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*Emotions, Issue Importance, and Political Learning**

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Theory: Theories about the effects of individual or group threat (largely psychological in origin) are combined with theories about the role of issue importance and of hope of success.

Hypotheses: Anxiety, or threat, has an indirect effect on political learning (through issue importance); the effects of anxiety depend, interactively, on people's hope of success regarding the issue at hand. Knowledge and importance have a reciprocal relationship, the importance-to-knowledge connection being the stronger of the two.

Methods: Two-stage least squares, using data from a 1990 survey on the linguistic behavior of young people in Quebec. Checked with an ordered probit and diagnostic tests.

Results: Results confirm indirect, interactive, reciprocal effects. Standard (control) effects also found for education, gender, exposure to news on knowledge.

Explanations of political learning have moved from simple models involving demographics and political interest or involvement to more complex models exploring the interrelationships among these factors (Luskin 1990; Junn 1991) and to expanded models focusing on the use of heuristics to generate information and misinformation (Mondak 1993; Nadeau and Niemi 1995) and the influence of various "environmental" factors such as generation and location (Jennings 1993, Times Mirror Center 1990; Nadeau, Niemi, and Levine 1993). Recently, Marcus and MacKuen (1993) have argued that emotional states are yet another factor influencing learning, finding that anxiety about presidential candidates was related to the degree to which individuals learned about the positions taken by these candidates over the course of the 1980 campaign.¹

*We would like to thank Claude Blanchette and Kirke Lawton for assistance with the data analysis and Uli Locher of McGill University and the *Conseil de la langue française du Québec* for making the Quebec data available to us. All data and the documentation necessary to replicate this analysis can be obtained from Richard Nadeau. The data analysis for this paper was conducted using the two-stage least squares procedure in the SHAZAM econometrics program (version 6.0).

¹Marcus and MacKuen's work took inspiration from studies by Abelson, Kinder, Peters, and Fiske (1982) and Conover and Feldman (1986) demonstrating that emotional reactions to politics are a critical aspect of political behavior.

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In presenting their case, Marcus and MacKuen indicate that “at best, we know the broad outlines and too little of the details” (680) about the impact of emotional states on learning and involvement. Thus, they leave considerable room for further exploration of what sorts of emotions are related to learning and of the nature of the connections among these characteristics. In this paper, we use survey results from a very different context to explore some of the ideas discussed by Marcus and MacKuen. Our sample is from Quebec, and our measure of political knowledge relates to the language issue in Quebec. Our concerns, however, are the same as theirs. Does “threat stimulate learning” (678)? And if so, does it do so directly or by increasing the perceived importance of an issue? And to what degree are issue importance and knowledge themselves interrelated?

We find, in contrast to Marcus and MacKuen, that anxiety does not exert a direct influence on knowledge but is among a number of factors determining the level of issue importance. In particular, we find that whether people have hope for improvement regarding the issue at hand is a significant factor underlying perceived importance. In establishing this point, we also, as a matter of necessity, further develop our understanding of the sources of issue importance, thus expanding on recent work of Krosnick (1990). Finally, we also find that knowledge and importance each have an impact on the other, with the importance-to-knowledge connection the stronger of the two.

Emotions and Learning

Marcus and MacKuen introduce a number of questions related to emotions and learning. Most notably, they distinguish between anxiety and enthusiasm and differentiate the effects of these two variables. We will concentrate on anxiety, but we will introduce additional variables that help explain more fully both the reason why and the way anxiety affects learning. We assume, throughout, that the effects of anxiety are quite general—i.e., not limited in scope to learning about presidential candidates. Certain kinds of knowledge—e.g., ordinary facts about governmental structure—may for the most part be exempt, but the theory is interesting only if it applies quite generally.

There are three key parts to Marcus and MacKuen’s argument. First, anxiety refers to a variety of emotional responses, summarized at one point as “environmental threat” (1993, 677). Operationally, Marcus and MacKuen measured anxiety with questions asking whether presidential candidates caused voters to be “afraid” or “uneasy” or to feel “anger” or “disgust.” Second, anxiety cannot be a permanent feature of individual personalities because only when emotions change can they alter people’s felt need for information (675, 677). Finally, anxiety affects learning di-

rectly by "interrupt[ing] citizens' ordinary political activity and spur[ring] information processing" (675–76). When people feel threatened, they respond, in part, by gathering additional information or "focus[ing] attention on the problematic" (677).

