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Political Culture and Democratisation

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Abstract

This research claims that the transmission of political-culture matters for the transition towards democracy and for becoming a stable democracy. However, some important long-standing unresolved issues and some contextual factors of a society affect the strength of the political transmission of preferences. They influence the steady state of the share of citizens who prefer a democratic system and, hence, the probability of democratisation for autocratic societies and the probability of remaining a democracy for democratic societies. A model of political-cultural transmission with overlapping generations is developed to examine the effect of inequality, democratic effectiveness, corruption, elite uncertainty and extra-elite socialisation on the probability of becoming or remaining a democracy, through their impact on the transmission of political preferences in the long run among citizens. The theoretical analysis shows that, in autocracies, inequality, elite uncertainty, and extra-elite socialisation increase the transmission of democratic political culture, which, in turn, increases the probability of democratisation. In counterpart, in democracies, inequality and corruption decrease the transmission of democratic political culture and, therefore, the probability of remaining in democracy.

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1. Introduction

Most economists, political scientists, and policymakers have realised that factors like inequality, corruption, system effectiveness and uncertainty affect support for democracy and thus the transition to democracy in autocratic countries or democratic consolidation in democratic countries. However, there is little research on how these factors affect support for democracy. Much of the theoretical and empirical work focuses either on the relationship between inequality and the likelihood of democratisation or on how support for democracy affects subsequent democratic change (Acemoglu & Robinson, 2006; Answell & Samuels, 2014; Boix, 2003; Claassen, 2020). Nevertheless, the idea that democratic support matters for democracy and its consolidation has raised interest among scholars, increasing the empirical research examining the effect of inequality and corruption on support for democracy (e.g. Anderson & Tverdova, 2003; Krieckhaus et al., 2014; Linde & Erlingsson, 2013).

Moreover, political and social scientists have long described and theorised the importance of political socialisation as a channel through which political culture develops and serves to create the basis for long-term support for a political system. It can be resumed as follows. 1) Political socialisation matters in the evolution of political culture as it predisposes the new generation to absorb civic culture through exposure to the political attitudes and behaviour of the old generation (Almond & Verba, 1963). 2) The process of political socialisation helps the political system's legitimation which is necessary for the maintenance of the most enduring form of political system support (Easton, 1965). Another important implication from systems analysts and democratic theorists is that long-term political system ineffectiveness in meeting citizens' expectations erodes system legitimacy and thus undermines support for a political system (Easton, 1975; Lipset, 1959).

This research provides a framework to analyse the interaction between political-cultural changes, political systems principles, and long-term experience with its performance. Further, it allows studying the impact of the factors that originated the political culture changes towards the transition to a democratic political system (in autocratic countries) or democratic consolidation (in democratic countries). It acknowledges the importance of social networks for individuals since it influences, through socialisation and learning, their values and political preferences. It also recognises the influence that political systems ideologies and their long-term performance have in the evolution of political preferences of individuals depending on the socio-economic and cultural background from which they have emerged.

Specifically, I first develop a basic model of political socialisation and cultural transmission. In this model, the cultural trait to be transmitted is the ideological preference for a political system.¹ There are two classes of homogeneous agents, the elite and the poor, and two possible political systems, autocracy and democracy. Parents exhibit imperfect empathy since the well-being of their children matters to them, yet they analyse the future situation of their children from their views about the political systems. Parental socialisation is costly but increases the likelihood that a child will acquire the political preference of his or her parents. Thus, if citizens who prefer a democratic system are a minority, then democratic-type parents have incentives to increase their socialisation effort, which will, in turn, strengthen the preference for a democratic system. Under reasonable conditions, endogenous socialisation effort leads to an equilibrium with heterogeneous preferences for a political system. This model explains the existence of heterogeneous political preferences among citizens but does not explain how factors such as inequality, elite uncertainty, the effectiveness of a political system, corruption and extra-elite socialisation alter the equilibrium of heterogeneous preferences for a political system.

To examine how inequality affects the transmission of political preferences, I introduce class inequality (model 3.2) into the basic model. The autocratic ruler always favours the elite, which, in turn, helps him to maintain his regime. The benefit and the cost of the elite depend on the level of inequality in the country. Since the country starts as an autocracy, the political preference that democratic parents transmit to their children is towards the principles of democracy, as they have no democratic experience. It predicts that an increase in inequality increases the transmission of preferences towards a democratic political system either when the cost of inequality is high enough or when inequality is so high that its effect on citizens' utility more than offsets their ideological preferences.

Two extensions of model 3.2 are made in order to analyse how the long-term performance of a political system in tackling inequality (model 3.3) and corruption (model 3.4) affects the transmission of political preferences. The assumption of perfect democracy is relaxed in these models. They require citizens to have large enough experience with the performance of a democratic political system, such that they consider it when transmitting their political preferences. Model 3.3 shows that the lower the effectiveness in reducing inequality is, the lower the transmission of preferences towards a democratic political system will be. Model 3.4 predicts that the higher the level of corruption is, the lower the transmission of preferences

¹ It follows Bisin & Verdier's (2000, 2001) models in which children are first exposed to parental socialisation and, if it fails, are randomly matched to the population role model.

towards a democratic political system will be. Besides, it suggests that societies with a higher level of corruption are more susceptible to being influenced by alternative agents of socialisation, as corruption erodes belief in any political system, leading to a very weak parental socialisation.

This study also explores an alternative channel that can lead to an increase in the transmission of preferences towards a democratic system, the elite uncertainty about the autocratic ruler type. To this end, two possible types of autocratic rulers, each aligned with the interest of a different class, are introduced into model 3.2. Elite uncertainty comes from the risk of expropriation that the elite may face when the autocratic ruler aligns with the interests of the poor. Expropriation signals the ruler's loyalty to the poor and helps him gain power as the elite become powerless. Model 3.5 shows that elite uncertainty increases the transmission of preferences towards a democratic political system. Additionally, I extend the uncertainty model to examine how the elite can influence the political preferences towards a democratic political system by using schools and the mass media it owns (model 3.6). It is called the Extra-elite socialisation model and helps to explore alternative mechanisms that can induce a transmission of political preferences.² The results suggest that extra-elite socialisation increases the transmission of preferences towards a democratic political system.

Furthermore, this framework studies the influence of the above factors on either the probability of democratisation or consolidation of democracy.³ In countries without democratic experience, the models of inequality, elite uncertainty and extra-elite socialisation serve to examine the impact of those factors on the likelihood of democratisation. In counterpart, in countries with democratic experience, the models of the effectiveness of democracy and corruption allow examining how democratic system effectiveness affects the probability of remaining democratic. It is important because it gives a better understanding of the essential role of the political-cultural evolution of preferences in the maintenance or change of a political system.

This paper is organised as follows. Section 2 describes the related literature. Section 3 presents the basic model with all its extension and the result of the transmission dynamics of political culture. Section 4 then shows how each of the factors analysed in the models and their extensions impact the path to a stable democracy. It is followed by section 5, which sets out the conclusions and some avenues for future research.

 $^{^{2}}$ Extra-elite socialisation is a type of oblique socialisation used by the elite to influence the political preference of citizens. To do so, they use agents of socialisation that they own, such as schooling and mass media.

³ Clearly, the influence of these factors comes from their impact on the transmission of political preferences.

2. Related Literature

The model for this research follows the seminal work of Bisin & Verdier (2000, 2001) on the cultural transmission of preferences. It investigates the evolution of cultural traits in a population of socially interacting individuals. It explains the persistence of cultural minorities and the two-way causality between socialisation decisions and policy outcomes. This article is also related to the paper of Ticchi, Verdier & Vindigni (2013). They develop a theory of endogenous regime transition in which the transmission of political culture matters for regime consolidation. However, neither of these papers explains how issues like inequality, political system effectiveness, corruption, political uncertainty and extra-elite socialisation affect the evolution of the political system preferences among economic classes. To demonstrate this claim, I extend Bisin & Verdier's model by introducing two homogeneous classes of agents (the poor and the economic elite) and two political systems (autocracy and democracy). It also considers the endogenous cost the elite will incur when they wish to maintain autocracy.

The formal study of the dynamics of the interaction between the political culture changes of the economic classes and the preferences for political systems in this article is, to my knowledge, new. Namely, endogenous modelling of the impact of inequality, corruption and democratic effectiveness in shaping preferences for a political system through the process of political socialisation is one of the main contributions of this article. However, it has been widely discussed and theorised in sociology and political sciences (Almond & Verba, 1963; Easton, 1965, 1975; Inglehart, 1997; Lipset, 1959; Mauk, 2020). For instance, the political system support theories suggest that long-term experiences with a political system influence the evolution of its support (Almond & Verba, 1963; Easton, 1965, 1975; Lipset, 1959). These theories imply that long-term experience with political system effectiveness (in dealing with issues such as inequality and corruption) should affect citizens' preferences and support for a political system.

This research is related to the political economy of redistribution literature, which assumes that democracy will lead to redistribution as it extends the vote rights of the poor (Alesina & Rodrick, 1994; Bénabou, 2000; Meltzer & Richard, 1981; Roberts, 1977; Romer, 1975). It is also connected to the models that, in addition, incorporate social unrest in their analysis (e.g. Acemoglu & Robinson, 2006; Boix, 2003; Grossman, 1995; Roemer, 1985). In these models, inequality matters in shaping political transitions. Nevertheless, the approach developed here is

different. Inequality affects the expected utility of parents, influencing the transmission of political preferences, which then leads to political transitions.

This work can be contrasted with empirical work focusing on the effect of democracy on corruption (Manow, 2005; Martinola & Jackman, 2002; Mohtadi & Roe, 2003; Paldam, 2002; Rock, 2009, 2017; Sandholtz & Koetzle, 2000). An alternative point of view is taken into account here.⁴ In this model, corruption affects the functioning of the political democratic system of the country through its effect on redistribution.⁵

Theoretical modelling of corruption considers its effect on political ideology, as stated by the political science literature, which studies how corruption affects political attitudes, system legitimacy and trust (Anderson & Tverdova, 2003; Bratton et al., 2005; Della Porta, 2000; Mishler & Rose, 2001; Seligson, 2002). It is also related to political ideology literature (Higgs, 1987, 2008; Hinnich & Munger, 1994; North, 2005). This model follows the view of this literature in which political ideology is considered programmatic but with a coordinating role of expectations. However, this analysis goes further and focuses on the impact of corruption in the transmission of political system preferences. In this study, corruption affects the political ideology of democratic citizens and the distribution of resources, expected to be improved under a democratic political system. ⁶ It will shape citizens' support for a political system and thus the probability of democratisation or democratic consolidation.

In the last two extensions of the model, the assumption that autocratic rulers favour the economic elite over the poor is relaxed. It is in line with the literature on expropriation, state autonomy, property rights and institutional constraints. According to the literature on expropriation and state autonomy, autocratic rulers have incentives to expropriate elites and exclude them from their ruling coalition to gain autonomy and power (Albertus, 2015; Albertus & Menaldo, 2012; Trimberger, 1978).⁷ The literature on property rights and institutional constraints reinforces this idea. It suggests that under autocratic political systems, rulers have fewer institutional constraints allowing them to violate property rights easily through policy changes (Albertus, 2015; Ansell & Samuels, 2014; North, 1990; Olson, 1993). This model introduces elite uncertainty about the type of autocratic ruler based on this literature. But in

⁴Corruption is considered a long-standing issue, as the level of corruption changes slowly over time.

⁵ Much of the political economy literature link inequality and corruption when explaining why democratisation does not necessarily bring redistribution (e.g. Acemoglu & Robinson, 2006; Acemoglu et al., 2015; Hellman, 1998; Hellman et al., 2003; Houle, 2018; Uslaner & Brown, 2005).

⁶ Citizens who prefer a democratic system because of its ideals may no longer believe in it if, once established, it does not follow its principles. As Warren (2004) states, corruption undermines the culture of democracy.

⁷ This policy is a powerful one, it allows autocratic rulers to reduce political insecurity and ensure their survival in office by eliminating their powerful rivals, the elites (Albertus, 2015).

addition, this study focuses on the implication of elite uncertainty about the leader type in the transmission of preferences for a political system and how it can affect the probability of democratisation, a channel not yet investigated by the existing literature.

Lastly, this investigation is connected to the literature studying the role of schooling and the media as agents of political socialisation (e.g. Amnå, 2009, 2012; Sapiro, 2004).⁸ Most of this literature emphasises the role of schooling and the media on political interest, civic engagement and political participation. Instead, this framework analyses the role of schooling and the media as agents of socialisation and examines how they affect the transmission of policy preferences for a political system. The economic elite uses these agents of socialisation as tools to influence citizens' political preferences.

3. Political preferences transmission in an unequal world

I develop an overlapping generation model of political socialisation. It is closely related to the work of Bisin & Verdier (2000, 2001). Section 3.1 sets out the main ideas incorporating two classes of actors, the elite and the poor, and lays the groundwork for further extensions in later subsections of this article.

3.1 Socialisation and political preferences

There is a continuum of agents in each generation. Each agent lives for two periods, first as a child and then as an adult. Each individual has one offspring, which makes the population stationary and normalises to one. The population is composed of two homogeneous classes of agents (*C*), the poor (*P*) and the economic elite (*E*), such that $C \in \{P, E\}$. Let q_t denote the proportion of the poor in the population. There are two possible political systems, Autocracy (*A*) and Democracy (*D*). Among individuals, the preferences (*p*) related to the political systems are of two types: $p = \{p_i, p_j\} \in \{D, A\}$. Letting the $U_C^{p_i p_j}$ denote the perceived utility of a parent type p_i belonging to class *C* when he has a child of type p_j . I simplify the basic model by making ideological preferences symmetric, $U_P^{DD} = U_P^{AA} = U_E^{DD} = \overline{U}$ and $U_P^{DA} = U_P^{AD} = U_E^{DA} = U_E^{AD} = \underline{U}$.

