Econometrica, Vol. 88, No. 4 (July, 2020), 1345–1349

A COMMENT ON: "*State Capacity, Reciprocity, and the Social Contract*" *by Timothy Besley*

ALBERTO BISIN
Department of Economics, New York University, NBER, and CEPR

BESLEY'S PAPER studies the role of civic culture in expanding fiscal capacity in a political economy model of the interaction between policy-making élites and tax-paying citizens. At an equilibrium, (i) élites choose the tax rate t and the composition of expenditures between public goods G and private rents B, while (ii) citizens choose their tax compliancy, $1 - n$. Civic culture is defined by a form of *intrinsic reciprocity*, a reduced disutility for paying taxes when taxes are used to provide public goods rather than transfers and rents to the élites.

I read this paper through the eyes of a fascinating and broad agenda on the role of institutions and culture in fostering economic development, which Besley has prominently contributed to; for example, Besley and Persson (2019).[1] My comments aim at elucidating the theoretical contribution of the paper to this literature. First of all, I will argue that the results of the paper are bound to hold at least qualitatively in different models as long as they display a fundamental complementarity between civic culture and public good provision, opening the analysis to new and interesting implications. I will then attempt an analysis of the institutional design of the polity of the state, for example, its constitutional frame, legal structure and enforcement mechanisms, political procedures, rights and regulations enforced by official authorities, and so on, in the context of the model. I will illustrate how this analysis produces a rich set of novel implications with regards to institutional change and to the institutional correlates of civic capital, state capacity, and public goods provision. I will also show that the maintained assumption in the model, that élites display commitment when choosing policy, has important implications. Relaxing this assumption also produces interesting implications for the study of culture and institutions. Finally, I will briefly speculate on the dynamics of civic culture which can be obtained in the model if inter-generational cultural transmission is characterized by some form of imperfect altruism on the parts of the parents.

Complementarity between civic culture and public good provision. The formal model in the paper focuses on how civic culture affects state capacity and public good provision: civic-minded citizens are more willing to comply with taxation when public goods are provided and this aligns the incentives of élites with those of the citizenry (the élites do not pay taxes but enjoy public goods). At equilibrium, therefore, state capacity and public good provision G increase with the fraction of civic-minded citizens, that is, with civic capital μ. Furthermore, the postulated dynamics of μ (a reduced-form replicator dynamics to capture inter-generational transmission of cultural traits) has the property that μ increases with the provision of public goods G.

Alberto Bisin: alberto.bisin@nyu.edu

I would like to thank Thierry Verdier, for many discussions on these topics over the years. Thanks also to Alessandro Lizzeri, for comments on an earlier draft.

[1]See Acemoglu, Johnson, and Robinson (2006), Alesina and Giuliano (2015), and Nunn (2014), for surveys of this literature.

 https://doi.org/10.3982/ECTA18010

It is this complementarity between state capacity and public good provision with civic capital that drives the main result of the paper: the characterization of the two stable stationary states of the dynamics of civic capital, the first where civic culture and fiscal capacity are maximal and the second where they are minimal. Once this is recognized, it becomes apparent that the specific channel on which this complementarity is built into the model is somewhat special. Indeed, several other channels linking public good provision and civic capital can be easily constructed, with similar qualitative results but possibly novel implications. A few examples illustrate this point. In the model, civic culture affects tax compliance. But it could as well affect labor supply or occupation choice, in an environment where occupations differ in terms of observability of income. These alternative mechanisms are interesting in that they could provide a more direct link between state capacity, civic culture, and economic efficiency and growth (e.g., if income from traditional occupations is more easily hidden to fiscal authorities). Another departure from the specific model could have civic culture defined as a willingness to provide costly effort to monitor the composition of public expenditures, for example, in terms of rents favoring the élites and public goods (in a concave environment in which the policy choices of élites are interior). This way, the interaction of civic culture with the institutional loci where the monitoring of the policy decisions of élites takes place would be more clear and evident in the model. The role of constitutional rules, legal systems, parliaments, and committees in supporting the actions of civic-minded citizens could then come to the forefront of the analysis. The positive externality associated to civic capital's role in the provision of public goods to the whole citizenry could also use a clearer display in the model. For instance, materialistic (non civic-minded) citizens could be allowed to internalize public good provision through appropriate institutions but, for example, only their own contributions rather than the aggregate, as civic-minded citizens do. Finally, it should also be noted that the complementarity between state capacity and civic capital does not require that élites choose the tax rate t. The same result holds in an environment where the choice of tax rate is restricted, for example, by the administrative limits of the fiscal bureaucracy or by political economy constraints.

