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Transnational Diffusion of Identity Politics

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Abstract

We study a model of multi-dimensional politics in which voting decisions are not only affected by the voters' preferences regarding redistribution but also by their identity. Voters may thus trade material gains from redistribution for immaterial benefits from identity politics. Based on this widely accepted approach, we model a novel channel for the transnational diffusion of identity politics. According to our approach, changes in foreign identity politics can influence domestic voting decisions due to two mechanisms: First, by changing the domestic voters' role models, specified by their identities and, second, by shifting the relative gains from specific identities for domestic voters. Both mechanisms imply a positive effect from foreign on domestic identity politics. Accordingly, identity politics can spread from one country to another, resulting in cascades of mutually reinforcing policies. Our model also reveals that temporary foreign shocks can have permanent consequences for domestic identity politics due to cultural constraints. This may even be true for small changes in the relative benefits of identities. Those can cumulate over time until the benefits are large enough to overcome the rigidity of culture. A similar effect can be shown for the impact of formal identity groups, which may be formed even without influence on politics but could help to consolidate power and thus having far-reaching consequences for domestic identity politics.

JEL Classification: D72, F52

Keywords: Identity, Voting, Policy Diffusion, Cultural Economics

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ABBREVIATIONS

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1. INTRODUCTION

Europe currently undergo a political shift to the right, which manifests itself not only in electoral results (see Figure 1) or in the awakening of (new) far-right parties. This development also becomes visible in a more general societal orientation to the right, in which more and more traditional far-right positions are successively becoming part of the public discourse.[1] It is interesting to notice that most European countries have similar experiences but that there are significant differences regarding the development's strength and its timing between them. Whereas in some countries strong far-right parties are a relatively recent phenomenon (Germany, Spain), others have a more or less long tradition (France, Austria, Slovakia, Netherlands) or are now experiencing a revival (Nordic Countries, Italy). Furthermore, it also differs considerably how other parties interact with the far right and, surprisingly, high vote shares does not necessarily come along with governmental participation.[2] However, even if far-right parties rarely have direct access to governmental powers, their political positions, nonetheless, slowly diffuse in the political system and were absorbed by other parties across the entire political spectrum (see, e.g., Wagner and Meyer, 2017, 2018).[3] This policy diffusion is not limited to traditional right-wing areas like tougher migration laws or an increased hostility to refugees but also spreads to less partisan fields like industrial or trade politics.

Another very visible change in European politics is the altered rhetoric of many politicians, which is, again, not limited to the far right. Quite often, a strong anti-EU, anti-migration, or anti-trade rhetoric can be heard in the political arena and, consequently, international cooperation in general is more and more portrayed negatively. It is again interesting to see that this rhetoric is not always accompanied by stronger similar attitudes among citizens. However, those survey results contrast sharply with the electoral success of politicians, building their platform on that rhetoric. The views, expressed in the polls by citizens, are also far from being consistent. For example, according to the recent Eurobarometer, the general view on the EU is (fairly) positive or, at least, not negative and positive views are actually on the rise.[4] However, these expressed views are at odds with the also predominant impression of an (increasing) majority of citizens in recent years that the EU is heading in the wrong direction. The opinions on international trade are similar. According to the PEW Global Attitude Survey 2018, a majority of citizens in advanced countries have a strong positive view on international trade in general. However, this seem to be more a vague feeling than a conviction when, at the same time, only a (small) minority believes that international trade actually creates jobs, increases wages, or decreases prices.

Those latter views perfectly fit into the commonly propagated picture of international relations as zero-sum games, which enjoys great popularity despite all counterevidence. This pessimistic perspective on international cooperation is now, in combination with a general anti-trade rhetoric, a common companion of European politics and its impact is already perceptible. The rising (economic) nationalism manifests itself in (public support for) new rounds of protectionism,[5] rejections of trade agreements (by

[1]See, e.g., Rheindorf and Wodak (2018) for Austria, Krzyzanowski (2018) for Poland, or Vollmer and Karakayali (2018) for Germany.

[2]For, example, in France or the Netherlands, with relatively strong, established far-right parties, the far right is isolated, whereas far-right parties were (routinely) part of the governments in Italy, Austria or Slovakia.

[3]Wagner and Meyer (2017) rely on data from the Manifesto Corpus. See Lehmann et al. (2023) for the most recent version. Similar conclusions can also be drawn from the Chapel Hill expert survey data by Bakker et al. (2015) and the updated series for 2014 and 2017.

[4] This statement refers to the time of writing this paper, i.e., 2019.

[5]For results of a poll, see, e.g., Bluth (2016, p. 14). However, these results are again inconsistent as the respondents simultaneously expressed support for more protectionism but do see international trade in general positive. For the US and Germany, the survey also shows that opposition to international trade is the largest on the far-right and and the far-left end of the political spectrum.

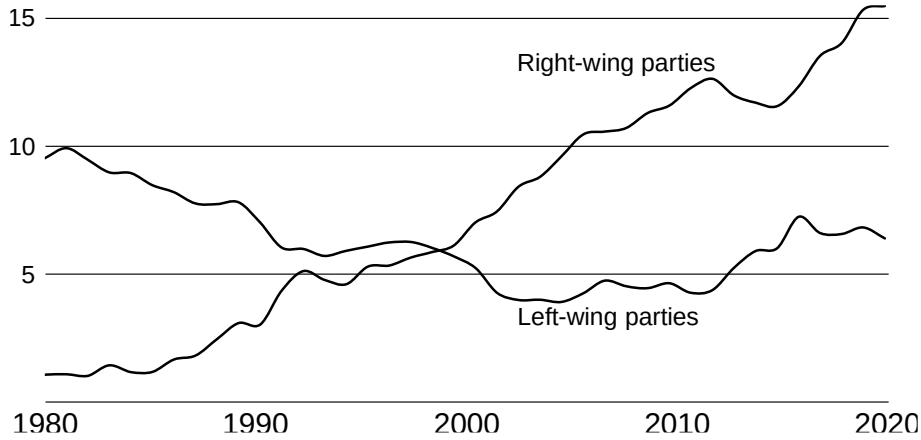

Figure 1: Average Vote Shares for Populist Parties on the Left and on the Right.

Source: Data from Timbro Authoritarian Populism Index for 33 European countries; countries were included after the first democratic election.

the general public),[6] and less willingness to cooperate internationally in general. Haass (2017, p. 2) summarizes all those developments quite well:

> Populism and Nationalism are on the rise. What we are witnessing is a widespread rejection of globalization and international involvement and, as a result, a questioning of long-standing postures and policies, from openness to trade and im- migrants to a willingness to maintain alliances and overseas commitments.

Unfortunately, this development is not restricted to Europe alone. Similar developments are also visible in the US, in which Donald Trump won the 2016-US-presidential election on a political platform, promising tougher policies on immigration, less international cooperation and more protectionism[7] and where some of these topics became part of mainstream politics in the following years.

At the same time, this right-wing shift is only one aspect of a more general development in politics and society, in which a stronger emphasis is placed on more diverse (social) identities and which has far-reaching consequences for the party systems in several countries. Social identity is usually defined as an individual's "knowledge that he belongs to certain social groups together with some emotional and value significance to him of his membership" (Tajfel, 1972, p. 292).[8] More concisely, social identity is an individual's definition of her (but also of others) position within a system of social categories, esp., social group memberships. According to the social identity theory by Tajfel and Turner (1979) and its extension, the self-categorization theory by Turner et al. (1987), individuals self-select into categorical groups (i.e., identity groups) based on the positive self-esteem from group membership. Here, self-categorization is context-dependent and hence is "intrinsically variable, fluid, and relative to a frame" (Turner et al., 1994, p. 456). In other words, the salience of categories and thus the formation of groups, depends on the current context and, accordingly, individuals may self-select in different groups for changing contexts.[9]

[6]The debate on the Transatlantic Trade and Investment Partnership (TTIP) is a very good example, how the public opinion can completely change during a campaign. See, e.g., Duer (2019).

[7]Again, the public opinion was far from being definite. According to 2019 polls, there is evidence that large parts of Donald Trumps agenda are rejected by the US citizens at that time. See Smeltz et al. (2019).

[8]Translated according to Tajfel (1974, p. 72).

[9]For example, a female laborer from country "A" may perceive herself according to her gender (female), class (laborer), or nationality (country "A") depending on the situation. Accordingly, she may self-select in different (spontaneous-emerging) groups at different occasions.

