Making it Personal: Regime Type and Nuclear Proliferation

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Question

Why do some states pursue nuclear weapons while others do not?

Previous Scholarship

“Claims… that domestic political factors influence proliferation decisions are much exaggerated” (Jo and Gartzke 2007, 184)

“If domestic politics influences proliferation, it is probably not through regime type" (Sasikumar and Way 2009, 92)

"Democracies and autocracies are... similar in their proliferation behavior" (Sagan 2011, 237)

General Argument

Domestic institutions—such as regime type—*do* influence attempts at nuclear proliferation

Argument

(1) Leaders of personalist dictatorships are particularly likely to view nuclear weapons as an attractive solution to their concerns about regime security

(2) Personalist dictatorships face fewer constraints in following this strategy than leaders in other regime types

Hypothesis

H1: Personalist regimes are more likely than other regime types to pursue nuclear weapons

Empirical Evidence

TABLE 1 Personalist Regimes and the Pursuit of Nuclear Weapons (Dependent Variable: Singh and Way [2004] Codings)

	Basic Model	Plus Population	Plus Capabilities	*Plus Economic* Development
Personalist Regime	2.96$^{<.001}$	3.02$^{<.001}$	2.96$^{<.001}$	3.06$^{<.001}$
	(0.635)	(0.676)	(0.627)	(0.701)
Number of Land Borders (security environment)	0.859$^{<.001}$	0.551$^{<.001}$	0.750$^{<.001}$	0.772$^{<.001}$
	(0.201)	(0.204)	(0.189)	(0.192)
Population (ln)		1.97$^{<.001}$		
		(0.508)		
Capabilities			51.90$^{.027}$	
			(23.47)	
GDP per Capita (ln)				0.805$^{.030}$
				(0.371)
Years without Pursuit of Nuclear Weapons (t)	−1.16$^{<.001}$	−1.11$^{<.001}$	−1.14$^{<.001}$	−1.17$^{<.001}$
	(0.117)	(0.118)	(0.116)	(0.117)
t^2	0.0526$^{<.001}$	0.0504$^{<.001}$	0.0518$^{<.001}$	0.0522$^{<.001}$
	(0.00676)	(0.00685)	(0.00672)	(0.00671)
t^3	−.000625$^{<.001}$	−.000602$^{<.001}$	−.000617$^{<.001}$	−.000619$^{<.001}$
	(.000102)	(.000102)	(.000102)	(.000101)
Constant	−10.35$^{<.001}$	−28.50$^{<.001}$	−10.15$^{<.001}$	−16.36$^{<.001}$
	(1.50)	(6.04)	(1.41)	(3.54)
Log likelihood	−210.86	−198.67	−208.82	−194.50
Countries	173	173	173	173
Observations	5,338	5,338	5,338	5,221

Note: Two-tailed p-values in italicized superscripts, standard errors in parentheses. Shaded row highlights the main variable of interest.

Measuring Personalism

(1) Does access to high government office depend on the personal favor of the leader?

(2) Do country specialists view the politburo or equivalent as a rubber stamp for the leader's decisions?

(3) Does the leader personally control the security forces?

(4) If there is a supporting party, does the leader choose most of the members of the politburo-equivalent?

Measuring Personalism (cont.)

(5) Was the successor to the first leader, or is the heir apparent, a member of the same family, clan, tribe, or minority ethnic group as the first leader?

(6) Has normal military hierarchy been seriously disorganized or overturned, or has the leader created new military forces loyal to him personally?

(7) Have dissenting officers or officers from different regions, tribes, religions, or ethnic groups been murdered, imprisoned, or forced into exile?

(8) If the leader is from the military, has the officer corps been marginalized from most decision making?