We question both the second and third elements. Anxiety, if not *permanent*, is at least a long-lasting component of some people's lives. Many groups, in fact, have felt a continual threat to their existence. Minorities of all sorts are likely to feel some degree of threat from the majority. In the case from which our data will be taken, French Quebecers have for much of their existence been concerned that their identity would be absorbed by English-speaking Canadians. Indeed, anxiety may be relatively meaningless when it is short-lived and is most politically consequential (for learning and otherwise) when it is seen as relatively permanent.

Does anxiety, continual or otherwise, lead in a direct sense to greater political awareness? Only under certain conditions, we would argue. A major factor in answering that question is the degree of *hopefulness* or *hopelessness* in the population at hand. Marcus and MacKuen acknowledge this point, but they do not make use of it in their analysis. In the headnote of their article, they quote Aristotle as saying that "fear sets us thinking what can be done, which of course nobody does when things are hopeless" (672), and they call attention to this point later on (note 3). But hope is not a part of the model they actually test.

Anxiety or threat will produce a reaction such as learning only when there is hope. Or, to use words that reflect more of an economic perspective, high levels of anxiety will not result in behavior if there is no "expectation of success." Blalock (1967, 34) made the point generally: "if there is no need (e.g., hunger is satisfied), or no expectation of success, or no external reward (food), then no behavior directed toward this objective will take place."² Collective action will also not take place unless the members of a group feel at least some expectation of success. The sources of these expectations could be the possession of adequate resources (Korpi 1974), optimism about others' participation (Klandermans 1984), or successes in prior collective action (Oberschall 1980; Chong 1991).

Our formulation, then, can be represented by two equations.³ The first

²Fiske and Taylor (1984, 332–33) make a similar point: "Fear and anxiety in particular interrupt ongoing behavior. . . . If one expects to fail, emotions can interrupt the current goal sequence to institute a potentially more successful goal or cause the person to withdraw from the attempt."

³We will explain our model more fully below. The point here is to show how our formulation compares to Marcus and MacKuen's. Thus the emphasis at this point is that anxiety is related to knowledge only indirectly through importance and only when there is an expectation of success.

equation expresses the argument that knowledge is a function of importance and other factors. Anxiety and hope are not a part of this equation, as they influence knowledge only indirectly through their effect on importance:

$$\text{EQUATION 1: Knowledge} = f(\text{background factors,} \\ \text{media usage, importance}).$$

The second equation shows importance as a function of anxiety, expectation of success, and an interaction between anxiety and expectation of success (along with other factors). In fact, so important is the expectation of success that we should not be surprised to find the additive effect of anxiety to be zero and only the interactive effective to be significant. Knowledge is expected to have an impact on importance, though we hypothesize that its effect is smaller than the reverse effect of importance on knowledge:

$$\text{EQUATION 2: Importance} = f(\text{other factors, anxiety, expectation} \\ \text{of success, anxiety} \times \text{expectation} \\ \text{of success, knowledge}).$$

Knowledge of Language Issues in Quebec

Few subjects in Canada today are more important than the place of Quebec in the Canadian federation. The debate is over whether Quebec is and should be recognized as a "distinct society," with an ability to determine the applicability to itself of certain laws passed by the federal parliament. Within that overall problem, the matter of the French language has been a major element. There have not only been long, heated debates, but in recent years stringent linguistic laws have been adopted, such as a law requiring that all immigrants to Quebec from outside of Canada be educated in the French language and laws relating to the language used on outdoor signs. The centrality of the language issue is such that scholars generally agree "the main reason nationalist feeling has fueled a powerful secessionist movement in Quebec is the fragility of the French language in North America" (Dion 1993, 39).

