

Annual Review of Political Science Redistribution Without a Median Voter: Models of Multidimensional Politics

Torben Iversen and Max Goplerud

Department of Government, Harvard University, Cambridge, Massachusetts 02138, USA; email: iversen@fas.harvard.edu, goplerud@g.harvard.edu

Annu. Rev. Political Sci. 2018. 21:295-317

First published as a Review in Advance on February 28, 2018

The Annual Review of Political Science is online at polisci.annualreviews.org

https://doi.org/10.1146/annurev-polisci-031016-011009

Copyright © 2018 by Annual Reviews. All rights reserved



Keywords

redistribution, multidimensional, coalitions, class, spatial models, salience

Abstract

Most work on redistribution in democracies is anchored in longstanding unidimensional models, notably the seminal Meltzer-Richard-Romer model. When scholars venture outside the security of unidimensionality, many either abandon theoretical rigor or miss the full consequences of adding more dimensions (whether ideological or economic). There is now a substantial literature on redistributive politics in multidimensional policy spaces, but it tends to be very technical and frequently misinterpreted, if not ignored. This purpose of this article is to review this relatively new literature using simple graphical representations, focusing on the key assumptions, intuitions, and results. We show how issue bundling, issue salience, and the distribution of preferences can affect redistribution, and we discuss the role of political institutions in inducing particular outcomes. We also highlight the opportunities for dialogue between formal models and more constructivist approaches by exploring the effects of political entrepreneurs manipulating salience, institutions, and even identities.

INTRODUCTION

Understanding redistribution is a central topic for political economy and indeed for the study of democracy. Data from the Luxembourg Income Study show that the tax-benefit system is everywhere redistributive, but also that it varies dramatically across time and countries. If we want to understand inequality, we need to understand the politics of redistribution. Yet, the models used to explain redistribution have relied heavily on single-dimensional conceptions of politics that are theoretically and empirically unsatisfactory. In the past two decades, new multidimensional models have been developed, but they are not widely used, in part because they tend to be highly technical. A main purpose of this review article is to introduce foundational models of multidimensional distributive politics, focusing on intuition, simple graphical representations, and empirical predictions.

We also seek to clarify an ambiguity around what constitutes multidimensional policies. Multidimensionality is commonly used to denote multiple ideological dimensions—such as an economic left/right versus a social or cultural dimension—and this article does consider models constructed in this vein. But as we outline below, any policy that involves the division of a fixed good between multiple groups can be thought of as multidimensional. This implies that virtually all economic policies, including redistribution, are multidimensional.

Finally, although most formal models of multidimensional politics use preexisting institutions and structures to predict outcomes (known as structure-induced equilibria), we see much potential for a dialogue between these models and research that focuses on political entrepreneurship and historical contingency. While such a dialogue is currently absent, we hope this article will encourage it.

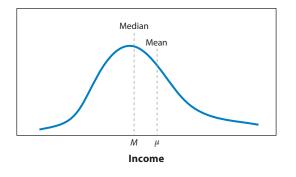
Moving to a multidimensional conception of redistributive politics comes at the cost of analytical complexity, and it can be argued that at least democracies in Western Europe and North America reasonably approximated a single-dimensional interpretation of politics for the first few decades after World War II. Much spending by advanced democracies in this period was for social insurance, pensions, and public goods where markets were underdeveloped. Spending for such purposes enjoyed broad cross-class support; the main conflict was over the level of spending, with left parties and those at the lower end of the income distribution wanting more, and right parties and those at the higher end of the distribution wanting less. The hugely influential unidimensional model by Meltzer & Richard (1981) and Romer (1975), at least superficially, seemed to capture the theoretical essence of this reality.

Yet, whether or not unidimensional conceptions of redistributive politics were ever good approximations to reality, three broad developments have rendered them untenable for understanding the present world of advanced democracies. The first is the expansion of private alternatives to public provision. With the development of private insurance and credit markets, the welfare state has come to be seen by many as a pure instrument of redistribution. As we will see in a moment, purely distributive policies, like dividing a pie, are inherently multidimensional.

Second, noneconomic issues such as immigration, race/ethnicity, postmaterialism, and multiculturalism have become increasingly salient. These new dimensions may well have materialist foundations, but they take nonmaterialist forms and cross-cut existing distributive divisions. They affect the politics of distribution by enabling new types of policy bundles and coalitions.

Finally, the spread of democracy to developing countries has raised the importance of both considerations because politics in these countries is often divided by ethnicity, caste, and religion. If we want to understand these countries, we cannot simply apply the one-dimensional models used to analyze Western democracies in the past.

This article offers a critical introduction to four influential multidimensional models of distributive politics. These models are often highly technical and inaccessible to many, but we believe they



Right-skewed distribution of income.

are increasingly salient to an understanding of redistributive politics. Many empirically minded researchers already analyze politics as a multidimensional coalition game—often with roots in Esping-Andersen's (1990) historical institutionalist work—but they rob their work of the analytical clarity that formal models provide, and they often cannot escape a sense of post hoc reasoning. To help bridge this gap between theoretical models and empirical practice, we provide intuitive graphical representations of four foundational models, without any claim to being exhaustive. We comment on limitations of existing models, but the focus is on highlighting the key logics of the models and how they may be used to explain distributive outcomes in democracies.

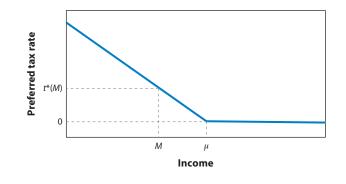
A BASELINE MODEL: MELTZER & RICHARD AND ROMER

Perhaps no model captures the intuition that democratic politics compensates for market inequality better than that associated with Meltzer & Richard (1981) and Romer (1975)—hereafter MRR. The key logic of the MRR model also reappears in several models of multidimensional politics by essentially treating redistribution as one of several dimensions in a more complex model.

The democratic compensation intuition of the MRR model is simple but requires several restrictive assumptions: a proportional tax, a flat-rate (lump-sum) benefit, a balanced budget, and nonlinear efficiency costs of taxation. The final assumption can be thought of as a disincentive to work if taxation is high, which leads to a reduction in output. In addition, the distribution of pretax and pretransfer income is assumed to be right-skewed and exogenously given, as illustrated in **Figure 1**. Virtually all observed income distributions are right-skewed, so this is not a controversial assumption, and we retain it throughout this review.

The purpose of the other assumptions is to ensure that there is a single policy dimension which can alternatively be thought of as the tax rate or the benefit level. The balanced-budget assumption guarantees that all taxes collected are distributed. If a proportional tax is combined with a lump-sum benefit, anyone with income above the mean has no incentive to vote for taxes, since they contribute more than the average yet receive the same benefit as everyone else. Those below the mean income, however, get a net benefit from taxation so long as the efficiency costs of taxation are not too high. Assuming that everyone simply wants to maximize their net income, this produces a single dimension with preferences for taxation as illustrated in **Figure 2**. The reason that the preferred tax rate does not jump to 100% just below the mean is that taxation reduces the size of the pie and makes very high taxation suboptimal for voters at this income level.

Downs's (1957) median voter theorem can now be applied to majoritarian elections to predict the extent of redistribution. If everyone votes, the median voter is the individual with the median income, and the equilibrium is reached when the benefit to the median voter of additional spending



Preferred tax rate as function of income. $t^*(M)$ indicates the optimal tax rate for an individual with median income. The optimal tax rate for all individuals above mean income (μ) is zero.

is exactly outweighed by the cost to the median voter of lower per capita income due to work disincentives. In **Figure 2**, that equilibrium is at $t^*(M)$. The logic implies two key comparative statics: Spending is higher (*a*) the greater the skew in the distribution of income ("inequality") and (*b*) the lower the efficiency costs of taxation. If we allow for the possibility that some people do not vote and that non-turnout is concentrated among the poor, we can add another implication: (*c*) Taxation and redistribution rise with the turnout rate.

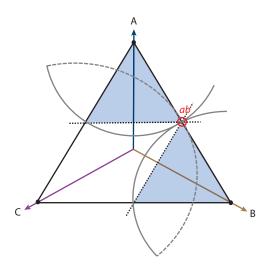
Implications *a* and *c* have been subjected to much empirical scrutiny, and while the latter finds some support (Larcinese 2007), the evidence for redistribution rising in inequality is weak. Indeed, data seem to suggest that democracies with high inequality also tend to redistribute less (Alesina & Glaeser 2004, Bénabou 1996, Lindert 1996, Moene & Wallerstein 2001, Perotti 1996).

A less often noted implication of the MRR model is that partisanship, in the sense of parties adopting divergent (and nonmedian) platforms, is irrelevant, as the assumption of a single dimension and Downsian two-party competition should lead to convergence on the tax rate preferred by the median voter.¹ The unimportance of partisanship applies even to multiparty systems if a centrist party representing the median voter can make take-it-or-leave-it offers in the legislature. Yet evidence that partisanship matters is quite overwhelming; different types of governments (e.g., backed by social democrats versus Christian democrats or conservatives) redistribute markedly different amounts (Bradley et al. 2003; Huber & Stephens 2001; Korpi 1983, 1989; Pettersson-Lidbom 2008; Reed 2006).

