

From Many, One: State representation and the
construction of an American national identity

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Abstract

I present a formal model of the effect that representation can have on the formation of group identities using the debates over the drafting of the United States Constitution as a case study. I first show the presence of “factions,” or groups with competing interests, to be beneficial in forging a national identity. Next, I use this model to argue that the Great Compromise succeeded as more than a political maneuver to ensure ratification of the Constitution; it created a political environment in which an American national identity could emerge. More generally, I find that representation schemes that ignore group distinctions and use the *individual* as the basic unit of political representation may induce individuals to embrace a group-based notion of identity. Conversely, acknowledging group distinctions by using the *group* as a unit of political representation may induce individuals to embrace a more universalistic conception of identity, and thus may make group distinctions less salient.

“The great difficulty lies in the affair of Representation; and if this could be adjusted, all others would be surmountable.”

— James Madison to the Constitutional Convention on June 19, 1787.

In virtually every democratic society citizens elect officials to make decisions on their behalf. The various ways in which representatives are chosen not only reflect differing political goals of the institutional designers who set the rules in place, but also differing beliefs and attitudes of the societies that are represented. In ancient Athens, for example, representatives were at times drawn by lottery. This random selection of representatives from the citizenry at large was believed to be more in keeping with the democratic principle of “government by the people” than were elections, which were associated with an aristocratic notion of “government by the best.”¹ In contrast, the American Federalists viewed representative democracy not as an imperfect approximation of direct democracy but as an improvement on it, arguing that elected officials could better act on the nation’s behalf than the people themselves.

Since pre-revolutionary times the question of representation has persisted throughout American history as a contentious political issue. It is an important issue not only because of its direct implications for the political representation of interests, but also because any question of representation must necessarily identify those interests we think worthy of being represented, and in doing so, must necessarily draw societal divisions. How a society chooses to represent its various groups says a great deal about the cultural characteristics that unite and divide that society. This can be seen in the emotional significance attached to issues of representation, and the fact that public

¹(Colomer 2004, p. 20)

discourse on representation frequently invokes notions of national identity. Debates on issues like affirmative action and minority representation, for example, are often couched in terms of values like fairness, pluralism, and equality of opportunity.

In this paper I present a formal model of the effect that representation can have on the formation of group identities, using the debates over the drafting of the United States Constitution in 1787 as a case study throughout. The “affair of representation” referred to by Madison concerned the representation of the thirteen states in the newly formed national government, and in particular, how to balance the needs of large and small states. The main divide between delegates at the Constitutional Convention was between advocates of two competing representation schemes: the Virginia and New Jersey Plans. The Virginia Plan proposed a bicameral legislature with states represented according to population in both houses. The New Jersey Plan proposed a single-chamber legislature in which each state would be granted a single vote. The delegation ultimately settled on the Connecticut Compromise, a blending of the two plans that gave states equal representation in the Senate and proportional representation in the House of Representatives.

For the purposes of my model, the Virginia and New Jersey plans serve as useful benchmarks for the types of representation schemes I consider. Considered abstractly, the former generates a perfectly proportional legislature that can be thought of as a microcosm of society as a whole. Since every individual is, in theory, granted the same voting weight under such a system, policy outcomes mimic those produced under direct democracy. On the other hand, the latter takes *groups* (states in this case) as the basic unit of political representation. If we assume that residents of a given state may have similar interests, this representation formula produces a legislature in which

interests are given equal weight but individual votes are not; residents of smaller states are greatly overrepresented in the national government.

Borrowing from literatures in social psychology and behavioral economics, I use this model of representation and identity to examine the role that intergroup conflict plays in the creation of a common identity. Far from viewing the presence of factions as dangerous to the common good, I show that the presence of, in Madison's words, "citizens ... who are united and actuated by some common impulse of passion, or of interest, adverse to the rights of other citizens"² to be a highly *beneficial* component in the forging of a national identity. Next, I model more explicitly the link between representation and identity. Examining differences between proportional representation, confederations, and combinations of federal and state authority, I argue that the Great Compromise succeeded as more than a political maneuver designed to ensure ratification of the Constitution; it created a political environment in which an American national identity could emerge.

No political community is natural, and one of the continuing tasks that any government faces is convincing its citizens that they form a "people."³ Underlying this paper's model is the idea that tensions that must necessarily exist between group interests and the national interest must be addressed when drafting representative institutions. Perhaps paradoxically, I find that representation schemes that ignore group distinctions and use the *individual* as the basic unit of political representation may actually induce individuals to embrace a group-based notion of identity. Conversely, acknowledging group distinctions by using the *group* as a unit of political representation may in-

²(Madison 1787-1788)

³(Smith 1998, p. 20)

duce individuals to embrace a more universalistic conception of identity, and thus may make group distinctions less salient.

While the focus of this paper is to examine how representative institutions may or may not spark feelings of a common identity, the model speaks indirectly to other work that focuses on the stability of federal institutions. When citizens experience a sense of state attachment it may help legitimize a federal government and contribute to its stability. In this vein, Bednar writes “[a] common federal identity, if it emerges, has powerful implications for the robustness of the federal union because popular safeguards develop.”⁴ Relatedly, Filippov, Ordeshook and Shvetsova argue that the existence of an inclusive party system (one in which parties operate at both the state and federal levels) is necessary for the stability of a federal arrangement, and that certain representative institutions are more conducive to the growth of such party systems than others.⁵ My focus on the ability of federal systems to foster a common identity among disparate communities presents a different but complimentary approach to the question of how institutional design may promote federal stability.⁶

Last, while my case study examines the role that state representation played in the drafting of the U.S. Constitution, the theory is applicable to a broad variety of representation issues. In particular, the theory directly addresses critics of the Voting Rights Act who, in Grofman et al.’s words, argue “that the act is ‘resegregating’ or at least institutionalizing existing racial/ethnic divisions in

⁴(Bednar Forthcoming, 2008, p. 7).