Institutional design of the polity of the state. The paper does not study the institutional design of the polity. Institutions in the model are (implicitly) represented by the state provision of public goods. Legal structure and enforcement mechanisms, for instance, are taken as given. It turns out, however, that extending the model to allow for institutional design is feasible and quite interesting. Following the spirit of the paper, consider first a political economy in which élites have commitment and control institutional design choices. Institutional design can be represented in the model as a choice problem with respect to λ, σ, τ, three main parameters which can be naturally interpreted to capture relevant institutional elements of the polity.[2] More precisely: λ could represent information regarding the quantity and quality of public goods provided, to engage citizens in the choice and efficient operation of public goods (so that an increase in λ reduces the perception of the tax rate for any given actual rate); σ could represent civic control over the élites' diversion of public expenditures from public goods to transfers and rents (so that an increase in σ increases the opportunity cost of this diversion); finally, τ could represent the monitoring of tax evasion and elusion (so that an increase in τ increases the cost of non-compliance for citizens). Institutional design choices are naturally taken every

[2]For simplicity, let the relative value of public goods in preferences, α, be a deteministic parameter.

period, which in the model is a generation.[3] It is natural to assume that designing more efficient institutions (increasing λ, σ, or τ, in this context) is costly. For simplicity, consider quadratic costs, with no interactions across institutional elements, and independent of μ.

Institutional design choice on the part of the élites builds directly on the characterization of the equilibrium fiscal policy choices provided in the paper:[4] depending on civic capital μ, the élites spend all tax revenues either on public goods G or on transfers (rents for themselves B and for citizens in fixed proportion $b = \sigma B$). First of all, if on top of fiscal policy we allowed the élites to choose λ, at equilibrium, it is easy to show that their choice would increase with μ. The intuition is straightforward: the effect of λ on compliance is proportional to civic capital, μ; while the cost is (assumed) independent.[5] It follows that polities in a dynamic path with increasing civic capital, state capacity, and public good provision will also show higher λ across the path; that is, they develop institutional mechanisms designed to complement the role of civic capital, for example, engaging citizens in the choice and efficient operation of public goods.

The élites' choice of τ is more interesting. If μ is large enough that the élites spend all tax revenues on public goods G, τ would increase with μ. On the other hand, if the élites spend all tax revenues on transfers B and b, τ would decrease with μ.[6] The intuition is subtle. The effect of τ on compliance is larger on non civic-minded citizens; hence it depends negatively on μ. But the effect of τ is larger the larger is the tax rate t, which at equilibrium increases with μ, when $G > 0, B = 0$, and decreases, when $B > 0, G = 0$. Whether τ, intended as a institutional design choice, is a complement or a substitute for civic capital is then the result of a composition effect. In the specification of the model, τ and μ are substitute when $G = 0, B > 0$. Complementarity instead holds when $G > 0, B = 0$. Interestingly, though, this result is overturned if t is constant, and hence possibly in a model in which the choice of the tax rate is restricted, for example, by the administrative limits of the fiscal bureaucracy or by political economy constraints. We conclude that institutional design over tax-compliance mechanisms introduces a form of substitution between culture and institutions which is not otherwise present in the model. In fact, more generally, the larger is civic capital the smaller might be the need for institutions with similar effects (reduction in non-compliance in this paper, but also, e.g., control of the actions of the élites vis à vis the composition of public expenditure). In summary, we would expect strong institutional mechanisms to monitor tax evasion and elusion in polities with low civic capital, compensating for the lack of voluntary compliance. We would also expect such strong mechanisms in polities with high civic capital, but only if the political economy environment can support high tax rates.