Given this background, one might expect that high school and college-aged French Quebecers would have a relatively high awareness of various facts related to the language issue. As is so often the case with political knowledge, however, this turns out not to be true. In Table 1, we show the percentages of right and wrong answers to four factual questions.⁴ Most

⁴The data for our analysis come from a 1990 survey on the linguistic behavior of young people in Quebec. Questionnaires were gathered from a random sample of students in 15 French-speaking schools throughout the province. The schools themselves were chosen to reflect the variety of schools and linguistic situations in Quebec. The selected schools were both private and public and were in heavily French-speaking areas as well as in areas with

Table 1. Percentages of Francophone Quebec Students Correctly Answering Four Questions about the Language Issue

Question	Correct	Incorrect				
French-speaking population of Quebec	36	64				
French-speaking population of Canada	41	59				
Most recent language law in Quebec	42	58				
Subject of the most recent language law	82	18				
Scale (Number of questions answered correctly)						
	0	1	2	3	4	Total
Percentage of sample	9.9	23.0	28.1	18.6	20.4	100.0

Note: For question wordings, see the Appendix. The students in the sample ranged in age from 15 to 19.

Source: *Le comportement linguistique des jeunes Québécois*. Survey done in 1990 under the direction of Uli Locher, McGill University.

surprising, perhaps, is the relatively low level of public awareness of the proportions speaking each language. Only a little more than a third of the students answered the question correctly (even though we allowed a margin for error), with more than half claiming not to know. While the youthful makeup of the sample is a partial explanation, the proportion of "don't knows" was over 40% and outnumbered the proportion of right answers even among college students. Knowledge was high only about what, at the time of the survey, was the most recent Quebec law about language. To measure knowledge of the language issue, we created a scale representing the number of right answers to the four questions noted above. This scale, ranging from 0 to 4, is the dependent variable in Equation 1. The distribution of respondents on the scale is also shown in Table 1.⁵

The importance of the language issue is measured by two items. In selecting these questions, we bore in mind Krosnick's definition of attitude importance "as the degree to which a person is passionately concerned about and personally invested in an attitude" and his statement that "people are especially likely to commit themselves to their important attitudes in public" (1990, 59, 63). The first item was a question asking students

significant non-Francophone populations. Students whose mother tongue was other than French are an unrepresentative group. Consequently, we limit the analysis to Francophones, for whom the sampling strategy was designed.

⁵For later use in a regression equation, we rescored this and all other variables to range from 0 to 1. See the Appendix for details. In order to exercise some control for guessing (as did Marcus and MacKuen, note 18), we also tested the model having scored each item +1 for an incorrect answer, 0 for a "don't know" response, and "1 for a correct answer (and then summing the individual items to create the dependent variable). The results were nearly identical to those reported below.

whether they agreed with a statement that "all the debates about French in Quebec are useless." Debates about the French language in Quebec are generally about specific policy measures that will better protect the language, and following them is relatively time consuming. The more strongly students *disagreed* with the proposition—i.e., the more they thought it was worthwhile having these debates—the more important the issue was considered to be. Second, students were asked about public behavior—specifically, how they reacted "when, in convenience stores, restaurants, and shops, you are served only in English?" Those who insisted on being served in French were thought to consider the issue more important. The combination of feelings and expressed behavior is the dependent variable in Equation 2.

Threat and Hope as Determinants of Political Knowledge and Issue Importance

Proper specification of models representing knowledge and perceived importance of issues requires the inclusion of a variety of explanatory variables. Our model of knowledge (Equation 1) includes three components. The first is a set of background characteristics found in most studies of factual knowledge, political or otherwise. Of these characteristics, the most obvious is the level in school (ranging from high school to college). The youngest students in the sample were at an age at which political awareness had only recently blossomed (Adelson and O'Neil 1966), and they are surely less well informed for that reason alone. Maturation and presumed course effects should also accompany advances in school. In the progression across four years of school, there is also some self-selection as students decide whether to go on to the next level, and those who remain are presumably more knowledgeable. The characteristics of the sample thus mean that the differences according to school level are a mix of maturational and educational differences and are therefore not quite the same as educational differences found in exclusively adult studies.

Because "school level" mixes maturation and accomplishment, we also categorize students by the level of education they ultimately expected to achieve. This was particularly important for those currently in high school, as they could end their education almost immediately or aspire to an advanced degree. Thus, we created a variable "expected diploma" that corresponds most closely to the traditional control for education.⁶

Also among the background variables are gender and parents' education. Despite the changes in recent decades with respect to women's social and political attitudes and behavior, inclusion of gender is based on the

⁶A full description of all variables is given in the Appendix.

fact that studies continue to find that men have higher levels of political knowledge than women (Sigelman and Yanarella 1986; Lambert, Curtis, Kay, and Brown 1988; Delli Carpini and Keeter 1991). Parental education is included to tap differences that may be the result of background and upbringing but which are not mediated by the respondents' own attitudes and behavior.