In the political sphere, changing salience of categories can have far-reaching consequences for political party systems as newly-predominant identity groups may overlap with traditional political factions. The ascent of new identity groups may thus allow for new alliances between (new) voter groups and, hence, for new political platforms. Subsuming those "new" identity groups under "culture", The Economist (2019), for examples, argues that "[o]ver several decades, economic attitudes have been replaced by cultural ones as the main predictor of party affiliation" in Great Britain as well as in the USA.[10] For the case of Sweden, Jylhä et al. (2019) find evidence that the "radical right-wing" party Sweden Democrats were able to attract large support from both, formerly left- and right-wing voters. Accordingly, economic issues (e.g., redistributive preferences) seem to successively become less important for forming a successful political platform at the benefit of other identity groups, which start to affect politics. Grossman and Helpman (2021, p. 1104) highlight here the newly-obtained importance of "race" in the USA and "ethnicity" in Europe.[11] Against this background and given the resulting political distortions, it is not surprising that far-right politics, nationalism, and identity in general receive growing attention from the field of social science.[12]

Akerlof and Kranton (2000, 2010) were the first, who consider identity in economic analysis. Generally, they grasp the impact of identity on economic choices as analogous to that of social-context-dependent tastes, which derive from social norms. The latter regulate the socially-accepted behavior of people in different situation, which, in turn, depends on the individuals and their counterparts' social categories (i.e., their membership(s) in social groups).[13] Accordingly, people may behave differently in different contexts because their behavior is governed by identity-based social norms and identity may change depending on the context. However, unlike the usual view of economics on norms, people do not follow their identity-inherent norms for fear of third-party-imposed sanctions but because they internalize those norm and voluntarily want to follow them. Despite this intrinsic motivation to follow the rules, one own's identity has nonetheless social consequences (i.e., affecting the behavior of others) as "[o]ne person's actions can have meaning for and evoke responses in others" (Akerlof and Kranton, 2000, p. 717). Put in economic terms, both see identity as a type of externality as an individual's self-image and thus her utility from identity is affected by the behavior of others. Based on these considerations, Akerlof and Kranton (2000) develop a utility function, consisting of an individual's behavior (e.g., her consumption) and of her "identity" or "self-image". Here, utility from identity depends on (i) the extent to which the individual's but also all others' behavior is in line with the socially-expected behavior dictated by the individuals' social categories (i.e., their identity) and (ii) the extent to which the individual's own given characteristics meet the ideal of her chosen social category.

Based on this seminal approach towards identity and economic choices, several authors extended the framework to analyze election outcomes related to identity, especially under consideration of preferences for redistribution.[14] For example, Shayo (2009) introduces preference regarding redistribution (as class identity) into a median voter model. Accordingly, voters can trade material for immaterial payoffs (i.e., national pride) by substituting class status for status of the nation. Based on this approach, the author shows that poor citizens' support for redistribution decreases with stronger national identification and that poor citizens should be more nationalistic than their richer counterparts. Applying a similar approach to ethnicity instead of nationalism, Lindqvist and Östling (2013) show that increasing ethnic fractionalization may yield less redistribution in society. Dahlberg et al. (2012) as well as Alesina

[10]The authors refer to the British Torries' success in 2019, in which many traditionally Labour-leaning blue-collar workers voted for the conservatives, as well as to Donald Trump's ability to hold together a coalition of rich and poor voters, relying on conservative positions on cultural matters.

[11]See also, Sides et al. (2017) and Jardina (2018).

[12]See, e.g., Dorn et al. (2018), Dal Bó et al. (2023), or Im et al. (2019), who identify economic deprivation as a reason for voters to support far-right-wing parties. See also Fukuyama (2018) for the impact of identity on contemporary politics in general.

[13]Bénabou and Tirole (2011) offer a different approach to identity economics. They develop a framework, which grasps identity as an individual's belief about her personality, modeled as her investments in social relations.

[14]For a survey on the theoretical and empirical literature regarding identity and redistributive preferences, see Costa-Font and Cowell (2015).

et al. (2023) present empirical evidence, supporting this result. Shifting the interest away from policy outcomes, Tavits and Potter (2015) analyze the strategic choices of political parties. The authors argue that rising economic inequality differently affect the strategies of left- and right-wing parties. While left-wing parties react by emphasizing economic issues, their right-wing counterparts rather tend to stress value-based policies. Focusing on the structure of the party system, Ansolabehere and Puy (2016) show that identity voting can direct formerly centrist voters away to the poles, sustaining a stable multi-party system. According to Grossman and Helpman (2021), a similar rationale as for identity and redistribution may apply to other economic policies like trade. Their model implies that even high-skilled workers may opt for higher taxes, which are costly to them, as they identify more strongly with their nation due to a sense of solidarity with low-skilled workers. Finally, Besley and Persson (2021) extend those static models to a dynamic setting, showing how economic polarization may not only yield stronger identity politics but may also result in the emergence of institutionalized identity groups and political parties.

Building in particular on the approach of Besley and Persson (2021), we try to con- tribute to this literature by analyzing how identity politics may diffuse internationally. With such an approach, we may be able to model the similar (deferred) trends regarding the public perception and the political seizure of identity politics in several countries. As described above, this trend is most visible for far-right parties. Even if it appears as contradicting at first glance Western European far-right parties are, according to Rydgren (2005) and Van Hauwaert (2019), not structurally independent political agents, who developed in isolation. Instead, both authors argue that those parties base on a similar platform, combining ethnonationalist xenophobia with anti-political-establishment populism, which emerges from a common role model, the French Rassemblement National (formerly, Front National). In other words, similarities between European far-right parties are not the result of "independent responses to shared challenges" (Van Hauwaert, 2019, p. 34) but the active adoption of (successful-proven) ideas, practices, or elements of others (Rydgren, 2005, p. 429f.). Accord to this argument, the public discourse in many European countries is, for now, dominated by traditional right-wing themes and far-right parties are often on the rise because the latter successfully mimicry the strategies of the Rassemblement National and, thus, are able to dominate the public discourse in their countries. However, even the most promising strategies can only be adopted successfully if they fall on fertile ground in their new environment. Consequently, Rydgren also stresses the importance of the "political opportunity structure" for the success of far-right parties, in particular the importance of "the emergence of niches on the electoral arena" (Rydgren, 2005, p. 418).

In this regard, the ascent of identity politics should play an important role as such niches can emerge due to changing salience of identity categories and inappropriate reactions by the traditional parties. Besley and Persson (2021) formalize a similar process in their approach and show the conditions for the emergence of new parties. With our paper, we extend their approach and incorporate a link between the salience of identity categories in one country and the related policies in others. In the narrow terms of nationalism, the subject of our model, this link is actually straightforward: Less willingness to cooperate internationally by a government in one country should reduce the perception of benefits from international cooperation by citizens in other countries. Those perceived reservations regarding international cooperation diffuse into a country's policy via voting and even non-nationalist governments can be forced to lean more strongly to voters with a nationalist identity. However, those narrow fields related to international cooperation may be in the focus of our model and, thus, we have an emphasis on cosmopolitan/nationalist identity, but our results can be extended far beyond to other kinds of identity. Consider, for example, the broad fields of gender equality or minority rights, in which similar intergovernmental links should exist.[15] Here, some countries may act as pioneers and, thus, leaning towards identity politics beneficial for certain groups. Even if those policies do not directly affect the governments of other countries, they should influence the latter's voters by creating a larger

[15]There is broad empirical evidence for diffusion of (identity) politics, e.g., regarding same-sex marriages (Fernández and Lutter, 2013) or women's suffrage (Munshi, 2010) as well as regarding democratization (Weyland, 2010), revolutionary spirit (Weyland, 2009, 2012) or free-market policies (Simmons et al., 2006).

sense of entitlement for those in favor or, with a negative connotation, a larger field of acceptable policies for those opposing. Put differently, we argue that changes of policies in single countries also change the context in others and thus the identity-based social norms. As the latter govern the group-dependent socially-accepted behavior of "ideal" members, citizens react by internalizing a changed socially-ideal behavior, which potentially affects their voting decisions.

Given this focus, our paper also relates to the literature on policy diffusion though diffusion in our model relies on another, novel mechanism. Generally, the literature on policy diffusion emphases four mechanisms, which channels the influence on policy makers: learning, competition, coercion, and emulation (Gilardi and Wasserfallen, 2019).[16] Accordingly, those theories focus on the beliefs of governments about the effectiveness or consequences of certain policies and how those beliefs are affected by the experiences or behavior of governments in other countries. Regarding electoral success, policies thus diffuse because governments emulate electoral strategies from successful foreign parties (e.g., Gilardi, 2010; Böhmelt et al., 2016). Another strand of the literature applies the "voting-by- feet"-mechanism by Tiebout (1956), according to which governments in different countries are forced to adopt certain policies due to competition for mobile production factors or preferred voters (e.g., Gassebner et al., 2011). Similar, Salmon (2019) utilize yardstick competition and explains policy diffusion by the reduction of information asymmetries if voters in one country use the behavior of politicians in others to evaluate their own governments and, based on this, maybe update their voting behavior (i.e., yardstick voting). Governments then must emulate the policies of their neighbors, which their voters expect to be successful. In contrast to our approach, foreign policies do not change the voters' tastes (i.e., the internalized identity-based norms) but their perceived favorable domestic policies by broaden their informational base.

The remainder of the paper is organized as follows. In the next section, we develop our model of intergovernmental spillovers of nationalist politics and how voters may update their identity during electing cycles. This allows us to identify cultural constraints on the spillovers. In Section 3, we discuss the results from our model. Section 4 sums up and conclude.

2. MODEL

In the following, we develop a model of two-dimensional politics, in which voting decision are affected by the parties' proposed level of redistribution and their signaled cosmopolitan/nationalist attitude. In addition, the voters' perception of an optimal cosmopolitan/nationalist attitude (i.e., their identity) is affected by the attitudes of foreign governments. More concisely, two domestic parties are organized and compete for votes by proposing a platform consisting of a domestic traditional left-right dimension (i.e., redistribution) and a second dimension, which addresses the voters' identity. Here, we assume that voters value cosmopolitanism more highly and, thus, demand a stronger cosmopolitan attitude by their government if the country's international partners have a stronger cosmopolitan mindset, too.

