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# **On the Salience of Political Issues\***

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\* Previous versions of this paper were presented at the Annual Meetings of the Midwest Political Science Association, Chicago, 2001, and the Southwest Political Science Association, New Orleans, 2002, and at the London School of Economics and the University of North Carolina, Chapel Hill. Portions of the research also have been presented at the University of Arizona, Oxford University, and Texas A&M University. I am most grateful to Bryan Jones for providing his most important problem time series and to T. Jens Feeley for helping me sort through the data. I also thank Keith Dowding, Robert Erikson, Mark Franklin, Virginia Gray, Simon Hix, Pat Hurley, Stuart Elaine MacDonald, Michael MacKuen, Kevin McGuire, James Stimson, Jennifer Wolak, and especially Stuart Soroka for comments on aspects of the argument and analyses. Salience is an important concept in much political science research. Scholars in various subfields use the term to characterize policy issues (see the overview in Behr and Iyengar, 1985). The word originally was used by voting behavior scholars to designate the importance individual voters attach to different issues when evaluating political candidates. In effect, greater salience meant greater importance. For the most part, this remains true today. (But do see Rabinowitz, Prothro, and Jacoby, 1982.) In attempting to measure salience, scholars initially turned to voters' responses to the standard survey question that asks about the "most important problem" (MIP) facing the nation (see, e.g., Repass, 1974; Miller, Miller, Raine, and Browne, 1976). These responses were and are taken to indicate the relative importance of issues to individual voters. At about the same time, scholars turned to aggregate MIP responses to characterize the broader public salience of issues over time (see, e.g., McCombs and Shaw, 1972; MacKuen and Coombs, 1981). This also remains true today (Jones, 1994; Soroka, 2003). Indeed, based on the large and growing body of research, scholars conclude that the political importance of issues changes quite dramatically and that the changes have meaningful implications for political behavior and policy itself.<sup>1</sup>

What I propose in this paper is that the research confuses at least two very different characteristics of issue salience—the "importance" of issues and the degree to which they are a "problem"—and that the confusion is rooted in basic measurement. It is a simple conjecture based on a simple observation: MIP responses capture the most important problems to individual voters and the public, not the importance of issues per se. This seemingly is by definition. Relying partly on traditional models of voting behavior, I offer a general conceptualization of an

<sup>&</sup>lt;sup>1</sup> Most studies of mass media coverage—predictably, I think—suggest much the same.

"important issue," "an important problem," and the "most important problem." I then begin to outline a model relating these characteristics of issues.

Then, I undertake a basic empirical analysis of MIP responses using Gallup poll data between 1945 and 2000. To begin with, the idea is to explore the degree to which variation in MIP responses over time is due to changes in problem status, both in the particular domain *and* other domains as well. What remains represents an upper-bound estimate of the variation in importance. Next, to assess whether MIP responses actually captures meaningful information about the variation in issue importance over time, I turn to an analysis of opinion-policy dynamics, focusing specifically on the defense spending domain. This analysis considers whether changes in defense MIP mentions structure public responsiveness to policy or policymaker responsiveness to public preferences themselves. In a concluding section, I offer selected implications for analyses of voting behavior, election outcomes, and policy decisions themselves.

#### **Issue Salience In Theory**

What is a salient issue? It is customary to write about it but less common to define it, at least conceptually. We are wont to measure it, however. The standard approach is to rely on responses to the well-known survey item that asks about the most important problem facing the nation. These responses, it appears, are salience. If a person says that "the environment" is the most important problem, that issue is salient to the individual. At the very least, it is more salient than all other issues. If the number of people that say "the environment" is the most important problem increases, the general public salience of the issue has increased. If more people say "the environment" than any other issue, it is the most salient issue to the public. But, what exactly is an important problem? What does the <u>most important problem</u> actually represent? Let us

consider its characteristics.

#### **On Importance**

An important issue is one that people care about and have (meaningful) opinions. These opinions are likely to structure party support and voting behavior (see, e.g., Miller, Miller, Raine and Browne, 1976; Abramowitz, 1994; van der Eijk and Franklin, 1996) and form the subject of political debate (Graber, 1989). It follows that people are more likely to pay attention to politicians' behavior on an important issue, as reflected in news media reporting (see, e.g., Brody, 1991) or communicated in other ways (Ferejohn and Kuklinski, 1990). Politicians, meanwhile, are likely to pay attention to public opinion on the issue. It is in their self-interest to do so, after all. There, thus, are many different expressions of importance.

Perhaps the most explicit statement on issue importance comes from the voting behavior literature. There is a long-standing tradition in political science that conceives of and models political judgments in terms of issue distance. Beginning with Downs (1957), a stream of scholars has relied on the classic spatial model, which posits that an individual's utility is greatest for candidates or parties closest to their own issue positions (see, e.g., Alvarez 1997; Enelow and Hinich 1984; 1989; Enelow, Hinich, and Mendell 1986; Erikson and Romero 1990; Jackson 1975; Rabinowitz, Prothro, and Jacoby 1982). For any one particular political actor and a single issue dimension, the model is straightforward.<sup>2</sup> Specifically, each individual's utility ( $U_i$ ) for the political actor, say, the president, is a function of the distance between each individual's position ( $S_i$ ) and the president's position (Q):

(1)  $U_i = a_o + B |S_i - Q|^x + u_i,$ 

 $<sup>^2</sup>$  The application is very broad, and "political actor" can refer to any of a range of individual and institutional actors, e.g., candidates, parties, and government institutions.

where  $a_o$  represents the intercept and  $u_i$  is a normally distributed disturbance term that captures other sources of utility for the president. The effect (*B*) of distance is expected to be negative, so that the greater (smaller) the distance between the individual's position and the president's position, the lower (higher) the utility for the president. The superscript *x* above the distance term accounts for the possibility that the effects of distance are non-linear.<sup>3</sup>

Now, individuals may rely on a variety of different issue dimensions when evaluating the president or any other political actor. In actuality, then, utility is a function of the weighted sum of distances across various (m) dimensions:

(2) 
$$U_i = a_o + B \sum_{j=1}^m b_{ij} |S_{ij} - Q_j|^x + u_i,$$

assuming a common metric across the dimensions. Here,  $b_{ij}$  represents the weight (what scholars typically refer as a *salience* weight) an individual *i* attaches to each dimension *j* and the sum of the weights for each individual equals 1.0.<sup>4</sup> These weights are indicators of importance. They describe which how much different issues matter to people. The aggregate public importance of an issue *j* is simply the mean weight ( $b_j$ ) across individuals *i*. This is straightforward, at least in theory. It is much harder to capture empirically.