Table 1 Findings

(1) Personalism strongly associated with the pursuit of nuclear weapons at greater than the 1% level

(2) Number of land borders is also positively associated with the likelihood of pursuing nuclear weapons

Findings

- More highly developed countries face lower technological hurdles and opportunity costs when considering the pursuit of nuclear weapons
- Low levels of economic development may both foster and be a product of personalism

Table 1 – Experiment Setup

Attempt by authors to address issues of post-treatment bias (ex: MIDs)

“Recent evidence indicates that personalism likely *causes* greater conflict involvement for these regimes” (p. 713)

“it is unlikely that personalism causes the geographic situation of a state” (p. 713) – avoids post-treatment bias

TABLE 2 Personalist Regimes and the Pursuit of Nuclear Weapons (Dependent Variable: Jo and Gartzke [2004] Codings)

	Basic Model	Plus Population	Plus Capabilities	Plus Economic Development
Personalist Regime	3.30$^{<.001}$	3.21$^{<.001}$	3.35$^{<.001}$	3.22$^{<.001}$
	(0.654)	(0.691)	(0.670)	(0.697)
Number of Land Borders (security environment)	1.06$^{<.001}$	0.710$^{.012}$	1.01$^{.001}$	0.778$^{.012}$
	(0.233)	(0.284)	(0.221)	(0.210)
Population (ln)		1.81$^{.013}$		
		(0.730)		
Capabilities			104.31$^{.001}$	
			(28.35)	
GDP per Capita (ln)				0.587$^{.104}$
				(0.362)
Years without Pursuit of Nuclear Weapons (t)	−1.56$^{<.001}$	−1.48$^{<.001}$	−1.53$^{<.001}$	−1.55$^{<.001}$
	(0.169)	(0.169)	(0.168)	(0.166)
t^2	0.088$^{<.001}$	0.0844$^{<.001}$	0.0871$^{<.001}$	0.0874$^{<.001}$
	(0.0127)	(0.0126)	(0.0126)	(0.012)
t^3	−.00139$^{<.001}$	−.00132$^{<.001}$	−.00135$^{<.001}$	−.00136$^{<.001}$
	(.000251)	(.000248)	(.000240)	(.000245)
Constant	−10.25$^{<.001}$	−26.03$^{<.001}$	−11.57$^{<.001}$	−12.13$^{.015}$
	(1.59)	(9.39)	(1.60)	(3.44)
Log likelihood	−198.17	−189.42	−191.70	−186.00
Countries	173	173	173	173
Observations	5,337	5,335	5,335	5,220

Note: Two-tailed p-values in italicized superscripts, standard errors in parentheses. Shaded row highlights the main variable of interest.

Table 2

- Also supports initial hypothesis
- The coefficients are similar to those with the SW data
- significance is less than p = .001 in all specifications

Table 3

TABLE 3 Personalist Regimes and the Pursuit of Nuclear Weapons: Event-History Models

	Singh and Way (2004) Dates	Jo and Gartzke (2007) Dates
Basic model	1.15$^{.015}$	1.04$^{.026}$
	(0.472)	(0.469)
Plus population	1.18$^{.012}$	1.00$^{.028}$
	(0.469)	(0.458)
Plus capabilities	1.18$^{.012}$	.832$^{.099}$
	(0.468)	(0.504)
Plus economic development	1.41$^{.014}$	1.31$^{.027}$
	(0.574)	(0.596)

Note: All entries are in log relative-hazard form for the personalist regime variable in specifications matching those reported in Tables 1 and 2. Two-tailed p-values are in italicized superscripts, with standard errors in parentheses below.

- Table 3 shows the comparison between the two different codings
- Represents the reran models of Tables 1 & 2 using Weibull models

‘Cause of Effects’ Model

The ‘Cause of Effects’ model is a catch-all approach which may in appropriate circumstances allow researchers to describe correlations among variables

Referred to as “Garbage can/Kitchen sink”

‘Effect of Causes’ Model

- begin by asking what other variables needed to be conditioned in order to draw valid inferences about the relationship
- EX: between personalist regime type and pursuit of nuclear weapons

Conclusion

- Previous scholarship does not make a distinction between personalist regimes and other non-democracies
- Conventional wisdom that suggests that regime type has little effect on pursuit of nuclear weapons is *incorrect*
- Personalist regimes are more likely than other regime types to pursue nuclear weapons

Conclusion

- Personalist dictators have both greater motives and face fewer political checks on pursuing the nuclear option

Concerns/Criticisms?