracy	Democracy and Dictatorship Boix et al. (2013)
Duration of political regime	Number of years with the mode of political regime (autocracy/democracy)	Democracy and Dictatorship Boix et al. (2013)
Urbanization	Urban population (% of total population)	Clio Infra
Population size (log)	Log of total population	Clio Infra

¹⁰ Gassebner et al. (2012) concludes that democratic neighbors also has a reinforcing effect on democratization.

4. Empirical analyses

In this section I will illustrate the methods to measure the discontinuance of democratic diffusion, but also present the distribution of cases when the different methods to measure discontinuance of democratic diffusion are applied. This will give a first picture of where (state) and when (year) democratic diffusion has discontinued based on the methods. The ambition is not to present a final description of the discontinuance of democratic diffusion. The ambition is rather more moderate: to illustrate how the four methods are used to identify cases. To do this, statistical analyses will be carried through. The statistical analyses cover all internationally recognized states under the time period 1946-2008, and the cases are studied for each year of the time period. The methods to measure the discontinuance of democratic diffusion are developed in the previous section, and presented in Figure 3, which shows different combinations to measure the discontinuance of democratic diffusion. In the statistical analyses, a diffusion variable and several control variables are included. The diffusion variable varies according to which method is applied, but represents the extent of democratization in the sub-regional surroundings. The diffusion variable is always lagged with one year, which means that the democratization in the sub-regional surrounding is measured the year before the democratization in the cases is measured. The control variable included is a selection of variables that according to previous studies are assumed to be determinants of democracy and transition to democracy.

First combination: Level of democracy with categorical variable

The first empirical analyses are based on the first combination in Figure 3. The analyses measures democratization as level of democracy with a categorical variable, which means that the database DD is used to categorize the states as either democracies or autocracies. Logistic regression analysis is applied with the occurrence of democratic regime as dependent variable. In Table 2, the two steps of the analysis are presented. In the first step, only control variables are included in the analysis, but the second step includes also the diffusion variable, which in these models is the share of democracies in the sub-region. The second step indicates that the share of democracies in the sub-region has positive effect on the probability for democracy in the states and that the degree of fitness of the model (Nagelkerke's R^2) increases when the analysis includes the diffusion variable. This indicates that democratic diffusion is of importance, and that the share of democracies in the sub-region should be affecting the occurrence of democracy in the states.

Table 2: Logistic regression analyses of democratic regime as category

Variables	Democratic regime	
	Step 1	Step 2
GDP/capita (log)	5.198 (0.000)	3.366 (0.000)
Petrol production/GDP	0.000 (0.000)	0.000 (0.000)
Number of democratic breakdowns	0.789 (0.000)	0.465 (0.000)
Duration of political regime	0.985 (0.000)	0.967 (0.000)
Urbanization	1.544 (0.067)	0.155 (0.000)
Population size (log)	1.498 (0.000)	1.725 (0.000)
Sub-regional diffusion		3867.850 (0.000)
Constant	0.000 (0.000)	0.000 (0.000)
Nagelkerke's R ²	0.500	0.761
Number of observations	6685	6685

However, the democratic diffusion is not affecting all states. Autocratic states that according to the first step are expected to be autocratic, but are expected to be democracies according to the second step when the diffusion variable is included, has not been affected by the democratic diffusion, and are hence identified as cases of discontinuance of democratic diffusion. Table 3 presents how autocratic states are expected to have autocratic or democratic regimes according to the two steps. As the table presents, there are 152 country-year observations that are expected to be autocratic according to the first step, but are expected to have democratic regime based on the second step. These observations are cases of discontinuance of democratic diffusion when the analysis uses the first combination of variables. The states that are identified as cases of discontinuance of democratic diffusion according to these analyses are presented in Table 4. According to the analyses, 29 states have experienced discontinuance of democratic diffusion under one or several years. Burkina Faso is a state that according to the share of democracies in the sub-region should have been democratic during the time period 2000-2007, but had in fact an autocratic regime during these years. Burkina Faso, together with the 28 other states, are, therefore, identified as cases of discontinuance of democratic diffusion when democratization is measured according to the first combination.

