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Sacred values and conflict over Iran's nuclear program

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Abstract

Conflict over Iran's nuclear program, which involves a US-led policy to impose sanctions on Iran, is perceived by each side as a preeminent challenge to its own national security and global peace. Yet, there is little scientific study or understanding of how material incentives and disincentives, such as economic sanctions, psychologically affect the targeted population and potentially influence behaviour. Here we explore the Iranian nuclear program within a paradigm concerned with sacred values. We integrate experiments within a survey of 1997 Iranians. We find that a relatively small but politically significant portion of the Iranian population believes that acquiring nuclear energy has become a sacred value, in the sense that proposed economic incentives and disincentives result in a "backfire effect" in which offers of material rewards or punishment lead to increased anger and greater disapproval. This pattern was specific to nuclear energy and did not hold for acquiring nuclear weapons. The present study is the first demonstration of the backfire effect for material disincentives as well as incentives, and on an issue whose apparent sacred nature is recent rather than longstanding.

Keywords: protected values, sacred values, Iran, nuclear program, sanctions, conflict resolution.

1 Introduction

In dealing with political conflict, two broadly different approaches to modeling the values that drive decisions and choice of behavior are the consequentialist approach, based on instrumental or material values (e.g., Buchanan & Tullock, 1962), and the deontological approach, based on moral or sacred values (Durkheim 1955/1912; Weber 1958). The consequentialist approach suggests that all decisions are ultimately based on the expected outcomes of actions. In contrast, the deontological approach suggests that sacred values represent moral imperatives that circumscribe certain actions independently of, or all out of proportion to, expected outcomes or prospects of success, and that we act in accordance with them because they are the right or noble thing to do, as in fundamental matters of religion (Rappaport, 1999).

There are serious misgivings about the explanatory adequacy of theories of rational choice in economics (Kahneman, 2003) and politics (Schelling, 1993). Recent work in social and cognitive psychology suggests that sacred values may be critically involved in important decisions in life (Baron & Spranca, 1997; Tetlock, 2003), as well as in sustaining seemingly intractable cultural and political conflicts (Atran, Axelrod & Davis, 2007; Ginges & Atran, 2009; Dehghani et al., 2009). Sacred values (SVs) appear to be intimately bound up with sentiments of personal and collective identity (Sachdeva & Medin, 2009), may have privileged links to emotions (Ginges, Atran, Medin & Shikaki, 2007), show insensitivity to quantity and calculations of loss versus gain (Tanner & Medin, 2004; Baron & Spranca, 1997; Ritov & Baron, 1999) and resist material tradeoffs (Tetlock, 2003; Atran, Axelrod & Davis, 2007; Ginges & Atran, 2009; Dehghani et al., 2009; Sachdeva & Medin, 2009). A psychological implication is that holders of sacred values are strongly averse to using traditional utility-based models to reason about these values. Specifically, while a secular value can easily be substituted with another value, tradeoffs involving SVs result in strong negative emotions and moral outrage (Tetlock, 2003; Atran, 2010).

One focus of sacred values research has been on seemingly intractable conflicts with deep historical con-

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text, as between Israelis and Palestinians (Atran, Axelrod & Davis, 2007; Ginges, Atran, Medin & Shikaki, 2007; Rozin & Wolf, 2008), disputes over centuries old Sharia law in Indonesia (Ginges & Atran, 2009), and Hindu-Muslim clashes over the Babri Mosque in India (Sachdeva & Medin, 2009). fierce inter-group conflicts may also arise over issues with a much narrower history, such as Iran's national nuclear program, which is perceived as a major source of challange to security by each side.[1,2,3] The nuclear program has been repeatedly depicted by the Iranian leadership as an uncompromisable ("Iran will 'never ever"', 2008), and "inalienable," ("President: Iran never gives up", 2010) right. The White House recently acknowledged the possibility that Iran's "ideological commitment to nuclear weapons is such that they're not making a simple cost-benefit analysis on this issue" (Sanger, 2010). A preliminary experiment (Dehghani et al., 2009) suggested operation of SVs for Iran's nuclear program; however, the sample was small, and, most importantly, the study was ambiguous about whether the SVs were about acquiring nuclear energy or nuclear weapons. As in previous research this study examined only the effects of material incentives to compromise. Given the greater psychophysical value of losses compared to gains (Kahneman & Tversky, 1979), it is possible that while material incentives to compromise sacred values backfire, material disincentives may work.