Finally, and interestingly, institutional design has no bearing on σ, as long as $G > 0, B = 0$, in the model. On the other hand, when $B > 0, G = 0$, institutional design over σ and τ may induce a negative relationship between them:[7] polities where élites divert all tax revenues to transfers will tend to be characterized by fewer institutional checks over the distribution of rents to their favor and strong mechanisms to control evasion and elusion.

[3]Policy choices are typically taken at a much higher frequency than institutional design. But, with commitment, it is without loss of generality to have policy choices being taken repeatedly—for example, yearly—in each sub-period of a generation, while institutional design is chosen each generation.

[4]The equilibrium is characterized in closed form in the proof of Lemma 1, Appendix A.

[5]Formally, at equilibrium, when $G > 0$ and $B = 0$, $\frac{\partial^2 G}{\partial\lambda\partial\mu} > 0$; while when $G = 0$ and $B > 0$, $\frac{\partial^2 B}{\partial\lambda\partial\mu} < 0$.

[6]Formally, $\frac{\partial^2 G}{\partial\tau\partial\mu} > 0$ when $G > 0, B = 0$ and $\frac{\partial^2 B}{\partial\tau\partial\mu} > 0$ where $B > 0, G = 0$.

[7]Formally, $\frac{\partial^2 B}{\partial\tau\partial\sigma} < 0$; though this conclusion depends somehow on the sign of $\frac{\partial^2 B}{\partial\sigma\partial\mu}$, which is not straightforward to characterize.

Lack of commitment over policy choices on the part of élites. The institutional design analysis we have introduced follows the paper's assumption that élites have commitment over policy choices. In the interesting case in which élites at least partially lack such commitment, institutional design can serve the function of restricting or distorting the policy choice set of élites and possibly limiting the inefficiency due to lack of commitment. The underlying assumption is that institutional design choices are committed for a whole time period, typically a generation, while policy choices taken repeatedly each sub-period are not.[8]

Lack of commitment has striking implications for fiscal policy choices at equilibrium in the model in the paper, even before the institutional design choice over λ, σ, τ. First of all, the tax rate t will be maximal ($t = 1$, if not otherwise restricted), independently of aggregate tax compliance n and civic capital μ. Furthermore, whether tax revenues are spent on public goods or transfers simply depends on the relative size of $\theta(\sigma)$—the relative price of public goods to élites given that they have to forego the transfer $b = \sigma B$ to citizens—and α—the relative value of public goods with respect to rents in preferences. When $\theta(\sigma) < \alpha$, all tax revenues are spent on public goods G; while otherwise they are all spent on transfers B and b. The fact that $\theta(\sigma)$ is increasing in σ suggests then that institutional design over σ has a central role in this polity. Suppose that, with no costly investment in institutional mechanisms to facilitate civic control over the élites, $\sigma = 0$. In this case, élites without commitment will generally spend all tax revenues on transfers and $G = 0$ (as long as $\theta(0) > \alpha$). They might, however, have an incentive (as long as the costs associated to the investment on these institutions are small enough) to increase σ up to the point where $\theta(\sigma) \geq \alpha$, to commit to spending all tax revenues on providing public goods G. This is the case because, by committing to providing public goods, élites induce civic-minded individuals at equilibrium to comply more to taxes and hence increase the fiscal capacity of the state (the tax rate remains fixed at its maximal level).[9]

This is a powerful illustration, at least theoretically and with respect to those available in the literature, of the role of institutional design as a commitment device. It implies that the development of institutions which allow civic-minded citizens to monitor the élites' fiscal policy choices might be required as a commitment to spur state capacity and public good provision and hence allow a larger fiscal capacity. Different channels of the link between fiscal capacity, public good provision, and civic culture might, however, have different implications along these lines. It is not difficult to envision environments in which institutions which allow civic-minded citizens to monitor the élites act as complements to the spread of civic culture in the population as well as environments in which they act as substitutes. This will determine whether these institutions will feature more or less prominently in polities characterized by high levels of civic capital and whether their role will increase or decline with the growth of civic capital.

It is worth noticing that in the case in which élites lack commitment in policy choices, a different institutional design mechanism can play an important role in limiting the inefficiency due to lack of commitment. Élites could have, in fact, an incentive to delegate the power to affect policy choices at least in part to non-élites. Indeed, in the context of the model in the paper, the élites would generally have an incentive to commit to delegate fiscal policy in part to the tax-paying citizens. This would induce a commitment to

[8]See, for example, Acemoglu (2003), Acemoglu, Egorov, Sonin (2015), Bisin and Verdier (2017) for models along these lines.

