

by guiding principles or overarching values. In contrast, Zaller proposed that attitude consistency is essentially a coincidental by-product of the process through which attitudes are acquired through social influence. Given the compelling evidence reported by these investigators, it seems likely that both processes operate to some extent.

EFFECTS OF POLITICAL EXPERTISE

As our work has illustrated, political expertise has numerous effects on political cognition. McGraw and Pinney reported that, as compared to political novices, political experts evidence more evaluative clustering of knowledge in memory and show a greater tendency to remember attitude-consistent information and to forget attitude-inconsistent information. Political experts are apparently better equipped to perform on-line evaluation of incoming information; novices are unable to do so and must therefore make judgments after information exposure based on what little they can recall. Expertise is associated with greater attitude stability in the face of potentially challenging new information, and experts are less likely to weigh newly acquired information especially heavily in their political evaluations.

Fiske, Lau, and Smith found that experts were quicker at reading new information, quicker at making decisions about that information, cognitively engaged in these processes, and better able to recall the information. Krosnick and Milburn highlighted the impact of expertise on opinionation. Compared to political novices, political experts are much more likely to form attitudes toward public policy options. And being high in political expertise reduces the impact on opinionation of factors such as cognitive sophistication and perceived system demand for opinionation. According to Kinder and Sanders' evidence, political experts are much less susceptible to the influence of policy issue framing. Experts provide their own frames and have highly solidified opinions on policy matters, whereas novices lack frames of reference and adopt whatever frame is most available at the moment of judgment. Judd and Downing showed that political experts are the most likely to show enhanced belief consistency as the result of repeated thought because experts are more prone to possess abstract ideological or value-based principles that organize these beliefs.

Zaller illustrated that political experts are more likely than novices to attend to and be influenced by the messages sent by political reference groups. Zaller also found that political experts evidence less random measurement error in reports of political attitudes, reflecting either an enhanced ability to precisely express opinions or less short-term,

LESSONS LEARNED: A REVIEW AND INTEGRATION OF OUR FINDINGS

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Taken together, these articles have covered a great deal of intellectual territory by addressing a wide range of issues. We have seen explorations of attitude formation, attitude change, attitude expression, information acquisition, information retention, knowledge structuring in memory, and decision making. All of this work has enhanced understanding of these general phenomena, and it has highlighted many important and interesting effects of political expertise.

GENERAL PSYCHOLOGICAL PHENOMENA

This set of empirical work has illuminated many phenomena of interest to psychologists and political scientists who may have no particular interest in political expertise *per se*. For example, McGraw and Pinney showed that initial attitudes lead to enhanced recall of attitude-supportive information and decreased recall of attitude-inconsistent information. They also found that acquiring information with a specific goal in mind enhances "on-line" processing of that information and reduces evaluative clustering of knowledge in memory. Furthermore, a specific processing goal reduces the magnitude of the relation between the subset of information recalled later and a judgment based on the entire set of information.

Krosnick and Milburn illustrated that the number of opinions on government policy issues that an individual citizen forms is jointly determined by his or her perceptions of the political system, his or her location in social structures, and his or her psychological abilities and motivations. Kinder and Sanders demonstrated how the framing of a policy issue can dramatically alter the determinants of citizens' opinions on the issue. Judd and Downing and Zaller offered two different theories of the processes through which evaluative consistency between attitudes or beliefs develops. Judd and Downing argued that attitudes become more consistent with one another when an individual thinks about them frequently, as long as this thinking is structured

stochastic fluctuation in opinions as the result of situational priming. The latent attitudes that underlie survey responses seem no more stable over 4-year periods among political experts than among political novices, but experts' attitudes do change more than novices' do in response to systematic messages from reference groups.

Taken together, this evidence illuminates many ways in which expertise influences information acquisition, information retention, and attitude and belief formation and change. Many of these effects are conceptually related to effects identified by cognitive psychologists studying expertise in other domains, and none of the evidence reported here challenges any long-standing findings in that literature. But the present evidence does expand the horizons of our understanding in this area considerably. Perhaps most important, the articles published here are not confined to studying problem solving or performance, so their findings move in numerous new directions. Many of the present findings may also have important and useful applications in cognitive psychologists' study of problem solving.

