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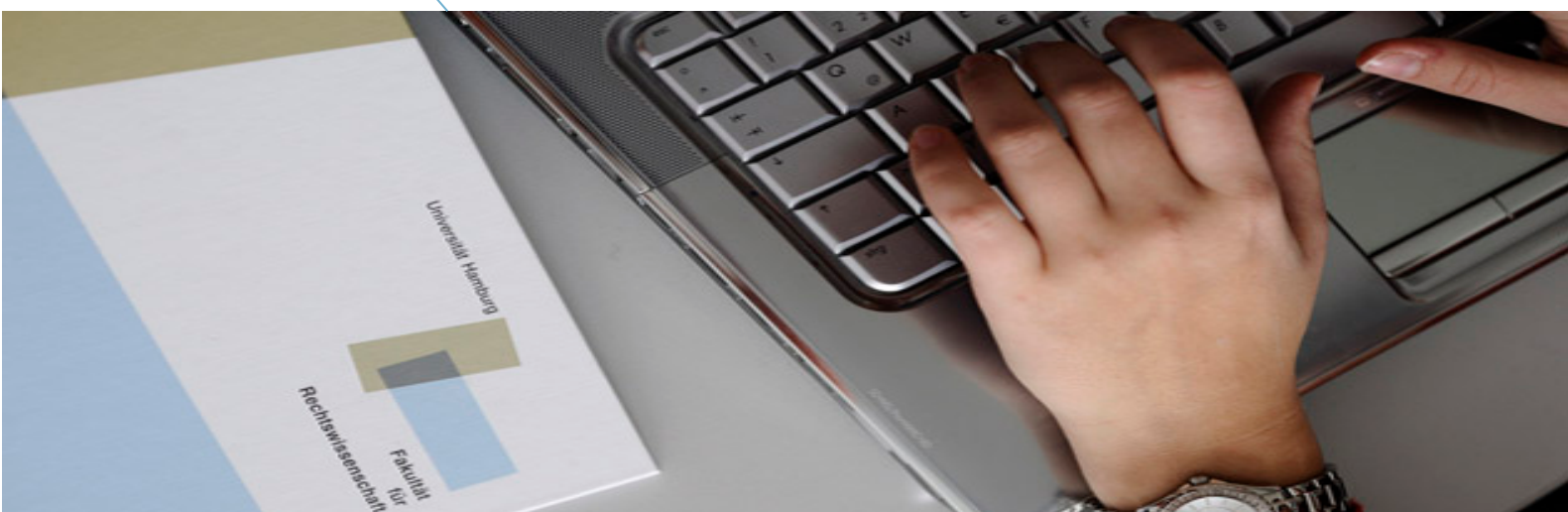
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Securing personal freedom through institutions – the role of electoral democracy and judicial independence[§]

Niclas Berggren^{1,2} Jerg Gutmann^{3,4}

Abstract

Personal freedom is highly valued by many and a central element of liberal political philosophy. Although personal freedom is frequently associated with electoral democracy, developments in countries such as Hungary, Poland, Turkey and Russia, where elected populist leaders with authoritarian tendencies rule, suggest that electoral democracy may not be the envisaged unequivocal guarantor of freedom. Instead, an independent judicial system, insulated from everyday politics, might provide a firmer foundation. We investigate empirically how electoral democracy and judicial independence relate to personal freedom, as quantified by the new Human Freedom Index. Our findings reveal that while judicial independence is positively and robustly related to personal freedom in all its forms, electoral

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democracy displays a robust relationship with two out of seven types of personal freedom only (freedom of association, assembly and civil society as well as freedom of expression and information). These are types of freedom associated with democracy itself, but democracy seems unable to protect freedom in other dimensions. When we study interaction effects and make use of more refined indicators of the political system in place, we find that countries without elections or with only one political party benefit more from judicial independence than both democracies and multi-party systems without free elections. A number of robustness checks confirm these findings. Hence, it seems as if personal freedom has institutional correlates in the form of both democracy and judicial independence, with the latter safeguarding freedom more consistently and more strongly.

Keywords

Freedom, democracy, judicial independence, political economy, institutions

JEL Classification

D63, D72, D78, K36, K38, P48

Electronic supplementary material

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1 Introduction

For a long time, the trend towards liberal democracy was considered by many (e.g., Fukuyama 1992) to be inevitable and irreversible.¹ Then, people began to notice that this might have been too optimistic. Even worse, in some countries, also in the center of Europe, liberal-democratic institutions started to crumble. These democracies did not collapse and slide back into autocracy, as we have seen so often in Latin America or Africa – electoral democracy has largely been maintained. Instead, they have started to slowly revert previous achievements, e.g., with respect to the rule of law. This raises the question how different political and legal systems safeguard personal freedom. Does electoral democracy suffice, or are complementary institutions, such as those guaranteeing judicial independence, needed?

Personal freedom is a widely shared desideratum. It occupies a central role in the liberal tradition – in the utilitarian approach of Mill (1859), in the contract-theory versions of Rawls (1971) and Buchanan (1977), in the Whig-inspired analysis of Hayek (1960) and in the more rights-based tradition of Locke (1689) and Nozick (1971) – but is certainly not restricted to it. Most ideologies allow for and value a personal sphere in which people are able to live on their own terms. Moreover, economic philosophers like Sen (1999) have stressed that human development should not be measured merely in terms of income levels and poverty rates, but freedom itself constitutes a principal goal and measure of success of development. One basic reason for putting a high value on freedom is that it seems to bring happiness to people

¹ Zakaria (1997, p. 22) defines liberal democracy as “a political system marked not only by free and fair elections, but also by the rule of law, a separation of powers and the protection of basic liberties of speech, assembly, religion, and property.” Mukand and Rodrik (2019) state that the distinguishing characteristic of liberal democracy is that it protects civil rights (i.e., equality before the law, also for minorities) in addition to property rights and political rights.

(Verme 2009; Rahman and Veenhoven 2017); but even if it did not, it could still be deemed desirable on the basis of non-consequentialist moral theories.

Against this background, it becomes important to investigate what the foundations of freedom are. Not everyone may be aware that these foundations are, at least partly, institutional in character. As Bernholz (1993, p. 315) points out:

I would, however, hypothesize that, with the change of generations, a successful market-preserving constitution loses support in the population. For freedom and economic success are taken for granted as quasi natural events and it is forgotten which institutions are necessary to maintain them. Other ends such as substantive equality and ecological concerns, or new ideologies, gain broad adherence as supreme values. But this consensus tends to support actions damaging a market-preserving constitution, freedom and rule of law. And the supporters of such changes even do not realize these consequences.

We conduct, to our knowledge, the first empirical study relating personal freedom to two central political and legal institutional arrangements: democracy (defined in a minimal way as political offices being filled through contested elections) and judicial independence (defined, following Feld and Voigt 2003, as the *de facto* enforcement of court decisions irrespective of the interests of other government branches).² We thus study the extent to which either certain *political* institutions and practices or certain *legal* institutions and practices protect personal freedom, as well as its seven constituent indicators. In addition, we offer an interaction analysis to see whether institutional complementarities exist between democracy and judicial

² We do not analyze the emergence of judicial independence or electoral democracy or consequences other than personal freedom. See instead Hayo and Voigt (2007, 2016) and G. Vanberg (2008) on what explains judicial independence, and see Voigt and Gutmann (2013), Voigt et al. (2015), Gründler and Krieger (2016) and Acemoglu et al. (2019) on growth effects.

independence – which is especially important in light of the recent rise of illiberal democracy, alluded to above.³

A priori, it is ambiguous in what direction the relationships between democracy and personal freedom and between judicial independence and personal freedom go. While democracy, in the pure electoral sense of the term, offers the majority a chance to affect policy, and while most people, including the median voter, may value personal freedom, they may nevertheless want to restrict it such that it primarily applies to themselves and their in-group. It is certainly not unheard of for majorities to curtail ways of living for various minorities or to make criticism of the government more difficult by intimidating independent media. Sometimes, majorities oppose personal freedom flat out – such as in the case of disallowing religious freedom or the freedom to form legal relationships with whomever one wants (Berggren et al. 2017; Gouda and Gutmann 2018). Bernholz (1979, p. 517) even thinks that “a free society can only be present if the rights of the productive state deciding by majority rule are restricted by a constitutional order”, especially the rule of law. Still, democracy comes in different forms, and it often goes hand in hand with what one might call “widening circles of inclusion”, which manifests itself in further formal and informal institutions that uphold generality in the treatment of citizens (Buchanan and Congleton 1998). This speaks in favor of democracy bringing about more personal freedom.⁴

When it comes to judicial independence, it is regularly seen as a means to protect personal freedom against encroachment by political decision-makers. If the judicial system is

³ Voigt (2013, 2019) has recurrently emphasized the importance of considering the interplay between – potentially complementary or substitutive – institutions in shaping human action.

⁴ A propos which Berlin (2002, p. 177) said: “Self-government may, on the whole, provide a better guarantee of the preservation of civil liberties than other régimes, and has been defended as such by libertarians. But there is no necessary connexion between individual liberty and democratic rule.”

independent of the political system, if it has constitutional authority to block legislative decisions that run counter to the constitution, if there are substantive stipulations of personal freedom in the constitution or in legislative practice, and if judges value personal freedom, there is good reason to expect judicial independence to favor personal freedom. However, some of these conditions may not be fulfilled and it is therefore anything but safe that judicial independence will further the protection of personal freedom.⁵

It may also be that the specific combination of democracy and judicial independence affects personal freedom. For example, in the liberal tradition, it is often asserted that majoritarian rule risks becoming oppressive if the rulers are not constrained in some manner or form, e.g., by independent legal power. Bernholz (1979) stresses this, as does Popper (2013, p. 368):

Democracy cannot be fully characterized as the rule of the majority, although the institution of general elections is most important. For a majority might rule in a tyrannical way. (The majority of those who are less than 6 ft. high may decide that the minority of those over 6ft. shall pay all taxes.) In a democracy, the powers of the rulers must be limited ...

Hence, although there are good reasons to expect an association between democracy and personal freedom, and between judicial independence and personal freedom, whether the relationship is in fact positive or negative, how strong it is and whether it is based on a combination of democracy and judicial independence, must be settled through empirical

⁵ Waldron (2006, p. 1346) claims “that there is no reason to suppose that rights are better protected by this practice [judicial review] than they would be by democratic legislatures.” While we acknowledge this theoretical possibility, we assert that it needs to be tested empirically, which is, in fact, what we try to do.

analysis.⁶ Against this background, our study uses a dataset spanning up to 162 countries to conduct a cross-sectional comparative analysis of the institutional foundations of personal freedom. We find clear indications of a positive and robust relationship between judicial independence and personal freedom, while democracy is not robustly associated with this type of freedom. When we study the interaction between democracy and judicial independence in order to test whether they are interdependent from each other in their effect on personal freedom, we find evidence that judicial independence is needed the most where there is the least electoral accountability, i.e., in political systems without elections or with only one political party.

Overall, our findings should mitigate fears that electoral democracy erodes most types of personal freedom (perhaps more common on the political right), as well as fears that judicial independence does so (perhaps more common on the political left). If anything, the opposite seems to hold, especially for judicial independence.⁷

2 A simple theoretical framework

In relating democracy and judicial independence to personal freedom, we structure our theoretical reasoning around Fig. 1. It specifies three key features of the institutional

⁶ It is possible that there is no relationship at all; Bernholz (2013, p. 62) voices such skepticism when he writes that “even the best institutions presently available cannot prevent the loss of individual freedom in the long run.”

⁷ We evaluate how personal freedom relates to different types of political/legal systems, but we are not estimating causal effects in the sense that we can be sure that an exogenously imposed change in democracy or judicial independence would result in the effect we have measured. Still, we can at the very least say something about how life under these different sets of institutions is for people.

environment of any political unit, the relevant actors (politicians and judges), the outcome of the political and judicial process (legislation) and the level of personal freedom that this legislation embodies.