⁸ See Moeller & de Vreese's (2013) empirical study of the differential role of the media as an agent of political socialisation in Europe.

The transmission of political system preferences in each class occurs through social learning. Children are born without well-defined preferences or traits. They acquired their preferences through the direct influence of their parents (vertical transmission) or the influence of the general population (oblique/horizontal transmission). Parents' altruism motivates them to socialise their children, despite the cost they may incur. Namely, parents perceive the welfare of their children through the filter of their preferences, "imperfect empathy". As a result, parents always want to socialise their children to their preferences (Bisin & Verdier, 2000, 2001).

The socialisation process in each class occurs in two steps. First, each parent decides how much effort to put into socialising their child to their preferences, denoted by τ_c^p . Children are exposed to their parents' socialisation and adopt their parents' preferences with a probability of τ_c^p . With a probability of $1 - \tau_c^p$, parental socialisation fails, and then the child is randomly matched with an individual of the previous generation and adopts their preferences. Let d_t be the share of people type D in the population at the time t. $d_1(d_2)$ represents the share of democratic people among the poor (the elite). Then the transition probabilities that a parent of preference p_i has a child with a preference p_j ($P_c^{p_i, p_j}$) are:

(1.a)
$$P_{P}^{D,D} = \tau_{P}^{D} + (1 - \tau_{P}^{D})d_{t}, \qquad P_{P}^{D,A} = (1 - \tau_{P}^{D})(1 - d_{t})$$
$$P_{P}^{A,A} = \tau_{P}^{A} + (1 - \tau_{P}^{A})(1 - d_{t}), \qquad P_{P}^{A,D} = (1 - \tau_{P}^{A})d_{t}$$

(1.b)
$$P_E^{D,D} = \tau_E^D + (1 - \tau_E^D) d_t, \qquad P_E^{D,A} = (1 - \tau_E^D)(1 - d_t)$$
$$P_E^{A,A} = \tau_E^A + (1 - \tau_E^A)(1 - d_t), \qquad P_E^{A,D} = (1 - \tau_E^A) d_t.$$

It follows that at t + 1, the share of adults of type D is:

$$(2) d_{t+1} = d_t + (1 - d_t) [d_1 q_t \tau_P^D + d_2 (1 - q_t) \tau_E^D] - d_t \{ (1 - d_2) (1 - q_t) \tau_E^A + (1 - d_1) q_t \tau_P^A \}$$

Parents' socialisation choice depends on the parental perceived utility for their child, the transition probabilities and the parental socialisation cost. $H(\tau_c^p)$ denotes the cost of socialisation effort by class, τ_c^p . I assume that it is convex and guarantees an interior solution: $H'(.) \ge 0, H'(0) = 0, H''(.) > 0$ and $\lim_{\tau^p \to 1} H'(\tau_c^p) = \infty$. Assuming no discount rate, each parent with preferences *p* chooses τ_c^p to maximise,

(3)
$$U_C^p = P_C^{p_i, p_i} \overline{U} + P_C^{p_i, p_j} \underline{U} - H(\tau_C^p).$$

From (1.a), (1.b) and (3), it follows,

(4.a)
$$U_{P}^{D} = [\tau_{P}^{D} + (1 - \tau_{P}^{D})d_{t}]\overline{U} + [(1 - \tau_{P}^{D})(1 - d_{t})]\underline{U} - H(\tau_{P}^{D})$$
$$U_{P}^{A} = [\tau_{P}^{A} + (1 - \tau_{P}^{A})(1 - d_{t})]\overline{U} + [(1 - \tau_{P}^{A})d_{t}]\underline{U} - H(\tau^{A})$$

(4.b)
$$U_E^D = [\tau_E^D + (1 - \tau_E^D) d_t] \overline{U} + [(1 - \tau_E^D)(1 - d_t)] \underline{U} - H(\tau_P^D)$$
$$U_E^A = [\tau_E^A + (1 - \tau_E^A) (1 - d_t)] \overline{U} + [(1 - \tau_E^A) d_t] \underline{U} - H(\tau^A).$$

The maximisation leads to a unique solution, given by the first-order condition (FOC) for each parent with a preference for a determined political system. Let $\Delta U \equiv \overline{U} - \underline{U}$ represent the benefit for a parent of having a child with the same preferences.

(5)
$$H'(\tau_P^D) = (1 - d_t)\Delta U, H'(\tau_P^A) = d_t\Delta U$$
$$H'(\tau_E^D) = (1 - d_t)\Delta U, H'(\tau_E^A) = d_t\Delta U.$$

The left side of each FOC represents the marginal cost of extra parental socialisation, and the right side represents the expected marginal benefit. Notice that at the margin, an incremental increase in parental socialisation increases the probability for a child to be vertically socialised, who otherwise would have been obliquely socialised, yielding a benefit ΔU . The FOCs also show that parental socialisation incentive decreases when the share of individuals with the same preference increases since vertical socialisation substitutes oblique socialisation. Similarly, as the share of individuals with preference A(B) decreases, the intensity of vertical socialisation of type A(B) increases.⁹ This implies that there is a steady state equilibrium (SSE) in which the size of each group remains constant $(d_t = d_{t+1})$, and therefore both political preferences are represented in society. Furthermore, from (5) $\tau_P^D = \tau_E^D$ and $\tau_P^A = \tau_E^A$, given the assumption of symmetry of preferences made before. Consequently, I introduce $\tau^D = \tau^D_P = \tau^D_E$ and $\tau^A =$ $\tau_P^A = \tau_E^A$ on the SSE equation.¹⁰

Then from (2), it implies that in SSE,

(6)
$$d_t(1-d_t)(\tau^D-\tau^A)=0.$$

⁹ Bisin & Verdier (2001) called this phenomenon "cultural substitution". ¹⁰ From (5), given the symmetric ideological preferences assumption $\tau_P^D = \tau_E^D$ and $\tau_P^A = \tau_E^A$.

Equation (6) can be satisfied when there is a society with homogeneous preferences for a political system, either in a democratic system ($d_t = 1$) or in an autocratic one ($d_t = 0$). A heterogeneous equilibrium is possible when $\tau^D = \tau^A$, that is, when parents in the two groups with different political system preferences invest the same level of socialisation effort. From (6) and the FOCs in (5) yields a unique interior SSE.

Lemma 1: There is a unique interior SSE in which $d^* = \frac{1}{2}$ and $H'(\tau^D) = H'(\tau^A) = \frac{\Delta U}{2}$ such that $\tau_P^D = \tau_E^D = \tau_P^A = \tau_E^A = \tau^*$.

There are three SSEs. Two of which materialise in societies with homogeneous preferences for a political system. These are the SSEs at 0 and 1. The last SSE is $d_t = d^*$. When the share of the population with preferences for a democratic system is below the SSE, $\underline{d} < d^*$, democratic-type parents try harder than autocratic-type parents to socialise their children. It is because the group with autocratic preferences belongs to a larger group. As a result, $d_{t+1}(\underline{d}) > \underline{d}$, and over time the share of the population who prefers a democratic system will converge to d^* . On the contrary, when $d_t = \overline{d} > d^*$, the group with democratic preference socialises less, as they represent a larger share of the population $(d_{t+1}(\overline{d}) < \overline{d})$, and over time the population's democratic share will converge to d^* . The assumption of symmetric ideological preferences allows a simplified result where the SSE $d^* = \frac{1}{2}$, but quantitatively the result is general.¹¹

3.2 Inequality and the transmission of political preferences

I extend the previous model to see how inequality affects the preference for a political system in a society. In particular, in autocratic societies with high inequality, the former political system fails, as a larger share of the population is unhappy with it. The people wish to change to a better political system, fair and with better redistribution.

I consider that inequality discourages the preference for an autocratic system in a society. It does through its impact on the income distribution among classes. In autocratic systems, the ruler, who will not necessarily consider the preferences of the whole population, will decide on

¹¹ With asymmetric preferences $d^* = \frac{1}{2} \left\{ \frac{d_1 q_t \Delta U_P^D [d_2(1-q_t)\Delta U_E^D + (1-d_2)(1-q_t)\Delta U_E^A] + d_2(1-q_t)\Delta U_E^D [d_1 q_t \Delta U_P^D + (1-d_1)q_t \Delta U_P^A]}{[d_1 q_t \Delta U_P^D + (1-d_1)q_t \Delta U_P^A][d_2(1-q_t)\Delta U_E^D + (1-d_2)(1-q_t)\Delta U_E^A]} \right\}$ and $d_1 q_t H'(\tau_P^D) = d_2(1-q_t)H'(\tau_E^D) = (1-d_1)q_t H'(\tau_P^A) = (1-d_2)(1-q_t)H'(\tau_E^A).$

redistribution. He or she could give an advantage to one class over the other generating discontent. The disadvantaged class will prefer another political system, say democracy, which allows them, through democratic elections, to decide on a better redistribution for the majority of the population. Moreover, inequality discourages the preference for an autocratic system through its effect on the cost of maintaining autocracy. For instance, the elite will no longer prefer an autocratic political system if the cost of maintaining autocracy or the risk of expropriation is so high that the elite have no interest in continuing to finance it (Albertus & Gay, 2017).

Supposing that the country starts as an autocracy. I made three assumptions when developing this model.

Assumption (1): The alternative political system to autocracy is perfect democracy ($\theta = 0$).

Citizens living under autocracy have no experience with a democratic political system, so they do not know how well it will work. Thus, citizens in autocratic countries will believe in the values and principles that democracy advocates. Therefore, citizens will expect political outcomes in a democratic system to be those of a perfect democracy. The parameter θ denotes the inequality between the economic elite and the poor.

Assumption (2): Economic elite captures autocratic regimes at a cost, $c(\theta)$.

It allows the economic elite to influence policies in their favour. Nevertheless, capturing autocratic regimes is costly for the elite $(c(\theta))$. The cost is assumed to increase with inequality (θ) .¹² The reasons behind it are as follows. Greater inequality increases people's pressure on autocratic authorities, making them more expensive to capture. Greater inequality can lead to social unrest and revolution in a country where the only hope for an autocratic regime to survive is to use costly repression. Even in religious countries, greater inequality destabilises autocratic regimes, which are well known for using religious networks to distribute income to the poor to reduce the possible threats of regime instability. $c(\theta)$ represents all these costs. It denotes the individual cost incurred by the elite to maintain the autocratic ruler in power.

¹² I assume that $c(\theta)$ is convex and guarantees an interior solution $C'(.) \ge 0, C'(0) = 0, C''(.) > 0$ and $\lim_{\theta \to 1} C'(\theta) = \infty$. Moreover, in an unequal society, the elite will want to maintain an autocratic system only if $c'(\theta) \le u$.

Assumption (3): Parents have a cognitive bias when defining the expected utility of their children.

Parental expectation about their children's utility depends on their cognitive bias about the political system in which they expect their children to live. Namely, democratic parents expect their children to live in a democracy only if they succeed in transmitting their democratic preferences. Democratic parents believe that the transmission of democratic preferences is vital for the actual arrival of democracy as a new political system.

The idea is that if children are endowed with strong democratic beliefs, they will support and fight, if necessary, for the establishment and consolidation of democracy. This will lead, in democracy, to the utility that democratic parents expected for their children. Similarly, democratic parents believe that if they fail to transmit their political preferences, they will have autocratic-type children, who will continue to live in an autocratic system and have a utility that corresponds to their class.

Assumption (4): For all $p \in \{A, D\}, C \in (P, E), H(\tau_C^p) = s_C^p \tau_C^{p^2}$.

 $s_C^{p_i}$ represents the share of *p*-type individuals among class *C*.

Under assumption 1, in democracy, parents expect their children to have an equal share of the country's income (*u*), independent of their economic class. Under assumption 2, parents know that autocratic governments favour the elite over the poor in the distribution of the country's income. Moreover, elite parents know that the benefit they receive from inequality has a cost $c(\theta)$. Let me define the parental expected utility as follows $U_c^p(\theta) = (1 + \beta * \theta)u - \frac{1}{2}(1 + \beta)c(\theta)$. It represents the expected net parental utility of having a child of type p belonging to class *C*. The parameter θ denotes the inequality between the economic elite and the poor. β is a dichotomous variable that takes the value of 1 if the individual belongs to the elite and -1 otherwise. Notice that, under perfect democracy ($\theta = 0$), the income distribution across classes is the same (*u*).