#### An Important Problem

An important problem is different. It captures the importance of an issue and the degree to

 $<sup>^{3}</sup>$  Scholars typically assume that the effects of issue distance are linear or else take the form of quadratic loss, so that the exponent (x) equals 1 or 2, respectively.

<sup>&</sup>lt;sup>4</sup> Notice in equation 2 (and equation 1) that the position of the political actor in each dimension is a constant across individuals. This is understandable, and reflects the fact that at any point in time the actor's position on a particular issue dimension is fixed, though, of course, there is uncertainty surrounding the position.

which it is a problem. An issue is a problem if we are not getting what we want. For expository purposes, consider a collection of individuals distributed along a dimension of preference for policy, say, spending on defense. This is implied in equations 1 and 2 above. It is not meant to imply that individuals have specific preferred levels of policy in mind, which is difficult to imagine in most policy domains.<sup>5</sup> Rather, the characterization is intended to reflect the fact that individuals differ, where some want more than others. We can put policy at any point on the dimension. Now, the greater the distance between what an individual wants ( $S_i$ ) and policy (Q) itself,  $|S_i - Q|$ , the greater the "problem."

This tells us nothing about importance, however. It is possible for something to be a problem but of little importance. It also is possible for something to be important but not a problem. Whether something is an "important problem" reflects the combined effect of the two, in effect, the salience weights from equation 2 and the distance from above. Let *I* represent the importance of an issue reflected in the salience weights. Let *P* represent the degree to which the issue is a problem. The interaction between the two, *IP*, captures the variable important problem. The point is basic, but it is useful to consider a set of hypothetical possibilities, which are depicted in Table 1. The table displays the *IP* corresponding to different combinations of *I* and *P*, the particular values of which were chosen arbitrarily. The pattern is as one might expect: *IP* varies only modestly with either dimension. Indeed, the correlation between *I* and *IP* in Table 1 is 0.61. This illustrates the obvious. Importance and important problem are conceptually different.

#### -- Table 1 about here --

By our formulation, *IP* at the individual level is essentially equivalent to the term within the summation in Equation 2. That is,  $IP_{ij} = b_{ij} |S_{ij} - Q_j|^x$ . At the aggregate level, *IP* is the sum of

<sup>&</sup>lt;sup>5</sup> The abortion domain in the United States is one notable exception.

 $IP_{ij}$  across individuals *i* and issues *j*. This may not apply in all domains, however. A person may have a problem with policy but they also may have a problem with outcomes, and there is reason to think that the latter is more typical. We can let *Q* represent any of a range of policies or outcomes. Still, introducing outcomes raises the possibility of asymmetry with respect to *Q*. It is hard to imagine, after all, that people would have a problem if things are better than they might want or expect, at least in some areas, i.e., that people would conclude that the environment is too clean, that national security is too strong, or that education is too good. On these issues, and others, a problem is defined only asymmetrically, when conditions are worse than people would like. Notice, however, that we may still think the issues are important. We also may reward politicians based on this success. The issues nevertheless won't be considered salient. This further limits the utility of *IP*. All of this may be interesting; it is important here because it helps us conceptualize the most important problem.

#### The Most Important Problem

In theory, the single most important problem (*MIP*) is a clearly defined subset of *IP*. Specifically, it is that issue for which *IP* is greatest. Put formally,  $MIP_i = \max\{IP_{ij}\}$ . The *MIP* not only combines "importance" and "problem," it is singular. In the aggregate, we simply sum across individuals, so that the public's most important problem represents the plurality *IP* winner. At either level, for any domain *d* at any point in time,  $MIP_d$  is a function of  $I_d$  and  $P_d$  as well as  $I_k$  and  $P_k$ , where *k* designates the set of other domains. This holds at the individual and aggregate level. Over time,  $MIP_{dt}$  is a function of  $I_{dt}$ ,  $P_{dt}$ ,  $I_{kt}$ , and  $P_{kt}$ .  $MIP_d$  clearly will vary over time when the importance of the domain changes. It also will vary when the problem status of the domain changes, even if importance remains the same. Even if the importance and problem status remains unchanged,  $MIP_d$  will vary simply because of shifts in the degree to which *other* issues are important or problems. Give us peace and we need to look elsewhere for our *MIP*. Add in prosperity and we have to look further still. There thus is good reason *a priori* then to wonder about the utility of *MIP* as an indicator of importance and perhaps even salience generally conceived. Now, let us see how it works in practice.

#### The Problem with "Most Important Problem" In Practice

For this preliminary analysis, consider aggregate MIP responses over time since World War II. The data are from Feeley, Jones, and Larsen (2001), who relied on the complete series of Gallup polls through the early part of 2001.<sup>6</sup> The analysis here focuses specifically on three very general subcategories of MIP responses, namely, foreign affairs, economic issues, and a catch-all category of all "other" responses. Following the literature, the foreign affairs category includes both "defense-military" issues and "international" ones, though note that there are significant differences between the two subcategories, and these are explored in the analyses that follow. Also following the literature, economic issues are defined narrowly to include macroeconomic concerns, e.g., "inflation," "recession," "unemployment," "the economy," and the like. That is, "structural" economic problems are not included within the category. The measures used here represent percentages of *respondents* (not total responses) offering MIP responses in each category. Simply put, multiple MIP responses provided by respondents are included in the tallies, which means that the sum of responses in particular years may exceed 100, and usually does.<sup>7</sup> Indeed, the total number of mentions varies over time. Using percentages of total *responses* 

<sup>&</sup>lt;sup>6</sup> Data are missing in four years during the period—1949, 1953, 1955, and 1959—and these gaps in the time series are simply ignored in the analyses that follow.