The second factor in Equation 1 is students' exposure to news and public affairs programs on television. Presumably those who watched these kinds of programs gained something from them in the form of greater knowledge about the language issue.

Finally, Equation 1 includes the importance measure, our major concern in this part of the model. As noted above, background factors account for a good deal of variation in individuals' knowledge, both by affecting interest in politics generally and by providing settings in which knowledge is likely to be gained. Yet even among those with consistently advantaged or disadvantaged backgrounds, there is variation in the degree to which people follow any particular issue. Our hypothesis is that those who regard a specific matter as important are likely to acquire a better understanding of it, including greater knowledge of specific facts.⁷

Importance itself (Equation 2) has less often been studied, so no standard model can serve as a basis for our hypotheses. We anticipate, however, that one of the background factors used in Equation 1—level in school—is a determinant of importance as well; as students emerge from adolescence to adulthood, they become more aware of political characteristics of their surroundings. School level is likely to be a somewhat stronger factor for knowledge than for importance, but its influence should be apparent in both cases.⁸

We then turned for guidance to Krosnick's (1990, 78–9) finding that "attitude importance is caused by self-interest, social identification, and

⁷The supposition that issue importance and knowledge are related has a lengthy pedigree. Krosnick (1990, 68), for example, cites a variety of studies between 1947 and 1986 showing that people who consider an attitude to be more important "also say they have more relevant knowledge stored in memory" and "are able to report more of such knowledge." In recent work of our own, we found that people caring about the outcome of U.S. congressional elections were much more often able to identify correctly the party having more seats in the House (Nadeau and Niemi 1995).

⁸On the other hand, we did not think that the "expected diploma" or "media usage" variables would have much, if any, effect on perceived importance (following Krosnick's findings that "policy attitude importance is generally uncorrelated with education and with general interest in politics" [1990, 78]). To be certain, we included these two variables in a preliminary test of the importance model, but the coefficients were not significant. We excluded them from the final model.

value relevance."⁹ Fortunately, good measures of each of these were available in the Quebec study. Self-interest, according to Krosnick, develops "when an individual perceives that an attitude object is likely to have clear and direct impact upon his or her rights, privileges, or lifestyle" (72-3). Two questions, one phrased "positively" and one "negatively," tapped this dimension nicely. The first asked whether one was deprived of a fundamental right when he or she could not speak French; the second asked whether speaking French is "an integral part of my personal development."

Social identification refers to "identification with a group that consensually considers an attitude to be important" (73). For this factor we use reports about the birthplace of the respondents' father and mother. We hypothesized that having parents born in Quebec was likely to make the language issue more important to these students.

Value relevance is significant in that an individual may come "to view the policy as relevant to his or her basic social and personal values" (73). Two questions—again, one worded positively and one negatively—clearly tapped into student values. The first asked whether we should abandon efforts to preserve in Quebec "the French language of our fathers." The second asked whether it would be better for children that the students might have to attend an English-speaking school.

Expanding beyond Krosnick's model—and the heart of our contribution—is the anxiety-hope combination. As we noted above, we believe that anxiety or threat influences importance only interactively. However, we included anxiety, along with hope, as additive variables together with the interactive form. Anxiety was measured by the extent of agreement with two items inquiring whether the future of the French language in Quebec and in Canada was secure, uncertain, or threatened. It is notable that a synonym (threat) used by Marcus and MacKuen (1993, 672) was one of the alternative responses. Hope, or expectation of success, was measured by a single item, but one that seemed particularly appropriate. It asked whether respondents thought that French was already a "lost cause" in Quebec.

