

Implicit Attitudes toward an Authoritarian Regime

Rory Truex, Princeton University

Daniel L. Tavana, Princeton University

Existing research on public opinion under authoritarianism focuses on the deliberative half of cognition. Yet in psychology, implicit attitudes and subconscious associations are often viewed as foundational, the basis for explicit attitudes and behavior. This article adapts the well-known Implicit Association Test to study Egyptian citizens' attitudes toward President Abdel Fattah El-Sisi. Roughly 58% of respondents hold positive implicit attitudes toward Sisi. The data also allow for an investigation of attitude dissociation, whereby individuals hold distinct implicit and explicit attitudes toward a target object. Government employees and Coptic Christians are more likely to hold positive explicit attitudes toward Sisi but negative or neutral implicit attitudes. The correlation between explicit and implicit attitudes toward Sisi is weaker than found in comparable studies of democratic leaders, which provides evidence that self-presentational concerns are at work.

It is difficult to reliably assess public opinion in authoritarian regimes. While many dictators enjoy high levels of regime support on surveys, citizens living in these systems may be altering their responses out of fear or other social desirability biases (Arnold and Feldman 1981). Huang (2013) states this concern bluntly: "In a country without free speech, asking people to directly evaluate performance of leaders is like asking people to take a single-choice exam."

In the authoritarian politics field, this phenomenon is known as "preference falsification" (Kuran 1991, 1997). The key idea is that citizens' "private preferences" toward a regime might be distinct from their "public preferences," what they choose to actively voice to others. In aggregate, this means it can be difficult to tell how much the population supports the regime, which gives revolutions a surprising "now out of never" quality (Kuran 1991).

Social scientists have developed a number of indirect question techniques to reduce these desirability biases, including list experiments (Blair and Imai 2012; Corstange 2009; Imai 2011), randomized response techniques (Gingerich 2010; Zdep et al. 1979), and endorsement experiments (Blair et al. 2013; Bullock, Imai, and Shapiro 2011). The unifying logic of all three techniques is to obscure the respondent's truthful

answer from the researcher. In list experiments, a respondent rates her agreement with a number of statements and is randomly assigned to a treatment condition that includes a sensitive statement. Randomized response techniques, often employing a simple coin flip, require the respondent to answer truthfully only when one side of the coin is observed. In an endorsement experiment, a respondent is asked to rate her satisfaction with a given policy, and the endorsement of different actors is randomly assigned. Variance in levels of support across different endorsement treatments is taken as evidence of variance in support of the actors themselves, although this is never explicitly asked.

These techniques are promising avenues for public opinion research on authoritarianism (Frye et al. 2017), but we believe existing work misses an opportunity to probe deeper into attitude formation. Psychologists make a distinction between explicit attitudes, of which a person is consciously aware, and implicit attitudes, which may be subconscious. Neither should be considered more "valid" than the other. As Lane et al. (2007) describe, "The elusive 'true attitude' does not seem to exist. . . . It seems sensible to say that implicit and explicit attitudes are equally authentic possessions of their holders" (83–84). A key difference is that explicit attitudes are con-

Rory Truex (rtruex@princeton.edu) is an assistant professor of politics and international affairs and Daniel L. Tavana (dtavana@princeton.edu) is a PhD candidate in the Department of Politics at Princeton University, Princeton, NJ 08544.

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sciously endorsed, while implicit attitudes and associations may not be accepted (or even known) by the individual (Gawronski and Bodenhausen 2006).

Effectively all research to date on attitudes under authoritarianism has focused on the explicit half of cognition. Yet in psychology, implicit attitudes are often viewed as foundational, the basis for explicit attitudes and behavior itself. Affective, subconscious responses to stimuli occur well before more deliberative thinking and often influence that deliberation and subsequent decision making (Gawronski and Bodenhausen 2006, 2011). For this reason, we think it valuable to “bring implicit attitudes in” to the study of public opinion under authoritarianism. Building on the rich implicit attitude measurement literature in psychology (Greenwald, McGhee, and Schwartz 1998; Karpinski and Steinman 2006; Lane et al. 2007; Nosek, Greenwald, and Banaji 2007), we develop a Single Category Implicit Association Test (SCIAT) that measures attitudes toward Egyptian President Fattah El-Sisi using variance in reaction time to a categorization task (Karpinski and Steinman 2006). Existing survey evidence suggests Egyptian citizens have high levels of support for Sisi (Masoud 2014a, 2014b; Tadros 2014), but it is unclear whether this support is authentic or a product of falsification.

The SCIAT procedure is well documented elsewhere,¹ but in short, it involves having respondents sort a series of items into different categories as quickly as possible. For the Implicit Association Test (IAT) here, the respondents categorized images easily associated with Sisi together with “good” words and then repeat the task grouping Sisi with “bad” words. Easier, faster pairings are generally interpreted as more strongly associated than pairings that have slower responses. If a respondent takes longer in the sorting task in which “good” and “Sisi” are in the same group, this would be evidence of an implicit negative attitude toward President Abdel Fattah El-Sisi.

This basic protocol was implemented online with a sample of 810 Egyptian citizens in October 2016. The survey also included several explicit questions on regime support used in existing research on Egyptian public opinion. Combined, these measures allow us to assess (a) implicit attitudes toward Sisi, (b) the relationship between expressed explicit/implicit attitudes, and (c) the nature and determinants of attitude dissociation (Baron and Banaji 2006; Cunningham, Preacher, and Banaji 2001; Gawronski and Bodenhausen 2006, 2011; Greenwald, Nosek, and Banaji 2003).

Our core findings are as follows. First, and to our surprise, it appears that the Egyptian population in general has positive associations with the new dictator. Roughly 58% of respon-

dents had positive D-scores toward Sisi, which actually ties quite closely to his levels of explicit support on our survey—about 59%.² The number of respondents with stronger positive attitudes (40%) toward Sisi also exceeded those with stronger negative attitudes (25%).³ These estimates are higher than found in comparable studies of Barack Obama and Donald Trump (Arceneaux and Truex 2019; Nevid and McClelland 2010).

Second, these point estimates mask interesting variation at the individual level. The correlation between the explicit and implicit measure is positive but relatively weak ($r = 0.17$), which is common for more sensitive topics (Nosek 2005) and suggests widespread “attitude dissociation” (Gawronski and Bodenhausen 2006, 2011). About 19% of respondents appear to be engaging in what we term “classic attitude dissociation,” meaning that they voice positive explicit attitudes toward Sisi but hold negative implicit attitudes.⁴ Surprisingly, even more respondents (around 25%) appear to be doing the opposite—expressing negative attitudes toward Sisi but harboring positive implicit associations. We term this behavior “inverse attitude dissociation,” given that it is the opposite of standard expectations for authoritarian systems (Kuran 1991). The remaining respondents hold congruous positive (33%) or negative (22%) attitudes.