There are two responses to this evidence. One is to accommodate it in the Downsian MRR framework. Aldrich (1983) shows that two parties can deviate from the median voter if they have to appeal to core constituencies in order to energize activists and increase turnout, or attract campaign contributions, as illustrated by the American primary system. In addition, if parties in coalition governments have to bargain out differences (as opposed to a center party handing out ultimatums), then multiparty systems where one party has less than a majority can deviate from the median voter position (of course, multiparty systems are outside the purview of MRR).

Yet, these logics cannot explain long-run effects of partisan governments. Sometimes centerright parties win majoritarian elections; sometimes center-left parties win; sometimes center parties form government coalitions with left parties; sometimes they form governments with right parties. Ex ante, there is no reason to expect partisanship to matter in the long run. But a large

¹This result holds whether parties are policy maximizing or vote maximizing. The model requires full information, however, and when uncertainty is introduced, there may be divergence when parties value policy (Wittman 1983). We discuss the implications of this type of model under uncertainty below.



Dividing a pie between three groups. The solid dots labeled A, B, and C represent the ideal points for each group (i.e., receiving all of the pie). A feasible allocation is any point inside the triangle defined by those points, i.e., the shares sum to one. Assume that A and B have made an agreement to split the pie equally and exclude C, i.e., the red circle labeled *ab*. The shaded triangles show the regions where either A or B receives at least one half of the pie. Thus, we see that C could make an offer that was inside the petals defined by the circular indifference curves and inside the shaded triangle to displace *ab* as the status quo. Such an offer makes C better off (versus *ab*) while also improving A's or B's position.

literature suggests that some democracies do have governments that are systematically more leftleaning, and redistribute systematically more, than other democracies (see Huber & Stephens 2001 for evidence and extensive references). The MRR model is simple and intuitive, but it simply does not seem to account for most of the variance that matters to redistribution.

THE FUNDAMENTAL PROBLEM OF EXPLAINING DISTRIBUTIVE POLITICS

While the MRR model packs a lot of intuition, it is in fact exceptionally hard to justify the assumptions that reduce the distributive space to a single dimension. This is easy to see if we assume that there are three groups—they could be classes, ethnic groups, religious denominations, etc.—and a policy vector that divides a fixed pie between the three groups. The whole pie could go to any of the groups or it could be split in any way between them as long as the total distributed does not exceed the size of the pie (the budget constraint). This is illustrated in **Figure 3**.²

Each axis represents the share of the pie going to A, B, and C, respectively. The ideal points of each group (where a group gets the whole pie for itself) are represented by solid dots, and the public policy—which is a vector of each group's shares—can be any point in a triangular plane that connects the three dots. Assume that decisions are by majority voting and that two groups are

²The logic here is very general and applies to all nonlinear taxes and targeted benefits. Note also that while individuals or groups are simply maximizing net income, which implies unidimensional preferences (more or less income), the policy space is multidimensional because voters consider different bundles of taxes and transfers, which are necessarily multidimensional. Induced preferences over these bundles are consequently also multidimensional. We consider multidimensional preferences that are not induced, say over redistribution and religion, below, but it is important to recognize that multidimensionality does not require people to have such preferences.

required for a majority. With a fixed pie, the outcome must lie on the triangular hemisphere (also called the Pareto set). Imagine now that A and B have agreed on a policy, *ab*, that splits the pie evenly between the two groups. The two dotted straight lines drawn through that point are the indifference curves for A and B because any point on these lines leaves one group with the same share of the pie (one half).

The question is now whether *ab* can be an equilibrium. The answer is that it cannot, at least not without additional assumptions. It is easy to show this by noting that the indifference curve for C that runs through *ab* is equal to the line between A and B. For any point on this line, C gets nothing. But it is immediately clear that C could do better by offering a deal to A anywhere in the top shaded triangle that would also make A better off, at the expense of B. Alternatively, C could offer a deal to B in the bottom shaded triangle that would make C and B better off, at the expense of A. These are known as "win sets" because any point in the win sets is preferred by two of the groups to the original deal between A and B. As it turns out, this is not a unique attribute of the point *ab*; it applies to any point in the triangular plane. Since no point has an empty win set, there is always a path to reach any point in the plane.

This turns out to be a very general problem. For example, the policy division may concern not a fixed pie but a public good that is subject to some conflict—for example, a school that can be placed somewhere between the locations of three spatially concentrated groups. In such a situation, it is more natural to think of the policy space in terms of Euclidian distance, where each group seeks an outcome as close to its own ideal position as possible, and we can then represent indifference curves as half-circles drawn through any point, such as *ab* (**Figure 3**).³ But the conclusion is the same as before because the intersections of the indifference curves always leave two nonempty win sets (they look like petals in **Figure 3**). Indeed, it is not logically impossible now to arrive at outcomes outside the Pareto set.

Arrow (1951) was the first to prove the general impossibility of arriving at a well-behaved social majority preference function from unrestricted, but well-behaved, individual preference. In the legislative domain, a large, mostly Americanist literature has developed around this idea as formalized by McKelvey's (1976) seminal paper on cycling and the resulting "chaos." A hugely influential institutionalist solution proposed by Shepsle (1979) argues that the House of Representatives essentially divides the agenda into single issue domains that are governed by specialized committees, each with the power to propose bills in its own domain and with restrictions on floor amendments. This essentially eliminates the win sets in **Figure 3**.

Institutional solutions to Arrow's impossibility theorem, such as Shepsle's, are called structureinduced equilibria (SIEs), and they also play a critical role in redistributive politics, as we discuss below. In fact, all solutions we discuss are SIEs.

THREE KEY CONCEPTUAL DISTINCTIONS

To facilitate the presentation, and to help highlight the key insights of the models, we define the distinct concepts of salience, bundling, and preferences.

Salience

If there is more than one dimension, the issue arises of how important each dimension is in the minds of voters or in the programs of political parties. This relative importance is referred to

³The indifference curves need not be circular. The curvature depends on the salience of each dimension for each group. Indeed, in many models of redistribution, groups only care about the amount they receive (and not how the remainder is split among other groups); these models imply straight indifference curves.

as salience and can be conceptualized as the weight accorded to each dimension in the utility function of political agents. Salience can have important consequences for model predictions, but it is largely treated as exogenous in existing models.

Bundling

Bundling implies that distinct issues are presented in packages, usually corresponding to party programs, which restrict the choice set of voters. In principle, any restriction of a multidimensional choice set implies bundling, but there is a major discontinuity—and distinction in the literature—between spaces that are restricted to two choices and spaces that have three or more choices. Correspondingly, bundling is very closely associated with the division between two- and multiparty systems.

In some models, issues are tied together by assumption. In the MRR model, for example, taxes and benefits are perfectly collinear by construction. For conceptual clarity, we refer to such ties as constraints rather than bundling.

Preferences

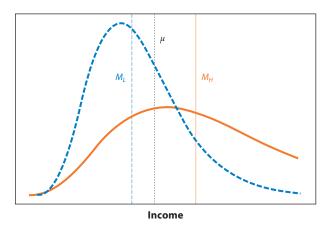
Classic models of redistribution assume that the object being divided is such that each group's preferred position is to have all of the object. But many policies—e.g., the share of the education budget going to higher education as opposed to vocational training—induce intermediate preferences. This is also true of preferences that have no obvious maximum, such as religiosity or racism. This may seem to be self-evident, but it is important to state that in a multidimensional world (unlike the MRR model), the relative spatial positions of the actors on the other dimensions matter for determining the level of redistribution in equilibrium.

TWO BUNDLED DIMENSIONS: THE ROEMER MODEL

The 1998 model by John Roemer has attained status as a classic, but the math is devilishly hard, and little work in fact uses the model beyond referencing what is usually taken to be the main result, namely that a cross-cutting noneconomic dimension is likely to divide constituencies in favor of redistribution and thwart the ambitions of the political left. In fact, the model has much more interesting and contingent implications.

The puzzle that is addressed in Roemer's (1998) piece is summarized in the title: "why the poor don't expropriate the rich." This question arises naturally from the MRR model because with a right-skewed distribution of income there should be a majority favoring redistribution. Indeed, in an MRR world without efficiency costs, more than half the population would want the tax rate to be 100%, producing a universal "citizen's wage." A majority would therefore soak the rich, which clearly does not happen. Roemer's explanation turns on the consequences of introducing a second dimension.

