Sanghoon Park

Ph.D. Student

Department of Political Science

February 12, 2021





Before We Start

- Before We Start
   Causality
- 2 Wucherpfenning and Deutsch. 2009.

- 3 Boix and Stokes. 2003. Endogenous Democratization
- 4 Summaries

## X causes Y

Before We Start •00000000 Causality

• X covaries with Y.



## X causes Y

- X covaries with Y.
- X causes Y.

## X causes Y

- X covaries with Y.
- X causes Y.
- Covariation does not prove causality.
- Some examples of covariation without causality.
  - The crime rate in the South African Republic and the military spending in the U.S.
  - The birth rates in South Korea and the number of polar bears.

- We need a credible causal mechanism.
  - Answer the "how" and "why" questions.
  - Only if "yes," we can move on.
- 2 X (cause) must come before Y (outcome) in time (Temporal order).
- **3** More of X is associated with more or less of Y (Covariation).

4 Endogeneity

Before We Start 00•000000 Causality



- 4 Endogeneity
  - Y must cause X.
  - "Do the strong survive or are survivors strong?"
  - $X \to Y$  or  $Y \to X$ ?
  - "Endogenous" means that A causes changes in B, but that B also causes changes in A.

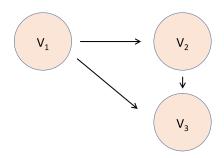
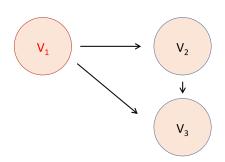


Figure: Endogeneous vs. Exogenous

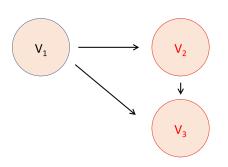


• V<sub>1</sub>: Exogenous (given)

Figure: Endogeneous vs. Exogenous

000000000

### Five Causal Hurdles



- V<sub>1</sub>: Exogenous (given)
- V<sub>2</sub>, V<sub>3</sub>: Endogenous (affected)

Figure: Endogeneous vs. Exogenous

## Five Causal Hurdles

- 6 Spuriousness
  - Omitted variable bias
  - Some unindentified factor is responsible for the relationship between X and Y.
  - Thus, spuriousness means that you might think that one thing (A) is causing another (B), but it's because you ignore what is actually causing the changes.

Before We Start 00000000 Causality

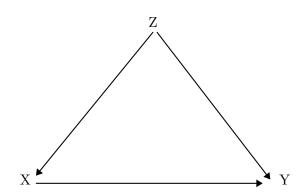


Figure: Spurious relationship

### Five Causal Hurdles

- Wucherpfennig and Deutsch (2009) and Boix and Stokes (2003) also address the causal issue.
  - Economic Development → Democracy?

- Wucherpfennig and Deutsch (2009) and Boix and Stokes (2003) also address the causal issue.
  - Economic Development → Democracy?
  - Economic Development → Democracy → Economic Development?
  - Democracy → Economic Development?
- This topic is still on the debate since it is challenging to demonstrate the causality of the relationship.



## General question

democracy Aringreviews org | 2005

#### Modernization and Democracy: Theories and Evidence Revisited

#### Mor room renim entitles a http://www.bringspipes.org/bs/2005-4

We carrier the Etuatuse on the cubalon between socio-occurrie development and political date

#### For quoties in political science have been studied as

cridinos crocerning, what is commonly known as membranisms throw, This lided of measured in indicident in the madrice of Lipset (1959), who in his sential correlations final initio on the sourced agents. Thus, contemy to often-eissted (constitutes called agency) approaches to the study of demonstration (x.g., O'Doundl & Schutters 1964, this paper is convenient with the streamford and posted combiners

Linet's Thesis Conditions of Democracy Al a line then demonstic form of personnel tree the

studies, and it is not by chance that his 1959 article ranks amongst the all-time top-less studiess of the designant English journal, the American Political Science Street (Suppleme 2006)

Yet, it appears that Lipset is more frequently shed than read, as to consensal men; one warmens and newton.

