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National Images as Integrated Schemas: Subliminal Primes of Image Attributes Shape Foreign Policy Preferences

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International Image Theory (IIT) suggests that individuals maintain holistic images of other countries that are akin to schemas, or stereotypes, and that these national images shape both attitudes and foreign policy preferences. Previous research has manipulated national images via explicit descriptions of fictitious countries and found initial evidence for such effects. Here we extend this research and investigate whether (1) priming subliminal associations of a real country with image-specific adjectives leads individuals to endorse such an image for that country, and whether (2) the endorsement of national images mediates observed effects on foreign policy preferences. We first demonstrate that the perception of a nation's power can be experimentally manipulated via associative implicit priming (pilot study). In Experiment 1, we then found that participants who were subliminally primed with adjectives pertinent to the ally, enemy, or dependent image of a country evaluated the country on the National Image scale (Alexander, Brewer, & Hermann, 1999) in a manner consistent with the prime. Experiment 2 further showed that induced national images mediate priming effects on foreign policy preferences.

KEY WORDS: National Images, schemas, foreign policy preferences, associative implicit priming

The typical American is not very knowledgeable about U.S. politics. The average score on the seven domestic politics questions in Pew's November 2011 News IQ survey was just 62%. Only 56% could identify John Boehner as the speaker of the U.S. House of Representatives, and just 47% could identify the "Chief Justice of the Supreme Court, John Roberts," as "conservative" rather than "liberal" or "moderate" (Pew, 2011, pp. 18, 16).

Americans are not very knowledgeable about foreign countries either. The average score on the eight international politics questions in Pew's 2011 survey was just 60%. For instance, just 57% could correctly identify Israel on a simplified map of the Middle East—and Israel may be one of the most widely covered foreign countries in the U.S. media.

Yet Americans, both individually and collectively, maintain remarkably coherent and consistent attitudes towards foreign countries. At the individual level, feelings towards American friends like

Great Britain and Japan correlate at a very substantial r = .56 in the Chicago Council on Global Affairs' 2010 survey, while feelings towards former and latent foes like China and Russia also correlate substantially, at r = .53. Feelings towards Great Britain and China do *not* correlate highly (just r = .23), however. Individual Americans seem to know the difference between their friends and foes.

At the group level, longitudinal surveys reveal that mean American feelings towards specific foreign countries remain remarkably consistent across time, with the greatest warmth towards friends like Great Britain and Japan, and the greatest coolness towards foes like China and Russia.

How is this possible? How can Americans maintain such coherent and consistent attitudes towards foreign countries about which they know so little?

Previous scholarship has proposed that Americans, like people everywhere, hold national images of other countries (e.g., ally, enemy, colony, imperialist) that function as information-enhancing schemas activated by simple cues (Boulding, 1959; Herrmann, Voss, Schooler, & Ciarrochi, 1997). These national images help simplify the world, allowing Americans to maintain consistent international attitudes even in the absence of much knowledge about it. Building on this work, we utilize a novel subliminal priming technique to demonstrate that national images not only have a psychological reality, but that that they function as integrated schemas. National images, we further argue, shape how individuals perceive foreign countries and form their foreign policy preferences towards them.

We begin with a brief review of the literatures on elite cues and national images, before presenting the results of two experiments that investigated the schema-like nature of national images. They demonstrate that national images can be primed using subliminal cues and that they can shape actual foreign policy preferences. National images help people make sense of a world they know little about.

Elite Cues, the Media, and International Attitudes

The predominant explanation for the international attitudes of the American people in political science today is top-down: since they do not know much about foreign countries, the public's international attitudes must come from the external environment, specifically from political elites and/or the media. Following the influential work of John Zaller (1992) on the impact of elite cues on public opinion more broadly, Gelpi (2010) argues that an uninformed American public "must inevitably rely on cues that they receive from elites" (p. 108). Berinsky (2009) refines this elite cues line of reasoning, highlighting the role of partisanship: "Citizens support wars championed by politicians they trust and rebuff conflicts associated with politicians they reject" (p. 210).

Other political scientists give more weight to the media. Baum and Groeling (2010) counter the "conveyor belt" view of the media as faithfully transmitting elite cues, arguing instead that journalists have an independent role in shaping popular attitudes: "Citizens learn virtually everything they know about foreign policy from the mass media" (p. 2). Their "strategic bias theory" suggests that reporters, pursuing their own interests, add their own spin in reporting both news events and elite discourse.

Whether the focus is on political elites and/or the media, this top-down approach has not addressed the questions of why the American public appears to be so ignorant of topics widely covered in the media and hotly debated by partisan elites, like Israel, or how the American public appears to maintain coherent and consistent attitudes towards foreign countries that are not widely covered or debated, like Argentina.

International Image Theory

Image theorists in IR have complemented the predominant top-down approach to international attitude acquisition with a bottom-up psychological approach: Americans may not know much about many foreign countries, but, thanks to simplifying schemas, they do not need to. Boulding (1959) first

argued that national images help simplify a complex international environment. In his view, three dimensions are critical to the formation of national images: a nation's geographical space, its perceived hostility or friendliness, and the perceived strength or weakness of that nation. These three dimensions, he argued, shape strategic decisions and provide a parsimonious framework for the study of foreign policymaking.

Other scholars built on Boulding's initial insights, exploring how images are shaped and in turn shape decision-making processes in a variety of international settings and foreign policy domains (R. Cottam, 1977; Shimko, 1991). For instance, Cottam (1994, 2000) argued that while the *enemy* image is associated with a policy of containment, the *dependent* image is associated with an interventionist policy. She argued that U.S. intervention to overthrow the government of President Arbenz in 1954 Guatemala, as well President Kennedy's 1960 plan to invade Cuba following Castro's revolution, rested upon the dependent image that U.S. foreign policy makers had of these countries. U.S. officials perceived Guatemalans and Cubans as childlike and thus easy prey for the Soviet Union. In both cases, dependent images contributed to an interventionist foreign policy orientation.

By contrast, although the geopolitical conditions in Bolivia were similar to those in Guatemala and Cuba, the U.S. government did not intervene in the 1952 Bolivian revolution. Cottam (1994) argues that the Bolivian government managed to shape U.S. perceptions of the Bolivian revolution and avoid being seen as a *dependent* country.