⁵(Filipov, Ordeshook, & Shvetsova 2004).

⁶See also (Bednar 2004), (Shvetsova 2005), (Hug 2005), (Hafer & Landa 2007) and (Ordeshook & Shvetsova 1997), among many others.

American society.”⁷ The model demonstrates that a group-based theory of political representation can be concordant with the “colorblind” principle of political equality embodied in the U.S. Constitution, and moreover, may be *more* in keeping with this principle than representation schemes based solely on numerical equality. In the 1989 voting rights case *Jeffers v. Clinton*, U. S. District Court Judge Eisele asked “Do we really believe in the idea of one political society or should this be a nation of separate racial, ethnic, and language political enclaves?”⁸ This paper utilizes a simple model to argue that the notion of “one political society” need not be at odds with the idea of a nation formed of separate political enclaves. In my concluding remarks I discuss the application of this model to questions of minority representation in the United States in more detail.

A Model of Identity and Representation

To begin, I will assume that the nation, N , consists of a continuum of people belonging to a finite number of n distinct subgroups, or *communities*, g_1, \dots, g_n . Because the focus of this paper is federalism and the role that state representation played in drafting the U.S. Constitution, I will at times refer to these communities as *states*. They could just as easily be thought of as any community that individuals may feel an attachment toward, whether geographic, linguistic, ethnic, or otherwise. Every individual belongs to one such community. Each individual is indexed by a real number i on the $[0, 1]$ interval and g^i denotes the particular community that person i belongs to.

⁷(Grofman, Handley, & Niemi 1992, p. 131)

⁸Quoted in (Grofman, Handley, & Niemi 1992, p. 131).

Communities may be of different sizes, with α_g denoting the percentage of the population in community g . The communities may also be differentially wealthy, with some richer than others. Let $c_g \in \mathbb{R}_+$ be a positive constant denoting the wealth of community g . Assuming that the policy space is a closed and convex subset of the real line $X \subset \mathbb{R}$, let the personal preferences of individuals be described by a quadratic *material payoff function*,

$$\pi_i(x) = c_{g^i} - (p_i - x)^2,$$

where $p_i \in X$ is i 's ideal point. Thus, people that belong to wealthy communities will have higher realizations of their material payoff functions, *ceteris paribus*. This captures the idea that members of certain groups may be richer than members of other groups, irrespective of policy x .

For each community g the ideal points of the members of g are distributed according to a continuous probability density f_g over X , with cumulative density F_g . The total distribution of ideal points across society is then the convex combination of the group distributions: $f_N = \sum_g \alpha_g f_g$, with cumulative density F_N . These distributions capture the idea that the distinct communities may be, to some extent, “communities of interest,” consisting of individuals with policy preferences that may be similar.

Modeling identities

Suppose that communities are fixed but identities are not, so that individuals may choose to identify with either their community or with their nation as a whole.⁹ I define group identification in

⁹The model is capable of allowing individuals to identify with both community *and* nation, but for ease of exposition I will focus solely on situations in which individuals identify with only one group (i.e., pure strategy equilibria).

the social psychological sense as a “conception of the self that derive[s] from membership in emotionally significant social categories or groups.”¹⁰ An individual’s “choice” of identity may be automatic and unconscious, or may be calculated. For the purposes of this model, all that matters is that identification with one group or another grants an individual a group-specific payoff that is associated with the well-being of that group. This payoff need not be redistributive; the point is simply that identification with a group implies that individuals care about their group, and thus will exhibit some form of bias toward their group. The conception of identity as entailing an ingroup bias is motivated by a large literature in social psychology that defines identification with a group as yielding “a shift towards the perception of the self as an interchangeable exemplar of some social category and away from the perception of the self as a unique person.”^{11,12}

In keeping with this statement, we can now define an individual’s *utility function* to be a composite of his material payoff function (representing the payoff to the self as a unique person) and a term representing the well-being of the group. Let $a_i \in \{g^i, N\}$ be individual i ’s *action*, or choice of identity. Let $a = \{a_i\}_{i \in N}$ be an action profile capturing *every* individual’s choice of identity. Then

$$u_i(x, a_i) = \pi_i(x) + S(a_i, x), \tag{1}$$

For a discussion of mixed-strategy equilibria in this setting, and analytic results on the existence of pure and mixed strategy equilibria, see (Penn 2008).

¹⁰(Gilbert, Fiske, & Lindzey 1998, p. 560)

¹¹(Turner, Hogg, Oakes, Reicher, & Wetherell 1987, p. 50).

¹²An important difference between this model and the models of (Akerloff & Kranton 2000), (Dickson 2006), and (Dickson & Scheve 2006) is that the identity term I focus on is group-specific rather than individual-specific.

where $S(a_i, x)$ is assumed to be concave in x for all a_i , and represents the well-being, or *status* of group a_i when policy x is chosen. Thus, the well-being of any group is not static; it depends on the policy outcome.^{13 14}

Modeling representative institutions

Last, we must consider how policy outcomes arise as a function of representative institutions. Let *federalism parameter* $\mathcal{F} \in [0, 1]$ represent the division of power between the constituent communities g_1, \dots, g_n and the nation at large in the following way. For a given \mathcal{F} , let $\rho_j(\mathcal{F})$ represent the degree to which community j is represented in government, with

$$\rho_j(\mathcal{F}) = \frac{1}{n}(\mathcal{F}) + \alpha_j(1 - \mathcal{F}).$$

We will call $\rho(\mathcal{F}) = \{\rho_1(\mathcal{F}), \dots, \rho_n(\mathcal{F})\}$ a *proportionality profile* representing the distribution of legislative seats allocated to the n communities.