Table 3: Expected political regimes in autocratic states

<i>Predicted regime, step 1</i>	<i>Predicted regime, step 2</i>	
	Autocratic regime	Democratic regime
Autocratic regime	2972	152
Democratic regime	548	158

Table 4: Cases of discontinuance of democratic diffusion according to the first combination

State	Start	End	State	Start	End
Albania	1977	1980	Korea, North	1993	2007
	1984	1990	Madagascar	1961	1962
Bangladesh	2007		Mauritania	2000	2002
Bolivia	1980			2004	2006
Burkina Faso	2000	2007	Mexico	1989	1990
Cambodia	1956	1957		1992	1996
	2004	2005		1998	1999
Colombia	1949	1957	Mozambique	2004	2007
Cuba	1966	1970	Nepal	2002	
	1975	1979	Pakistan	1999	2001
	1989	1992	Peru	1991	
Ecuador	1963	1967		1993	
	2001		Spain	1947	1951
Gambia	2006	2007	Sri Lanka	1988	
Guatemala	1957		Syria	1951	
Guinea	2006	2007	Togo	2007	
Honduras	1966	1967	Democratic Republic of Vietnam	1999	2006
Indonesia	1951	1957	Yemen	1992	1998
Iran	1952	1955		2000	2007
Ivory Coast	2000	2002			
	2004	2007			

Second combination: Democratic transition with categorical variable

The second combination measures democratization as the occurrence of democratic transition with categorical variable, which means that DD is used here to categorize the states as states either with or without democratic transition. This categorization constitutes the dependent variable, and logistic regression is used in the analyses. Table 5 presents the two steps when this combination is applied. The second step indicates that the share of democratic transitions in the sub-region has positive effect on the probability for democratic transition in autocratic states and that the degree of fitness of the model (Nagelkerke's R^2) increases when the analysis

includes the diffusion variable. These results indicate that there is democratic diffusion concerning democratic transition. Autocratic states that are expected not to be cases of democratic transition based on the first step when only control variables are included in the statistical analyses, but are expected to have experienced democratic transition based on the second step when the diffusion variable, which in these analyses constitutes of the share of democratic transitions in the sub-region, is included, but have not gone through democratic transition, are identified as cases of discontinuance of democratic diffusion.

Table 5: Logistic regression analyses of democratic transition as category

Variables	Democratic transition	
	Step 1	Step 2
Growth of GDP (%)	0.958 (0.007)	0.962 (0.045)
Petrol production/GDP	0.077 (0.085)	0.154 (0.220)
Number of democratic breakdowns	2.201 (0.000)	2.248 (0.000)
Duration of political regime	1.005 (0.051)	0.999 (0.831)
Urbanization	1.789 (0.323)	0.474 (0.297)
Population size (log)	0.987 (0.949)	1.073 (0.752)
Sub-regional diffusion		8.973*10 ⁸ (0.000)
Constant	0.013 (0.001)	0.005 (0.001)
Nagelkerke's R ²	0.071	0.374
Number of observations	3804	3804

As Table 6 presents, according to this way of measuring discontinuance of democratic diffusion, there are 23 country-year observations that are identified as cases of discontinuance of democratic diffusion. Table 7 specifies which states that have experienced discontinuance of democratic diffusion. Bulgaria and Poland are examples of cases of discontinuance of democratic diffusion. Both states were expected to undergo transition to democracy under the year 1989 based on the share of democratic transitions in the sub-region, but did not do that, and are thus regarded as cases of discontinuance of democratic diffusion when democratization is measured according to the second combination.

Table 6: Expected democratic transitions in autocratic states

<i>Predicted regime, step 1</i>	<i>Predicted regime, step 2</i>	
	No democratic transition	Democratic transition
No democratic transition	3637	23
Democratic transition	144	0

Table 7: Cases of discontinuance of democratic diffusion according to the second combination

State	Year		State	Year
Argentina	1979		Hungary	1989
Bulgaria	1989			1990
	1990		Mexico	1984
Costa Rica	1949			1949
Cuba	1966		Nicaragua	1984
Czech Republic	1989			1949
			Panama	1984
El Salvador	1984			1949
Greece	1974		Poland	1989
Guatemala	1984		Portugal	1976
	1986		Romania	1989
Honduras	1949			1990

Third combination: Level of democracy with continuous variable

The third set of statistical analyses measures democratization as the level of democracy, and uses a continuous variable. This means that V-Dem is used to measure the level of democracy in the states, which constitutes the dependent variable, but also the average level of democracy in the sub-region, which constitutes the diffusion variable. As the democratization is measured with a continuous variable, linear regression analysis is applied. In Table 8, the results from the two steps of the statistical analyses are presented. The second step indicates that democratic diffusion affects the states, as the average level of democracy in the sub-region has significant effects on the level of democracy in the states. The determination degree (R^2_{adj}) is also increasing when the diffusion variable is included in the analysis, compared to the analysis with only control variables.