2.1 MODEL'S OUTLINE

The intrastate part of our model primarily relies on the model in Besley and Persson (2021), which illustrates how exogenous shocks could result in enlarging identity groups and, via voting, in intensified identity politics by the parties. We embrace their approach and expand it by introducing a foreign actor, who affects the domestic voters' perception of their identity. Similar to Besley and Persson (2021), we model nationalist identity politics as a policy dimension not fitting in the traditional political scheme. In other words, preference regarding identity politics differ not between but within traditional voter subgroups, making those formerly monolithic groups heterogeneous. Identity politics thus yields new

[16]See also Simmons et al. (2006) and the related special issue, for an extensive analysis of the diffusion of liberalism, emphasizing the importance of those four mechanisms as well.

voting groups and voters could belong to different subgroups. Accordingly, politicians are faced with the problem of how to address the preference on the second dimension of those new non-traditional groups without deterring their traditional voters.

As we are mainly interested in the changes in identity politics and how those are affected by developments in other country, our main focus is on the dynamic part of Besley and Persson (2021). In their multi-period approach, new generations of citizens emerge at the end of each round, newly self-assuring of their own identity for the next round and, thus, changing a society's composition. Our approach is not very different but applies a mechanism for recategorization instead of intergenerational transmission. We thus allow the voters to change their identity at the end of reach period and the share of Nationalists in society is determined by the benefits of having a Nationalist identity. Similar to Besley and Persson (2021), we also implement the opportunity for nationalists to join forces and form a non-partisan group in order to translate an increasing size in a larger impact on politics.

Given those considerations, our model utilizes the following timing:

1. Domestic polity arrives to period s with a given composition of the electorate and a given attitude towards cosmopolitanism.
2. Foreign government may update its cosmopolitan attitude.
3. Domestic nationalists decide to form/abandon a group.
4. Domestic government updates its cosmopolitan attitude as an electorate vote for party platforms.
5. Domestic citizens can decide to recategorize (i.e., to change their identity), determining the society's composition.

For the matter of simplicity, we assume that governments only consider the current voters and do not strategically choose their policy to affect the new composition of voters in the next period. Accordingly, the process of recategorization (No. 5) does not affect the policy update (No. 4) and, for the sake of a better understanding, we will discuss the policy updates via voting first, which mainly consists of standard theory of probabilistic voting. Here, the foreign cosmopolitan attitude is considered as exogenous, but it would be easy to model the foreign society as a mirror of the domestic and, thus, to assume that foreign government updates its policy the same way the domestic does. The same is true for recategorization at the end of a given period. Accordingly, we will model the intrastate political system without any reference to domestic or foreign country as it is identical for both. In the following, we will discuss the model in detail, starting with intrastate voting.

2.2 VOTERS' CLASSES AND IDENTITIES

Regarding the domestic environment, we gear ourselves to the reference model. Our model considers two societies, a domestic (D) and a foreign (F), whereby the foreign society only consists of its (exogenous) government's cosmopolitan attitude a_F.[17] The domestic society is equally split into two economic subgroups, the Poor (P) and the Rich (R) and unequally into two identity subgroups, Nationalists (N) and Cosmopolitans (C). Regarding the latter group, we assume that a share of μ_S self-identify as "nationalists" at time s and that nationalists are equally spread over the economic subgroups (i.e., in both economic groups is the same share μ_S of self-declared nationalists).

As mentioned before, Nationalists are also able to form a group in order to pool their efforts and, thus, to influence politics. Groups can exert such an influence on (varieties of) politics via, e.g., offering "support" (see, e.g., Stigler, 1971; Hillman, 1982) or more directly via campaign contribution (see, e.g., Bernheim and Whinston, 1986; Denzau and Munger, 1986). Therefore, they may be able to direct away the proposed policy from voters' preference towards the group's. In accordance with Besley and Persson

[17]As an extension, the foreign society could be modeled symmetrically to the domestic. However, this would not change the model's general results.

(2021), this influence is captured by introducing an additional utility from being in the group, which depends on total utility V_N of all Nationalist in the group and, thus, on the number of Nationalists. Accordingly, membership in this group has a positive network effect as it creates spillovers or positive externalities for all group members. However, forming a group causes individual per-period fixed costs of F.[18]

Also similar to Besley and Persson (2021), we model the redistributive policy by an income tax rate, $t \in [0, 1]$, whereby the resulting tax returns pay for domestic welfare-enhancing policy measures (e.g., transfers or public goods). Depending on their income classes, all citizens have a group-specific well-defined interior optimum ($\overline{t}$ as a poor and $\underline{t}$ as rich person) and those bliss points negatively depends on a citizen's income y_j. As implied by their designations, we assume $y_R > y_P$ and, hence, $\overline{t} > \underline{t}$, whereby the distance between the bliss points increases if the income gap $y_R - y_P$ widens. In accordance with the common assumptions, citizens' utility decreases with a policy t departing from their preferred bliss points and, thus, the citizens' preferences regarding redistribution are mod- eled by a symmetric loss function U(t − t̂) with $\hat{t} = \overline{t}, \underline{t}$, which is the same for all kinds of group members.

Regarding the government's cosmopolitan attitude $a \geq 0$, we deviate from the approach regarding identity politics in Besley and Persson (2021). In our model, both identity groups value some international orientation of their government but Cosmopolitans pursuing a stronger attitude a than Nationalists would prefer, this is a. Again, those bliss points are group-specific well-defined interior optima, which define the upper and lower bound, respectively, for the (proposed) party attitudes (i.e., $\overline{a} \geq a_i \geq \underline{a}$). The groups' members preferences are captured by a decreasing, convex payoff function, $W(\overline{a} - a_i)$ for C and $\theta W(a_i - \underline{a})$ for N, which is the same for both groups despite the different arguments and θ as an index for strength of (negative) sentiments and beliefs about cosmopolitanism hold by nationalists. In other words, both groups' payoffs, again, decrease with a government's cosmopolitan attitude departing from the citizens' preferred bliss points. Given those considerations, the payoff functions of a cosmopolitan (C) from group $j = P, R$ is

$$v_C^j(t_i, a_i, a_F) = U(t_i - \hat{t}) + W[\overline{a}(a_F) - a_i], \tag{1}$$

whereby t and a are the current tax-rate and cosmopolitan attitude in the society and $\hat{t} = \overline{t}, \underline{t}$. A nationalist's (N) utility from group $j = P, R$ is

$$v_N^j(t_i, a_i, a_F) = U(t_i - \hat{t}) + \theta W\left[a_i - \underline{a}(a_F)\right] \tag{2}$$

without a group being formed. If a group is formed all Nationalists join the group due to the homogeneous actors. Accordingly, a nationalist's (N) utility from group $j = P, R$ is then

$$v_N^{j'}(t_i, a_i, a_F) = v_N^j(t_i, a_i, a_F) + \xi \int_k v_N^k(t_i, a_i, a_F) = (1 + \xi\mu) v_N^j(t_i, a_i, a_F), \tag{3}$$

whereby ξ is a measure for the group's coherence and k runs across all Nationalists. Accordingly, a Nationalist's utility is the higher the more Nationalists exist, once a group is formed. For the notations' further simplification, we use the same measure

$$z = U(0) - U\left(\overline{t} - \underline{t}\right) = U(0) - U\left(\underline{t} - \overline{t}\right) \tag{4}$$

[18]Here, we refrain from continuously decreasing individual costs as in Besley and Persson (2021). Having the effect of fixed cost degression in the model would not change our general results regarding the formation of group because the group's size positively affects the benefits from the group and having fixed costs degression would only intensify the positive effect of size on formation. However, it would, in turn, unsightly change the results' appearance and, thus, we utilize constant individual costs for the sake of more convenient results.

as Besley and Persson (2021) for redistributive polarization between the groups.[19] Due to the model's symmetry, polarization is the same for all members of both groups.

As mentioned before, we assume that a stronger cosmopolitan attitude by one country increases the benefits of cosmopolitanism for all citizens in the other country and, thus, all latter citizens then would support a stronger cosmopolitan attitude by their own govern- ment. However, this effect should be larger for the Cosmopolitans than for the Nationalists, therefore

$$\frac{\partial \overline{a}}{\partial a_F} > \frac{\partial \underline{a}}{\partial a_F} > 0 \qquad \Leftrightarrow \qquad \frac{\partial (\overline{a} - \underline{a})}{\partial a_F} > 0 \tag{5}$$

holds true. Accordingly, foreign and domestic cosmopolitan attitudes are strategic complements because a stronger cosmopolitan attitude by one country encourages the other government to pursue cosmopolitanism more strongly forced by the latter's own voters. For simplification, we also assume that

$$U(0) - U(\overline{t} - \underline{t}) > W(0) - W(\overline{a} - \underline{a}), \tag{6}$$

holds true and, thus, that Cosmopolitans always vote in accordance with their social class.[20]

2.3 PARTY POLITICS

The domestic society's political system consists of two parties, which are organized in accordance with social classes, party R for the Rich and party P for the Poor. It is important to note that both parties are controlled by a cosmopolitan, social-class elite, which does not care for an anti-cosmopolitan attitude as such. At the same time, we assume that the parties are also able to commit to anti-cosmopolitan policies even if those policies are not in the personal interests of its members. In other words, the parties are not able to change their proposed policy after being elected. The parties compete by offering a platform $\{t = t_i, a = a_i$ (with $i = P, R)$, which maximizes the expected utility of its underlying social class. Based on these assumptions, the only credible tax rates are $t_R = \underline{t}$ and $t_P = \overline{t}$.[21]

Winning the election comes with access to rents amounting to

$$Z_i(a_i, a_j) = z + W(\overline{a} - a_i) - W(\overline{a} - a_j) \qquad \text{with } i = P, R \text{ and } i \neq j \tag{7}$$

for party i. It is important to notice that, due to condition (6), the rents are always sufficient for both parties to enter the competition. At the same time, the rents' composition ensures that the party members are not agnostic to their proposed policies but prefer policies closer to their own preferences, which favor cosmopolitanism. However, as we will see, higher rents come at the costs of less voters as some of the latter have nationalistic preferences and are willing to switch parties, too.