When $\mathcal{F} = 0$, the system of representation is perfectly proportional, with each community granted a fraction of governing power that is exactly proportional to its population. When $\mathcal{F} = 1$,

¹³Phrased differently, individual preferences are *context-dependent*. See (Callander & Wilson 2006) for a different treatment of context-dependent preferences in voting games.

¹⁴The utility function defined in Equation 1 is mathematically equivalent to “valence” models of politics, in which voter preferences contain a personal spatial component and a valence term generally representing the quality of the vote choice. Similar models (in a more general context) are studied by (Adams & Merrill 2003), (Schofield 2004) and (Ansolabehere & Snyder 2000), among many others. Here the valence term $S_i(a_i, x)$ is endogenous, with the status of a given group varying with the policy outcome. In considering endogenous valence, this model is related to the “activist valence” models studied by (Miller & Schofield 2003) and (Schofield 2006).

the system grants an equal fraction of governing power to each of the communities, regardless of size. Phrased differently, the case of $\mathcal{F} = 0$ represents a situation in which the preferences of all individuals are weighted equally when determining a policy outcome; the national government is entirely severed from the states. The case of $\mathcal{F} = 1$ represents a confederation of communities, with member states granted equal representation in government. In the American context, which will be discussed in greater detail in the following sections, the federalism parameter \mathcal{F} is somewhere between 0 and 1. Representation is granted to states partly on the basis of population, and partly on the basis of equal representation.

Since the policy space is one-dimensional and individual preferences are single-peaked,¹⁵ I assume that the policy outcome is the *weighted median*, an outcome that would be derived by a majoritarian process of intra-legislative bargaining assuming the legislature is composed according to proportionality profile $\rho(\mathcal{F})$.

More formally, let $\tilde{p}_i(a_i)$ be i 's *utility-maximizing policy* when i chooses identity a_i . Thus $\tilde{p}_i(a_i)$ is the peak of $u_i(\cdot, a_i)$. Note that i 's utility-maximizing policy is different than his ideal point, p_i . Player i 's ideal point maximizes his material payoff function, irrespective of i 's identity choice. His utility-maximizing policy maximizes his utility conditional upon a choice of identity, and so will reflect not only i 's personal preferences (through his material payoff function), but also the status of the group that i associates with.

Definition 1 *At strategy profile a let $f_g(\tilde{p}_i(a_i))$ be the distribution of group g voters' utility-*

¹⁵Preferences are single-peaked because for any identity a_i chosen by Player i , i 's utility function is a linear combination of concave functions. Thus, i 's utility function is concave.

maximizing policies. For a given federalism parameter \mathcal{F} , a weighted median is a policy $x(\mathcal{F}, a) \in X$ that satisfies the following:

$$\int_{-\infty}^{x(\mathcal{F}, a)} \sum_g \rho_g(\mathcal{F}) dF_g(\tilde{p}_i(a_i)) = \frac{1}{2}.$$

In words, \mathcal{F} induces a series of weights attached to each community. These weights, $\rho(\mathcal{F})$, represent the legislative weight given to each community in the nation. Using these weights, we can construct a new probability distribution over utility-maximizing policies: $\sum_g \rho_g(\mathcal{F}) f_g(\tilde{p}_i(a_i))$. This distribution captures societal preferences when communities are represented according to \mathcal{F} . If we conceive of legislators as being perfectly representative of the interests of their communities, this distribution captures the preferences of a legislative body generated by \mathcal{F} .¹⁶ The weighted median is a policy outcome equal to the median of this distribution. Since this is the median of the distribution of legislator preferences, it is a unique Condorcet winner; that is, it is a policy that a majority of the legislative body prefers to every other policy in the policy space.

Equilibrium concept

In the model presented so far, individuals may choose whether to think of themselves as a member of their community or as a member of the nation at large, and each choice implies a different utility function for that individual. Representation schemes are parameterized by the variable \mathcal{F} , a term capturing the division of power between community interests and the national interest. Last,

¹⁶Of course, the presumption that a legislature will be filled with faithful delegates is not uncontroversial (e.g., (Ferejohn 1999)), but this important question lies beyond the scope of the current project.

policy is a function of the the preferences of individuals (which will depend on individual identity choices) and of how those preferences are represented through \mathcal{F} . We are now ready to define the equilibrium concept, which is adapted from work by (Shayo 2007).

In equilibrium, people will choose to associate with the group (either community or nation) that maximizes their utility. Thus, they will choose a group identification that depends on the well-being of each group at current policy x . When people choose these identities, and have preferences based upon their group identification, they still want to retain that group identification.¹⁷ Equilibrium is a profile of individual identifications a^* and a policy x^* that satisfy this property. The following definition formalizes this idea.

Definition 2 *At a given federalism parameter \mathcal{F} , a social identity equilibrium is a policy x^* and profile of identities a^* such that the following two conditions hold:*

1. *For all $i \in N$, $a_i^* \in \operatorname{argmax}_{\{g^i, N\}} u_i(x^*, a_i)$*
2. *$x^* = x(\mathcal{F}, a^*)$, the weighted median induced by \mathcal{F} and action profile a^* .*

The first condition says that in equilibrium no individual wants to deviate from his choice of group identity a_i^* at equilibrium policy x^* . The second condition implies that policy x^* is indeed the median policy induced by \mathcal{F} under strategy profile a^* .