Finally, we include the knowledge measure in Equation 2 to assess its reciprocal effect on perceived importance. That knowledge helps to sustain perceived importance has been demonstrated in experiments showing that the large stores of information that accompany important attitudes allow individuals to resist attitude-challenging information (Wood, Kallgren, and Preisler 1985) and is surely part of the explanation for the well-known failure of political persuasion on the part of the mass media (e.g., Lazars-

⁹Krosnick in turn draws on a variety of political scientists, sociologists, and psychologists in developing this expectation.

feld, Berelson, and Gaudet 1948). We anticipated, however, that the effect of knowledge on issue importance would be a modest one. Recognizing that emotions can develop from a minimal information base and even survive after this information base has vanished,¹⁰ we believe that perceived importance often *drives* the search for knowledge while the latter largely *sustains* the feeling that an issue is significant.

Results

We estimated the models for knowledge and importance using two-stage least squares, as is appropriate for simultaneous-equations models. While our dependent variables are discrete, we nonetheless used a standard simultaneous-equations estimation technique for continuous data rather than opting for the more complicated nonlinear methods required by categorical data.¹¹ We performed a number of diagnostic tests for nonlinearity and heteroskedasticity, which are the most probable violations of standard statistical assumptions in a large cross-sectional data set; our general results indicated that there were no serious misspecifications in the model.¹²

The results of our analysis are shown in Table 2. Interpretation of the coefficients is made easier by the fact that all independent variables are scaled between 0 and 1. The coefficients thus represent the impact of moving between the extreme categories of these variables.

Consider first Equation 1. Coefficients for the background variables are

¹⁰These ideas are inspired by Zajonc's (1980) work on affect and cognition. For insightful remarks on the connection between these systems applied to political science, see Conover and Feldman (1986, 52, 64, 72).

¹¹We also ran an ordered probit for our model, and the results were very similar to those presented in the text. Signs of the estimated coefficients and results of statistical tests were the same regardless of which techniques was adopted.

¹²Our regression diagnostics are Lagrange Multiplier tests adapted for the simultaneous-equations framework. These test statistics are distributed asymptotically as chi-square with degrees of freedom corresponding to the number of right-hand-side variables included in the "auxiliary regression." The test for heteroskedasticity is a variation on White's (1980) general test but uses the squared residuals from the 2SLS regression as the dependent variable in the auxiliary regression. The test for nonlinearity is a variation on Ramsey's (1969) general test but again uses the residuals from the 2SLS regression as the dependent variable in the auxiliary regression. Each of these statistics can be operationalized by computing $N \times R^2 \sim \chi^2$ where N is the sample size and R^2 is the uncorrected R^2 from the auxiliary regression. More detail on these tests can be found in Spanos (1986, 646–49). For both the knowledge and the issue importance equations, mild heteroskedasticity and nonlinearity were indicated by the relevant chi-square statistics, but this was chiefly a function of the large sample size. While the statistics clearly exceed their tabulated critical values, the relevant R^2 s from which $N \times R^2$ was computed were in the range .02 to .05. This indicates that the levels, squares, and cross products of the explanatory variables contribute little in these auxiliary regressions and that heteroskedasticity and nonlinearity are not a problem in our model.

Table 2. Determinants of Knowledge and Importance of the Language Issue among Young Quebecers

Equation	Explanatory Variable	Coefficient (s.e.)
Knowledge <i>N</i> = 3018 <i>R</i> ² = .23 se (eq) = .28	Intercept	.05 (.02)**
	Level in school	.14 (.01)**
	Expected diploma	.14 (.02)**
	Gender	.17 (.01)**
	Parents' education	.05 (.01)**
	Watch news and public affairs	.09 (.02)**
	Importance	.33 (.03)**
Importance <i>N</i> = 3018 <i>R</i> ² = .33 se (eq) = .24	Intercept	-.01 (.02)
	Level in school	.04 (.01)**
	French is a fundamental right	.20 (.02)**
	Parents' birthplace in Quebec	.03 (.01)**
	Not abandon legacy of French	.11 (.02)**
	Anxiety (threat)	-.01 (.03)
	Hope (expectation of success)	.14 (.02)**
	Anxiety × Hope	.09 (.03)**
Knowledge	.20 (.04)**	

Note: For question wordings, see the Appendix.