Given these considerations and the Cosmopolitans' dominant strategy to vote along social-class lines according to equation (6), the only possible swing voters are the Nationalists, whose voting decision thus determine the election. Accordingly, both parties can only accommodate the Nationalists preferences in order to win the election but the former's willingness for concessions is limited by the rents available. In other words, the parties face a trade-off between policies eventually increasing their probability for winning the election, but which are disliked by their members and thus reducing their gains from winning. In accordance with standard models of probabilistic voting, those possible swing

[19]Due to the symmetrie of $U(\cdot), U(\overline{t} - \underline{t}) = U(\underline{t} - \overline{t})$ holds true.

[20]We adopt this assumption from Besley and Persson (2021), too.

[21]Obviously, no other tax rate is able to encourage voters of the other party to change sides but decreases the utility of the own voters.

voter change side if they get offered a higher utility by another party but their utility is subject to random shocks. Putting a (swing-voting) citizen's separate preferences together, the utility of a Nationalist from social class j offered by party i is

$$v_i^j(t_i, a_i, a_F) = (1 + \xi\mu)\{U(t_i - \hat{t}) + \theta W[a_i - \underline{a}(a_F)]\} \quad (8)$$

$$\text{with } \hat{t} = \overline{t}, \underline{t} \quad \text{and} \quad \xi = 0 \quad \text{if no group is formed}$$

which is subject to an idiosyncratic shock δ and an aggregate shock α, both in favor of the Poor's party. For example, a rich nationalist would nonetheless vote for the Poor's party if $v_P + \delta + \alpha > v_R$ holds true. Regarding the shocks, let $H(\cdot)$ denote the cumulative distribution function of the idiosyncratic and $G(\cdot)$ of the aggregate shock, whereby $h(\cdot)$ and $g(\cdot)$ are the related probability density functions. For simplification and similar to Besley and Persson (2021), we assume a symmetric c.d.f. and an unimodal p.d.f. for δ, while the c.d.f. is log-concave symmetric for α.

Now, we can calculate the parties' actual vote shares

$$\pi_i = H[\alpha + V(a_i, a_F) - V(a_j, a_F)], \qquad \text{with } i = P, R \text{ and } i \neq j \quad (9)$$

depending on total swing voter utilities

$$V(a_i, a_F) = \frac{v_i^i + v_i^j}{2} = (1 + \xi\mu)\left\{\frac{z}{2} + \theta W[a_i - \underline{a}(a_F)]\right\},$$

$$\text{with } \xi = 0 \quad \text{if no group is formed}$$

using standard theory of probabilistic voting (e.g., Persson and Tabellini, 2002, 53ff.). Due to the assumed symmetry of $H(\cdot)$, of the utility function $U(\cdot)$ and of the classes regarding their size and their share of nationalists, we can now calculate the probability

$$\Pi_i(a_i, a_j, a_F) = G\{(1 + \xi\mu)\theta[W(a_i, a_F) - W(a_j, a_F)]\} \quad (10)$$

$$\text{with } i = P.R \quad i \neq j \quad \text{and} \quad \xi = 0 \quad \text{if no group is formed}$$

of party i for winning the election because i wins the election for $n_i > 1/2$. It is important to notice that both parties can only compete by varying their cosmopolitan attitude. Competing with their tax rates has no effect due to the symmetry of the utility function $U(\cdot)$ and, accordingly, because changing the redistributive policy's polarization z affects both parties alike.

2.4 PARTY STRATEGIES AND VOTING

Those results allow us to deduce party's i optimal political platform $\{\widehat{t_i}, \widehat{a_i}\}$, which maximizes her expected rent $E(\Pi_i \times Z_i)$ and, based on this, the competition's political equilibrium

$$\{\widehat{\Pi_P}, \widehat{a_P}, \widehat{a_R}\}, \quad (11)$$

consisting of the Poor's probability of winning and the parties' optimal cosmopolitan policies.[22] Those equilibria can be derived quite easy due to the log supermodular nature of the game because the parties'

[22]As mentioned before, the optimal tax rates are the party's core voters' bliss point. Because those are exogenous, they are not included in the political equilibrium.

cosmopolitan attitudes are thus strategic complements. These considerations allow us to propose Lemma 1.

Lemma 1. *A symmetric Nash Equilibrium exists and it is unique.*

Proof. See Appendix.

In order to bring the parties' strategies in a more appealing structure, we rely on the example of Besley and Persson (2021) by defining a function $h(\cdot)$, describing the parties' optimal behavior, depending on the relevant parameter ξ, μ, θ, z, and a_F , and setting $m = (1 + \xi\mu)\theta z\theta z$. This takes us to Proposition 1, which is directly yielded by the first order condition for an optimum. The latter can be rearranged to

$$\frac{W_{\overline{a}-a}[\overline{a} - h(\cdot)]}{W_a[h(\cdot) - \underline{a}]} = m\frac{g(0)}{G(0)} \tag{12}$$

$$\text{with } \xi = 0 \quad \text{if no group is formed}$$

and make us aware of the Nash-Equilibrium strategies.

Proposition 1. *Both parties have the same optimal strategies*

$$\hat{a} = \begin{cases} \underline{a}, & m \geq \overline{m} \\ h(m, a_F), & m \in (\underline{m}, \overline{m}) \\ \overline{a}, & m \leq \underline{m} \end{cases} \tag{13}$$

with

$$\overline{m} = \frac{W_{\overline{a}-a}(\overline{a} - \underline{a})}{W_a(0)} \times \frac{G(0)}{g(0)} \qquad \text{and} \qquad \underline{m} = \frac{W_{\overline{a}-a}(0)}{W_a(\overline{a} - \underline{a})} \times \frac{G(0)}{g(0)}$$

and with $m = (1 + \xi\mu)\theta z$ and $\xi = 0$ *if no group is formed.*

Proof. *See Appendix.*

As already extensively discussed by Besley and Persson (2021), $h(\cdot)$ negatively depends on ξ, μ, θ and z, whereby μ only has an effect for $\xi > 0$, i.e., if a group exists. In other words, more economic polarization, more salience of nationalistic sentiments, or the formation of larger, more cohesive nationalistic group ceteris paribus all yield a more nationalistic policy. A similar reaction occurs due to more nationalistic policy by foreign country. Generally, we should expect that both, Cosmopolitans and Nationalists, demand a larger cosmopolitan attitude by their own government as a reaction to more cosmopolitanism by foreign country (i.e., $\overline{a} \uparrow, \underline{a}$). This could be easily justified as international cooperation should be more beneficial for a country if the latter's partner is also more cooperative. Quite reasonably, we also assume that Cosmopolitans appreciate an increasing foreign cosmopolitan attitude more strongly than Nationalists do and, hence, demand relatively larger increases of the domestic cosmopolitan attitude (see Equation 5). Those assumptions imply that $h(\cdot)$ must increase in aF because otherwise Equation (12) does not hold true. In addition, changes in the foreign cosmopolitan attitude also affect the ranges of the corner solutions. It is not surprising that m as well as m increases due to an increase of a_F, whereby the former should increase faster than the latter. Accordingly, functions $h(\cdot)$ decreases in θ and z but shifts to the left for increases of ξ and μ and to the upper right side for increases of a_F, respectively, as illustrated schematically by Figure 2.