In the early 1990s, the definition of national images became sharper, and its heuristic power clearer, with Herrmann and Fisherkeller's (1995) International Image Theory (IIT). In this framework, national images serve a necessary cognitive function by providing categories that allow people to make sense of the international environment and their position within it. Following the early work of Asch (1952) on integrated gestalts, and more recent work on schemas (Fiske & Taylor, 1991), Herrmann and Fisherkeller argued that national images operate as cognitive simplification devices organizing information into meaningful clusters of categories. They also filter information and structure foreign policy decision making.

Research on national images evolved alongside theories of stereotyping in social psychology. Early work treated national images in essentially the same way that stereotypes were understood in social psychology—that is, as a collection of traits that people associate with members of different groups (e.g., Gilbert, 1951; Karlins, Coffman, & Walters, 1969; Katz & Braly, 1933; Peabody, 1985; Schneider, 2004). In IIT, national images are largely thought of in the same way (Fiske & Taylor, 1991), but there are also resonances with the view of stereotypes as meaning-making devices (Yzerbyt, Rocher, & Schadron, 1997). National images, as stereotypes, are not simply summaries of the information that one has about a state in the international system. They are a way in which individuals make sense of the world and their place in it. As such, they both serve an information-reduction function and enrich our understanding of our bilateral relationships. They may simplify our views of the world, but they do so by adding interpretative elements that were not there in the first place.

International Image Theory posits that three dimensions of bilateral state-to-state relations determine which national image will be activated. First, image formation involves a judgment about goal compatibility: whether the other state is threatening, can be exploited, or represents an opportunity for mutual gain. Second, is the other state weaker, comparable in capability, or stronger? Third and finally, national images include a cultural judgment: how sophisticated is the other nation, and what norms is it likely to respect? Based on the configuration of these three judgments, IIT proposes five ideal-type images.

The *enemy* image involves a foreign country that is seen as threatening and comparable to one's own country in power capability and cultural sophistication, while the *degenerate* image refers to a foreign country that can be exploited and is similar in capability but suffering from cultural decay. A *dependent/colony* is appraised as weaker and inferior in terms of culture compared to one's own country and is seen as an opportunity to exploit. The *imperialist* image is the converse of the colony image: a foreign country that is threatening and with greater power capability and a superior culture to one's



own country. Finally, the *ally* image involves perceived mutual gains outweighing the importance of perceived capabilities or cultural judgments.

If these national images are indeed coherent, integrated schemas that individuals use to make sense of the world, they should be quickly activated after exposure to even a single piece of information that is characteristic of a specific image. In Herrmann et al. (1997, Experiment 1), participants first read a one-paragraph scenario describing a single component of the national image of fictitious country "A." They then answered questions pertaining to the two other components of the image. Participants performed significantly better than chance, suggesting that the attributes of national images were indeed interrelated. In a follow-up in which two of the three dimensions were given to participants, they performed even better in inducing the third dimension (Herrmann et al. 1997, Experiment 1A).

In a second study, Herrmann et al. (1997, Experiment 2) investigated how inducing an image of a fictitious country shapes the memory and interpretation of information provided about that country. Participants were told that they were citizens of country X and read a detailed description of country B designed to induce one of four national images. They were then asked a series of questions that examined their memory and interpretation of the information they had received. Results showed that participants used national images as simplifying schemas to fill out their mental constructions and produce coherent interpretations.

More recent empirical research also suggests that different national images are related to different sets of emotions and action tendencies (Brewer & Alexander, 2002), that the strength of one's social identity and social dominance orientation differentially shape the endorsement of national images (Alexander, Levin, & Henry, 2005), and that we are more likely to project our values onto allies than enemies (Eicher, Pratto, & Wilhelm, 2013). Furthermore, Alexander, Brewer, and Livingston (2005) have used the image framework to better understand intergroup relations outside the international context, exploring, for instance, interethnic relations (see also Bilali, 2010; Bilali, Celik, & Ok, 2014; Özkececi-Taner, 2012).

IIT thus constitutes a clear advance over earlier work on national images. It is more ambitious not only in its conceptualization of national images, but also in suggesting how integrated and powerful they are.

Empirical research in IIT, however, has lagged behind theorizing. First, while IIT has suggested that national images are more than a reflection of the structure of the international system, national images have often been manipulated by conveying information about the structural relations between nations, potentially introducing circularity. There is often substantial overlap between the descriptive scenarios used to manipulate national images and the subsequent measures of the images. This overlap may have inflated the intercorrelations among the variables (Schafer, 1997, 1999).

The use of lengthy written descriptions of image characteristics as primes also raises the question of just how easily and automatically these simplifying schemas can be activated. Do people need to be explicitly primed to activate national images in their thinking about foreign countries? And just how much information do people need to form a national image of a country?

Experiments using more subtle schema activations, such as subliminal primes, would provide stronger evidence for the schema-like nature of national images. Showing that national images can be primed subliminally would not only make a stronger case that national images act as simplifying schemas, it would also demonstrate that national images can be activated by subtle cues, an important applied finding. Can nations subliminally manipulate how foreigners perceive them?

To more fully demonstrate the validity of IIT, experiments in which the independent and dependent variables are more distinct are needed, as is a better understanding of the automaticity of the national images. One way in which social psychologists ensure the independence of their independent and dependent measures is by using subliminal primes as their independent variable. Psychologists have demonstrated that attitudes can be acquired through classical conditioning (Staats & Staats, 1958) and that attitudinal conditioning occurs on both explicit and implicit levels (Olson & Fazio,

2001). Staats and Staats (1958), for instance, found that the simultaneous presentation of national names (e.g., Dutch, Italian, etc.) and words of positive or negative valence (e.g., gift, bitter, happy, etc.) induced participants to evaluate national names in the expected positive or negative way. Furthermore, research on evaluative conditioning has shown that when an affectively neutral stimulus (a conditioned stimulus, CS) is associated with either a liked or disliked stimulus (the unconditioned stimulus, UCS), the CS acquired the same valence as the UCS with which it was associated (De Houwer, Thomas, & Baeyens, 2001). For instance, Custers and Aarts (2005) showed that neutral behaviors (e.g., "doing puzzles," "studying," "going for a walk") can be subliminally linked to positive affect, increasing desires to engage in those behaviors.

