Approval voting and parochialism

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Abstract

In hypothetical scenarios involving two groups (nations or groups of workers), subjects voted on three proposals: one helped group A (their group), one helped B, and one helped both groups, more than the average of the first two but less than their maximum. When subjects voted for one proposal, most voted for the one that helped group A. This result is "parochial" because it helps the voter's own group even though it hurts the other group more. When voters could approve two proposals, they tended to approve the third proposal as well, and it was more likely to win. Approval voting can thus reduce the effect of parochialism, a bias toward ones own group, on election outcomes. In a second experiment, we replicated this effect using real-money payoffs. A third experiment found that approval voting can increase trust in agencies that maximize total utility. A fourth study demonstrated that parochialism is moralistic, that is, that people are willing to support it regardless of the values of others.

Introduction

The tendency of people to favor a group that includes them, at the expense of outsiders and even at the expense of their own self-interest, has been called parochialism (Schwartz-Shea & Simmons, 1991). A prime example is nationalism, a value that goes almost unquestioned in many circles, just as racism and sexism went unquestioned in the past. Nationalists are concerned with their fellow citizens, regardless of the effect on outsiders. Nationalists are willing to harm outsiders, e.g., in war, for the benefit of co-nationals.

An experiment by Bornstein and Ben-Yossef (1994) shows a parochialism effect. Subjects came in groups of 6 and were assigned at random to a red group and a green group, with 3 in each group. Each subject started with 5 Israeli Shekels (IS; about $2). If the subject contributed this endowment, each member of the subject's group would get 3 IS (including the subject). This amounts to a net loss of 2 for the subject but a total gain of 4 for the group. However, the contribution would also cause each member of the *other* group to *lose* 3 IS. Thus, taking both groups into account, the gains for one group matched the losses to the other, except that the contributor lost the 5 IS. The effect of this 5 IS loss was simply to move goods from the other group to the subject's group. Still the average rate of contribution was 55%, and this was substantially higher than the rate of contribution in control conditions in which the contribution did not affect the other group (27%). Of course, the control condition was a real social dilemma in which the net benefit of the contribution was truly positive.

Similar results have been found by others (Schwartz-Shea and Simmons, 1990, 1991). Notice that the parochialism effect is found despite the fact that an overall analysis of costs and benefits would point strongly toward the opposite result. Specifically, cooperation is truly beneficial, overall, in the one-group condition, and truly harmful in the two-group condition, because the contribution is lost and there is no net gain for others.

This kind of experiment might be a model for cases of real-world conflict, in which people

sacrifice their own self-interest to help their group at the expense of some other group. We see this in strikes, and in international, ethnic, and religious conflict, when people even put their lives on the line for the sake of their group, and at the expense of another group. We also see it in attempts to influence government policy in favor of one's own group at the expense of other groups, through voting and contributions of time and money. We can look at such behavior from three points of view: the individual, the group, and everyone (the world). Political action in favor of one's group is beneficial for the group but (in these cases) costly to both the individual and the world.

Parochialism and the self-interest illusion

Parochialism may result from all the various mechanisms that cause people to cooperate (see Baron, 2000). These include altruism, conformity, reciprocity, and various illusions, such as the voter's illusion (Quattrone and Tversky, 1984). In that illusion, people behave as if they thought their behavior would influence others, even though they know only that they and others are subject to common influence.

A second type of illusion that causes cooperation is the "illusion of morality as self-interest" (Baron, 1997a). People seem to deny the existence of the conflict between self and others, the conflict that defines a social dilemma. Because morality and self-interest are usually correlated, people tend to overgeneralize and act as though the two are correlated even when they are not.

In a social dilemma, people try to reduce the apparent self-other conflict by convincing themselves that it doesn't exist. They may do this by telling themselves that "cooperation doesn't do any good anyway, so I do not need to sacrifice my self-interest." They may also do the opposite, and convince themselves that cooperation is in their self-interest after all. They may focus on the slight self-interested benefit that accrues to them indirectly from their

own cooperation and ignore the fact that this benefit is less than the cost of cooperating. (If it were not less than the cost, then we would not have a social dilemma after all.)

The self-interest illusion is particularly relevant to cooperation with members of a group that is competing with another group. People who sacrifice on behalf of others like themselves are more prone to the self-interest illusion, because they see the benefits as going to people who are like themselves in some salient way. They think, roughly, "My cooperation helps people who are X. I am X. Therefore it helps me." This kind of reasoning is easier to engage in when X represents a particular group than when it represents people in general.

Supporting this explanation, Baron (2001) did an experiment following the design of Bornstein and Ben-Yossef (1994) in comparing cooperation within a single group with cooperation within a group when that group's gain is another group's loss (the two-group condition). The main addition is that subjects answer questions about their self-interest, in order to test the hypothesis that the self-interest illusion is greater in the two-group condition.

Subjects did contribute more in the two-group condition than in the one-group condition (82% vs. 73%), replicating the parochialism effect. More importantly, the parochialism effect for contributing was highly correlated across subjects with the parochialism effects for the self-interest questions, including a question about which option would make more money for the decision maker. In other words, those subjects who showed a greater parochialism effect for contributing showed a greater self-interest illusion when the gain for their group was a loss for the other group.