¹⁷See (Penn 2008) and (Shayo 2007) for different treatments of this equilibrium concept. (Penn 2008) presents a general form of this model that allows for a multidimensional policy space, many group affiliations, and a general continuous utility function, and derives conditions needed for equilibrium existence. Since pure-strategy equilibria will be demonstrated to exist in all of the examples considered in this paper, these conditions are omitted.

Given the definition of utility presented in Equation 1, equilibrium strategies are easily interpretable: at a given policy $x \in X$, an individual will choose to identify with the group (either community or nation) that has the highest well-being at policy x , or $S(g, x)$. It also follows that all individuals that belong to the same community will choose the same identity unless indifferent between the two choices. To rule out this case, I assume that indifferent individuals choose to identify with community over nation.¹⁸

Note that equilibrium is simply a fixed point in identities and policy; individuals choose identities that generate a policy outcome, and that policy outcome induces those same identity choices. Because of the static nature of this type of equilibrium concept, I want to reiterate that there need not be a conscious identity “choice” that occurs. Rather, equilibrium represents a state of the world in which individual identities and the policy outcomes induced by those identities are in balance. The model makes no claims about the specific process by which this balance is achieved.

Finally, the remainder of this paper is concerned with conditions under which a “national identity” can exist. I define the existence of a national identity to be the existence of an equilibrium in which all individuals choose to identify with the nation rather than with their community:

Definition 3 *A national identity is a social identity equilibrium at which all individuals identify with the nation. Thus, there exists a national identity for $\mathcal{F} \in [0, 1]$ if there exists an (a^*, x^*) with $a_i^* = N, \forall i \in N$.*

¹⁸This assumption solely serves to make the discussion of the model more transparent; it has no real effect on any findings.

Factions and the Construction of a Common Identity

The Federalist #10 was Madison's first contribution to the debate in New York State over ratification of the Constitution. In it he presents a counterargument to the claim that the United States was too large and diverse to admit an effective national government. His reasoning was that human beings are predisposed to faction, or differences of opinion and "mutual animosities" that render them "more disposed to vex and oppress each other than to cooperate for their common good." Madison considered the breaking and controlling of these factions the primary job of a well-constructed government. Only in a large, representative government, he argued, could the problem of factions be remedied. *Large*, because the more factions encompassed in society, the more likely it is that factions will check each other and no one faction will dominate. And *representative* to ensure that the interests of the people are filtered through a collection of individuals "whose wisdom render[s] them superior to local prejudices and to schemes of injustice."

As Madison argued to counter faction with faction, he also conceived of the three branches of government as serving to counter each other. In the Federalist #51 he lays out a psychological basis for the separation of powers that rests on the assumption that men are not angels; they are power hungry and ambitious, and the only way to protect the liberty of the people is to ensure that it is in the best interest of elected officials to check each other.¹⁹ Madison writes that this "policy of supplying, by opposite and rival interests, the defect of better motives, might be traced through the whole system of human affairs, private as well as public."

¹⁹(Lasser 1996, p. 18)

This section aims to make a simple, theoretically-motivated observation: a national identity may not be possible without the potential for rivalrous competition between politically relevant subgroups. Phrased differently, I will show that politically relevant subgroups being factions in the Madisonian sense is a sufficient condition for there to exist potential equilibria in which all individuals identify with the nation. To formalize this, first consider a purely altruistic and nonrivalrous conception of ingroup bias in which individuals feel good when their community is doing well and bad when their community is doing poorly. Let the evaluation of whether or not a community is doing well at a given policy x , or $S(g, x)$, simply be equal to the average material payoff of a member of that group: $S(g, x) = \mu(g, x) = \int_{i \in g} \pi_i(x) dF_g(p_i)$. Thus, these *nonrivalrous* utility functions look like the following:

$$u_i(a_i, x) = \pi_i(x) + \mu(a_i, x) \tag{2}$$

Then, given the notion of equilibrium presented in Definition 2, there cannot be an equilibrium in which all individuals identify with the nation because it cannot be the case that $\mu(N, x) > \mu(g, x)$ for all communities g . This is because $\mu(N, x) = \sum_g \alpha_g \mu(g, x)$; the average material payoff of all citizens of the nation cannot be higher than the average payoff of each of the communities.

Now suppose that subgroups have interests that are “opposite and rival,” so that individuals identifying with their community feel good when their community is doing well, but also feel good *when other communities are doing poorly*. This comports with Madison’s notion of “faction”: communities have interests that are directly adverse to the interests of other communities. By evaluating the status of a community as *relative* to the status of other communities, this conception

of well-being reflects a psychological basis for identity that is based on ambition, or a desire for rank or power. More formally, assume that individuals evaluate the well-being of community j at policy x to be $S(g_j, x) = \sum_{k \neq j} (\mu(g_j) - \mu(g_k))$, while individuals identifying with the nation still evaluate the well-being of the nation altruistically: $S(N, x) = \mu(N, x)$.²⁰ These *rivalrous* utility functions look like the following:

$$\begin{aligned} u_i(g^i, x) &= \pi_i(x) + \sum_{k \neq j} (\mu(g_j) - \mu(g_k)) \\ u_i(N, x) &= \pi_i(x) + \mu(N, x) \end{aligned} \tag{3}$$

Given the notion of equilibrium presented in Definition 2, it is now possible for there to exist an equilibrium in which all individuals identify with the nation. This is because while it is not possible for the average payoff of every community to be lower than the national average, it is possible for the average *relative* payoff of every community, or $\sum_{k \neq j} (\mu(g_j) - \mu(g_k))$, to be lower than the average payoff of the nation. To see this, suppose that the nation consists of two communities and that the average payoff of a member of each community is 1. Then the national average payoff is also 1. Given utility as in Equation 3, it follows that the well-being of each community is 0, as each community is evaluated relative to the other, and both have the same average payoff. However, the well-being of the nation is 1, and so all individuals will identify with the nation.