1.1 Experiments

In the wake of the new series of multilateral economic sanctions, the real-world importance of understanding the conflict over the Iranian nuclear program prompted a more comprehensive study. Iranian government officials have repeatedly affirmed that the sole purpose of their nuclear program is to have nuclear energy and isotopes for medical use (Dareini & Heilprin, 2010). Western commentators and U.S. government officials often see the nuclear program as a prelude to nuclear weapons ("Congressionally Directed Action", 2010). To examine whether these two different potential objectives of the nuclear program are treated differently, we ran two separate experiments, one referring to "nuclear energy" and the other referring to "nuclear weapons".

By relying on Iranian email-banks, and advertising on different Iranian websites, we were able to recruit participants from the majority of provinces in Iran as well as extend the pool of Iranians living outside the country. Iran has the 13th highest number of Internet users in the world, with over 43% of its population having access to the Internet ("Top 20 Countries with Internet users"). Online recruitment thus supplied a diverse participant pool and arguably one less influenced by privacy concerns than a telephone survey.

2 Experiment 1

In our first experiment, we investigated Iranian's approvals and anger for deals involving Iran's nuclear energy program.

2.1 Method

1418 Iranians (mean age: 30.31; 83% male; 56% from inside Iran; 76% having at least a bachelor's degree) participated in an online study conducted in Farsi. Participants were randomly assigned to one of 3 conditions based on type of deal (Taboo, Taboo+, Taboo−). We first used Baron and Spranca's (1997) sacred value measure to assess participants' values regarding Iran's nuclear energy program. In accordance to this measure, we provided participants with four options regarding the possibility of Iran giving up its nuclear energy program:

How do you feel about Iran stopping its program for developing nuclear energy?

a. I think this definitely needs to happen.

b. I do not object this.

c. This is acceptable only if the benefits of stopping the program are great enough.

d. This is shouldn't be done no matter how great the benefits are.

Subjects who chose option "d" were classified as holding a sacred value for nuclear energy. Next, participants randomly received one of the following tradeoff deal conditions:

Taboo:

Imagine the following hypothetical situation:

Iran will give up its program for developing nuclear energy and surrender the current nuclear facilities to the

[1] In his remarks on United Nations Security Council resolution on Iran sanctions, President Obama stated that because Iran "is threatening the nuclear non-proliferation regime ... the Iranian government continues to demonstrate that its own unjust actions are a threat to justice everywhere." Available at: http://www.america.gov/st/texttrans-english/2010/June/20100609163143bpuh0.433407.html.

[2] According to Ambassador Daniel Benjamin, Coordinator of Counterterrroism for the State Department: "we need to recognize that if Iran continues with its nuclear program, the prospect of Iran-backed targeting of U.S. and other Western interests will rise." Statement to the Senate Armed Services Committee, Subcommittee on Emerging Threats and Capabilities, 10 March 2010. On 28 April 2010 House and Senate members held a conference committee meeting to discuss the bills passed by each house to impose "crippling, crushing" sanctions on Iran.

[3] At a recent Friday Prayer in Tehran, Ismael Ahmadi-Moghaddam, a senior Tehran police commander stated: "With economic pressure they intend to push the country toward chaos, riots and insecurity, and want to bring about civil disobedience." W. Young, *New York Times*, 10 October 2010, p. A10.

UN; in return Israel will give up their program for developing nuclear energy and surrender the existing nuclear facilities to the UN.

Taboo+:

Imagine the following hypothetical situation:

Iran will give up its program for developing nuclear energy and surrender the current nuclear facilities to the UN; in return Israel will give up their program for developing nuclear energy and surrender the existing nuclear facilities to the UN. In return, United Nations will give $40 billion dollars in economic funds to Iran.