<sup>&</sup>lt;sup>7</sup> This is of some consequence, particularly if one conceives of MIP responses as issue salience weights. That is, the sum of the weights will exceed 1.0 for some individuals and the public as a whole. Of course, this makes little sense, just as one really can't give 110 percent.

(instead of respondents) as indicators of issue salience will artificially increase the evident interdependence among different categories.<sup>8</sup> This is of obvious importance.

Figure 1 plots the basic data. It shows the percentages of respondents offering MIP responses in the three general categories—foreign affairs, the economy, and other—between 1945 and 2000. We can see that MIP responses within the categories vary quite a lot over time, but it is hard to see much else. In Figure 2, which plots only foreign and economic responses, we can detect more pattern. The foreign policy mentions are large in number early in the series and comparatively low later on. Economic mentions, conversely, are low early on and then increase sharply through the 1970's and into the 1980's, before dropping off sharply, bouncing up in the early 1990's, and then continuing to fall through the end of the series. There thus is some suggestion of a trade-off between economic and foreign mentions; that is, increases (decreases) in the one tend to correspond with decreases (increases) in the other. In Figure 3 we can see that mentions of other—non-foreign, non-economic—problems are low early on, jump abruptly during the 1960's and then decline fairly consistently through the early 1980's, when the numbers rebound. They explode through the late 1990's. And there is evidence of interdependence between the combined economic-foreign responses on the one hand and other MIP responses on the other: Indeed, the two series are virtual mirror images of each other.

### -- Figures 1-3 about here --

Also consider the intercorrelations of MIP mentions in the three categories and in total shown in Table 2. Table 2a shows correlations for the entire series. These figures confirm the interdependence among items we observed above. That is, the correlations between foreign, economic, and other mentions are all negative. The correlation between foreign and economic

<sup>&</sup>lt;sup>8</sup> That is, MIP in a particular category Y equals  $100^{*Y}MIP_t/{^T}MIP_t$ . Even assuming that  ${^Y}MIP_t$  is constant, when  ${^T}MIP_t$ 

mentions is particularly pronounced, which implies an interdependence between the two. Specifically, it implies an inverse relationship over time between changes in the importance of economic and foreign policy issues and/or the degree to which these issues are problems. Other patterns also are apparent in the Table. Note in particular that mentions of "other" problems are very strongly, positively correlated with the total number of responses.

#### -- Table 2 about here --

Not all of these patterns hold generally over the time series, however. This is clear in Tables 2b and 2c, which show correlations for the period 1945-1972 and 1973-2000, respectively.<sup>9</sup> The results in the two periods do show certain similarities. The trade-off between foreign and other mentions and the positive relationship between other and total mentions hold in both periods. The results also reveal certain differences. The apparent interdependence between economic and foreign policy mentions holds only in the earlier period; between economic and other problems only in the later period. It is difficult to tell what is going on here, regarding both the similarities and differences. Bivariate correlations provide only very basic information: Although some may describe causal connections others may be entirely spurious.

Now, let us explicitly address how much of the variation in MIP responses is due to changes in importance on the one hand and changes in problem status on the other. We can't easily identify the former, but we can explore the latter. That is, we can measure the variation in "problem" status over time. For this analysis, let us focus only on economic and foreign policy problems. (The literature offers little basis for tapping "other" problems, at least generally.) The measure of economic problem is the mean annual value of leading economic indicators (LEI) from

increases (decreases) the percentage owing to  ${}^{Y}MIP_{t}$  will decrease (increase) by definition.

<sup>&</sup>lt;sup>9</sup> The periods represent the two halves of the longer series, though this is coincidental: The division was chosen because the later period corresponds with many of the analyses that follow, which rely on other data that are available

The Conference Board. The indicator offers useful information about both the level and direction of the US economy (see, e.g., Wlezien and Erikson, 1996). It also outperforms measures of coincident and lagging indicators. (See Appendix A.) For expository purposes, the variable is inverted, so high values indicate a bad economy. The measure of foreign policy problem is the net dislike of Russia, and is based on responses to a like/dislike item in the GSS and surveys conducted by the American Institute for Public Opinion (AIPO). Specifically, the measure represents the percentage of people that dislikes Russia minus the percentage that likes the nation.<sup>10</sup> The variable appears to capture at least some of the variation in national security threat over time, in effect, the degree to which foreign affairs are a problem. Note that the GSS data are available only since 1973, which limits our analysis in obvious ways.

Regression analyses of economic and foreign policy MIP responses for the period 1973-2000 are shown in Table 3. Notice that the lagged level of MIP responses is included in each model. The results in Table 3 confirm our earlier conjectures. MIP responses are meaningfully driven by the degree to which the particular issues are problems. When the economy weakens (improves), economic mentions increase (decrease). The same is true for national security and foreign policy responses. These patterns are as one might expect given the previous literature (Ball-Rokeach and DeFleur, 1976; MacKuen and Coombs, 1981, Soroka, 2003). We thus can conclude that the degree to which the economy and national security are problems meaningfully structures MIP responses within those areas. This comes as no surprise.

only since 1973.

<sup>&</sup>lt;sup>10</sup> For specifics relating to the question and actual operationalization, see Wlezien (1995; 1996). The measure follows standard interpretations of U.S.-Soviet relations over time, marking low relative dislike in the mid-1970's and then tending to erode before reaching a peak of dislike in 1980. The measure levels off during the mid-1980's and drops sharply thereafter. While imperfect, in that it does not incorporate information about national security in general, the measure does capture the apparent threat from the Soviet Union, the primary reliable source of threat to the U.S. over the period. Note that the GSS stopped asking the question in 1994 and the value from that year is simply carried forward through 2000.