Building on this work on attitudinal conditioning, and seeking to further empirically validate IIT, we tested whether (1) subliminally priming associations between a country and image-specific adjectives would lead individuals to explicitly endorse the corresponding national image for that country and (2) whether induced national images mediate observed effects on foreign policy preferences. To do so, we first conducted a pilot study to test the efficacy of a subliminal associative priming technique in creating an association between a specific country and a specific national image dimension. Next, in two experiments, we assess whether subliminal priming can lead participants to endorse a specific national image for a country (Experiments 1 and 2) and whether the primed national images shaped foreign policy preferences (Experiment 2).

Pilot Study

The goal of the pilot study is to establish whether associative subliminal priming of one image dimension, the perception of a nation's power, can be used to shape explicit evaluations of the nation's power. Building on the literature on the classical and evaluative conditioning of attitudes, we devised a priming procedure aimed at creating a subliminal association between a real country, Argentina, and either high or low power-related adjectives. These adjectives were obtained from the descriptions of the ally and enemy images in the original image theory papers (Herrmann & Fischerkeller, 1995; Herrmann et al., 1997).

Two other countries, Brazil and Chile, are included as control groups in postmanipulation judgments of power capabilities. There was no associative subliminal prime of either country.

We chose to utilize Argentina, Brazil, and Chile for two reasons. First, we wanted countries that were, from an American perspective, comparable in geopolitical and cultural terms. Second, we wanted countries that the majority of our participants would not feel strongly about, either positively or negatively. We therefore looked at recent U.S. surveys about foreign countries (Harris Interactive, 2007). Sixty-four percent of Americans viewed Brazil as a close ally of or friendly towards the United States, with just 22% viewing Brazil as unfriendly or an enemy of the United States. Argentina and Chile showed similar levels of endorsement of the ally image, 46% and 42%, respectively. Levels of the endorsement of the enemy image were comparable to those of Brazil, 25% for Argentina and 22% for Chile. Americans, on average, feel neither positively nor negatively towards Argentina, Brazil, and Chile, making them better candidates for associative priming than, say, Israel, which conservative Americans feel extremely positively about (Gries, 2014, Chap. 8).

Method

Participants and Design

Sixty-nine undergraduate students at a private U.S. university participated; 23 were male and 46 were female. Participants were recruited through a departmental subject pool and were paid \$5 for



their participation. They were randomly assigned to one of three priming conditions (high power vs. low power vs. control).

Materials and Procedure

Upon arrival at the laboratory, participants were seated at a computer and asked to complete a "warm-up" task, which consisted of categorizing words. Forty-six names were presented on the screen one at a time, and participants were asked to decide whether it was a male (e.g., Mike, David, Jason: "/" key) or female (e.g., Sarah, Kate, Becky: "Z" key) name—as quickly as possible. The sequence of names was completely randomized.

Participants were not told, however, that embedded within the warm-up task was a subliminal associative prime of national power. A 250ms mask preceded and followed the presentation of the overt prime stimuli (the name), consisting of two words foveally presented next to each other for just 40 milliseconds—too fast for conscious awareness. The first word was always "Argentina," and a second word was a randomly selected word out of a list of six words, which varied depending on whether the condition was high power (able, powerful, strong, potent, capable, competent), low power (incapable, weak, powerless, incompetent, impotent, helpless) or neutral (table, chair, sing, carpet, sofa, lamp).

Upon completion of this "warm-up" categorization task (which actually involved the associative subliminal prime), participants were asked to explicitly evaluate each of our three countries, Argentina, Brazil, and Chile, on all 12 of the high and low power-related adjectives that were used during the associative priming task. All adjectives were assessed on 7-point scales (1 = not at all, 7 = very much).

Participants were then probed about the experiment. No participant reported any suspicions about the study prior to the debriefing. Even after the debriefing, no participant reported conscious awareness of the subliminal word primes during the name-categorization task. They were then further debriefed about the true nature of the study and dismissed.

Results

A composite measure of perceived power was computed by averaging scores on the high-power adjectives with the reversed scores on the low-power adjectives, separately for each of our three target countries. All three measures of perceived power showed high internal reliability, with Cronbach alpha > .85. A 3 (Condition) \times 3 (Country) ANOVA was performed on this composite measure of perceived power. Table 1 shows the means for this analysis. The effect of the prime was not significant, F(2,66) = 2.04, ns. The effect for country was significant, F(2,66) = 12.54, p < .001, and qualified by an interaction effect, F(4,66) = 6.65, p < .001. Means are reported in Table 1.

While the prime did not shape ratings of the power of our control countries, Brazil and Chile, it did for our subliminally primed country, Argentina, F(2,66) = 7.81, p < .001. Argentina was perceived as more powerful in the high-power condition (M = 5.34) than in the low-power (M = 4.42)

Table 1. Effects of Subliminal Primes on Explicit Perceptions of National Power (Pilot Study)

	Argentina	Brazil	Chile
High-power prime	5.34 _a (0.57)	5.02 (0.93)	4.68 (0.92)
Low-power prime	$4.42_{\rm b} (0.47)$	4.91 (0.72)	4.60 (0.73)
Control	4.71 _b (0.69)	5.07 (0.79)	4.59 (0.82)

Note. Means within each column with different subscripts differ at p < .05.



and control (M = 4.71) conditions. The low-power and control conditions did not differ, t(66) = -1.19, n.s. Specific contrasts were run between the high-power prime and the other two conditions and the low-power prime and the two other conditions. While neither of these contrasts was statistically significant for Brazil or Chile, they were for Argentina (ps < .001).

In short, subliminally associating Argentina with weak or powerful adjectives shaped explicit judgments of Argentina's power in the expected directions, without any spillover impact on judgments of the power of our two control countries, Brazil and Chile.

Experiment 1

Given the success of our subliminal associative priming technique in the pilot study, Experiment 1 tested whether more complex and multifaceted national images could be induced using a similar associative prime. While prior experimental research on images has used explicit and often lengthy descriptions of countries (usually fictitious) to prime national images, Experiment 1 sought to test whether subliminally priming the meaningful constellation of attributes that correspond to a national image could elicit an explicit association between the country and the corresponding national image. To this end, different combinations of adjectives representing the three dimensions of Goal Compatibility, Power, and Cultural Status were used to subliminally prime Ally, Enemy, and Dependent images. Adjectives were subliminally primed together with the word Argentina, using the same procedure utilized in Experiment 1. This time, however, the dependent variable was the explicit measure of national images developed by Alexander, Brewer, and Herrmann (1999). The goal of the experiment was to test whether explicit national images could be subliminally induced through the foveal presentation of individual adjectives related to the image, next to the country name, Argentina.