The total perceived utility of a parent type p_i belonging to class *C* when he or she has a child of type p_j has two components. The ideological utility of parent type p_i of having a child of type p_j does not depend on class. The other is the expected net parental utility of a p_i -type parent from having a p_i -type child who belongs to class *C*. Then

$$U_P^{DD} = U_E^{DD} = \overline{U} + u, U_P^{DA} = \underline{U} + (1 - \theta)u, U_E^{DA} = \underline{U} + (1 + \theta)u - c(\theta)$$
$$U_P^{AA} = \overline{U} + (1 - \theta)u, U_E^{AA} = \overline{U} + (1 + \theta)u - c(\theta), U_P^{AD} = U_E^{AD} = \underline{U} + u.$$

Now, each parent with preferences p chooses τ_c^p to maximise,

(7)
$$U_{C}^{p} = P_{C}^{p_{i},p_{i}}U_{C}^{p_{i},p_{i}} + P_{C}^{p_{i},p_{j}}U_{C}^{p_{i},p_{j}} - H(\tau_{C}^{p}).$$

Incorporating inequality in parents' expected utilities increases the overall preference for democracy among the poor since $\Delta U - \theta u < \Delta U < \Delta U + \theta u$. Among the elite, the preference for a political system depends on the difference between $\theta u - c(\theta)$. If this is positive (negative), the parents' overall preference for autocracy increases (decreases). However, when $c(\theta) < \Delta U + \theta u$ ($\theta u < \Delta U$), children from the elite (poor), who prefer an autocratic system, will choose autocracy over democracy, and parents from the elite (poor) will socialise their children, as they will still benefit from socialisation.¹³ Nevertheless, the benefits from socialisation from elite (poor) parents who prefer an autocratic system are smaller, as their objective functions become,

$$U_P^A = [\tau_P^A + (1 - \tau_P^A)(1 - d_t)]\{\overline{U} + (1 - \theta)u\} + [(1 - \tau_P^A)d_t]\{\underline{U} + u\} - H(\tau_P^A)$$
$$U_E^A = [\tau_E^A + (1 - \tau_E^A)(1 - d_t)]\{\overline{U} + (1 + \theta)u - c(\theta)\} + [(1 - \tau_E^A)d_t]\{\underline{U} + u\} - H(\tau_E^A)$$

each equation has a unique solution given by its FOC,

(8)
$$H'(\tau_P^A) = d_t (\Delta U - \theta u)$$
$$H'(\tau_E^A) = d_t (\Delta U + \theta u - c(\theta))$$

analogously the FOC of a parent who prefers a democratic system are,

(9)
$$H'(\tau_P^D) = (1 - d_t)(\Delta U + \theta u)$$
$$H'(\tau_E^D) = (1 - d_t)(\Delta U - \theta u + c(\theta)).$$

¹³ A poor child who prefers autocracy will choose an autocratic system over a democratic system because $\overline{U} - \theta u > \underline{U}$. A child who prefers autocracy and that belongs to the elite will also choose an autocratic system over a democratic one since $\overline{U} + \theta u - c(\theta) > \underline{U}$, given that $c(\theta) < \Delta U + \theta u$.

Let d_C be the value of d_t at which $H'(\tau_C^D) = H'(\tau_C^A)$. Then \bar{d} is defined as the weighted linear combination of d_C of each class.

(10)
$$\overline{d} = q_t \left\{ \frac{1}{2} + \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + \left(1 - q_t \right) \left\{ \frac{1}{2} + \frac{1}{2} \left(\frac{c(\theta) - \theta u}{\Delta U} \right) \right\}.$$

Substituting (8)-(10) into (2) yields the following new SSE

(11)
$$d^{\theta} = \begin{cases} \frac{\overline{d} - [\overline{d}(1 - \overline{d})]^{1/2}}{\overline{d} - 1/2} & \text{if } q_0 \ge \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)} \\ \frac{\overline{d} + [\overline{d}(1 - \overline{d})]^{1/2}}{\overline{d} - 1/2} & \text{if } q_0 < \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)} \\ \overline{d} & \text{if } c(\theta) = 2\theta u \end{cases}$$

Proposition 1: Assume that Assumptions (1)-(4), $d_0 \neq \{0,1\}$ hold. Then there is a unique SSE d^{θ} such that

- (1) If $c(\theta) \ge \Delta U + \theta u$ and $\theta u \ge \Delta U$, then d_t converges to $d^{\theta} = 1 > d^*$.
- (2) If $c(\theta) \leq \theta u \Delta U$ and $\theta u \geq \Delta U$, then d_t converges to $d^{\theta} = \frac{1}{2} + \frac{c(\theta)}{4\left(\Delta U + \theta u \frac{c(\theta)}{2}\right)}$ and $\frac{\partial d^{\theta}}{\partial \theta} > 0.$ (3) Otherwise,
 - (i) $d_t \text{ converges to } d^{\theta} \ge d^* \text{ and } \frac{\partial d^{\theta}}{\partial \theta} > 0 \text{ if } q_0 \ge \frac{1}{2} \frac{c(\theta)}{4\left(\theta u \frac{c(\theta)}{2}\right)} \text{ or } c(\theta) = 2\theta u.$ (ii) $d_t \text{ converges to } d^{\theta} < d^* \text{ and } \frac{\partial d^{\theta}}{\partial \theta} > 0 \text{ if } q_0 < \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)}.$

Furthermore d^{θ} increases with θ and as $\theta \to 0$, the SSE is characterised by $d^{\theta} = d^*$.

The main idea of Proposition 1 is that in societies with high inequality, the benefit of the poor increases when they prefer a democratic system to an autocratic one.¹⁴ For the poor, high inequality makes socialisation more interesting for democratic-type parents and less interesting for autocratic-type parents. For the elite, inequality decreases the benefit of choosing an

¹⁴ A democratic political system is expected to be more egalitarian than an autocratic one since, in that system, the population majority decides policies.

autocratic system by increasing the cost of maintaining it, which reduces the return from having a child who prefers an autocratic political system. It makes socialisation less attractive for autocratic-type parents. All this suggests that the SSE with inequality must have more democratic types than the SSE without inequality.

Clearly in (1), if $c(\theta) > \Delta U + \theta u$ and $\theta u \ge \Delta U$ then, within the elite, a child who prefers an autocratic system will choose a democratic system, as the cost of maintaining autocracy is too high. Because of parents' imperfect empathy for their children's preferences, parents who prefer an autocratic system will choose not to socialise their children to their political preferences. Similarly, if inequality is high enough, $\theta u \ge \Delta U$, then poor parents who prefer an autocratic system will choose not to socialise their children, as the expected revenue loss due to inequality is too high. As a result, the consolidation of democracy occurs when $c(\theta) > \Delta U + \theta u$ and $\theta u > \Delta U$ for any starting $d_t \in \{0,1\}$ as the population dynamics will evolve towards $\lim_{t\to\infty} d_t = 1$.

In (2), the benefit for the poor under a democratic political system is higher than the benefit of having a child with the same preferences ($\Delta U < \theta u$), so democracy will be their preferred system. For the elite, if the benefice of inequality and having a child with the same preferences are higher than the cost of maintaining autocracy ($c(\theta) < \theta u - \Delta U$), autocracy will be their preferred system. As a result, the population splits into two groups, each with homogeneous preferences for an opposing political system, with the poor preferring a democratic system and the elite preferring an autocratic one. It implies that the increase in inequality increases the cost of maintaining the autocratic system leading to a new SSE with more democratic types than the SSE without inequality. The SSE level d^{θ} increases with θ because higher inequality makes socialisation less attractive for autocratic-type parents compared to democratic-type parents. However, for both types of parents, an increase in inequality makes socialisation more attractive. It means that inequality, through its impact on the cost of maintaining autocracy, reduces the marginal benefit of socialisation for autocratic-type parents. Nevertheless, for them, the benefit of inequality outweighs the cost it involves since, in equilibrium, their level of socialisation is higher than their level of socialisation without inequality.

All other cases will lead to an interior SSE in which each class consists of citizens with heterogeneous preferences, as shown by (3). In general, inequality increases the preference for a democratic political system $\left(q_0 \ge \frac{1}{2}\right)$. I take the simplest case to explain the intuition of (3). When the cost of inequality is high enough $(c(\theta) = 2\theta u)$, the benefit of the two economic classes who prefer the same political system is similar. Socialisation becomes more attractive

to democratic-type parents and less attractive to autocratic-type parents across the entire population. It implies that in societies with high inequality, the cost of maintaining a system is also high, as it increases with inequality. In this case, both classes are better off under democracy, resulting in a SSE with more individuals preferring a democratic system over an autocratic system. In addition, the SSE d^{θ} increases in θ because higher inequality makes socialisation less attractive for autocratic-type parents. Therefore, in equilibrium, the level of socialisation is lower than the level of socialisation without inequality.

3.3 Inequality and the Effectiveness of Democracy

In the previous model, the assumption was that since citizens in autocratic countries have no experience with democracy, they expect political outcomes in a democratic system to be those of a perfect democracy. In this part, I relax this assumption. Instead, I assume that the country has already transitioned towards democracy and that its citizens have experience with a democratic political system. The assumptions made in developing this model are as follow.

Assumption (5): The political system is an imperfect democracy ($\alpha > 0$).

Citizens living in a democracy have realised that the expected political outcomes as redistribution depend on the efficiency of the system $\alpha \in [0,1]$ and that the effectiveness of democracy increases as $\alpha \to 0$. Thus, an increase in the effectiveness of democracy can lead to greater economic equality.

In the setup of this model, I introduce a parameter α . In particular, I assume that for some $\alpha \in [0,1], \ U_P^{DD} = \overline{U} + (1 - \alpha\theta)u \ge U_P^{AD} = \underline{U} + (1 - \alpha\theta)u$ and $U_E^{DD} = \overline{U} + (1 + \alpha\theta)u \ge U_P^{AD} = U + (1 + \alpha\theta)u$.¹⁵

Assumption (6): The cost of investment, $(1 - \alpha)c(\theta)$, made by the elite to increase their de facto power increases when inequality and the effectiveness of democracy increase.

In a democracy, de jure power favours the population majority (the poor in this model). Political outcomes like redistribution depend not only on the allocation of de jure power but also on the redistribution of de facto power. Therefore, it is logical to assume that the elite will

¹⁵ The assumption that $\alpha\theta$ could be at most equal to the level of inequality θ is because if the level of effectiveness of democracy is lower than the level of inequality, it will not improve equality. Therefore, a democratic system will no longer be seen as a worthwhile alternative to replace an autocratic system.

invest more in de facto political power since they have the most to gain from influencing and controlling politics (i.e. blocking a fully egalitarian redistribution).¹⁶

The return on investment in de facto power is higher in highly unequal and inefficient societies. In highly unequal societies, the elite can extract more rent but at a higher cost, as rent and cost $c(\theta)$ increase with inequality.¹⁷ On the contrary, higher democratic inefficiency increases the returns of the elite investment as democratic inefficiency reduces the cost of investing in it. For instance, the low effectiveness of democracy may come from the durability of past institutions built by autocrats. It lowers the investment cost of the elite in de facto power since democracies are already constrained by de jure institutions such as constitutions, conservative political parties and judiciaries, among others.¹⁸ Even if it is not the case, low levels of democratic effectiveness lead to an easier way to capture or constrain democracy through bribery or patronage. Conversely, if democracy is highly effective, $\alpha \rightarrow 0$, then the elite will need to make costlier investments to gain political power, such as capturing political parties' platforms or influencing citizens' policy preferences.¹⁹

I incorporate into the model Assumption (6) in which the elite can constrain or capture democracy by increasing their de facto power at a cost $(1 - \alpha)c(\theta)$.²⁰ $\frac{\partial(1-\alpha)c(\theta)}{\partial\alpha} < 0$ means that the cost of the elite to increase their de facto power increases when the effectiveness of democracy increases since democracy becomes more efficient as $\alpha \to 0$. When $\theta > 0$, $\Delta U \to 0$ as $\alpha \to 0$, then a poor type will choose democracy over autocracy. On the contrary, an elite type will choose autocracy over democracy when $\alpha \to 0$. However, the benefits from socialisation will be determined by θ and α as the objective functions now become,

$$U_P^A = [\tau_P^A + (1 - \tau_P^A)(1 - d_t)]\{\overline{U} + (1 - \theta)u\} + [(1 - \tau_P^A)d_t]\{\underline{U} + (1 - \alpha\theta)u\} - H(\tau_P^A)$$

$$\begin{aligned} U_E^A &= \ [\tau_E^A + (1 - \tau_E^A) \, (\, 1 - d_t)] \{ \overline{U} + (1 + \theta)u - c(\theta) \} + \\ & [(1 - \tau_E^A)d_t] \{ \underline{U} + (1 + \alpha\theta)u - (1 - \alpha)c(\theta) \} - H(\tau_E^A) \end{aligned}$$

¹⁶ See also Acemoglu & Robinson (2008), Mosca (1939) and Olson (1965) for a theoretical justification.

¹⁷ The justification for this follows the same reasoning as in Assumption 2.

¹⁸ Acemoglu et al. (2015).

¹⁹ In highly unequal countries, all of these investment costs from the elite would be even higher because an efficient democracy will allow parties with totally opposing platforms to enter politics, making it more costly and difficult to align platforms on redistribution.

²⁰ I implicitly assume that the effectiveness of democracy does not depend on inequality.

yielding a unique FOC for each equation,

(12)
$$H'(\tau_P^A) = d_t [\Delta U - (1 - \alpha)\theta u]$$
$$H'(\tau_E^A) = d_t [\Delta U + (1 - \alpha)\theta u - \alpha c(\theta)]$$

similarly, the FOCs of a parent with democratic preferences are,

(13)
$$H'(\tau_P^D) = (1 - d_t)[\Delta U + (1 - \alpha)\theta u]$$
$$H'(\tau_E^D) = (1 - d_t)[\Delta U - (1 - \alpha)\theta u + \alpha c(\theta)]$$

Defining \bar{d}^{α} :

(14)
$$\bar{d}^{\alpha} = q_t \left\{ \frac{1}{2} + \frac{1}{2} \left(\frac{(1-\alpha)\theta u}{\Delta U} \right) \right\} + \left(1 - q_t \right) \left\{ \frac{1}{2} + \frac{1}{2} \left(\frac{\alpha c(\theta) - (1-\alpha)\theta u}{\Delta U} \right) \right\}.$$

Substituting (12)- (14) into (2) gives the following new SSE

$$(15) \qquad d^{\alpha} = \begin{cases} \frac{\bar{d}^{\alpha} - \left[\bar{d}^{\alpha}(1 - \bar{d}^{\alpha})\right]^{1/2}}{\bar{d} - 1/2} & \text{if } q_{0} \geq \frac{1}{2} - \frac{\alpha c(\theta)}{4\left((1 - \alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)} \\ \frac{\bar{d}^{\alpha} + \left[\bar{d}^{\alpha}(1 - \bar{d}^{\alpha})\right]^{1/2}}{\bar{d}^{\alpha} - 1/2} & \text{if } q_{0} < \frac{1}{2} - \frac{\alpha c(\theta)}{4\left((1 - \alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)} \\ \frac{\bar{d}^{\alpha}}{\bar{d}^{\alpha}} & \text{if } \alpha c(\theta) = 2(1 - \alpha)\theta u \end{cases}$$

Proposition 2: Assume that Assumptions (3)-(6) and $d_0 \neq \{0,1\}$ hold. Then there is a unique SSE d^{α} such that

(1) If $\alpha c(\theta) \ge \Delta U + (1 - \alpha)\theta u$ and $(1 - \alpha)\theta u \ge \Delta U$, then d_t converges to $d^{\alpha} = 1 > d^*$.