When subjects were forced to calculate the effects of their contribution on themselves and others, the parochialism effect was reduced. Thus, parochialism is somewhat labile. As suggested by Singer (1982), it may be possible, through reason, to understand the arbitrariness of group boundaries. The more that people think of boundaries as arbitrary, the more they

can direct their non-self-interested concern at the greater good rather than the parochial interests of their group.

Parochialism and approval voting

While we are waiting for people to change the way they think about political behavior, a simple change in the rules could help reduce parochialism right away, and perhaps even encourage a change in thinking. In approval voting, voters say yes or no to each of several candidates or proposals. The option with the most approvals wins. By contrast, in standard plurality voting, voters vote for one option, and the option with the most votes wins. Approval voting has many well-known advantages over plurality voting: addition of minority candidates cannot swing the election to an otherwise less favored candidate; voters can express support for hopeless candidates without wasting their votes; voters can understand the system easily; laws and procedures require little modification; and, more generally, voters can more honestly express their preferences (Brams & Fishburn, 1983). Approval voting would probably have changed the outcome of many elections, including the latest U. S. presidential election. Approval voting can also reduce parochialism.

Approval voting could reduce parochialism if people could see themselves as members not only of their own group but also of the larger group that includes affected outsiders; they would then approve proposals consistent with both views. Such voters may be torn between the greater good for all and the demands of the self-interest illusion for their narrow group (Baron, 1997b). Approval voting could also help if people base their vote on self-interest alone (once they decide to vote). It would not reduce parochialism if parochial voters cared only about their group.

Honest approval voting requires approval of all options above some cutoff in terms of

desirability or utility. To maximize personal influence (under certain assumptions), one should put the cutoff at the mean utility of all the options (Brams & Fishburn, 1983, ch. 5.5). With three options, this amounts to voting for the top two if the intermediate proposal is closer to the best than to the worst. This strategy would also be more likely than other strategies to select the option with the highest average utility.

The present experiment asked people how they would vote on three hypothetical proposals. One proposal, Self, is best for the voter's group, by 10 units. A second, Other, is best for another equal-sized group, by 10 units. A third, Best, provides 6 or 8 units to each group. The total benefit from Best is thus greater than either Self or Other.

A voter who votes on the basis of self-interest alone would vote for Self in a standard vote and for Self and Best in an approval vote (because Best is above the mean utility). The same would be true of a voter who suffers from the self-interest illusion but can apply this both to the narrow group and the inclusive group.

Experiment 1: Can approval voting reduce parochialism?

The groups were either nations or groups of workers. The questionnaire also asked subjects whether paying to vote would be a good business proposition, to test the self-interest illusion. And it asked how subjects thought people in the other group would vote. This was included largely as a check on subjects' attention. People think that others would respond much as they would (Dawes, McTavish, & Shaklee, 1977; Dawes et al., 1986).

Method

Ninety-six subjects completed a questionnaire on the World Wide Web, for $3. Their ages ranged from 18 to 60 (median 35); 27% were male; 19% were students. They found the questionnaire page through links in other web pages and through search engines (`http://www.psych.upenn.edu/~baron/qs.html`).

The questionnaire had 32 cases, 8 in each cell of a two-by-two design: groups are nations vs. workers of different kinds; and approval vs. standard voting. The use of two different kinds of groups was merely an excuse to obtain additional data from each subject. The 8 items in each cell varied in the payoffs, as described later. The questionnaire began:

> **Referendum voting**
>
> This study concerns your attitudes about voting for proposals that affect your group and another group. In each case, imagine that you are voting in a referendum some time in the future.
>
> Rules will be different then. In particular, in some of these cases, the vote will involve two nations.
>
> You are asked if it is worthwhile to pay to vote. In these cases, imagine that the payment involves sending an absentee ballot by express mail.
>
> In all cases, only one of three proposals will be adopted. There are two methods of voting. In the **standard method**, you see three proposals and vote for one. The proposal with the most votes wins.
>
> The other method is called **approval voting**. You approve one proposal or two proposals out of three. The proposal with the most approvals wins.

For example, suppose:

20% of the voters approve just proposal X.

20% approve just Y.

30% approve X and Z.

30% approve Y and Z.

Z wins. Z has 60% approval. X and Y have 50% approval each.

The proposals are described in terms of their economic effects on your group and the other group. Assume:

- The economic effects are all that matter in this vote.
- You make $100,000 per year (in the currency of that time).
- The groups are similar in their standard of living.
- About half of the voters in each group actually vote.
- You are always in group A.

The individual items read as follows, with brackets enclosing alternative text for the different conditions (except for the numbers in the table, which will be explained later):

Group A is all the people who do the same work you do.

Group B is all the people who do a different kind of work.

Each group has 1,000,000 members in each country.

[Group A is the people who live in your country.

Group B is the people who live in another country of the same size.

Both groups vote. Each nation has 10,000,000 voters.]

Proposal	**Income of group A**	**Income of group B**
1	increase by 10%	increase by 2%
2	increase by 0%	increase by 12%
3	increase by 6%	increase by 8%

Which proposal[(s)] would you vote for [approve]?

1	2	3	[	1 & 2	1 & 3	2 & 3	]

From a strictly business point of view, is it a good bet for you to pay $10 to vote?

Yes	Not sure	No

What would you guess to be the most frequent choice of those in group B?