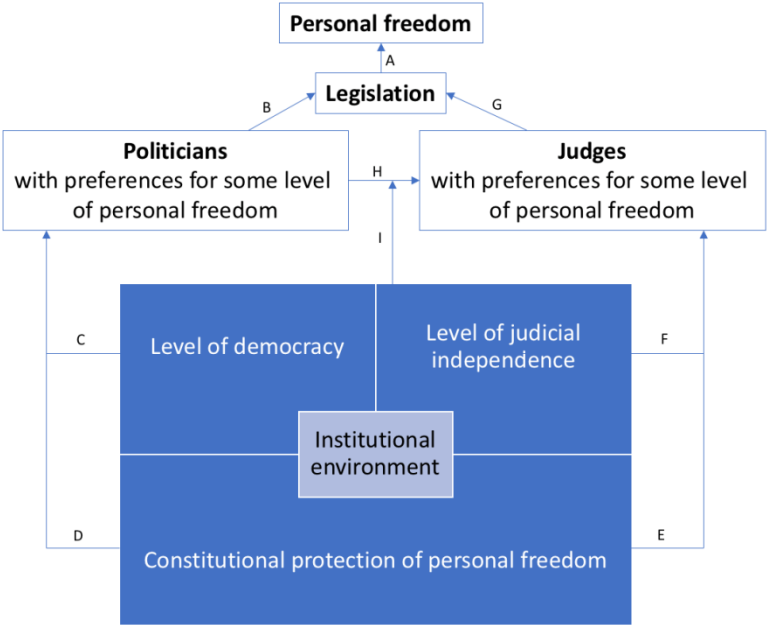


Fig. 1 The process determining the degree of personal freedom

Let us begin with the institutional environment, by which we mean a set of rules and practices, often rooted in a constitution that specifies the structure of the state and how it is, and how it is not, to be governed. We focus on three elements: the level of democracy, the level of judicial independence⁸ and the *de jure* protection of personal freedom (as guaranteed by the constitution). All three factors matter for how the political process functions, what legislative acts it produces, how the legal process intervenes or influences the legislators, and

⁸ Subsumed under judicial independence is judicial review (i.e., the degree to which judges are able to legally invalidate legislative acts), since without it, independence does not entail any power to act. For more about judicial review, see, e.g., Ginsburg and Versteeg (2014).

the extent to which the resulting legislation (including its implementation) is characterized by personal freedom.

This suggests certain links, which are indicated by the arrows and marked by letters in Fig. 1. First, consider our ultimate variable of interest, *personal freedom*, which is influenced by legislative acts (A). Such acts can reduce or increase personal freedom, depending on their content. Their content is decided on by politicians – both of the executive and legislative kind – who act within the political system to further the satisfaction of their preferences (B).⁹ One possibility is that they have preferences about the desirable level of personal freedom, which will influence the content of legislative acts they will pursue. A “libertarian” politician will put a large weight on personal freedom and will, thus, try to implement reforms to achieve more of it. An “authoritarian” politician, on the other hand, may share the libertarian’s view that personal freedom is an important political factor – but she or he sees it as anathema and will try to *constrain* personal freedom in various ways. Less ideologically committed politicians probably pay more attention to potentially important support groups, which could be voters and organized interest groups (Bernholz 1977), with their own preferences regarding personal freedom.

However, legislation takes place in a constitutional setting that not only defines the procedural rules of the political process (most important here is whether electoral democracy is in place or not; C). In addition, the constitution also contains substantive rules that limit the policy space and enable the judiciary to intervene if these rules are violated.

⁹ Having preferences of their own does not mean that politicians can pursue them without taking into account what the preferences of central support groups look like (Peltzman 1976). In a non-democracy, it may be easier for politicians to get their wish, but also there, they must pay attention to how to achieve support (Olson 1993).

As for substantive rules that pertain to personal freedom, e.g., about the legal process and about the character of legislation, they often contain stipulations protecting human rights. Such protections can influence both politicians (D) and judges (E) – indeed, for there to be a role for judges in our setting, the constitution must contain such rules or rules which at least allow for such an interpretation.¹⁰

As for the role of the judiciary, the constitution must enable judges to safeguard the constitutionally protected personal freedom (F) by invalidating legislation that runs counter to it (G). Judicial independence, however, is more than judicial review: It implies the power to stop violations of the constitution without being influenced by other government branches (with H indicating politicians trying to steer the judiciary and with such attempts being curtailed by judicial independence, indicated by I). Without independent judges, politicians will be able to influence judicial review such that any serious critique is quenched. This could, e.g., happen if politicians only appoint loyal judges or if they exert pressure on judges to not interfere with their legislative activities.

Any constitutional protection of personal freedom is vague, open to interpretation and non-comprehensive, which gives politicians and independent judges a certain scope of discretion when making legislation or when declaring it void. The amount of discretion arguably varies between legal cultures (Cooter and Ginsburg 1996), but its existence explains why preferences of political and judicial actors regarding personal freedom may play an important role for their decisions. Hence, if there is legislation that reduces personal freedom, it is not clear if judges will block or invalidate it, even if the constitution contains a rule protecting this personal freedom and even if there is judicial independence. If judges do not

¹⁰ If judges are independent, legislators can be expected to be more prone to follow constitutional provisions protecting personal freedom in the first place, such that judges do not even have to intervene.

favor personal freedom themselves, they can opt to remain passive or, if there is a legal case in front of them, opt to interpret (often very broad) constitutional rules such that they do not stipulate this particular personal freedom.¹¹

Against this schematic background, we now present substantive arguments about how democracy and judicial independence, the two central institutionally defined practices of Fig. 1, can, respectively, be expected to relate to personal freedom.

Regarding democracy and personal freedom, whether the relationship is positive or negative depends on the preferences of the decisive actors, i.e., the politicians themselves, but also voters and interest groups.

Some scholars have predicted that unconstrained democracy would gradually erode personal freedom.¹² One argument is that voters are not particularly interested in freedom (they are “afraid to be free”, as Buchanan 2005 puts it), and especially populist politicians may cater to what they care about instead. Another reason might be that smaller interest groups who do not care much about personal freedom in general have an edge in influencing political decisions, in accordance with the logic of collective action (Olson 1965; see Bernholz 2001 for an analysis of how democracy may enable interest groups to erode *economic* freedom, and Bernholz 1982 on how the democratic welfare state may undermine economic freedom and the rule of law). Such groups typically care strongly about either preferential treatment in order to secure more material resources, e.g., through restrictions on competitors, or about their ideological goals (which could be of a general nature, of a kind

¹¹ One example is the decision of the U.S. Supreme Court in 2015 in *Obergefell v. Hodges* to the effect that the Fourteenth Amendment requires all states to allow for same-sex marriages and recognize same-sex marriages allowed for in other states. While five justices voted in favor, four dissented, which shows that there is scope for interpretation, possibly influenced by personal preferences.

¹² See, e.g., Hayek (1960), Bernholz (1993), Buchanan and Congleton (1998) and Nientiedt and Köhler (2016).

that entails a dislike of personal freedom, or of a more group-oriented type, such that the group wants to secure freedom primarily for itself but not for others). Yet another reason can be the emergence of authoritarian politicians, who push an agenda to constrain freedom.

However, others predict that democracy will tend to favor personal freedom, especially when comparing it to alternative modes of governance. For example, before democracy made its appearance, it was common for certain classes of citizens to rule, with, in many cases, limited interest in the personal freedom of the population at large. Likewise, in present dictatorial systems, there is generally little regard for freedom of any kind, both exemplified by communist and Islamist rulers who force their own view of the good life vehemently on others (Gouda and Gutmann 2018). Yet another factor to consider is the general development of a postmaterialist orientation, which may entail both “liberty aspirations” and democratization (Welzel and Inglehart 2005). Liberty aspirations are a key driver of democratization, because democracy generally implies civil and political freedom. It may be that personal freedom follows from the same logic. This points at the possibility of a deep connection between democracy and personal freedom: the former is the result of a desire to “rule oneself”, which in turn can be seen as being closely associated with a similar desire in private life.¹³ Indeed, Kelsen (1955) sees democracy (the “principle of majority”) as being based on the idea that the social order is in concordance with as many subjects as possible and in discordance with as few as possible. He, thus, thinks that the principle of simple majority

¹³ Even though V. Vanberg (2008) thinks that democracy has a tendency to erode personal freedom, he argues for a conceptual affinity: Democracy and liberalism, he claims, “share as their common normative foundation the principle of *individual sovereignty*, and their respective core ideals, the liberal principle of *private autonomy* and the democratic principle of *citizen sovereignty*, can be best understood as applications of the ideal of individual sovereignty to the realm of the private law society on the one side and to the ‘public’ realm of collective-political choice on the other” (p. 139).

secures the highest degree of political freedom possible. If such a way of thinking underlies collective decision-making, it follows relatively straightforwardly that there is a desire of people to rule themselves on an individual level as well.

Regarding judicial independence and personal freedom, there are also arguments both for a positive and for a negative relationship. The prediction basically depends on a sociological characterization of judges. If judges are part of a conservative bourgeoisie, they may be willing, to the extent that discretion allows them, to keep personal freedom restricted in certain areas. If they are more classically liberal, or more progressive, they will be more inclined to decide in ways that favor personal freedom. Different types of judges, including judges who do not hold clear ideological convictions, may exist alongside each other.¹⁴ An additional argument, which speaks in favor of a negative relationship, is proffered by Landes and Posner (1975). They see the judiciary as independent but not as serving the function of upholding the grand principles of a constitution. Landes and Posner describe judicial independence as a mechanism that makes promises of politicians vis-à-vis interest groups credible and time-consistent and that thereby facilitates rent-seeking activity.

Regarding combinations of democracy and judicial independence, one can imagine four types: democracy without judicial independence (“pure electoral/populist/illiberal democracy”), democracy with judicial independence (“liberal/constitutional democracy”), non-democracy without judicial independence (“pure dictatorship”) and non-democracy with judicial independence (“power-sharing authoritarianism”). If one focuses on the two democratic alternatives, a key question is if liberal democracy is better able to secure personal freedom than illiberal democracy – which depends on the relative degree to which political and legal decision-makers in each case care about, or think that their power depends on championing, such freedom. On the one hand, an independent judiciary can, under certain

¹⁴ On how American judges are – and are not – influenced by political convictions, see Sunstein et al. (2006).

conditions, make legislative outcomes more compatible with personal freedom, if it aids in blocking illiberal politicians or politicians with constituencies that do not favor freedom; on the other hand, judges themselves may not favor freedom and could instead use their discretionary power to the benefit of established interests.¹⁵

3 Data and empirical strategy

Our main dependent variable is *personal freedom*. It denotes the extent to which people can make the choices they want without being dominated by others, and it is measured by a composite index that forms one half of the Human Freedom Index (Vásquez and Porčnik 2018).¹⁶ The personal freedom index, in turn, also consists of two parts: legal protection and security as well as a set of specific personal freedoms.¹⁷ The first part consists of two indicators: one for the rule of law and one for security and safety. The second part consists of five indicators measuring freedom of movement; religion; association, assembly and civil society; expression and information; identity and relationships. Each indicator is made up of more detailed variables, which are specified in Table A1 in the online appendix. The

¹⁵ For an analysis of Hayek's view that a liberal autocracy may be preferable to illiberal democracy, see Knutsen (2016). Hayek thinks that an autocracy that upholds *economic* freedom is better than a democracy that does not; but it is less plausible to think that an autocracy upholds *personal* freedom, which should tilt the argument in favor of democracy.

¹⁶ The other half measures economic freedom and is outside the scope of our study.

¹⁷ The idea behind the first part is the following: "Without the rule of law and security, specific freedoms cannot, in a practical sense, be lived out. The rule of law and security are essential to provide reasonable assurance that life is protected. Security and safety are fundamental for survival and for the exercise of a vast array of freedoms." (Vásquez and Porčnik 2018, p. 16)

indicators are measured on a 0–10 scale, with 10 representing the highest level of personal freedom, and each indicator is calculated as the mean value of the variables on the level of aggregation underneath. This implies that the two main parts of personal freedom are given the same weight. The index covers up to 162 countries and reflects the situation in 2016.

Our explanatory variables of interest are two central institutional indicators. Our preferred measure of *democracy* was conceptualized and measured by Cheibub et al. (2010). Their dataset has been updated and extended by Bjørnskov and Rode (2019). The measure is dichotomous, with a 0 given to a country if political offices are *not* filled through contested elections and a 1 otherwise.¹⁸ The main reason why this narrowly defined indicator is optimal for our research design is that we are interested in separating the effect of electoral competition for public offices from that of constraints on executive power exercised by an independent judiciary, which is our second indicator. To give a more nuanced picture in our interaction analysis, we rely on the indicator *electoral*, which is also provided by Bjørnskov and Rode (2019) and further distinguishes among non-democratic political regimes. Electoral allows us to differentiate between multi-party non-democracies on the one hand and non-democracies with only one party or without elections on the other hand.¹⁹ Our preferred measure of *de facto judicial independence* was introduced by Linzer and Staton (2015). Their indicator measures not only whether judges are autonomous but also whether they are influential in the sense that their decisions are implemented by the other branches of government and thus greatly constrain the choices of political actors. They develop a latent variable measurement model to produce their dataset, which has been updated in Holsinger et

¹⁸ Cheibub et al. (2010) offer methodological arguments for why their indicator is superior in many applications to alternative ones, such as that of the Polity project, that include many other aspects of the political system. For a conceptual-philosophical defense of a dichotomous definition, see Popper (2013, p. 268).

¹⁹ For an analysis of how totalitarian systems are constituted and affect freedom, see Bernholz (1991, 2019).

al. (2017). In robustness checks, we replace our indicators of democracy and judicial independence with indicators introduced by Geddes et al. (2014) and the V-DEM project (Pemstein et al. 2018).