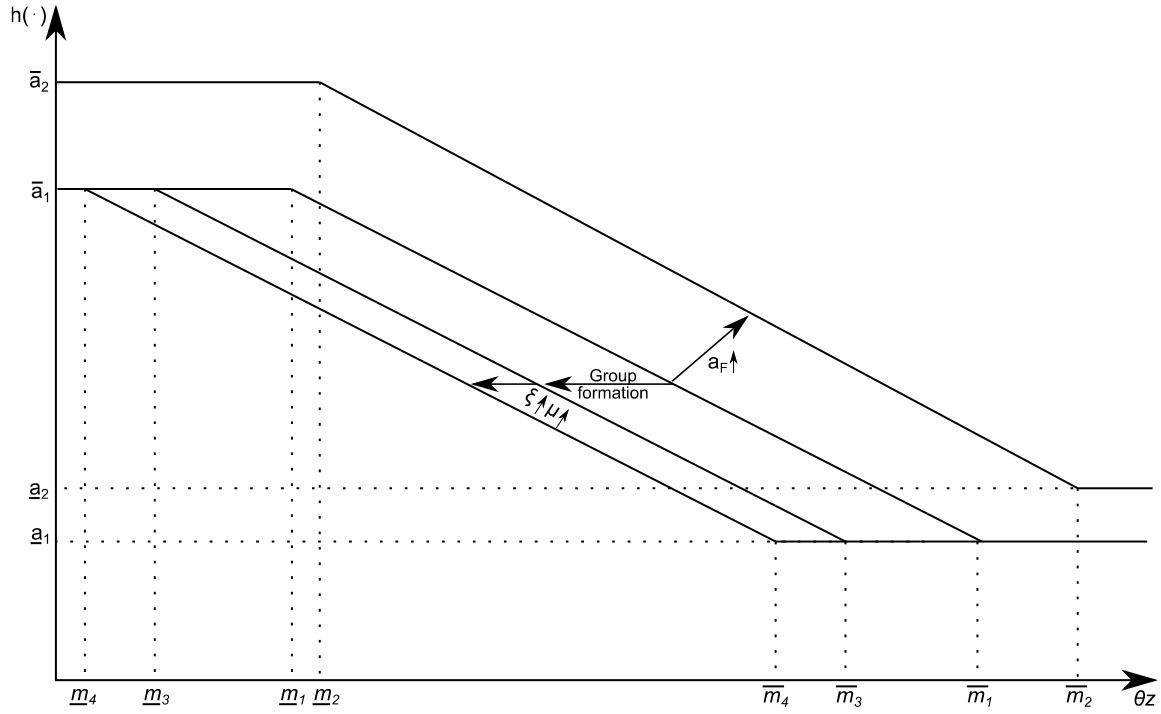

Figure 2: Schematic Representation of the Optimal Strategies.

2.5 GROUP FORMATION

The formation of a nationalist group can result in a nationalistic shift in politics if $(1+\xi\mu)\theta z$ is sufficiently large, i.e., if

$$m = (1+\xi\mu)\theta z \quad > \quad \frac{W_{\overline{a}-a}(0)}{W_a(\overline{a}-\underline{a})} \times \frac{G(0)}{g(0)} = \underline{m} \tag{14}$$

holds true. Based on this consideration, Besley and Persson (2021, S. 21) identify

$$\mu > \left[\frac{\underline{m}}{\theta z} - 1\right]\frac{1}{\xi} \tag{15}$$

as a "sufficient" condition for a nationalist group to organize for $F \to 0$. This result highlights the political function of a group, which is formed to influence politics. However, it misses the social function of a group, manifested in the positive spillovers of a membership. The intrinsic positive impact of a group membership is widely theorized, for example in the Social Identity Theory (Tajfel and Turner, 1979). Generally, the theory emphasizes that the "groups to which people belong mean something to them [. . . and a person] derives self-esteem from that group membership" (see Chen and Li, 2009, p. 432). In other words, actors do not only value the benefits from a group's official function but even the mere membership in a group with its inherent social identity may be perceived beneficial. Furthermore, a person's identity itself can also generate payoffs for the individual. According to Akerlof and Kranton (2000, p. 717), those identity-based payoffs can derive from a person's own as well as from others' actions.

Proposition 2. *The model has four relevant steady states regarding the formation of groups.*

$$(1) \qquad \mu > \left\{\left[\frac{\underline{m}}{\theta z} - 1\right]\frac{1}{\xi}, \quad \frac{F - \theta\left[W(\hat{a}' - \underline{a}) - W(\hat{a} - \underline{a})\right]}{\xi\left[z + \theta W(\hat{a}' - \underline{a})\right]}\right\} \tag{16}$$

The (potential) group's size is large enough (i) to affect politics and (ii) to be beneficial for its members. The group is formed and affects politics.

(2) $$\frac{F-\theta\left[W\left(\widehat{a'}-\underline{a}\right)-W\left(\hat{a}-\underline{a}\right)\right]}{\xi\left[z+\theta W\left(\widehat{a'}-\underline{a}\right)\right]}>\mu>\left[\frac{m}{\theta z}-1\right]\frac{1}{\xi} \quad (17)$$

The (potential) group's size (i) would be large enough to affect politics but (ii) is too small to be beneficial for its members. The group is not formed and, thus, does not affect politics.

(3) $$\left[\frac{m}{\theta z}-1\right]\frac{1}{\xi}>\mu>\frac{F}{\xi\left[z+\theta W\left(\hat{a}-\underline{a}\right)\right]} \quad (18)$$

The (potential) group's size (i) is not large enough to affect politics but (ii) is nonethe- less large enough to be beneficial for its members. The group is formed but does not affect politics.

(4) $$\mu<\left\{\left[\frac{m}{\theta z}-1\right]\frac{1}{\xi}\,,\quad \frac{F}{\xi\left[z+\theta W\left(\hat{a}-\underline{a}\right)\right]}\right\} \quad (19)$$

The (potential) group's size is (i) neither large enough to affect politics nor (ii) to be beneficial for its members. The group is not formed.

Proof. *See Appendix.*

Proposition 2 reveals some interesting results. The formation of a group does not necessarily depend on its influence on politics. If the membership costs are sufficiently low, i.e., if $F \to 0$, it is very likely that a group of nationalists exits but that it does not affect the actual government's policy. However, this should not be misinterpreted that such groups are only some strange kind of folklore, which can be neglected by the society's other identity groups. Those groups may indeed have no impact at the moment, but they definitely increase the utility from being a nationalist in the future. This could also be problematic if an individual's choice of identity depends on the latter's benefits. In order to capture those dynamic consequences, we will introduce a mechanism for recategorization (i.e., changing identity) in the model. This will allow us to show both, the positive effects of such a group on the decision of becoming a nationalist, which may affect politics in the long-term, as well as the potentially restraining effect from culture and the costs of adaptation.

2.6 CULTURE & CHANGING IDENTITIES

In the following, we will propose a simple mechanism for the recategorization (i.e., deliberate changes in identity) or, how it also could be interpreted, the transmission of identity from one generation to the next. For simplification, we rule out social mobility (i.e., social classes are closed) and assume that, given the large size of society, rich and poor actors have equal conditions to recategorizate their identities. Consequently, the share of Nationalists may change but it is always the same in both classes. In addition, due to the model's symmetry, we do not have to distinguish between social classes as rich/poor Nationalists and Cosmopolitans generally face the same problem.

If modeled economically, recategorization or deliberate change in identity is mainly affected by two parameters, first, by the identities' costs and benefits and, second, by the applied mechanism. The first one bases on the assumption that the choice of identity is more or less an ordinary rational decision, which may be more important than other but which is still an "economic" one (Akerlof and Kranton, 2000, p. 717). Accordingly, the choice, who I want to be, can be modeled using standard economic theory. In our model, similar to most standard models of adoption, the acquisition of a Nationalists identity generally depends on its fitness

$$\Delta(m, a_F) = v_N - v_C = (1 + \xi\mu)\left[\theta W\left(\hat{a} - \underline{a}\right)\right] - W(\overline{a} - \hat{a}) + \frac{\xi\mu z}{2}, \qquad (20)$$

$$\text{with} \quad \xi = 0 \quad \text{if no group is formed}$$

which we define as its additional advantage compared to becoming a Cosmopolitan. Actors are assumed to be generally more likely to acquire a specific identity if the latter is expected to offer larger payoffs.

The second factor, the mechanism for recategorization, determines how actors choose their identity and, if so, how this choice is constrained. In the most simple case, the mechanism is negligible, the choice of identity is thus only a matter of costs and benefits and, consequently, homogeneous actors would all decide for the same identity. Those mechanisms, however, may underestimate important determinants regarding the choice of identity because even if identity is rationally chosen it is not instantly acquired. Instead, acquisition requires time and, thus, is subject to certain exogenous experiences, which affect the decision. In other words, the process of acquisition becomes crucial, viz., the type of learning an actor utilize and, of course, an individual's source of information.

According to Boyd and Richerson (1985), individuals can choose between individual and social learning. With individual learning, an actor directly learns from the environment by applying a trial-and-error approach. Hence, individual learning is costly and error prone as "[l]earning trials occupy time and energy [. . . and individuals] may fail to adopt adaptive [i.e., optimal] behavior" (Boyd and Richerson, 1985, p. 14). Cultural learning instead offers a potential shortcut to adaptive behavior as it relies on learning from other members in society and, thus, on a society's cultural inheritance. Although cultural learning always comes with the risk of copying outdated behavior, which is not adaptive anymore, it definitely has an advantage over individual learning if the latter's costs are rather high and if the environment is not too variable (Boyd and Richerson, 1985, p. 15). Here, the actor's rational decision regarding the acquisition of identity focuses more on the optimal choice of a process of learning than on the choice of identity itself.

For the sake of a more intuitive understanding of our model's approach towards recategorization, consider a large population of agents, who have chosen themselves regarding two kinds of categories: (i) learning type (traditionalist vs. non-traditionalist) and (ii) nationalist attitude (nationalist vs. cosmopolitan). Both kinds of categories differ distinctly. As the rational choice of a learning type would presuppose learning (i.e., a process of identification of an "optimal" choice), we need another mechanism to model its acquisition. Here, we rely on the evolutionary approach by Rogers according to which "natural selection will tend to increase the frequency of the learning mechanism with the highest fitness" (Rogers, 1988, p. 823).[23] Based on the assumption that the benefits from social learning decreases with the frequency of social learners in society but that the benefits from individual learning are, at the same time, independent, the share of social and individual learners in society converge to a steady state, which is determined by both types' fitness. Here, we assume a similar process but which do not rely on intergenerational transmission and in which the individuals are able to continuously update their type of learning. Accordingly, the society also converge to a steady state, in which an omniscient individual would be indifferent between both types.