Table 8: Linear regression analyses of democratic level as continuum

Variables	Level of democracy	
	Step 1	Step 2
GDP/capita (log)	0.007 (0.021)	0.014 (0.000)
Petrol production/GDP	-0.081 (0.000)	-0.064 (0.000)
Number of democratic breakdowns	-0.030 (0.000)	-0.037 (0.000)
Duration of political regime	0.000 (0.000)	-0.001 (0.000)
Urbanization	0.030 (0.000)	-0.043 (0.000)
Population size (log)	-0.006 (0.033)	-0.04 (0.105)
Sub-regional diffusion		0.464 (0.000)
Constant	0.154 (0.000)	0.035 (0.154)
Determination degree (R^2_{adj})	0.076	0.229
Number of observations	3778	3778

To identify the discontinuance of democratic diffusion, the residual between the expected level of democracy in the state and the actual level of democracy in the state according to the first step that includes only control variables, is compared to the residual between the expected level of democracy in the state and the actual level of democracy in the states according to the second step that includes also the diffusion variable. An increasing negative residual between the first and the second step of analyses indicates that the democratic diffusion has discontinued. Figure 4 illustrates the differences between the residuals (between the actual level of democracy and the expected level of democracy) of the first model that includes control variables and the residuals of the second model, which also includes the diffusion variable. Negative differences (values below zero) indicate discontinuance of democratic diffusion. These values provide options to identify where (state) and when (year) democratic diffusion has discontinued. As an illustration of these options, Table 9 presents the country-year observations with most negative values.¹¹ These observations of most negative values are found among seven states during different time periods. However, most of them are before the end of the Cold War. Table 9 also presents the highest and lowest differences during the periods. Hungary is an example of a state that for long periods deviated from what is expected based on the average level of democracy

¹¹ The cases presented in Table 9 may also have other periods of negative values than the ones showed in the table, as these are only the periods with the most negative values.

in its sub-region, and in Hungary, the democratic diffusion is thus assumed to have discontinued, when democratization is measured according to the third combination.

Figure 4: Change of residuals between step 1 and step 2 (level of democracy)

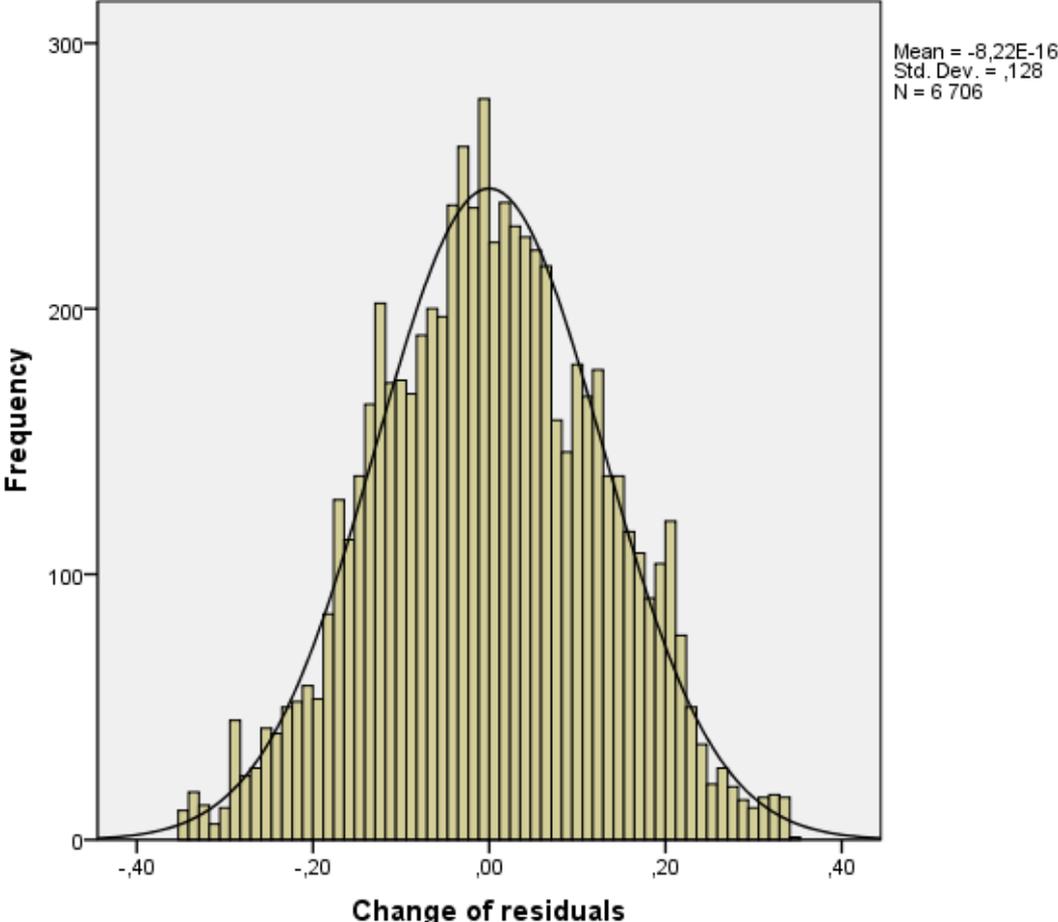


Table 9: Examples of cases of discontinuance of democratic diffusion according to the third combination