In addition, we use the following control variables: log-income per capita (higher-income countries should have more personal freedom, as demand for freedom increases when material circumstances are satisfactory; Welzel et al. 2003); log-population size (reflecting increasing collective action problems among those demanding freedoms; Olson 1965); whether the country has been a British, a French, a Spanish or no colony (colonial heritage may affect personal freedom today; Lange 2004); abundance of natural resources (the share of natural resource rents in GDP, since personal freedom may suffer from rent-seeking related to the control of these resources; Al-Ubaydli 2012); and religiosity (the share of the population stating that religion is an important part of daily life is expected to favor less personal freedom due to the common conviction among religious people that an objective and restrictive morality exists; Berggren 2016 or Berggren and Bjørnskov 2013). As an alternative to colonial history, we also show results controlling for British and French legal origins, as categorized by La Porta et al. (2008). La Porta et al. cite Hayek (1960) who argues that the differences in these legal systems reflect profound differences in philosophies of freedom.

In our study, all explanatory variables are measured in 2010. This time lag reduces concerns about simultaneity between personal freedom and our indicators of democracy and judicial independence. Moreover, continuous indicators are standardized to have a mean value of zero and a standard deviation of one to facilitate their interpretation.

Descriptive statistics are presented in Table 1. Personal freedom is quite high in most countries, with mean values of 7 and more for the constituent parts, except for the rule of law. Based on the classification of Bjørnskov and Rode (2019), 59% of the countries in our sample are democratic and another 30% are multi-party non-democratic systems. Almost 40% of the

countries have never been colonized and, among the others, the most frequent colonizer is the British Empire (28% of all countries). Nevertheless, French legal origin countries are much more common in our sample (56%) than common law countries (29%). The countries included, with their values for personal freedom, democracy and judicial independence, are presented in Table A2 in the online appendix.

Table 1 Descriptive statistics

	N	Mean	SD	Min	Max
Personal Freedom Index	162	6.98	1.49	2.17	9.40
Rule of Law	162	5.11	1.63	1.98	8.69
Security and Safety	162	8.07	1.42	3.96	9.96
Freedom of Movement	162	7.66	2.76	0.00	10.00
Freedom of Religion	161	7.48	1.64	0.00	9.85
Freedom of Association and Assembly	136	7.11	2.77	0.50	10.00
Freedom of Expression and Information	162	7.69	1.62	1.76	9.80
Freedom of Identity and Relationships	162	6.98	3.09	0.00	10.00
Judicial Independence (Linzer and Staton)	162	-0.00	1.00	-1.75	1.68
Judicial Independence (V-DEM)	158	0.00	1.00	-2.27	2.16
Multi-party System (Bjørnskov and Rode)	162	0.30	0.46	0.00	1.00
Democracy (Bjørnskov and Rode)	162	0.59	0.49	0.00	1.00
Democracy (Geddes et al.)	162	0.67	0.47	0.00	1.00
Log-Income	162	-0.00	1.00	-2.03	1.99
Log-Population	162	-0.00	1.00	-2.81	2.96
British Colony	162	0.28	0.45	0.00	1.00
French Colony	162	0.15	0.36	0.00	1.00
No Colony	162	0.39	0.49	0.00	1.00
Spanish Colony	162	0.10	0.31	0.00	1.00
Natural Resources	161	-0.00	1.00	-0.75	3.79
Religiosity	139	-0.00	1.00	-2.30	1.05
Common Law	162	0.29	0.46	0.00	1.00
French Civil Law	162	0.56	0.50	0.00	1.00

Our empirical strategy can be described as follows. We regress the personal freedom index, as well as the main components it consists of, on our two explanatory variables of interest, democracy and judicial independence. We control, in all model specifications, for the logarithm of income per capita and population size. Then we add control variables for a country's colonial history, as well as for the importance of natural resources and religion in a

society. As an alternative to colonial history, we control for legal origins. All reported standard errors are robust to heteroscedasticity. An obvious limitation of our empirical design is that our empirical evidence is based on conditional correlations, rather than causal estimates with a strong identification strategy. What we show is under what conditions personal freedom is systematically more likely to prosper, but we cannot claim to offer strong evidence that a specific institution *causes* the protection of personal freedom.²⁰ Still, we offer some indications of causality in Section 4.4.

4 The results

4.1 Bivariate plots

To get a basic feeling for the bivariate relationships between personal freedom and our institutional variables of interest, we illustrate them graphically in Fig. 2. The left-hand plot shows a clear positive relationship between judicial independence and personal freedom (with Brunei as an outlier). The right-hand plot shows the personal freedom of three systems of government: democracy, multi-party systems without free elections and systems without elections or with only one party. Democracies have the highest degree of personal freedom, multi-party systems have the second-highest degree of personal freedom (with Iraq and Syria scoring exceptionally low) and systems without elections or with only one party have the lowest level of personal freedom (with Yemen scoring the lowest). However, the confidence intervals are rather wide, so it is not clear that these differences are statistically significant.

²⁰ In all regression models based on our full sample of 162 countries, we include a dummy variable for Brunei, which constitutes an outlier in our analysis (see the online appendix for more).

Moreover, these results could hide a number of confounding factors, which is why we now turn to regression analysis.

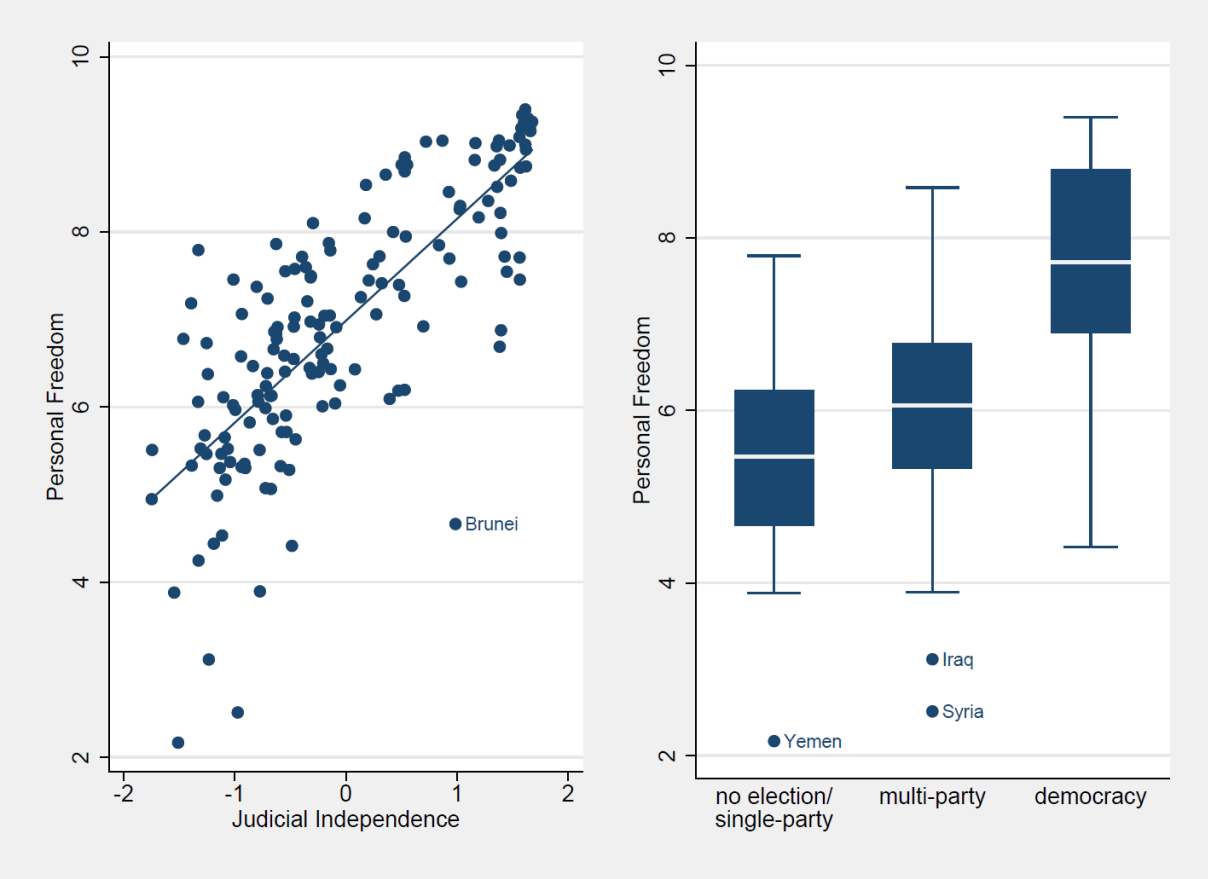


Fig. 2 The relation of personal freedom to judicial independence and the political systems

4.2 Findings for the personal freedom index

Our main findings are reported in Table 2, in which we gradually add more control variables to our baseline specification. Both judicial independence and democracy are positively related to personal freedom, but democracy is not as robust a predictor, as it loses statistical significance when control variables are added. Hence, we regard judicial independence as the more robust institutional safeguard of personal freedom. An increase in judicial independence of one standard deviation is associated with an increase in personal freedom of roughly 0.8

points, which corresponds to the difference between Colombia (located at the mean value of the sample, 7.0) and Serbia (7.8). As for control variables, we find evidence that larger countries, countries more dependent on natural resources and those with a more religious population show lower levels of personal freedom. Interestingly, countries with a legal system based on common law are associated with reduced personal freedom, which is in stark contrast to the arguments proposed by La Porta et al. (2008).²¹ Our results also show how strong an outlier Brunei is (the dummy is not included in columns 3 and 5, because the country is not in the sample).

²¹ One illustration of why this result obtains is that former British colonies largely retain laws prohibiting homosexual conduct (Han and O'Mahoney 2014).

Table 2 Predictors of personal freedom

	(1)	(2)	(3)	(4)	(5)
Judicial Independence	0.876*** (0.107)	0.888*** (0.105)	0.735*** (0.092)	0.869*** (0.109)	0.735*** (0.095)
Democracy	0.535*** (0.159)	0.385* (0.168)	0.308 (0.180)	0.480** (0.157)	0.341* (0.165)
Log-Income	0.173 (0.094)	0.124 (0.093)	0.123 (0.092)	0.104 (0.094)	0.046 (0.090)
Log-Population	-0.146* (0.065)	-0.194** (0.062)	-0.218*** (0.061)	-0.156* (0.064)	-0.205** (0.065)
Brunei	-3.391*** (0.197)	-3.027*** (0.218)		-3.083*** (0.225)	
British Colony		-0.358 (0.279)	-0.655* (0.324)		
French Colony		0.330 (0.333)	0.114 (0.368)		
No Colony		0.391 (0.261)	-0.190 (0.309)		
Spanish Colony		0.302 (0.271)	-0.104 (0.314)		
Natural Resources			-0.322** (0.105)		-0.302* (0.117)
Religiosity			-0.262*** (0.077)		-0.272*** (0.069)
Common Law				-0.844*** (0.164)	-0.503** (0.172)
French Civil Law				-0.597*** (0.147)	-0.257 (0.137)
Constant	6.689*** (0.128)	6.642*** (0.258)	7.083*** (0.291)	7.300*** (0.168)	7.121*** (0.181)
<i>N</i>	162	162	138	162	138
<i>R</i> ²	0.675	0.716	0.786	0.703	0.768

OLS regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Our findings align well with those of Abouharb et al. (2013), who relate judicial independence to physical integrity rights and find a positive association, indicating the relevance of the design of legal institutions for policies that concern a protected individual sphere. Similarly, Crabtree and Nelson (2017) find a robust relationship between judicial independence and improvements in empowerment rights. Since both physical integrity rights and empowerment rights are more narrow concepts than our dependent variable, personal freedom, our findings support and generalize the results of those previous studies.

To test for potential complementarities between democracy and judicial independence in their effect on personal freedom, we estimate conditional effects using interaction terms. To give a more nuanced picture, we interact judicial independence not only with democracy but also with other types of political system: multi-party systems without free elections, single-party systems and systems with no elections at all. The two latter categories are merged into one due to few observations. Regression tables are not suitable for interpreting the results of such interaction models (Brambor et al. 2006, Berry et al. 2012). Thus, we interpret the predictive margins presented in Fig. 3. Regression results including the interaction terms are available upon request.