Yet, it appears that the controlled to the medio-monthly in the medio-monthly in the medio-monthly in the profession of the profess fast "all the rations appear of constmic dardopment -inclusively-lines, relations, modelly, and relaxation - are closely internated as to firm one major factor which has the political strends of discovery" (Lipset 1994, II, in the list list of factor which consistint the resultances, not necessarily

> . In this contact, for any demonstrat regions to curving, it must force a demonstic culture. Stronger in busine capital. The white was regulated as visitedly idented from an diapter 2 of

Liper 8 Note:

2 For instance, Liperi med different or large to alcoulty ansatz in an democratic or not depending on their purpophisal location. Center for Companying and International Studies, ETH Suitch and University of Suitch. Letter/Reviews in Democratic, 2008 | 1 Question:

## General question

democracy Arigneviews org 1 2005

Modernization and Democracy: Theories and Evidence Revisited

#### Mor room renim emiliable at http://www.licksprodom.org/led-2005-a

We carrier the Eterature on the cubation between socio-accommic development and political dat

#### For quoties in political science have been studied as

cridance concerning what is controlly larver as enabrementar throug. This field of measure is indicited in the tradition of Lipset (1959), who is his sensinal contribution fine half on the securate agents. Thus, contrary to observement (constitutes validal agency) approaches to the study of demonstration (e.g., of Tornell & Schmitzer 1960, this paper

Linet's Thesis Conditions of Democracy Al a line then demonstic form of personnel tree the

studies, and it is not by chance that his 1959 article ranks amongst the all-time top-less studiess of the designant Englis-journal, the American Political Science Review (Suppleme 2000).

he is often misosperiorised in embering his complex theory to a simplified understanding of occurring divelopment in a nanon

In this contact, for any demonstrate regime to carrier, it must force a demonstic culture. Stronger in busine capital.

The whole was regulated at visitally identical firm sections 2 of Lipat 8500 2 For instead, Lipat seel different or large to shoolly aware in se-denourses or not depending on their purpophial location. Leng-Reviews in Democracy, 2009 | 1

#### Question:

What is the relationship between socio-economic development and political democracy?

## General question

democracy Arigneviews org 1 2005 Modernization and Democracy: Theories and Evidence Revisited

Jolish Wacherpfernig disks Destrict.
University Transact Table 6 of Europeites and Todal Sciences | Educate Spinish Control of Europeites and Todal Sciences | Educate Spinish Control of Europeites and Europeites (Educate Spinish Control of Europeites and Europeites (Educate Spinish Control of Educate Spinish Control of Europeites (Educate Spinish Control of Educate Spinish Control of

Mor room renim emiliable at http://www.licksprodom.org/led-2005-a We carrier the Eterature on the cubation between socio-accommic development and political dat

For quoties in political science have been studied as cridance concerning what is controlly larver as enabrementar throug. This field of measure is indicited in the tradition of Lipset (1959), who is his sensinal contribution fine half on the securate agents. Thus, contrary to observement (constitutes validal agency) approaches to the study of demonstration (e.g., of Tornell & Schmitzer 1960, this paper

Linet's Thesis Conditions of Democracy Al a line then demonstic form of personnel tree the force a demonstic culture. Stronger in busine capital.

studies, and it is not by chance that his 1959 article ranks amongst the all-time top-less studiess of the designant Englis-journal, the American Political Science Review (Suppleme 2000).

he is often misosperiorised in embering his complex theory to a simplified understanding of occurring divelopment in a nanon

The whole was regulated at visitally identical firm sections 2 of Lipat 8500 2 For instead, Lipat seel different or large to shoolly aware in se-denourses or not depending on their purpophial location.

Lining Reviews in Democratic, 2009 | 1

#### Question:

What is the relationship between socio-economic development and political democracy?

Are poor countries less likely to be democratic than rich countries?

- Modernization theory (Lipset 1959)
  - Development  $\rightarrow$  the likelihood of democratization  $\uparrow$

- Modernization theory (Lipset 1959)
  - Development  $\rightarrow$  the likelihood of democratization  $\uparrow$
  - Also, development → stable democracy ↑

- Modernization theory (Lipset 1959)
  - Development  $\rightarrow$  the likelihood of democratization  $\uparrow$
  - Also, development → stable democracy ↑
  - Here, development means:
    - 1 Industrialization
    - 2 Urbanization
    - Wealth
    - 4 Education

#### Theories

Before We Start

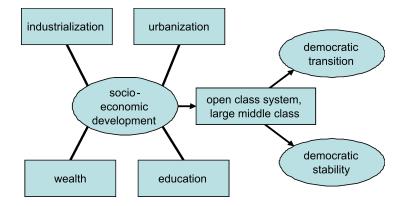


Figure: Modernization theory of Lipset (1959)

- Przeworski et al. (2000)
  - Exogenous holds, but endogenous fails.
    - Economic development does not casue democratization.
    - Development merely helps sustain democracy once it is established (Wucherpfennig and Deutsch 2009, 3).
  - Using 1950-1990, 135 countries data.