Based on the type of learning, an individual choose/update her attitude towards nationalism (or her identity in the narrow sense of this model). We assume that a Traditionalist (T) learns socially and copies the identity of a random other individual from society. Hence, this approach to learning always has the risk of imitating the wrong person, who's identity is not utility-maximizing but social learning is costless. Non-Traditionalists instead rely their learning on the environment and update their identity if changing maximizes their utility. However, this approach causes individual costs κ and learning is not error prone. We capture the latter effect by assuming that individual learning is subject to an idiosyncratic shock in favor of being a Consomopolitan. Accordingly, a Non-Traditionalist becomes a

[23] See, e.g., Giuliano and Nunn (2021) for a more sophisticated approach.

Nationalist if $\Delta(m, a_F) - \epsilon \geq 0$ holds true, whereby the idiosyncratic shock E has a symmetric cumulative distribution function $K(\cdot)$ with an unimodal probability density function $k(\cdot)$. Given the timing of the selection of learning type and identity, we start with the analysis of the latter for a given composition of learners (i.e., we use backward induction).

Lemma 2. *After choosing/updating their identity, the share of Nationalists on Non-Traditionalists is* $\mu_{\neg T} = K[\Delta(m, a_F)]$ *and on Traditionalists it is* $\mu_T = \mu_s$*, with* μ_s *as the current-period share of Nationalists in society. The society is in a stable equilibrium if* $\mu_T = \mu_{\neg T}$ *holds true.*

Proof. *See Appendix.*

According to Lemma 2, the society's share of Nationalists depends on the fitness of being a Nationalist. If the latter change a new steady state μ_I arise, to which the society converge. Consequently, the equilibrium share of Nationalists is determined by the Non-Traditionalists, who are the only ones being able to react to exogenous changes. The process of identity updating can be described by

$$\mu_{s+1} = \sigma\, \mu_s + (1 - \sigma)\mu_{\neg T} \quad \Rightarrow \quad \mu_s = \sigma^s\, \mu_0 + (1 - \sigma^s)\mu_{\neg T} \quad \text{with } \lim 1_{s \to \infty}\, \mu_s = \mu_{\neg T}, \qquad (21)$$

with σ as the current share of Traditionalists in society and μ_0 as the original share of Nationalists in period 0. According to Equation (21), the process of recategorization is curbed by the share of Traditionalists, who change their composition less quickly. In other words, the higher the share of Traditionalists the slower the society converges towards the new steady state.

As argued before, the steady state for the share of Traditionalists in society is deter- mined by the fitness of each learning type. The expected benefits of a prospective voter if she becomes a Traditionalist are

$$E(v_T) = \sigma[\mu_s\, v_N - (1 - \mu_s)v_C] + (1 - \sigma)[\mu_{\neg T}\, v_N - (1 - \mu_{\neg T})v_C] \qquad (22)$$

for a gaven share of Traditionalists σ as she may copy another Traditionalist as well as a Non-Traditionalist. If she would be a Non-Traditionalist, her benefits are

$$E(v_s^{\neg T}) = \mu_{\neg T}\, v_N - (1 - \mu_{\neg T})v_C - \kappa. \qquad (23)$$

Based on Equations (22) and (23), we are now able to identify a steady state for the share of Traditionalists, depending on the identities' fitness.

Lemma 3. *The share of Traditionalists in society is*

$$f(x) = \begin{cases} \dfrac{\kappa}{[K(\Delta) - \mu]\Delta}, & \kappa \leq [K(\Delta) - \mu]\Delta \\ 1, & \kappa > [K(\Delta) - \mu]\Delta \end{cases} \qquad (24)$$

with μ *as the current share of Nationalists in Society and* $K(\Delta)$ *as the steady state of the Nationalists' share.*

Proof. *See Appendix.*

Intuitively plausible, Lemma 3 implies that all citizens are Traditionalists if the society is in the steady state for the Nationalists (i.e., if $K(\Delta) = \mu$). However, if we combine Lemma 2 with Lemma 3 it becomes obvious that the steady state for the share of Nationalists is never reached for $\kappa > 0$.

Proposition 3. *The stable equilibrium for the share of Nationalists in society is*

$$\mu_L = K[\Delta(m, a_F, \mu)] - \frac{\kappa}{\Delta(m, a_F, \mu)}, \tag{25}$$

whereas, for $\kappa > 0$,

$$\begin{aligned} \mu_L < K[\Delta(m, a_F, \mu)] = \mu_{\neg T} \quad &\text{if} \quad \Delta(m, a_F, \mu) > 0 \\ \mu_L > K[\Delta(m, a_F, \mu)] = \mu_{\neg T} \quad &\text{if} \quad \Delta(m, a_F, \mu) < 0 \end{aligned} \tag{26}$$

hold true and, hence, the steady state $\mu_{\neg T}$ *is neither reached nor approached for* $\kappa > 0$.

Proof. *See Appendix*.

Proposition 3 implies two very interesting result. First, if a shock occurs, which affects the fitness of the identities and, thus, results in an increased/decreased steady state for the share of Nationalists $\mu'_{\neg T}$, this new steady state is neither reached or approached. Second, even if such a shock completely disappears the society does not return to its original steady state $\mu_{\neg T}$. Those considerations can be easily explained as it is a consequence from the positive costs of individual learning and the decreasing benefits from being a Non-Traditionalist for an increasing μ. Accordingly, social learning becomes beneficial for all citizens before the steady state is reached and, hence, no further individual learning is utilized. The gap between the steady state $\mu_{\neg T}$ and the equilibrium μ_L is the larger the higher the costs of individual learning are.

In addition, it is also important to notice that an identity is not updated for gradual changes of Δ, which do not change its sign. This could be easily explained: Consider a situation, in which it becomes only slightly relatively better to be a Nationalists ($\uparrow \Delta: \Delta_1 < \Delta_2$) due to a shock but being a Cosmpolitan still has an advantage ($\Delta_1 < \Delta_2 < 0$). In this situation, the steady state $\uparrow K(\Delta): K(\Delta_2) > K(\Delta_1)$ as well as the long-term share of Nationalists $\uparrow \mu_L: \mu_L(\Delta_2) > \mu_L(\Delta_1)$ both rises. However, the actual share of Nationalists $\mu_s = \mu_L(\Delta_1)$ does not change because individual learning is always prohibitively costly in this situation. According to Equation (24), only social learning occurs for $\kappa > [K(\Delta_2) - \mu_s]\Delta_2$. In the situation described above, this is always true as $[K(\Delta_2) - \mu_s]\Delta_2 < 0$ due to $\Delta_2 < 0$ and $K(\Delta_2) > \mu_s$. Accordingly, individual learning only becomes efficient if the relative fitness between being a Nationalist and being a Cosmopolitan completely reverses. In other words, none in willing to invest resources in order to update her identity if the other identity may be relatively better but is still inferior. Those result offer some interesting interpretations regarding the dynamics of identities in society, which we will discuss in the next section.

3. RESULTS & DISCUSSION

The log-supermodular nature of the game has some convenient consequences for the analysis. As mentioned before, unique stable equilibria are easy to proof (see Proposition 1) and comparative-static analyses are also much easier. Based on this, we will discuss some interpretations from our model's results, starting with the interaction regarding recategorization and group formation and, as groups affect the parties' nationalist politics, a country's cosmopolitan/nationalistic attitude.

According to Proposition 2, the formation of a group crucially depends on the number of Nationalists and the costs of forming a group. In addition, as Proposition 3 revealed, the number of Nationalists is affected by the costs of individual learning and the identities' fitness. As fitness is simultaneously positively affected by the size of the group, group formation and becoming nationalist positively affect each other. All changes, yielding more Nationalists in society, result ceteris paribus in more beneficial nationalist groups, making the latter more likely. Likewise, a nationalists group relatively increases the benefits from being a Nationalist and thus the latter's fitness, resulting in more Nationalists in society.

Here, it is important to notice that this all could happen without having an impact on actual politics. In other words, more Nationalists in society and the eventual formation of a Nationalist group does not necessarily yield more nationalistic policies.

In addition, the costs of organizing a group (F) are also important for the extent of nationalism in society. The smaller the costs to form a group the more likely is the latter's formation and, consequently, the higher is the share of Nationalists in society. Here, the relatively recently emerged importance of social media definitely has such an impact by decreasing the transaction costs of running a group as well as its ability to bridge distance, allowing national or even global groups at almost no costs.[24] Here, it is interesting to see that right-wing groups in particular seem to be the most talented to utilize the advantages of social media and are thus able to amplify their message beyond their actual supporters (Schmidt, 2019; Scott and Cerulus, 2019). Accordingly, those very small costs of running a group allows for our model's interpretation that the nationalist groups' intrinsic utility stemming from camaraderie should be sufficient to form group even without any political influence. More concisely, for $F \to 0$ groups will be formed for $\mu \to 0$, i.e., for very small shares of Nationalists. However, those small groups may not be recognized by the general public until they reach a critical mass.