Third, certain individual attributes appear to be systematically associated with these different attitudinal patterns. Being a government employee or a Coptic Christian drives positive explicit support for Sisi but not positive implicit attitudes (Jiang and Yang 2016).⁵ Both groups have reason to voice support for the regime, even when they may not harbor positive subconscious associations with it. Islamists, who have been disproportionately repressed following the demise of the Muslim Brotherhood and Egypt’s fledgling democracy (Stacher 2016), hold more negative explicit and implicit attitudes. Liberals—individuals who voice support for secular democracy—display congruent positive explicit and implicit attitudes toward the dictator.

2. Note that these measures tap into different types of attitudes, so direct comparisons between them are somewhat misguided. IATs should not be used to validate or discredit an explicit question technique or vice versa.

3. These are individuals for whom the absolute value of the D-score exceeds 0.15. This effectively removes individuals who had IAT scores suggestive of attitude neutrality.

4. This concept is related to but distinct from preference falsification (Jiang and Yang 2016; Kuran 1991, 1997). Attitude dissociation describes a disconnect between expressed explicit attitudes and implicit attitudes, while preference falsification refers to the disconnect between expressed or “public” explicit attitudes and ones actual or “private” explicit attitudes. See fig. 1 and associated discussion.

5. This is consistent with Jiang and Yang’s (2016) study of preference falsification in China, which found large gaps between expressed and actual levels of support for the regime among public sector employees.

1. See the Project Implicit website (<https://implicit.harvard.edu/implicit/>) and Karpinski and Steinman (2006).

The broader purpose of the article is to demonstrate “proof of concept” for the IAT as an alternative sensitive question technique for measuring regime support in authoritarian systems. We join a growing body of research on implicit attitudes and political behavior. The evidence suggests that, in democracies, voters possess well-defined implicit associations with different candidates and parties (Ksiazkiewicz, Vitriol, and Farhart 2018; Nevid and McClelland 2010; Theodoridis 2017). These attitudes are predictive of future voting behavior, especially for undecided voters (Arcuri et al. 2008; Galdi, Arcuri, and Gawronski 2008). In democracies, explicit and implicit attitudes toward candidates, parties, and policy issues are generally well correlated ($r > .5$; see table 1 for a review; Gawronski, Galdi, and Arcuri 2015; Greenwald et al. 2009; Nosek 2005). Our study shows that in an authoritarian system, political constituencies can have distinct implicit attitudes toward

the regime, and this variation does not always map well to explicit measures of support. This dissociation provides evidence that self-presentational concerns may be at work, in ways they are not in the democratic setting.

ATTITUDES AND MEASUREMENT TECHNIQUES

In their simplest definition, attitudes are an association between a concept and an attribute. Positive attitudes map positive attributes to concepts or objects (“pretty” and “flower”), and negative attitudes the opposite (“ugly” and “bug”). Psychologists differentiate between implicit and explicit attitudes. Implicit attitudes are automatic, affective, and may influence an individual without awareness and intention (Banaji et al. 2001; Lane et al. 2007). Explicit attitudes are those that are cognitively available, endorsed, and “effortfully elaborated”

Table 1. Attitude Dissociation in Comparative Context

Topic	Type	Country	N	Imp-Exp <i>r</i>	Study
Pro-choice—pro-life	IAT	United States	212	.70	Nosek (2005)
Gore—Bush	IAT	United States	188	.66	Nosek (2005)
Obama—McCain	IAT	United States	3,884	.62	Friese et al. (2012)
Democrats—Republicans	IAT	United States	360	.62	Ryan (2017)
Gore—Bush	IAT	United States	176	.61	Karpinski, Steinman, and Hilton (2005)
Democrats—Republicans	IAT	United States	164	.59	Nosek (2005)
Gun rights—gun control	IAT	United States	185	.58	Nosek (2005)
Liberals—conservatives	IAT	United States	186	.56	Nosek (2005)
Unione—CdL	IAT	Italy	732	.54	Roccatto and Zogmaister (2010)
Coke—Pepsi	IAT	United States	223	.54	Nosek (2005)
Social programs—taxation	IAT	United States	168	.54	Nosek (2005)
Merkel—Steinmeier	IAT	Germany	1,220	.52	Friese et al. (2012)
Turkish ascension to EU	SCIAT	Italy	113	.51	Galdi et al. (2012)
Welfare policies	IAT	United States	1,865	.46	Hawkins and Nosek (2012)
US military base	SCIAT	Italy	129	.42	Galdi et al. (2008)
Self-esteem	SCIAT	United States	42	.38	Karpinski and Steinman (2006)
Obama	SCIAT	United States	78	.36	Nevid and McClelland (2010)
Leno—Letterman	IAT	United States	178	.36	Nosek (2005)
Whites—African Americans	IAT	United States	48	.29	Glaser and Knowles (2008)
Imprisonment—death penalty	IAT	United States	224	.29	Nosek (2005)
Soda flavors	SCIAT	United States	56	.27	Karpinski and Steinman (2006)
Sisi	SCIAT	Egypt	810	.17	Current study
Whites—Asians	IAT	United States	239	.16	Nosek (2005)
Whites—African Americans	IAT	United States	99	.12	Ziegert and Hanges (2005)
Thin—fat	IAT	United States	236	.10	Nosek (2005)
Whites—African Americans	IAT	United States	59	.04	Vanman et al. (2004)
Whites—African Americans	IAT	United States	140	.00	Heider and Skowronski (2007)
Females—males	IAT	United States	250	−.05	Nosek (2005)

Note. Topic area, type, country, number of observations, and the Pearson correlation coefficient between the Implicit Association Test (IAT) D-score and explicit attitudinal measures for a range of studies using implicit methods. The list of included studies is not meant to be comprehensive and focuses disproportionately on the political domain. EU = European Union; SCIAT = Single Category Implicit Association Test.

(Brauer, Wasel, and Niedenthal 2000; Gawronski and Bodenhausen 2006).

The standard approach in political science is to ask respondents to self-report their explicit attitudes in a survey or interview, often using quantitative scales. The assumption is that respondents have well-defined attitudes, understand the response options, and are willing and able to map their attitudes to the response options (Albertson 2011). The goal is to capture their “actual” explicit attitudes—their intentional and cognitively endorsed beliefs about a subject, object, or actor (see top section of fig. 1 for summary).

One concern is that these “expressed” explicit attitudes—what researchers get in response to a survey question—may substantially diverge from a respondent’s actual explicit attitudes. In authoritarian settings, where fear of political repercussions can lead to self-censorship, this disconnect between expressed or “public” explicit attitudes and actual or “private” explicit attitudes is known as preference falsification (Frye et al. 2017; Jiang and Yang 2016; Kuran 1991, 1997). Newer techniques, like list and endorsement experiments, seek to reduce this divergence by posing questions in a less direct manner, reducing the likelihood of social desirability bias.