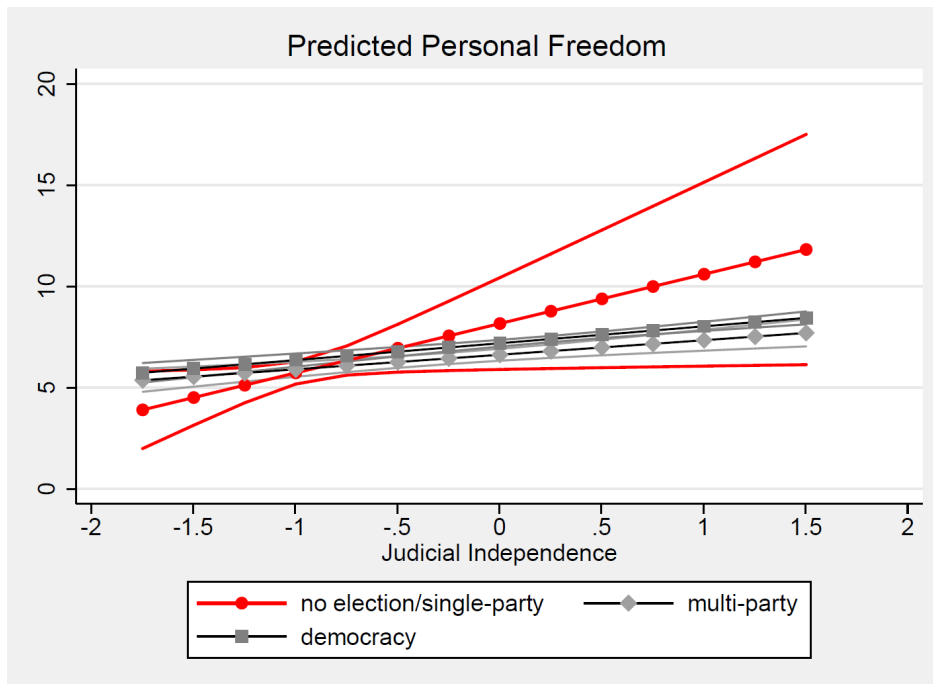


Fig. 3 Interaction effects with regard to personal freedom

Predicted values with 95% confidence intervals.

Fig. 3 shows the predicted level of personal freedom based on our model estimates and conditional on the level of judicial independence as well as the type of political system. One obvious conclusion can be drawn: Countries without elections or with only a single party benefit more than other countries from having an independent judiciary.²² However, the effect of judicial independence is imprecisely estimated in these least democratic political systems and is thus not statistically distinguishable from the effect in more democratic countries. This suggests that judicial independence contributes in all political systems to higher personal

²² It might appear from Fig. 3 that with the help of judicial independence highly non-democratic countries can reach much higher levels of personal freedom than democratic countries. However, these are out-of-sample predictions, as no country in this group, aside from Brunei, reaches positive judicial independence levels (see Fig. A1 in the online appendix).

freedom and while the effect appears to be largest in the least democratic countries, it is also more difficult to predict the consequences of judicial independence in these countries.

4.3 Findings for the seven areas of personal freedom

Now we continue with a more fine-grained analysis, by applying the same model as before, but with one of the seven areas of the personal freedom index at a time as the dependent variable. The results for our explanatory variables of interest, based on regressions with the same model as in Table 2, column 1, are summarized in Table 3; the full regression results are shown in Tables A3–A9 in the online appendix.

Table 3 Predictors of the seven dimensions of personal freedom

	Rule of law	Security and safety	Free movement	Freedom of religion	Freedom of association, assembly and civil society	Freedom of expression and information	Freedom of identity and relationships
Judicial independence	<i>0.84^{***}</i> (0.12)	<i>0.50^{**}</i> (0.18)	<i>1.42^{***}</i> (0.25)	<i>0.65^{***}</i> (0.16)	<i>1.32^{***}</i> (0.26)	<i>0.81^{***}</i> (0.12)	<i>1.29^{***}</i> (0.35)
Democracy	-0.26 (0.18)	0.12 (0.29)	<i>1.34^{**}</i> (0.43)	0.51 (0.27)	<i>1.80^{***}</i> (0.50)	<i>0.82^{***}</i> (0.24)	<i>1.36[*]</i> (0.54)

OLS regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Italics indicates robustness across all five model specifications. Full regression results in Tables A3–A9 in the online appendix.

First, we use our model to predict *the rule of law*. Table 3 indicates that judicial independence is positively and robustly related to it: The more independent judges are, the better are the working properties and the stronger are the generality characteristics of the legal

system.²³ In contrast, electoral democracy does not seem related to the rule of law at all. The latter observation underlines the relevance of Mukand and Rodrik's (2019) distinction between liberal and illiberal democracy, where only the former protects the rights of minorities.

Table A3 in the online appendix further illustrates that the rule of law is strongly positively associated with income per capita (cf. Gutmann and Voigt 2018). None of the other areas of personal freedom are positively correlated with income per capita, nor is the overall personal freedom index. This is an important observation, because it shows that aside from the rule of law, most aspects of personal freedom are not a privilege of rich countries. Finally, consistent with the results of Berggren and Bjørnskov (2013), we find that religiosity is detrimental to the rule of law.

Second, we look at predictors of *security and safety*. Table 3 reveals a positive and robust association between judicial independence and security and safety, but none between electoral democracy and safety and security. Both common and French civil law countries show reduced levels of security and safety.

Third, we look at predictors of *free movement*. While the freedom of movement benefits from judicial independence, its positive relationship with democracy is not robust to adding further control variables. Restrictions on free movement become more likely as the population size of a country increases and as natural resources become more important.

Fourth, we look at predictors of *freedom of religion*. We observe a statistically significant positive correlation between judicial independence and freedom of religion in Table 3, but no correlation between democracy and freedom of religion. Wealthier and larger

²³ That judicial independence displays a robust positive relationship with the rule of law is not surprising given that the former is a necessary condition for implementing the latter (Gutmann and Voigt 2018). However, the two concepts are distinct, which merits relating them empirically.

countries enjoy less freedom of religion.

Fifth, judicial independence is positively related to *freedom of association, assembly and civil society*. We have argued above that democracy tends to come with more freedom of association and assembly, and indeed our regression results confirm that. This is the first dimension of personal freedom with which democracy exhibits a robust relationship. Our covariates indicate once more that if La Porta et al. (2008) are correct about the positive traits of common law for economic freedom, these effects do not generalize to personal freedom. Former French colonies show significantly increased levels of freedom, whereas common law countries are linked to reduced levels of freedom of association, assembly and civil society.

Sixth, we look at predictors of *freedom of expression and information*. Both judicial independence and democracy show positive effects; and as for other explanatory variables, common law countries exhibit reduced levels of the freedom of expression and information.

Finally, we come to predictors of the *freedom of identity and relationships*. Only judicial independence, but not democracy, is robustly related to this type of freedom. We find that freedom of identity and relationships is substantially lower in former British colonies and in societies for which natural resources and religion play an important role.

Next, we conduct the same interaction analysis as in Section 4.2, but for each dimension of personal freedom individually. Predictive margins, analogous to Fig. 3, are displayed in Figs. A2–A8 in the online appendix. The corresponding regression tables are available upon request.

For the rule of law, we find the same pattern as for personal freedom in general: Countries with no elections or only a single party benefit more from judicial independence in terms of gaining rule of law than other political systems. This is the only regression model in which the interaction terms between our indicators of political and legal institutions are jointly statistically significant. Although the other statistical tests for conditional effects are

not significant, the estimated relationships look very similar: For five out of seven dimensions of personal freedom, the effect of judicial independence is more pronounced (and less precisely estimated) in countries without political elections or with only a single party, when compared to other countries. Only the freedoms of association, assembly and civil society as well as religion do not exhibit this pattern. Although we face problems in precisely estimating the effect of judicial independence in the least democratic countries, the evidence suggests that independent judiciaries in such countries would have a larger positive effect on personal freedom than elsewhere.

4.4 Robustness checks and identification

In this section, we conduct a number of additional robustness checks and try to establish causal effects using instrumental variables.

We run the following tests on all model specifications and dependent variables we have tested up to this point: (1) We replace the indicator of judicial independence with the mean value of high and low court independence as measured by the V-DEM project (Pemstein et al. 2018); (2) we replace the binary indicator of democracy with one constructed by Geddes et al. (2014); (3) we exclude countries with an income above 15,000 USD from the sample; (4) we add indicators for the shares of Catholics, Muslims, Protestants and nonreligious people as control variables to every model specification; (5–7); we alternately exclude countries with a Catholic, Muslim or Protestant majority population; (8–13) we alternately exclude countries from one of six world regions. In the following, we summarize the results of these robustness checks. Regression tables are available upon request.

Regarding the robustness of our main dependent variable, the results of 65 regression models (five model specifications per robustness check) are easily summarized. The

correlation between personal freedom and judicial independence is always statistically significant at the 0.1% level. In contrast, democracy is oftentimes not significantly correlated with personal freedom. One pattern is striking: When the share of Muslims in the population is controlled for (which itself is linked to significantly less personal freedom), when Muslim-majority countries are dropped from the sample or when countries in the MENA region are excluded, the democracy indicator ceases to show a statistically significant effect (in 14 of the 15 estimated models). This is consistent with empirical results showing that Muslim countries are less likely to implement the rule of law (Gutmann and Voigt 2015) and more likely to discriminate against religious minorities (Gouda and Gutmann 2018), and that even second-generation immigrants who stem from Muslim countries are less tolerant than other second-generation immigrants (Berggren et al. 2019).

The results of our robustness checks remain very similar when we estimate 455 regression models for the seven dimensions of personal freedom. Judicial independence remains statistically significant in most of these model specifications, whereas the size and the sign of the coefficient for democracy varies and it is very often not statistically significant. One notable exception are the 65 regression models in which security and safety is the dependent variable. In almost 50% of these models, the coefficient on judicial independence is not statistically significant.

Neumayer and Plümer (2017, p. 36) define robustness as “the degree to which the baseline model’s estimated effect of interest is supported by another robustness test model that makes a plausible change in model specification.” We have conducted various such plausible changes by varying the measurement of our dependent and independent variables, the set of control variables and the regression sample (jackknife tests). Overall, the evidence for a positive relationship between judicial independence and personal freedom is highly robust, whereas the positive relationship between democracy and personal freedom is not.

So far, we have argued that we are interested in conditional correlations between personal freedom and institutional traits to understand the institutional conditions under which personal freedom flourishes. In a final step of our analysis, we try to strengthen our argument that improving judicial independence might indeed enhance personal freedom in a country. For this purpose, we use an identification strategy introduced by Bennett et al. (2017) to estimate the causal effect of judicial independence on personal freedom.

Bennett et al. advance a unifying instrumental variable approach that simultaneously accounts for the impact of both settlement conditions and heterogeneous home institutions exported by the major European colonizers as a means to better capture variation in post-1500 institutional development. More specifically, Bennett et al. use a two-stage least squares (2SLS) framework in which they utilize as instrumental variables (IVs) colonial settlement conditions, as measured by population density in 1500 and an interaction term between a dummy variable for former British colonies and population density in 1500. They use this identification to study the effect of liberal institutions on economic development. We employ it here to study the effect of judicial independence on personal freedom.

Table 4 Judicial independence and personal freedom (2SLS)

	(1)	(2)	(3)	(4)	(5)
First stage					
Population Density	0.004** (0.001)	0.003** (0.001)	0.002* (0.001)	0.004* (0.002)	0.003* (0.002)
PopDens*BritCol	-0.002 (0.002)	-0.004 (0.003)	-0.003 (0.003)	-0.004 (0.003)	-0.003 (0.003)
Weak instruments					
Robust F	4.91**	5.30**	2.28	3.05*	2.06
... p-value	0.009	0.006	0.106	0.050	0.132
Second stage					
Judicial Independence	1.091** (0.351)	1.170** (0.367)	1.111 (0.861)	0.665* (0.326)	0.303 (0.435)
Democracy	0.434 (0.376)	0.182 (0.394)	0.006 (0.665)	0.770* (0.305)	0.611* (0.301)
Endogeneity					
Robust score chi ²	0.23	0.47	0.26	0.54	0.73
... p-value	0.632	0.494	0.612	0.461	0.392
Robust regression F	0.21	0.31	0.16	0.98	01.65
... p-value	0.647	0.577	0.69	0.325	0.201
Overidentification					
Score chi ²	2.98	1.16	1.57	2.34	2.60
... p-value	0.084	0.282	0.210	0.126	0.107
<i>N</i>	153	153	136	153	136
<i>R</i> ²	0.687	0.733	0.769	0.710	0.746

2SLS-instrumental variable regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$,

*** $p < 0.001$.

Table 4 summarizes the results of the instrumental variable regressions analogous to those in Table 2, except that judicial independence is instrumented with the IVs proposed by Bennett et al. (2017). In the first stage, the coefficient on population density in 1500 is statistically significant in all specifications. However, the interaction term is not individually

significant, and an F-test is only statistically significant in the three regression models based on the full sample. In these three models, judicial independence exerts a statistically significant effect on personal freedom as measured in the second stage. If we apply a more conservative criterion for non-weak instruments, such as an F-value of 10 or more, the instruments can be considered weak. While there is no indication that our instruments are not valid from the overidentification tests, endogeneity tests suggest that judicial independence can be effectively treated as exogenous. This short exercise suggests that judicial independence might indeed have a causal effect on personal freedom. However, due to the weakness of the instruments, these results should be treated with caution. Future research might utilize more powerful IVs to sort out the question of causality.

5 Concluding remarks

Personal freedom enables people to make the choices they want, within the framework of a system of general rules and their enforcement. Arguably, many people value such freedom highly, since it is the freedom to carry out “experiments in living” and to live life as one pleases, which brings life satisfaction. Against this background, it becomes paramount to find out what can safeguard such freedom.