#### -- Tables 3-5 about here --

Let us now see whether the variation in problem status in one category affects MIP responses in the other categories. To do this, we merely include the measures of both leading economic indicators and Net Dislike into the models, including one for "other" MIP responses. The results are shown in Table 4. Here it is clear that the degree to which one issue is a problem influences can influence mentions of other issues. When economic security worsens (improves), the percentage of respondents naming foreign problems decreases (increases). Interestingly, this effect holds only for "defense/military" mentions and not those of a more general international flavor. See the results in Table 5.<sup>11</sup> Mentions of other—non-economic, non-foreign—problems also shift in the same way. The sum of these estimated effects of leading economic indicators are virtually equal and opposite to its effect on economic mentions. Changes in national security have similar effects on economic and other problems, though these effects are not highly reliable when the categories are taken separately (see Table 4). When economic and other MIP mentions are taken together, the net effect of shifting national security actually is significant (p < .05, onetailed). The estimated effect on these combined responses is -.19, the exact opposite of the effect on foreign affairs responses in Table 4. It thus is clear that the effects of changing economic and national security on MIP mentions within their corresponding domains come at the expense ofnot in addition to-mentions in other domains.

The foregoing analysis is important. It indicates that much of the movement in MIP responses not only is unrelated to changes in importance per se; much is unrelated to changes in the degree to which the particular issue is a problem. To be perfectly clear, a large part of the variance in MIP responses in the different categories reflects the degree to which *other* issues are

<sup>&</sup>lt;sup>11</sup> Presumably, variation in purely "international" problems is largely exogenous to the system.

problems. Ultimately, much of the variance in MIP responses thus is entirely unrelated to variation in importance.

But, what portion of the variance is due to importance? It is fair—indeed, appropriate—to wonder. The problem is that we can't tell for sure. However, based on the foregoing models, we can estimate the amount that is due to variance in problem status, both within and without each category. The remaining, residual variance constitutes an upper-bound estimate of the variance that is due to changes importance. The estimate is a liberal one because it contains basic sampling (and other survey) error as well as unmeasured variation in problem status as well as the variation in the importance of other domains. Nevertheless, such an estimate provides useful information. To generate the estimate for each category, it is necessary to reestimate the equations in Table 4 (and Table 5) excluding the lagged dependent variables. The results of this analysis are shown in Table 6.

#### -- Tables 6-7 about here --

In Table 6, it is clear that most of the variance in MIP responses reflects changes in problem status. The second column reports the variance explained by the basic indicators of economic and national security used above. The two indicators account for just over 73 percent of the variance in economic MIP responses and just less than 60 percent of foreign affairs mentions (61 percent for "defense"). Just about 68 percent of the variance in non-economic, non-foreign MIP is due entirely to our indicators of economic and national security. This puts in perspective-- and makes more understandable--the stunning rise in "other" MIP through the late 1990's (and the subsequent drop in 2002). Of course, nontrivial portions of variance remain in each of the three broad categories. They may be partly due to survey error. They may reflect unmeasured variation in problem status. They also may capture the changing importance of the out-domains. The

possibility remains that the residual variance in MIP responses actually is due to the changing importance of the particular domains. We also can explore this possibility.

Before turning to such an analysis, let us briefly consider total MIP responses. Recall that our correlational analyses implied that shifts in the problem status might structure total MIP responses themselves, particularly due to shifts in the economy. The regression analysis in Table 7 indicates that this is not true, at least for the later part of the series. The total number of MIP responses is unrelated to changes in the measures of economic and national security. This is not all that surprising. It is clear from Table 4, after all, that the very powerful effects of changing economic circumstances on economic, foreign, and other mentions largely net out. Thus, the total remains unchanged. The same is true for changing national security. The rather substantial shifts in the total number of MIP responses are entirely due to changes in the mention of non-foreign, non-economic problems. (Also see Table 2c.) The source of this variance remains unclear.

#### **MIP Responses and Importance?**

The foregoing analyses reveal significant problems with using aggregate MIP responses as indicators of the importance of issues or even important problems. Most of the variance reflects changes in problem status within the domains and in the other domains. There is surplus variance, however, and it may be that this variation to some extent reflects change in issue importance. Let us consider this possibility, loosely following Jones' (1994) logic. That is, let us consider whether changes in MIP mentions structure opinion-policy dynamics: both policymaker responsiveness to public preferences and public responsiveness to policy itself. As Jones has argued, policymakers may be more likely to notice and pay attention to public opinion for policy in a particular area when the issue is important. Likewise, following Franklin and Wlezien (1997), the public may be

more responsive to policy change. If MIP responses capture variation in importance, therefore, we should expect that they will tutor the responsiveness of policymakers and the public. It is useful to be more specific about these expectations, using the thermostatic model of opinion and policy (Wlezien, 1995; 1996; N.d).

#### A Model of Opinion-Policy Dynamics, Including MIP

The basic thermostatic model implies that policymakers respond to public preferences for policy change and that the public, in turn, adjusts its preferences in response to what policymakers do. To begin with, the public's preference for 'more' or 'less' policy—its relative preference, R—represents the difference between the public's preferred level of policy ( $P^*$ ) and the level it actually gets (P):

(1) 
$$R_{t} = P_{t}^{*} - P_{t}$$
$$R_{t} = R_{t-1} + \Delta P_{t}^{*} - \Delta P_{t}$$
$$\Delta R_{t} = \Delta P_{t}^{*} - \Delta P_{t}.$$

Thus, as the preferred level of policy or policy itself changes, the relative preference signal changes accordingly. The public is expected to respond currently to actual policy change when put into effect. This is straightforward, at least in theory. It is less straightforward in practice.