The implicit approach aims to remove the attitude measurement from the respondent’s direct control and tap directly into her associations between concepts and attributes. The goal is not to measure “actual explicit attitudes” but implicit attitudes, which are conceptually distinct (Gawronski and Bodenhausen 2006). The most prominent instruments are the IAT and its variants (Karpinski and Steinman 2006), as well as the Go/No-Go Association Task (GNAT; Nosek and Banaji 2001) and Affect Misattribution Procedure (AMP; Payne et al. 2005). Both the IAT and GNAT rely on the assumption that associations affect the time one takes to complete cognitive tasks,

and thus variation in completion time can be used as a proxy for the attitudes themselves. In their original IAT grant proposal in 1994, Banaji and Greenwald describe the logic as follows:

Two categories of words are assigned to each of two response keys. Subjects are asked to rapidly press the right key whenever the stimulus word is *either* female-associated or pleasant in meaning, and the left key for words either male-associated or unpleasant in meaning. Through the course of a session, blocks of trials with the four combinations of category pairings and key assignments are intermixed. . . . The measure of implicit attitude . . . is the difference between latency with pleasant/male pairing versus pleasant/female pairing. To the extent that responding is faster with pleasant/female than with pleasant/male pairing, the latency-difference measure indicates greater positivity of the implicit attitude associated with female. (quoted in Lane et al. 2007, 60–61)

Beginning with Greenwald et al. (1998), the IAT procedure has been subjected to numerous validation tests and replication. The measurement has proved to have several desirable properties. First, IAT measures exhibit test-retest reliability—respondents’ attitude scores across multiple IATs prove relatively stable (Lane et al. 2007, 71). Second, the measure proves largely immune to respondent self-presentation and manipulation (Banse, Seise, and Zerbes 2001; Egloff and Schmukle 2002). Banse et al. (2001) find that when instructed to do so, respondents were able to express positive attitudes toward gay men on a self-report questionnaire but not on a homosexual-heterosexual IAT (Greenwald et al. 2009). Third, IAT measures are associated with behavior in many domains. In their meta-analysis of 122 research reports, Greenwald et al. (2009) find an average correlation coefficient of .27 between behavioral/judgment measures and IATs. The predictive power of implicit measures appears to exceed that of explicit measures in areas subject to social desirability concerns.⁶ In the political domain, recent evidence suggests that implicit attitudes play an important role in voting (Arcuri et al. 2008; Galdi et al. 2008; Ksiazkiewicz et al. 2018; Nevid and McClelland 2010; Ryan 2017; Theodoridis 2017), an area usually thought to be governed by deliberative thinking.

A growing body of research in social psychology investigates when and why individuals hold incongruous explicit and

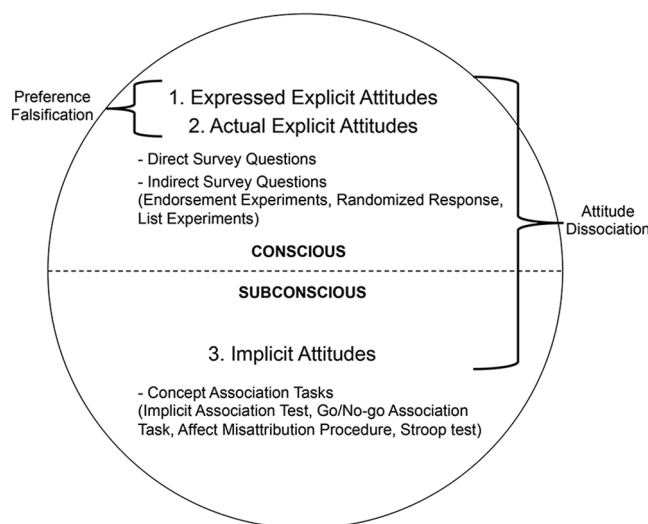


Figure 1. Attitude levels and measurement techniques

6. For example, more negative implicit attitudes toward African Americans predicted more negative nonverbal interactions with an African American confederate in an experiment (McConnell and Leibold 2001) as well as trustworthiness judgments (Stanley et al. 2011).

implicit attitudes, a phenomenon known as “attitude dissociation” (Cunningham et al. 2001; Gawronski and Bodenhausen 2006). Researchers have found evidence of distinct implicit and explicit attitudes within individuals toward a range of targets, including age (Greenwald et al. 2003) and race (Baron and Banaji 2006). The degree of dissociation varies by topic. In their investigation of 57 content domains, Hofmann et al. (2005) report an average implicit-explicit correlation of .24; Nosek (2005) finds an average correlation of .36 in a similar meta-analysis. Again, dissociation appears to be driven in part by self-presentation. Table 1 summarizes the results from several studies that compare implicit and explicit attitudes, focusing on the political domain. Implicit and explicit attitudes about socially disadvantaged groups show lower correlations ($r = .00$ to $.29$), while studies about specific democratic politicians, parties, and policies reveal much higher correlations (generally $r > .50$; Gawronski et al. 2015; Greenwald, Nosek, and Sriram 2006; Greenwald et al. 2009; Nosek 2005). This latter finding is consistent with the idea that expressing political preferences in democracies is not particularly sensitive.

Note that attitude dissociation is distinct from the preference falsification described by Kuran (1991, 1997) and others. The latter is an active masking of one’s actual, private attitudes in public expression—a difference between 1 and 2 in figure 1. As studied in the existing psychological literature, attitude dissociation is a difference between 1 and 3, a disconnect between one’s conscious and expressed attitudes and one’s subconscious associations with a target object.⁷ Because implicit attitudes can be more strongly related to behavior on sensitive matters (Greenwald et al. 2009), we believe this concept merits further attention in the study of authoritarian politics. The remainder of the article shows how the IAT can be used to measure implicit attitudes toward an authoritarian regime, using the case of Egyptian President Abdel Fattah El-Sisi.

BACKGROUND: THE EGYPTIAN POLITICAL CONTEXT

Egypt provides an interesting setting to explore the determinants of political attitudes. The country’s current authoritarian backslide can be traced to the events of the “Arab Spring.” On February 11, 2011, nationwide protests succeeded in forcing the end of Egyptian President Hosni Mubarak’s 30-year rule. Soon after, the Egyptian Supreme Council of the Armed Forces (SCAF) assumed power. After suspending

Egypt’s constitution, the SCAF announced its intent to govern the country through a transition to democracy that would include nationwide elections and the drafting of a new constitution, in that order.

Parliamentary elections were held from November 2011 to January 2012. The Muslim Brotherhood–endorsed list, the Democratic Alliance, won a plurality (47.2%) of seats in the legislature. In presidential elections held in June 2012, Islamists won again. After a close runoff, Mohammed Morsi, a Muslim Brotherhood leader, narrowly edged out Ahmed Shafiq, a former prime minister and commander of the Egyptian Air Force.