1	2	3	[	1 & 2	1 & 3	2 & 3	]

For four of the trials in each block of 8, the numbers in the bottom row increased by 2, so that proposal 3 was better relative to the other two. And, for four trials (crossed with these), all the numbers were reduced by 6, so that, for example, "increase by 0%" became "decrease by 6%." Notice that B is better off by 2 points consistently for the best outcome (Proposal 2 for B, 1 for A), the worst outcome (1 for B, 2 for A), or the intermediate outcome (3 for both). The purpose of this is to avoid the possibility that subjects favor proposal 3 on grounds of fairness. (As it happens, on one of the 32 trials in the standard voting condition, by mistake, A did better than B. Data analysis removed this case and the corresponding trial in the approval voting condition.)

Results

Table 1 shows the proportion of votes in each of the categories for standard voting and approval voting. Proposals 1, 2, and 3 are called Self, Other, and Best, respectively. The

Table 1: Percent of votes in each category, by method of voting.

	Self	Other	Best	Self & Other	Self & Best	Other & Best
Standard	66%	4%	30%			
Approval	36%	2%	16%	2%	42%	1%

Self proposal is best for the Self, the Other proposal is best for the other group, and the Best proposal is best overall.

If voters on the other side would vote the same way, then, with standard voting, either the Self or Other proposal would win on the average, as they would each receive about $\frac{66\%+4\%}{2} = 35\%$ of the vote, with 30% going to Best. In approval voting, however, the Best proposal would win with 42%. Enough of the Self votes in standard voting were willing to approve Best so that it would win.

For most analysis, in this experiment and those that follow, we scored each response with respect to its contribution toward producing the best outcome (#3). A vote for the best outcome was counted as 1. A vote for the selfish proposal, the best proposal for one's group, was counted as -0.5. Both groups could vote for the best proposal, but only one group, half of the subjects, could vote for a given selfish proposal. For example, in approval voting, if 50% of the subjects voted for the best proposal and 90% of each group also voted for the selfish proposal for their respective group, the best proposal would win, because the 90% would count as 45% for each of the two selfish proposals.

The voting score (as just defined) was significantly higher in approval voting (mean .20) than in standard voting (mean $-.03$, $t_{95} = 6.17$, $p = 0.0000$).[1]

[1]The score was higher when the outcome of the Best proposal was higher (.18 vs. $-.02$; $-.02$; $t_{95} = 9.27$, $p = 0.0000$), and when the overall outcomes were higher (.13 vs. .03; $t_{95} = 3.70$, $p = 0.0000$), but it was not affected by type of group.) Trial order had no significant effect on any response measure.

In general, subjects showed a self-interest illusion. Asked if it would be a good business bet to pay \$10 to vote, 68% said yes more often than they said no, and 27% said no more often. The mean answer to this question (if 1 is yes and -1 is no) was .33 (which was positive: $t_{95} = 4.66$, $p = 0.0000$).[2]

The self-interest illusion (the mean answer to the payment question) correlated positively, across subjects, with the proportion of selfish voting (voting for Self or approving Self; $r = 0.22$, $p = .0320$, two tailed), as would be expected if voting for ones own group were a product of the illusion. This correlation was present in both the standard voting condition ($r = .20$, $p = .0474$) and the approval voting condition ($r = .21$, $p = .0395$).

Subjects thought that voters in the other group would vote according to the rules they used. The across-subject correlations between proportions of voting or approving Self, Best, and Other for ones own vote and the corresponding proportions for the other group (where Self for the other group matches Other for ones own group) were, respectively, .42, .45, and .55, all significant at $p = .0000$.

Experiment 2: Does it work with real money?

We replicated, in broad outline, the first study using real money. We used two groups, students at two different universities in the U.S.

Each subject responded to four conditions, and one was chosen at random to determine payment. The four conditions varied plurality vs. approval, and whether or not the subject had to pay to vote. We called that the "optional" condition, because, in the standard condition, the subject was assumed to vote.

[2]Subjects were more likely to say that payment was worthwhile when the payoff from proposal 3 was higher (.36 vs. .30; $t_{95} = 2.62$, $p = 0.0102$), or when the overall payoffs were higher (.44 vs. .24; $t_{95} = 4.62$, $p = 0.0000$) but the type of voting or type of group had no effect.

Method

Subjects were 56 students from the University of Pennsylvania and 56 from St. Lawrence University. Subjects did the four conditions in the following four orders (which did not affect the results). The optional condition was never first because it was assumed to be more difficult:

plurality	approval	optional plurality	optional approval
approval	plurality	optional app	optional plurality
plurality	optional plurality	approval	optional app
approval	optional app	plurality	optional plurality

The instructions read:

> You are about to participate in a decision-making experiment. During this experiment you are not allowed to communicate in any form with other participants. If you have a question please raise your hand and an experimenter will assist you.
>
> There are 22 participants in this experiment, 11 here at St. Lawrence University (including yourself) and 11 others at the University of Pennsylvania. The amount of money you earn in this experiment is determined by the decisions of all 22 participants.
>
> This experiment consists of four segments. One segment out of the four will decide your monetary earnings. After the experiment is over we will randomly choose (by drawing a card) which segment is decisive. When you begin the experiment, you, the other participants and the experimenters do not know which segment will be the decisive one.
>
> In all segments, you will earn tokens. The tokens in the segment that counts will be exchanged into money at an exchange rate 2 tokens = \$1.