State	Periods	Highest value	Lowest value
Bulgaria	1970-71	-0.29	-0.29
	1975-89	-0.29	-0.34
Czechoslovakia	1966-71	-0.29	-0.31
	1975-89	-0.30	-0.34
Hungary	1964-71	-0.29	-0.31
	1975-89	-0.30	-0.34
Israel	1981-83	-0.29	-0.29
	1987-89	-0.28	-0.29
	1997-2001	-0.29	-0.29
Poland	1975-88	-0.28	-0.29
Qatar	1972-74	-0.29	-0.32
Soviet union	1972-74	-0.29	-0.29
	1977-79	-0.28	-0.29
	1984-88	-0.29	-0.31

Fourth combination: Democratic transition with continuous variable

In Table 10, statistical analyses based on the fourth combination are presented. In these analyses, democratization is regarded as the change of democratic level in the states and is measured with a continuous variable, thus measured with V-Dem with linear regression. The change of democratic level in the states constitutes the dependent variable, while the average change of democratic level in the sub-region constitutes the diffusion variable. As for the other combinations, democratic diffusion has according to the analyses effect also according to these analyses. The second step shows that the average change of democratic level in the sub-region affects the democratization in the states. The average change of democratic level has positive effects on the democratization in the states. States tend to increase the level of democratization when they are surrounded by states that increase their average level of democracy. Furthermore, the determination degree (R^2_{adj}) increases from a low level in the first step to a more significant level in the second step.

Table 10: Linear regression analyses of change of democratic level as continuum

Variables	Change of level of democracy	
	<i>Step 1</i>	<i>Step 2</i>
Growth of GDP (%)	0.000 (0.794)	0.000 (0.041)
Petrol production/GDP	-0.003 (0.202)	0.000 (0.930)
Number of democratic breakdowns	0.002 (0.003)	0.001 (0.215)
Duration of political regime	0.000 (0.172)	0.000 (0.399)
Urbanization	0.005 (0.008)	0.001 (0.679)
Population size (log)	0.000 (0.569)	0.000 (0.751)
Sub-regional diffusion		0.980 (0.000)
Constant	-0.003 (0.583)	-0.003 (0.486)
Determination degree (R^2_{adj})	0.003	0.226
Number of observations	6677	6677

To identify the discontinuance of democratic diffusion, the residual between the expected change of democratic level in the states and the actual change of democratic level in the states according to the first step is compared with the residual from the second step that includes the diffusion variable. Figure 5 presents the differences in residuals between the two models. When the negative residual is increasing between the first and the second step of analyses, it indicates that the democratic diffusion has discontinued. Table 11 presents the cases with the highest values of differences in residuals together with the year and the value of difference. Argentina is the case that have the highest degree of deviation, and is hence one of the cases where the democratic diffusion has discontinued according to the fourth combination.

Figure 5: Change of residuals between step 1 and step 2 (change of democratic level)