(2) If
$$\alpha c(\theta) \leq (1-\alpha)\theta u - \Delta U$$
 and $(1-\alpha)\theta u \geq \Delta U$, then d_t converges to
 $d^{\alpha} = \frac{1}{2} + \frac{\alpha c(\theta)}{4\left(\Delta U + (1-\alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)}$ and $\frac{\partial d^{\alpha}}{\partial \alpha} < 0$.

(3) Otherwise,

(i)
$$d_t$$
 converges to $d^{\alpha} \ge d^*$ and $\frac{\partial d^{\alpha}}{\partial \alpha} < 0$ if $q_0 \ge \frac{1}{2} - \frac{\alpha c(\theta)}{4\left((1-\alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)}$ or
 $\alpha c(\theta) = 2(1-\alpha)\theta u.$
(ii) d_t converges to $d^{\alpha} < d^*$ and $\frac{\partial d^{\alpha}}{\partial \alpha} < 0$ if $q_0 < \frac{1}{2} - \frac{\alpha c(\theta)}{4\left((1-\alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)}$.

Furthermore, d^{α} decreases with α and as $\alpha \to 0$, then $d^{\alpha} \to d^* < d^{\theta}$.

The intuition of Proposition 2 is simple if democracy is not as effective as a democratic-type parent expects, the analysis results in a SSE d^{α} that lies between d^* and d^{θ} . As the effectiveness of democracy decreases from 0 to 1, in the SSE, the share of citizens who prefer a democratic system falls from d^{θ} to d^* . The explanation is that a decrease in the effectiveness of a democratic system makes socialisation less attractive for democratic-type parents compared to a perfect democratic system. On the contrary, for an autocratic type parent, a decrease in the effectiveness of a democratic system. As a result, at the equilibrium, the level of socialisation effort is lower than the one found in a perfect democratic system.

3.4 Political preferences: Inequality and Corruption

The search for a change of a political system from autocracy to democracy and its consolidation is affected by citizens' ideological preferences, inequality, and the effectiveness of democracy. Corruption weakens democratic political systems as it prevents them from delivering what citizens expect. In countries with high corruption, ideological preferences for a political system matter less since citizens do not trust the implementation of the policies proposed by any political system. Moreover, corruption encumbers equality. In highly unequal societies, elites possess a large share of resources that they can use to buy influence and undermine democracies. When elites capture democracy through corruption, inequality tends to increase while the effectiveness of democracy tends to decrease, as policies favour elites over the poor.

The introduction of corruption in model 3.2 weakens the preference for democracy. The level of corruption is assumed exogenous, as corruption is a longstanding phenomenon with very low variation over time.

Assumption (7): Corruption affects the ideological preferences and the redistributive outcomes under democracy.

In specific, I assume that for some $\mathbb{c} \in [0,1]$, the perceived utility of a parent type p_i belonging to the class *C* when he has a child of type *D* becomes,

$$U_P^{DD} = (1 - \varepsilon)[\overline{U} + u] + \varepsilon[\underline{U} + (1 - \theta)u]$$
$$U_P^{AD} = (1 - \varepsilon)[\underline{U} + u] + \varepsilon[\overline{U} + (1 - \theta)u].$$

Notice that as corruption increases, the preference of the poor for a democratic system decreases and the preference of the elite for a democratic system increases. That is, as $c \rightarrow 1$, democratic types among the poor become indifferent between an autocratic and a democratic system.

Assumption (8): Corruption decreases the cost of inequality, $(1 - c)c(\theta)$.

In autocracy or democracy, a higher level of corruption facilitates the capture of political power by the elite. When citizens experience the same problems of inequality under democracy as they did under autocracy due to corruption, this erodes citizens' beliefs in the democratic system. As a result, corruption leads citizens to be indifferent between democracy and autocracy and to believe that whatever the political system, nothing will change. In a democracy, the erosion of citizens' beliefs decreases the cost of a coup or the use of corrupt means to gain political power. A bad long-term experience with democracy will decrease the cost of maintaining autocracy as the new regime. Introducing this assumption into the perceived utilities of a type p_i parent from the elite from having a child type p_i yields to,

$$U_E^{DD} = (1 - c)[\overline{U} + u] + c[\underline{U} + (1 + \theta)u - (1 - c)c(\theta)]$$
$$U_E^{AD} = (1 - c)[\underline{U} + u] + c[\overline{U} + (1 + \theta)u - (1 - c)c(\theta)]$$

and

$$U_E^{AA} = \overline{U} + (1+\theta)u - (1-\varepsilon)c(\theta)$$
$$U_E^{DA} = \underline{U} + (1+\theta)u - (1-\varepsilon)c(\theta).$$

Not surprisingly, democratic-type parents belonging to the elite still prefer a democratic system to an autocratic one since corruption favour the elite over the poor. Corruption also

affects the cost of maintaining autocracy through its effect on democracy's effectiveness in redistributing wealth, $\frac{\partial (1-c)c(\theta)}{\partial c} < 0$. The objective functions of a democratic-type parent become,

$$\begin{split} U_P^D &= [\tau_P^D + (1 - \tau_P^D)d_t] \{ (1 - \mathfrak{c})[\overline{U} + u] + \mathfrak{c}[\underline{U} + (1 - \theta)u] \} \\ &+ [(1 - \tau_P^D)(1 - d_t)] \{ \underline{U} + (1 - \theta)u \} - H(\tau_P^D) \\ U_E^D &= [\tau_E^D + (1 - \tau_E^D)d_t] \{ (1 - \mathfrak{c})[\overline{U} + u] + \mathfrak{c}[\underline{U} + (1 + \theta)u] \} \\ &+ [(1 - \tau_E^D)(1 - d_t)] \{ \underline{U} + (1 + \theta)u - (1 - \mathfrak{c})c(\theta) \} - H(\tau_E^D) \end{split}$$

the FOCs for a democratic type are,

(16)
$$H'(\tau_P^D) = (1 - d_t)(1 - \varepsilon)[\Delta U + \theta u]$$
$$H'(\tau_E^D) = (1 - d_t)(1 - \varepsilon)\{\Delta U - \theta u + (1 - \varepsilon)c(\theta)\}$$

likewise, the FOCs for an autocratic type are,

(17)
$$H'(\tau_P^A) = d_t (1 - c) [\Delta U - \theta u]$$
$$H'(\tau_E^A) = d_t (1 - c) \{\Delta U + \theta u - (1 - c)c(\theta)\}.$$

Let me define \bar{d}^{c} as follows:

(18)
$$\bar{d}^{\mathbb{C}} = q_t \left\{ \frac{1}{2} + \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + \left(1 - q_t \right) \left\{ \frac{1}{2} + \frac{1}{2} \left(\frac{(1 - \mathbb{C})c(\theta) - \theta u}{\Delta U} \right) \right\}.$$

Then substituting (16) - (18) into (2) results in the following SSE

(19)
$$d^{\mathbb{C}} = \begin{cases} \frac{\bar{d}^{\mathbb{C}} - \left[\bar{d}^{\mathbb{C}}(1 - \bar{d}^{\mathbb{C}})\right]^{1/2}}{\bar{d}^{\mathbb{C}} - 1/2} & \text{if } q_{0} \geq \frac{1}{2} - \frac{(1 - \mathbb{C})c(\theta)}{4\left(\theta u - \frac{(1 - \mathbb{C})c(\theta)}{2}\right)} \\ \frac{\bar{d}^{\mathbb{C}} + \left[\bar{d}^{\mathbb{C}}(1 - \bar{d}^{\mathbb{C}})\right]^{1/2}}{\bar{d}^{\mathbb{C}} - 1/2} & \text{if } q_{0} < \frac{1}{2} - \frac{(1 - \mathbb{C})c(\theta)}{4\left(\theta u - \frac{(1 - \mathbb{C})c(\theta)}{2}\right)} \\ \frac{\bar{d}^{\mathbb{C}}}{\bar{d}^{\mathbb{C}}} & \text{if } (1 - \mathbb{C})c(\theta) = 2\theta u \end{cases}$$

Proposition 3: Assume that Assumptions (3)-(4),(7)-(8) and $d_0 \neq \{0,1\}$ hold. Then there is a unique SSE d^{c} such that

(1) If $(1 - c)c(\theta) \ge \Delta U + \theta u$ and $\theta u \ge \Delta U$, then d_t converges to $d^c = 1 > d^*$.

(2) If $(1 - c)c(\theta) \ge \theta u - \Delta U$ and $\theta u \ge \Delta U$, then d_t converges to $d^c = \frac{1}{2} + \frac{(1-c)c(\theta)}{4\left(\Delta U + \theta u - \frac{(1-c)c(\theta)}{2}\right)}$ resulting in $\frac{\partial \tau_c^{p_i}}{\partial c} < 0$ and $\frac{\partial d^c}{\partial c} < 0$.

(3) Otherwise, there is an interior SSE where $\frac{\partial \tau_c^p}{\partial c} < 0$ and in which (i) d_t converges to $d^c \ge d^*$ and $\frac{\partial d^c}{\partial c} < 0$ if $q_0 \ge \frac{1}{2} - \frac{(1-c)c(\theta)}{4(\theta u - \frac{(1-c)c(\theta)}{2})}$ or $(1-c)c(\theta) = 2\theta u.$

(ii)
$$d_t$$
 converges to $d^{\mathbb{C}} < d^*$ and $\frac{\partial d^{\mathbb{C}}}{\partial \mathbb{C}} < 0$ if $q_0 < \frac{1}{2} - \frac{(1-\varepsilon)c(\theta)}{4(\theta u - \frac{(1-\varepsilon)c(\theta)}{2})}$.

Furthermore, $d^{\mathbb{C}}$ decreases with \mathbb{C} and as $\mathbb{C} \to 1$, then $d^{\mathbb{C}} \to d^* = \frac{1}{2} < d^{\theta}$ and $\tau_{\mathbb{C}}^p = 0$.

These results suggest that as corruption increases, it discourages socialisation for poor citizens who prefer a democratic system because it encumbers redistribution. It also discourages socialisation for the share of the elite that prefers an autocratic system as it makes a democratic system more attractive to them. That explains why the socialisation effort at the equilibrium is lower than the one found in a perfect democratic system, $\tau_C^{p\ c} < \tau_C^{p\ \theta}$. Moreover, an increase in corruption reduces the benefit of preferring a democratic system among parents in each class, decreasing the return of having a child who has democratic political system preferences. It implies that the SSE of the model that incorporates corruption is lower than the SSE of those that do not. Furthermore, the level of SSE d^c decreases with corruption since the higher the level of corruption is, the lower the attractiveness of socialising for parents who prefer a democratic system within each class will be.

If the conditions of (1) hold, then this society will become a consolidated democracy for any starting $d_t \in \{0,1\}$ as the population dynamics will evolve towards $\lim_{t\to\infty} d_t = 1$ as stated in part (1) of Proposition 1.

In (2) when $(1 - c)c(\theta) \ge \theta u - \Delta U$ and $\Delta U < \theta u$, $d^* < d^c < d^{\theta}$. It highlights that the elite prefer an autocratic system when inequality is high, but the cost of maintaining autocracy is lower than the benefits from inequality. The poor, in contrast, prefer a democratic system. Clearly, there is neither vertical socialisation from parents belonging to the elite for a democratic system nor vertical socialisation from parents belonging to the poor for an autocratic

system since, in both cases, their children do not get benefit from having the same political preferences as them.²¹ Therefore, there is a split of preferences among economic classes where the elite prefer an autocratic system and the poor a democratic system. $d^* < d^{c}$ since the cost of maintaining autocracy increases with inequality, which, in turn, increases the share of individuals who prefer a democratic system. $d^{\mathbb{C}} < d^{\theta}$, given that when corruption exists in societies, the effect of inequality on the cost of maintaining autocracy decreases as corruption increases.