DEFINING AND OPERATIONALIZING POLITICAL EXPERTISE

The investigations described in this volume operationalized political expertise in a variety of ways. In some analyses, Zaller and Kinder and Sanders concentrated exclusively on political knowledge. This approach can be justified by the assumption that a single latent factor underlies measures of political knowledge, political interest, exposure to political information, and behavioral participation in politics. Alternatively, this approach may be justified by the claim that any effects of interest, exposure, and behavioral participation are mediated by knowledge. Other articles here (Fiske, Lau, & Smith; Judd & Downing; Krosnick & Milburn; McGraw & Pinney) combined measures of political knowledge, political interest, exposure to political information, and behavioral participation in politics into a single composite factor. This approach again presumes that these dimensions all reflect a single underlying latent construct.

The evidence reported by Fiske, Lau, and Smith, Krosnick and Milburn, and Zaller challenges these assumptions. Specifically, these authors showed that knowledge, interest, exposure, and behavioral participation sometimes have independent effects on some phenomena. For example, Krosnick and Milburn showed independent effects of all four components on political opinionation and found that interest and exposure interact in determining opinionation. Fiske, Lau, and

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Smith showed independent effects of knowledge, exposure, and interest on information acquisition speed, as well as on other aspects of information-processing agility. And Zaller found independent effects of interest and knowledge on attitude crystallization. Taken together, this evidence indicates that the various dimensions of political expertise considered here may each have unique impacts via unique mechanisms. Thus, investigators should recognize the possibility that these dimensions can sometimes function as distinct factors.

This is not to say that the sole use of a political knowledge measure is problematic; rather, we must simply acknowledge that findings regarding political knowledge alone cannot necessarily be generalized to other dimensions of expertise. Similarly, combining measures of knowledge, interest, exposure, and behavioral participation into a single factor is not necessarily problematic. Rather, we must recognize that such a factor's effects should be conceptualized as the effects of the *confluence* of these various dimensions of expertise. It would be inappropriate to assume that the effects of the single composite factor are also necessarily the effects of any one of its constituents.

This evidence also does not contradict Zaller's claim that measures of political knowledge are the most efficient for identifying the effects of expertise. He showed that the impact of knowledge on many psychological phenomena almost always exceeded its competitors (Fiske, Lau, and Smith reported similar evidence). These findings do not contradict the claim that these competitors sometimes have independent effects over and above the effects of knowledge. Thus, when an investigator is forced to use only one dimension of expertise, knowledge seems likely to be the most potent on average. But it would be inappropriate to generalize from knowledge to other dimensions. And if a researcher is able to examine more than one dimension, the evidence at hand suggests that doing so is preferable.

LEVEL OF GENERALITY

At what level of generality should political expertise be operationalized? McGraw and Pinney's evidence is quite compelling on this point: Political expertise should be conceptualized at a variety of different levels of generality. Perhaps their most important finding in this regard is that knowledge about politics in general (such as knowing how many years a U.S. senator's term in office lasts) was uncorrelated with domain-specific knowledge about tax laws. This is consistent with other evidence revealing near-zero correlations between general political involvement and the personal importance of various specific

policy subdomains (see Krosnick, 1990). Thus, general political expertise is clearly conceptually independent from domain-specific expertise. McGraw and Pinney's evidence also indicates that these two levels of expertise have quite different effects on psychological phenomena, a result that is compatible with findings reported by Iyengar (1986; though see Zaller, 1986). This clearly argues for studies of political expertise at many levels of generality.

IMPLICATIONS FOR FUTURE RESEARCH

Our findings document many interesting and, in some cases, new effects of expertise. An important focus for future research should therefore be replicating these latter findings and exploring their generality across contexts and operationalizations. More work must also be done to clarify the nature and extent of differences between general political expertise and domain-specific expertise. Third, more research must be done to highlight specifically when and why the dimensions of expertise explored here have independent effects on psychological phenomena. Finally, future work should explore the origins of political expertise and the relations of expertise to many other phenomena relevant to political psychology. Thus, the future of research on political expertise has the potential to be quite rich and multifaceted.

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