Method

Participants and Design

Eighty-one undergraduate students at a private U.S. university participated; 37 were male and 44 were female. Two participants were statistical outliers (*minus* 3 SD from the mean) on the composite score of the enemy image. While including these two observations in the dataset did not change the results, it was decided to eliminate them from further analyses. This decision is based on the assessment that they are error outliers (Aguinis, Gottfredson, & Joo, 2013), and is in line with current thinking about the importance of screening data to avoid undue influence of a few observations in statistical analysis (see McClelland, 2002; Tabachnick & Fidell, 2007). The average age of the participants was 19.5 years. They were offered \$5 for their participation and were randomly assigned to one of four experimental conditions: Ally, Enemy, Dependent, and control.

Materials and Procedure

The subliminal associative priming procedure again involved pairing Argentina with a series of adjectives, one at a time. The set of adjectives differed by condition. For instance, those participants randomly assigned to the *Ally* and *Enemy* conditions were both exposed to high-power (powerful, strong) and high-status adjectives (civilized, sophisticated). But those in the *Ally* condition were also exposed to high-compatibility adjectives (gain, benefit), while those in the *Enemy* condition were also exposed to low-compatibility adjectives (threat, loss). In the *Dependent* condition, high-compatibility



(gain, benefit), low-power (powerless, weak), and low-status (uncivilized, simple) adjectives were used. In the *neutral* control condition, the same list of names of common objects (e.g., chair) was presented next to the word "Argentina."

Explicit measures of these three national images adapted from Alexander, Brewer, and Herrmann (1999) followed this "warm-up" task. Each image was measured with five items, such as "Argentina values cooperative solutions to problems and tries to avoid conflict" (Ally); "Argentina's objectives are self-centered and harmful to others" (Enemy); "People in Argentina are quite naive; they mean well but need guidance and leadership from outside their country" (Dependent).

Results and Discussion

The internal reliabilities of each of the three sets of five national image items were satisfactory (Cronbach's alphas ranging from 0.66 to 0.87) and were thus averaged into composite scales for Enemy (M=3.76, SD=0.60), Ally (M=4.81, SD=0.75), and Dependent (M=3.58, SD=0.73). These scores were used as dependent variables and organized into the three levels of a within-participants factor (Image) in an ANOVA using Condition as a between-participants factor (Enemy, Ally, Dependent, and Control).

The ANOVA revealed a main effect of national image, F(2,74) = 60.77, p < .001, with the ally image endorsed more strongly overall than the enemy or dependent images. People may have a general tendency towards cooperation vis-à-vis relatively unknown countries, which would result in the endorsement of the ally image as a baseline judgment. It is also possible that the absence of a salient, nonfictional, conflict with the United States might have shaped participants' judgments and led them to endorse the ally image more strongly.

The main effect was qualified by an interaction, F(6,150) = 4.18, p < .001. As can be seen in Table 2, the pattern of mean scores is consistent with our hypotheses. Specific contrasts confirmed that (1) the explicit Ally image of Argentina was endorsed more strongly in the subliminal Ally-Prime (M = 5.21) than in the other conditions (M = 4.68) (p < .005); (2) the explicit Enemy image was endorsed more strongly in the subliminal Enemy-Prime (M = 4.07) than in the other conditions (M = 3.65) (p < .01); and (3) that the explicit Dependent image was endorsed more strongly in the subliminal Dependent-Prime (M = 3.89) than in the other conditions (M = 3.47) (p < .05).

To our knowledge, this is the first empirical evidence that subliminally created associations can shape the national images associated with a real country. The ally image was more strongly endorsed in the subliminal ally prime condition whereas the enemy image was more strongly endorsed in the subliminal enemy condition. In our view, this result constitutes an important step forward compared to earlier work, which relied upon explicit descriptions as primes to shape explicit assessments of national images. Internally coherent national images can be induced subliminally.

Table 2. Effects of Subliminal Primes on Explicit National Images (Experiment 1)

	Ally	Enemy	Dependent
Ally-prime	5.21 _a (0.62)	3.57 _b (0.59)	3.30 _b (0.66)
Enemy-prime	4.58 _b (0.48)	$4.08_{\rm a}\ (0.56)$	$3.46_{b} (0.76)$
Dependent-prime	4.73 _b (0.59)	$3.60_{\rm b}\ (0.73)$	$3.89_a (0.72)$
Control	4.74 _b (0.78)	$3.82_a (0.71)$	$3.70_a (0.84)$

Note. Means within each column with different subscripts differ at p < .05.



Experiment 2

Experiment 1 tested whether a specific national image of a target country could be induced by subliminally priming an association between that country and a constellation of adjectives that corresponded to the three components of the national image (Goal Compatibility, Power, and Cultural Status) as outlined in early international image theorizing. The pattern of results confirmed our expectations: When these sets of traits were associated through a subliminal priming procedure to the word "Argentina," participants were more likely to explicitly endorse the national image of Argentina (measured with the Alexander, Brewer, and Herrmann, 1999 scale) consistent with the subliminal prime.

This is an important finding for international image theory because it supports the idea that national images can be triggered by subtle, in this case subliminal, cues about individual characteristics of a country. Experiment 2 aims to extend these findings, testing whether subliminal primes can shape actual foreign policy preferences. It will also explore whether the direct effects of the subliminal primes of national image attributes (i.e., the foveally presented adjectives) on the explicit foreign policy dependent measure will be mediated by the induced explicit national images.

Like stereotypes in intergroup relations (e.g., White vs. Black Americans), national images are schemas that should contain much more than positive or negative valence or warm or cold feelings. Instead, they are "meaning-making" devices (Yzerbyt et al., 1997). To test this idea, Experiment 2 also included control conditions of both cooperation and conflict aimed at demonstrating the specific effect of image activation, ruling out the possibility that our findings might simply be due to priming affect. Specifically, we expect that the priming of cooperation and competition alone will not lead the same pattern of findings as the priming of the ally or enemy images.

Method

Participants and Design

One-hundred sixty-two undergraduate students at a private U.S. university participated; 51 were male and 111 were female. The average age of the participants was 19.9 years. They were offered \$5 for their participation and were randomly assigned to one of six experimental conditions: three national image conditions (ally vs. enemy vs. dependent) and three control conditions (neutral vs. cooperation vs. conflict).