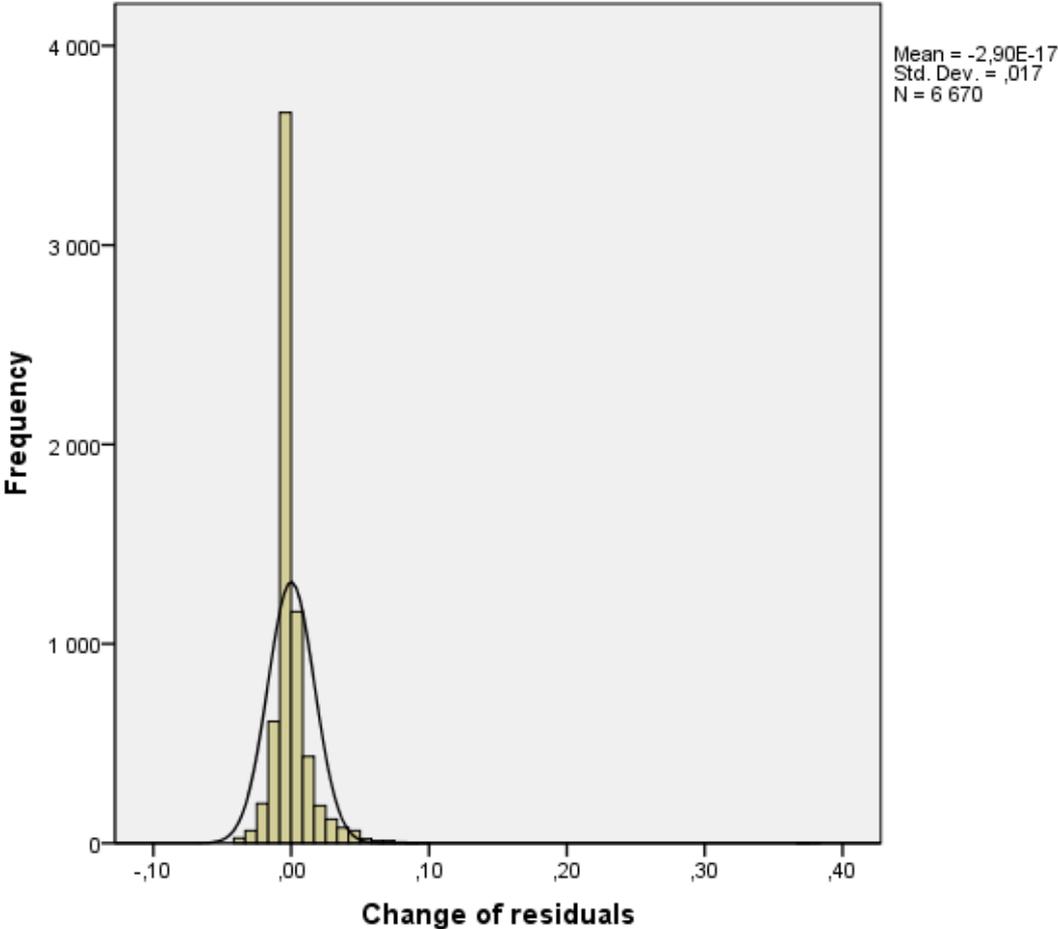


Table 11: Examples of cases of discontinuance of democratic diffusion according to the fourth combination

State	Year	Change of residuals
Argentina	1973	-0.042
New Zealand	2007	-0.040
Australia	2007	-0.040
Uruguay	1973	-0.040
Chile	1973	-0.040
Peru	1973	-0.039
Greece	1967	-0.038
Colombia	1973	-0.038
Venezuela	1973	-0.038
Italy	1967	-0.038

Discontinuance of democratic diffusion in sub-regions and over time

To further illustrate where and when democratic diffusion has discontinued, more statistical analyses of the discontinuance of democratic diffusion have been carried through. Table 12 presents the number of observations of discontinuance of democratic diffusion in each sub-region according to all four combinations. When we analyse the discontinuance of democratic diffusion according to the first combination, there are nine sub-regions where there has not been any observation of discontinuance of democratic diffusion. In Central Africa, Central Asia, Eastern Europe, North America, Northern Africa, Northern Europe, Oceania, Southern Africa and Western Europe, the occurrence of democratic regime in the states correlates with the share of democracies in the sub-region. In contrast, ten sub-regions includes states which political regimes do not correlate with the share of democracies in their sub-region. Most observations of discontinuance of democratic diffusion are found in Western Africa, but there are also observations in the Caribbean, Central America, East Asia, Eastern Africa, South America, South Asia, South-East Asia, Southern Europe, and Western Asia.

Table 12: The number of country-year observations of discontinuance of democratic diffusion in the sub-regions

Sub-region	Combination 1	Combination 2	Combination 3	Combination 4
Caribbean	14	1	139	35
Central Africa	0	0	183	30
Central America	12	11	297	47
Central Asia	0	0	75	11
East Asia	15	0	215	12
Eastern Africa	6	0	125	25
Eastern Europe	0	8	236	53
North America	0	0	0	5
Northern Africa	0	0	235	17
Northern Europe	0	0	0	0
Oceania	0	0	107	12
South America	18	1	330	177
South Asia	10	0	96	40
South-East Asia	19	0	297	54
Southern Africa	0	0	86	8
Southern Europe	16	2	146	10
Western Africa	26	0	221	95
Western Asia	16	0	383	48
Western Europe	0	0	0	0

Table 12 also tells us in which sub-regions we find states that have not gone through democratic transitions even though they are expected to do that based on the share of democratic transitions in their sub-regions (combination 2). These sub-regions are the Caribbean, Central America, Eastern Europe, South America, and South Europe. In the Caribbean and South America there are only one observation of discontinuance of democratic diffusion, and in Southern Europe only two observations, but in Eastern Europe there are eight observations, and in Central America there are eleven observations. According to this combination, there are also 14 sub-regions with no observation of discontinuance of democratic diffusion at all. The table also presents observations of discontinuance of democratic diffusion when the third combination is applied. This tells us where there have been country-years observations that have deviated from what is expected based on the average level of democracy in the sub-region. In only three sub-regions there are no observations of discontinuance of democratic diffusion at all: in North America, Northern Europe and Western Europe. Most observations of discontinuance of democratic diffusion we find in Western Asia, but Central America, East Asia, Eastern Europe, Northern Africa, South America, South East Asia and Western Africa have also over 200 country-years observations of discontinuance of democratic diffusion. When the fourth combination is applied, there are only two sub-regions with no observations of discontinuance of democratic diffusion; Northern Europe and Western Europe. South America has most observations of discontinuance of democratic diffusion with 177 country-years observations, which is much more than Western Africa that have the second most observations. Also in Central America, Eastern Europe, South Asia, South-East Asia, and Western Asia there are many deviations from what is expected based on the average change of democratic level in the sub-region.