²⁰Individuals may also evaluate the status of their nation relative to the status of other nations. This sort of rivalrous conception of national identity would not alter any of the comparative statics of this model, provided that the policy choice x does not affect the status term of the *other* nations. For example, $S(N, x)$ as defined here could be redefined as the difference in the average payoff of an individual in N and the average payoff of individuals in a competing nation, with the average payoff in the competing nation normalized to zero.

The following fact provides a necessary condition for the existence of an equilibrium in which all individuals identify with the nation, and the subsequent fact simply condenses the arguments presented so far in this section.

Fact 1 *A necessary condition for all individuals to identify with the nation is the existence of a policy x such that $S(g, x) < S(N, x)$ for all communities g .*

This fact follows immediately from the assumed functional form for utility in Equation 1 and from the definition of equilibrium. In keeping with the previous discussion of “factions,” it leads to the following.

Fact 2 *When communities are nonrivalrous (as in Equation 2) it is never possible to induce a national identity. However, when communities are rivalrous (as in Equation 3) it may be possible to induce a national identity.*

This fact demonstrates that factious identities may be more conducive to the creation of a national identity than purely altruistic identities in which individuals do not consider outgroups to be rivals. A formal proof is omitted because the examples in the following section assume the form of status presented in Equation 3 and demonstrate that such an equilibrium can exist. Note, however, that Fact 2 does not claim that such an equilibrium will exist for *any* collection of rivalrous communities. If there is a very wealthy community, for example, it may be impossible for there to exist any policy outcome that will induce members of that community to identify with the nation.

More generally, Fact 2 makes a straightforward point: at “good” policy outcomes, ones in which all groups are on average well-off, the existence of rivalrous communities serves to psy-

chologically deter subgroup identification, and promotes identification with the nation. This is because when politically relevant subgroups are rivalrous, a negative term may enter into the utility function of every individual identifying with that subgroup. The negative term arises because individuals want competing subgroups to do poorly. A well-chosen policy (generated by a well-designed political institution) can take advantage of this deterrent effect by yielding a distribution of payoffs that makes the average payoff to the nation higher than the relative payoff of any single group. Thus, it is the “inefficiency” generated by factious rivalries that makes a national identity possible.

Note, however, that this argument only holds so long as the average payoff of every subgroup is greater than zero. When groups are doing poorly relative to a baseline of zero, then identification with factions may create a situation in which everyone is actually *better off*. This is because the negative payoffs of competing groups are subtracted from individual utility functions, and thus will enter positively into those functions. Therefore “zero” represents a reference level of sorts. Groups with average performance above this level are perceived by others as doing well, and groups with average performance below this level are perceived by others as doing poorly. A consequence of this finding is presented in the following proposition, which presents a rationale for why national identities may be desirable, and why they may emerge.

Proposition 1 *When communities are rivalrous, a national identity can never emerge when all communities are doing poorly (i.e. when $\mu(g, x) < 0$ for all g).*

Proof: When communities are rivalrous as defined in Equation 3, the well being of community g_j

is $S(g_j, x) = \sum_{g \neq g_j} \mu(g_j, x) - \mu(g, x)$. The average well being of all communities is zero, because $\sum_{j=1}^n \sum_{g \neq g_j} \mu(g_j, x) - \mu(g, x) = 0$. Therefore the well-being of at least one community is greater than or equal to zero. However, since all communities are doing poorly the status of the nation, $S(N, x) = \mu(N, x) = \sum_g \alpha_g \mu(g, x)$, must be less than zero. By Fact 1 it follows that a national identity cannot exist; some or all individuals will choose not to identify with the nation. \square

This proposition implies that nationalistic identities will be concordant with “good” policy outcomes, or outcomes in which some communities do well. However, note the social identity equilibrium logic for why this is the case. It is may be that nationalistic identities are desirable because they lead to good policy outcomes. But it may also be that *good policy outcomes lead to a national identity*. There are likely many reasons for why a government would want to convince its citizens that they form a “people”; it may, for example, make society easier to govern, or provide legitimacy to the government. Regardless, this theory highlights that the existence of a national identity may simply reflect positive societal outcomes.

Minority Representation and the Great Compromise

Interestingly, Madison’s arguments in the Federalist run counter to debates he engaged in during the drafting of the Constitution. Most notably, Madison is credited with drafting the Virginia Plan, a proposal by the Virginia delegates that set the stage for the Constitutional Convention. The plan was the first to introduce the idea of a national government consisting of an executive, legislative, and judicial branch. It also “envisioned a unitary national government effectively freed from

and dominant over the states”²¹ that was at odds with the power-sharing principles of federalism. Congress was to be divided between two houses with seats in each house allocated to the states proportionally, on the basis of population.

While most delegates to the Convention supported the concept of the strong national government embodied in the plan, it soon became clear that under the plan’s provisions Virginia, Pennsylvania and Massachusetts would be given close to a majority of the legislative seats. Delegates from the small states asked for more time to consider alternative plans, with Delaware delegate John Dickinson famously telling Madison, “You see the consequences of pushing things too far. Some of the members from the small States wish for two branches in the General Legislature and are friends to a good National Government; but we would rather submit to a foreign power than ... be deprived of an equality of suffrage in both branches of the Legislature, and thereby be thrown under the domination of the large States.”²²

Shortly thereafter the New Jersey delegation proposed its own plan for the structure of national government. The New Jersey Plan called for a unicameral legislature with each state granted a single vote. The plan was more a political necessity than an affirmation of states’ rights; it sought to retain the strong central government envisioned by the Virginia delegation in a form that would be palatable to the residents of smaller states.²³ Ultimately the delegation voted to establish a committee to work out a compromise solution, with the most important hurdle to pass being representation of the states. The Connecticut Compromise, calling for a proportional lower

²¹(Roche 2004, p. 54)

²²(Roche 2004, pp. 55-56)

²³(Roche 2004, p. 56)

chamber and an egalitarian upper chamber, was passed on June 17, 1787 by a vote of five states to four. It settled the issue of representation and also enabled delegates from both large and small states to return home claiming victory. Thus, the compromise was an essential step in ensuring ratification of the Constitution in each of the thirteen states.