In all four segments, there are three proposals, which are presented below. Each proposal describes how many tokens participants at SLU and UPenn will earn. One of the three proposals will be adopted after a vote by all 22 participants, the 11 at SLU and the 11 at UPenn. The winning proposal determines how many tokens you earn, independent from for which proposal you voted.

The three proposals for each segment are:

Proposal	Each participant at SLU will get	Each participant at UPenn will get
1	10 tokens	2 tokens
2	0 tokens	12 tokens
3	6 tokens	8 tokens

Segment 1: Standard Voting You and the other 21 participants vote for one proposal. The proposal with the most votes wins. (if two proposals have the same amount of votes a coin toss will decide which proposal wins)

For which proposal do you vote? Check one box.

1 2 3

Segment 2: Approval Voting You and the other 21 participants approve one proposal or two proposals out of three. The proposal with the most approvals wins. (If two proposals have the same amount of votes a coin toss will decide which proposal wins)

For example, suppose:

20% of the voters approve just proposal X.

20% approve just Y.

30% approve X and Z.

30% approve Y and Z.

Z wins. Z has 60% approval, X and Y have 50% approval each.

Which proposals do you approve? Check one box. 1 2 3 1 + 2 1 + 3 2 + 3

Segment 3: Standard Voting You and the other 21 participants can vote for one proposal. The proposal with the most votes wins. (If two proposals have the same amount of votes a coin toss will decide which proposal wins)

Are you willing to pay 2 tokens to be able to vote? You will have to pay these 2 tokens independent from which proposal will win the most votes (if this segment will be the decisive segment). If yes, please write your name down:

For which proposal do you vote? Check one box. (If you are not willing to pay the 2 tokens please do not check any box)

1 2 3

Segment 4: Approval Voting You and the other 21 participants can approve one proposal or two proposals out of three. The proposal with the most approvals wins.

[The original example was repeated.]

Are you willing to pay 2 tokens to be able to approve proposals? You will have to pay these 2 tokens independent from which proposal will win the most approvals (if this segment will be the decisive segment). If yes, please write your name down:

> Which proposals do you approve? Check one box. (If you are not willing to pay the 2 tokens please do not check any box)
>
> 1 2 3 $1+2$ $1+3$ $2+3$

The table of payoffs shows that the Penn subjects got higher payoffs than the SLU subjects. Half of the subjects at each site were given the high payoffs and half the low payoffs. (Recall that the purpose of the difference was to discourage the use of an equality heuristic.)

Results

Figure 1 shows the mean scores (Best−Self/2), collapsed over the two sites. (The site did not affect the results significantly.) Approval voting does not score higher overall. However, it scores higher in the low group ($t_{55} = 3.40$, $p = 0.0013$ — and the high group shows no significant effect either way). It also scores higher in the optional condition ($t_{111} = 2.21$, $p = 0.0295$ — and the compulsory condition showed no effect either way). The interaction between voting method (plurality/approval) and optionality was not significant, but the interaction between high/low and voting method was significant ($t_{110} = 2.98$, $p = .0035$ — the triple interaction was also n.s.). The interaction arises in part because the score is higher in the high condition than in the low condition ($t_{110} = 2.33$, $p = .0219$). The scores in the high condition are closer to the ceiling and have less room to change.