The model is best presented in two steps. The first uses a setup that is now familiar from MRR (see **Figure 4**). As in the work of Downs, there are two parties, L and R, but unlike in the MRR model, the parties maximize policies preferred by their core constituencies. There are two policy dimensions; one is a proportional tax, *t*, and the other is a cross-cutting nonmaterial policy, *z*, which Roemer associates with a religious dimension, although it could be any nonmaterial dimension. As in MRR, the tax is used to finance a lump-sum benefit, but unlike the MRR model, the Roemer model assumes there are no distortions from imposing taxation, so everyone below the mean income would benefit from a 100% tax while everyone above the mean would lose and therefore oppose it. The combination of assuming policy-maximizing parties and no efficiency



The Roemer (1998) model, step 1: A single economic dimension. μ indicates the median of the population income distribution. The solid curve and vertical line M_H (orange) represent the distribution and the median of the income of those voting when only a few people vote ($s > s^*$); the dashed curve and vertical line M_L (blue) represent the distribution and median income of those voting when most people vote ($s < s^*$).

costs is extreme and unrealistic, but the power of Roemer's model is precisely to show that the tax rate can go to zero even in this extreme case.

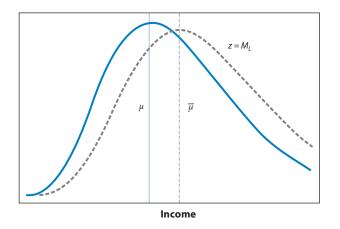
The model assumes that there is uncertainty about who will win the election. Roemer introduces such uncertainty by allowing voter non-turnout to be concentrated among the poor and to vary according to a random variable, *s*. Roemer conceives of *s* as a measure of bad weather, so that a high *s* implies lower turnout. He then shows that there is a threshold, *s**, below which most people vote and the median voter's income is below the mean, and above which few people vote and the median voter has an income above the mean (assuming a right-skewed distribution of income). The role of bad weather is to shift the median voter to the right in the distribution, as illustrated in **Figure 2**.

As long as s^* is neither 0 nor 1, i.e., as long as there is some uncertainty, the existence of s^* will lead to policy divergence between the parties, where L promises t = 1 and R promises t = 0. This is sustainable in equilibrium because of the following logic. Assume that R is promising to implement t = 0. From L's perspective, if turnout is low, any position with t > 0 will lose (as the median voter prefers no redistribution), and thus, L cannot beat R by adopting such a position. If turnout is high, however, any position with t > 0 will win (as the median voter prefers maximum redistribution and will select the party promising the most redistribution). Thus, as L's ideal point is t = 1, their best strategy is to propose t = 1. By a similar logic, if L has committed to t = 1, then R's best response is to commit to t = 0. The logic of this argument is very similar to Wittman's (1983).

Step 2 is to introduce a nonmaterial dimension, z (Figure 5).⁴ In Roemer's (1998) model, z is a "religious" policy over which people have preferences that are induced by their own religious views or degree of religiosity.⁵ Assume that the voter distribution of preferences on the religious

⁴Note that the existence of *z* implies that people have inherently multidimensional preferences and are not simply maximizing income (see footnote 2).

⁵Other work by Roemer and coauthors has explored race or xenophobia as cross-cutting dimensions (see Lee & Roemer 2006, Roemer et al. 2007). For an influential empirical application of Roemer's model (and related ones), see De La O & Rodden (2008).



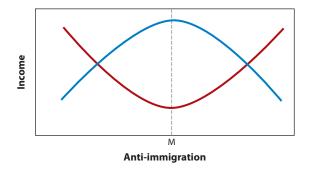
The Roemer (1998) model, step 2: Introducing a religious dimension. The dashed lines indicate the distribution of income for the voters with median religiosity ($z = M_L$) and its mean $\bar{\mu}$. If s^* is small, the religious issue highly salient, and the condition $\bar{\mu} > \mu$ satisfied, then $t^* = (L,R) = (0,0)$ is possible, i.e., both parties propose no redistribution in equilibrium.

dimension is normal and that the median on that dimension is M_z . Now consider that for each value of z there is a distribution of income, which is illustrated in **Figure 5** for the median cohort of religious preferences, Y_M (the distribution indicated by dashed lines). The mean of *that* distribution is $\bar{\mu}$, as distinct from the mean, μ , of the overall distribution (solid line). Roemer now shows that if uncertainty is sufficiently low and the salience of the religious dimension is sufficiently high, then the parties will converge on a position close to the preferred position of the voters with M_z , the median in the z distribution. The intuition is very simple: If religion is highly salient, parties must appeal to the median religious voter to have a chance of winning and implementing their preferred economic policy.

With these assumptions, if one party picks a position first and the other follows, Roemer proves that there exists an equilibrium (called a Stackelberg equilibrium) where both parties also adopt the preferred tax rate of M_z .⁶ What this tax rate is depends entirely on whether the mean income of the median cohort, $\bar{\mu}$, is higher or lower than the mean income of the population, μ . This is of course the same logic as in step 1, above, and we already know from that step that those with incomes above the mean prefer zero taxation. In general, as the salience of religion rises, the probability that t = 0 is the optimal strategy rises as long as the "starred" condition (marked by an asterisk in Roemer's article) that $\bar{\mu} > \mu$ is satisfied (Theorem 5.1, Roemer 1998, p. 409). The result is summarized in **Figure 5**.

The notion that both parties may end up proposing a zero tax rate and no redistribution, even though at least one party would choose a 100% tax rate with a single economic dimension, is striking and surprising. But the logic is compelling. Since parties must present a "bundle" of policies that encompasses both dimensions, if a noneconomic issue is important, parties must take into account the economic preferences of the median voter on the noneconomic dimension. If

⁶The finite and fixed sequencing of offers (combined with the two-party assumption) implies that Roemer's solution is an SIE. He also offers a different interpretation that does not rely on sequencing but instead relies on a party-internal decision-making process that requires unanimity between different factions: militants, reformists, and opportunists. Roemer (1998) shows that this will also produce a stable outcome, which he calls a "political unanimity Nash equilibrium" or PUNE. It is a different SIE that allows parties to make simultaneous platform announcements, but it does not affect any of the main conclusions.



Hypothetical relationships between income and positions on a noneconomic issue. The blue line represents a scenario where highly pro- and anti-immigration voters have low income (versus those with median views on immigration, indicated by M). In this case, the Roemer (1998) model would predict that introducing immigration as a cross-cutting issue would reduce redistribution. In contrast, the red line shows a scenario where the median voter on the immigration dimension has lower income than those on the extremes. In that case, introducing immigration into the political arena would increase redistribution.

that economic preference is different from the majority's preference, there is little the majority can do, since it is split on the noneconomic issue. In other words, cross-cutting issues can divide a coalition in favor of redistribution and allow nonredistributive policies to win out.

Note, however, that less redistribution does not *have* to be the implication of introducing a new dimension. Adding a dimension leads to less redistribution only if the starred condition is satisfied. Indeed, the result points in the opposite direction if the mean income of the median cohort on the noneconomic dimension is *below* the median income, because both parties would adopt a highly redistributive policy (something usually ignored when Roemer's model is cited). **Figure 6** illustrates the logic, using immigration as a cross-cutting issue. In one case, very pro- and anti-immigrant voters both have relatively low income—say internationalist communists at one end and xenophobic low-educated workers at the other—whereas those in the middle have relatively high income. This case would satisfy Roemer's starred condition. Introducing immigration as a cross-cutting issue therefore undermines redistribution, perhaps corresponding to intuitions about northern Europe. But in the other scenario, those in the middle happen to have low income, making the issue a source of political influence for the poor. "Left" populism in southern Europe may be an example.

The fact that a cross-cutting dimension can both increase and decrease redistribution depending on the empirical relationship between that dimension and income raises questions. Why are class and other issues are linked as they are, and what is the role of politics in this linkage process? Roemer's theory is silent on these issues. It is also silent on the question of what determines the relative salience of issues. Structuralist approaches going back to Lipset & Rokkan (1967) root issue linkages and salience in social cleavages, but politicians can and do try to manipulate the dimensionality of the political space. We discuss this issue in more detail below (see the section titled Heresthetics and Identity: Riker and the Shayo Model).

TWO UNBUNDLED DIMENSIONS: THE AUSTEN-SMITH & WALLERSTEIN MODEL

In Roemer's (1998) model, bundling occurs because there are only two parties and therefore only two policy bundles. With more than two parties, voters can be offered more combinations of two

or more issue dimensions. There have been several attempts to model redistribution in multiple dimensions with multiple parties, but perhaps none better captures the essence of this scenario than Austen-Smith & Wallerstein's (2006) model of affirmative action.

Their framework contains an economic model and a political model. We focus on the latter and only highlight a few key features of the former for background. Affirmative action consists of reserving a proportion, p, of "good" jobs for a disadvantaged minority, blacks, who are underrepresented in these jobs.⁷ Good jobs pay a premium wage that is partly a function of higher productivity and partly a function of union bargaining. Above market-clearing wages could be justified on other grounds, such as efficiency, but the point is simply to allow affirmative action to have "bite" by changing the racial composition of good jobs. If markets functioned efficiently and everyone were paid their marginal productivity, there would be no point to affirmative action.