Taboo−:

Imagine the following hypothetical situation:

Iran will give up its program for developing nuclear energy and surrender the current nuclear facilities to the UN; in return Israel will give up their program for developing nuclear energy and surrender the existing nuclear facilities to the UN. You know that if Iran does not accept this deal, United Nations will impose additional sanctions on Iran.

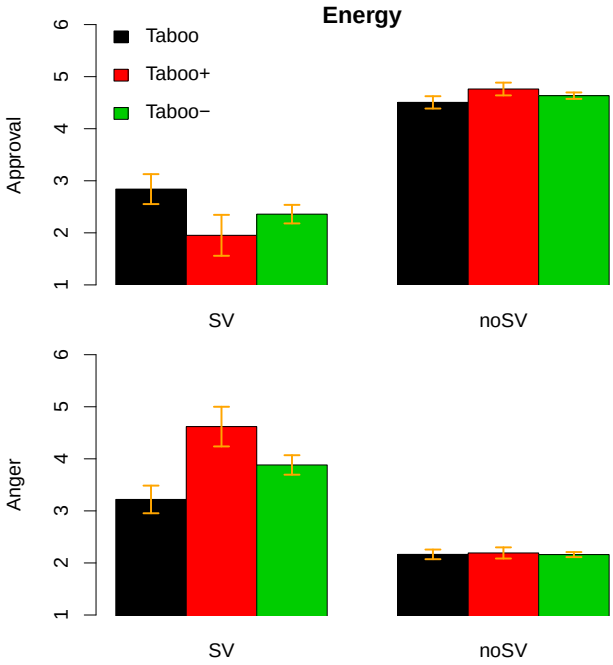
Subjects were then asked to what extent they would approve of the deal and also they were asked to predict the extent to which the deal would make Iranian people angry if it was accepted by the government. They were also asked whether they believe that the deal was intended to mislead Iranians. As in our previous study, we used a measure of misleadingness to assess whether rejection of the deals was due to participants' suspicion. Each question was answered on a 6-point scale (1 = I will definitely disapprove it, 6 = I will definitely approve it; 1 = People will definitely not get angry, 6 = People will definitely get angry; 1= not misleading, 6= very misleading).

2.2 Results

Fourteen percent of participants (N=193) perceived Iran's program for developing nuclear energy as a sacred value.

We found no significant differences in the responses to Taboo+ and Taboo− deals for anger or approval. We thus combined the results of these two conditions into a new condition, which we will refer to as the Incentive-Disincentive condition. For the first analysis we used approval ratings scores as a dependent variable in a 2x2 ANOVA, where the first factor was the presence or absence of sacred values, and the second factor was the Taboo and Incentive-Disincentive types of trade-offs. There was a main effect of sacred values, where people with sacred values predicted lower approval than people without sacred values ($F(1,1338) = 162.5400$, $p < .0001$). There was no main effect associated with type of trade-offs. However, the predicted interaction between sacred values and type of tradeoffs was significant ($F(1, 1338) = 4.9345$, $p = .0265$). A planned comparison revealed that,

Figure 1: Predicted approval and anger for nuclear energy as a function of additional Incentives or Disincentive (Taboo, Taboo+, Taboo−) and Sacred Value.



for people with sacred values, adding a monetary incentive or threat of sanctions to the deal made them approve it less ($t(172) = 1.7506$, $p = 0.0409$, one-tailed), replicating and extending our previous findings (Figure 1).