Regarding the coevolution of groups and nationalist identity, the intrinsic value of group membership further increases the risks from nationalism. Due to the mutually reinforcing interconnection between group size and nationalist identity via the evolutionary fitness of being a nationalist, forming a (politically) irrelevant group may be the necessary intermediate stage on the way to a powerful influential group. More concisely, those politically irrelevant groups have nonetheless a positive effect on nationalist identity because it successively increases the utility from the latter and, hence, foster its fitness. Consequently, even politically irrelevant groups have a positive effect on the share of nationalists, eventually lifting it over the threshold for becoming politically influential. Hitting this threshold is crucial because it gives nationalism an additional, much larger boost, not only stemming from more group members but also from more nationalist politics. Missing the intrinsic value of groups may result in underestimating the influence of such groups. Conversely, our model is able to explain the existence of such small irrelevant groups but, at the same time, shows that such groups should not be dismissed as "folksy" and harmless but should rather be seen as an intermediate stage, which allows groups to consolidate their power.

Beside those insights regarding groups and identity, our model offers some additional insights regarding the diffusion of nationalist politics. As already mentioned at the beginning, we assume that a larger (smaller) foreign cosmopolitan attitude results in a larger (smaller) appreciation for a domestic cosmopolitan attitude by both, Cosmopolitans and Nationalists, whereby the effect is larger for a Cosmopolitian. Accordingly, the difference between the blisspoints a – a increases (decreases) and, hence, the same is true for the domestic government's optimal policy $\hat{a}$. Based on these considerations, the fitness of being a Nationalist is also affected by the foreign cosmopolitan attitude. Given the characteristics of the voters' lost function $W(\cdot)$, a larger (smaller) foreign cosmopolitan attitude decreases (increases) a Nationalist identity's fitness. Accordingly, a reduced foreign cosmopolitan attitude could trigger the formation of a domestic Nationalist group, ultimately resulting in a downturn of domestic policy.

This development could also be more severe if it is taken into account that the foreign attitude is not exogenous but could be modeled similar to the domestic society. In other words, if it is taken into account that the foreign society may similarly update its policy than the domestic, a foreign shock, resulting in a more nationalistic policy, does not only negatively affect the domestic policy but should also fire back on foreign society, inducing a vicious circle of mutually reinforcing Nationalist politics domestic and abroad. Those considerations may be able to explain, why the actual rise of right-wing politics in Europe seem to emerge in waves.

[24]See, e.g., Zhuravskaya et al. (2019) for an extent analysis of the political effects of social media.

In addition, our model also allows for the interpretation that such a shock may have permanent consequences even if it only lasts temporarily. Due to the (higher) costs of in- dividual learning, rational actors rely on (cheaper) social learning before the new optimal shares of identity are reached. In other words, instead of investing resources to evaluate the real nature of the world, the voters lapse in collective free riding and, thus, solidifying suboptimal levels of identity. More concisely, a shock increasing the fitness of being Nationalist increases the share of Nationalists in society but it does not rises until optimal levels due to the higher costs of individual learning. Acquiring new identities is thus constraint by culture and the difference between optimal new levels of identity and the actually acquired levels are the larger the larger are the costs of individually learning. As the same is true for shocks decreasing the fitness of being a Nationalists, the share of Nationalists in society should be higher after the shock disappears. Accordingly, temporary shocks favoring Nationalist identity can result in permanent higher shares of Nationalists in society.

This mechanism can even have much severe consequences if the interconnection between foreign and domestic cosmopolitan attitude is taken into account. In the extreme, the level of Nationalism in society can also remain on the high level, induced by the shock, even after the shock disappeared. Consider a foreign shock (e.g., higher redistributional polarization) resulting in a lower foreign Cosmopolitan attitude and, thus, also indirectly inducing a lower domestic Cosmopolitan attitude. As argued before, foreign attitude should remain on a higher level than before the shock, even if the shock completely disappears. This affects domestic politics even stronger. As shown by our model, voters only learn individually and, hence, variations of the share of Nationalists are only possible at all, if the sign of identities' fitness reverse. However, due to the smaller reduction abroad, the domestic reduction is even smaller and, hence, may not be sufficient in order to reverse the fitness of the identities. Consequently, it is possible that the domestic voters' do not change their identities' composition and, accordingly, remain of the shock-induced level of nationalism. This may also affect domestic politics. Due to the even higher share of nationalists in society, the government's cosmopolitan attitude may remain much higher, compared to pre-shock levels.

Those results, however, should not mislead to the insight that voters should be leave behind ignorant in order to shield them from unwelcomed identities or other consequences from individual learning. First, it would degrade voters to irrelevant naïve "yes" (wo-)men as it is tried by several dictatorships.[25] Despite its noble goal, this would not be in line with most countries' conception of democracy. Second, having prohibitive costs of individual learning may appear positive in order to reduce the threats from unwelcomed societal developments. However, it does also attenuate welcomed societal progresses towards desired new states. In other words, with regards to our model, limitations of individual learning may decelerate increases of the share of Nationalists after a shock occurs but they also slow down its reversion after the shock disappear, resulting in permanent higher shares of nationalists in society.

4. CONCLUSION

In this paper, we study a model of multi-dimensional politics in which voting decisions are not only affected by the voters' preferences regarding redistribution but also by their identity. Generally, voters value policies, which are in accordance with their identity's ideal behavior and are willing, at least to certain extent, to give up material benefits for immaterial identity-based gains. Based on this general and widely embraced idea, we propose a novel channel for the intergovernmental diffusion of (identity) politics, on which the recent literature on the effect of identity on electoral strategies turns a blind eye. For this purpose, we rely on the conception of identity of Akerlof and Kranton (2000, 2010). Accordingly, the impact of an individual's identity on her (economic) choices emerges from her social-context-dependent tastes, specifying the specific behavior of an ideal member of her identity group(s). As identity, and thus its inherent role model's optimal behavior, depends on the specific context,

[25]See, e.g., Dobson (2012) for an overview of dictatorships utilizing an extreme biased media.

individuals may behave differently in different situations (e.g., if interacting with different people). Based on these considerations, we argue that the adopted policies of a government in a single country change the context for the individuals in other countries, potentially affecting the latter's voting behavior. In other words, as an individual may base the process of "questing oneself" and, hence, of determining her socially-expected behavior on, inter alia, the politics in other countries, the latter may affect her voting decisions and thus diffuse in her home country's politics.[26]

Given our focus on nationalists politics, we argue in detail that more nationalistic policies in one country reduce the voters' perception of the benefits from international co- operation in other countries and, thus, those voters should prefer more nationalist politics themselves. In other words, less willingness to cooperate internationally in one country has the effect that the governments in other countries are also less willing to cooperate because the latter's citizens do not reward such a policy anymore. The governments' nationalist/cosmopolitan politics are thus strategic complements and, accordingly, nationalistic shocks are not limited to single countries but could also trigger similar shocks in other countries, maybe resulting in cascades of mutually reinforcing nationalistic policies.

Aggravating this situation, our model also implies that the countries, affected by a nationalist shock, do not necessarily return to their original policies once the original cause disappeared. Depending on our proposed process of recategorization (i.e., changing one's identity), cultural constraints and individual costs of adaptation curb nationalism's expansion just as they repress its abatement. In other words, although the shock's cause may completely vanish, nationalism could persist at a higher level than before in society. Consequently, even a temporary shock regarding nationalistic policies in one single country can result in permanent higher levels of nationalism in all countries. In the extreme, some countries can remain on the high shock-induced levels of nationalism without any decline. Here, the higher the costs of efficient adaptation the larger is the difference between the actual and the efficient level of identity in society. This effect highlights the role of learning in society and better information can result in better societal outcomes if those information help to adapt efficient identity. In addition, our model also shows how cultural constraints affect the path of societal development. Here, our results are a bit ambivalent as those constraints are able to prevent desired as well as undesired outcomes. Accordingly, our results should not be misleading regarding the effects of intended misinformation.

Moreover, our paper highlights the importance of groups for the diffusion of identity in politics. Here, groups are able to pool the efforts of its members and, thus, organized voters may have more influence on politics. However, those organizations can have an impact beyond mere political influence. Due to intrinsic benefits from group membership, even groups without any political influence can be beneficial for its members. However, those uninfluential groups should not be dismissed as "folklore". They can be an intermediate step towards political influence if they are suitable to help to consolidate the group's power and reaching a critical size in order to achieve influence. Given those consideration, our model also implies that developments, reducing the costs of forming groups, should result in larger identity groups, which are more influential on politics. We can currently observe such a process. With the emergence of social media, the costs of organizing a group extremely dropped and, now, it is possible to form a world-wide group at literally no cost. Those findings complement the empirical research on social media, which's political impact is quite robust from an empirical view (e.g., Zhuravskaya et al., 2019).

Finally, it is important to consider that our model may focus on international cooperation and, thus, on cosmopolitan/nationalist identity but we are nonetheless confident that our results can be extended far beyond to other kinds of identity. Here, some countries may act as pioneers and, by doing so, can affect the identities and, thus, the role models of citizens in other countries. Those changes may diffuse into politics via voting if the governments in the latter countries are forced to include those new views in their political platform. Consequently, our model should have insight far beyond international

[26]Interestingly, there is indeed empirical evidence, suggesting that identity politics spread between governments of different countries similar to other kinds of politics (see Fn. 14).

cooperation and should also allow for interesting interpretations regarding the diffusion of identity politics in general.