In this study, we propose that two institutionally grounded practices – electoral democracy and judicial independence – can be expected to influence personal freedom. However, there are theoretical arguments for both a positive and negative relationship, which calls for an empirical investigation.

Our regression analysis reveals that judicial independence is a robust predictor of personal freedom in all its forms. The more power independent judges have to make legal

decisions that “bite”, the higher is the degree to which people are free to make their own decisions in life. Democracy is only robustly associated with the freedom of association, assembly and civil society and the freedom of expression and information. These are classically associated with democratic decision-making, but the democratic process does not seem to produce personal freedom beyond those rights required for its own functioning.

Although judicial independence always contributes to more extensive personal freedom, our evidence suggests that it more effectively does so where the electoral accountability of politicians is completely absent. Moreover, proponents of the superiority of the common law legal tradition (such as La Porta et al. 2008) might have paid too much attention to economic freedom, as our results indicate that the common law is not at all good for personal freedom. Neither is a strong presence of natural resources or religiosity – quite the opposite. Finally, our observation that the rule of law is the only area of personal freedom that is (positively) associated with income per capita shows that personal freedom can not only be enjoyed in rich societies.

Admittedly, our analysis has its limitations: It is cross-sectional and correlational in nature. Still, we suggest that it brings an important issue to the table and makes some progress in understanding what might secure personal freedom.

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ONLINE APPENDIX for

Securing personal freedom through institutions – the role of electoral democracy and judicial independence

Brunei as an outlier

Brunei, an absolute monarchy, has had no elections since 1962 and has been under a perpetual state of emergency since then. Although the judiciary is formally subordinate to the executive and thus ultimately to the Sultan, in practice courts enjoy independence. Hence, in our *de facto* judicial independence indicator, Brunei (0.99) has a score comparable to some European countries, such as Croatia (0.93) or Hungary (1.02), and better than the majority of the democracies in our dataset.¹ Nevertheless, personal freedom in Brunei is limited; only nine countries in our sample perform worse. This is in part due to the enduring state of emergency, which allowed the government to impose restrictions on civil and political liberties. Another factor is the progressing Islamization of Brunei's judicial system. In parallel to its secular courts, Brunei has a system of Sharia courts, which are primarily responsible for family matters and criminal offences and the jurisdiction of which is not limited to Muslims. The jurisdiction of the Sharia courts is continuously expanded and the penal code allows for draconic punishments, such as stoning to death and amputation of limbs, although these have

¹ The second best performing non-democracy without multi-party elections is dramatically worse with a score of -0.63. Among the non-democracies with multi-party elections, only two countries, Lesotho (1.38) and Hong Kong (1.48), have a higher score. The mean and median values for democracies are at roughly 0.52 significantly lower.

not yet been implemented by the government. Overall, Islamic legal systems have been shown to constitute a major hurdle in the implementation of the rule of law and basic rights (see Gouda and Gutmann, 2018; Gutmann and Voigt 2015, 2018).

Table A1 The personal freedom index

1. LEGAL PROTECTION AND SECURITY

1.1. Rule of law

1.1.1. Procedural justice

1.1.2. Civil justice

1.1.3. Criminal justice

1.2. Security and safety

1.2.1. Homicide

1.2.2. Disappearances, conflict, and terrorism

1.2.2.1. Disappearances

1.2.2.2. Violent conflicts

1.2.2.3. Organized conflicts

1.2.2.4. Terrorism fatalities

1.2.2.5. Terrorism injuries

1.2.3. Women's security and safety

1.2.3.1. Female genital mutilation

1.2.3.2. Missing women

1.2.3.3. Inheritance rights

1.2.3.3.1. Widows

1.2.3.3.2. Daughters

2. SPECIFIC PERSONAL FREEDOMS

2.1. Movement

2.1.1. Domestic movement

2.1.2. Foreign movement

2.1.3. Women's movement

2.2. Religion

2.2.1. Establishing and operating religious organizations

2.2.2. Harassment and physical hostilities

2.2.3. Legal and regulatory restrictions

2.3. Association, assembly and civil society

2.3.1. Association

2.3.2. Assembly

2.3.3. Establishing and operating political parties

2.3.4. Establishing and operating professional organizations

2.3.5. Establishing and operating educational, sporting, and cultural organizations

2.4. Expression and information

2.4.1. Press killed

2.4.2. Press jailed

2.4.3. Laws and regulations that influence media content

2.4.4. Political pressures and controls on media content

2.4.5. Access to cable/satellite

2.4.6. Access to foreign newspapers

2.4.7. State control over internet access

2.5. Identity and relationships

2.5.1. Legal gender

2.5.2. Parental rights

2.5.2.1. In marriage

2.5.2.2. After divorce

2.5.3. Same-sex relationships

2.5.3.1. Male-to-male relationships

2.5.3.2. Female-to-female relationships

2.5.4. Divorce

Source: Vásquez and Porčnik (2018, p. 17).

Table A2 Countries included and the values of personal freedom (PF), democracy (DEM) and judicial independence (JI)

Country	PF	JI	ELECT	Country	PF	JI	ELECT	Country	PF	JI	ELECT	Country	PF	JI	ELECT
Albania	7.60	-0.36	democ.	Denmark	9.33	1.61	democ.	Laos	5.86	-0.66	no elect	Qatar	5.53	-1.31	no elect
Algeria	5.28	-0.51	multi-p.	Dominican Rep.	6.94	-0.24	democ.	Latvia	8.85	0.53	democ.	Romania	8.65	0.36	democ.
Angola	6.11	-1.10	multi-p.	Ecuador	7.55	-0.55	democ.	Lebanon	6.43	0.08	multi-p.	Russia	5.71	-0.58	multi-p.
Argentina	8.10	-0.30	democ.	Egypt	3.89	-0.77	multi-p.	Lesotho	6.69	1.38	multi-p.	Rwanda	6.47	-0.84	multi-p.
Armenia	6.91	-0.62	democ.	El Salvador	6.92	-0.47	democ.	Liberia	6.40	-0.55	democ.	Saudi Arabia	4.44	-1.19	no elect
Australia	9.18	1.66	democ.	Estonia	9.01	1.17	democ.	Libya	3.88	-1.54	no elect	Senegal	6.77	-0.62	democ.
Austria	9.25	1.60	democ.	Eswatini	6.02	-1.01	multi-p.	Lithuania	8.82	1.16	democ.	Serbia	7.85	0.84	democ.
Azerbaijan	5.68	-1.27	multi-p.	Ethiopia	5.06	-0.67	multi-p.	Luxembourg	9.26	1.68	democ.	Seychelles	7.37	-0.80	multi-p.
Bahamas	7.45	1.57	democ.	Fiji	7.79	-1.33	no elect	Macedonia	7.41	0.32	democ.	Sierra Leone	7.04	-0.14	democ.
Bahrain	6.14	-0.79	multi-p.	Finland	9.29	1.64	democ.	Madagascar	6.84	-0.63	no elect	Singapore	7.48	-0.32	multi-p.
Bangladesh	5.30	-0.91	multi-p.	France	8.77	0.55	democ.	Malawi	7.45	0.21	democ.	Slovakia	8.54	0.18	democ.
Barbados	7.71	1.56	democ.	Gabon	5.32	-0.94	multi-p.	Malaysia	5.90	-0.54	democ.	Slovenia	8.82	1.39	democ.
Belarus	6.06	-1.33	multi-p.	Gambia	5.30	-1.13	multi-p.	Mali	6.06	-0.79	democ.	South Africa	7.70	0.93	multi-p.
Belgium	8.99	1.47	democ.	Georgia	7.58	-0.46	democ.	Malta	8.98	1.36	democ.	Spain	8.76	1.34	democ.
Belize	7.43	1.04	democ.	Germany	9.24	1.66	democ.	Mauritania	4.99	-1.16	multi-p.	Sri Lanka	6.04	-0.10	democ.
Benin	7.50	-0.32	democ.	Ghana	7.87	-0.15	democ.	Mauritius	7.72	1.43	democ.	Sudan	4.25	-1.33	multi-p.
Bhutan	6.60	-0.22	democ.	Greece	7.95	0.54	democ.	Mexico	6.80	-0.23	democ.	Suriname	7.79	-0.14	democ.
Bolivia	7.21	-0.35	democ.	Guatemala	6.55	-0.47	democ.	Moldova	7.06	0.27	democ.	Sweden	9.33	1.59	democ.
Bosnia and Herz.	7.86	-0.63	multi-p.	Guinea	5.37	-1.04	no elect	Mongolia	8.00	0.42	democ.	Switzerland	9.19	1.58	democ.

Botswana	6.88	1.40	democ.	Guinea-Bissau	6.86	-0.64	multi-p.	Montenegro	7.63	0.24	multi-p.	Syria	2.51	-0.97	multi-p.
Brazil	6.67	-0.17	democ.	Guyana	7.04	-0.19	multi-p.	Morocco	5.99	-0.72	multi-p.	Taiwan	9.04	0.87	democ.
Brunei	4.66	0.99	no elect	Haiti	7.18	-1.39	multi-p.	Mozambique	6.66	-0.65	multi-p.	Tajikistan	5.65	-1.09	multi-p.
Bulgaria	8.16	0.17	democ.	Honduras	6.39	-0.71	democ.	Myanmar	5.46	-1.25	no elect	Tanzania	6.13	-0.68	multi-p.
Burkina Faso	7.46	-1.01	multi-p.	Hong Kong	8.58	1.48	multi-p.	Namibia	7.39	0.48	multi-p.	Thailand	6.40	-0.24	democ.
Burundi	4.41	-0.49	democ.	Hungary	8.26	1.02	democ.	Nepal	6.91	-0.09	democ.	Timor-Leste	6.19	0.47	democ.
Cambodia	7.24	-0.70	multi-p.	Iceland	9.08	1.56	democ.	Netherlands	9.40	1.61	democ.	Togo	6.73	-1.25	multi-p.
Cameroon	5.33	-1.39	multi-p.	India	6.20	0.53	democ.	New Zealand	9.28	1.62	democ.	Trinidad and Tob.	6.92	0.70	democ.
Canada	9.15	1.66	democ.	Indonesia	6.38	-0.31	democ.	Nicaragua	6.43	-0.14	democ.	Tunisia	6.58	-0.94	multi-p.
Cape Verde	7.99	1.40	democ.	Iran	4.53	-1.11	no elect	Niger	5.71	-0.53	multi-p.	Turkey	6.09	0.39	democ.
Central Afr. Rep.	5.47	-1.12	multi-p.	Iraq	3.12	-1.23	multi-p.	Nigeria	5.82	-0.87	democ.	Uganda	6.13	-0.67	multi-p.
Chad	5.51	-1.74	multi-p.	Ireland	8.94	1.62	democ.	Norway	9.34	1.60	democ.	Ukraine	6.59	-0.55	democ.
Chile	8.22	1.39	democ.	Israel	7.54	1.45	democ.	Oman	5.51	-0.78	multi-p.	United Arab Em.	5.07	-0.72	no elect
China	5.35	-0.91	no elect	Italy	8.69	0.53	democ.	Pakistan	5.32	-0.59	democ.	United Kingdom	9.00	1.61	democ.
Colombia	7.02	-0.46	democ.	Jamaica	7.27	0.53	democ.	Panama	7.72	-0.39	democ.	United States	8.75	1.62	democ.
Congo	6.78	-1.46	multi-p.	Japan	8.73	1.57	democ.	Papua New G.	7.25	0.13	democ.	Uruguay	8.30	1.03	democ.
Congo, Dem. Rep.	4.95	-1.75	multi-p.	Jordan	6.24	-0.72	no elect	Paraguay	6.97	-0.32	democ.	Venezuela	5.52	-1.06	democ.
Costa Rica	8.17	1.19	democ.	Kazakhstan	6.38	-1.24	no elect	Peru	7.72	0.30	democ.	Vietnam	5.97	-0.99	no elect
Cote d'Ivoire	7.06	-0.94	no elect	Kenya	6.45	-0.33	democ.	Philippines	6.50	-0.20	democ.	Yemen	2.17	-1.51	no elect
Croatia	8.46	0.93	democ.	Korea, South	8.77	0.50	democ.	Poland	8.35	1.28	democ.	Zambia	6.01	-0.21	multi-p.
Cyprus	8.51	1.36	democ.	Kuwait	5.63	-0.45	multi-p.	Portugal	9.04	1.38	democ.	Zimbabwe	5.17	-1.08	multi-p.