Despite several early successes, by November 2012 the Brotherhood’s popularity began to wane. Morsi’s increasingly authoritarian behavior, compounded by the Brotherhood’s paranoia and distrust of the military, crippled state institutions. Nationwide protests held on June 30, 2013, one year after Morsi’s inauguration, called for the president’s resignation. The next day, Minister of Defense Abdel Fattah El-Sisi issued an ultimatum on behalf of the Egyptian Armed Forces calling for a political settlement to the crisis. On July 3, Sisi deposed Morsi in a military coup and called for new elections.

After the coup, the Muslim Brotherhood called for counterprotests and sit-ins throughout the country. One of the largest sit-ins was held in Nasr City, Cairo, at Raba’a Al-Adawiya Mosque. Thousands of mostly Muslim Brotherhood supporters packed into the streets adjacent to the mosque calling for Morsi’s reinstatement. Less than two months after the coup, on August 14, the military raided the area, killing more than 800 protestors, an event Human Rights Watch (2014) described as “one of the world’s largest killings of demonstrators in a single day in recent history.”

The event punctuated a new normal in Sisi’s Egypt. Levels of repression in Egypt have exceeded those seen under Mubarak (Sowers 2015; Stacher 2016). According to some estimates, over 40,000 political dissidents were detained in the first year after the coup, compared to 14,000, at most, before the revolution (Teti, Matthies-Boon, and Gervasio 2014). The regime has threatened and employed sexual violence against detainees, conducted forced disappearances with impunity, and issued execution orders for thousands of political dissidents affiliated with the Muslim Brotherhood.

Despite the scale of repression, Sisi’s popularity initially soared after the coup (Masoud 2014b; Tadros 2014), driven by a wave of nostalgic nationalism, long-standing support for the military, and popular calls for a return to pre-2011 stability. “Sisi mania” quickly contributed to the rise of a powerful cult of personality: Sisi-themed songs, chocolates, T-shirts, and lingerie poured into the streets of major urban areas (Kingsley and Awad 2013). A face-to-face Gallup poll conducted in

7. It should be noted that another form of dissociation is the disconnect between 2 and 3. Most studies in psychology do not make the distinction between actual and expressed explicit attitudes, and any discussions of attitude dissociation effectively look at expressed explicit attitudes versus implicit attitudes. We have done the same in our article, as we believe it is difficult to measure actual explicit attitudes empirically in this context. This is a limitation of our study.

October 2014 found that Egyptians' economic outlook, life evaluations, and confidence in government improved markedly following the coup.

By early 2016, Sisi's veneer of invincibility began to crack, as several unforced errors embarrassed the regime. In April, the government announced it was planning to transfer sovereign control of two Red Sea islands, Tiran and Sanafir, to Saudi Arabia. In May, security forces stormed the Press Syndicate, prompting even state media to criticize the move and call for the minister of the interior's dismissal. A week later, EgyptAir flight 804 from Paris to Cairo disappeared, with 66 people on board (this followed the bombing of Metrojet Flight 9268 in October 2015).

Reliable assessments of the current level of popular support for Sisi have been difficult to obtain. Most of what we know about popular support for the regime has come from intermittent survey data and impressionistic journalistic accounts. A series of polls conducted by the Egyptian Center for Public Opinion Research since Sisi's inauguration have consistently confirmed high levels of popular approval, ranging from 79% to 91%. Others have questioned the endurance of Sisi's repressive bargain. Amid a steep economic downturn and a currency crisis, protests have increased substantially (Paul 2016). This mismanagement has forced the regime to neglect the very groups on which its survival depends: government employees, business elites, Copts, unions, and left- and secular-leaning political activists (Stacher 2016). It is unclear precisely how citizens from these groups feel about the new regime. The implicit approach can offer insight into this question.

SURVEY DESIGN

The SISI-SCIAT was administered online via Project Implicit's Online Platform. About 1,000 Egyptian citizens completed the survey in October 2016 after receiving an e-mail solicitation from a local marketing research firm. Within this group, 810 respondents had valid IAT scores. Table A1 (tables A1, A2 are available online) shows descriptive statistics in the SISI-SCIAT as compared to the Egyptian sample of the 2015 wave of the Arab Barometer project. We see that the SISI-SCIAT sample is more educated, younger, and male—which is typical of this sort of online panel. To improve representativeness, in the analysis we weight the data using entropy balancing, which ensures balance in the first moment between our weighted sample to the Egyptian sample from the Arab Barometer with computer access (Hainmueller 2012). While our nonprobability sample is not perfect, it represents an improvement over most IAT procedures, which are administered in computer labs at universities or tend to rely on convenience samples.

The survey includes questions that capture standard demographic variables: age, gender, education level, occupation,

household income, and religiosity, among others. It also includes a direct question (*direct.sisi*) on support for Sisi used in other surveys as well as a list experiment (*list.sisi*). The full questionnaire and Arabic translation is available in the appendix (available online).⁸

Respondents closed the survey by completing a SCIAT, using Sisi as the attitude object of interest. Note that the standard IAT procedure has two target attitude objects (white vs. black, old vs. young, Pepsi vs. Coke, etc.) and measures their differential association with a single attribute (Greenwald et al. 1998). The resulting measure places respondents on a bipolar scale (e.g., an implicit bias against black people relative to white people; Nosek et al. 2007). However, many attitude objects do not have natural reference points. In contemporary Egypt, for example, it is unclear precisely who Abdel Fattah El-Sisi's counterpoint would be. Former President Mohamed Morsi is the most logical choice, but he is currently imprisoned, and it is too sensitive to include his name—or the names of any other opposition figures—on any survey instrument. This issue is not Egypt specific. When assessing implicit attitudes toward authoritarian regimes or other political actors, the standard two-category IAT is often infeasible and inappropriate.

The SCIAT, developed by Karpinski and Steinman (2006), is a well-established alternative (1,500+ citations to date) that measures the strength of associations for a single attitude object. Recent studies have found a strong connection between implicit attitudes measured in a SCIAT with candidate and party preferences (Galdi et al. 2008; Nevid and McClelland 2010).