***p* ≤ .01 (one-tailed test)

as expected. They are all statistically significant, and each of the variables contributes meaningfully to differences in knowledge about the language issue. Both variables tapping educational interests and attributes have sizable effects, suggesting that maturation and perhaps classroom experiences as well are contributing to knowledge. Parent's education—a proxy for a variety of selection effects and other differences in the students' upbringing—also contributes to learning. And, as we expected, males are substantially more likely to know more about the language issue. Media monitoring also contributes to learning, as students who watch television news and public affairs are more often able to answer the language questions.

Of particular interest in Equation 1 is the contribution of perceived importance. As expected, those for whom the language issue is prominent are better informed about the issue, even after controlling for background and media effects. Students who feel strongly that debates about French are worthwhile and who show their concern by insisting on being served in French are substantially more likely to be knowledgeable about the language issue. As large as the effects of background variables are, perceiving the matter to be important accounts for considerably more of the variation than any other single factor.

Also critical is what does not appear in the results. In a preliminary test, we included anxiety, hope, and the interaction of the two in Equa-

tion 1. All of these coefficients were nonsignificant, supporting our contention that the effects of anxiety on knowledge are funnelled through their contribution to the importance of the issue.¹³

As to the determination of importance itself, background factors, as expected, contribute far less than they did in Equation 1. Students who are further along in school are more interested in the language issue, but the differences across grade levels are substantially less than in the case of knowledge. And the other education variable—expected diploma—was not even significant when included in a preliminary test.

On the other hand, all three factors cited by Krosnick contribute significantly to perceived importance. Social identification, assessed by the parents' birthplace, contributes rather modestly, but students' feelings (especially the extent to which they feel that speaking French is a personal, fundamental part of their identity) make a large difference in their assessment of importance of the language issue.

Anxiety and hope, the measures we are most interested in, work as predicted. Those who feel threatened—i.e., who are worried about the future of French throughout Quebec and Canada—are more likely to see language as an important issue, *but only if they have some measure of hope*. Independent of anxiety, those who have some expectation of success are more likely to see the matter as important. But it does not work the other way around. Anxiety, by itself, does not contribute to the degree of importance students attach to the issue.¹⁴

These effects are perhaps best understood if one contrasts those who have no hope for the future and those who retain a substantial degree of hope. Those who think that French is already a lost cause (see no likelihood of success) are substantially less likely to view the language issue as important. It is as if they have already given up and, as a consequence, downplay its prominence. Moreover, because the issue is settled in their minds, anxiety makes no difference. In contrast, students with some hope about the matter view it as important. Moreover, for this group anxiety does make a difference. That is, those who hold some expectation of success but are nonetheless worried about the future see the matter as especially prominent.

¹³The coefficients (and standard errors) for anxiety, hope and anxiety \times hope were .04 (.03), $-.01$ (.03), and $-.01$ (.04), respectively. Coefficients for other variables remain stable, suggesting that our results are robust in Leamer's (1983) terminology.

¹⁴An *F*-test clearly confirms that the interaction of anxiety and hope is an improvement over an additive version of the equation. Additional evidence that our results do not rest on peculiarities of our modelling and estimation strategies comes from the fact that using separate equations (with or without the endogenous variables), ordered probit (for the separate equations) or 3SLS all produce very similar results. (Of course the results for the endogenous variables themselves change considerably when one shifts from separate equations to simultaneous equations.)

As for the connection to learning, the significance of anxiety only in the second equation emphasizes that this emotion contributes to knowledge, but that that contribution is funnelled through its impact on the perceived importance of the subject. Finally, the reciprocal relationship between factual knowledge and issue importance is substantiated. As expected, however, importance contributes more to the first equation than does knowledge to the second. Thinking that an issue is prominent stimulates learning about it. To a lesser degree, knowing about an issue leads one to think of it as important.

Conclusion

By suggesting that emotions contribute to political learning, Marcus and MacKuen opened up an interesting avenue for exploration. We have moved along that avenue by introducing explicit consideration of the level of importance of the subject at hand. In doing so, we believe that our model more fully represents the dynamics involved in the growth of knowledge as well as providing further substantiation and insight into Krosnick's innovative work on the less frequently studied matter of issue importance. We differ from Marcus and MacKuen in suggesting that anxiety influences learning only indirectly through perceived importance, but we regard that as more a matter of detail than of fundamental disagreement.¹⁵

Of greater long-term consequence is our introduction of hope, or expectation of success, a factor suggested by Marcus and MacKuen but not included in their analysis. Anxiety, we suggest, does not invariably lead to increased issue importance or knowledge. When there is hopelessness, no amount of threat stimulates greater interest and learning. It is only when there is hope that anxiety alters people's views.