Czech Republic	9.03	0.72	democ.	Kyrgyzstan	6.25	-0.05	multi-p.
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Table A3 Rule of law

	(1)	(2)	(3)	(4)	(5)
Judicial Independence	0.842*** (0.118)	0.735*** (0.102)	0.634*** (0.121)	0.735*** (0.117)	0.640*** (0.135)
Democracy	-0.257 (0.178)	-0.068 (0.176)	-0.090 (0.205)	-0.255 (0.169)	-0.299 (0.190)
Log-Income	0.802*** (0.097)	0.768*** (0.097)	0.720*** (0.120)	0.766*** (0.096)	0.681*** (0.119)
Log-Population	-0.039 (0.059)	-0.051 (0.057)	-0.108 (0.081)	-0.055 (0.054)	-0.100 (0.075)
Brunei	-1.030*** (0.190)	-0.816*** (0.199)		-0.991*** (0.196)	
British Colony		0.431 (0.290)	-0.002 (0.345)		
French Colony		0.414 (0.328)	0.002 (0.364)		
No Colony		0.611* (0.270)	-0.032 (0.347)		
Spanish Colony		-0.133 (0.293)	-0.601 (0.351)		
Natural Resources			-0.089 (0.093)		-0.067 (0.081)
Religiosity			-0.281** (0.100)		-0.266** (0.088)
Common Law				-0.517** (0.180)	-0.265 (0.216)
French Civil Law				-0.802*** (0.172)	-0.591** (0.195)
Constant	5.266*** (0.117)	4.748*** (0.307)	5.284*** (0.369)	5.865*** (0.181)	5.744*** (0.206)
<i>N</i>	162	162	138	162	138
<i>R</i> ²	0.766	0.785	0.815	0.790	0.817

OLS regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A4 Security and safety

	(1)	(2)	(3)	(4)	(5)
Judicial Independence	0.501** (0.184)	0.378* (0.165)	0.349* (0.159)	0.483** (0.174)	0.402* (0.165)
Democracy	0.120 (0.286)	0.022 (0.295)	-0.265 (0.294)	0.054 (0.277)	-0.182 (0.281)
Log-Income	0.373** (0.123)	0.217 (0.130)	0.216 (0.142)	0.287* (0.125)	0.179 (0.132)
Log-Population	0.012 (0.099)	-0.077 (0.084)	-0.186 (0.099)	-0.002 (0.094)	-0.146 (0.117)
Brunei	-2.359*** (0.335)	-1.636*** (0.350)		-1.985*** (0.374)	
British Colony		-0.239 (0.389)	-0.845 (0.491)		
French Colony		0.193 (0.416)	-0.475 (0.454)		
No Colony		1.103** (0.366)	0.323 (0.472)		
Spanish Colony		-0.019 (0.435)	-0.648 (0.542)		
Natural Resources			-0.290* (0.126)		-0.246 (0.131)
Religiosity			-0.117 (0.110)		-0.326** (0.114)
Common Law				-1.063*** (0.232)	-0.539* (0.241)
French Civil Law				-0.791*** (0.166)	-0.402* (0.163)
Constant	8.015*** (0.196)	7.680*** (0.381)	8.553*** (0.439)	8.804*** (0.218)	8.661*** (0.235)
<i>N</i>	162	162	138	162	138
<i>R</i> ²	0.342	0.472	0.551	0.392	0.482

OLS regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A5 Freedom of movement

	(1)	(2)	(3)	(4)	(5)
Judicial Independence	1.416*** (0.250)	1.681*** (0.246)	1.349*** (0.283)	1.436*** (0.262)	1.227*** (0.298)
Democracy	1.345** (0.433)	0.750 (0.441)	0.758 (0.511)	1.296** (0.441)	1.083* (0.481)
Log-Income	-0.314 (0.236)	-0.315 (0.233)	-0.088 (0.242)	-0.366 (0.251)	-0.165 (0.261)
Log-Population	-0.330* (0.153)	-0.351* (0.150)	-0.343* (0.158)	-0.336* (0.155)	-0.364* (0.165)
Brunei	-1.008* (0.482)	-1.124* (0.503)		-0.746 (0.593)	
British Colony		-0.742 (0.720)	-0.684 (0.876)		
French Colony		0.064 (0.886)	0.713 (0.992)		
No Colony		-0.392 (0.716)	-0.362 (0.925)		
Spanish Colony		1.372 (0.780)	1.260 (0.934)		
Natural Resources			-0.778** (0.288)		-0.798* (0.320)
Religiosity			0.036 (0.241)		0.170 (0.210)
Common Law				-0.618 (0.403)	-0.718 (0.506)
French Civil Law				-0.331 (0.309)	-0.083 (0.322)
Constant	6.874*** (0.325)	7.432*** (0.660)	7.252*** (0.811)	7.266*** (0.380)	7.254*** (0.432)
<i>N</i>	162	162	138	162	138
<i>R</i> ²	0.431	0.472	0.554	0.436	0.514

OLS regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A6 Freedom of religion

	(1)	(2)	(3)	(4)	(5)
Judicial Independence	0.646*** (0.160)	0.828*** (0.162)	0.869*** (0.193)	0.687*** (0.172)	0.782*** (0.206)
Democracy	0.510 (0.268)	0.284 (0.303)	0.432 (0.357)	0.486 (0.275)	0.555 (0.312)
Log-Income	-0.501*** (0.132)	-0.410** (0.136)	-0.511** (0.163)	-0.514*** (0.137)	-0.621*** (0.158)
Log-Population	-0.556*** (0.111)	-0.560*** (0.110)	-0.536*** (0.132)	-0.554*** (0.112)	-0.541*** (0.142)
Brunei	-8.292*** (0.318)	-8.347*** (0.343)		-8.181*** (0.349)	
British Colony		-0.854 (0.485)	-0.900 (0.688)		
French Colony		0.166 (0.538)	0.114 (0.718)		
No Colony		-0.770 (0.508)	-1.172 (0.709)		
Spanish Colony		0.345 (0.498)	0.161 (0.693)		
Natural Resources			-0.021 (0.175)		-0.012 (0.189)
Religiosity			-0.270 (0.168)		-0.135 (0.151)
Common Law				-0.131 (0.303)	0.016 (0.355)
French Civil Law				0.089 (0.268)	0.286 (0.296)
Constant	7.219*** (0.191)	7.825*** (0.492)	7.926*** (0.680)	7.220*** (0.289)	7.019*** (0.344)
<i>N</i>	161	161	137	161	137
<i>R</i> ²	0.423	0.491	0.435	0.426	0.343

OLS regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A7 Freedom of association, assembly and civil society

	(1)	(2)	(3)	(4)	(5)
Judicial Independence	1.318*** (0.261)	1.244*** (0.272)	0.921** (0.339)	1.333*** (0.291)	1.053** (0.361)
Democracy	1.796*** (0.504)	2.422*** (0.576)	2.179*** (0.606)	1.697** (0.530)	1.314* (0.582)
Log-Income	-0.274 (0.306)	0.063 (0.274)	0.233 (0.305)	-0.308 (0.303)	-0.074 (0.360)
Log-Population	-0.267 (0.178)	-0.080 (0.184)	-0.073 (0.197)	-0.204 (0.193)	-0.166 (0.194)
Brunei	-6.599*** (0.550)	-5.874*** (0.610)		-6.020*** (0.610)	
British Colony		1.452 (0.746)	1.351 (0.770)		
French Colony		3.739*** (0.871)	3.700*** (0.898)		
No Colony		1.332 (0.768)	0.974 (0.858)		
Spanish Colony		1.581 (0.829)	1.373 (0.837)		
Natural Resources			-0.398 (0.247)		-0.419 (0.327)
Religiosity			-0.188 (0.357)		0.046 (0.270)
Common Law				-0.965* (0.484)	-1.233* (0.484)
French Civil Law				-0.452 (0.409)	-0.590 (0.402)
Constant	6.133*** (0.386)	3.962*** (0.709)	4.304*** (0.760)	6.669*** (0.547)	7.061*** (0.545)
<i>N</i>	136	136	127	136	127
<i>R</i> ²	0.501	0.594	0.566	0.512	0.476

Table A8 Freedom of expression and information

	(1)	(2)	(3)	(4)	(5)
Judicial Independence	0.814*** (0.123)	0.865*** (0.123)	0.692*** (0.165)	0.816*** (0.132)	0.697*** (0.187)
Democracy	0.819*** (0.238)	0.965*** (0.241)	0.895** (0.296)	0.783** (0.241)	0.607* (0.291)
Log-Income	0.039 (0.133)	0.148 (0.129)	0.111 (0.172)	-0.005 (0.138)	-0.003 (0.188)
Log-Population	-0.064 (0.080)	-0.049 (0.081)	-0.064 (0.115)	-0.070 (0.083)	-0.074 (0.109)
Brunei	-3.644*** (0.272)	-3.629*** (0.286)		-3.442*** (0.312)	
British Colony		-0.057 (0.397)	0.002 (0.557)		
French Colony		0.843 (0.489)	0.763 (0.659)		
No Colony		-0.229 (0.383)	-0.529 (0.595)		
Spanish Colony		0.105 (0.431)	-0.045 (0.600)		
Natural Resources			-0.224 (0.137)		-0.220 (0.157)
Religiosity			-0.253 (0.153)		-0.033 (0.115)
Common Law				-0.530** (0.203)	-0.530* (0.225)
French Civil Law				-0.349 (0.211)	-0.447* (0.198)
Constant	7.227*** (0.176)	7.109*** (0.351)	7.312*** (0.538)	7.597*** (0.251)	7.792*** (0.262)
<i>N</i>	162	162	138	162	138
<i>R</i> ²	0.529	0.564	0.555	0.539	0.519

OLS regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A9 Freedom of identity and relationships

	(1)	(2)	(3)	(4)	(5)
Judicial Independence	1.293*** (0.348)	1.439*** (0.354)	0.927** (0.342)	1.468*** (0.361)	0.943** (0.355)
Democracy	1.360* (0.542)	0.088 (0.552)	-0.077 (0.589)	1.142* (0.528)	0.940 (0.556)
Log-Income	-0.253 (0.307)	-0.597* (0.282)	-0.698** (0.247)	-0.454 (0.297)	-0.761** (0.246)
Log-Population	-0.102 (0.230)	-0.318 (0.204)	-0.358 (0.184)	-0.113 (0.214)	-0.238 (0.194)
Brunei	-5.688*** (0.667)	-4.548*** (0.763)		-4.566*** (0.734)	
British Colony		-2.594*** (0.672)	-3.448*** (0.680)		
French Colony		-1.365 (0.900)	-2.119* (0.925)		
No Colony		0.631 (0.671)	-1.207 (0.694)		
Spanish Colony		0.893 (0.794)	-0.278 (0.829)		
Natural Resources			-0.867* (0.345)		-0.787* (0.349)
Religiosity			-0.954*** (0.235)		-1.222*** (0.248)
Common Law				-2.301*** (0.471)	-0.727 (0.520)
French Civil Law				-0.805 (0.439)	0.713 (0.447)
Constant	6.206*** (0.425)	7.536*** (0.690)	8.812*** (0.700)	7.447*** (0.505)	6.250*** (0.601)
<i>N</i>	162	162	138	162	138
<i>R</i> ²	0.311	0.468	0.592	0.376	0.525

OLS regression coefficients, robust standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

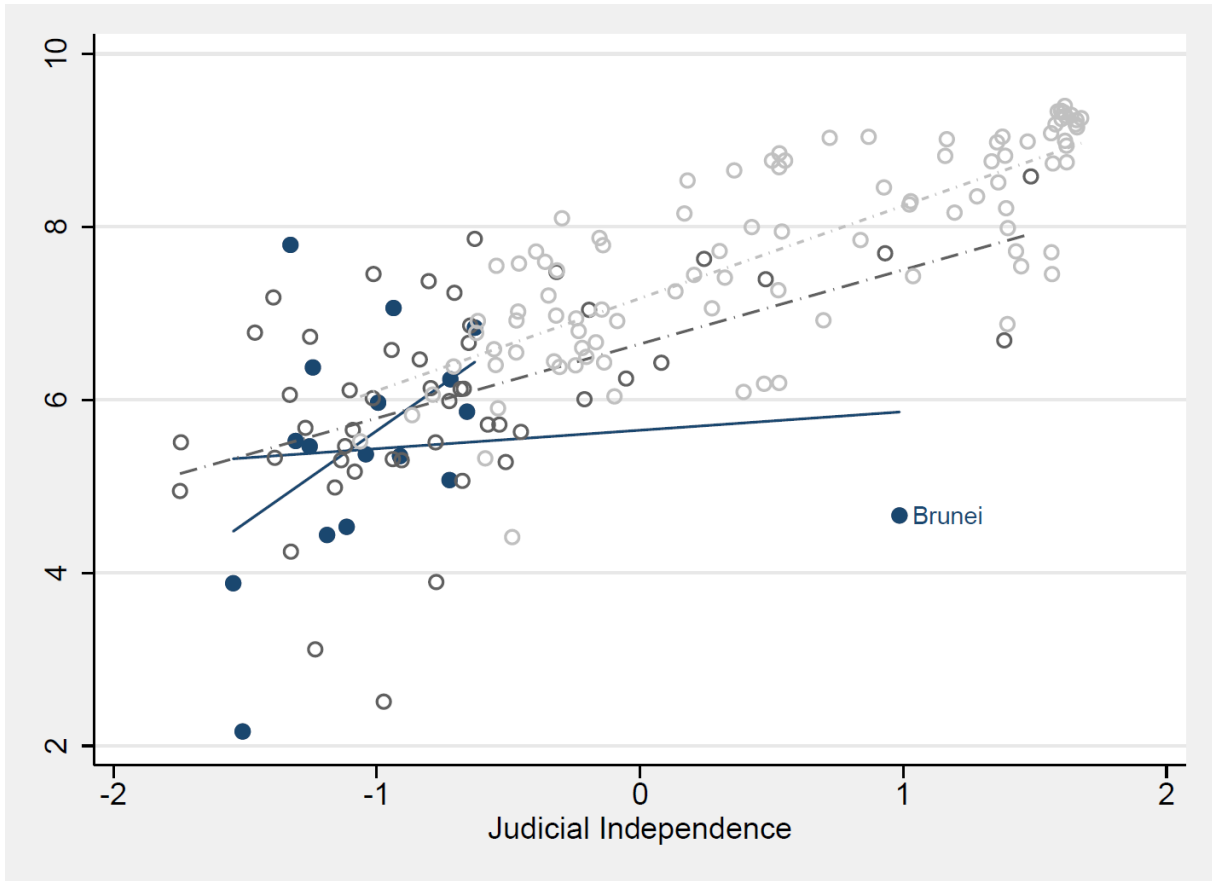


Fig. A1 Judicial independence and personal freedom, split by type of political system

Countries without elections or with only one political party are in blue (respectively with and without accounting for Brunei).