Table 2 provides an overview of the SCIAT procedure used in this article. Each individual item presented is considered a single trial. In the first two blocks of trials (one practice with 48 trials and one test with 48 trials), respondents place “good” words and Sisi images in the same group by pressing the E key on their keyboards. “Bad” words are sorted into a separate category using the I key. In the second set of the trials, “bad” and Sisi images are sorted into the same I group, and “good” is sorted by itself using the E key. As is standard practice, the order was reversed for half the participants (4_b and 5_b administered before 2_a and 3_a) to avoid biases induced by fatigue, learning, and so forth. This order is randomly assigned. Respondents were told to complete each sorting trial as quickly

8. The text of the direct support question (*direct.sisi*) is as follows: “P1. In your opinion, do you approve or not approve the performance of Abdel Fattah El-Sisi as President? (Highly approve; Approve; Disapprove; Highly disapprove; Don't know; No answer).” The text of the list experiment (*list.sisi*) is as follows: “P2. Take a look at this list of politicians and tell me for how many you generally support their activities: (Gamal Abdel Nasser; Anwar Sadat; Hosni Mubarak; Abdel Fattah El-Sisi (randomly included for 50% of respondents)).”

Table 2. SISI-SCIAT Block Ordering

Block	Trials	Function	Left-Key Response	Right-Key Response
1	20	Practice	Good words	Bad words
2 _a	48	Practice	Good words + Sisi images	Bad words
3 _a	48	Test	Good words + Sisi images	Bad words
4 _b	48	Practice	Good words	Bad words + Sisi images
5 _b	48	Test	Good words	Bad words + Sisi images

Note. Blocks with a common subscript experienced as one continuous block. Table amended from Karpinski and Steinman (2006).

as possible. Respondents who pressed the wrong key (an error response) saw a large red X and had to click on the correct answer before proceeding to the next trial.

Figure 2 provides a screenshot of the SISI-SCIAT as it appeared to respondents, and figure 3 illustrates the directions preceding blocks 2_a and 3_a. The images of Sisi used are shown at the end of the questionnaire in the appendix. These images were chosen to be representative of Sisi’s presidential persona. More information on error rates, trial latencies, and completion times is available in figures A3–A5 (figs. A1–A5 are available online). These distributions fall in the normal range for IATs.

The Project Implicit platform records the time (in milliseconds) it takes a respondent to complete each trial, which in aggregate provides a measure of her implicit association be-

tween the target object (Sisi) and the different word sets (“good” and “bad”). The primary output is the standardized difference in average reaction times across the two test blocks, also known as the D-score. This project will use the SCIAT formula employed by Karpinski and Steinman (2006), adapted from Greenwald et al. (2003):

$$\text{implicit.sisi}_i = \frac{\bar{X}_i^B - \bar{X}_i^G}{SD_{X_i}} \quad (\text{D - score})$$

Here, the D-score for individual *i*, implicit.sisi_{*i*}, is calculated by subtracting the mean reaction time for all nonpractice trials with the Sisi-Good grouping (block 3_a) \bar{X}_i^G from the mean reaction time for the nonpractice trials with the Sisi-Bad grouping (block 5_b) \bar{X}_i^B and dividing by the standard deviation for all response times within both blocks SD_{X_i} . Following the recommendations of Project Implicit, for each respondent, we eliminate responses less than 400 milliseconds and greater than 10,000 milliseconds. For the analysis, we eliminate respondents who had more than 10% of their trials under 400 milliseconds or had a higher than 30% error rate (likely “click-through” respondents). Large D-scores indicate greater positive implicit associations with Sisi. For some analyses, we use a binary measure, implicit.sisi.bin, which takes a value of 1 if implicit.sisi > 0 and 0 if implicit.sisi ≤ 0.

IAT RESULTS

Figure 4 shows the distribution of the D-score measure, implicit.sisi. Again, positive values indicate that the respondent found it easier to sort positive words with the images of Sisi. The distribution is approximately normal but centered above zero ($\bar{X} = 0.0548$, $SD = 0.293$). About 58% of respondents

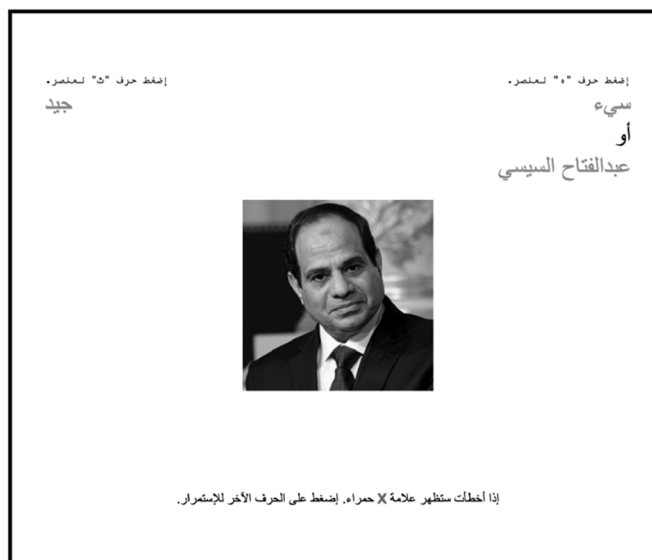


Figure 2. SISI-SCIAT screenshots

Directions Part I	
Next, you will use the “e” and “i” computer keys to categorize items into groups as fast as you can. Below are the three groups and the items that belong to each. Please take a moment and read the exemplars carefully before you begin.	
Sorting Task Part I	
Good	Bad
or	
President Abdel Fattah El-Sisi	
Good – beautiful, nice, honest, cheerful, excellent, happy, joyful, pleasurable/enjoyable, smiling, superb, kind/generous	
Bad – angry, brutal, destructive, corrupt, dirty, scary, mournful, nasty, terrible, sad, sick	
President Abdel Fattah El-Sisi – six images	

Figure 3. Core SCIAT procedure

have implicit.sisi scores greater than zero.⁹ The point estimate does not change appreciably when we weight the data to better tie to the Arab Barometer sample with computer access. Conventional interpretations of the IAT label D-scores between -0.15 and 0.15 “neutral,” not positive or negative. Under this standard, 40% of respondents have positive implicit attitudes toward Sisi, and 25% have negative associations with the dictator.¹⁰

Figure 5 shows this point estimate and those generated by the two other measurement strategies included in the survey—the direct question direct.sisi and list experiment list.sisi. The unweighted direct question estimates that the proportion of Sisi supporters in the population is about 52%. Note that this is lower than estimates generated from other surveys, which have put the estimate at about 79%. Some of this difference is

9. One early criticism of the IAT is that it is unclear whether the zero point of the D-score metric reflects attitude neutrality (Blanton and Jaccard 2006). In response, Greenwald et al. (2006) recommend a validation test, which entails regressing an explicit attitude measure on the D-score and assessing whether the intercept is statistically different from zero. The underlying logic is that for the property of zero point neutrality to hold, neutral attitudes on an explicit measure should roughly correspond with D-scores of zero. We have replicated this test for our SCIAT, and our results are consistent with what Greenwald et al. find with the two-category IAT. Despite the high power of the regression analysis, the statistical test of the regression intercept’s (0.009645) deviation from zero was nonsignificant ($t = 0.269$).