In (3), when $\mathbb{C} < 1$ and $(1 - \mathbb{C})c(\theta) = 2\theta u$, $d^{\mathbb{C}} = d^{\theta}$, implying that the share of individuals who prefer a democratic system will remain the same as in societies without corruption. It does not mean that corruption does not affect the SSE but rather that it affects similarly citizens who prefer democracy and citizens who prefer autocracy. Therefore, the gain of an autocratic-type parent of non-socialising his or her child cancels out the loss of a democratic-type parent of socialising his or her child, resulting in $\tau_c^{p^{\mathbb{C}}} < \tau^*$.²² However, in the general case, $d^{\mathbb{C}}$ is smaller than d^{θ} , as $d^{\mathbb{C}}$ decreases with corruption when $q_0 \ge \frac{1}{2}$ $\frac{(1-\varepsilon)c(\theta)}{4\left(\theta u-\frac{(1-\varepsilon)c(\theta)}{2}\right)}^{23}$

High levels of corruption increase citizen mistrust in a democratic political system. It hinders political equality and encumbers redistribution. Corruption, therefore, renders a democratic system incapable of delivering what citizens expect of it, a better redistribution. That is why, when $\mathbb{C} \to 1$, corruption is so high that it neutralises the effect of inequality over the share of citizens who prefer a democratic system. Thus, $d^{\mathbb{C}} \rightarrow d^*$. Moreover, although the effect of corruption appears to be similar to that found in the democracy effectiveness model, it is not. Corruption is worse, as it degrades citizens' beliefs in any possible political system. It explains why, in equilibrium, the parental socialisation effort is lower than those found in previous models $(\tau_C^{p^{\mathbb{C}}} < \tau_C^{p^{\alpha}})$. Notice also that as $\mathbb{C} \to 1$, $\tau_C^{p^{\mathbb{C}}} \to 0.^{24}$ Furthermore, this suggests that in highly corrupted countries, other agents of oblique socialisation (schooling, the media and

$${}^{22}\frac{\partial U_E^{BD}}{\partial c} = -\frac{\partial U_E^{BD}}{\partial c} = \Delta U + \theta u \text{ and } \frac{\partial U_P^{BD}}{\partial c} = -\frac{\partial U_E^{BD}}{\partial c} = \Delta U - \theta u.$$

²¹ If inequality is high enough, $\Delta U < \theta u$, a child belonging to the economically poor class and having an autocratic type of parent, prefers a democratic system to an autocratic one. Then since parents have imperfect-empathy preferences over the choice made by their children, they will choose not to socialise their children to their political preferences. The same logic applies to a child belonging to the economic elite that has a democratic type parent.

²³ For example, suppose the effect of corruption is $2k\mathfrak{c}$ for democratic types and $2(1-k)\mathfrak{c}$ for autocratic ones, where $k \in \langle 0,1 \rangle$. Then for all $k \neq \frac{1}{2}$, $d^c < d^{\theta}$ as $\frac{\partial d^c}{\partial c} < 0$. For $k = \frac{1}{2}$, the impact of corruption is similar for both types of individuals as in the special case of model 3.4. ²⁴ From FOCs (16) and (17) as $c \to 1$, $\tau_c^p \to 0$ for all $p \in \{D, A\}$ and $C \in \{P, E\}$.

religion) can play a significant role in politics, as they can strongly influence the preferences of citizens with low levels of parental socialisation.

3.5 Political preferences: Inequality with Elite Uncertainty

As discussed in the introduction, the economic elite will not necessarily support autocracy, as they are uncertain about how the autocratic leader will be. An autocratic system may not benefit the elite over the poor since, under autocracy, the ruler has fewer constraints when governing, making it easier for the ruler to violate property rights and expropriate the elite.

This model analyses an alternative reason that might lead to a transition towards democracy, the elite uncertainty about the autocratic ruler type. I relax the assumption of model 3.2 that the elite capture the autocratic system at a cost $c(\theta)$. However, I still assume that the country starts as an autocracy. In addition, I make the following assumption to allow for the possibility of different types of autocratic rules.

Assumption (9): The elite are uncertain about the autocratic leader type, ϕ .

The potential autocratic ruler can be of two types defined by $\phi = \{0,1\}$. It represents the ruler's alignment with the interests of a class. In particular, when $\phi = 0$, the autocratic ruler is aligned with the interest of the poor and will have strong incentives to expropriate the elite's wealth and redistribute it among all the individuals to reduce inequality. When $\phi = 1$, the autocratic ruler is aligned with the interest of the economic elite and has no interest in reducing inequality. $p^{\phi} = Probability$ ($\phi = 0$) is the probability that the autocratic ruler aligns with the interest of the poor. The average type of autocratic leader $\mu = 1 - p^{\phi}$ may differ across countries.²⁵ The type of ruler also affects the cost of maintaining autocracy since the elite pay $c(\theta)$ only when the leader is of type $\phi = 1$, $\frac{\partial(1-p^{\phi})c(\theta)}{\partial p^{\phi}} < 0$. Then the perceived utility of a parent type p_i belonging to the class C when he or she has a child who prefers an autocratic system becomes, $U_P^{AA} = \overline{U} + p^{\phi}u + (1-p^{\phi})(1-\theta)u \ge U_E^{DA} = \underline{U} + p^{\phi}u + (1-p^{\phi})(1-\theta)u$ and $U_E^{AA} = \overline{U} + p^{\phi}u + (1-p^{\phi})[(1+\theta)u - c(\theta)] \ge U_E^{DA} = \underline{U} + p^{\phi}u + (1-p^{\phi})[(1+\theta)u - c(\theta)]$.

²⁵ Economic elites may expect potential autocrats to be more in their favour in one country than in another.

Note that the uncertainty about the type of autocratic ruler is measured by the variance $v = p^{\phi} (1 - p^{\phi})^{26}$ If $p^{\phi} > \frac{1}{2}$, the elite prefer a democratic system since the higher p^{ϕ} is, the higher the probability that the autocratic leader will expropriate the elite. Then the lower $p^{\phi} \in$ $\left(\frac{1}{2}, 1\right)$ is, the higher the elite uncertainty about the autocratic ruler type will be, and the higher the elite's preference for a democratic system will be $\left(\frac{\partial \Delta U_E^D}{\partial v} > 0, \frac{\partial \Delta U_E^A}{\partial v} < 0\right)$.²⁷ The objective function of an autocratic-type parent becomes,

$$\begin{split} U_P^A &= [\tau_P^A + (1 - \tau_P^A)(1 - d_t)] \{ \overline{U} + p^{\phi} u + (1 - p^{\phi})(1 - \theta) u \} \\ &+ [(1 - \tau_P^A) d_t] [\underline{U} + u] - H(\tau_P^A) \\ U_E^A &= [\tau_E^A + (1 - \tau_E^A)(1 - d_t)] \{ \overline{U} + p^{\phi} u + (1 - p^{\phi})[(1 + \theta) u - c(\theta)] \} \\ &+ [(1 - \tau_E^A) d_t] [\underline{U} + u] - H(\tau_E^A). \end{split}$$

There is a unique solution for each equation given by its FOC,

(20)
$$H'(\tau_P^A) = d_t \{ \Delta U - (1 - p^{\phi}) \theta u \}$$
$$H'(\tau_E^A) = d_t \{ \Delta U - (1 - p^{\phi}) (c(\theta) - \theta u) \}$$

similarly, the FOCs for a democratic type are,

(21)
$$H'(\tau_P^D) = (1 - d_t) \{ \Delta U + (1 - p^{\phi}) \theta u \}$$
$$H'(\tau_E^D) = (1 - d_t) \{ \Delta U + (1 - p^{\phi}) (c(\theta) - \theta u) \}.$$

Defining \overline{d}^{ϕ} as follows:

(22)
$$\bar{d}^{\phi} = q_t \left\{ \frac{1}{2} + \frac{\left(1 - p^{\phi}\right)}{2} \left(\frac{\theta u}{\Delta U}\right) \right\} + \left(1 - q_t\right) \left\{ \frac{1}{2} + \frac{\left(1 - p^{\phi}\right)}{2} \left(\frac{c(\theta) - \theta u}{\Delta U}\right) \right\}.$$

Substituting (20)- (22) into (2) results in,

²⁶ The variance of the elite uncertainty is at its maximum for $p^{\phi} = \frac{1}{2}$. ²⁷ For the economic elite, the benefice of a democratic-type parent of having a child of his or her type is $\Delta U_E^D =$ $[\Delta U - \theta u] + p^{\phi} \theta u + c(\theta).$

(19)
$$d^{\phi} = \begin{cases} \frac{\bar{d}^{\phi} - \left[\bar{d}^{\phi}(1 - \bar{d}^{\phi})\right]^{1/2}}{\bar{d}^{\phi} - 1/2} & \text{if } q_{0} \geq \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)} \\ \frac{\bar{d}^{\phi} + \left[\bar{d}^{\phi}(1 - \bar{d}^{\phi})\right]^{1/2}}{\bar{d}^{c} - 1/2} & \text{if } q_{0} < \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)} \\ \frac{\bar{d}^{\phi}}{\bar{d}^{\phi}} & \text{if } c(\theta) = 2\theta u \end{cases}$$

Proposition 4: Assume that Assumptions (3)-(4),(9) and $d_0 \neq \{0,1\}$ hold. Then there is a unique SSE d^{ϕ} such that

(1) If $(1 - p^{\phi})(c(\theta) - \theta u) \ge \Delta U$ and $(1 - p^{\phi})\theta u \ge \Delta U$, then d_t converges to $d^{\phi} = 1 > d^*$.

(2) If $(1-p^{\phi})(\theta u - c(\theta)) \ge \Delta U$ and $(1-p^{\phi})\theta u \ge \Delta U$, then d_t converges to $d^{\phi} = \frac{1}{2} + \frac{(1-p^{\phi})c(\theta)}{4(\Delta U + (1-p^{\phi})[\theta u - \frac{c(\theta)}{2}])}$ and $\frac{\partial d^{\phi}}{\partial p^{\phi}} < 0$.

(3) Otherwise,

(i)
$$d_t$$
 converges to $d^{\phi} \ge d^*$ and $\frac{\partial d^{\phi}}{\partial p^{\phi}} < 0$ if $q_0 \ge \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)}$ or $c(\theta) = 2\theta u$
(ii) d_t converges to $d^{\phi} < d^*$ and $\frac{\partial d^{\phi}}{\partial p^{\phi}} < 0$ if $q_0 < \frac{1}{2} - \frac{c(\theta)}{4\left(\theta u - \frac{c(\theta)}{2}\right)}$.
Furthermore, d^{ϕ} increases with elite uncertainly when $p^{\phi} > \frac{1}{2}$.

Logically, the SSE in (1) only exists if $p^{\phi} \neq 1$. It leads to a homogenisation of preferences in favour of a democratic political system since autocratic-type parents of neither class intend to socialise their children to their political traits.

The assumption that autocratic rulers are pro-elite is relaxed in this model. It explains why the share of individuals who prefer democracy decreases when the probability of the autocratic ruler favours the poor increases. The poor who suffer from inequality does not necessarily require a democratic system to reduce it since, in this model, the alignment of the interests of the autocratic ruler with those of the poor can also reduce inequality.

Not surprisingly, in (2) and (3) (i), as p^{ϕ} goes from 0 to 1, the SSE proportion of individuals who prefer a democratic system goes from d^{θ} to d^* . It is because when both political systems consider the issue of inequality, the benefit for the portion of individuals who prefer a democratic system reduces, making socialisation less attractive to them $(\tau_c^{p_i \phi} < \tau_c^{p_i \theta})$. That is, as p^{ϕ} increases, the level of wealth redistribution increases so that when $p^{\phi} \rightarrow 1$, citizens have the same level of wealth regardless of their economic class. Therefore, when the autocratic leader has the interest of the poor at heart ($\phi = 0$), only the ideological preferences matter for the citizens to prefer a determined political system, $\tau_{C}^{p_{i}\phi} \rightarrow \tau_{C}^{p_{i}*}$ and $d^{\phi} \rightarrow d^{*}$. On the contrary, when $p^{\phi} \rightarrow 0$, the autocratic leader has no interest in redistributing wealth, therefore the level of inequality matters when citizens decide which political system they prefer, $\tau_{C}^{p_{i}\phi} \rightarrow \tau_{C}^{p_{i}\theta}$ and $d^{\phi} \rightarrow d^{\theta}$.

Moreover, when $p^{\phi} > \frac{1}{2}$, the elite prefer a democratic system since the higher $p^{\phi} \in \left(\frac{1}{2}, 1\right]$, the more aligned the autocratic ruler is with the interest of the poor. Specifically, when p^{ϕ} goes from 1 to $\frac{1}{2}$, elite uncertainty "v" and d^{ϕ} increase. It implies that the higher the elite uncertainty, the higher the proportion of individuals who prefer democracy. There are two reasons for this. Under autocracy, the decrease of p^{ϕ} decreases the likelihood of a more equalitarian society, which increases the benefit for the share of individuals who prefer a democratic system, making socialisation more attractive to them. Lastly, for autocratic-type parents, a decrease of p^{ϕ} decreases for poor parents the benefit of preferring an autocratic system, which induces them to socialise less, and it decreases for the parents from the elite the incentive to socialise their children, as the risk of expropriation is high since $p^{\phi} > \frac{1}{2}$.²⁸

3.6 Political preferences: Extra-elite socialisation

In the previous models, I analysed the role of family and peers as agents of socialisation and their effect on the evolution of preference for a political system among individuals. However, other agents of socialisation, such as schooling and the media, affect citizens' political preferences. These additional agents of socialisation play an important role in individuals' political preferences as they influence our political views.²⁹ Not surprisingly, autocratic regimes have controlled most media coverage and schooling over time. It is still seen today in autocratic countries, such as North Korea, Turkmenistan, Eritrea, China, Russia, Vietnam, Syria, Iran, Laos, and Cuba, among others. This extension considers schooling and the media as extra

²⁸ For $p^{\phi} > \frac{1}{2}$, the risk of expropriation increases when p^{ϕ} increases, as $\frac{\partial d^{\phi}}{\partial v} = \frac{\partial d^{\phi}}{\partial p^{\phi}} * \frac{1}{(1-2p^{\phi})} > 0$ becomes larger as p^{ϕ} increases.