In this section I will argue that the Connecticut Compromise succeeded as more than a political maneuver. By ensuring the overrepresentation of minority interests, it led to policy outcomes that enabled an American national identity to emerge. To start, I will first characterize equilibria as a function of federalism parameter \mathcal{F} . I will then consider a case consisting of two groups – a *minority* and a *majority* group – and prove that, *ceteris paribus*, policy outcomes that overrepresent minority interests are more capable of inducing a national identity. Finally, I will present an example of how the sharing of legislative power between a proportional chamber and an egalitarian chamber, as embodied in the Great Compromise, was capable of inducing a national identity, while the purely proportional Virginia Plan was not.

Drawing upon the results of the previous section, I will assume that communities are rivalrous (as characterized in Equation 3). Then, for a given federalism parameter \mathcal{F} , equilibrium can be characterized by the following:

$$a_i^* = \begin{cases} N & \text{if } x(\mathcal{F}, a^*) \in (d_i - K_i, d_i + K_i) \\ g^i & \text{otherwise,} \end{cases} \quad (4)$$

where

$$d_i = \sum_{g \neq g^i} (\bar{p}_g - \bar{p}_{g^i}) + \bar{p}_N,$$

$$K_i = \sqrt{\left[\sum_{g \neq g^i} (\bar{p}_{g^i} - \bar{p}_g) - \bar{p}_N \right]^2 - [\bar{p}_N^2 - c_N + \sigma_N^2 + \sum_{g \neq g^i} ((c_{g^i} - c_g) - (\sigma_{g^i}^2 + \bar{p}_{g^i}^2) + (\sigma_g^2 + \bar{p}_g^2))]},$$

\bar{p}_g is the mean ideal point of group g , σ_g^2 is the variance of the ideal points of the members of group g , and $c_N = \sum_g \alpha_g c_g$ is the average wealth of the nation.

This condition says that for any community g , there is an open interval of policies at which all members of g will choose to identify with the nation. $2 * K_i$ captures the size of this interval. A national identity is possible whenever these intervals overlap for all groups g . In order to induce this national identity, governing institutions must select a policy x that is contained in every group's "national identity" interval. Intuitively, this interval will be larger for groups with characteristics that contribute to low status or well-being, and smaller for groups with characteristics that yield high status. This makes sense because members of groups with lower relative status will be more prone to identifying with the nation in order to cognitively avoid a comparison to better-off groups. In this model, non-policy related characteristics that can affect status are the wealth of a group, or c_g , and the variance of the distribution of ideal points of members of a group, or σ_g . Specifically, group status is increasing in wealth and decreasing in variance (because utility functions are concave).

The following proposition considers a simplified version of the model in which there are two groups: a minority faction and a majority faction. It shows that, all else equal, institutions that overrepresent the preferences of the minority group relative to its size will be more likely to induce a national identity than proportional institutions. In other words, whenever a proportional institution can induce a national identity, so can an institution that overrepresents the minority. At the

same time, the opposite is not true; there are instances in which a national identity can *only* be induced by overrepresenting the preferences of the minority.

Proposition 2 *All else equal, institutions that overrepresent the preferences of a minority group relative to its size (i.e. $\mathcal{F} > 0$) will be more likely to induce a national identity than proportional institutions ($\mathcal{F} = 0$). Phrased differently, federalism is more conducive to a national identity than direct democracy.*

Proof: Suppose that there are two groups, g_1 and g_2 that are equally wealthy (i.e. $c_{g_1} = c_{g_2}$) and whose distributions of members' ideal points are translations of the same probability distribution, with $\bar{p}_{g_1} > \bar{p}_{g_2}$. Last, assume that $\alpha_{g_1} > \alpha_{g_2}$ (or that g_1 is the majority group).

Whenever a national identity equilibrium exists, it must exist at the policy x_μ^* that minimizes the maximum relative status of any group. When there are two groups, this occurs at $x_\mu^* = \{x \in \mathbb{R} : \mu(g_1, x) = \mu(g_2, x)\}$, or

$$x_\mu^* = \frac{\bar{p}_{g_1} + \bar{p}_{g_2}}{2} + \frac{\sigma_{g_1}^2 - \sigma_{g_2}^2}{2(\bar{p}_{g_1} - \bar{p}_{g_2})} + \frac{c_{g_2} - c_{g_1}}{2(\bar{p}_{g_1} - \bar{p}_{g_2})}.$$

By the assumption that the groups differ only in size and mean, $x_\mu^* = \frac{\bar{p}_{g_1} + \bar{p}_{g_2}}{2}$, or the midpoint between the means of the two groups. Let $x(\mathcal{F}, N)$ be the policy induced by institution \mathcal{F} when $a_i = N$ for all i . For any individual i , the policy that maximizes i 's utility when $a_i = N$ is $\frac{p_i + \bar{p}_N}{2}$. Thus $x(\mathcal{F}, N) = \{x \in \mathbb{R} : \rho_{g_1}(\mathcal{F})F_{g_1, N}(x) + \rho_{g_2}(\mathcal{F})F_{g_2, N}(x) = 0.5\}$, where $F_{g, N}(x)$ is the cumulative density of the distribution of utility-maximizing points for individuals in group g when $a_i = N$ for all $i \in g$. Note that $F_{g, N}(p_i) = F_g(\frac{p_i + \bar{p}_N}{2})$.