## General question

#### ENDOGENOUS DEMOCRATIZATION

By CARLES BOIX and SUSAN C. STOKES \*

#### INTRODUCTION

A RE rich distatoships more likely than poor distatoships to oddlapse and be replaced by demonracise Consider, for example, Chile, which in 1985 had a per capita goos domestic product (CDP) of the \$3,000 and was under distatoship, and Benin, which in the same years had a per capita income of about one-third of Chile's, \$1,100, and wasness, and also under distantiship. Setting aidal other differences between these countries, did their relative levels of development make a transition to democracy more likely in Chile than in Benin?

Agrone who has followed recent redoubtely would be likely to assert as This is the amount of a work of the followed theory and the redoubtely are a This is the amount of the redoubtely and the state of the state o

Their conclusion has been deeply influential among social scientists and policy analysis. In a review of Freyworks and Limonoy's later book (counthord with Michael Aburez and José Antonio Cheinbol), which restates the rejection of endogenous democratization. David Brown writes: In a convincing fishion, the authors angue that modernization will be a convenient of the control of t

World Pulinics SS (Tuly 2003), 517-49

#### Question:

## General question

#### ENDOGENOUS DEMOCRATIZATION

By CARLES BOIX and SUSAN C. STOKES \*

#### INTRODUCTION

RE rich dictatorships more likely than poor dictatorships to col-Alapse and be replaced by democracies? Consider, for example, Chile, which in 1985 had a per capita gross domestic product (GDP) of \$3,400 and was under dictatorship, and Benin, which in the same year had a per capita income of about one-third of Chile's, \$1,108, and was also under dictatorship. Setting aside other differences between these countries, did their relative levels of development make a transition to democracy more likely in Chile than in Benini

Anyone who has followed recent scholarship would be likely to answer no. This is the answer that would follow from Adam Przeworski and Fernando Limonsi's "Modernization: Theories and Facts," a study that hit the field of political development like a bolt of lightning and immediately changed the landscape.1 In it they reconsider the classic proposition that economic development favors democracy, identifying an ambiguity in this proposition. Why do we observe a higher proportion of democracies among rich countries than among poor countries? Is it because development increases the likelihood that noor countries will undergo a transition to democracy? They call this an "endogenous" theory. Or is it because development makes democracies, once established, less likely to fall to dictatorships? They call this an "exogenous" theory. The concentral distinction is brilliant, and Prevennski and Limonei offer midence that the exogenous theory holds and the endogenous one fails.

Their conclusion has been deeply influential among social scientists and policy analysts. In a review of Przeworski and Limongi's later book (counthored with Michael Alvarez and José Antonio Cheibub), which restates the rejection of endogenous democratization, David Brown writes: "In a convincing fashion, the authors argue that modernization \*We are grantful for community to David Boows, Issai Agensio Christely, Mart Cleary, Issae

World Pulitics S5 (July 2003), 517-49

#### Question:

Are rich dictatorships more likely than poor dictatorships to collapse and be replaced by democracies?

Dominguez, Stathie Kalyna, Dovid Laida, Fernando Limongi, Lais Pernando Medina, Adam Prze-sundi. Joan Seva, Liu Wolens, and Perc Wildo. "Protworks and Limongs, "Modernization: Theories and Facts," World Philips 49 (Innuary 1997).

### Theories

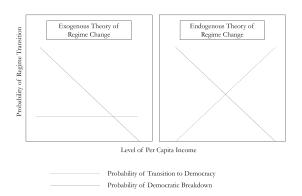


Figure: The Exogenous and Endogenous Theory of Regime Change

References

#### Theories

Before We Start

- If the exogenous theory holds,
  - Development → Democracy
  - But development → Stable/developed democracy
- We need a theory in which development induces actors in democracies to sustain that system but does not induce actors in a dictatorship to change to democracy.
- Boix and Stokes (2003) revisit modernization theory—endogenous theory.

- Theoretical reviews and empirical tests
  - Are the results of Przeworski et al. (2000) generalizable?

- Theoretical reviews and empirical tests
  - Are the results of Przeworski et al. (2000) generalizable? → Expanding the sample.

- Theoretical reviews and empirical tests
  - Are the results of Przeworski et al. (2000) generalizable? → Expanding the sample.
  - When Boix and Stokes (2003) expand the sample, do the results cover Przeworski et al. (2000)'s?