²⁹ The media is a powerful socialising tool not only because of the information that it provides but also because there are messages that we receive from the media without being aware of (Subliminal messages). See also Amnå et al. (2009) and Amnå (2012) for a literature review.

agents of elite socialisation since they favour the elite's political preferences. It is the case when the autocratic regime aligns with the interest of the economic elite. It can also occur in democracy in countries where the elite own a large share of the media and the public school system.

In the previous model, elite uncertainty increases the preference for a democratic system among the economic elite. Thus, when $p^{\phi} > \frac{1}{2}$, democracy is the preferred system for the elite. For simplicity, let me take the extreme case in which the autocratic regime will favour the poor $(p^{\phi} = 1)$.

Assumption (10): The effectiveness of the elite's socialisation agents (ε) determines the degree of elite influence on citizens' political preferences and $p^{\phi} = 1$.

In this model setup, agents of socialisation, such as education and the media, tilt the socialisation process in favour of the political system preferred by the elite. Formally, be $\varepsilon \in [0,1]$ the effectiveness of the extra-elite socialisation and after incorporating it into our model of inequality with elite uncertainty. As seen in the previous model, elite uncertainty increases the preference for a democratic system among the economic elite. Thus, democracy is the preferred system for the elite, given that $p^{\phi} = 1.^{30}$ The probability that a child who was not socialised by his autocratic-type parent prefers an autocratic system is now $(1 - \varepsilon)(1 - d_t)$ (and it is $1 - (1 - \varepsilon)(1 - d_t)$ for a child who was not socialised by his democratic-type parent). Namely, the more extra-elite socialisation increases, the less likely it is that oblique socialisation will result in a preference for an autocratic political system.

For simplicity, I take the following form of the cost of socialisation $H(\tau_c^p) = \frac{(\tau_c^p)^2}{2}$.³¹ Then the transition dynamics equation becomes,

(24)
$$d_{t+1} = d_t + (1 - d_t) \{ \varepsilon + (1 - \varepsilon) [d_1 q_t \tau_P^D + d_2 (1 - q_t) \tau_E^D] \} - [\varepsilon + d_t (1 - \varepsilon)] [(1 - d_1) q_t \tau_P^A + (1 - d_2) (1 - q_t) \tau_E^A].$$

Each parent, democratic and autocratic type depending on his or her class, maximises,

³¹ Implicitly,
$$d_1 = d_2 = \frac{1}{2}$$
.

³⁰ Although the assumptions made simplify the model, the results are general. In societies with a high probability of expropriation, elites are expected to prefer democracy because authoritarian regimes often have the institutional capacity and political authority to make redistribution possible. Democratic regimes, instead, are often so saddled with checks and balances that allow the elite to regain the political power necessary to block any attempt to redistribute. For instance, the elite could capture veto power through the legislature or the judiciary and stop redistribution.

$$\begin{split} U_P^D &= \left[\tau_P^D + (1 - \tau_P^D) [1 - (1 - \varepsilon)(1 - d_t)] \right] \{\overline{U} + u\} + \\ & \left[(1 - \tau_P^D)(1 - \varepsilon)(1 - d_t) \right] \{\underline{U} + u\} - H(\tau_P^D) \\ U_E^D &= \left[\tau_E^D + (1 - \tau_E^D) [1 - (1 - \varepsilon)(1 - d_t)] \right] \{\overline{U} + u\} + \\ & \left[(1 - \tau_E^D)(1 - \varepsilon)(1 - d_t) \right] \{\underline{U} + u\} - H(\tau_E^D) \end{split}$$

$$\begin{split} U_P^A &= [\tau_P^A + (1 - \tau_P^A)(1 - \varepsilon)(1 - d_t)]\{\overline{U} + u\} + \\ & \left[(1 - \tau_P^A)[1 - (1 - \varepsilon)(1 - d_t)]\right][\underline{U} + u] - H(\tau_P^A) \\ U_E^A &= [\tau_E^A + (1 - \tau_E^A)(1 - \varepsilon)(1 - d_t)]\{\overline{U} + u\} + \\ & \left[(1 - \tau_E^A)[1 - (1 - \varepsilon)(1 - d_t)]\right][\underline{U} + u] - H(\tau_E^A), \end{split}$$

which has a unique solution for each preference group and class given by the FOCs,

(25)
$$\tau_P^D = (1 - \varepsilon)(1 - d_t)\Delta U$$
$$\tau_E^D = (1 - \varepsilon)(1 - d_t)\Delta U$$

(26)
$$\tau_P^A = [1 - (1 - \varepsilon)(1 - d_t)]\Delta U$$
$$\tau_E^A = [1 - (1 - \varepsilon)(1 - d_t)]\Delta U.$$

Then the population will converge a new SSE as follow,

Proposition 5: Assume that Assumptions (3)-(4), (10) and $d_0 \neq \{0,1\}$ hold. Then there is a unique interior SSE characterised by $d^{\varepsilon} = \frac{1}{2} + k > d^{\phi}$ with $\tau_P^D = \tau_E^D = \tau^D < \tau^{\phi}$ and $\tau_P^A = \tau_E^A = \tau^A > \tau^{\phi}$. Furthermore, d^{ε} increases with the effectiveness of the extra-elite socialisation favouring democracy (ε), as when $\varepsilon \to 1$, there is an increase in τ^A while $\tau^D \to 0$ and, therefore, the proportion of democratic types slowly enlarges with $\lim_{t\to\infty} d_t = 1$.

Not surprisingly, this Proposition suggests that when the risk of expropriation for the elite is high, the share of citizens from the elite who prefers a democratic system increases, and therefore, they can use other forms of socialisation to ensure the preference for a democratic political system in a society. Extra-elite socialisation affects parental socialisation towards a determinate political system for both types. For the share of individuals who prefer a democratic system, parental socialisation decreases as ε increases, as these mechanisms of transmission of political preferences substitute each other.³² In contrast, for the share of individuals who prefer an autocratic system, parental socialisation increases with ε , as oblique socialisation for that system decreases with ε , increasing their marginal return of socialising.

Moreover, extra-elite socialisation leads the oblique socialisation towards the preference for a democratic system that, without it, is only randomly matched to an older generation individual. Precisely, as ε increases, the probability that oblique socialisation results in a preference for an autocratic system decreases, which in turn, in the SSE, increases the share of citizens who prefer a democratic system. Furthermore, when $\varepsilon \rightarrow 1$, the response of parents who prefer an autocratic system is to increase τ^A since the marginal benefit of socialising increases for them, and there is no oblique socialisation for their type. Thus, when extra-elite socialisation is implemented, τ^A increases and remains fixed over time as it no longer depends on d_t , while $\tau^D \rightarrow 0$ as oblique socialisation for a democratic system is so effective that it substitutes direct parental socialisation. This high effectiveness of extra-elite socialisation leads in the very long term to a population with homogeneous preferences.

4. Discussion

The models developed in the previous section point out that long-standing issues (inequality and corruption) and contextual factors affect the transmission of preferences for a political system. I use the implication of these models to argue that through their effect on the transmission of political preferences towards a political system, these factors affect the stability of a democratic political system. Suppose that the probability of becoming or remaining a democracy depends on the long-run equilibrium dynamics of the population that supports (prefers) democracy. I believe it is reasonable to expect that; an autocratic country with a high proportion of citizens who prefer a democratic political system will have a higher probability of democratic political system will have a higher probability of remaining a democracy.

The equilibrium of the share of citizens who prefer a democratic system, d^e , represents the different SSEs found in section 3.³³ Then when countries start as autocracies, models 3.2, 3.5

³² Bisin & Verdier (2001) show that vertical and oblique cultural transmission are cultural substitutes in populations that have heterogeneous population traits.

³³ This assumption is in line with the support system theories in which socialisation is one of the major sources of political system legitimacy, as it increases the most enduring form of support for a political system (Almond & Verba, 1963; Easton, 1965, 1975; Eckstein, 1988; Mauk, 2020)

and 3.6 predict that an increase in inequality (θ), elite uncertainty (v) and the effectiveness of extra-elite socialisation (ε) will increase the probability of becoming a democracy. Model 3.2 suggest that an increase in inequality in autocratic countries increases citizens' support for a democratic political system and, therefore, the probability of becoming a democracy. The idea is that the higher the level of inequality, the greater the citizens' dissatisfaction with autocracy, the greater the cost of maintaining it and the greater the expectation of a better redistribution under democracy favours the transmission of political preferences towards a democratic political system. Models 3.5 and 3.6 underline alternative factors that could lead to democratisation. In both models, the elite's fear of losing economic and political power leads them to prefer democracy to autocracy. In addition, model 3.6 analyses alternative channels of political socialisation (schooling and the media) through which the elite can influence preferences for a political system and thus affect the cultural transmission of political preferences towards the greater their impact will be on the transmission of political-cultural preferences towards the political system preferred by elites.

In countries with long enough experience as democracies, models 3.3 and 3.4 highlight the long-term negative impact on democratic stability that citizens' bad experiences with the functioning of democracy on issues such as inequality and corruption have. In these models, the share of democratic citizens decreases as the effectiveness of the democratic system in handling inequality (α) decreases and as corruption (\mathbb{C}) increases. It is because long-term bad experience affects not only the democratic preferences of citizens at a given period in time but also the evolution of citizens' democratic preferences in society and, therefore, the stability of democracy. More importantly, this research suggests that, in democratic regimes, the negative effect of inequality on support for democracy comes from the poor long-term performance of the democratic political system in delivering redistribution, which decreases the transmission of political-cultural preferences for democracy.

5. Conclusion and comments

This research analyses how political factors such as inequality, democratic efficiency, corruption, elite uncertainty about the ruler type and extra-elite socialisation (oblique socialisation in schooling and the media) influence political-cultural shifts in societies among economic classes concerning political system preference. The analysis of this article is

composed of two parts. In the first part, I study how inequality and elite uncertainty affect the evolution of politico-cultural preferences in society, which, in turn, will influence the probability of its democratisation. In the second part, I study how long-standing issues like inequality and corruption affect the evolution of political-cultural preferences in a society in ways that erode the likelihood of remaining a democracy or becoming a stable democracy.

The models of the first part complement the predictions made by political economy theory on democratisation (e.g. Acemoglu & Robinson, 2006; Albertus, 2015; Ansell & Samuels, 2014; Boix, 2003). Models of sections 3.2 and 3.5 predict that an increase in inequality and elite uncertainty about the autocratic ruler type increases the probability of democratisation of a country. However, the effect of inequality and elite uncertainty on the probability of democratisation comes from the citizens' evolution of political preferences towards a democratic political system. The evolution of endogenous political preferences follows this path since when citizens living under an autocratic political system feel excluded from the political and economic sphere, they will prefer to adopt political systems closer to their ideological views, in this case, democracy. At the same time, the inexperience of these societies with a democratic political system makes it easier for democratic-type parents to increase their level of socialisation, as they expect a greater reward in the future under a perfect democracy, as is the case in these models.

The models that incorporate the effectiveness of democracy in tackling inequality and corruption (sections 3.3 and 3.4) are the first to formally integrate the interaction between political-cultural changes and the long-term performance of political systems. These models argue in favour of the importance of tackling long-standing issues such as inequality and corruption, as they negatively affect the transmission of democratic preferences. The predictions of these models are in line with the literature on support for democracy, which states that long-term bad experiences with a political system in dealing with significant issues should affect citizens' preferences and support for a political system (e.g. Almond & Verba, 1963; Easton, 1965, 1975; Inglehart, 1997; Lipset, 1959; Mauk, 2019).

This theoretical analysis also highlights the corrosive effect of corruption, especially for democratic political systems. Corruption degrades citizens' beliefs in any possible political system, leading to a feeble transmission of political preferences. It undermines a democratic political system, as corruption allows the elite to increase the capture of political power, eroding the fundamental principle of democracy, the political equality of citizens. In addition, the weak vertical transmission of political preferences makes the new generation more easily influenced by other agents of socialisation like schooling and the media. For instance, if the economic

elites own the mainstream media and private schools, they can use them as socialisation agents to influence the choice of the political system to be installed in the country, even if it is flawed.

Equally important, this research emphasises the principal role that oblique socialisation agents (schooling and the media) can play in societies. As shown in model 3.6, these socialisation agents, called extra-elite socialisation agents, change the steady state of preferences of the political system in their favour depending on their socialisation capacity. This model predicts that elite uncertainty about the type of ruler led the elite to prefer a democratic system and, through the alternative agents of socialisation that belong to them, to socialise citizens to their preferred political system. In this case, the extra-elite socialisation towards a democratic political system as the elite fear expropriation from the autocratic ruler. Extra-elite socialisation changes the preference of the whole population, with a higher proportion preferring a democratic system, even when the autocratic ruler will favour redistribution to the poor.

This theoretical analysis highlights the essential role of inequality, elite uncertainty and political system effectiveness in handling inequality and corruption and forging a democratic political culture. It is only a first step towards a better understanding of possible alternative channels that can explain the democratisation and non-democratisation of societies. Some issues require further exploration. 1) Modelling the impact of a political authority that has the power to use public institutions to socialise citizens towards a political system. 2) Applying the model of extra-elite socialisation in democracy and analysing its impact on the political outcome of elections. Moreover, empirical studies that validate some of the predictions of this research through its impact on the political support of citizens would be a good step forward. Specifically to test whether the effect of inequality on support for democracy differs in autocratic versus democratic countries, as suggested by this investigation.