The significance of hope or expectations is likely to be widespread with respect to subject matter, location, and kinds of actors and actions involved. Indeed, similar ideas are of long-standing use. Cantril (1958, esp. chap. 4), for example, found that hope and faith were crucial factors in workers'

¹⁵Though we cannot explore it fully here, we think that it is also important to explore further the possible contribution of anxiety to preferences and behavior. Marcus and MacKuen (1993, 677) argue that anxiety does not influence choices. That may be true of what we expect are generally muted levels of anxiety in presidential preferences between major-party candidates, but we do not think it is true generally. There is, for example, an abundant literature on the link between racial threats and partisanship in the United States (Glaser 1994; Giles and Hertz 1994). In the past, the link between the Soviet threat and policy preferences has been amply demonstrated (Hirshberg 1993). The same is true for Quebecers (Blais and Gidengil 1993); using the present data as well, a simple model involving constitutional preferences (sovereigntist or federalist) as the dependent variable found anxiety to be significant.

adherence to the Communist party. Matthews and Prothro (1966, 293–93, 421–22) showed that both routine and nonroutine participation among blacks increased with optimism concerning the improvement of race relations. Von Eschen et al. (1969, 219–20) found that pessimism about the chances of desegregation retarded recruitment in the Freedom-Ride movement. In general, fatalism, despair, and hopelessness work against mobilization into collective action by both elites and the general population (Bell 1962, 31; Turner and Killian 1957, 432; Davis 1962, 7; Pinard 1971). More recently, Oberschall (1989) and Chong (1991) found support for the idea that past successes at obtaining collective goods have an effect on the dynamics of mobilization by increasing the prospect that future collective action will be fruitful.

What is new here is the suggestion of the way in which emotions and expectations work together to stimulate knowledge. Threat alone is not sufficient because it may cause one to withdraw. Hope alone is insufficient because it may lead to wishful thinking. Yet the combination of perceiving a threat to one's values or goals but having some hope of success can trigger increased information gathering. It does so by increasing the perceived importance of the subject. Thus, Marcus and MacKuen were correct in suggesting that threat can stimulate learning, but we have identified more fully the conditions and mechanisms under which that potential is likely to be realized.

Recognition of the role played by hope prompts us to close by reflecting on the link between emotions and democratic life. Marcus and MacKuen portray anxiety as contributing in a positive way to the functioning of political systems. "When politics makes people anxious, people sharpen their eyes and pay careful attention" (1993, 680–81), and "even periods of economic depression . . . activate people's emotional triggers and motivate their political attention" (681). Still more directly, "emotionality [including anxiety and enthusiasm] . . . enhances, rather than diminishes, the quality of democratic life" (672).¹⁶

Such may be true for the kind of transitory and (presumably) not-very-deep anxiety caused by the utterances of presidential candidates, especially for those who see some prospects for advancement in the near future. In some cases, however, anxiety is a long-standing psychological state, as when groups feel more or less permanently threatened by other groups. In such circumstances, hopelessness may accompany those feelings of threat, and increased anxiety is not likely to motivate greater political learning. If this view is correct, Marcus and MacKuen's conclusion about the role of

¹⁶Marcus and MacKuen also argue that anxiety "diminish[es] reliance on habit in voting decisions" (1993, 672). Our results do not speak to this part of their argument.

emotionality and democratic life needs to be qualified. Anxiety, if it enhances democratic life, must be accompanied by a feeling that betterment is possible. Threats alone will not do.

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APPENDIX

Question Wording and Variable Coding

Knowledge

Question 1: "In Quebec, in 1986, francophones represent what percentage of the total population: 92%, 84%, 61%, 54%, don't know?" (The correct answer is 84%.)