Now assume that the population consists of low and high skill types, as well as blacks and whites. For simplicity, also assume that blacks are all low skilled (although Austen-Smith & Wallerstein allow for a portion of blacks being high skilled). A proportional tax pays for a lump-sum benefit, subject to a balanced-budget constraint and efficiency costs of taxation, just as in the MRR model. The resulting policy space is mapped out in **Figure 7**, which also shows the ideal policies of the three groups. Blacks want high taxes/redistribution and a strong affirmative action policy, low-income whites want high taxes but no affirmative action, and high-income whites want neither.⁸

Austen-Smith & Wallerstein (2006) assume that each group is represented by the equivalent of a political party (in their case legislative caucuses), which pursues the group interest. No group has a majority, so the policy outcome is subject to legislative bargaining. Unlike in the Roemer model, policies are not decided directly by voters (they can do no better than support their own "party") but by their representatives bargaining on their behalf.

In predicting the outcome of the legislative bargaining game, it is useful to establish that in the absence of affirmative action there is a majority for redistribution, just as in the MRR and Roemer models. In **Figure 7**, blacks (B) want slightly less redistribution than do low-skilled whites (L) because affirmative action ensures that they, ex ante, have a better chance of a good job, and hence higher expected income.⁹ But without affirmative action, all low-skilled workers converge to support redistribution, for which there will be a simple majority. This mirrors the conclusion in both the MRR and Roemer models.

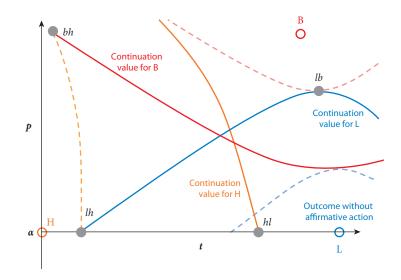
The question is what happens when affirmative action is a salient policy. The problem here is the same one we encountered in **Figure 3** since win sets will be nonempty, rendering equilibria impossible when decisions are by majority voting and parties are free to make proposals. To get around this problem, Austen-Smith & Wallerstein build on a very influential model of legislative politics proposed by Baron & Ferejohn (1989) and generalized by Banks & Duggan (2000).¹⁰ In this model, one party is randomly recognized as the proposer and then makes a take-it-or-leave-it offer, which other parties can either accept or reject. If the proposal is accepted by one other

⁷The affirmative action policy is simply a quota that sets the share of minorities in good jobs to a number that is higher than the actual share, but no higher than the share of minorities in the population. Austen-Smith & Wallerstein (2006) note that a Supreme Court decision has declared unconstitutional any affirmative action policy that reserves more jobs for a minority than the share of the minority in the population.

⁸Note that individuals in this model are simply maximizing net income, so their preferences are not inherently multidimensional. Racism plays no role, for example. *Induced* preferences are multidimensional, however, because the policy space is multidimensional.

⁹Technically, another reason blacks would want less redistribution is that higher taxes and benefits will raise the reservation wage and hence the bargaining power of unions, which will reduce the number of good jobs.

¹⁰Because the solution depends on a particular set of decision-making rules, it is an SIE.



Equilibria in an unbundled legislative bargaining game with three groups and two dimensions. Adapted from Austen-Smith & Wallerstein (2006, figure 1). Open circles are the ideal points for L (low-income whites), H (high-income whites), and B (blacks). The dashed lines are indifference curves for each group, and the solid lines show the expected value of the game for each group before a group is randomly chosen to make an offer (called the continuation value). When a group is chosen to make an offer, its optimal strategy is to make the minimum offer that another group will accept, implying that its offer will lie on the relevant solid line. The offering group will also pick the point on the solid line that gives it the most utility, i.e., lies tangent to its indifference curve. For example, if B is chosen to make an offer, it will make an offer to L (at point *lb*), as this gives B higher utility than the best acceptable offer to H (*bb*). By contrast, if L is chosen, it would make an offer to H (*bl*), as this offer provides more utility than an offer to B (*lb*). The expected outcome of the game is a weighted average of the feasible outcomes, where the weights are 1/3 for *lb* and *bl*, and 1/6 for *bb* and *lb* (the latter because H is indifferent in this example between making an offer to B and to L). This expected outcome of the game is less redistributive than the outcome without affirmative action.

party, the game ends and the policy is implemented. If the proposal is rejected, the process is repeated until a proposal is adopted. The take-it-or-leave-it character of the game greatly reduces the feasible set of outcomes because once an offer is accepted the game ends.

The offer a party is willing to accept depends on the continuation value, which is the expected value of the game for that party if the offer is rejected and the game starts over. Anticipating the possibility of rejection, the proposer has an incentive to make an offer that is just good enough for one other party to accept. We need not go into the details of how to calculate the expected values—they depend on the shape of the utility functions and discount rates—but it is not hard to see that the proposer can never be better off by making a proposal that will be rejected than one that will be accepted. If it was rejected and another party was recognized to make an offer, that offer would never be better than an offer the first proposer itself could make, and if it was recognized again, the pie would have been diminished by the discount rate. So the proposer in the first period makes the offer most beneficial to itself but just attractive enough for another party to accept, and the game ends.

The logic is illustrated in **Figure 7**, which shows the continuation value of each of the three parties, as well as indifference curves for the same parties (dashed curves). For example, if L is recognized as the proposer, it will maximize its welfare (get closest to its own ideal point) by proposing a deal to B that leaves B as well off as it would be if it rejected the offer. This is the

equilibrium called *lb*. In this example, there are in fact four possible outcomes because if H is the proposer, it is indifferent between making an offer to B and one to L. In expectation, the outcome of the game before a proposer has been recognized is a weighted average of the four outcomes (with weights 1/6, 1/6, 1/3, and 1/3).

It is immediately obvious that this average (or ex ante expected) outcome is less redistributive than if affirmative action did not exist as a policy. So in an unbundled space, adding a dimension to the Austen-Smith & Wallerstein model unambiguously reduces redistribution.

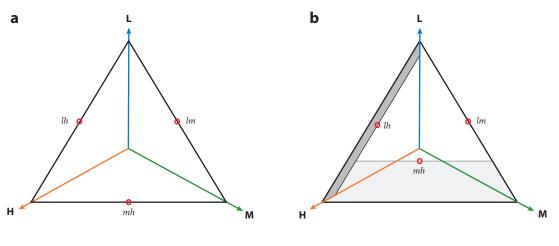
But note that this conclusion depends on the interests of the low-income whites and blacks being well aligned on the redistributive dimension. As in the Roemer model, both want high redistribution. If we inserted a middle class with an intermediate skill level and redistribution preferences, then the party representing this group would be the pivotal voter in legislative bargaining in the case of a single redistributive dimension. Since neither the right nor the left party could make a proposal to each other that would be better than a proposal targeted to the middle party, the outcome of take-it-or-leave-it bargaining would be very close to a median voter outcome. The only deviation from the center's ideal point would be future discounting, which allows the left or right to offer something slightly less than the center's preference if either is picked as the proposer. Now it is no longer clear that opening up an orthogonal policy dimension would lead to less redistribution.

Take an example where workers of intermediate skill benefit from legislated job protection, which is opposed by both the high and low skilled. There is now a possibility that the latter can form a coalition that excludes the center, which forces the center to find allies. If the unskilled are closer to the middle, center-left coalitions become feasible and even likely. So whether a second dimension reduces redistribution in a three-class world does depend on how close the middle is to the left in terms of economic interests. It is interesting here to bring in the argument by Lupu & Pontusson (2011) that the skew of the income distribution affects redistribution, because this is what we would expect in a multidimensional world where the distance between classes matters.

What can we conclude about the effect of unbundling? Comparing Austen-Smith & Wallerstein to Roemer, if the condition $\bar{\mu} > \mu$ holds in the Roemer model (so that the average income of the median voter on the noneconomic dimension is higher than the mean), unbundling will always produce more redistribution because the poor will be in a coalition some of the time, even if they are divided by religion or race (t = 0 is not an outcome in expectation). But if $\bar{\mu} < \mu$, then unbundling will likely lead to less redistribution because coalitions that include the rich are expected some of the time in the unbundled case, whereas the poor always decide policies in the bundled case. Roemer seems to think $\bar{\mu} < \mu$ is unlikely, but it is ultimately an empirical matter (and in principle testable).

UNCONSTRAINED REDISTRIBUTION: THE IVERSEN & SOSKICE MODEL

All the models considered so far assume a single dimension of redistribution. This is inherited from the MRR model and is implied by the assumptions of a flat-rate tax and lump-sum benefit (plus a balanced-budget constraint). But there is no logical reason that distribution cannot be targeted to specific groups, which would render the policy space multidimensional. We noted in the introduction that economic and political conditions in the immediate postwar decades provided some cover (perhaps just a fig leaf) for the single-dimension assumption, but it is hardly defensible anywhere today. The Iversen & Soskice (2006) model is designed to break up distribution into multiple dimensions while ignoring other dimensions, economic or otherwise.