Most importantly, we typically do not directly observe  $P^*$ . People do not have meaningful preferences for particular amounts, or levels, of policy in most domains. The practices of survey organizations are telling. With rare exceptions, such as abortion policy, these organizations do not ask people how much policy they want. Instead, survey organizations ask about relative preferences, whether we are spending "too little," whether spending should "be increased," or whether we should "do more." This, presumably, is how people think about most policies. The

public preference, however defined, also is necessarily relative. In one sense, this is quite convenient, as we can actually measure the thermostatic signal the public sends to policymakers.<sup>12</sup>

Now, if policymakers are responsive to public preferences, *changes* in policy (P) will be associated with *levels* of the public's relative preference (R). We can express this expectation as follows:

(2) 
$$\Delta P_t = a_0 + \beta R_{t-1} + \gamma Z_{t-1} + e_t,$$

where  $a_0$  and  $e_t$  represent the intercept and the error term, respectively, and Z represents the set of other determinants of policy, including the partisan control of government. The coefficient  $\beta$  captures responsiveness, where the effect of preferences on policy is independent of partisan control and other factors; if the coefficient is greater than 0, policy "responds" to preferences.<sup>13</sup>

These expectations are general ones and we do not expect the model to apply in all policy domains. Indeed, public and policy responsiveness is likely to reflect the political importance of the different domains (see Wlezien, N.d.; Soroka and Wlezien, 2002). As noted above, this importance may vary over time and MIP may capture this shifting salience. It thus may be that the variation in MIP responses actually structures the public's response to policy and also policymakers' response to opinion. We can explicitly model these possibilities by including MIP in our equations for opinion and policy, as follows:

$$(3) \qquad \Delta R_t = a_0 + B_1 \Delta P_t^* + B_2 \Delta P_t + B_3 MIP_t + B_4 MIP_t \Delta P_t + e_t$$

and

<sup>&</sup>lt;sup>12</sup> Because we must rely on instruments to estimate  $P^*$  (and also because metrics of the other variables differ), it is necessary to rewrite Equation 1 in a more general way:

 $<sup>\</sup>Delta R_t = \beta_1 \Delta \hat{P}_t^* - \beta_2 \Delta P_t + \mu_t$ , where  $\hat{P}_t^*$  is the public's *predicted* preferred level of policy.

<sup>&</sup>lt;sup>13</sup> This does not mean that politicians actually respond to changing public preferences, for it may be that they and

(4) 
$$\Delta P_{t} = a_{1} + \gamma_{1} R_{t-1} + \gamma_{2} Z_{t-1} + \gamma_{3} MIP_{t-1} + \gamma_{4} MIP_{t-1} R_{t-1} + u_{t}$$

Notice that these equations are generalized forms of equations 1 and 2 and that the effects of MIP are modeled both additively and interactively. In theory, the effects are interactive, e.g., the influence of policy (P) on preferences (in equation 3) should *depend* on the level of MIP. We thus are most interested in whether the interactive variables in equations 3 and 4 have significant effects. That is, we want to know whether the  $B_4$  is less than 0 and  $\gamma_4$  is greater than 0, which would tell us that the level of MIP influences either public or policymaker responsiveness. In the extreme, responsiveness would depend entirely on MIP and  $B_2$  and  $\gamma_1$  would equal 0.

Of course, as we already have shown for defense and foreign affairs, it may be that MIP responses capture variance in problem status. The specification in equations 3 and 4 thus may not be quite right. The more appropriate specification would include only the variation in MIP that is due to variation in importance per se. Now, consider MIP\* to be the variation in MIP purged of the variation due to changing problem status, both within the particular domain and within other domains. Given this, the effects are easy to model. We simply substitute MIP\* for MIP in equations 3 and 4 and assess the parameters  $B_4$  and  $\gamma_4$ . Let us see what happens when we do.

#### **An Expository Empirical Analysis**

For this analysis, we consider the interrelationships between public preferences and policy change over time, focusing on a single domain--spending on defense in the U.S. The decision reflects a variety of considerations. First, and most importantly, we know a lot about defense MIP from the foregoing analysis. This is of obvious significance given the theoretical model outlined above. Second, we have good data on defense spending decisions and public spending preferences

the public both respond to something else. All we can say for sure is that the coefficient ( $\beta$ ) captures policy responsiveness in a statistical sense, that is, whether and the extent to which public preferences directly influence

themselves over a reasonable time period, 1973-1994. Third, the thermostatic model appears to work quite well in the domain. That is, there is strong evidence of public responsiveness to policy and policymaker responsiveness to preferences (Wlezien, 1996). It thus makes sense to ask: Does this evident representation and feedback vary with MIP? Let us begin with the public itself.

#### An Analysis of Public Responsiveness to Policy

The basic model of public preferences follows Wlezien's previous research. The dependent variable is the difference in net support for spending, where net support is the percentage of people who think we are spending "too little" minus the percentage of people who think we are spending "too little" minus the percentage of people who think we are spending "too little" minus the percentage of people who think we are spending "too little" minus the percentage of people who think we are spending "too much." Thus, as noted above, the measure taps relative preferences. The data are based on responses to the standard question:

Are we spending too much, too little, or about the right amount on [the military, armaments, and defense]?

The General Social Survey (GSS) has asked this battery of items in every year between 1973 and 1994, with the exception of 1979, 1981, and 1992. Fortunately, Gallup asked the same question in those years. Since 1994, data are available only in alternate years, which clearly limits our analysis. From these data, we nevertheless can construct annual time series of public preferences for spending that cover 1973-1994.

Recall that the thermostatic model implies that the public's relative preference for policy (R) represents the difference between the public's preferred level of policy  $(P^*)$  and policy (P) itself. It is easy to measure P, which we can draw from the *Budget of the United States Government*; following equation 1 and the measure of the dependent variable, we use the first

policy change, other things being equal.

difference in real dollar-valued appropriations for defense.<sup>14</sup> We do not have a measure of  $P^*$ , however, so it is necessary to rely on instruments. For this analysis, we rely on net dislike of Russia from our earlier analyses, which has been shown to powerfully predict variation in preferences for defense spending in the US (Wlezien, 1995; 1996). The pattern indicates the measure nicely captures the real or perceived national security threat during the period.

The results of estimating this basic model are shown in the first column of Table 8.<sup>15</sup> Here we can see that changes in net support are positively related to changes in Net Dislike: When dislike of Russia increases (decreases), support for more spending increases (decreases). We also can see that changes in net support are negatively related to changes in appropriations: When appropriations increase (decrease), support for more spending decreases (increases). These patterns are already known.