If we compare where there have been observations of discontinuance of democratic diffusion according to the four combinations, we find some similarities. Northern Europe and Western Europe have not had any observations of discontinuance of democratic diffusion, irrespective of how we measure the discontinuance of democratic diffusion, and in North America there have only been deviation according to the fourth combination. Based on the other combinations, there has not been any observations neither in North America. If we look at where there have been most observations, the same three sub-regions have the most observations according to the first and the fourth combinations: South America, South-East Asia and Western Africa. But there are also differences between the combinations. For example, according to the first and second combination, there are no observations in Central Africa, but according to the third and

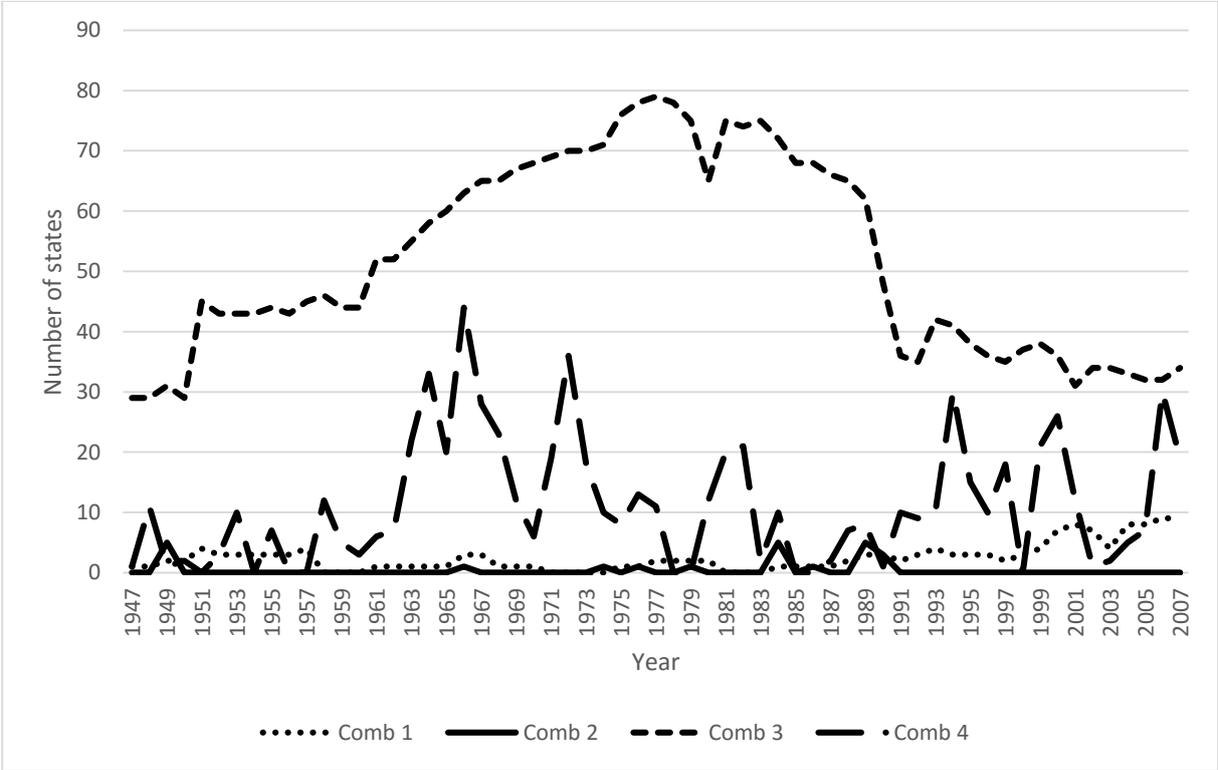
fourth combination, there are quite many observations. A similar pattern is found in Central Asia, Oceania and Southern Africa, where we find observations according to the two last combinations, but not according to the two first combinations. Furthermore, according to the third combination, there are many observations in Northern Africa, but according to the fourth combination, there are only a few, and no observations at all according to the other two combinations.