Outcomes of dividing revenues with Rubinstein bargaining (*a*) without non-regressivity and (*b*) with non-regressivity (or with size of pie proportional to the excluded group). Shaded areas show how the bargaining space is constrained by the need to satisfy the non-regressivity constraint (or by the limited income of the excluded party). The red circles represent feasible divisions of the pie as a result of Rubinstein bargaining. In (*a*), these fall on the boundary of the triangle and equally divide the pie between two groups (e.g., 1/2 to L and 1/2 to H at *lb*) and exclude the third group. In (*b*), the non-regressivity constraint is imposed, i.e., H cannot have greater net benefits than M, and M cannot have greater net benefits than L. This constraint leads to parts of the triangle (shaded in gray) being impermissible allocations. The new feasible allocations are shown in red circles; note that for all except the *lm* allocation, these lie on the interior of the triangle and thus guarantee that L and M receive some nonzero payment in all equilibrium allocations. This restriction also implies that M will never pick H, and L will pick H at most half the time (namely in the case where an LH coalition satisfies the non-regressivity constraint without allocating anything to M).

In the Iversen & Soskice model there are three classes—low income (L), middle income (M), and high income (H)—and a pie that has to be divided between the three classes in a manner very similar to that shown in **Figure 3**. There is no explicit cost function, but it is assumed that each class can only be taxed up to a point, called their taxable capacity (which rises with income). Each class wants to simply maximize their net income (as in MRR), which is market income minus taxes plus benefits. The space is multidimensional because taxes and benefits can be targeted to the three groups, producing a two-dimensional space as in **Figure 3** and **8**.

Iversen & Soskice (2006) consider both a bundled and unbundled case, and they assume that these are a function of the electoral system and the associated party system. In a majoritarian two-party system, parties represent L and M or H and M under the assumption that M is divided across the two parties. The two parties therefore have to present two bundled policy platforms, yet spending can still be targeted to any of the three groups. This matters because the M voter is concerned that an LM party will be taken over by L and target everything to L, or that an MH party will be taken over by H and target everything to H. For this reason, parties have an incentive to try to reduce the influence of core constituencies by centralizing power to a leader who is committed to M (called "leadership parties"). But M can never be certain that an Mleader is in charge, and Iversen & Soskice argue that this gives the MH party an advantage if broader democratic institutions rule out overtly regressive policies. Specifically, if H cannot receive greater net benefits than M, and M cannot get more than L—called the non-regressivity assumption—then M worries that the LM party might take away their benefits while also taxing them, whereas the worst that can happen under an MH government is that M's benefits are cut while there is an offsetting reduction in taxes.¹¹ In the model, this difference shows up in the form of MH winning more of the time (although it could also be modeled as the MH party having the flexibility to pay more attention to its core constituencies¹²).

In the unbundled proportional representation (PR) multiparty case, each class is represented by its own party, just as in the Austen-Smith & Wallerstein model. There is no party-internal conflict and no pressure to win elections, so parties are assumed to be representative in the usual sense of promoting the interests of their constituencies (they are "representative parties"). No party has a majority. The situation returns us to **Figure 3**, where the ideal points for L, M, and H imply that the entire (pretax) pie goes to that class, and the only feasible outcomes (divisions) are defined by the triangular sphere.

In the Iversen & Soskice model, the lack of an unconstrained equilibrium is resolved in the following way. It is assumed that a coalition of two parties forms and that these parties negotiate a policy that will be implemented by the government. It is natural to think of a coalition government, but a bargained agreement could also be between a minority one-party government and one of the two remaining parliamentary support parties. As in the Austen-Smith & Wallerstein model, the proposer—or *formateur*—is chosen randomly, but in the Iversen & Soskice model, the *formateur* is proposing a coalition and a joint policy is bargained out.

Using a Rubinstein noncooperative alternating offer framework,¹³ the pie is then evenly split between the two parties as long as there is no significant first-mover advantage and parties are equally patient. In general, two parties split the policy differences between them, measured in utility terms. If we accept the Rubinstein framework for bargaining, there are now only three feasible outcomes: *lm*, *mb*, and *lb* (see **Figure 8a**). For each of these bargained outcomes, the excluded party cannot make an offer in the win set we identified in **Figure 3** because the offer would not be credible. As soon as a member of an existing coalition is pried away, a new bargaining round ensues where the pie is split. Given the nature of Rubinstein bargaining, any delay is costly and thus slightly decreases the size of the pie to be reallocated. Therefore, a coalition partner can never be made better off by switching, and *lm*, *mb*, and *lb* in **Figure 8a** are all stable equilibria.

Without additional assumptions, each of the three outcomes is equally likely, and the expected value of the game is therefore 1/3 for each player. In a symmetric game (where all players have the same probability of being recognized as the *formateur*), this would also be the expected value in a Baron & Ferejohn (1989) framework. Also, if the tax is proportional to income, it would be equivalent (in expectation) to the one-dimensional lump-sum benefits in the MRR model. But there are strong reasons to believe that the outcome will in fact be more redistributive. There are two ways to think about this. One is to assume that the non-regressivity assumption again holds so that the bargaining space is reduced. For example, if an MH coalition must give L as much as M gets, the outcome is constrained to the three-way division that excludes the light-shaded area

¹¹Non-regressivity is not guaranteed, of course, but in advanced democracies it may be argued to hold because of the collective action capacity of lower classes, guaranteed by constitutional rights of freedom of speech, assembly, and so on. One might see this as implied by Acemoglu & Robinson's (2006) assumption that democracy is a credible commitment to redistribution.

¹²In Becher's (2016) model, commitment is endogenous, with left parties facing a stronger incentive to commit than right parties in majoritarian systems but not in proportional representation systems.

¹³ In Rubinstein bargaining theory (see Rubinstein 1982), one party proposes a division of a fixed pie, which the other party can either accept or reject. Parties are discounting the future, and time diminishes the size of the pie. Depending on the "patience" of each party (a lower discount factor means more patience) the first mover proposes a division that makes the second party just prefer to accept rather than incur the cost of waiting another round by rejecting. If each party is equally patient and the first-mover advantage is negligible, the equilibrium division of the pie is ¹/₂. This is the same outcome as in Nash bargaining theory, but whereas Nash bargaining theory assumes binding contracts, agreements in Rubinstein bargaining theory are self-enforcing.

in **Figure 8***b*. This always makes an LM coalition preferable to an MH coalition for M, and the outcome will therefore be *lm* if M is the *formateur*.

If L is the *formateur* and M needs to be compensated in an LH coalition to satisfy the nonregressivity constraint (which means that the dark-shaded area in **Figure 8***b* is ruled out), L also always prefers an LM coalition if it is the *formateur*; otherwise it would choose M half the time. Either way, LM coalitions are more frequent than MH coalitions, which is the opposite of the result for majoritarian systems. Unbundling in the Iversen & Soskice model therefore unambiguously leads to more redistribution. (The second interpretation is that the pie to be divided is proportional to the tax capacity of the excluded group, which is always higher for H than for M or L. In this case, the latter two have an obvious incentive to exclude H.)

What happens if we introduce a noneconomic dimension such as religion into the Iversen & Soskice model? As in the Austen-Smith & Wallerstein model, the result is ambiguous in the unbundled case because it depends on the spatial distance between the three groups on the new dimension. If the interests of L and M are well aligned on the new dimension, their alignment reinforces the economic incentive to ally. But if M or L are closer to H on the new dimension, say because of common opposition to immigration, it could undermine the prediction of a center-left coalition with redistribution. The prediction for unbundling is similar. Unbundling will always increase redistribution if Roemer's $\bar{\mu} > \mu$ condition holds, but we cannot say for certain without a specific contextual analysis whether unbundling will increase redistribution if Roemer's condition does not hold. Overall, then, the Iversen & Soskice model strongly implies that unbundling increases redistribution when groups are organized as classes.

RECAP

Figure 9 summarizes the discussion so far. In the simple MRR model, voters are presented with bundled alternatives on a single constrained redistributive dimension, and with a right-skewed distribution of income, the model predicts that the median voter will choose redistribution up

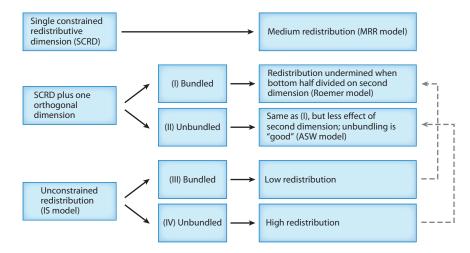


Figure 9

Summary of the effects of multidimensionality and bundling on redistribution. The solid arrows indicate the models and amount of redistribution implied by the various models discussed in the review. The dashed arrows note the implications of adding another noneconomic dimension to the Iversen & Soskice (2006) model. Abbreviations: IS, Iversen & Soskice; MRR, Meltzer & Richard and Romer; ASW, Austen-Smith & Wallerstein.

to the point where the benefits to the median voter are outweighed by the efficiency costs of redistribution.