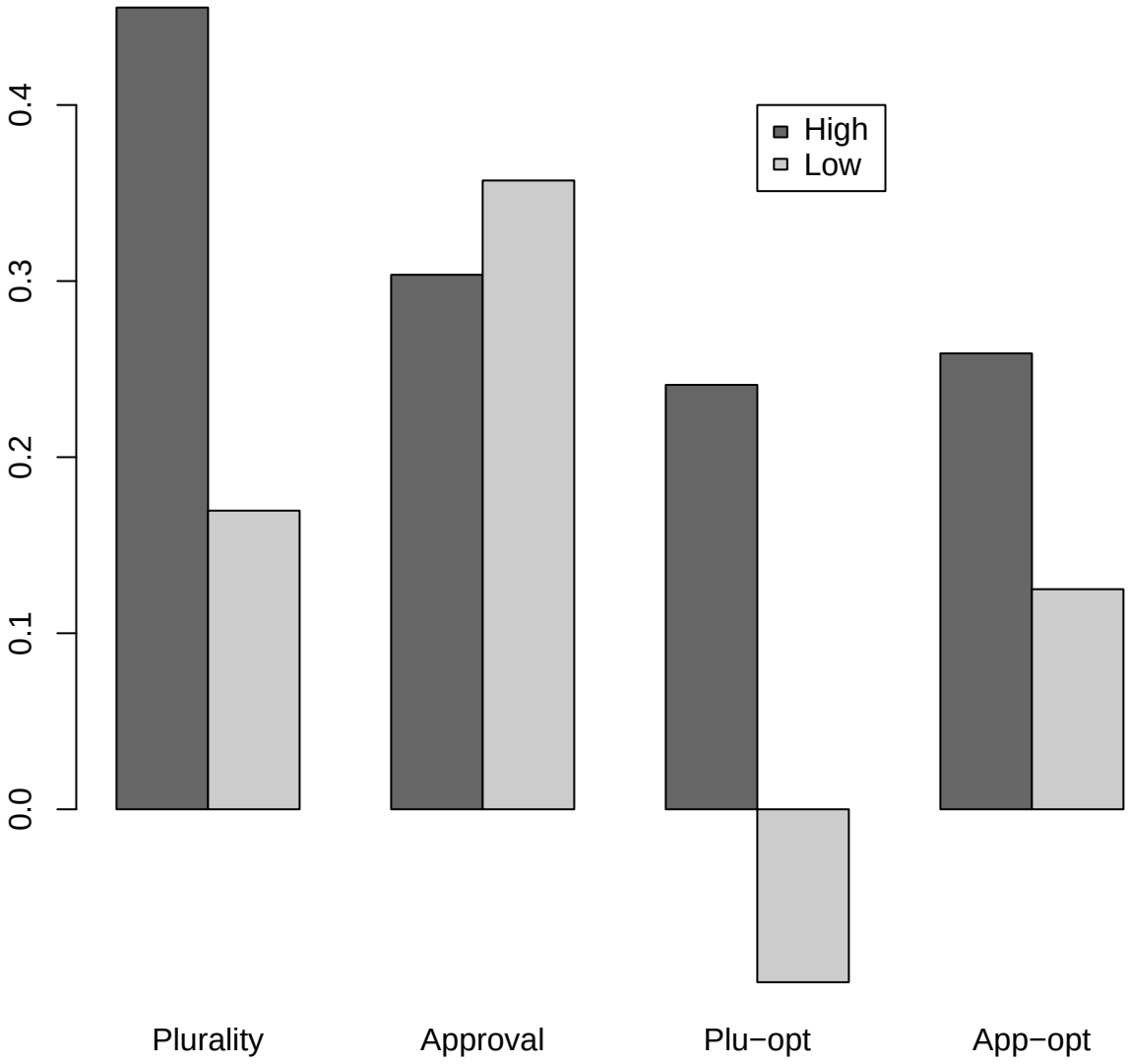

Figure 1: Scores for best proposal as a function of voting method and high vs. low

Experiment 3: Can approval voting increase expressed trust?

The third experiment examines voting about agencies that make decisions. It is designed to test whether approval voting can increase trust in agencies. To instantiate the idea of long-term trust, in one condition the agency was to make many similar decisions of the same sort; in this case, subjects might think that their own group would be on the winning side of a consequentialist agency's decisions in the future, even if it wasn't in the present.

Part of the idea behind both questions is that people may understand that parochialism is morally wrong or imprudent, despite their tendency to endorse a parochial option. Their better judgment may dominate when they think about the long term, or about an agency that makes decisions for them. They may think that one of the functions of government is to make good decisions even when the voters would not endorse those decisions at the moment they are made.

Originally for another purpose, subjects completed a questionnaire at the end, with items concerning attitudes toward corporations and attitudes toward internationalism. The scores on these scales might predict voting responses.

Method

Seventy subjects completed a questionnaire on the World Wide Web, for $3. Their ages ranged from 19 to 68 (median 38.5); 27% were male; 17% were students.

The design consisted of 32 screens, presented in a different random order to each subject, in a 2x2x2x2x2 design: standard vs. approval; just vote vs. pay $10 to vote; whether the third proposal was really better or just fair (equal division); whether an international agency was involved; and whether the decision was one-time or the first of many. The questionnaire

began:

Referendum voting and agencies

This study concerns your attitudes about proposals that affect people's income in your nation or another nation. Rules will be different then: each vote will involve two nations.

In each case, only one of three proposals will be adopted. Treat each case as separate from the others.

The cases differ in the following ways:

- Whether you vote directly for each proposal, or whether you would vote to give power to an agency that supports each proposal.
- Whether the decision is a one-time decision or the first of many similar decisions. (In the case of an agency, the agency will make other kinds of decisions, aside from this kind.)
- Whether you have to pay $10 in order to vote. In these cases, imagine that the payment involves sending an absentee ballot by express mail for $10.
- [Approval voting was explained as in Experiment 1.]

The proposals are described in terms of their economic effects on your nation and the other nation. Assume:

- The economic effects are all that matter in this vote.
- You make $100,000 per year (in the currency of that time).
- A 1% increase in income thus translates to $1,000.
- The nations are similar in their standard of living, and size.

- 10,000,000 voters in each nation vote (half of those eligible).
- You are always in nation A.

An example of a screen was, with alternatives in brackets:

> This decision is **the only one of this type** [**the first of a series of very similar decisions**].
>
> Your vote here is about which agency should make future decisions [which proposal will be chosen].
>
> Income increase:

Proposal	Nation A (yours)	Nation B (other)	Average
1	8%	0%	4%
2	0%	8%	4%
3	4% [5%]	4% [5%]	4% [5%]

> Different agencies support different proposals or pairs of proposals. You help decide which agency will get the chance to make future choices. [Omitted when the vote is direct.]
>
> Which agency [proposal(s)] would you [pay $10 to] vote for [approve]? (The buttons indicate the proposal(s) that each agency supports. [Omitted for direct vote.])
>
> [1] [2] [3] [[1 & 2] [1 & 3] [2 & 3]]

At the end of the 32 trials, subjects completed a questionnaire with 14 items about attitudes toward corporations (pro vs. anti) and 13 items about attitudes toward internationalism (pro vs. anti). Some of the corporation items were from the Capitalist Values Scale of McCloskey and Zaller (1984) and the internationalism items were from the Patriotism-

Table 2: Percent of votes in each category, by method of voting, averaged across all conditions.