10. We deviate from this conventional interpretation of the D-score because we believe the use of 0 as the threshold between positive and negative implicit attitudes (rather than deeming anything between -0.15 to 0.15 “neutral”) is more intuitive. Our explicit measure does not have a neutral category, and it would be difficult to interpret the implicit measure with a neutral category and an explicit measure without.

probably due to differences in the samples, although it is also possible that Sisi’s support has declined over time. When we use the entropy weighted data, the point estimate increases to about 58%.

The list experiment presents a slightly different picture, but the measures are less precise. The unweighted point estimate is 35%, and the weighted estimate is about 63%. The confidence intervals are quite wide for both. This is in part a function of the fact that only two-thirds of respondents saw the list experiment question, but list experiments in general have larger standard errors due to the difference of means setup (Blair and Imai 2012; Corstange 2009; Imai 2011).

Again, we are hesitant to make too much of these estimate comparisons, as implicit (measured by the IAT) and explicit attitudes (measured by the direct questions) are fundamentally distinct concepts. Overall, we can conclude that with both explicit and implicit measures, the majority of Egyptian citizens in our survey showed positive attitudes toward the dictator.

Note that this positive estimate is not an artifact of implicit measurement or the SCIAT itself. In a related online SCIAT study conducted in the summer of 2017, only 35% of American citizens ($n = 393$) held positive (D-score > 0) implicit associations with Donald J. Trump (Arceneaux and Truex 2019). The average D-score was well below zero ($\bar{X} = -0.106$, $SD = 0.370$).¹¹ Nevid and McClelland (2010) report findings of a SCIAT administered in the fall of 2008 to Catholic university students ($n = 78$) that measured implicit attitudes toward Barack Obama. The average D-score was also below zero ($\bar{X} = -0.025$, $SD = 0.39$), implying that about 48% of the students had positive implicit associations with Obama.¹²

APPLICATION: UNDERSTANDING ATTITUDE DISSOCIATION

While the SCIAT can provide point estimates of the fraction of respondents with positive implicit attitudes, we believe the more promising area of inquiry is to examine the interplay between explicit and implicit attitudes. Figure 6 compares the implicit.sisi measure against the direct.sisi measure—the latter jittered to better show the distribution of individual data points.

There is a weak positive correlation ($r = 0.17$) between the two variables. In psychology, correlations of this magnitude

11. Using the conventional standard (D-scores with absolute values less than 0.15 are labeled “neutral”), the number of citizens with strong negative implicit associations with Trump (D-score < -0.15) was 48%. The comparable statistic for the Sisi SCIAT was 25%.

12. This 48% statistic is not reported by Nevid and McClelland (2010); we imputed it using the z -score from a standard normal distribution.

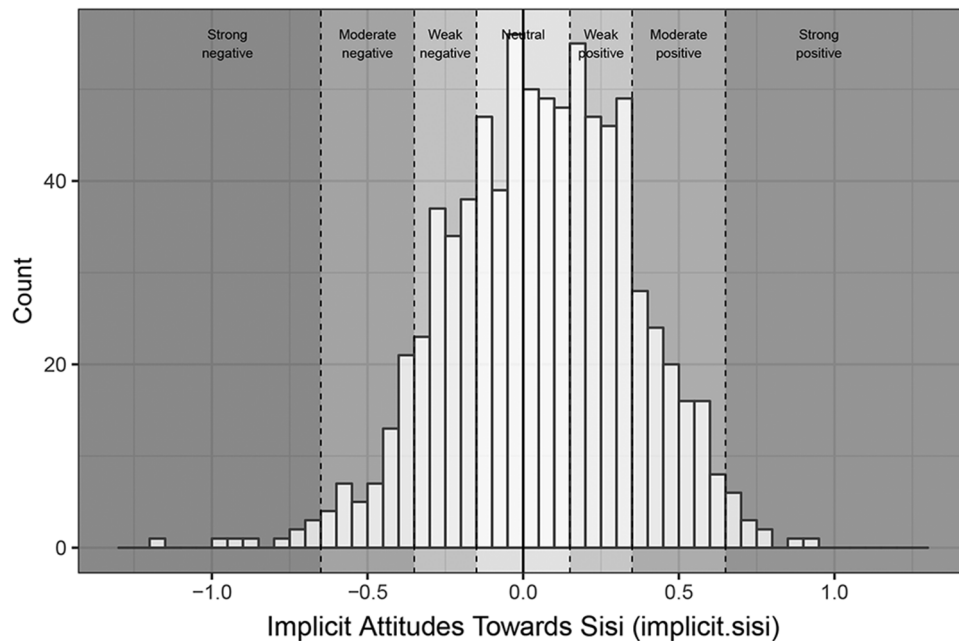


Figure 4. Distribution of D-score. Unweighted histogram of *implicit.sisi* as measured by the SISI-SCIAT survey of Egyptian citizens. Positive values indicate positive implicit attitudes toward President Abdel Fattah El-Sisi. The strong, moderate, and weak cutoffs reflect existing practices in the IAT literature.

are quite common (Hofmann et al. 2005; Nosek 2005) and are taken as evidence of attitude dissociation—when individuals hold incongruous explicit and implicit attitudes. Dissociation occurs when a person’s more deliberative reasoning overrides her automatic associations with a target object (Gawronski and Bodenhausen 2006, 2011). What’s interesting is that this correlation is much weaker than typically found in studies of implicit political attitudes in democracies (see table 1 for a summary). It makes sense to observe dissociation in the Egyptian case, as the expressive environment is quite repressive, and political loyalties are less reified.

Note that measurement error plays a role in the weak correlation in figure 6. IATs are inherently noisy. That said, all studies using the IAT confront the same noise issue, and others have found much stronger correlations between implicit attitudes and explicit attitudes. It is possible that something about our Egypt IAT caused our implicit measure to have more measurement error than comparable IATs conducted in the United States. We have no reason to believe this to be so, given that (a) our error rates and response latencies are within a normal range (see the appendix) and (b) our IAT was built and administered by Project Implicit. We believe the lower correlation relative to comparable IAT studies is more a product of the political environment in Egypt than an artifact of our IAT design.

A full 19% of respondents gave positive explicit ratings of Sisi yet yielded negative D-scores on the IAT portion of the survey (*implicit.sisi* < 0). We term this “classic dissociation”

because it accords with expectations for political expression under authoritarianism (Kuran 1991, 1997). Even more respondents fall in the opposite category—roughly 25% show “inverse dissociation,” expressing low support for Sisi in the explicit question *direct.sisi* but having positive values for *implicit.sisi*.