Materials and Procedure

The subliminal priming procedure from the pilot study was again used, although the specific adjectives were changed slightly to enhance generalizability. Instead of selecting adjectives solely on the basis of the three dimensions as in Experiment 1, we built on the descriptions provided by Herrmann and colleagues (Herrmann & Fischerkeller, 1995; Herrmann et al., 1997), using six adjectives to prime Ally (strong, competent, united, organized, cooperative, and collaborative), Enemy (strong, competent, united, organized, competitive, hostile), and Dependent (vulnerable, inept, divided, naïve disorganized, incompetent). For the first two control conditions, cooperation and competition, only two adjectives were repeatedly used as primes: cooperative and collaborative in the cooperation condition and competitive and hostile in the conflict condition. As reported above, the same adjectives were also used in the Ally and Enemy prime conditions. The choice of using only two words in these control conditions was intentional, providing a strong test of whether the priming of an integrated national image is different from the priming of just cooperative versus competitive.



In the third control condition the exact same names of objects (e.g., chair) used in the pilot and experiment 1 were used as subliminal primes.

Following the implicit prime, national images were measured using the exact same explicit items used in Experiment 1. Participants were then asked to imagine being a U.S. foreign policy advisor and to consider the following scenario: "Imagine that Argentina, based on information provided by its intelligence service, decided to shoot down an American commercial aircraft, which had unexpectedly changed its route over the country. The plane crash caused the death of more than 200 American civilians. The U.S. Department of State reported that such changes were routine and should not have resulted in such a response by the Argentinean government. In response to the Department of State's declaration, Argentina publicly declared its 'right to national security.'" Participants then conveyed the degree of their support for three types of foreign policies—cooperation (e.g., intensified diplomacy), conflict (e.g., preparing American troops for possible mobilization to the region), and exploitation (e.g., cancelling aid to Argentina and demanding the repayment of loans)—each measured with three items on a 7-point scale (from "not at all" to "very much").

Results

The internal consistencies of the national images and policy preferences measures were adequate (Cronbach's alphas 0.65 to 0.68). Composite scores for Images (Enemy: M = 3.78, SD = 0.56; Ally: M = 4.06, SD = 0.51; Dependent: M = 3.77, SD = 0.65) and for Policy Preferences (Conflict: M = 2.53 SD = 0.98; Cooperation: M = 4.77, SD = 0.94; Exploitation: M = 3.45, SD = 1.27) were therefore computed. Correlations among these variables are reported in Table 3.

National Images

A 6 (prime) \times 3 (Image, within-participants) mixed-model analysis of variance was performed on these measures. Consistent with experiment 1, the main effect of national image was significant, F(2,155) = 8.90, p < .001, with the ally image was more strongly endorsed overall than any other image. This main effect was qualified by an interaction, F(10, 312) = 9.29, p < .001. The effect of the prime was significant on the Ally image, F(5,156) = 10.12, p < .001, the enemy image, F(5,156) = 9.67, p < .001, and the dependent image, F(5,156) = 4.09, p < .01. Table 4 also shows how within-prime comparisons of the three images are consistent with expectations and that the cooperation and competition primes did not lead to the same results as the image primes. The Ally image is lower in the Cooperation-prime compared to the Ally-prime, p < .001; and the Enemy image endorsed less in the Competition than in the Enemy-prime condition, p < .001.

Finally, neither the Ally nor Enemy image scores differed significantly between the conflict and cooperation conditions. This is an important finding because it testifies to the integrated nature of the

1. 2. 3. 4. 5. 6. 1. Ally 0.67 2. Enemy -0.460.66 3. Dependent -0.210.19 0.67 -0.204. Cooperation 0.38 -0.060.775. Conflict -0.160.23 0.02 -0.080.70 0.58 6. Exploitation -0.190.08 0.11 -0.120.81

Table 3. Internal Reliabilities and Correlations Among National Images and Foreign Policy Preferences (Experiment 2)

Note. Internal consistency reliability coefficients (Cronbach alpha) are reported on the diagonal. Bolded correlation coefficients are significant at p < .05.

	Ally	Enemy	Dependent
Ally-prime	4.45 _a (0.53)	3.59 _b (0.63)	3.79 _b (0.59)
Enemy-prime	3.67 _b (0.55)	$4.30_{\rm a} (0.63)$	3.61 _b (0.54)
Dependent-prime	4.09 _b (0.40)	3.57 _b (0.42)	4.16 _a (0.36)
Control - Neutral prime	4.15 _b (0.42)	$3.70_{\rm b}~(0.55)$	3.51 _b (0.94)
Control - Cooperation prime	3.92 _b (0.45)	3.61 _b (0.46)	$3.73_{\rm h} (0.53)$
Control - Conflict prime	4.01 _b (0.21)	$3.89_{h}(0.57)$	3.85, (0.53)

Table 4. Effects of Subliminal Primes on Explicit National Images (Experiment 2)

Note. Means within each column with different subscripts differ at p < .05.

national image dimensions, as opposed to the more general positive/cooperative *versus* negative/competitive relations control primes.

As in Experiment 1, specific contrasts confirmed that the explicit Ally image was endorsed more strongly in the subliminal Ally-prime (M=4.44) than in all the other conditions (M=3.96) (p<.001); that the explicit Enemy image was endorsed more strongly in the subliminal Enemy-prime (M=4.29) than in all the other conditions (M=3.65) (p<.001); and that the explicit Dependent image was endorsed more strongly in the subliminal Dependent-prime (M=4.16) than in all the other conditions (M=3.67) (p<.001).

Foreign Policy Preferences

A 6 (prime) \times 3 (Policy, within-participants) mixed-model analysis of variance was performed on support for the three foreign policy options (see Table 5). Two main effects were significant and qualified by a significant interaction, F(10,312) = 5.16, p < .001, revealing that the ally image and cooperation policies were more strongly endorsed overall compared to the other national images and foreign policies. The prime's effect was significant on the cooperation policy, F(5,156) = 9.51, p < .001, the conflict policy, F(5,156) = 2.84, p < .01, and (marginally) the exploitation policy, F(5,156) = 1.96, p = .09.