[9]Formally, this is the case when $\theta(0)\frac{\xi_L(\mu,0)}{\xi_H(\mu,0)}$ (evaluated at the maximal t) is $< \alpha$; where $\frac{\xi_L(\mu,0)}{\xi_H(\mu,0)}$, in the notation of the paper, is the ratio of taxes raised when spent on transfers over taxes raised when spent on public goods.

the provision of public goods at equilibrium and, possibly, to a reduction of the tax rate t. Institutional forms of such delegation mechanisms can be represented by concession of voting rights in parliamentary elections, fiscal independence via, for example, charters to geographical or functional sub-groups of the citizenry, and the like.[10]

Inter-generational cultural transmission with imperfect altruism. A final comment on the inter-generational transmission of civic culture: In the model of the paper, it is postulated to depend on the equilibrium utility of civic-minded individuals minus the utility of non civic-minded materialists, which induces the complementarity leading μ to increase with G. Interpreting cultural transmission as the outcome of the socialization choices of the parents, these dynamics obtain when parents are perfectly altruistic with respect to children and socialize them (possibly imperfectly) to the highest utility they (the children) can achieve. A different take on socialization choice, taken by Bisin and Verdier (2001), has parents only imperfectly altruistic, evaluating their children's choice with their own (the parents') preferences. In this case, a dimension of substitutability is embedded in the dynamics, and minority cultural groups tend to have stronger socialization incentives, other things equal. This substitutability may crucially impact the dynamics, inducing stable interior stationary states even when the élites spend all tax revenues on public goods.[11]

REFERENCES

ACEMOGLU, D. (2003): "Why not a Political Coase Theorem? Social Conflict, Commitment, and Politics," *Journal of Comparative Economics*, 31, 620–652. [1348]

ACEMOGLU, D., G. EGOROV, AND K. SONIN (2015): "Political Economy in a Changing World," *Journal of Political Economy*, 123 (5), 1038–1086. [1348]

ACEMOGLU, D., S. JOHNSON, AND J. A. ROBINSON (2006): "Institutions as the Findamental Cause of Long-Run Growth," in *Handbook of Economic Growth*, ed. by P. Aghion and S. Durlauf. Amsterdam: Elsevier. [1345]

ALESINA, A., AND P. GIULIANO (2015): "Culture and Institutions," *Journal of Economic Literature*, 53 (4), 898–944. [1345]

ANGELUCCI, C., S. MERAGLIA, AND N. VOIGTLANDER (2017): "The Medieval Roots of Inclusive Institutions: From the Norman Conquest of England to the Great Reform Act," NBER 23606. [1349]

BESLEY, T., AND T. PERSSON (2019): "Democratic Values and Institutions," *American Economic Review: Insights*, 1 (1), 59–76. [1345]

BISIN, A., AND T. VERDIER (2001): "The Economics of Cultural Transmission and the Dynamics of Preferences," *Journal of Economic Theory*, 97, 298–319. [1349]

——— (2017): "On the Joint Evolution of Culture and Institutions," NBER 23375. [1348]

LIZZERI, A., AND N. PERSICO (2004): "Why Did the Élites Extend the Suffrage? Democracy and the Scope of Government With an Application to Britain's "Age of Reform"," *Quarterly Journal of Economics*, 119 (2), 707–765. [1349]

NUNN, N. (2014): "Historical Development," in *Handbook of Economic Growth*, Vol. 2, ed. by P. Aghion and S. Durlauf. North-Holland, 347–402. [1345]

Co-editor Joel Sobel handled this manuscript.

Manuscript received 14 January, 2020; final version accepted 14 January, 2020; available online 29 January, 2020.

[10]For an interpretation along these lines of important historical phenomena of institutional design, see Angelucci, Meraglia, and Voigtlander (2017) and Lizzeri and Persico (2004).

[11]In the paper, on the other hand, μ converges to either 1 or 0 if not exogenously restricted otherwise.