The median policy induced by institution \mathcal{F} , or $x(\mathcal{F}, N)$, is increasing in $\rho_{g_1}(\mathcal{F})$, the legislative weight given to the right-side group. This is because, if $\rho_{g_1}(\mathcal{F})F_{g_1,N}(x(\mathcal{F}, N)) + (1 - \rho_{g_1}(\mathcal{F}))F_{g_2,N}(x(\mathcal{F}, N)) = 0.5$, then differentiating both sides of this equation with respect to $\rho_{g_1}(\mathcal{F})$, we get that

$$[F_{g_1,N} - F_{g_2,N}] + [\rho_{g_1}(\mathcal{F})f_{g_1,N} + (1 - \rho_{g_1}(\mathcal{F}))f_{g_2,N}] \frac{\partial}{\partial \rho_{g_1}(\mathcal{F})} x(\mathcal{F}, N) = 0.$$

Because $[F_{g_1,N} - F_{g_2,N}] < 0$ (as $F_{g_1,N}$ first order stochastically dominates $F_{g_2,N}$) and because $[\rho_{g_1}(\mathcal{F})f_{g_1,N} + (1 - \rho_{g_1}(\mathcal{F}))f_{g_2,N}] > 0$, it follows that $\frac{\partial}{\partial \rho_{g_1}(\mathcal{F})} x(\mathcal{F}, N) > 0$; the median policy induced by \mathcal{F} at a national identity equilibrium is increasing in $\rho_{g_1}(\mathcal{F})$, the legislative weight given to Group 1. Similarly, the median policy induced by \mathcal{F} is decreasing in the legislative weight given to Group 2.

Because $\alpha_{g_1} > \alpha_{g_2}$ it is clear that x_μ^* is lower than the median of the true distribution of ideal points for the nation as a whole, which has cdf $F_{N,N} = \alpha_{g_1}F_{g_1,N} + \alpha_{g_2}F_{g_2,N}$. It follows that the institution \mathcal{F} that yields $x_\mu^* = x(\mathcal{F}, N)$ has $\rho_{g_2}(\mathcal{F}) > \alpha_{g_2}$. In other words, Group 2 is given a legislative weight greater than its share of the population. \square

Proposition 2 shows that when groups are similar in every way other than size, then institutions that overrepresent minority interests are more capable of inducing a national identity than institutions that do not, and thus, that federal institutions may be particularly well-suited to the task of forging a national identity. The following example is intended to illustrate how the model works, and what equilibria will tend to look like. It provides an example of a setting in which proportional representation is not capable of inducing a national identity but overrepresentation of the minority

faction is. By illustrating the equilibrium identity outcomes of proportional and federal forms of representation, this example is meant to highlight the argument that the structure of government called for in the Connecticut Compromise may have been more capable of fostering an American national identity than the government envisaged by the Virginia Plan.

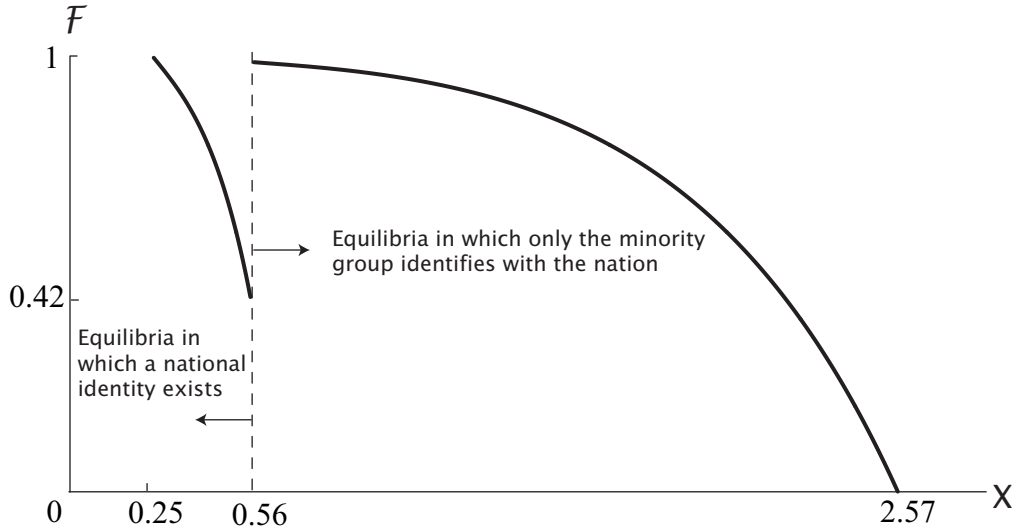
An example of the effect of representative institutions on identity choices

In this example I will assume that there is a minority faction, L , that contains $\frac{1}{4}$ of the population, and a majority faction, R , containing $\frac{3}{4}$ of the population. These factions could be thought of as a small state and a large state. The ideal points of the members of L are distributed normally with mean $\bar{p}_L = -1$ and variance $\sigma_L^2 = 1$. The ideal points of members of R are also distributed normally with $\bar{p}_R = 1$ and $\sigma_R^2 = 1$. Both groups are assumed to be similarly wealthy, with $c_L = c_R = 4$. While this example is not intended to be a literal interpretation of the situation faced by delegates at the Constitutional Convention, it captures a general situation in which the majority and minority faction have policy preferences that differ. In the Constitutional context, this could represent many different important policy dimensions along which large and small states differed. Such issues included federal assumption of state debt, slavery, tariffs, and economic relationships with Britain versus France.