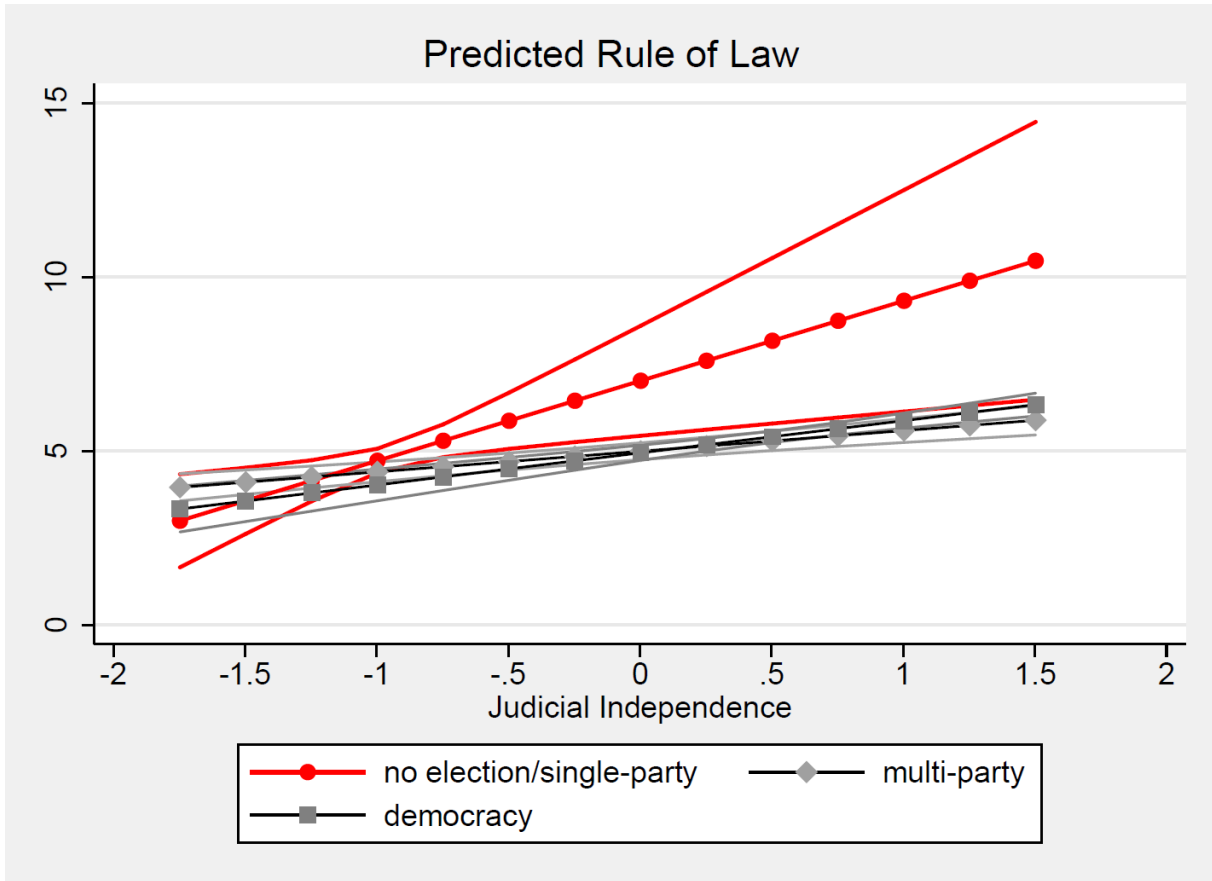


Fig. A2 Predicted rule of law at different legal and political institutions

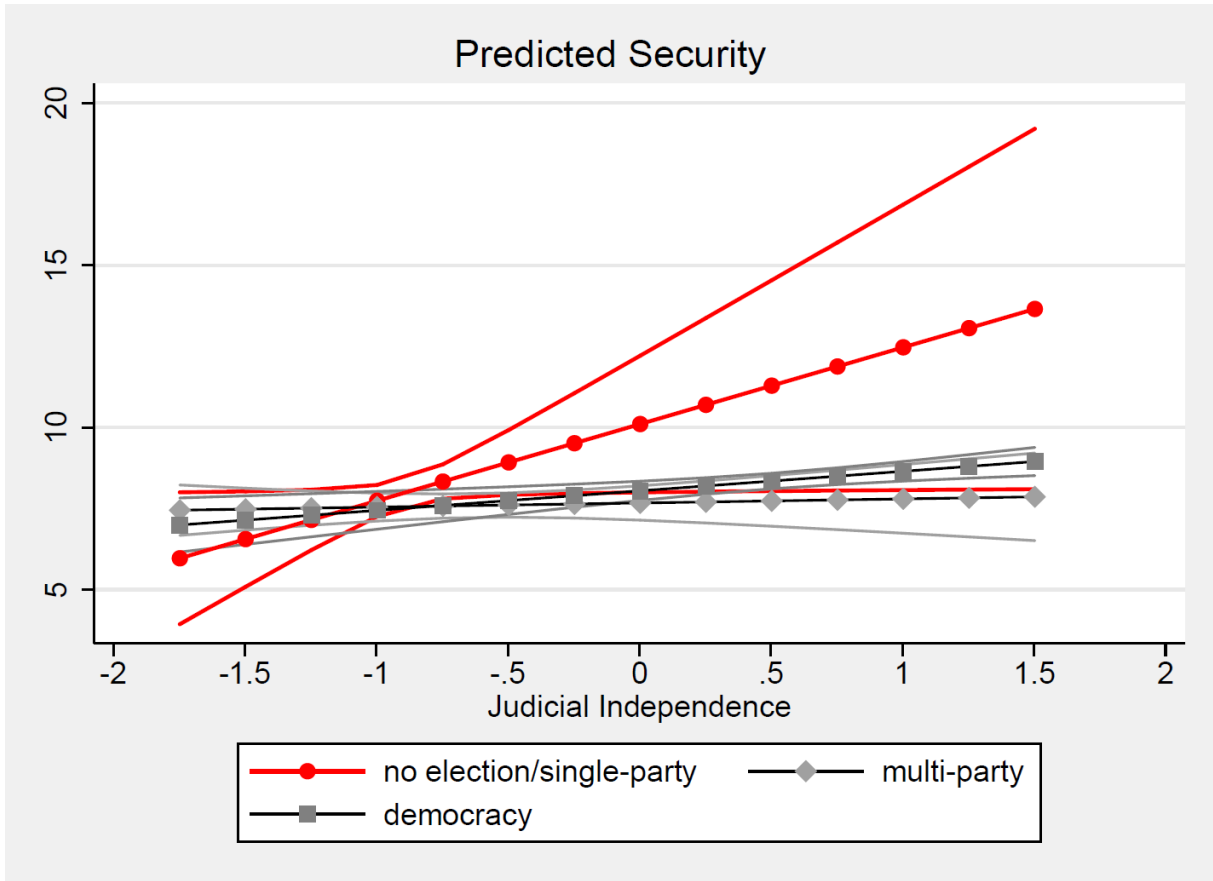


Fig. A3 Predicted safety and security at different legal and political institutions

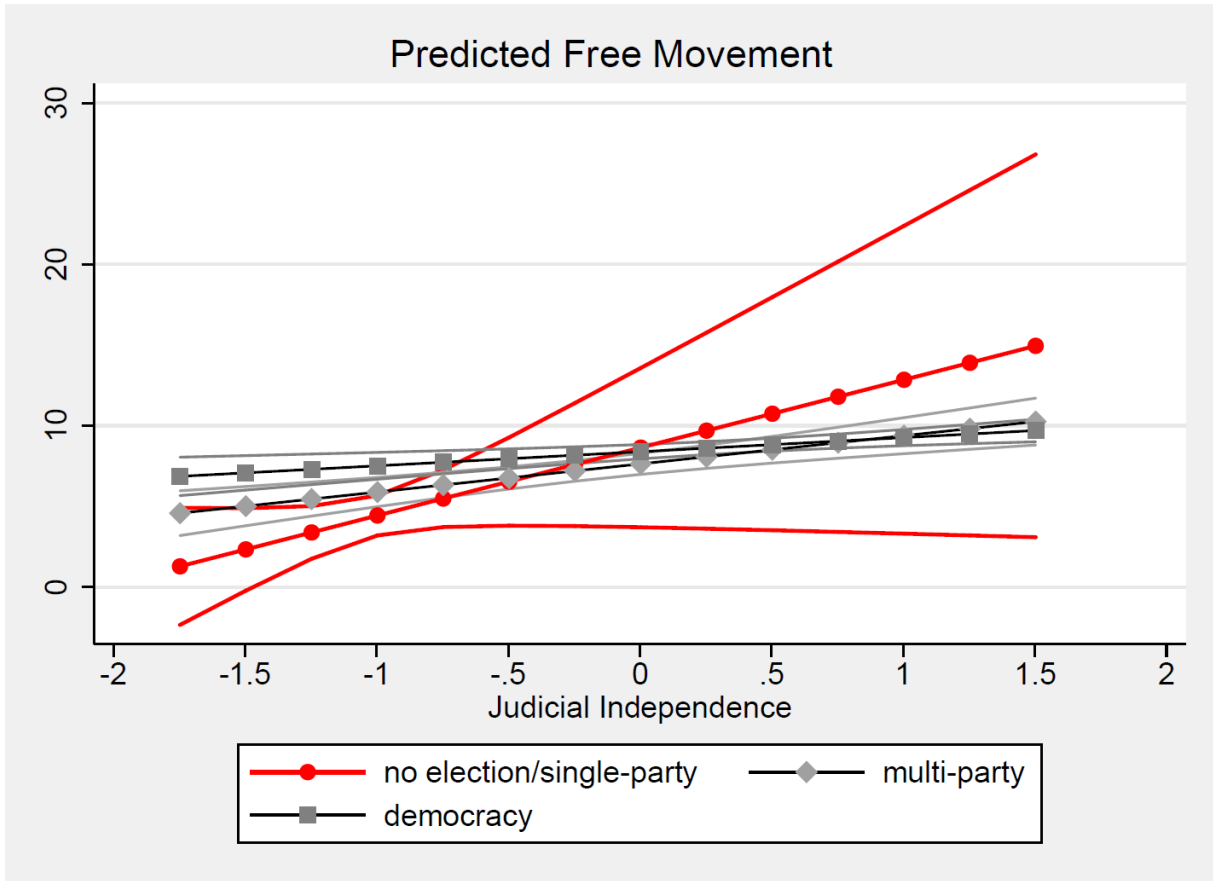


Fig. A4 Predicted freedom of movement at different legal and political institutions