The way we measure discontinuance of democratic diffusion also affects the picture when we look at the number of observations of discontinuance of democratic diffusion over time. In Figure 6, a diagram over the number of observations under the time period 1946-2008 according to the four combinations, is presented. Based on the first combination, there have never been more than nine observations per year during the whole time period. In the beginning of the period there were some years with up to four observations, but otherwise, there have been fewer observations until the end of 1980's. After that, there has been an increase of observations, and in 2006 and 2007 there were nine observations both years. According to the second combination, during most years there were no observations at all, but there were peaks in the beginning of the period and in the middle and the end of the 1980's, where there were five observations in each point in time. After 1990, there has been no observation at all. Combination 3 shows a different picture. According to this combination, there has been at least 29 observations of discontinuance of democratic diffusion each year during the period, and the number of observations for each year increases from the beginning of the period until the end of the 1970's, when the number starts to decrease. Most changes in the number of observations per year we find when we apply the fourth combination. There are many years with no observations at all, or only a few, but also many years with at least ten observations. There are also a couple of peaks in the middle of the 1960's, the beginning of the 1970's and the 1990's, but also in the end of the period, with at least 30 observations each.

The picture of the discontinuance of democratic diffusion according to the four combinations shows both differences and similarities when we look at the number of observations per year during the time period 1946 – 2008. Both the third and the fourth combination show many observations during the time period from 1960 to the beginning of the 1980's. However, the fourth combinations shows several years with many observations after 1990, while the number of observations decreases after 1990 according to the third combination. There is a similar pattern for the first two combinations after 1990, where the first combination shows an increase

in the number of observations while the second combination shows no observations at all. If we compare the time period under the Cold war to the time period after the Cold war (1989-), we can see that after the Cold war, the share of democracies in the surrounding (combination 1) seems to be spread to other states in lower extent than under the Cold war, while the share of democratic transitions in the surroundings seems to spread to full extent to other states after the Cold war (combination 2), and the average level of democracy in the sub-region seems to spread more after the Cold war than before (combination 3). The average change of democratic level seems to spread some of the years, but not under other years, which is a similar pattern both under and after the Cold war (combination 4).

Figure 6: The number of country-year observations of discontinuance of democratic diffusion over time



Differences between methods

As can be told from the previous analyses, the cases that are identified as cases of discontinuance of democratic diffusion differ to a great extent depending on which of the combinations of dependent and diffusion variables that are applied. Not at least the tables that present the number of observations in the sub-regions (Table 12) and over time (Figure 6) show us that different cases are identified depending on the combinations. That the different methods

affect where and when discontinuance of democratic diffusion is identified can also be confirmed by further analyses. In Table 13, a correlation matrix that measures the connection between the different methods is presented. The table shows only weak correlations between the combinations, which indicates that how we measure democratization (the different combinations) affects how we identify the discontinuance of democratic diffusion, and therefore also where and when cases of discontinuance of democratic diffusion are identified.

Table 13: Correlations between methods to identify cases of discontinuance of democratic diffusion (Persons' r)

	Comb 1	Comb 2	Comb 3	Comb 4
Comb 1	1 (0.000) n=6685			
Comb 2	0.002 (0.893) n=3804	1 (0.000) n=3809		
Comb 3	-0.053 (0.000) n=6404	0.056 (0.001) n=3583	1 (0.000) n=6480	
Comb 4	-0.041 (0.073) n=2768	0.067 (0.007) n=1603	0.162 (0.000) n=2670	1 (0.000) n=2786
Number of observations	152	23	3171	679
Share of all observations	2.3 %	0.6 %	48.9 %	24.4 %

The differences between the combinations may be the result of different explanations. First, the combinations analyse different phenomenon, as they regard democratization differently. Two combinations view democratization as level of democracy, while the other two combinations regard democratization as change of democratic level. Second, the combinations also use different levels of measurement. The combinations that use a categorical index identify fewer cases of discontinuance of democratic diffusion than the combinations that use a continuous index. This difference may reflect that a categorical index presuppose that for diffusion to occur, the political regime in its entirety is expected to change from autocratic to democratic regime, while for continuous indices, it is enough with a gradual change for democratic diffusion to be assumed to occur. This difference also affect the criteria to identify cases of discontinuance of democratic diffusion. Third, different level of measurement means also that different methods for the statistical analyses are applied. When a categorical index is used, logistic regression analysis is applied, while linear regression analysis is applied when a continuous index is used.

The differences in methods thus also lead to differences in the identification of cases of discontinuance of democratic diffusion between the two first combinations and the two other combinations. Fourth, the statistical analyses include different number of cases as DD and V-Dem use different criteria to identify cases. This difference in criteria to identify cases also affect which cases that are included in the analyses, which may affect the outcome of the analyses. Fifth, the composition of the sub-regions is also different between the analyses, which also is an effect of different criteria to identify cases. As the democratization in the sub-region is expected to affect the democratization in the states, the differences in the compositions of the sub-regions lead also to differences in the identification of cases of discontinuance of democratic diffusion.