	Self	Other	Best	Self & Other	Self & Best	Other & Best
Standard	44%	6%	50%			
Approval	20%	2%	26%	3%	47%	2%

Nationalism Questionnaire of Kosterman and Feshbach (1989). Typical items are: "Corporations improve people's quality of life." (5 point response scale); "Corporations deceive consumers in order to make a profit."; "Corporations are unfair to workers.,"; "When businesses are allowed to make as much money as they can: 1. Everyone profits in the long run. 2. Workers and the poor are bound to get less" [choose one]; "Citizens should support policies that benefit the world, regardless of the effects of these policies on the citizens' nation." (5 point scale); "National governments should put the interests of the world as a whole ahead of the interests of their own national interests."; and "We should immediately take steps toward establishing a world government." Reliability (α) was .65 for the internationalism scale and .73 for the corporation scale.

Results

Table 2, analogous to Table 1, shows the percent of votes for each proposal, or agency, or approvals of pairs. Again, approval voting led to higher scores ($t_{69} = 2.21$, $p = 0.0307$, across all conditions), although the Best proposal would have won even without approval voting, averaged across all conditions.

The design manipulated 5 variables orthogonally: Approval (vs. standard voting), Payment ($10 to vote), Repeated (first of many decisions), Agency (vs. direct), and Gain (whether the Proposal was better or just more equal). We tested all main effects on the

voting score, and we examined all interactions, although many were of no particular interest.

The score was higher with Approval voting (.40 vs. .28; $t_{69} = 2.21$, $p = 0.0307$), when Gain was present (.41 vs. .27; $t_{69} = 4.00$, $p = 0.0002$), when Payment was absent (.37 vs. .31; $t_{69} = -2.13$, $p = 0.0371$), and when the decision was Repeated (.37 vs. .31; $t_{69} = 2.44$, $p = 0.0174$), but Agency had no effect overall. The main new result here is the effect of repeated decisions.

Only two interactions were significant: the double interaction of Agency and Repeated, in which repeated decisions increased the score more when voting was direct rather than through an agency ($t_{69} = -2.21$, $p = 0.0307$); and the triple interaction of Agency, Repeated, and Approval, in which approval voting reduced the double interaction just described ($t_{69} = 2.13$, $p = 0.0369$). The results relevant to both of these interactions are shown in Table 3. Of primary interest here is that Agency seems to play some role, although otherwise the results are difficult to interpret.

Table 3: Mean Experiment 3 voting scores as a function of Agency, Approval, and Repeated.

Standard		
	One-time	Repeated
Direct	1.98	2.16
Agency	2.04	2.06
Approval		
	One-time	Repeated
Direct	3.47	3.65
Agency	3.61	3.65

To ask whether cooperativeness was predicted by the internationalism and corporation

scales, we correlated each, across subjects, with the mean Self vote across all conditions. Internationalism correlated negatively but not quite significantly with Self ($r = -.23$, $t_{66} = 1.92$, $p = .0587$ two tailed). Pro-corporation correlated positively with Self (.35, $t_{66} = 3.01$, $p = .0037$) and negatively with internationalism ($-.34$, $t_{66} = 2.96$, $p = .0043$). The negative correlations with pro-corporation attitudes are somewhat surprising in view of the fact that such attitudes correlate with positive attitudes toward free trade (in unpublished data), which is usually considered to be just the sort of cooperative agreement among nations that is exemplified by our items and by the internationalism scale. Free trade may be an exception to the internationalism of the anti-corporate left wing. In addition, pro-corporation attitudes may be associated with a belief in the right to pursue narrow interests even when they conflict with larger interests.

Experiment 4: Is parochialism moralistic?

We may think of parochialism as an expression of both altruistic and moralistic goals (in the sense of Baron, 2003). It is altruistic toward co-members. It may be moralistic in its effects on outsiders. That is, the outsiders are being asked to help achieve the goals of insiders, in effect, whether this is consistent with their own goals or not. (What is not clear is whether they are being asked to do this voluntarily, or whether coerced behavior would suffice, in which case the values are not truly moralistic.) More likely, though, parochialism is moralistic in its application to insiders, who are expected to be loyal to the group.

This sort of nationalism is moralistic to the extent to which nationalists want outsiders to behave willingly in ways that benefit their co-nationals, e.g., cede territory, stop trying to immigrate, allow investment, etc. Nationalists typically want others in the group to be nationalist as well. Nationalism seems to dominate political behavior. The idea that one

should vote for the good of humanity as a whole, regardless of the effect on one's own nation, would make total sense to a utilitarian (and it would require little self-sacrifice because voting has such a tiny effect on self-interest), but it is considered immoral by the nationalist.

This study asked whether parochialism is a moralistic value for co-citizens. This would mean that people are willing impose it on others, even when they disagree and even when it goes against the greater good. One factor was manipulated that might increase this tendency, perceived unfairness. In the unfairness condition, "your nation" (the subject's nation) had already made a substantial contribution. Even though it would be best for all if it continued to contribute, people might feel that it was the other nation's turn.

In addition to comparing approval voting and standard voting, it involved two kinds of situations, one like a prisoners dilemma, in which each of two nations decided independently on its action, and one like those in earlier experiments in which an external authority could impose a solution.