### -- Tables 8 about here --

Now, let's see whether MIP responses add any additional information. To begin with, let us estimate equation 3 using raw defense MIP mentions. The results of this analysis are shown in the second column of Table 8. Notice first that the coefficient for the additive MIP variable actually is positive, though too unreliable to credit. More importantly, the coefficient for the interactive variable is "0." The performance of this model is lower, as can be seen from the adjusted *R*-squared, which goes down, and the mean squared error, which goes up. Thus, we are better off *not* including MIP in the model. This is an important result: It implies that defense MIP responses do not nicely capture the variation in the importance of the defense-related issues.

As noted above, however, there is another perhaps more appropriate way to capture the

<sup>&</sup>lt;sup>14</sup> Real dollar values are calculated by dividing current dollar values into the gross national product implicit price deflator (1987=1.00), from *The National Income and Product Accounts*.

<sup>&</sup>lt;sup>15</sup> The model also includes a control for the Iraq-Kuwaiti crisis in 1991-1992.

information in MIP responses. Our analyses have shown us that the variation in foreign MIP responses to a large extent is due to changes in national and economic security over time. This variation reflects the degree to which foreign policy (and the economy) is a problem, not changes in importance per se. It may be, however, that the remaining variation in MIP responses is due to changing importance. It thus may be more appropriate to model the effects of this "residual" portion of MIP responses instead of the whole. This is fairly easy to address. That is, we can use the residual variance from the analysis summarized in Table 6. To be absolutely clear, the residual variance is generated from the regression of defense MIP on net dislike and leading economic indicators. The results of substituting this purged measure for MIP in our analysis of public preferences are shown in the third column of Table 8.

These results differ somewhat from those using the raw measure of MIP. That is, the additive effect of MIP\* is negative and the interactive effect positive. The latter runs completely contrary to our expectations, i.e., it implies that the public is less responsive to policy change when the issue is important. The effect is not statistically significant, however. The results are telling: We can conclude that, even to the extent MIP responses capture variation in importance, it apparently does not matter very much for public responsiveness to policy, at least on defense. Let us now consider whether this also is true for policymaker responsiveness to public opinion itself.

## An Analysis of Policymaker Responsiveness to Public Preferences

The model of policy also follows Wlezien's research. The dependent variable represents the first difference of real dollar-valued appropriations (in billions of 1987 dollars) for defense. The independent variables include the party of the president, the party composition of Congress, and a measure of net support for defense spending. Given that the measure of net support captures relative preferences, changes in appropriations are expected to be positively related to the levels of net support for spending. Politicians are expected to respond currently. In the budgetary context, this means that change in appropriations for fiscal year t follows the level of net support in year t-1, when the bulk of appropriations decisions for fiscal year t are made.

As noted above, measures of the party of the president and the party composition of Congress also are included in the models. The former variable takes the value "1" under Democratic presidents and "0" under Republican presidents, and the latter variable represents the average percentage of Democrats in the House and Senate. As for the measures of net support, these variables are measured during year *t*-1. Thus, the analysis that follows relies on a very simple model that includes the party of the president, the party composition of Congress, and measures of public preferences for spending.<sup>16</sup>

The results from estimating the original model are shown in the first column of Table 9. Here we see that changes in appropriations do closely follow public preferences for defense spending over time. As indicated by the positive, significant coefficient for net support, when public support for more defense spending is high (low), politicians tend to provide more (less) defense appropriations. Defense appropriations also reflect the party affiliation of the president. Based on the coefficient in Table 9, the change in defense appropriations is about 11 billion (1987) dollars higher under Republican presidents than under Democratic presidents, *given public preferences*. The Congressional composition has no effect, however. We have seen these results before (Wlezien, 1996).

- Table 9 about here -

<sup>&</sup>lt;sup>16</sup> The model also includes a control for the Iraq-Kuwaiti crisis in 1992. Models of defense budgetary policy often include measures of Soviet/Russian spending (see, e.g., Hartley and Russett, 1992). The variable was incorporated into the analyses using various specifications, but it does not perform well. Most importantly, including the variable does not meaningfully alter the results. Also see Wlezien (1996).

Now, let us see what foreign policy MIP responses offer. To begin with, let us estimate equation 4 using the raw measure of defense MIP, the results of which are shown in the second column of Table 9. Here, the coefficient for the important interactive variable is appropriately positive though does not even approach conventional levels of statistical significance. Adding the MIP variables, moreover, actually reduces model performance. As for our analysis of the public, it appears that raw MIP responses offer little additional information to our understanding of policy, that is, above and beyond what is reflected in public policy preferences. Analysis using the purged MIP variable (MIP\*) is more promising, as can be seen in the third column of Table 9. Here, the effect of the interactive variable borders on statistical significance (p = .07, one-tailed).

This result is suggestive. It also may understate the real effect of importance. That is, MIP responses may capture variance in importance—to which policymakers actually respond—that our earlier analysis does not allow us to isolate. As we more fully control for the variance in problem status, therefore, we may see more clearly the variance in importance. This variance is necessarily small, at least when compared with the variance in MIP due to changing problem status. Recall from Table 6 that our very basic measures of defense and economic problem status already account for over 60 percent of the variance in defense MIP; A more complete accounting would only increase the percentage, by definition. There thus is no escaping the conclusion that the variance in importance is a comparatively small part of defense MIP over time. This, of course, is not to say that the variance is not important. Whether and the extent to which it is, however, remain unresolved.

#### **Implications for Voting Behavior, Election Outcomes, and Policy Representation**

One might think that an important issue is salient by definition. This is not the case given

traditional measurement, which relies on responses to questions about the "most important problem" facing the nation (e.g., Jones, 1994; Miller, Miller, Raine, and Brown 1976, Monroe 1975, and RePass, 1971). Whether an issue is an "important problem" to the public is a function of the importance of the issue *and* the degree to which it is a problem. The most important problem is just that, the plurality important problem winner of sorts. Importance and (measured) salience are two related, but different things, at least in theory.