Table 5 also reveals that between-prime comparisons of the three policies were consistent with expectations and that the cooperation and competition primes did not lead to the same results as the image primes. The cooperation policy is lower in the Cooperation-prime compared to the Ally-prime, p < .001, and the conflict policy is marginally lower in the Competition-prime than in the Enemy-prime, p < .08. Finally, neither the cooperation nor conflict policies differed significantly between the cooperation and competition control conditions. This again supports the idea that national images cannot simply be reduced to positive versus negative affect towards a country, but are instead complex and multidimensional schemas.

Contrasts confirmed that the cooperation policy was endorsed more strongly in the subliminal Ally-prime (M = 5.61) than in all the other conditions (M = 4.54) (p < .001); that the conflict policy was endorsed more strongly in the subliminal Enemy-prime (M = 2.96) than in all the other

Table 5. Effects of Subliminal Priming Conditions on Foreign Policy Preferences (Experiment 2)

	Cooperation	Conflict	Exploitation
Ally-prime	5.61 _a (1.09)	2.41 _b (0.84)	3.25 _b (1.28)
Enemy-prime	4.34 _b (0.87)	2.97 _a (1.15)	3.71 _a (1.55)
Dependent-prime	4.63 _b (1.10)	$2.72_{\rm a}$ (0.86)	$3.89_a (0.92)$
Control - Neutral prime	4.49 _b (0.79)	2.34 _b (0.90)	3.33 _b (1.43)
Control - Cooperation prime	4.78 _b (0.60)	2.02 _b (1.18)	2.91 _b (0.96)
Control - Conflict prime	4.69 _b (0.76)	2.44 _b (0.87)	3.20 _b (0.93)

Note. Means within each column with different subscripts differ at p < .05.



conditions (M = 2.42) (p < .001); and that the exploitation policy was endorsed more strongly in the subliminal Dependent-prime (M = 3.89) than in all the other conditions (M = 3.34) (p < .02).

Mediational Analyses

Does the endorsement of the explicit national images mediate the effect of the subliminal attribute primes on the explicit foreign policy preferences?

Subliminal Enemy Prime \rightarrow Explicit Enemy Image \rightarrow Conflict Policy. Enemy image predicted conflict policy, $\beta = .22$, t(160) = 2.97, p < .01. We then dummy coded prime (enemy condition = 1; all other conditions = 0) and tested mediation with 5,000 bootstrap samples and 95% confidence intervals, using subliminal prime (enemy vs. other conditions) as the IV, explicit enemy image as the mediator, and explicit conflict policy as the DV (Hayes, 2012, model 4). The indirect effect was significant (boot coefficient = .18, lower CI = .0041, upper CI = .3653).

Subliminal Ally Prime \rightarrow Explicit Ally Image \rightarrow Cooperation Policy. Ally image significantly predicted cooperation policy, $\beta = .38$, t(160) = 5.22, p < .001. We again tested mediation with 5,000 bootstrap samples and 95% confidence intervals, using subliminal prime (Ally vs. other conditions) as the IV, explicit ally image as the mediator, and explicit cooperation policy as the DV (Hayes, 2012, model 4). The indirect effect was again significant (boot coefficient = .21, lower CI = .0869, upper CI = .3864).

Subliminal Dependent Prime \rightarrow Explicit Dependent Image \rightarrow Exploitation Policy. The explicit dependent image did not reliably predict exploitation policy. Accordingly, the meditational analysis, using 5,000 bootstrap samples and 95% confidence intervals, using prime (dependent vs. other conditions) as the IV, explicit dependent image as the mediator and exploitation policy as DV (Hayes, 2012; model 4) showed no mediation, indicated by the nonsignificant indirect effect (boot coefficient = .05, lower CI = -.0676, upper CI = .2142).

Discussion

Experiment 2 replicated the findings from Experiment 1, demonstrating that the subliminal priming of an association between a specific country (Argentina) and a constellation of adjectives that corresponded to a specific national image led participants to endorse the corresponding national image more strongly than other images. It also, however, revealed that the induced national image subsequently shaped foreign policy preferences in a manner consistent with the subliminal primes and national images.

Importantly, because of the inclusion of three different control conditions, Experiment 2 also ruled out the possibility that image endorsement was simply the result of positive or negative affect. Both the second hypothesis and the third, meditational, hypotheses, were supported. The enemy and ally primes shaped foreign policy preferences in a manner consistent with the national images, and these effects were mediated by the endorsement of the national images.

General Discussion

Americans do not know much about foreign countries like Argentina. Yet, even without political elites or the media telling them what to think about them, they can form coherent attitudes and policy preferences towards them. How is this possible?

Following in the International Image Theory (IIT) tradition, this article has argued that integrated national images act as simplifying schemas, allowing Americans to form coherent and consistent attitudes towards foreign countries even in the absence of much information about them. We further

argued that if images are indeed schemas, invoking one element of the schema should trigger the utilization of the entire schema. Specifically, subtle associations between certain countries and image-specific adjectives should lead individuals to endorse the entire image for that country. Finally, the endorsement of such images should mediate observed effects on foreign policy preferences.

The experiments presented here provide support for these hypotheses. The pilot study demonstrated that through an associative-priming procedure, specific traits could be subliminally linked to a country. Specifically, subliminally pairing (for just 40 milliseconds) the word "Argentina" with words like "able" and "powerful" *increased* explicit assessments of Argentina's national power, while having no spill-over impact on assessments of the national power of the control countries Brazil and Chile. Similarly, the subliminal pairing of "Argentina" with words like "weak" and "powerless" *decreased* explicit assessments of Argentina's national power.

Experiment 1 then demonstrated that the subliminal priming of an image-specific configuration of adjectives related to *power*, *goal compatibility* and *status* led to the explicit endorsement of the corresponding national image, assessed using established national image measures (Alexander, Brewer, & Herrmann, 1999; Alexander, Brewer, & Livingston, 2005). Specifically, pairing the word "Argentina" with words like "strong," "civilized," and "benefit" beneath the level of conscious awareness increased explicit endorsements of statements like "Argentina values cooperative solutions to problems and tries to avoid conflict" that captured the *ally* image, while subliminally pairing the word "Argentina" with the very slightly different constellation of adjectives like "strong," "civilized," and "loss" increased explicit endorsements of statements like "Argentina's objectives are self-centered and harmful to others" that captured the *enemy* image. We believe this finding makes a strong and unique case for the psychological existence of national images as integrated and easily activated schema.