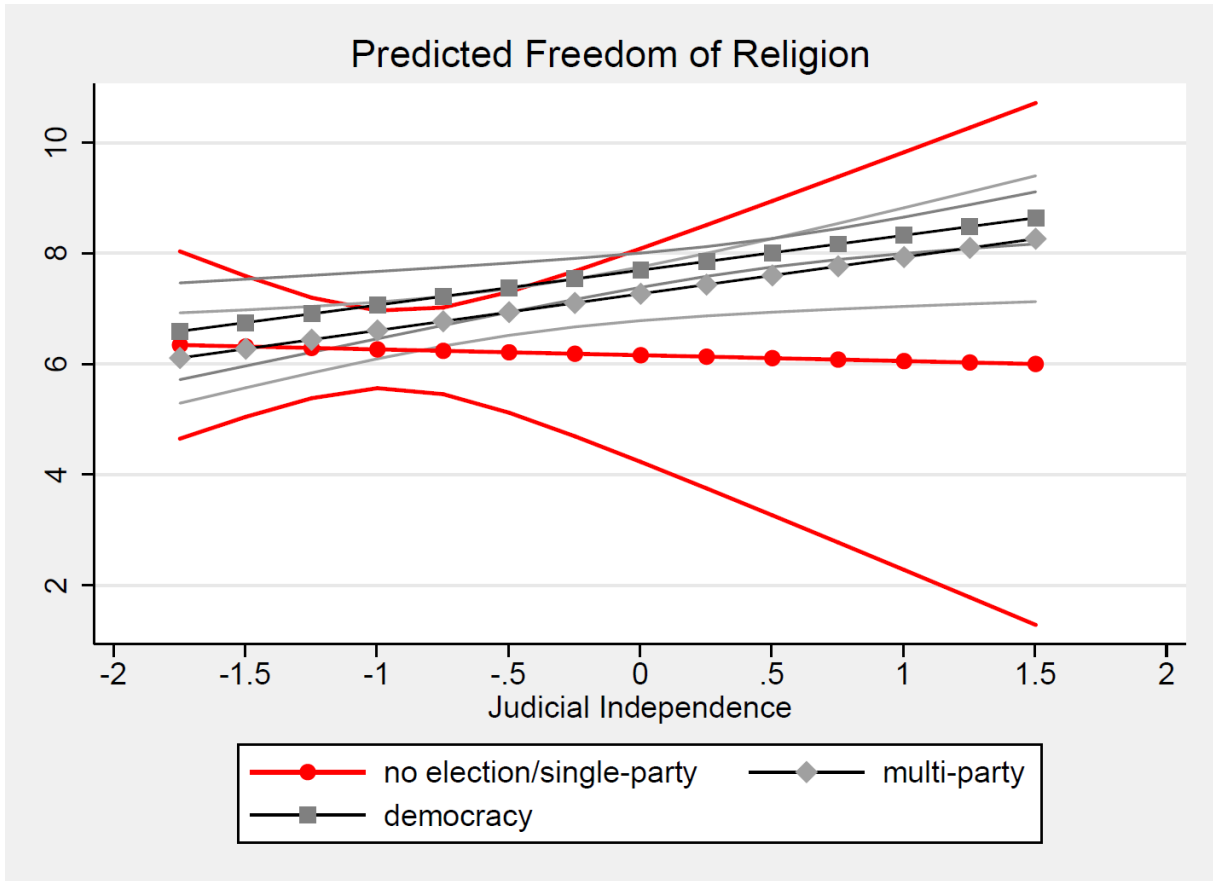


Fig. A5 Predicted freedom of religion at different legal and political institutions

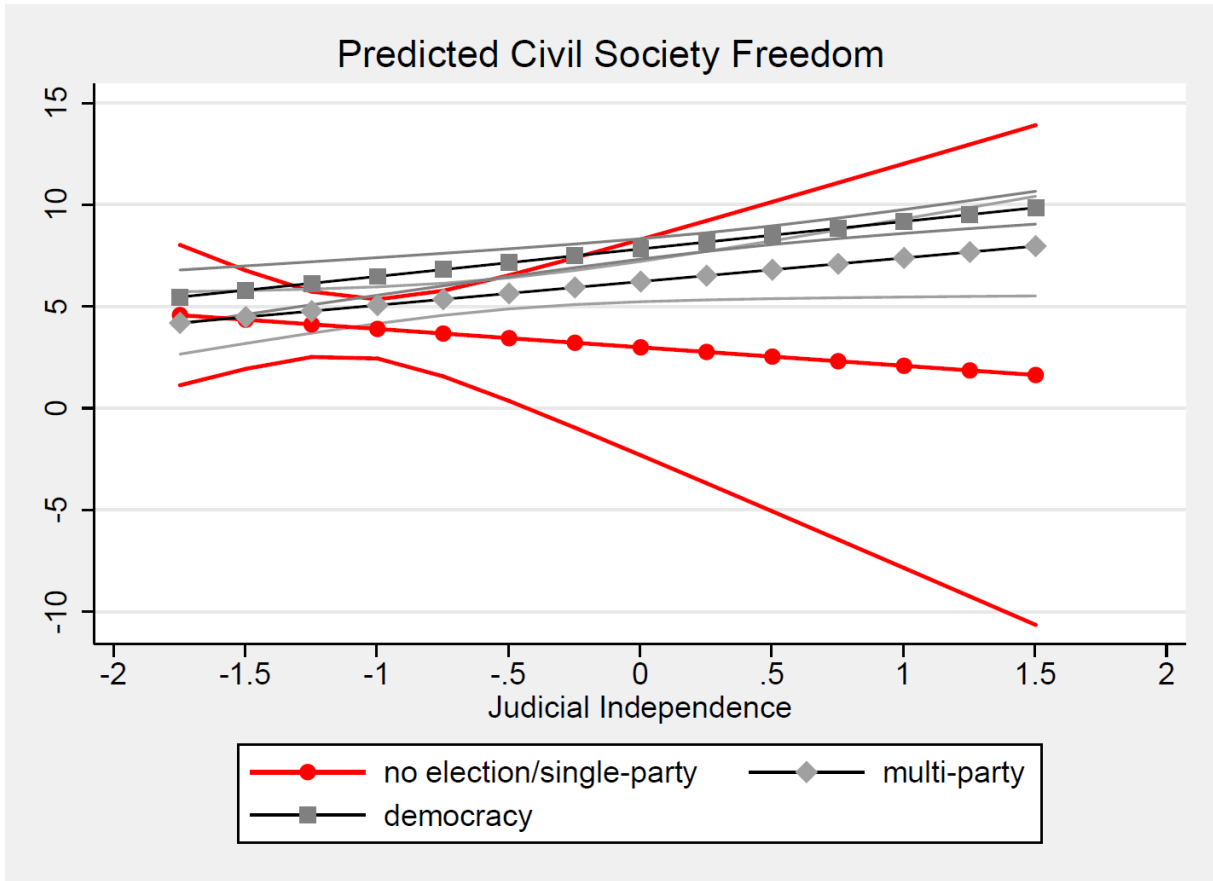


Fig. A6 Predicted civil liberties at different legal and political institutions

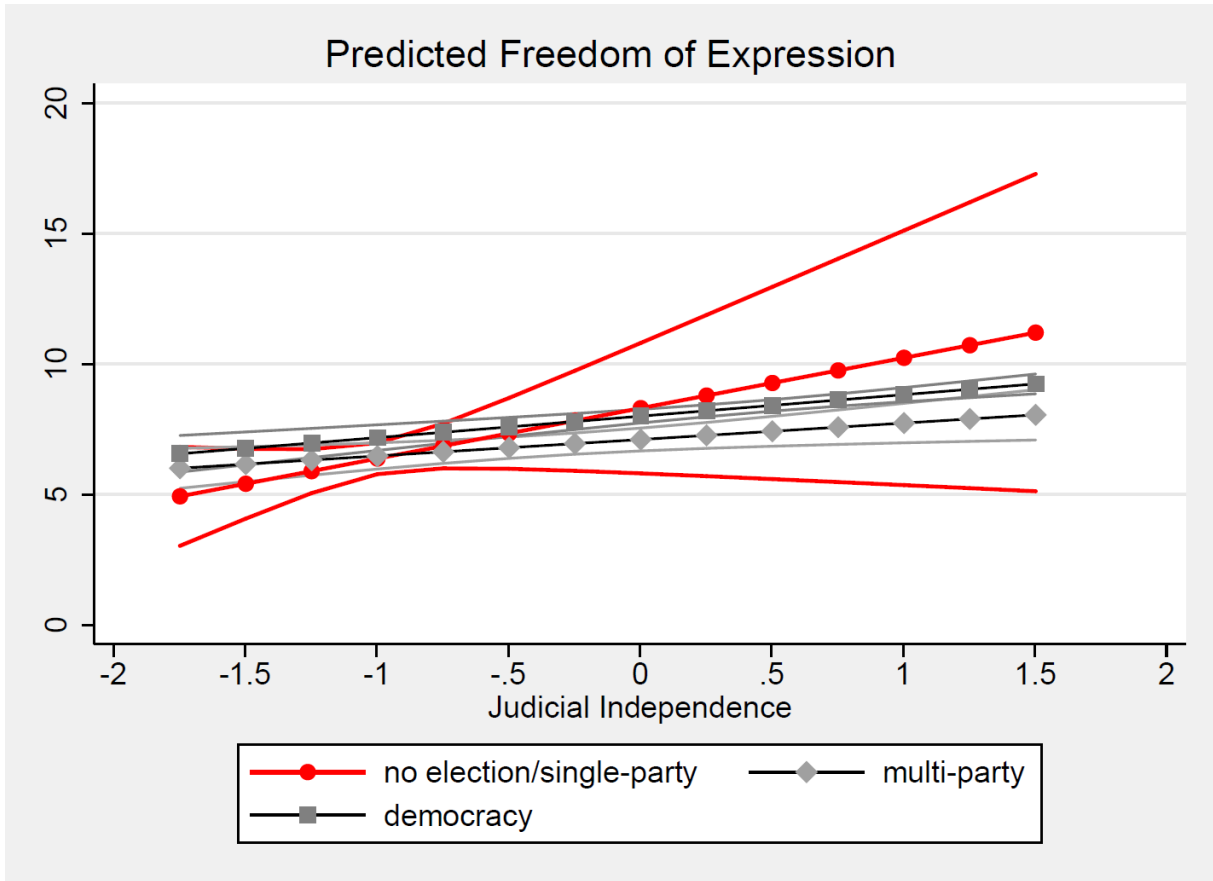


Fig. A7 Predicted freedom of expression at different legal and political institutions

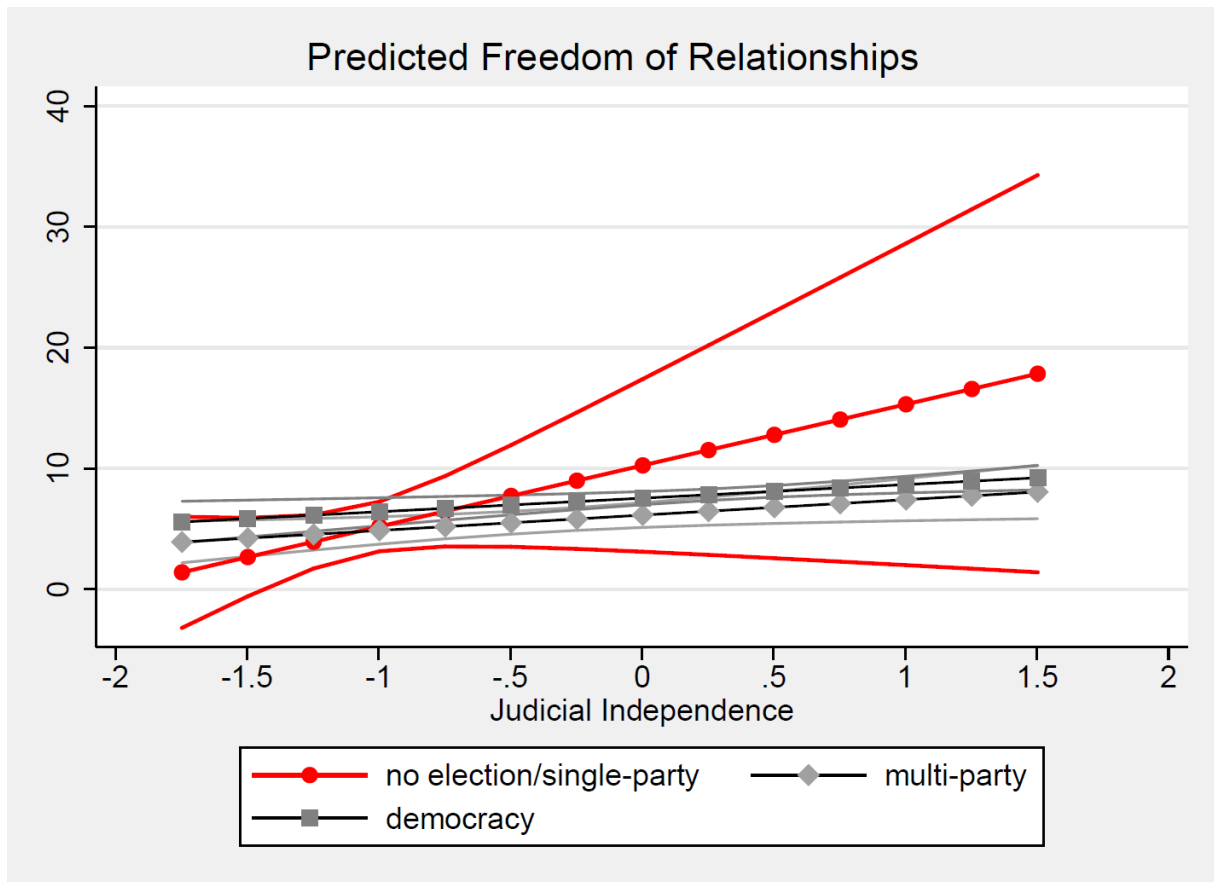


Fig. A8 Predicted freedom of relationships at different legal and political institutions

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