Our analyses confirm these conjectures. MIP responses are largely driven by the degree to which particular issues are problems. When the economy worsens (improves), economic mentions increase (decrease). The same is true for national security threat and foreign policy responses. Moreover, the degree to which one issue is a problem influences mentions of other issues. When the economy worsens (improves), the number of respondents naming foreign problems increases (decreases). Similarly, when national security threat changes, the number of other—non-economic, non-foreign—mentions shift inversely. Much of the movement in MIP responses, thus, is unrelated to changes in importance per se; indeed, a large part of the variation in particular categories reflects the degree to which *other* issues are problems.

Of course, it may be that importance itself varies over time. Clearly, this is true. New issues appear, e.g., the environment in the U.S. and, especially, other countries, integration in Europe (Franklin and Wlezien, 1997). But how does one measure this changing importance? It is not straightforward capturing current changes let alone those that have passed us by. As for the future, one possibility is to simply ask people about the importance of different issues. This is being tried, and some progress is being made. Getting the question right and interpreting the responses remains elusive however. For example, asking people to distinguish between "very important," "somewhat important," "slightly important," or "not important at all" provides almost

no basis for distinction at all (Wlezien, 2000).

We don't have to ask people, however. We can observe their behavior. After all, we have learned a lot from studies of voting behavior and election outcomes at particular points in time and over time (Asher,1992; Abramowitz, 1994; also see Stokes, 1966). Certain issues matter quite consistently, the economy being the most notable. There are others, however, including national security and social welfare, though new ones also have appeared, e.g., abortion. We see similar patterns in the public's responsiveness to policy in different issue areas over time and politicians' responsiveness to public preferences themselves (Wlezien, 1995; 2001). Basic diagnostics of the time-constancy of parameters also are revealing and relatively easy to conduct.<sup>17</sup> These results may not tell us everything about the importance of issues, but they do tell us a lot. Indeed, it appears that certain issues are more important to people than other issues and this has been true for some time. It seems that only the extent to which they are problems has varied quite a lot.

<sup>&</sup>lt;sup>17</sup> See, e.g., Wlezien (N.d.). For a more complex treatment, see Wood (2000).

# **Appendix A: How the Economy Matters**

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Independent Variable	Econom	nic MIP Respo	onses
Intercept <sup>a</sup>	19.83*	31.69**	35.00**
	(11.41)	(8.26)	(1.10)
MIP <sub>t-1</sub>	0.68**	0.50**	0.47**
	(0.17)	(0.13)	(0.11)
Lagging Economic Indicators <sub>t</sub> (inverted)	1.19 (.98)		
Coincident Economic		.61**	61
Indicators <sub>t</sub> (inverted)		(.17)	(0.41)
Leading Economic Indicators <sub>t</sub> (inverted)			2.25** (0.70)
<i>R</i> -squared	.67	.77	.84
Adjusted <i>R</i> -squared	.65	.75	.82
Standard Error	12.85	10.70	9.11
Durbin-Watson	1.62	1.72	1.85
N = 28, ** p < .01 * p < .03	5 (two-tailed)		

Table A1. A Diagnosis of Economic Effects, 1973-2000

Note: The numbers in parentheses are standard errors.

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Figure 1: Aggregate Most Important Problem Responses, 1945-2000



 $\circ$  Foreign Affairs  $\Delta$  Economic  $\Box$  Other

Figure 2: Aggregate Most Important Problem Responses, 1945-2000



 $\circ$  Foreign Affairs  $\Delta$  Economic

Figure 3: Aggregate Most Important Problem Responses, 1945-2000



 $\circ$  Foreign and Economic  $~~\Delta$  Other

		Pro	oblem			
Importance	0	.1	.5	.9	1.0	
0	0	0	0	0	0	
.1	0	.01	.05	.09	.1	
.5	0	.05	.25	.45	.5	
.9	0	.09	.45	.81	.9	
1.0	0	.1	.5	.9	1.0	

Table 1. Hypothetical Combinations of "Importance" and "Problem"

Table 2a.	Correlations among Aggregate MIP Responses,
	Percentages of Respondents, 1945-2000

	Economic	Foreign	Other	
Foreign Other Total	59** 26* 0.26*	52** 34**	0.59**	

N = 54, \*\* p < .01 \* p < .05 (two-tailed)

Table 2b. Correlations among Aggregate MIP Responses,
Percentages of Respondents, 1945-1972

	Economic	Foreign	Other
Foreign Other Total	43* 16 0.21	74** 14	0.42*

N = 26, \*\* p<.01 \* p<.05 (two-tailed)

Table 2c. Correlations among Aggregate MIP Responses,Percentages of Respondents, 1973-2000

	Economic	Foreign	Other
Foreign Other Total	0.11 77** 0.02	42* 13	0.56**

N = 28, \*\* p<.01 \* p<.05 (two-tailed)

Tu dan an dan t	Percentage of I	Respondents
Variable	Economic	Foreign
Intercept <sup>a</sup>	36.46** (7.22)	8.44** (2.25)
MIP <sub>t-1</sub>	0.44** (0.11)	0.34* (0.14)
Leading Economic Indicators <sub>t</sub> (inverted)	1.27** (.25)	
Net Dislike of Russia <sub>t</sub>		0.08* (.03)
<i>R</i> -squared Adjusted <i>R</i> -squared Standard Error Durbin-Watson	.83 .81 9.34 1.79	.47 .43 5.70 1.50

# Table 3. A Preliminary Analysis of Economic and Foreign Policy MIP Responses, 1973-2000

*N* = 28, \*\* *p* < .01 \* *p* < .05 (two-tailed)

Note: The numbers in parentheses are standard errors.

<sup>*a*</sup> Intercepts reflects the effects of the mean values of Leading Economic Indicators and Net Dislike of Russia.