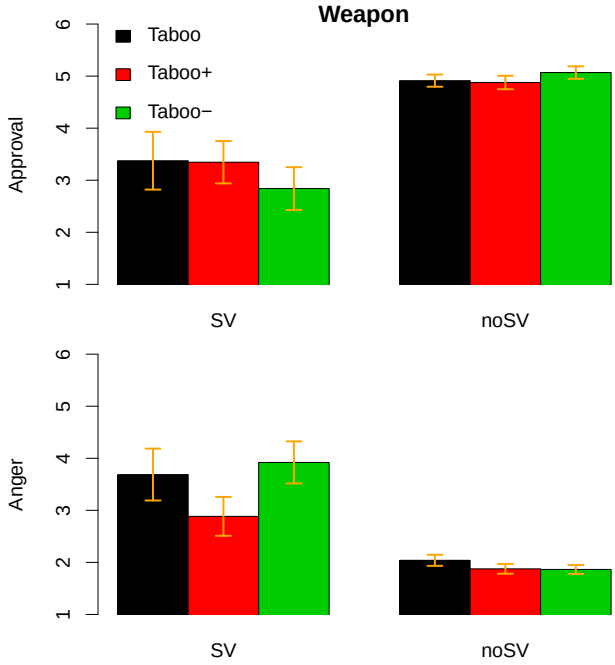
The same 2x2 ANOVA was run for predicted anger. We found a main effect of sacred values ($F(1,1336) = 121.4555$, $p < .0001$) and main effect of trade off type ($F(1,1336) = 9.0362$, $p = .0027$). Again there was a significant interaction between the two factors ($F(1, 1336) = 8.9446$, $p = 0.0028$), where only for people with sacred values adding a reward or threatening with sanctions led to more predicted anger compared to the neutral condition ($t(171) = 2.5012$, $p = 0.0133$). People without sacred values did not differentiate between the tradeoff conditions neither in terms of predicted approval, nor in terms of predicted anger (Figure 1).

As in our previous study, inclusion of the misleading measure as a covariate in the analyses did not change any of the results; therefore the backfiring effect of incentives and disincentives cannot be attributed to greater suspicions regarding the deals.

3 Experiment 2

In the second experiment, we investigated Iranian's approvals and anger for deals involving Iran's nuclear weapons program.

Figure 2: Predicted approval and anger for nuclear weapons as a function of additional Incentives or Disincentive (Taboo, Taboo+, Taboo−) and Sacred Value.



3.1 Method

579 Iranians (mean age: 29.94; 83% male; 59% from inside Iran; 81% having at least a bachelor's degree) participated in our study. With the exception of tradeoff deal conditions being about Iran's program for developing nuclear weapons (instead of nuclear energy), the method and material used in the second experiment were identical to the first experiment.

3.2 Results

Thirteen percent of participants (N=75) perceived the Iranian program for developing nuclear weapons as a sacred value.

As in first experiment, we found no significant differences between the Taboo+ and Taboo− conditions for anger or approval, so we again combined these to form the Incentive-Disincentive condition. A 2x2 (sacred values x type of trade off) ANOVA on predicted approval revealed a main effect on sacred values ($F(1,537) = 49.3433$, $p < .0001$); as with the previous experiment, SV participants showed lower approval of deals. Unlike the previous experiment, however, there was no significant interaction between sacred values and type of tradeoff, and no difference between the approval rates between the Taboo and Incentive-Disincentive (Figure 2).

The same analysis applied to predicted anger showed only main effect of sacred values ($F(1, 538) = 61.5810$, $p< .0001$), and no significant interaction between the factors for anger. As with approval rates for weapons, there was no difference between predicted anger between Taboo and Incentive-Disincentive conditions (Figure 2). (Figure 2).

Also, comparison of the results of this experiment and the previous experiment reveals an overall main effect of type of nuclear program for approval ($F(1,1879) = 15.9136$, $p < .0001$) and for anger ($F(1,1878) = 6.4031$, $p = .0115$), where people who got the Energy condition showed lower approval ($(1899) = 4.234$, $p < .0001$) and predict higher anger ($t(1900) = 3.4335$, $p = .0006$) compared to those who got the Weapons condition. Also, we found a main effect of sacred values both for approval ($F(1,1879) = 229.7213$, $p < .0001$) and anger ($F(1,1878) = 208.2942$, $p < .0001$) where people with sacred value showed lower approval ($t(1881) = 17.5625$, $p < .0001$) and higher anger ($t(1880) = 16.237$, $p < .0001$) to tradeoff deals.