Rather than postulate hypotheses in advance, we engage in exploratory analysis to identify the determinants of these

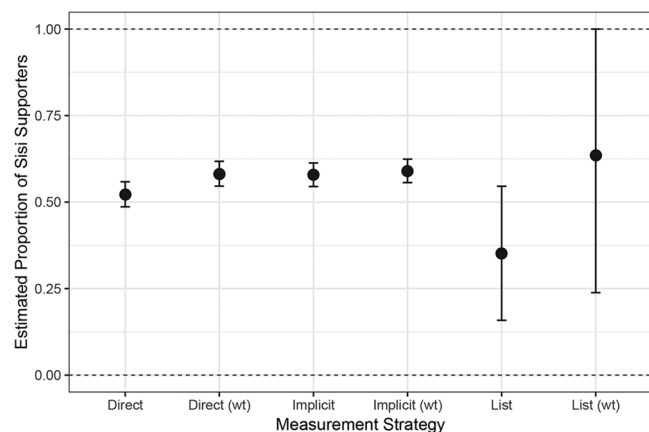


Figure 5. Point estimates. Different estimates of support for Egyptian President Abdel Fattah El-Sisi as measured by the SISI-SCIAT survey of Egyptian citizens. Both the direct measure and implicit measure are collapsed into binary variables (*direct.sisi.bin* and *implicit.sisi.bin*). Both unweighted estimates and estimates using data weighted to tie to the most recent Egypt Arab Barometer sample with computer access are shown. Error bars represent 95% confidence intervals.

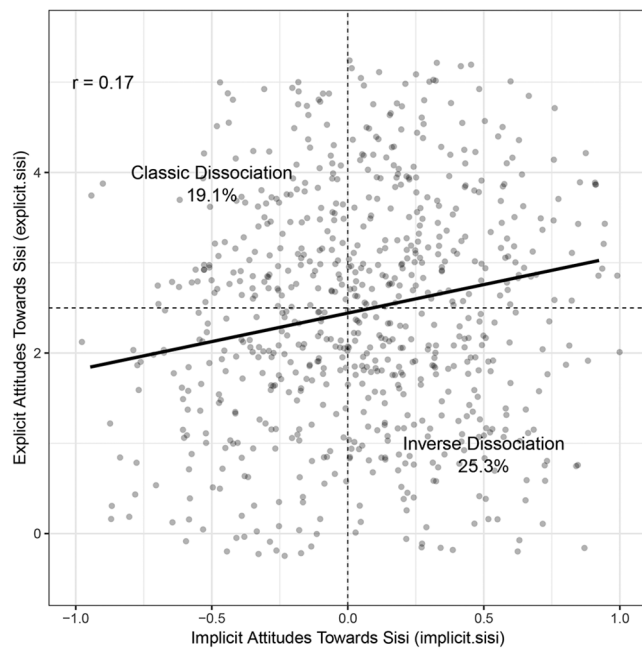


Figure 6. Comparing implicit and expressed explicit attitudes. Scatter plot of the direct (*direct.sisi*) and IAT (*implicit.sisi*) measures. All data drawn from the SISI-SCIAT. Points are jittered to better show the distribution.

patterns. Figure 7 probes possible correlates of the explicit and implicit measures, using the core demographic covariates in the data set. Each estimate and confidence interval shows the substantive results of a different linear model, where the point represents the coefficient estimate of the independent variable of interest. Both dependent variables have been standardized to help with interpretability. The dark gray segments are from regressions where the standardized direct question (*direct.sisi.z*) was the dependent variable, and the light gray segments correspond to regressions where the standardized implicit measure was used (*implicit.sisi.z*). The circles indicate a simple bivariate regression, the triangles represent regressions that incorporated a set of demographic covariates (female, age, lowed, highinc, work.govemp, work.student, christian, islamist, liberal), and the squares are from regressions that include demographic covariates and regional indicators (region.upper, region.delta, region.alex, region.desert, region.cairo).

This exploratory analysis yields some substantive findings of interest. Islamists display congruent, negative attitudes toward Sisi.¹³ The estimates suggest that, everything else equal, respondents who support the influence of religious figures over

13. It is currently too sensitive to directly ask Egyptian citizens about their support for the Muslim Brotherhood, but we can proxy for Islamist tendencies through two questions (see S8 and S9 in the questionnaire) that elicit support for religious influence over the state. We labeled as probable Islamists any respondents who were Muslim and averaged agreement over S8 and S9. About 154 respondents fit this description.

the state are less likely to voice support for Sisi on the direct question (-0.1 to -0.2 estimates for *direct.sisi.z*) and also less likely to have positive values on the IAT portion of the survey (-0.2 to -0.3 SDs). Soon after the coup, Sisi turned the state's coercive institutions toward the Muslim Brotherhood and other Islamist groups, and thousands of Islamists have been imprisoned or killed (Cunningham 2014). These repressive experiences produce negative subconscious associations with the regime—fear, worry, distrust, danger, malevolence.

Egypt's liberals—pro-democracy secularists—have congruent positive implicit and explicit attitudes.¹⁴ These individuals had higher direct assessments of Sisi (0.2 to 0.3 SDs) and higher implicit attitudes (about 0.2 SDs). Liberals originally backed Sisi's coup on the grounds that Morsi and the Muslim Brotherhood were undermining democracy. Sisi has overseen the marginalization of Islamist influence, which likely drives liberals' positive associations and may outweigh their own more limited repressive experiences. These associations may be confirmed with deliberative reasoning that prioritizes secularism and stability over democracy itself (Blaydes 2011; Masoud 2014a). As Steven A. Cook describes, "In a choice between the authoritarianism of the regime and the Muslim Brotherhood, the liberals will choose the army" (quoted in Fisher 2013).

Government officials seem prone to engage in classic dissociation. Respondents who work for the government are more likely to express explicit support (0.4 to 0.8 SDs) but less likely to hold positive implicit attitudes (-0.1 to -0.5 estimates for *implicit.sisi.z*). Under Sisi, officials have experienced a series of disappointments and a degree of marginalization in the system itself. Many state employees welcomed the military's return to power, but Sisi has since rolled back bonuses and slowed wage increases. In 2016, Sisi's administration passed its signature Civil Service Law, which is aimed at introducing performance reviews and reducing the size of the bloated bureaucracy. This set of negative experiences likely drives down implicit attitudes, but government employees in Egypt may feel compelled to voice support for the regime nonetheless, as they do in other authoritarian systems (Jiang and Yang 2016; Rosenfeld 2015). The economic well-being of state employees is directly tied to the regime itself, and their professional survival is incumbent on state continuity and Sisi's success.

There was not a group in the sample that seemed particularly prone to inverse attitude dissociation. Compared to other respondents, students are less likely on average to voice support on the direct question but slightly more likely to

14. We labeled as liberals any respondents who averaged agreement over S5 and S7 and disagreement over S8 and S9, a combination of pro-democracy and secularist attitudes.