T 1 1 4	Percentage of Respondents			
Variable	Economic	Foreign	Other	
Intercept <sup>a</sup>	33.99**	8.36**	20.86*	
1	(8.18)	(1.90)	(7.93)	
MIP <sub>t-1</sub>	0.49**	0.22	0.53**	
	(0.13)	(0.12)	(0.15)	
Leading Economic	1.37**	51**	96*	
Indicators <sub>t</sub> (inverted)	(.30)	(.15)	(0.45)	
Net Dislike of Russia <sub>t</sub>	05	0.19**	12	
	(.08)	(.04)	(0.11)	
<i>R</i> -squared	.83	.64	.79	
Adjusted <i>R</i> -squared	.81	.60	.76	
Standard Error	9.45	4.80	14.10	
Durbin-Watson	1.87	1.98	2.20	

# Table 4. An Analysis of Interdependence among MIP Responses, 1973-2000

N = 28, \*\* p < .01 \* p < .05 (two-tailed)

Note: The numbers in parentheses are standard errors.

<sup>*a*</sup> Intercepts reflects the effects of the mean values of Leading Economic Indicators and Net Dislike of Russia.

<b>T</b> 1 1 .	Percentage of Respondents		
Variable	Defense	Other than Defense	
Intercept <sup>a</sup>	16	4.15**	
1	(1.12)	(1.35)	
MIP <sub>t-1</sub>	0.43**	0.16	
	(0.09)	(0.20)	
Leading Economic	.44**	.01	
Indicators <sub>t</sub> (inverted)	(.11)	(.11)	
Net Dislike of Russia,	0.16**	01	
·	(.03)	(.03)	
<i>R</i> -squared	.81	.05	
Adjusted <i>R</i> -squared	.78	07	
Standard Error	3.64	3.64	
Durbin-Watson	1.59	1.98	

Table 5. On the Structure of "Foreign Affairs" Responses, 1973-2000

28, \*\* *p* < .01 \* *p* < .05 (two-tailed)

Note: The numbers in parentheses are standard errors.

Category	Total Variance	Percent Predicted	Predicted Variance	Residual Variance	Percent Residual
Economic Economic Affeirs	466.6	73.4	342.7	123.9	26.6
Defense	61.3	61.0	37.4	23.2	40.0 39.0
Other	822.1	67.8	557.4	264.7	32.2

Table 6. Changes in Problem Status and Variance of MIP Responses, 1973-2000

	,,
Independent Variable	Percentage of Respondents
Intercept <sup>a</sup>	53.05** (21.52)
MIP <sub>t-1</sub>	0.56** (0.18)
Leading Economic Indicators <sub>t</sub> (inverted)	0.01 (.43)
Net Dislike of Russia,	06 (.31)
<i>R</i> -squared Adjusted <i>R</i> -squared Standard Error Durbin-Watson	.31 .23 13.79 1.98

Table 7. An Analysis of Total MIP Responses, 1973-2000

*N* = 20, \*\* *p* < .01 \* *p* < .05 (two-tailed)

Note: The numbers in parentheses are standard errors.

<sup>*a*</sup> Intercepts reflects the effects of the mean values of Leading Economic Indicators and Net Dislike of Russia.

 Independent			
Variable <sup>b</sup>	Basic	With MIP	With MIP*
Intercept	3.56*	3.45*	4.13**
	(1.82)	(1.98)	(1.56)
Net Dislike of	0.51**	0.53**	0.48**
the Soviet Union <sub>t</sub> (differenced)	(0.11)	(0.12)	(0.14)
Net Dislike of	0.39**	0.41**	0.42**
the Soviet Union <sub>t-1</sub> (differenced)	(0.12)	(0.13)	(0.14)
Defense Appropriations <sub>t</sub>	68**	72**	92**
(differenced)	(0.13)	(0.21)	0.26)
Defense MIP <sub>t</sub>		0.16	
		(0.25)	
Defense Appropriations <sub>t</sub>		0.00	
(differenced) * Defense $MIP_t$		(0.02)	
Defense $MIP_{t}^{*}$			14
			(0.45)
Defense Appropriations <sub>t</sub>			0.03
(differenced) * Defense $MIP_t^*$			(0.03)
<i>R</i> -squared	.75	.75	.77
Adjusted <i>R</i> -square d	.67	.63	.65
Standard Error	7.84	8.25	8.08
Durbin-Watson	2.03	1.95	1.73

Table 8. Defense Spending Preference Regressions, 1974-1995<sup>a</sup>

N=22, \* p<.05, \*\* p<.01 (one-tailed)

Note: The numbers in parentheses are standard errors.

<sup>*a*</sup> Results are based on estimated models that include controls for the Kuwait-Iraq crisis.

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<sup>b</sup> All independent variables are mean-centered.

Indopondont			
Variable <sup>b</sup>	Basic	With MIP	With MIP*
Intercept	11.38** (2.80)	11.48** (3.01)	16.55** (4.28)
Democratic President <sub>t-1</sub>	-11.00* (5.26)	-10.96* (5.55)	-10.60* (5.11)
Democratic Composition of Congress <sub>t-1</sub>	21 (0.53)	11 (0.64)	42 (0.56)
Net Support for Defense Spending <sub><i>t</i>-1</sub>	0.66** (0.10)	0.66** (0.10)	0.85** (0.19)
Defense MIP <sub>t-1</sub>		0.23 (0.44)	
Net Support <sub><i>t</i>-1</sub> * Defense MIP <sub><i>t</i>-1</sub>		0.02 (0.03)	
Defense MIP <sup>*</sup> <sub>t-1</sub>			0.56 (0.77)
Net Support <sub><i>t</i>-1</sub> * Defense MIP <sup>*</sup> <sub><i>t</i>-1</sub>			0.05 (0.03)
<i>R</i> -squared Adjusted <i>R</i> -squared Standard Error Durbin-Watson	.74 .68 8.50	.74 .64 8.93 2.12	.78 .70 8.23 2.47
	1.95	4.14	2. <b>+</b> /

## Table 9. Defense Appropriations Regression, Fiscal Years 1974-1995, in Billions of 1987 Dollars<sup>a</sup>

N=22, \* p<.05, \*\* p<.01 (one-tailed)

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Note: The numbers in parentheses are standard errors.

<sup>*a*</sup> Results are based on estimated models that include a control for the Kuwait-Iraq crisis in fiscal year 1992.

<sup>b</sup> All independent variables are mean-centered.