Consistent with the idea that national images are "for doing," Experiment 2 showed that subliminally induced national images shaped not just participants' explicit national images, but also specific foreign policy preferences. For instance, subliminally pairing the word "Argentina" with words like "strong," "united," and "competitive" increased explicit endorsements of the enemy image, which in turn increased endorsement of statements tapping preferences for a foreign policy of conflict, such as "We should prepare American troops for possible mobilization to the region."

Subliminal Priming

The experiments presented here used subliminal associative priming. In our view, this method resolves two problems that likely occurred in previous experimental studies of national images and their effect on foreign policy choices. First, it avoids the problem of circularity and demand characteristics. If images are manipulated by providing extensive explicit, descriptive information about the target country, the relationship between the manipulation and the dependent variable may be too proximal. Using subliminal associative priming circumvents this problem because participants are not even aware of having been primed in any way.

Second, subliminal associative priming allows for the investigation of what we believe is the most interesting aspect of national images as simplifying schema, namely how the activation of just a few discrete attributes of the image triggers the adoption of the entire image, and even its utilization. The results of Experiment 2 are particularly interesting for they show that creating a subliminal association between a target country and a few discrete adjectives led to (1) the endorsement, at the explicit level, of the corresponding national image, and (2) support for precisely the type of foreign policy that image theory predicts would result from that image. We believe this to be an original and unique finding, which yields critical support for national image theories in general and to Herrmann and Fischerkeller's (1995) IIT in particular.

The present findings also add to the strong evidence accumulated by psychologists that our impression and assessment of a target or a situation, as well as our very behaviors, can be shaped by



stimuli that occur below the threshold of awareness (Bargh & Chartrand, 1999; Bargh & Morsella, 2008). An important example of this is the recent finding showing that subliminal exposure to the national flag influences (self-reported) voting behavior among Israeli citizens even one to two weeks after the experiment took place (Hassin, Ferguson, Shidlovski, & Gross, 2007). The evidence that we have presented here also speaks to the powerful effect of subliminal priming on an important aspect of our sociopolitical life, namely the images we hold of other countries.

This research demonstrates that a subliminal prime can shape the endorsement of an image at the explicit level. This is of importance for political psychology theory and for the understanding of international relations, for it clearly suggests the effect of subtle messages in shaping public opinion. It is also of interest, more broadly, for psychological theory because it creates further support for the idea that stimuli of which individuals are not aware influence their cognitive representation/schema, and through them their behavior. While there is abundant evidence of this latter phenomenon in other areas of social psychological research, the link between subliminal priming, explicit endorsement of the image, and behavior is a rather powerful demonstration of this phenomenon.

Images as Soft Power

National images fall under the category of "soft power," which Nye (2004) defined as "the ability to get what you want through attraction rather than coercion or payments. It arises from the attractiveness of a country's culture, political ideals, and policies" (p. 8). National images are part of a nation's strength, and they can influence a country's ability to build alliances and achieve international goals and objectives, over and above the role played by a nation's economic and military power (see also Aronczyk, 2008).

It is not surprising, therefore, that nations, like corporations (Manheim & Albritton, 1984), seek to manage their images—for both domestic and international audiences. Image manipulation can be used as a strategy to manage domestic opinion by encouraging positive reactions to elite foreign policy decisions (Parkhurst, 2004). And from Alliances Françaises to the Goethe-Institut to the Confucius Institute, great powers have long sought to promote their languages and cultures to encourage a more benign international image of their countries.

A benign image is particularly vital for rising powers like China, which face the prospect of counterbalancing collations among its neighbors and other great powers that fear its rise. The present research demonstrated that the national images of countries like Argentina can be subliminally manipulated. Argentina was chosen because Americans, on average, do not have strong positive or negative feelings towards it. By contrast, Americans have stronger feelings towards China (Gries, 2014, Chap. 9), the only state likely to challenge U.S. hegemony in the twenty-first century. Future research could explore whether subliminal primes can alter the national images that Americans hold towards countries like China. In other words, this study has shown that national images are malleable. Further research could explore the boundary conditions of this finding: We suspect that the national images of some countries may be less malleable than others.

Concluding Remarks

The findings presented here provide novel and strong support for the notion that national images have a psychological reality, that they function as integrated schemas, and that they play a role in the way in which individuals perceive foreign countries and form their foreign policy preferences towards them. By utilizing rigorous research designs with strong ecological validity, political psychologists can improve our understanding of how national images work, how they are shaped, and how they in turn shape attitudes and actual foreign policies. Future research could combine investigation of these

processes among lay people, as we did in our experiments, with case studies and empirical investigations among political elites, whose national images more directly influence foreign policy decision making.

In a globalized world in which information travels incredibly fast and social and political borders are increasingly porous, one may expect truths about pretty much everything to emerge more quickly than ever before and to be more easily shared. However, the opposite is also true: misinformation can spread more easily as well. The problem for twenty-first-century society is more about how to organize and interpret information, rather than how to obtain it. In such a world, a better understanding of the simplifying and organizing role of national images is sorely needed.