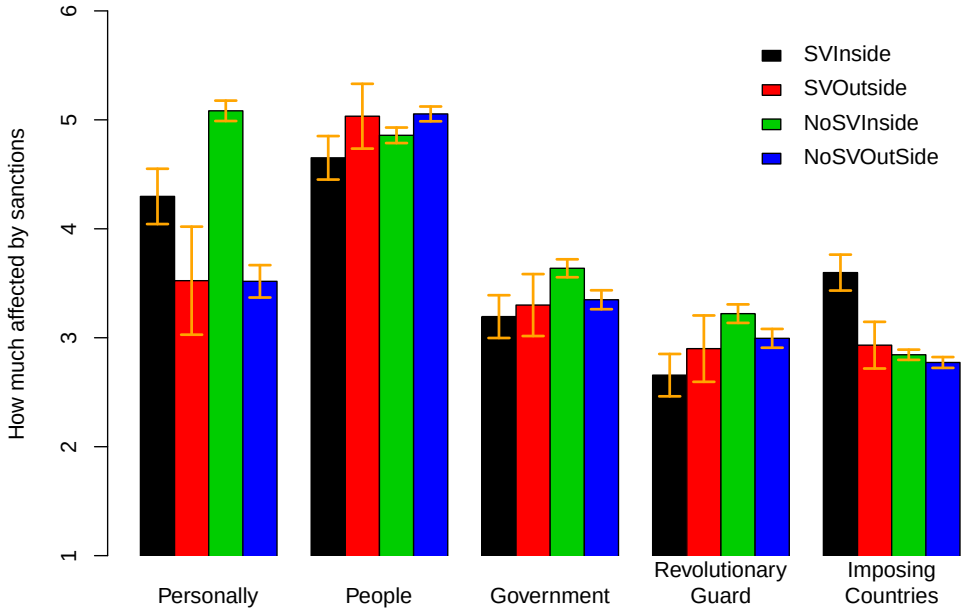
We also checked for triple interactions for both anger and approval ratings scores in two 2x2x2 ANOVAs, where the first factor was type of nuclear program (energy or weapons), the second factor the presence or absence of sacred values, and the third factor the Taboo and Incentive-Disincentive types of trade-offs. This interaction approached significance for anger ($F(1,1874) = 3.3478$, $p = .06746$), but not for approval ($F(1,1875) = 0.3580$, $p = 0.54967$).

4 Discussion

Although the percentage of people holding a SV was very close in the two studies, when the nuclear program's goal was referred to as energy we found the typical SV "backfiring" pattern, but not when it was referred to as weapons. Further evidence indicates that for Iranians nuclear energy, as opposed to nuclear weapons, relates more to sovereignty issues rooted in nationalistic and religious values. After each experiment, participants were asked whether they think Iran should generate its own nuclear energy/weapons, whether having nuclear energy/weapons is needed for Iran to be treated with respect, and whether having nuclear energy/weapons is a religious duty and has national value. Overall, people rated all these questions significantly higher for energy than for weapons ($p < 0.01$ for all).

Only a relatively small percentage of our sample had SVs, but this does not imply a small role in the decision-

Figure 3: Iranian's perception of the effect of sanction on various groups. The graphs are broken down by whether the participants have sacred values (SV/NoSV) and whether they live inside or outside the country.



making process (e.g., in neighboring Syria the ruling Alawites, who represent a similar percentage of the population, have been in power for decades). Data collected on demographics and political affiliation suggest that Iranians holding SVs feel closer to the regime than those who did not. SV participants are more likely to endorse the Islamic Republic flag (25.82%), compared to the simple flag (8.86%, $\chi 2 = 49.7988$, p<.0001) or the Lion and Sun flag (7.85%, $\chi 2 = 53.0882$, $p < 0.0001$). A significantly larger number of Iranians living inside Iran had SVs (15.41%) on the nuclear issue compared to those living abroad (10.02%, $\chi 2 = 11.9775$, $p = 0.0005$). Moreover, within subjects from inside Iran, a higher proportion of participants in more rural provinces have SVs (18.12%) compared to urban areas such as Tehran and Esphehan (13.20%, $\chi 2$=5.2611, $p = .0218$) (where voting in the recent election was strongly against the current regime). SV participants come more from areas with limited access to Western media and may be more exposed to the sacred rhetoric (Marietta, 2008) of the Iranian government. They tend to be more religious ($t(1984) = 9.3844$, $p < .0001$) and more nationalistic ($t(1981) = 2.2998$, $p < .0215$) than non-SV participants.