The highest proportion is an overestimate, but it is not far from the correct answer, and choosing it represents an awareness that a large majority of Quebecers are French-speaking. Empirically, there seemed to be little to distinguish those who chose 92 percent from those who were exactly on target. Hence, the two categories were combined and considered correct for purposes of our analysis.¹⁷

Question 2: "In Canada, in 1986, Francophones represent what percentage of the total population: 62%, 47%, 24%, 18%, don't know?" (The correct answer is 24%.)

Reasoning as above, we also considered 18% correct.

Question 3: "Which was the most recent law passed in Quebec on the matter of language: Bill 22, 50, 53, 65, 101, 178, don't know?" (The correct answer is Bill 178.)

Question 4: "The most recent law on language passed in Quebec was about: language in the workplace; the language of commerce and business; the language of commercial signs; access to English schools; don't know?" (The correct answer is language of commercial signs.)¹⁸

The variable was created by summing the number of correct answers (0 to 4). For

¹⁷The explicit mention of 1986 is a reference to the Canadian Census held that year. Census data are generally considered as the authoritative source of information about the linguistic situation in Canada. When circulated by the media, the year of the Census is noted most of the time.

¹⁸At the time of the survey, Bill 178—requiring outdoor signs in French only—was the most recent law. Since then, Bill 86—permitting bilingual outdoor signs if French is predominant—has been adopted.

the multivariate analysis, it was rescaled 0 to 1. Mean = .54; Standard deviation = .32.

Importance

"I think that all the debates about French in Quebec are useless: 0 = Strongly agree; 1 = Agree; 2 = Disagree; 3 = Strongly disagree."

"How do you react in general when, in convenience stores, restaurants, and shops, you are served only in English? 0 = Indifferent; 1 = Prefer, won't insist; 2 = Prefer and insist."

The two responses were summed and then rescaled 0 to 1. Mean = .47; Standard deviation = .29.

Anxiety (Threat)

"Would you say that the future of the French language in Quebec is: Secure, Uncertain, or Threatened?"

"Would you say that the future of the French language in Canada is: Secure, Uncertain, or Threatened?"

The response categories were coded 0 to 2, respectively. The variable was created by summing the two variables. The sum was then rescaled to range from 0 to 1. Mean = .49; Standard deviation = .38.

Hope (Expectation of Success) French is already a lost cause in Quebec. 0 = Strongly agree; .33 = Agree; .67 = Disagree; 1.0 = Strongly disagree. Mean = .67; Standard deviation = .33.

Level in school. 0 = High school (4th year); .33 = High school (5th year); .67 = College (1st year); 1.0 = College (2nd year). Mean = .49; Standard deviation = .36.

Expected diploma. 0 = Secondary; .33 = College diploma; .67 = Bachelor's (at university); 1.0 = Master's or doctorate. Mean = .65; Standard deviation = .29.

Gender. 0 = Female; 1 = Male. Mean = .47; Standard deviation = .50.

Parents' education. Sum of father's and mother's education. 1 = One or both parents are college-educated; 0 = All other responses. Mean = .54; Standard deviation = .50.

Watch news and public affairs. 0 = Do not watch television news and public affairs programs (volunteered); 1 = Watch news and public affairs program in either French or English. Mean = .89; Standard deviation = .32.

French as a fundamental right. "When I cannot speak French, I am deprived of a fundamental right." 0 = Strongly disagree; 1 = Disagree; 2 = Agree; 3 = Strongly agree. "To speak in French is not necessary to my personal development." 0 = Strongly agree; 1 = Agree; 2 = Disagree; 3 = Strongly disagree. Scores summed, then rescaled 0 to 1. Mean = .64; Standard deviation = .35.

Parents' birthplace in Quebec. Each parent coded 0 = Outside of Quebec; 1 = Quebec. Scores summed, then rescaled 0 to 1. Mean = .84; Standard deviation = .33.

Not abandon legacy of French. "We should not for anything in the world abandon our efforts to keep in Quebec the French language of our fathers." 0 = Strongly disagree; 1 = Disagree; 2 = Agree; 3 = Strongly agree. "If I have children, I think it will be more useful for them to attend an English-speaking school." 0 = Strongly agree; 1 = Agree; 2 = Disagree; 3 = Strongly disagree. Scores summed, then rescaled 0 to 1. Mean = .64; Standard deviation = .37.
Anxiety × Hope. Mean = .33; Standard deviation = .33.

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