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REFERENCES

- Aguinis, H., Gottfredson, R. K., & Joo, H. (2013). Best-practice recommendations for defining, identifying, and handling outliers. Organizational Research Methods, 16, 270–301.
- Alexander, M. G., Brewer, M. B., & Hermann, R. K. (1999). Images and affect: A functional analysis of out-group stereotypes. *Journal of Personality and Social Psychology*, 77(1), 78–93.
- Alexander, M. G., Brewer, M. B., & Livingston, R. W. (2005). Putting stereotype content in context: Image theory and interethnic stereotypes. *Personality and Social Psychology Bulletin*, 31(6), 781–794.
- Alexander, M., Levin, S., & Henry, P. J. (2005). Image theory, social identity, and social dominance: Structural characteristics and individual motives underlying international images. *Political Psychology*, 26, 27–45.
- Aronczyk, M. (2008). "Living the brand": Nationality, globality and the identity strategies of nation branding consultants. *International Journal of Communication*, 2, 41–65.
- Asch, S. (1952). Social psychology. Englewood-Cliffs, NJ: Prentice-Hall.
- Bargh, J. A., & Chartrand, T. L. (1999). The unbearable automaticity of being. American Psychologist, 54(7), 462-479.
- Bargh, J. A., & Morsella, E. (2008). The unconscious mind. Perspective on Psychological Science, 3(1), 73-79.
- Baum, M. A., & Groeling, T. J. 2010. War stories: The causes and consequences of public views of war. Princeton, NJ: Princeton University Press.
- Berinsky, A. J. (2009). In time of war: Understanding American public opinion from World War II to Iraq. Chicago, IL: University of Chicago Press.
- Bilali, R. (2010). Assessing the internal validity of image theory in the context of Turkey—U.S. relations. *Political Psychology*, 31, 275–303.
- Bilali, R., Celik, A. B., & Ok, E. (2014). Psychological asymmetry in minority-majority relations at different stages of ethnic conflict. *International Journal of Intercultural Relations*, 43, 253–264.
- Boulding, K. E. (1959). National images and international systems. Journal of Conflict Resolution, 3(2), 120-131.
- Brewer, M. B., & Alexander, M. G. (2002). Intergroup emotions and images. In Mackie, D. and Smith, E. (Eds.). From prejudice to intergroup emotions: Differentiated reactions to social groups (pp. 209–225). New York, NY: Psychology Press.
- Cottam, M. (1994). Images and intervention: U.S. policies in Latin America. Pittsburgh, PA: University of Pittsburgh Press.
- Cottam, M. (2000). Enemy image. Washington, DC: American Psychological Association.
- Cottam, R. (1977). Foreign policy motivation: A general theory and a case study. Pittsburgh, PA: University of Pittsburgh Press.
- Custers, R., & Aarts, H. (2005). Positive affect as implicit motivator: On the nonconscious operation of behavioral goals. *Journal of Personality and Social Psychology*, 89, 129–142.



De Houwer, J., Thomas, S., & Baeyens, F. (2001). Associative learning of likes and dislikes: A review of 25 years of research on human evaluative conditioning. *Psychological Bulletin*, 127, 853–869.

- Eicher, V., Pratto, F., & Wilhelm, P. (2013). Value differentiation between enemies and allies: value projection in national images. *Political Psychology*, 34(1), 127–144.
- Fiske, S. T., & Taylor, S. E. (1991). Social cognition (2nd ed.). New York, NY: McGraw-Hill Book Company.
- Gelpi, C. (2010). Performing on cue? The formation of public opinion towards war. *Journal of Conflict Resolution*, 54(1): 88–116.
- Gilbert, G. M. (1951). Stereotype persistence and change among college students. *Journal of Abnormal and Social Psychology*, 46, 245–254.
- Gries, P. H. (2014). The politics of American foreign policy: How ideology divides liberals and conservatives over foreign affairs. Palo Alto, CA: Stanford University Press.
- Harris Interactive. (2007). Great Britain, Canada, Australia, Israel and Japan continue to be countries most widely seen as close U.S. allies. The Harris Poll. August 6.
- Hassin, R. R., Ferguson, M. J., Shidlovski, D., & Gross, T. (2007). Subliminal exposure to national flags affects political thought and behavior. *Proceedings of the National Academy of Sciences of the United States of America*, 104(50), 19757–19761.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.afhayes.com/public/process2012.pdf
- Herrmann, R. K., & Fischerkeller, M. P. (1995). Beyond the enemy image and spiral model: Cognitive-strategic research after the cold war. *International Organization*, 49(3), 415–450.
- Herrmann, R. K., Voss, J. F., Schooler, T. Y. E., & Ciarrochi, J. (1997). Images in international relations: An experimental test of cognitive schemata. *International Studies Quarterly*, 41(3), 403–433.
- Karlins, M., Coffman, T. L., & Walters, G. (1969). On the fading of social stereotypes: Studies in three generations of college students. *Journal of Personality and Social Psychology*, 13, 1–16.
- Katz, D., & Braly, K. W. (1933). Racial stereotypes of one-hundred college students. *Journal of Abnormal and Social Psychology*, 28, 280–290.
- Manheim, J. R., & Albritton, R. B. (1984). Changing national images: International public relations and media agenda setting. *American Political Science Review*, 78, 641–657.
- McClelland, G. H. (2002). Nasty data: Unruly, ill-mannered observations can ruin your analysis. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 393–411). Cambridge, UK: Cambridge University Press.
- Nye, J.S., Jr. (2004). Soft power: The means to success in world politics. New York, NY: Public Affairs.
- Olson, M. A., & Fazio, R. H. (2001). Implicit attitude formation through classical conditioning. *Psychological Science*, 12, 413–417.
- Ozkececi-Taner, B. (2012). From allies to frenemies and inconvenient partners: Image theory and Turkish-Israeli relations. *Perceptions*, *3*, 105–129.
- Parkhurst, J. M. (2004). The continuity of images from the dependent of the enemy to the rogue state: Iraq and North Korea's acquisition of deterrence capabilities. *Dissertation Abstracts International*, 65(8), DAI-A. (UMI No. AAT 3145794).
- Peabody, D. (1985). National characteristics. New York, NY: Cambridge University Press.
- Pew Research Center. (2011). What the public knows in words and pictures. Washington, D.C. November 7. Retrieved from http://www.people-press.org/files/legacy-pdf/11-7-11%20Knowledge%20Release.pdf.
- Schafer, M. (1997). Images and policy preferences. Political Psychology, 18(4), 813-829.
- Schafer, M. (1999). Cooperative and conflictual policy preferences: The effect of identity, security, and image of the other. *Political Psychology*, 20(4), 829–844.
- Schneider, D. (2004). The psychology of stereotyping. New York, NY: Guilford Press.
- Shimko, K. (1991). Images and arms control: Perceptions of the Soviet Union in the Reagan administration. Ann Arbor, MI: University of Michigan Press.
- Staats, A. W., & Staats, C. K. (1958). Attitudes established by classical conditioning. *Journal of Abnormal and Social Psychology*, 57, 37–40.
- Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics (5th ed.). Boston, MA: Pearson/Allyn & Bacon.
- Yzerbyt, V., Rocher, S., & Schadron, G. (1997). Stereotypes as explanations: A subjective essentialistic view of group perception. In R. Spears, P. Oakes, & N. Ellemers (Eds.), *The Social Psychology of Stereotyping and Group Life* (pp. 20–50). Cambridge, MA: Blackwell.
- Zaller, J. (1992). The nature and origins of mass opinion. New York, NY: Cambridge University Press.



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