Other analyses investigated the perceived effect of sanctions on Iranians and examined whether perception is shaped by having a sacred stance towards the cause of the sanctions, the nuclear program, and whether they live inside or outside of Iran. Results indicate that people with SVs who live inside Iran believe that imposing sanctions against Iran will have adverse effects for imposing countries and will hurt these countries more than Iran's Revolutionary Guard ($t(162) = 3.678$, $p = .0003$) and the government ($t(162) = 1.572$, $p = .1179$). Also, people inside Iran believe that they themselves and other people will be more affected by the sanctions than the Iranian government (themselves: $t(722) = 11.0141$, $p < .0001$; people: $t(981) = 12.6368$, $p < .0001$) or Revolutionary Guard (themselves: $t(724) = 14.1305$, $p < .0001$; people: $t(983) = 16.6755$, $p < .0001$) (Figure 3). (No major differences emerge between people with SV and No SV who live outside the country regarding perceived effects of sanctions.)

The Iranian government has relied extensively on sacred political rhetoric to defend its right to a nuclear program, thus framing the conflict as an ongoing resistance with deep historical context. Similar rhetoric is applied towards sanctions. For example, Iran's Minister of Economics and Finance recently compared these sanctions to the "Sheb Abu Talib" sanctions imposed by non-Muslim Arabs on Prophet Mohammad and his followers (BBC Persian, 2010). In June 2010, shortly after the completion of our experiment, the UN Security Council approved a fourth round of sanctions. Iran's leadership reacted by claiming that the sanctions not only will not hurt Iran but "make Iran's economy to become more powerful, more flourishing and even stronger" (Mostafavi, 2010).

5 Conclusions

Our evidence suggests that small segments of the Iranian population meet our criterion for holding sacred values for the acquisition of nuclear energy as well as for the acquisition of nuclear weapons but that only for the case of nuclear energy do material incentives and disincentives result in a backfire effect. Although some suggest that the latter effect should be a definitional criterion for SVs, at a minimum our data indicate that the implications of holding a SV may vary across issues (see also Sachdeva and Medin, 2009). In the present case it appears that nuclear energy is the most salient sacred value for a small but significant minority of Iranians. This is consistent with the regime's sacred rhetoric about its nuclear program, which is solely focused on achieving nuclear energy, with many Iranian religious leaders declaring use of nuclear weapons as "forbidden" (*haram*).[4] Even though our findings indicate psychological differences between the two potential objectives of the nuclear program for Iranians, further research is urgently needed to more clearly understand the differences between the two.

Hypothetical offers of material incentives and sanctions to get Iran to give up its nuclear program appear to backfire in the sense of only increasing support for Iran's nuclear program among this segment of the population, as among the country's leadership. Moreover, this part of the population, whose demographic characteristics indicate closeness to the regime, express belief that sanctions have the opposite effect of what the imposing nations intend, with the government and revolutionary guard being least adversely affected. Although we probed only the psychological dimensions of sacred values and the backfire effect, there is behavioral confirmation both by Western intelligence sources and the Iranian regime itself. The ratcheting up of sanctions has been accompanied by an increase in construction of nuclear facilities, level of nuclear enrichment (Reuters wire, 2006), uranium output (Tirone, 2009), level of nuclear fusion work (Big News Network, 2010), and total stockpile of low-enriched uranium (Blitz, 2010), in spite of the pressure on the country exerted by economic sanctions, with plans for ten "new" enrichment sites touted (Fars News Agency, 2010) shortly after the latest round of sanctions.

[4]In a message to the Nuclear Disarmament Conference in Tehran, Ayatollah Khamenei declared that Iran considers the use of nuclear weapons as haram; available at: http://www.tehrantimes.com/Index_view.asp?code=217709

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