If we add an orthogonal dimension to this world, redistribution is undermined when voters in the bottom half of the distribution are divided on the new dimension. This is particularly true in the bundled case (covered by Roemer's model) because there is no way for the poor to get together and defeat the economic interests of the median voter on the noneconomic dimension. In the unbundled case (covered by the Austen-Smith & Wallerstein model), this is possible at least some of the time. So while adding a dimension that divides the poor will always reduce redistribution, the loss is likely to be smaller with unbundling (where "likely" is determined by the chance that $\bar{\mu} > \mu$).

If we allow targeted taxes and transfers in a three-class world (the Iversen & Soskice model), the effect of bundling is unambiguously to reduce redistribution, even compared to the MRR model, as long as redistribution is subject to non-regressivity. Unbundling allows the poor and the middle to gang up on the rich. Introducing an additional, noneconomic dimension into this setting returns us to the previous cases (the dashed lines in **Figure 9**), and the predictions depend on the extent to which the poor are divided by the new dimension.

HERESTHETICS AND IDENTITY: RIKER AND THE SHAYO MODEL

The Roemer and Austen-Smith & Wallerstein models show the importance of the shape of the political space in which redistribution takes place: the number of dimensions, the distribution of voters across these dimensions, and the salience of each dimension. This observation raises the obvious question of how the space is constructed. What determines whether race or religion are important in elections? How do people decide whether to vote according to, say, their religious beliefs or their economic interests? In the case of the Iversen & Soskice model, how are electoral/party systems chosen in the first place?

These questions echo a long-standing debate in the American literature on the Congress between, on the one hand, Shepsle and his concept of structure-induced equilibria, and, on the other, Riker and his idea of heresthetics (Riker 1980, 1986)—a scenario in which political entrepreneurs try to stake out new dimensions to upset the reigning equilibrium. In an incisive new book, Shepsle (2017) yields considerable space to Riker by analyzing a number of telling instances where rules are broken in an effort to shift the status quo in a desired direction. Until now, we have treated outcomes in all the models as SIEs.

The issue of institutional choice has spun a substantial literature on the historical origins of institutions (see Boix 1999, Capoccia & Ziblatt 2010, Cusack et al. 2007, Thelen 1999 for different approaches and debates). This literature speaks most directly to the Iversen & Soskice model and why some countries have institutions that are conducive to redistribution.

In the cases of the Roemer and Austen-Smith & Wallerstein models, treating outcomes as SIEs is tenuous because whether voters think of themselves as black or white, religious or not, etc., and how they decide the salience of different policies, are hard to attribute to any particular institution. Still, the structuralist European approach to the study of electoral politics, rooted in Lipset & Rokkan's (1967) classic piece, point to stable social divisions that may substitute for institutions. This approach also invites historical analysis and is exemplified by Esping-Andersen's (1990) classic book on the three worlds of welfare capitalism, with more recent and distinct contributions by Kalyvas (1996) and Manow & Van Kersbergen (2009) (see also Kitschelt 1992 on Eastern Europe).

More in keeping with Riker's critique, an alternative approach is to see politicians as strategically staking out new dimensions and altering the salience of existing ones in a manner that produces partisan advantages. An early attempt along these lines in the Europeanist literature is Budge & Farlie's (1983) "selective emphasis" model of elections, where parties "own" different issues and then try to "define" each election in terms of the issues they own. But the model does not explain how parties come to own particular issues, nor why voters are swayed to accept certain issues as particularly salient. Nor does it have anything to say about redistribution per se.

This is also true of a large and mostly American literature on issue framing (see Chong & Druckman 2007a for a detailed overview). Experiments have established that people exposed to different issue frames tend to express divergent opinions (e.g., Nelson et al. 1997), and it is not hard to see how this could be applied to, say, the salience parameters in the Roemer or Austen-Smith & Wallerstein model. Indeed, Austen-Smith & Wallerstein (2006) note that affirmative action was promoted in the Nixon administration to divide the left, and Tavits & Potter (2015) find that right-wing parties strategically aim to shift attention away from economics to other issues. Yet, there is no general account in this literature of why particular frames are more likely to succeed, and evidence shows that exposure to competing frames attenuates framing effects (Chong & Druckman 2007b).¹⁴

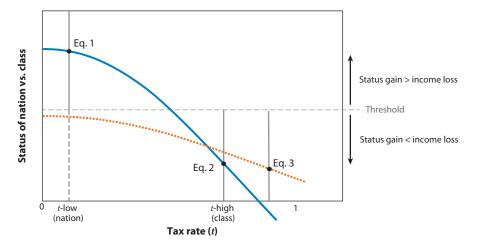
A closely related issue is why people identify with particular groups. Among the wide-ranging literature of identity politics (reviewed by Chandra 2006, McClain et al. 2009, Monroe et al. 2000, and others) we draw attention to one influential piece by Shayo (2009) because it is explicitly concerned with redistribution and because the argument is formalized. In the Shayo model, people have multiple potential identities—they can think of themselves as working class, white, American, and so on—and their identity determines preferences over redistribution. Specifically, the model assumes that people can think of themselves either as belonging to a particular nation. The salience of the competing identities is then determinative of preferences. The innovation of Shayo's model is to demonstrate how identities can emerge endogenously as part of an equilibrium where everyone behaves according to their identity and affirms the identity of others.¹⁵

Redistributive preferences induced by class identity are straightforward because Shayo, like Roemer and Austen-Smith & Wallerstein, simply adopts the MRR model in which the median voter has income below the mean (i.e., is "poor") and prefers high redistribution. Identifying as poor comes at a cost, however, because being poor has low status. Identifying with the nation, on the other hand, confers status that is linked to the overall wealth and power of the nation. A poor voter can therefore lift herself up in terms of her subjective sense of status by identifying with the nation, and since poorer people have more to gain from this identity than rich people, they are more inclined to do so.

To understand the possibility of equilibria, note that if the poor majority identifies with their class, the result is redistribution. Consequently, the income of the poor rises and so does their subjective sense of status. As the status loss from identifying with the poor falls and the direct material benefits from redistribution rise, an equilibrium emerges featuring class identification and high redistribution. Alternatively, the poor can identify with the nation and oppose redistribution as a way to maximize average income (because of lower efficiency costs) and hence the status of the nation. This leads to a nationalist, low-redistribution equilibrium.

¹⁴Przeworski & Sprague (1988) imply that voters tend to abandon their class identities when parties move to the center, but this is assumed rather than modeled.

¹⁵Shayo calls this the social identity equilibrium, or SIE, but we avoid that term here so as not to confuse it with Shepsle's SIEs.



Two equilibria in a model with endogenous identity. The vertical dimension represents the status differential of identifying with one's nation versus one's class. Above a certain threshold, indicated by the dashed horizontal line and determined by other parameters in the model, the utility gain in status achieved by identifying with the nation exceeds the loss in income, whereas below the threshold, the gain in income exceeds the gain in status. The downward-sloping lines (blue and orange) indicate two different economies and show how the status differential varies with the tax rate. The blue line represents a scenario where multiple equilibria exist; there is a low-tax equilibrium (Eq. 1) where national identity dominates and a high-tax equilibrium (Eq. 2) where class dominates. By contrast, the dashed orange line shows a scenario where a nation-identity-based equilibrium is not possible and the only equilibrium (Eq. 3) is one based on class (and with a high tax rate).

The two equilibria are illustrated in **Figure 10** (adopted from Shayo 2009, figure 2). The downward-sloping lines show that when the tax rate (measured on the x-axis) rises, the status gain of identifying with the nation declines (because the poor have higher income). The equilibrium where the national identity dominates is shown by Eq. 1 and the equilibrium where the class identity dominates by Eq. 2.

As suggested by Eq. 3 in **Figure 10**, it is possible to have a single equilibrium. In this example, there are low efficiency losses from taxation, which means that income can be redistributed without much affecting average income. This implies a small trade-off between class and national status (the dashed orange line). If there were no efficiency costs at all, the line would be flat and the tax rate would be 1, with the income of the "poor" equal to the mean income.

Shayo (2009) allows for individuals to feel more or less close to their class or nation (captured by a Euclidian distance term), but for our purposes, we can think of individuals attaching more or less subjective importance to the nation or to their class. For example, Hall & Gidron (2017) have argued that the rise of populism is a response to the decline of status caused by the drop in income and employment resulting from technological change. Populism invites people affected by this decline to identify with the nation instead. If a majority does, then Shayo's model implies lower taxes and redistribution.

In Shayo's model, status is induced by income (of the nation or the class), and when coupled with the MRR assumption of efficiency costs of taxation, it creates a single dimension, which is represented by either downward-sloping line in **Figure 10**. But what happens if it is possible to target status to particular groups? In terms of the Iversen & Soskice (2006) model, it may then be possible to trade nationalist policies—for instance, immigration controls or protectionism—that

enhance the poor's sense of national pride for a smaller piece of the overall pie. If this is correct, the impact of identity on redistribution introduced by Shayo may occur via two channels: a numeric channel that changes the majority preference for redistribution in majoritarian systems, and a bargaining channel that undercuts bargaining power over distribution for groups with nationalist leanings in PR systems. We treat this as a conjecture.