- Theoretical reviews and empirical tests
  - Are the results of Przeworski et al. (2000) generalizable?  $\rightarrow$  Expanding the sample.
  - When Boix and Stokes (2003) expand the sample, do the results cover Przeworski et al. (2000)'s? → Re-estimate and compare.

- Theoretical reviews and empirical tests
  - Are the results of Przeworski et al. (2000) generalizable? → Expanding the sample.
  - When Boix and Stokes (2003) expand the sample, do the results cover Przeworski et al. (2000)'s? → Re-estimate and compare.
  - Do Przeworski et al. (2000)'s model capture a set of relevant variables?

- Theoretical reviews and empirical tests
  - Are the results of Przeworski et al. (2000) generalizable? → Expanding the sample.
  - When Boix and Stokes (2003) expand the sample, do the results cover Przeworski et al. (2000)'s? → Re-estimate and compare.
  - Do Przeworski et al. (2000)'s model capture a set of relevant variables? → Omitted variable bias

- Theoretical reviews and empirical tests
  - Are the results of Przeworski et al. (2000) generalizable? → Expanding the sample.
  - When Boix and Stokes (2003) expand the sample, do the results cover Przeworski et al. (2000)'s? → Re-estimate and compare.
  - Do Przeworski et al. (2000)'s model capture a set of relevant variables? → Omitted variable bias
  - Do they miss something to infer the causality?



- Theoretical reviews and empirical tests
  - Are the results of Przeworski et al. (2000) generalizable? → Expanding the sample.
  - When Boix and Stokes (2003) expand the sample, do the results cover Przeworski et al. (2000)'s? → Re-estimate and compare.
  - Do Przeworski et al. (2000)'s model capture a set of relevant variables? → Omitted variable bias
  - Do they miss something to infer the causality? → Possible causal mechanism: *Inequality*

## Empirical Analyses

• How does inequality work in the relationship between development and democratization?

 $(Development \rightarrow Democratization)$ 

- Actors in democracy (gets more under democracy)
- Actors in poor authoritarianism
  - Equally poor on average
  - Democratization  $\rightarrow$  Expected benefits are small.
- Actors in wealthy authoritarianism
  - High inequality (elites monopolize)
  - Democratization  $\rightarrow$  Redistributes more.
  - Likely transition to democracy.



- Sample & Methods
  - Countries from 1850 to 1990.
  - Unit of analysis: country-year
  - Method: Quantitative analysis
- Findings
  - Economic development both causes democracy and sustain it.
  - How does it cause democracy? Through inequality (suggest a new causal mechanism to justify (defend) their theoretical revisions).

#### Summaries

- Modernization Theory (Lipset 1959)
  - Development → Democratization and stable democracy
- Exogenous theory (Przeworski et al. 2000)
  - Economic development → Stable democracy (developing)
- Endogenous theory (Boix and Stokes 2003)
  - Development  $\rightarrow$  Democracy<sub>(democratization)</sub>  $\uparrow \rightarrow$  $Development_{(Stablility\uparrow)} \uparrow$
  - New mechanism: inequality
- Other approaches (Wucherpfennig and Deutsch 2009)
  - Why should we measure electoral democracy only?
  - Democratic values and demands of citizens
  - Lipset (1959) defines development in various aspects.

#### Summaries

- Boix and Stokes (2003) and Wucherpfennig and Deutsch (2009) provide a good tip how to read an article (or how to research).
  - Sample
    - Selection bias?
    - Cross-sectional (only countries) or Time-series Cross-sectional (include temporal variations?)
  - Variables
    - Do they include relevant variables?
    - Do they measure correctly?
  - Model
    - Do they specify the model (linkage) properly?
    - Empirical results vary depending on the model specification (linear or non-linear)

## Questions

# Thank you!

Any questions or meetings?

™Email: sp23@email.sc.edu

™Calendly: Here

- Boix, Carles and Susan C. Stokes. 2003. "Endogenous Democratization." World Politics 55(4):517–549.
- Lipset, Seymour Martin. 1959. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." American Political Science Review 53(1):69-105.
- Przeworski, Adam, Michael E. Alvarez, Jose Antonio Cheibub and Fernando Limongi. 2000. Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990. Cambridge: Cambridge University Press.
- Wucherpfennig, Julian and Franziska Deutsch. 2009. "Modernization and Democracy: Theories and Evidence Revisited." p. 9.