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APPENDIX

PROOF OF LEMMA 1

As in Besley and Persson (2021), we rely on a modification of Topkis's (1978) fixed-point theorem. A game is supermodular[27] if for the payoff functions $\pi_i(x_i, x_j)$ of player i

$$\frac{\partial^2 \pi(x_i, x_j)}{\partial x_i \ \partial x_j} \geq 0 \qquad \text{for } i \neq j$$

holds true. Utilizing the log transformation, our model's game is log supermodular because

$$\frac{\partial^2 \log[\Pi_i \times Z_i]}{\partial a_i \ \partial a_j} =$$

$$-\frac{\partial X(a_i, a_j)}{\partial W(a)} \theta \, W'(a_i - \underline{a}) W'(a_j - \underline{a}) \tag{27}$$

$$+\frac{W'(\overline{a} - a_i) W'(\overline{a} - a_j)}{\left[z + W(\overline{a} - a_i) - W(\overline{a} - a_j) +\right]^2} \geq 0$$

with

$$X = \frac{g\left[\theta\left(W(a_i - \underline{a}) - W(a_j - \underline{a})\right)\right]}{G\left[\theta\left(W(a_i - \underline{a}) - W(a_j - \underline{a})\right)\right]}$$

holds true as $G(\cdot)$ is a log-concave distribution. Supermodularity implies that a_i and a_j are strategic complements and is sufficient for the existence of a stable Nash equilibrium. It is also unique as

$$\left|\frac{\partial^2 \log[\Pi_i \times Z_i]}{\partial a_i^2}\right| > \sum_{i \neq j} \frac{\partial^2 \log[\Pi_i \times Z_i]}{\partial a_i \ \partial a_j} \tag{28}$$

holds true.

PROOF OF PROPOSITION 1

This proposition follows directly from the rearranged first order condition

$$\frac{W_{\overline{a}-a}[\overline{a} - h(\cdot)]}{W_a[h(\cdot) - \underline{a}]} = (1 + \xi\mu)\theta \, z \frac{g(0)}{G(0)} \tag{29}$$

with $m = (1 + \xi\mu)$. Corner solutions

[27] There are indeed other additional conditions but those are satisfied. See for more details, e.g., Milgrom and Roberts (1990) or Vives (1990, 2005). See also Caplin and Nalebuff (1991).

$$\overline{m} = \frac{W_{\overline{a}-a}(\overline{a}-\underline{a})}{W_a(0)} \times \frac{G(0)}{g(0)} \quad \text{for } \hat{a} = \overline{a} \tag{30}$$

and

$$\underline{m} = \frac{W_{\overline{a}-a}(0)}{W_a(\overline{a}-\underline{a})} \times \frac{G(0)}{g(0)} \quad \text{for } \hat{a} = \underline{a} \tag{31}$$

exist and are obtained for $m = (1+\xi\mu)\theta z > m$ or $m = (1+\xi\mu)\theta z < m$, respectively.

PROOF OF PROPOSITION 2

As explained in the main text (p. 22), the formation of a group can only affect politics if it is in the interior solution, viz., if

$$m = (1+\xi\mu)\theta z \quad > \quad \frac{W_{\overline{a}-a}(0)}{W_a(\overline{a}-\underline{a})} \times \frac{G(0)}{g(0)} = \underline{m} \tag{14}$$

holds true. Accordingly, a group's size must be sufficient large, i.e.,

$$\mu > \left[\frac{\underline{m}}{\theta z} - 1\right]\frac{1}{\xi} \tag{15}$$

in order to affect the government's policy. However, there is the quite unrealistic case of an unneeded group, which cannot affect politics anymore because the government's cosmopolitan attitute already matched the Nationalists' bliss point. Put formally, a group is not formed as well for

$$m = \theta z \quad > \quad \frac{W_{\overline{a}-a}(\overline{a}-\underline{a})}{W_a(0)} \times \frac{G(0)}{g(0)} = \overline{m} \tag{32}$$

because it would have no effect on politics. In the following, we implicitly assume that this is not the case.

For $m > \underline{m}$, the group's existence affects policy and we have a new policy equilibrium $\widehat{a'} < \hat{a}$, in which a Nationalists payoff is higher, $W(\widehat{a'} - \underline{a}) > W(\hat{a} - \underline{a})$, as the government's cosmpolilitan attitude is closer the former's bliss point. Without such an influence, policy is not affected, i.e., $\widehat{a'} = \hat{a}$. Accordingly, a Nationalists payoff with an influential group is

$$(1+\xi\mu)\left[\frac{z}{2} + \theta W(\widehat{a'} - \underline{a})\right] - F, \tag{33}$$

with a non-influential group, it is

$$(1+\xi\mu)\left[\frac{z}{2} + \theta W(\hat{a} - \underline{a})\right] - F \tag{34}$$

and without a group, a Nationalist has a payoff

$$\frac{z}{2} + \theta W(\hat{a} - \underline{a}). \tag{35}$$

Consequently, if a group would influence politics it is formed for

$$\mu > \mu_{IG} = \frac{2\,F - 2\,\theta\left[\left(W(\widehat{a'} - \underline{a}) - W(\hat{a} - \underline{a})\right)\right]}{\xi\left[z + 2\,\theta\,W(\widehat{a'} - \underline{a})\right]} \tag{36}$$

whereas a non-influential groups is only formed for

$$\mu > \mu_{G} = \frac{2\,F}{\xi\left[z + 2\,\theta\,W(\widehat{a'} - \underline{a})\right]}. \tag{37}$$

Due to the additional effect on politics, the threshold for a non-influential group is higher, i.e., $\mu_G > \mu_{IG}$.

PROOF OF LEMMA 2

Traditionalists learn socially by copying a random person from society. Accordingly, their share of Nationalists in period $s+1$ is the same as the total share of Nationalists in society in s, i.e., $\mu_T = \mu_s$. Non-Traditionalists, on the contrary, learn individually by exploring the real nature of the world. Hence, they would become Nationalists if being a Nationalist has a larger fitness, i.e., if $\Delta(m, a_F) > 0$. However, individual learning is not free of errors. This incorrect perception of reality is capture by the term E, which affect a Non-Traditionalist's assessment in favor of a Cosmopolitan identity and which is random distributed with symmetric cdf $K(\cdot)$. Based on this, a Non-Traditionalist becomes a Nationalist if $\Delta(m, a_F) - \epsilon > 0$, what is true for a share of $\mu_{\neg T} = K[\Delta(m, a_F)]$. Given a fixed share of Traditionalists σ, the share of Nationalists in society in period $s+1$ is$\mu_{s+1} = \sigma\,\mu_s + (1-\sigma)\mu_{\neg T}$. For $s \to \infty$, μ_i converges to $\mu_{\neg T}$.

PROOF OF LEMMA 3

Recategorization is less a matter of choice but more of evolutionary fitness. Accordingly, resulting equilibria are the consequences of a process, in which people with better learning strategies have advantages over less good-equipped competitors. Regarding the competition between social and individual learning, the fitness of social learning is negatively affected by the number of social learners. In other words, the more individuals decide to learn socially the less they are well-equipped and, hence, the lower is the fitness of social learning. An equilibrium is thus reached if both strategies have the same fitness (see, e.g., Rogers, 1988). Based on these considerations, a Traditionalist, who learns socially, has expected payoffs

$$E(v_T) = \sigma[\mu_s\,v_N - (1-\mu_s)v_C] + (1-\sigma)[\mu_{\neg T}\,v_N - (1-\mu_{\neg T})v_C] \tag{22}$$

for a given share of Traditionalists σ as she may copy another Traditionalist as well as a Non-Traditionalist. If she would be a Non-Traditionalist, her benefits would be

$$E(v_s^{\neg T}) = \mu_{\neg T}\,v_N - (1-\mu_{\neg T})v_C - \kappa. \tag{23}$$

because she may decide wrong due to possible errors. In addition, individual learning is costly with costs. The equilibrium share of Traditionalists in period s is

$$\sigma_S = \begin{cases} \dfrac{\kappa}{[K(\Delta) - \mu]\Delta}, & \kappa \leq [K(\Delta) - \mu]\Delta \\ 1, & \kappa > [K(\Delta) - \mu]\Delta \end{cases} \tag{24}$$

results from $E(v_T) = E(v_S^{\neg T})$.

PROOF OF PROPOSITION 3

Individual learning becomes gradually inefficient for more people for μs → K (Δ) and, hence, the share of Traditionalists gradually rises (see Equation 24 in Proof of Lemma 3). At the same time, social learner just copies the previous society's structure and, hence, preserve the latter. Consequently, without individual learning, the share of Nationalists in society does not change anymore. Based on these considerations, the equilibrium share of Nationalists is reached for $\sigma_s = 1$. Substituting $\sigma_s = 1$ in Equation (24) yields

$$\mu_L = K[\Delta(m, a_F, \mu)] - \frac{\kappa}{\Delta(m, a_F, \mu)}. \tag{25}$$

For $\Delta(m, a_F, \mu) > 0$, i.e. a relative better fitness of being Nationalists, $\mu_L < K[\Delta(m, a_F, \mu)]$ and, for $\Delta(m, a_F, \mu) < 0$, i.e. a relative better fitness of being Cosmopolitan, $\mu_L > K[\Delta(m, a_F, \mu)]$.