CONCLUSION

Redistribution in advanced democracies is typically analyzed as a contest for the median voter in a single dimension. The MRR model is a prominent example. But this approach is no longer tenable, if it ever was. Not only are nonmaterial issues (re)shaping electoral politics in ways that are likely to affect redistributive coalitions, but distributive politics itself is inherently multidimensional due to the possibility of targeting benefits and costs to different groups.

In this article, we have reviewed several influential models that seek to understand redistribution as a multidimensional game. They come in three main flavors. One retains a more-or-less redistributive dimension—always in a way very similar to MRR—but adds an orthogonal dimension (typically, but not necessarily, nonmaterial). It then asks how the politics of redistribution is affected. When issues are bundled because only two parties compete (the Roemer model), a highly salient noneconomic dimension can break up a coalition for redistribution by essentially dividing poor voters on the second dimension and leaving those with higher income in political control. Unbundling does not necessarily solve this problem because the second dimension may allow for less redistributive coalitions that leave out a portion of the poor (while benefiting the included poor on the second dimension). This is the Austen-Smith & Wallerstein model. While exceptions are possible, the general conclusion of these models is that increasing the dimensionality of the political space from one to several undermines redistribution.

The second flavor is represented by the Iversen & Soskice model. Here politics is all distributive, but the space is not constrained to a single dimension because benefits and taxes can be targeted. The key question is how bundling—represented by the distinction between two-party majoritarian and three-party PR systems—affects redistribution. The answer is clear: bundling undermines redistribution. Yet the model does not consider what happens if a third, noneconomic, dimension is introduced. In majoritarian systems, the Roemer result seems likely to apply, but the PR case is less clear. If the poor, or some portion of the poor, care deeply about a nonmaterial issue, an intuition would be that this focus undermines their bargaining power, or that new feasible coalitions can emerge that pay less attention to redistribution (as in the Austen-Smith & Wallerstein model). But this intuition needs to be backed up by an actual model.

Finally, the Shayo model addresses an issue that is left outside the other models: how voters form preferences over outcomes, which is equivalent in Shayo's model to forming particular identities. A poor individual who identifies with her class will seek to increase redistribution not only to maximize material welfare but to raise the status of her class. If other poor do the same, a majority will promote redistribution and class status, making it more attractive to identify as poor. This can be an equilibrium. Another equilibrium, however, is to identify with the nation, where a higher average income yields more status than identifying with the poor. Because taxation carries efficiency costs and undermines income (as in MRR), taxes and redistribution are lower when the poor identify with the nation, and this in turn entrenches their identifying with the nation.

Unlike the results of the other models, Shayo's results rely not only on structure (although there is plenty of that) to induce equilibria, but also endogenous preferences. In that sense, outcomes in Shayo's model are preference-induced equilibria (PIEs). Yet, the model does not explain why countries end up in one equilibrium rather than another, except to invoke the possibility that, say, high inequality makes feasible only one equilibrium, in which case it is a pure SIE. Where there are multiple equilibria, the model suffers from the same limitation as the other models, identified long ago by Riker (1980, 1986), namely that the outcome must in some sense be constructed. This is true whether an equilibrium is supported by institutions (as in Iversen & Soskice), or the salience of particular cleavages (as in Roemer or Austen-Smith & Wallerstein).

In this sense, key "political" questions have been resolved before these models start—parties have been formed and the relevant parameters (e.g., the salience of the nonredistributive dimension) have been fixed. These models explain how, under a fixed set of political-institutional conditions, we would expect voters and parties to behave. But the models discussed here leave open questions as to the independent role of political entrepreneurs and political mobilization, e.g., the effects of politicians attempting to manipulate the salience of religion, race, or nationalism. At the same time, it would be hard to understand such manipulation without an account of the likely consequences. This invites dialogue with literatures that often shun formal modeling and thus are typically ignored by political economists, and vice versa. In our view, these are complementary projects.

DISCLOSURE STATEMENT

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

LITERATURE CITED

Acemoglu D, Robinson JA. 2006. Economic Origins of Dictatorship and Democracy. Cambridge, UK: Cambridge Univ. Press

Aldrich JH. 1983. A Downsian spatial model with party activism. Am. Political Sci. Rev. 77(4):974-90

Alesina A, Glaeser E. 2004. Fighting Poverty in the U.S. and Europe. Oxford, UK: Oxford Univ. Press

Arrow K. 1951. Social Choice and Individual Values. New York: Wiley

- Austen-Smith D, Wallerstein M. 2006. Redistribution and affirmative action. J. Public Econ. 90(Nov.):1789– 823
- Banks JS, Duggan J. 2000. A bargaining model of collective choice. Am. Political Sci. Rev. 94(1):73-88
- Baron DP, Ferejohn JA. 1989. Bargaining in legislatures. Am. Political Sci. Rev. 83(4):1181-206
- Becher M. 2016. Endogenous credible commitment and party competition over redistribution under alternative electoral institutions. Am. J. Political Sci. 60 (3):768–82
- Bénabou R. 1996. Inequality and growth. In NBER Macroeconomics Annual, ed. BS Bernanke, JJ Rotemberg, pp. 11–73. Cambridge, MA: Natl. Bur. Econ. Res. and MIT Press
- Boix C. 1999. Setting the rules of the game: the choice of electoral systems in advanced democracies. Am. Political Sci. Rev. 93(Sep.):609–24
- Bradley D, Huber E, Moller S, Nielsen F, Stephens JD. 2003. Distribution and redistribution in postindustrial democracies. World Politics 55(2):193–228
- Budge I, Farlie D. 1983. Explaining and Predicting Elections. London: George Allen & Unwin
- Capoccia G, Ziblatt D. 2010. The historical turn in democratization studies: a new research agenda for Europe and beyond. Comp. Political Stud. 43:931–68
- Chandra K. 2006. What is ethnic identity and does it matter? Annu. Rev. Political Sci. 9:397-424
- Chong D, Druckman JN. 2007a. Framing theory. Annu. Rev. Political Sci. 10:103-26
- Chong D, Druckman JN. 2007b. Framing public opinion in competitive democracies. Am. Political Sci. Rev. 101(Nov.):637–55
- Cusack T, Iversen T, Soskice D. 2007. Economic interests and the origins of electoral systems. Am. Political Sci. Rev. 101(Aug.):373–91
- De La O AL, Rodden JA. 2008. Does religion distract the poor? Income and issue voting around the world. Comp. Political Stud. 41(4–5):437–76

Downs A. 1957. An Economic Theory of Democracy. New York: Harper

Esping-Andersen G. 1990. The Three Worlds of Welfare Capitalism. Princeton, NJ: Princeton Univ. Press

- Hall P, Gidron N. 2017. The politics of social status: economic and cultural roots of the populist right. Presented at worksh. From Preferences to Politics in the New Economy, Nuffield College, Oxford, UK, July 15–16
- Huber E, Stephens JD. 2001. Development and Crisis of the Welfare State: Parties and Policies in Global Markets. Chicago: Univ. Chicago Press
- Iversen T, Soskice D. 2006. Electoral institutions and the politics of coalitions: why some democracies redistribute more than others. Am. Political Sci. Rev. 100(2):165–82
- Kalyvas S. 1996. The Rise of Christian Democracy in Europe. Ithaca, NY: Cornell Univ. Press
- Kitschelt H. 1992. The formation of party systems in East-Central Europe. Political Soc. 20(1):7-50
- Korpi W. 1983. The Democratic Class Struggle. London: Routledge and Kegan
- Korpi W. 1989. Power, politics, and state autonomy in the development of social citizenship: social rights during sickness in 18 OECD countries since 1930. Am. Sociol. Rev. 54(3):309–28
- Larcinese V. 2007. Voting over redistribution and the size of the welfare state: the role of turnout. *Pol. Stud.* 55(3):568–85
- Lee W, Roemer JE. 2006. Racism and redistribution in the United States: a solution to the problem of American exceptionalism. J. Public Econ. 90(6):1027–52
- Lindert PH. 1996. What limits social spending? Explorations Econ. Hist. 33(1):1-34
- Lipset S, Rokkan SM, eds. 1967. Party Systems and Voter Alignments: Cross-National Perspectives. New York: Free Press
- Lupu N, Pontusson J. 2011. The structure of inequality and the politics of redistribution. Am. Political Sci. Rev. 105(2):316–36
- Manow P, Van Kersbergen K, eds. 2009. Religion, Class Coalitions and Welfare State Regimes. Cambridge, UK: Cambridge Univ. Press
- McClain PD, Carew JDJ, Walton E Jr., Watts CS. 2009. Group membership, group identity, and group consciousness: measures of racial identity in American politics? *Annu. Rev. Political Sci.* 12:471–85
- McKelvey RD. 1976. Intransitivities in multidimensional voting models and some implications for agenda control. J. Econ. Theory 12(3):472–82
- Meltzer AH, Richard SF. 1981. A rational theory of the size of government. J. Political Econ. 89:914-27
- Moene KO, Wallerstein M. 2001. Inequality, social insurance and redistribution. Am. Political Sci. Rev. 95(4):859–74
- Monroe KR, Hankin J, Van Vechten RB. 2000. The psychological foundations of identity politics. Annu. Rev. Political Sci. 3:419–47
- Nelson TE, Clawson RA, Oxley ZM. 1997. Media framing of a civil liberties conflict and its effect on tolerance. Am. Political Sci. Rev. 91(3):567–83
- Perotti R. 1996. Growth, income distribution and democracy: what the data say. J. Econ. Growth 1(2):149-87
- Pettersson-Lidbom P. 2008. Do parties matter for economic outcomes? A regression-discontinuity approach. J. Eur. Econ. Assoc. 6(5):1037–56
- Przeworski A, Sprague J. 1988. Paper Stones: A History of Electoral Socialism. Chicago: Univ. Chicago Pres
- Reed WR. 2006. Democrats, Republicans, and taxes: evidence that political parties matter. J. Public Econ. 90(4):725-50
- Riker WH. 1980. Implications from the disequilibrium of majority rule for the study of institutions. Am. Political Sci. Rev. 74(2):432–46
- Riker WH. 1986. The Art of Political Manipulation. New Haven, CT: Yale Univ. Press
- Roemer J. 1998. Why the poor do not expropriate the rich: an old argument in new garb. *J. Public Econ.* 70(3):399–424
- Roemer JE, Lee W, Van der Straeten K. 2007. Racism, Xenophobia, and Distribution: Multi-issue Politics in Advanced Democracies. Cambridge, MA: Harvard Univ. Press
- Romer T. 1975. Individual welfare, majority voting, and the properties of a linear income tax. J. Public Econ. 4:163–85