Appendix

Proof of propositions (1) - (4)

Re-writing (2), as follows,

$$d_{t+1} = d_t + q_t [(1 - d_t)d_1\tau_P^D - d_t(1 - d_1)\tau_P^A] + (1 - q_t)\{(1 - d_t)d_2\tau_E^D - d_t(1 - d_2)\tau_E^A\}$$

This transition equation implies that in the SSE,

(A)
$$q_t[(1-d_t)d_1\tau_P^D - d_t(1-d_1)\tau_P^A] + (1-q_t)\{(1-d_t)d_2\tau_E^D - d_t(1-d_2)\tau_E^A\} = 0.$$

Let me define $\Delta U_c^D = U_c^{DD} - U_c^{DA}$ and $\Delta U_c^A = U_c^{AA} - U_c^{AD}$. It follows that Case 1 from Proposition (1) – (4) occurs when $\Delta U_c^D \leq 0$.

Proof of the first part of the propositions (1) - (4)

<u>Case 1</u>. When $\Delta U_E^D \leq 0$ and $\Delta U_P^D \leq 0$. From this $\tau_P^A = \tau_E^A = 0$. Substituting the FOCs of each model into (A),

$$(1 - d_t)^2 \{q_t \Delta U_P^D + (1 - q_t) \Delta U_E^D\} = 0$$

As a result, for any starting $d_t \in \{0,1\}$ the population dynamics will evolve towards $\lim_{t\to\infty} d_t = 1$.

Proof of the second part of the propositions (1) - (4)

<u>*Case 2.*</u> When $\Delta U_E^D \leq 0$ and $\Delta U_P^A \leq 0$, implies that $\tau_P^A = \tau_E^D = 0$. Substituting the FOCs of each model into (*A*),

$$d_t(1-d_t)[\tau_P^D - \tau_E^A] = 0.$$

Then there is a unique interior SSE that satisfies $\tau_P^D = \tau_E^A$, from which I obtain the second part of each proposition (1) - (4).

•
$$d^{\theta} = \frac{1}{2} + \frac{c(\theta)}{4\left(\Delta U + \theta u - \frac{c(\theta)}{2}\right)}$$
 and $\frac{\partial d^{\theta}}{\partial \theta} = \frac{c'(\theta)(\Delta U + \theta u) - uc(\theta)}{4\left(\Delta U + \theta u - \frac{c(\theta)}{2}\right)^2} > 0$ for model 3.2, given $c(\theta) < 0$

 $\theta u - \Delta U$ and $\Delta U < \theta u$.

•
$$d^{\alpha} = \frac{1}{2} + \frac{\alpha c(\theta)}{4\left(\Delta U + (1-\alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)}$$
 and $\frac{\partial d^{\alpha}}{\partial \alpha} = \frac{\left(c(\theta) + \alpha c'(\theta)\right)(\Delta U + (1-\alpha)\theta u) + \alpha c(\theta)\theta u}{4\left(\Delta U + (1-\alpha)\theta u - \frac{\alpha c(\theta)}{2}\right)^2} < 0$ for

model 3.3 since $\alpha c(\theta) \leq (1 - \alpha)\theta u - \Delta U$ and $(1 - \alpha)\theta u \geq \Delta U$.

•
$$d^{\mathbb{C}} = \frac{1}{2} + \frac{(1-\varepsilon)c(\theta)}{4\left(\Delta U + \theta u - \frac{(1-\varepsilon)c(\theta)}{2}\right)}$$
 and $\frac{\partial d^{\mathbb{C}}}{\partial \varepsilon} = \frac{-c(\theta)(\Delta U + \theta u)}{4\left(\Delta U + \theta u - \frac{(1-\varepsilon)c(\theta)}{2}\right)^2} \le 0$ for model 3.4 as

$$(1 - c)c(\theta) \ge \theta u - \Delta U$$
 and $\theta u \ge \Delta U$.

•
$$d^{\phi} = \frac{1}{2} + \frac{(1-p^{\phi})c(\theta)}{4\left(\Delta U + (1-p^{\phi})\left[\theta u - \frac{c(\theta)}{2}\right]\right)}$$
 and $\frac{\partial d^{\phi}}{\partial v} = \frac{-c(\theta)(\Delta U + (1-p^{\phi})\theta u)}{4\left(\Delta U + (1-p^{\phi})\left[\theta u - \frac{c(\theta)}{2}\right]\right)^{2}} * \frac{1}{(1-2p^{\phi})} > 0$ when $p^{\phi} > \frac{1}{2}$ for model 3.5, given $(1-p^{\phi})(\theta u - c(\theta)) \ge \Delta U$ and $(1-p^{\phi})\theta u \ge \Delta U$.

Proof of the third part of the propositions (1) - (4)

<u>*Case 3.*</u> All the other possibilities of ΔU_C^p where $p \in \{A, D\}$ and $C \in \{P, E\}$. Substituting the FOCs of each model into (*A*),

(B)
$$q_t \left[(1 - d_t)^2 \Delta U_P^D - d_t^2 \Delta U_P^A \right] + (1 - q_t) \left\{ (1 - d_t)^2 \Delta U_E^D - d_t^2 \Delta U_E^A \right\} = 0$$

Proposition 1 (3) comes from finding the interior SSE in model 3.2. Substituting ΔU_c^p , and \bar{d} defined in (10) into (*B*) and after some algebra, we have,

$$(2\bar{d}-1)d_t^2 - 2\bar{d}d_t + \bar{d} = 0.$$

It gives two possible values to which d_t will converge at the SSE, $d_t = \frac{\bar{d} \pm [\bar{d}(1-\bar{d})]^{1/2}}{\bar{d}-1/2}$. Notice that we have two real solutions, $\left[\bar{d}(1-\bar{d})\right]^{1/2} \ge 0$ since $\bar{d} \in [0,1]$. (10) can be rewritten as,

$$\bar{d} = \frac{1}{2} + q_t \left\{ \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left(\frac{c(\theta) - \theta u}{\Delta U} \right) \right\}.$$

Then

- (i). For all values of q_t such that $q_t \left\{\frac{1}{2} \left(\frac{\theta u}{\Delta U}\right)\right\} + (1 q_t) \left\{\frac{1}{2} \left(\frac{c(\theta) \theta u}{\Delta U}\right)\right\} \ge 0$, the unique interior SSE between 0 and 1 will be $d_t = d^{\theta} = \frac{\overline{d} [\overline{d}(1 \overline{d})]^{1/2}}{\overline{d} 1/2}$.
- (ii). For all values of q_t such that $q_t \left\{\frac{1}{2} \left(\frac{\theta u}{\Delta U}\right)\right\} + (1 q_t) \left\{\frac{1}{2} \left(\frac{c(\theta) \theta u}{\Delta U}\right)\right\} < 0$, the unique interior SSE between 0 and 1 will be $d_t = d^{\theta} = \frac{\overline{d} + [\overline{d}(1 \overline{d})]^{1/2}}{\overline{d} 1/2}$.

Furthermore,

• When
$$q_t \left\{ \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left(\frac{c(\theta) - \theta u}{\Delta U} \right) \right\} \ge 0, \frac{\partial d^{\theta}}{\partial \theta} = \frac{\partial d^{\theta}}{\partial \bar{d}} * \frac{\partial \bar{d}}{\partial \theta} > 0$$
, as
 $\frac{\partial d^{\theta}}{\partial \bar{d}} = \frac{\left[(\bar{d} - 1/2)^2 + 2\left\{ 2\bar{d}(1 - \bar{d}) - [\bar{d}(1 - \bar{d})]^{1/2} \right\} \right]}{4[\bar{d}(1 - \bar{d}]^{1/2}(\bar{d} - 1/2)^2} > 0$ and $\frac{\partial \bar{d}}{\partial \theta} \ge 0$.
• When $q_t \left\{ \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left(\frac{c(\theta) - \theta u}{\Delta U} \right) \right\} < 0, \frac{\partial d^{\theta}}{\partial \theta} = \frac{\partial d^{\theta}}{\partial \bar{d}} * \frac{\partial \bar{d}}{\partial \theta} > 0$, since
 $\frac{\partial d^{\theta}}{\partial \bar{d}} = -\frac{\left[(\bar{d} - 1/2)^2 + 2\left\{ 2\bar{d}(1 - \bar{d}) - [\bar{d}(1 - \bar{d})]^{1/2} \right\} \right]}{4[\bar{d}(1 - \bar{d}]^{1/2}(\bar{d} - 1/2)^2} < 0$ and $\frac{\partial \bar{d}}{\partial \theta} < 0$.

The proofs of Propositions 2 (3), 3 (3) and 4 (3) follow the same reasoning as Proposition 1 (3). However, the new factors introduced in each model change the SSE as they affect ΔU_c^p .

Proposition 2 (3) is obtained from the interior SSE found in model 3.3. Substituting ΔU_c^p , and \bar{d}^{α} defined in (14) into (*B*), gives,

$$\left(2\bar{d}^{\alpha}-1\right)d_t^2-2\bar{d}^{\alpha}d_t+\bar{d}^{\alpha}=0$$

It implies that,

(i). For all values of q_t such that q_t {1/2 ((1-α)θu/ΔU)) + (1 - q_t) {1/2 (αc(θ)-(1-α)θu/ΔU)) ≥ 0, the unique interior SSE will be d_t = d^α = (d^α-[d^α(1-d^α)]^{1/2}/(d-1/2)).
(ii). For all values of q_t such that q_t {1/2 ((1-α)θu/ΔU)) + (1 - q_t) {1/2 (αc(θ)-(1-α)θu/ΔU)) < 0, the unique interior SSE will be d_t = d^α = (d^α-[d^α(1-d^α)]^{1/2}/(d-1/2)).

Additionally,

• When
$$q_t \left\{ \frac{1}{2} \left(\frac{(1-\alpha)\theta u}{\Delta U} \right) \right\} + (1-q_t) \left\{ \frac{1}{2} \left(\frac{\alpha c(\theta) - (1-\alpha)\theta u}{\Delta U} \right) \right\} \ge 0, \frac{\partial d^{\alpha}}{\partial \alpha} = \frac{\partial d^{\alpha}}{\partial \bar{a}^{\alpha}} * \frac{\partial \bar{a}^{\alpha}}{\partial \alpha} \le 0$$
, as
$$\frac{\partial d^{\alpha}}{\partial \bar{a}^{\alpha}} = \frac{\left[(\bar{a}^{\alpha} - 1/2)^2 + 2\{2\bar{a}^{\alpha}(1-\bar{a}^{\alpha}) - [\bar{a}^{\alpha}(1-\bar{a}^{\alpha})]^{1/2}\} \right]}{4[\bar{a}^{\alpha}(1-\bar{a}^{\alpha})]^{1/2} (\bar{a}^{\alpha} - 1/2)^2} > 0 \text{ and } \frac{\partial \bar{a}^{\alpha}}{\partial \alpha} \le 0.$$

• When
$$q_t \left\{ \frac{1}{2} \left(\frac{(1-\alpha)\theta u}{\Delta U} \right) \right\} + (1-q_t) \left\{ \frac{1}{2} \left(\frac{\alpha c(\theta) - (1-\alpha)\theta u}{\Delta U} \right) \right\} < 0, \frac{\partial d^{\alpha}}{\partial \alpha} = \frac{\partial d^{\alpha}}{\partial \bar{d}^{\alpha}} * \frac{\partial \bar{d}^{\alpha}}{\partial \alpha} < 0$$
, since
 $\frac{\partial d^{\alpha}}{\partial \bar{d}^{\alpha}} = -\frac{\left[(\bar{d}^{\alpha} - 1/2)^2 + 2\{2\bar{d}^{\alpha}(1-\bar{d}^{\alpha}) - [\bar{d}^{\alpha}(1-\bar{d}^{\alpha})]^{1/2}\} \right]}{4[\bar{d}^{\alpha}(1-\bar{d}^{\alpha})]^{1/2}(\bar{d}^{\alpha} - 1/2)^2} < 0$ and $\frac{\partial \bar{d}^{\alpha}}{\partial \alpha} > 0$.

Proposition 3 (3) derives from obtaining the interior SSE in model 3.4. Substituting ΔU_c^p , and $\bar{d}^{\mathbb{C}}$ defined in (18) into (*B*), we get,

$$(2\bar{d}^{\varepsilon}-1)d_t^2-2\bar{d}^{\varepsilon}d_t+\bar{d}^{\varepsilon}=0.$$

Results in the following new SSE,

(i). For all values of q_t such that $q_t \left\{ \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left(\frac{(1 - \varepsilon)c(\theta) - \theta u}{\Delta U} \right) \right\} \ge 0$, the unique interior SSE will be $d_t = d^{\varepsilon} = \frac{\overline{d^{\varepsilon} - [\overline{d^{\varepsilon}(1 - \overline{d^{\varepsilon}})]^{1/2}}}{\overline{d^{\varepsilon} - 1/2}}$. (ii). For all values of q_t such that $q_t \left\{ \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left(\frac{(1 - \varepsilon)c(\theta) - \theta u}{\Delta U} \right) \right\} < 0$, the unique interior SSE will be $d_t = d^{\varepsilon} = \frac{\overline{d^{\varepsilon} + [\overline{d^{\varepsilon}(1 - \overline{d^{\varepsilon}})]^{1/2}}}{\overline{d^{\varepsilon} - 1/2}}$.