Method

One hundred and thirty-nine subjects completed a questionnaire on the World Wide Web, for $3. Their ages ranged from 19 to 69 (median 36); 29% were male; 19% were students.

The design consisted of 32 screens, presented in a different random order to each subject, in a 4x2x2x2 design. There were four scenarios, crossed with approval vs. standard voting, decision made by each nation vs. an international agency, and unfairness. The questionnaire began.

International policies

Some policy issues concern international problems such as those about fishing, defense, water, and drugs.

In all cases here, when one nation contributes to the solution of a problem, the contribution helps another nation equally. Because half of the contribution does not help the contributing nation, the contribution is not in the contributor's national interest, but it is in the interest of both nations taken together.

Each screen will have three policies concerning how two nations contribute to the solution of some problem that affects both nations. In one policy, your nation bears the whole burden. In another, the other nation bears the whole burden, but the burden is larger. In a middle solution, both nations share the burden.

In some cases your nation will already have made a substantial contribution to solving the problem.

In all cases, the nations involved are much alike in size and in economic development. (But they may differ in their involvement with the specific problem in each case.)

You are asked how you would vote on various proposals. The proposals differ only in their effects on the two nations.

[The instructions then contained a description of approval voting that was similar to that in Experiments 1 and 2.]

In some cases, your vote will affect an international agency with the power to impose a solution. In other cases, your vote will affect only your national government.

In each case, you are asked about how you would vote in a binding referendum, in which the voters determine the outcome, and about how you would vote in an advisory vote. You do not need to vote the same in these cases.

A typical screen began, with alternatives in brackets:

This case involves a dispute about contributions to a peacekeeping force, which needs reinforcements. It is best for each nation to maintain its current contribution, whatever the other nation does. But casualties will rise from 1% to 5% per year without reinforcements.

[Your nation has already contributed an additional 50% and has committed somewhat more troops and equipment than the other nation. (Further contributions are based on your nation's current level.)]

[The last paragraph was included only for the unfairness manipulation.]

Consider the following three proposals for a choice to be made by your government [an international agency].

A: Your nation contributes 40% more. The casualty rate will remain at 1%, even if the other nation does nothing.

B: Your nation contributes 20% more. The casualty rate will rise to 3% if the other does nothing, and it stay at 1% if the other nation also contributes 20%.

C: Your nation does nothing. The casualty rate will rise to 5% if the other nation does nothing, 3% if it contributes 20% more, and 1% if it contributes 50% more.

When the decision was made by the international agency, the three options all maintained the best outcome but varied the contributions. For example:

Your nation contributes 40% more. The casualty rate will stay at 1%.

Both nations contribute 20% more. The casualty rate will stay at 1%.

The other nation contributes 50% more. The casualty rate will stay at 1%.

The three other scenarios were closely analogous in the numbers involved but involved different topics:

. . . a dispute about contributions to a cocaine-eradication program, which needs more resources. It is best for each nation to maintain its current contribution, whatever the other nation does. But cocaine imports to both nations will increase by 50% without more money.

. . . a fishing dispute about a certain kind of fish. It is best for each nation to keep fishing at its current rate, whatever the other nation does. But the fish will be gone in 2 years if both nations keep fishing.

. . . a water dispute over a reservoir used by both countries. The water level in the reservior has been declining. It is best for each nation to keep using water at its current rate, whatever the other nation does. But the reservior will dry up in 2 years if neither nation cuts its use.

Five questions followed, with alternatives in brackets.

Question 1. What would you vote for [approve] in a **binding** referendum?

[The options were A–C, and the approval condition offered the additional options "A and B," "A and C," and "B and C." This was also true for Questions 2 and 3.]

2. What would you vote for [approve] in a referendum to **advise** your government [the international agency] about what to do?

3. What would a **good citizen** of your nation vote for [approve] in a referendum to advise your government [the international agency] about what to do?

4. What should **your government [the international agency]** choose if almost everyone voted for [approved] **B** in an advisory referendum and almost nobody voted for [approved] A or C? [Options were A–C.]

> 5. What should **your government [the international agency]** choose if almost everyone voted for [approved] **A** in an advisory referendum and almost nobody voted for [approved] B or C? [Options were A–C.]

Option A was always worst for the subject's nation, but it required less sacrifice than Option C would require for the other nation. We follow the convention of referring to A as Other, because it favors the other nation, and C as Self, because it favors the subject's nation. But we refer to Option B as "Equal" because it is no better than Other and it is not as good as Other in the prisoner's dilemma condition, where Other (A) solves the problem without depending on a cooperative response from the other nation.

Results

Table 4 shows the voting scores for each question, as a function of whether the decision was to be made by an international agency or by each nation, whether prior unfairness was present, and the type of voting (standard vs. approval. The Majority-Equal and Majority-Other responses are the last two questions, in which the majority strongly favored Equal or Other. (It would not be crazy for the majority to favor Other. Other is at least as efficient as Equal on the whole.) When the decision was made by each nation, the situation was like a prisoner's dilemma, because the vote would not control the other nation.

Advisory and Binding voting did not differ overall.[3] Similarly, Good-Citizen voting did not differ overall from Advisory, the closest contrast with it. However, Good-Citizen/Advise interacted with Approval/Standard (lower scores for Good-Citizen in Approval, t_{138} =

[3]Two interactions with Advisory/Binding were significant, both apparently caused by the low score (.40) in the Advisory Unfair National Standard-voting condition. We can think of no good explanation of this result, and we assume it is a fluke.