Rubinstein A. 1982. Perfect equilibrium in a bargaining model. Econometrica 50(1):97-109

Shayo M. 2009. A model of social identity with an application to political economy: nation, class, and redistribution. Am. Political Sci. Rev. 103(2):147–74 Shepsle KA. 1979. Institutional arrangements and equilibrium in multidimensional voting models. Am. J. Political Sci. 23(1):27–59

Shepsle KA. 2017. Rule Breaking and Political Imagination. Chicago: Univ. Chicago Press

Tavits M, Potter JD. 2015. The effect of inequality and social identity on party strategies. *Am. J. Political Sci.* 59(3):744–58

Thelen K. 1999. Historical institutionalism in comparative politics. Annu. Rev. Political Sci. 2:369-404

Wittman D. 1983. Candidate motivation: a synthesis of alternative theories. Am. Political Sci. Rev. 77:142-57

ANNUAL REVIEWS Connect With Our Experts

ONLINE NOW!

New From Annual Reviews:

Annual Review of Criminology criminol.annualreviews.org • Volume 1 • January 2018

Co-Editors: Joan Petersilia, Stanford University and Robert J. Sampson, Harvard University

The Annual Review of Criminology provides comprehensive reviews of significant developments in the multidisciplinary field of criminology, defined as the study of both the nature of criminal behavior and societal reactions to crime. International in scope, the journal examines variations in crime and punishment across time (e.g., why crime increases or decreases) and among individuals, communities, and societies (e.g., why certain individuals, groups, or nations are more likely than others to have high crime or victimization rates). The societal effects of crime and crime control, and why certain individuals or groups are more likely to be arrested, convicted, and sentenced to prison, will also be covered via topics relating to criminal justice agencies (e.g., police, courts, and corrections) and criminal law.

TABLE OF CONTENTS FOR VOLUME 1:

THE DISCIPLINE

- Reflections on Disciplines and Fields, Problems, Policies, and Life, James F. Short
- Replication in Criminology and the Social Sciences, William Alex Pridemore, Matthew C. Makel, Jonathan A. Plucker

CRIME AND VIOLENCE

- Bringing Crime Trends Back into Criminology: A Critical Assessment of the Literature and a Blueprint for Future Inquiry, Eric P. Baumer, María B. Vélez, Richard Rosenfeld
- Immigration and Crime: Assessing a Contentious Issue, Graham C. Ousey, Charis E. Kubrin
- The Long Reach of Violence: A Broader Perspective on Data, Theory, and Evidence on the Prevalence and Consequences of Exposure to Violence, Patrick Sharkey
- Victimization Trends and Correlates: Macro- and Microinfluences and New Directions for Research, Janet L. Lauritsen, Maribeth L. Rezey
- Situational Opportunity Theories of Crime, Pamela Wilcox, Francis T. Cullen
- Schools and Crime, Paul J. Hirschfield

PUNISHMENT AND POLICY

- Collateral Consequences of Punishment: A Critical Review and Path Forward, David S. Kirk, Sara Wakefield
- Understanding the Determinants of Penal Policy: Crime, Culture, and Comparative Political Economy, Nicola Lacey, David Soskice, David Hope

- Varieties of Mass Incarceration: What We Learn from State Histories, Michael C. Campbell
- The Politics, Promise, and Peril of Criminal Justice Reform in the Context of Mass Incarceration, Katherine Beckett

THE PRISON

- Inmate Society in the Era of Mass Incarceration, Derek A. Kreager, Candace Kruttschnitt
- Restricting the Use of Solitary Confinement, Craig Haney

DEVELOPMENTAL AND LIFE-COURSE CRIMINOLOGY

- Desistance from Offending in the Twenty-First Century, Bianca E. Bersani, Elaine Eggleston Doherty
- On the Measurement and Identification of Turning Points in Criminology, Holly Nguyen, Thomas A. Loughran

ECONOMICS OF CRIME

- Gun Markets, Philip J. Cook
- Offender Decision-Making in Criminology: Contributions from Behavioral Economics, Greg Pogarsky, Sean Patrick Roche, Justin T. Pickett

POLICE AND COURTS

- Policing in the Era of Big Data, Greg Ridgeway
- Reducing Fatal Police Shootings as System Crashes: Research, Theory, and Practice, Lawrence W. Sherman
- The Problems With Prosecutors, David Alan Sklansky
- Monetary Sanctions: Legal Financial Obligations in US Systems of Justice, Karin D. Martin, Bryan L. Sykes, Sarah Shannon, Frank Edwards, Alexes Harris
- Forensic DNA Typing, Erin Murphy

ANNUAL REVIEWS | CONNECT WITH OUR EXPERTS

650.493.4400/800.523.8635 (us/can) www.annualreviews.org | service@annualreviews.org

Å

Annual Review of Political Science

Volume 21, 2018

Contents

Politics and Political Science Robert Jervis
A Conversation with Charles V. Hamilton Charles V. Hamilton and Fredrick C. Harris
Transparent Social Inquiry: Implications for Political Science Colin Elman, Diana Kapiszewski, and Arthur Lupia
Political Trust in a Cynical Age Jack Citrin and Laura Stoker
State Capacity Redux: Integrating Classical and Experimental Contributions to an Enduring Debate <i>Elissa Berwick and Fotini Christia</i> 71
Unwelcome Change: Coming to Terms with Democratic Backsliding David Waldner and Ellen Lust
Cities and Politics in the Developing World Alison E. Post
A Taxonomy of Protest Voting R. Michael Alvarez, D. Roderick Kiewiet, and Lucas Núñez
Confucian Political Theory in Contemporary China <i>Yi-Huah Jiang</i>
On the Theory of Parties Nolan McCarty and Eric Schickler
Advances in Survey Methods for the Developing World Noam Lupu and Kristin Michelitch
Complicit States and the Governing Strategy of Privilege Violence: When Weakness Is Not the Problem <i>Rachel Kleinfeld and Elena Barham</i>
How to Think About Social Identity Michael Kalin and Nicholas Sambanis
Some Advances in the Design of Survey Experiments Paul M. Sniderman 259

The Other Side of Taxation: Extraction and Social Institutions in the Developing World Ellen Lust and Lise Rakner 277
Redistribution Without a Median Voter: Models of Multidimensional Politics <i>Torben Iversen and Max Goplerud</i>
Political Psychology in International Relations: Beyond the Paradigms Joshua D. Kertzer and Dustin Tingley
Violent Conflict and Political Development Over the Long Run: China Versus Europe Mark Dincecco and Yuhua Wang
Does Foreign Aid Build Peace? Michael G. Findley
Political Theories of Migration Sarah Song
Legitimacy in Areas of Limited Statehood <i>Thomas Risse and Eric Stollenwerk</i>
Dead But Not Gone: Contemporary Legacies of Communism, Imperialism, and Authoritarianism <i>Alberto Simpser, Dan Slater, and Jason Wittenberg</i>
Models of Other-Regarding Preferences, Inequality, and Redistribution <i>Matthew Dimick, David Rueda, and Daniel Stegmueller</i>
Radicalization: A Relational Perspective Donatella della Porta 461
Justice and Future Generations Simon Caney
Theories of Institutional CorruptionDennis F. Thompson495
International Negotiation: Some Conceptual Developments Barry O'Neill

Errata

An online log of corrections to *Annual Review of Political Science* articles may be found at http://www.annualreviews.org/errata/polisci