Although there are differences between the four methods, all four methods indicate that discontinuance of democratic diffusion has occurred. The analyses also indicate that democratic diffusion have discontinued in different contexts (sub-regions) and repeatedly since 1946. Furthermore, the analyses illustrate how the methods can be used to identify where (states) and when (year) democratic diffusion has discontinued, but also how the development of discontinuance of democratic diffusion can be examined with the four methods.

5. Conclusions

This paper has developed conceptual and methodological conditions that makes it possible to study the discontinuance of democratic diffusion. Based on a definition of democratic diffusion as the spread of democratic ideas between states over time, this paper defines discontinuance of democratic diffusion as the discontinuance of the spread of democratic ideas between states over time. Based on the definition of discontinuance of democratic diffusion, the paper presents a general method to identify where and when the democratic diffusion has discontinued, and based on this general method, the paper develops four methods to measure the discontinuance of democratic diffusion. These measurements provide options to identify where and when democratic diffusion discontinues based on different concepts and measurements of democratization.

Furthermore, the paper presents empirical analyses that illustrate how to use the four methods and how the methods indicate discontinuance of democratic diffusion. Although the empirical analyses are only initial and primary, the analyses indicate that discontinuance of democratic

diffusion have occurred to a great extent in different contexts and during different periods. The analyses indicate also that the choice of method affects where and when discontinuance of democratic diffusion is identified by the analyses.

In sum, the paper provides four major contributions to the research on democratic diffusion. First, the paper focuses on an issue that previous research on democratic diffusion has neglected. The basic definition developed in the paper creates an analytic awareness of the discontinuance of democratic diffusion. Second, the methods developed in the paper offer options for future studies to empirically examine the discontinuance of democratic diffusion further. One important aspect of these options is the possibility to study the discontinuance of democratic diffusion based on different concepts and measurements of democratization. Third, the empirical analyses indicate that the discontinuance of democratic diffusion is a phenomenon that occurs in different political settings. This provides reasons to also recognize the discontinuance of democratic diffusion in the explanation of democratization and waves of democratization. Fourth, the empirical results also provide contributions to ongoing discussions about the measurement of democratization. As the results indicate, the selection of method affects where and when cases are identified, but also the frequency of discontinuance of democratic diffusion. These results have also a more general relevance for research on democratic diffusion. If the choice of method to regard and measure democratization has this big of importance for the outcomes when it comes to the discontinuance of democratic diffusion, it probably also has it for the identification of cases of democratic diffusion. This is something that is worth thinking of not only when the discontinuance of democratic diffusion is studied, but should also be under consideration when democratic diffusion in general is studied.

Although the paper presents contributions to several discussions, the paper also calls for further research on discontinuance of democratic diffusion. First, the use of other indices than the selected would provide a broader understanding about where and when discontinuance of democratic diffusion occurs, but also how the selection of index affects the results. Second, the empirical analyses are based on the assumption that the methods indicate discontinuance of democratic diffusion. This assumption needs to be tested further in empirical analyses. For example, in-depth studies of cases identified by the methods would display if the remaining as autocratic states is actually the result of discontinuance of democratic diffusion, or if other conditions may explain it instead. As the aim with this paper has been to develop conditions

that enable studies of the discontinuance of democratic diffusion, it has not tried to explain why democratic diffusion discontinues. A third topic for future studies is hence to explain why democratic diffusion discontinues. For example, path-way analyses that combine statistical analyses with cases studies could identify the conditions and mechanisms that lead to the discontinuance of democratic diffusion. Based on the outcome from statistical analyses, cases that represent the causal pattern identified by statistical results could be studied in comparative case studies, to examine in more depth which conditions and mechanisms that are of importance for the explaining of the discontinuance of democratic diffusion. Even though this paper is not answering the question of why the democratic diffusion discontinues, it has reached its aim of developing conditions that makes it possible for forthcoming studies to examine the discontinuance of democratic diffusion further, and also answer the question why democratic diffusion discontinues. This would also provide an understanding of why the domino bricks of democratization stops falling.

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Databases

Clio Infra: <https://www.clio-infra.eu/>

Correlates of War: www.correlatesofwar.org/

Democracy & Dictatorship: sites.google.com/site/joseantoniocheibub/datasets

Ross, M. & Mahdavi, P. (2015): Oil and Gas Data, 1932-2014. Harvard Dataverse:

<http://dx.doi.org/10.7910/DVN/ZTPW0Y>

The Maddison-Project: <http://www.ggdg.net/maddison/maddison-project/home.htm>

Varieties of Democracy: <https://www.v-dem.net/en/>

World Bank Data: <http://data.worldbank.org/>