		Question:				
		Binding	Advisory	Citizen	Majority-Equal	Majority-Other
Standard voting						
Fair	Nation	.55	.54	.59	.77	.29
	Agency	.82	.80	.71	.88	.44
Unfair	Nation	.48	.40	.47	.71	.27
	Agency	.49	.47	.52	.74	.41
Approval voting						
Fair	Nation	.64	.59	.54	.79	.28
	Agency	.77	.78	.68	.86	.45
Unfair	Nation	.52	.50	.48	.74	.27
	Agency	.53	.53	.51	.80	.43

Table 4: Experiment 4 voting scores as a function of question type and variables.

-3.05, $p = 0.0027$), with Fair/Unfair (lower in Fair, $t_{138} = 3.49$, $p = 0.0006$), and with Agency/Nation (lower in Agency, $t_{138} = -2.48$, $p = 0.0144$).[4] Apparently, people sometimes think that good citizens are more parochial in approval voting than they themselves are, especially when the proposal is fair and when the vote involves an international agency. A possible explanation is that people feel that good citizens view political behavior involving other nations as more a matter of competition, therefore less dependent on the specifics of the case.

The Majority-Equal and Majority-Other responses were sensitive to the views of others (Table 4), but they sometimes favored the Self (parochial) option even when the majority strongly favored something else and when Self was the least efficient overall, as shown in Table 5. This result supports the view that parochial values are moralistic. Importantly, these Self responses were more frequent in the unfair cases. In fact, Self responses (including approvals of only the Self proposal) were significantly more frequent in the unfair cases for each question at $p = .0002$ or better by t test across subjects.

An important question is whether the use of approval voting itself reduces moralistic (Self) responses about how government should respond to the votes of others. The moralistic responses were taken to be those in the right two columns of Table 5, where the subject thought that the government should favor parochialism despite the wishes of a strong majority. The proportion of these responses was not significantly lower overall in the Approval condition ($t_{138} = 1.02$). However, many subjects did not show the effect of Approval voting on the voting score in the Binding and Advisory conditions. When the test was limited to the 97 subjects who showed a non-negative effect of Approval on the score in the two conditions where it had a clear effect (Binding and Advise), it was significant ($t_{96} = -2.46$,

[4]Again, there were higher-order interaction that could also be ascribed to the low single low score of .40 described in the last footnote.

		Question:				
		Binding	Advisory	Citizen	Majority-Equal	Majority-Other
Proportion of parochial (Self) responses						
Standard voting						
Fair	Nation	0.08	0.07	0.04	0.04	0.04
	Agency	0.05	0.06	0.03	0.04	0.07
Unfair	Nation	0.17	0.19	0.11	0.09	0.10
	Agency	0.28	0.29	0.13	0.13	0.13
Approval voting						
Fair	Nation	0.03	0.05	0.02	0.03	0.06
	Agency	0.06	0.06	0.04	0.04	0.08
Unfair	Nation	0.11	0.12	0.06	0.08	0.10
	Agency	0.20	0.19	0.12	0.10	0.12

Table 5: Proportions of responses favoring Self *only*.

$p = 0.0159$). In sum, there is weak evidence that approval voting not only changes the support for beneficial proposals but also reduces the expression of moralistic values themselves. In approval voting, people may approve the Best proposal even when they feel a strong moralistic attachment to the Self proposal.

Conclusion

The results indicate that people can take the opportunity to approve proposals that are somewhat less good for their own group but better on the whole. Approval voting can thus favor compromise among competing groups. For example, workers may fear that a trade agreement would threaten their jobs, but they may also care about increased access to goods and about benefits to other workers elsewhere. If they were offered enough options, they might approve a free trade agreement if they saw it as sufficiently beneficial for all. The same reasoning might extend to candidates. For example, in the 2000 U.S. presidential election, some people voted for Ralph Nader because he was the only candidate opposed to free trade, but they might have approved one of the others in an approval vote.

We note that approval voting is one of several alternative voting schemes. Other methods require ranking all the proposals. We believe that many of these methods would have the same effect as those we report here. The relevant feature of approval voting is that it allows voters to express some support for their second choice, which, in the relevant cases, is the one that is best for all.

In most of the experiments reported here, voting had no personal consequences. This is somewhat like the real situation, since the perception that "one vote doesn't matter" is widespread and people tend to perceive their voting more as a matter of expression than as action with real consequences (Brennan & Lomasky, 1993). The experiment thus shows that

people are open to the kind of understanding that would lead to the reduction of parochialism. We did, however, show that approval voting can matter even when the consequences are real.

The benefits of approval voting depend on which proposals are put to a vote. If only two proposals were available, then approval voting would have no advantage over standard voting. Addition of a second Self proposal, similar to the first, could also drive the self-interested utility of Best below the mean and reduce its rate of approval. In this case, approval voting might be just as subject to parochialism as standard voting. Approval voting could never be more sensitive to parochialism, however.

The results of the studies reported here also suggest that parochialism is somewhat moralistic and that it is malleable. Parochialism is, in a way, an intermediate state, between commitment to the self and commitment to humanity in general. Political action in favor of a group often hurts both the actor and humanity. If people understood this, self-interest might conspire with utilitarianism to keep parochial voters at home and let the utilitarians run the world.

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