Figure 1 depicts all social identity equilibria as the federalism parameter \mathcal{F} is varied between zero and one. When $\mathcal{F} = 0$ representative institutions are completely proportional, with L receiving 25% of legislative decisionmaking power and R receiving 75%. When $\mathcal{F} = 1$ both factions are given equal legislative weight. And when $\mathcal{F} \in (0, 1)$ each faction receives representation equal to

$\mathcal{F}(\frac{1}{2}) + (1 - \mathcal{F})\alpha_g$, where α_g is the percentage of the total population belonging to community g .

Figure 1: Social identity equilibrium with majority and minority factions



To find equilibria as a function of a given \mathcal{F} , draw a horizontal line through \mathcal{F} . The points on the curves intersected by that line represent equilibrium (a^*, x^*) combinations. For example, when $\mathcal{F} = 0.5$ (or half of a community's legislative representation is determined proportionally and the other half on the basis of state equality – as in the U.S. Congress) then *two* equilibria are possible. One in which $x^* = .54$ and $a^* = \{N, N\}$, and another in which $x^* = 2.16$ and $a^* = \{N, R\}$. To understand why policy outcomes move so far to the right when members of the majority group choose to identify with their community, note that the utility-maximizing point of an individual i who identifies with his community is $p_i + \sum_g (\bar{p}_{g^i} - \bar{p}_g)$. Thus, the median utility-maximizing point of a member of R who identifies with R is 3. When that same individual identifies with N , his utility-maximizing policy is $\frac{p_i + \bar{p}_N}{2}$, or 0.75.

Specifically, in this example the policy interval on which members of L will identify with the nation is $(-0.37, 5.37)$, and the interval on which members of R will identify with the nation is $(-3.56, 0.56)$. However, under a weighted median voter rule as specified by \mathcal{F} , most of the policies on these intervals are not politically feasible. The figure demonstrates that when federalism parameter \mathcal{F} is above 0.42 a national identity is possible. When \mathcal{F} is above approximately 0.98, then a national identity is the unique equilibrium. When $\mathcal{F} \in (0.42, 0.98]$ then multiple equilibria are possible: one in which both factions choose a national identity, and one in which only the minority faction chooses a national identity. Finally, when $\mathcal{F} < 0.42$ a national identity equilibrium is never possible. If we consider the Connecticut Compromise to correspond $\mathcal{F} = 0.5$ and the Virginia Plan to correspond to an $\mathcal{F} = 0$, it follows that while a national identity equilibrium was possible under the Connecticut Compromise, it was not feasible under the Virginia Plan.

Conclusions

In their book *The End of Inequality*, Ansolabehere and Snyder discuss an early commentary on *Baker v. Carr* written by the editors of the *Yale Law Journal*. The journal editors argued that the Supreme Court should set a standard for redistricting which would maximize the representation of all *interests* in society, “including social classes and income levels, ethnicities and races, and parties.”²⁴ In a similar vein, writing in regard to the philosophy of Alexander Bickel, a Yale Law professor and opponent of court intervention in redistricting cases, Anthony Kronman writes:

²⁴(Ansolabehere & Snyder 2008, p. 280).

“...the groups that men form, the interests these groups have, the different ways in which different groups make their influence felt in the processes of government – all of this must be taken into account in the design and revision of our political institutions. The abstract view of democratic government and of individual identity implicit in the slogan ‘one person, one vote’ obscures these things, or more precisely, devalues them...”²⁵

However, Ansolabehere and Snyder argue that not only would institutionalizing the representation of interests be technically infeasible, but that this sort of balancing of interests should be, and frequently is, undertaken at the legislative level when passing law.²⁶ In other words, not only *is* redistricting necessarily political, but it *should be* necessarily political. They argue that the political process of drawing district lines can accommodate the representation of interests while maintaining the normatively powerful standard of “one person, one vote.”

In this paper I argue that a similar balance between the representation of interests and individuals can be achieved via a federal system, in what is perhaps a more direct way. More importantly, I argue that using a federal system to disallow any one group from exerting adverse influence over any other may be more conducive to the creation of a national identity than direct representation. Ultimately, explicit representation of groups may result in preference changes that render group distinctions less salient. However, whether any federal system will have a beneficial effect on national identities will depend on whether we believe a member state’s population to be correlated

²⁵(Kronman 1985, p. 1599)

²⁶(Ansolabehere & Snyder 2008, p. 281)

with its political interests. Clearly this was so in the American case. At the time of the drafting of the Constitution state boundaries were salient and states were political communities of interest; while there is evidence that an American national identity had been forming in the half-century prior to the revolution, “it was dominated by strong differences and mutual antipathies among people of different colonies ... the more local identification with particular states remained more salient to most people until after reconstruction.”²⁷

A discussion of present day political institutions more relevant than the Senate would include the Voting Rights Act of 1965 and its amendments. These statutes were intended to alter the system of Federal representation by making Congressional districts more explicitly account for, and respond to future changes in, racial composition within the various states. The theory presented here suggests that these policies might impact the conception of national identity within and across different racial groups, and thereby impact public policy through the effect of identity choices on individuals’ policy preferences.

Just as the protection given to small states through equal representation in the Senate was arguably beneficial to the creation of an American identity because of its effect on identity choices in large states, similarly the Voting Rights Act might be construed as having its impact through the largest racial group: whites. It is not difficult to see that the logic of the theory implies that an important potential effect of majority-minority districts – intended to directly increase representation of African American and Hispanic interests in Congress and, indirectly, public policy – is their effect on the preferences of white voters. Furthermore, because Congress is a national institution,

²⁷(Spillman 1996, p. 154)

this effect may operate not only in states directly covered by Department of Justice preclearance but in the nation as a whole.

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