Moreover,

When
$$q_t \left\{ \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left(\frac{(1 - \varepsilon)c(\theta) - \theta u}{\Delta U} \right) \right\} \ge 0, \frac{\partial d^{\varepsilon}}{\partial \varepsilon} = \frac{\partial d^{\varepsilon}}{\partial \bar{d}^{\varepsilon}} * \frac{\partial \bar{d}^{\varepsilon}}{\partial \varepsilon} \le 0$$
, as
 $\frac{\partial d^{\varepsilon}}{\partial \bar{d}^{\varepsilon}} = \frac{\left[(\overline{d^{\varepsilon}} - 1/2)^2 + 2\left\{ 2\overline{d^{\varepsilon}}(1 - \overline{d^{\varepsilon}}) - [\overline{d^{\varepsilon}}(1 - \overline{d^{\varepsilon}})]^{1/2} \right\} \right]}{4[\overline{d^{\varepsilon}}(1 - \overline{d^{\varepsilon}})]^{1/2}(\overline{d^{\varepsilon}} - 1/2)^2} > 0$ and $\frac{\partial \bar{d}^{\varepsilon}}{\partial \varepsilon} \le 0$.
When $q_t \left\{ \frac{1}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1 - q_t) \left\{ \frac{1}{2} \left(\frac{(1 - \varepsilon)c(\theta) - \theta u}{\Delta U} \right) \right\} < 0, \frac{\partial d^{\varepsilon}}{\partial \varepsilon} = \frac{\partial d^{\varepsilon}}{\partial \bar{d}^{\varepsilon}} * \frac{\partial \bar{d}^{\varepsilon}}{\partial \varepsilon} < 0$, since $\frac{\partial d^{\varepsilon}}{\partial \overline{d^{\varepsilon}}} = -\frac{\left[(\overline{d^{\varepsilon}} - 1/2)^2 + 2\left\{ 2\overline{d^{\varepsilon}}(1 - \overline{d^{\varepsilon}}) - [\overline{d^{\varepsilon}}(1 - \overline{d^{\varepsilon}})]^{1/2} \right\} \right]}{4[\overline{d^{\varepsilon}}(1 - \overline{d^{\varepsilon}})]^{1/2}(\overline{d^{\varepsilon}} - 1/2)^2} < 0$ and $\frac{\partial \bar{d}^{\varepsilon}}{\partial \varepsilon} > 0$.

Proposition 4 (3) follows from the interior SSE obtained in model 3.5. Substituting ΔU_c^p , and \bar{d}^{ϕ} defined in (22) into (*B*) and after some algebra. Then

$$(2\bar{d}^{\phi}-1)d_t^2 - 2\bar{d}^{\phi}d_t + \bar{d}^{\phi} = 0.$$

It follows that,

(i). For all values of q_t such that $q_t \left\{ \frac{(1-p^{\phi})}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1-q_t) \left\{ \frac{(1-p^{\phi})}{2} \left(\frac{c(\theta)-\theta u}{\Delta U} \right) \right\} \ge 0$, the unique interior SSE will be $d_t = d^{\phi} = \frac{\overline{d}^{\phi} - [\overline{d}^{\phi}(1-\overline{d}^{\phi})]^{1/2}}{\overline{d}^{\phi} - 1/2}$. (ii). For all values of q_t such that $q_t \left\{ \frac{(1-p^{\phi})}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1-q_t) \left\{ \frac{(1-p^{\phi})}{2} \left(\frac{c(\theta)-\theta u}{\Delta U} \right) \right\} < 0$, the unique interior SSE will be $d_t = d^{\phi} = \frac{\overline{d}^{\phi} + [\overline{d}^{\phi}(1-\overline{d}^{\phi})]^{1/2}}{\overline{d}^{\phi} - 1/2}$.

As well,

• When
$$q_t \left\{ \frac{(1-p^{\phi})}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1-q_t) \left\{ \frac{(1-p^{\phi})}{2} \left(\frac{c(\theta)-\theta u}{\Delta U} \right) \right\} \ge 0 \text{ and } p^{\phi} > \frac{1}{2},$$

 $\frac{\partial d^{\phi}}{\partial v} = \frac{\partial d^{\phi}}{\partial \bar{a}^{\phi}} * \frac{\partial \bar{a}^{\phi}}{\partial p^{\phi}} * \frac{\partial p^{\phi}}{\partial v} \le 0, \quad \text{as} \quad \frac{\partial d^{\phi}}{\partial \bar{a}^{\phi}} = \frac{\left[\left(\bar{a}^{\phi} - 1/2 \right)^2 + 2 \left\{ 2 \bar{a}^{\phi} (1-\bar{a}^{\phi}) - \left[\bar{a}^{\phi} (1-\bar{a}^{\phi}) \right]^{1/2} \right\} \right]}{4 \left[\bar{a}^{\phi} (1-\bar{a}^{\phi}) \right]^{1/2} \left(\bar{a}^{\phi} - 1/2 \right)^2} > 0,$
 $\frac{\partial \bar{a}^{\phi}}{\partial p^{\phi}} \le 0 \text{ and } \frac{\partial p^{\phi}}{\partial v} = \frac{1}{(1-2p^{\phi})} > 0.$

• When
$$q_t \left\{ \frac{(1-p^{\phi})}{2} \left(\frac{\theta u}{\Delta U} \right) \right\} + (1-q_t) \left\{ \frac{(1-p^{\phi})}{2} \left(\frac{c(\theta)-\theta u}{\Delta U} \right) \right\} < 0 \text{ and } p^{\phi} > \frac{1}{2},$$

 $\frac{\partial d^c}{\partial c} = \frac{\partial d^c}{\partial \bar{d}^c} * \frac{\partial \bar{d}^c}{\partial c} < 0, \text{ since } \frac{\partial d^c}{\partial \bar{d}^c} = -\frac{\left[\left(\bar{d}^{\phi} - 1/2 \right)^2 + 2 \left\{ 2 \bar{d}^{\phi} (1-\bar{d}^{\phi}) - \left[\bar{d}^{\phi} (1-\bar{d}^{\phi}) \right]^{1/2} \right\} \right]}{4 \left[\bar{d}^{\phi} (1-\bar{d}^{\phi}) \right]^{1/2} \left(\bar{d}^{\phi} - 1/2 \right)^2} < 0,$
 $\frac{\partial \bar{d}^{\phi}}{\partial p^{\phi}} > 0 \text{ and } \frac{\partial p^{\phi}}{\partial v} = \frac{1}{(1-2p^{\phi})} > 0.$

Proof of the special scenario of <u>Case 3</u> from Propositions (1) to (4)

Each model has a special scenario with a stable interior SSE. It happens, in model 3.2, when $c(\theta) = 2\theta u$, in model 3.3 when $\alpha c(\theta) = 2(1 - \alpha)\theta u$, in model 3.4 when $(1 - c)c(\theta) = 2\theta u$ and in model 3.5 when $c(\theta) = 2\theta u$.

Substituting each one of the conditions in the FOCs in its respective model we obtain $d_1 \tau_P^D = d_2 \tau_E^D$ and $(1 - d_1) \tau_P^A = (1 - d_2) \tau_E^A$.

Introducing it into (*A*),

(C)
$$q_t\{(1-d_t)[d_1\tau_P^D] - d_t[(1-d_1)\tau_P^A]\} = 0$$

which can also be re-written as,

(D)
$$(1-q_t)\{(1-d_t)[d_2\tau_E^D] - d_t[(1-d_2)\tau_E^A]\} = 0.$$

Additionally, by decomposing the share of democratic types by class, we have,

(E)
$$d_{1,t+1}q_{t+1} = d_1q_t P_P^{D,D} + (1-d_1)q_t P_P^{A,D}$$
$$= q_t \{ d_t + (1-d_t)d_1\tau_P^D - d_t(1-d_1)\tau_P^A \}$$

(F)
$$d_{2,t+1}(1-q_{t+1}) = d_2(1-q_t)P_E^{D,D} + (1-d_2)(1-q_t)P_E^{A,D}$$

= $(1-q_t)\{d_t + (1-d_t)d_2\tau_E^D - d_t(1-d_2)\tau_E^A\}.$

Since the SSE is characterized by $q_{t+1} = q_t$, $d_{1,t+1} = d_1$ and $d_{2,t+1} = d_{2,t+1}$ From substituting (*C*) into (*E*) and (*D*) into (*F*), we get,

$$0 = q_t \{ d_t - d_1 \}.$$

$$0 = (1 - q_t) \{ d_t - d_2 \}.$$

Therefore, there is only an interior SSE where $q_t \neq \{0,1\}$ in which $d_1 = d_2 = d_t$. It follows that the new SSE per model is,

- $d^{\theta} = \bar{d} = \frac{1}{2} + \frac{1}{2} \left(\frac{\theta u}{\Delta U}\right)$ and $\frac{\partial d^{\theta}}{\partial \theta} = \frac{u}{2\Delta U} > 0$ for model 3.2.
- $d^{\alpha} = \bar{d}^{\alpha} = \frac{1}{2} + \frac{1}{2} \left(\frac{(1-\alpha)\theta u}{\Delta U} \right)$ and $\frac{\partial d^{\alpha}}{\partial \alpha} = -\frac{\theta u}{2\Delta U} < 0$ for model 3.3.
- $d^{\mathbb{C}} = \overline{d}^{\mathbb{C}} = \frac{1}{2} + \frac{1}{2} \left(\frac{\partial u}{\Delta U} \right)$ and $\frac{\partial d^e}{\partial \mathbb{C}} = 0$ for model 3.4.

•
$$d^{\phi} = \bar{d}^{\phi} = \frac{1}{2} + \frac{(1-p^{\phi})}{2} \left(\frac{\theta u}{\Delta U}\right) \text{ and } \frac{\partial d^e}{\partial v} = -\frac{\theta u}{2\Delta U} * \frac{1}{(1-2p^{\phi})} > 0 \text{ when } p^{\phi} > \frac{1}{2} \text{ for model 3.5.}$$

Proof of Proposition 5. When $p^{\phi} = 1$, $\tau_P^D = \tau_E^D = \tau^D$ and $\tau_P^A = \tau_E^A = \tau^A$, given the assumption $H(\tau_C^p) = \frac{(\tau_C^p)^2}{2}$. It follows that the unique interior SSE found substituting FOCs (25) and (26) in (24) is $d^{\varepsilon} = \frac{1}{2} + k$. Where $k = \frac{\sqrt[2]{2\varepsilon\Delta U + (1+\varepsilon^2)(\Delta U)^2 - 6\varepsilon[-\Delta U + \Delta U^2] - (1+\varepsilon)\Delta U}}{4(1-\varepsilon)\Delta U}$. The second part of **Proposition 5** is found by taking the derivative of d^{ε} with respect to ε .

Re-writing the SSE of proposition 5 as follows

 $(1-\varepsilon) d^{\varepsilon} = \frac{[2(1-\varepsilon)\Delta U - (1+\varepsilon)(\Delta U)] + \sqrt[2]{2\varepsilon\Delta U + (1+\varepsilon^{2})(\Delta U)^{2} - 6\varepsilon[-\Delta U + \Delta U^{2}]}}{4\Delta U}$ and denoting $A = 2\varepsilon\Delta U + (1+\varepsilon^{2})(\Delta U)^{2} - 6\varepsilon[-\Delta U + \Delta U^{2}]$. Then $\frac{\partial d^{\varepsilon}}{\partial \varepsilon}(1-\varepsilon) = \frac{1}{4\Delta U} \left\{ -3\Delta U + \frac{2(\Delta U + \varepsilon\Delta U^{2} + 3\Delta U - 3\Delta U^{2})}{2\sqrt[2]{A}} \right\} + d^{\varepsilon}$ $\frac{\partial d^{\varepsilon}}{\partial \varepsilon}(1-\varepsilon) = \frac{1}{4\Delta U} \left\{ -\Delta U + \frac{(\Delta U + \varepsilon\Delta U^{2} + 3\Delta U - 3\Delta U^{2})}{\sqrt[2]{A}} + \frac{[-(1+\varepsilon)(\Delta U)] + \sqrt[2]{A}}{(1-\varepsilon)} \right\}.$

The following equation is obtained after simplification,

$$\frac{\partial d^{\varepsilon}}{\partial \varepsilon} = \frac{1}{(1-\varepsilon)^2 \sqrt[2]{A}} \left\{ \frac{1}{2} \sqrt[2]{A} + (1+\varepsilon) \left[1 - \frac{1}{2} \Delta U \right] \right\}$$

Then $\frac{\partial d^{\varepsilon}}{\partial \varepsilon}$ is positive since that thanks to FOCs (25) and (26), we know the maximum value of $\Delta U \rightarrow 1$.

Determining τ^D , τ^A and how they vary with respect to ε

From FOCs (25) and (26)

$$\tau^{D} = (1 - \varepsilon)(1 - d_{t})\Delta U$$

$$\tau^{A} = [1 - (1 - \varepsilon)(1 - d_{t})]\Delta U$$

$$\frac{\partial \tau^{D}}{\partial \varepsilon} = -\left[(1 - d^{\varepsilon}) + (1 - \varepsilon) \frac{\partial d_{t}}{\partial \varepsilon} \right] \Delta U < 0$$
$$\frac{\partial \tau^{A}}{\partial \varepsilon} = \left[(1 - d^{\varepsilon}) + (1 - \varepsilon) \frac{\partial d_{t}}{\partial \varepsilon} \right] \Delta U > 0.$$

Notice that when $\varepsilon \to 1$, the democratic parents do not socialise their children $\tau^D \to 0$, as the high level of extra-elite socialisation, substitutes parental socialisation for democratic types. On the contrary, for the autocratic type, parental socialisation is set at its maximum value $\tau^A \in$ (0,1). Furthermore, the dynamics of the transition in (24) imply that $\lim_{t\to\infty} d_t = 1$.

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