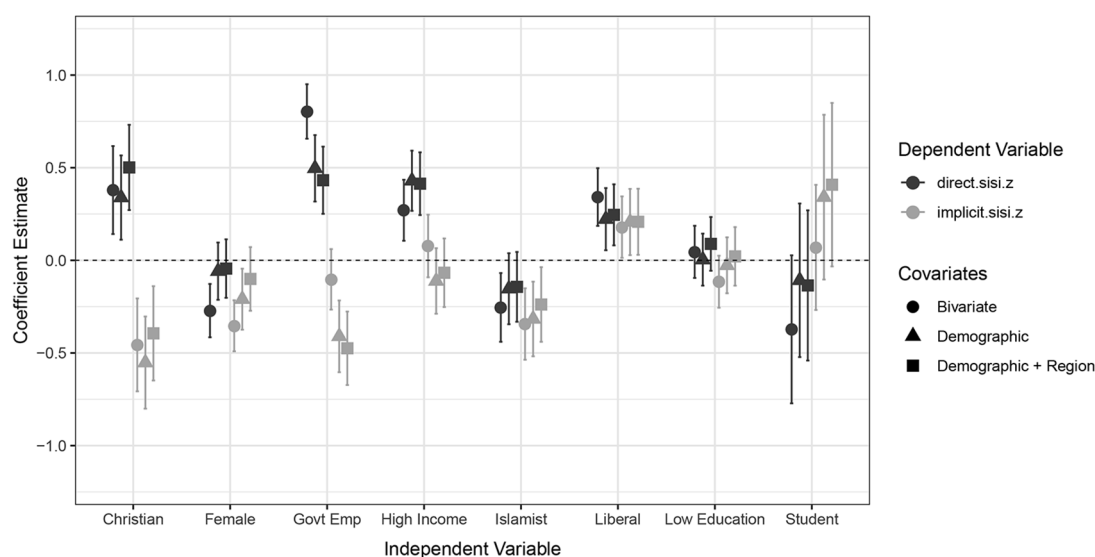


Figure 7. Determinants of expressed explicit and implicit attitudes. Coefficient estimates from regressions of the standardized support measures (direct.sisi.z and implicit.sisi.z) for different independent variables of interest, across different covariate sets (bivariate, demographic covariates, demographic and region indicators). All data drawn from the SISI-SCIAT. Data are weighted using entropy balancing to tie demographics to the Egyptian sample (with computer access) from the Arab Barometer. Segments represent 95% confidence intervals.

hold positive implicit associations with Sisi. These effect sizes are not as strong as the other relationships in the data and are not robust across all the covariate sets, so readers should take this finding with some caution.

The analysis above is meant to display the importance of considering implicit attitudes when assessing public opinion under authoritarianism. Direct questions alone would have yielded the conclusion that Egypt's Christians, or government employees, are wholly satisfied with Sisi's rule, and the student population completely disenchanting. The implicit measure suggests these groups are cognitively conflicted.

CONCLUSION

This article presents findings from a SCIAT that measures implicit attitudes toward an authoritarian regime, the Egyptian government headed by President Abdel Fattah El-Sisi. Substantively, the core finding is that the majority of respondents (about 58%) hold positive implicit attitudes toward Sisi (40% using the more conservative threshold). There also appears to be a high level of attitude dissociation compared to what similar research has found in the United States and other democratic contexts. There is some evidence that self-presentational concerns may be at work. Christians and government employees tend to voice support while holding neutral/negative implicit associations. Islamists hold congruent negative implicit and explicit attitudes, and liberals have congruent positive attitudes.

This article is hardly the first in political science to employ implicit measurement techniques. Existing research explores

the explanatory power of implicit attitudes across a range of behavioral domains in democratic contexts (Gawronski et al. 2015). These studies have demonstrated that implicit attitudes toward parties and candidates can be used to prospectively predict political judgments and voter behavior (Frieze, Bluemke, and Wänke 2007; Frieze et al. 2012; Ksiazkiewicz et al. 2018; Roccoato and Zogmaister 2010; Ryan 2017). Implicit attitudes appear particularly helpful in understanding independent, undecided, and apathetic voters (Arcuri et al. 2008; Ryan 2017; Theodoridis 2017).

The core contribution of the article is to bring the IAT to the study of attitudes in the authoritarian context, which has traditionally been the purview of direct questions or sensitive question techniques (list, endorsement, and randomized response). Our hope is that this study establishes “proof of concept” for the IAT in this setting and inspires other researchers to explore implicit methods and attitude formation.

We see two particularly promising areas for future study. The first is how regime strategies—particularly the use of propaganda—can influence implicit attitudes. There remains substantial debate as to whether and how propaganda affects citizens' explicit attitudes toward their governments (Huang 2015; King, Pan, and Roberts 2017). In the Chinese case, for example, Huang (2015) argues that exposure to propaganda does not make citizens more satisfied with government but more likely to believe the government is effective in maintaining social stability. Our hypothesis is that propaganda is effective because it shifts implicit cognition. By repeatedly pairing the concept of the regime with accolades and achieve-

ments, propaganda creates strong automatic associations that generate positive implicit attitudes. Feroni and Mayr (2005) find that respondents show more positive implicit attitudes toward insects after reading a brief fantasy story about valuable insects. Future research can build on this design by randomly exposing citizens to different forms of propaganda, in turn investigating whether (a) this shifts their implicit attitudes toward their governments and (b) explicit attitudes are mediated by implicit attitudes.

Finally, it remains an open question whether implicit attitudes actually “matter” for political outcomes and behavior in authoritarian systems. In political science, we tend to think of the big decisions for citizens in these contexts—like whether to join a protest or revolution—as being highly deliberative, rational cost-benefit calculations (Gehlbach, Sonin, and Svulik 2016; Kuran 1991; Muller and Opp 1986), the sort governed more by conscious cognition and explicit attitudes. Yet existing research in psychology suggests that implicit attitudes and affective, bodily reactions to stimuli influence nearly all of our behaviors in some way or another. Lodge and Taber (2007) summarize the argument nicely: “Unconscious thought processes are continuously at work, not only when people make snap judgments, but also when they think hard about important issues and decisions. These unconscious processes, moreover, constitute the overwhelming majority of human cognitive capacity with unacknowledged import the character of political deliberation. . . . Immediately and without intentional control, a perceived candidate, issue, group, or idea is classified as either good or bad, and in a matter of milliseconds this evaluation facilitates a behavioral disposition toward the stimulus” (2, 14). The decision to revolt so often employed in models of authoritarian politics (Gehlbach et al. 2016) is, in reality, more likely a series of small, fast, and often nondeliberative choices—to ignore or answer the door when an agitator calls, to forward or delete an incendiary tweet, to walk away or toward the noisy crowd in the square, to run or fight when tanks roll in. We suspect that, like with voting (Arcuri et al. 2008; Ryan 2017; Theodoridis 2017), implicit attitudes toward the regime play a decisive role in these choices, and we hope future research works to test that hypothesis.

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