Poverty and Divine Rewards: The Electoral Advantage of Islamist Political Parties

Sharan Grewal  Brookings Institution  
Amaney A. Jamal  Princeton University  
Tarek Masoud  Harvard Kennedy School  
Elizabeth R. Nugent  Yale University  

Abstract: Political life in many Muslim-majority countries has been marked by the electoral dominance of Islamist parties. Recent attempts to explain why have highlighted their material and organizational factors, such as the provision of social services. In this article, we revive an older literature that emphasizes the appeal of these parties’ religious nature to voters experiencing economic hardship. Individuals suffering economic strain may vote for Islamists because they believe this to be an intrinsically virtuous act that will be met with divine rewards in the afterlife. We explore this hypothesis through a series of laboratory experiments in Tunisia. Individuals assigned to treatment conditions instilling feelings of economic strain exhibit greater support for Islamist parties, and this support is causally mediated by an expectation of divine compensation in the hereafter. The evidence suggests that the religious nature of Islamist parties may thus be an important factor in their electoral success.

Replication Materials: The data, code, and any additional materials required to replicate all analyses in this article are available on the American Journal of Political Science Dataverse within the Harvard Dataverse Network, at: http://doi.org/10.7910/DVN/XJQALC.

When you go into the polls, God’s presence will be there with you. God wants you to vote for the party that will protect your faith.1
—Rached Ghannouchi, president of Islamist party Ennahda during Tunisia’s 2011 electoral campaign

Political life in the Arab world has long been marked by the success of political parties that seek to apply some version of Islamic law, or shari‘a. Beginning in the 1980s, these so-called Islamist political parties seized on liberalizations undertaken by authoritarian regimes to emerge as the largest elected oppositions in the region’s republics and monarchies (Brown 2012; Schwedler 2006; Wegner 2011; Wickham 2013; Willis 2004).

The relatively free and fair elections ushered in after the 2011 Arab Spring uprisings saw Islamist parties make further gains (Brownlee, Masoud, and Reynolds 2015; Masoud 2014a), placing first in Tunisia (2011), Morocco


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What drives voters to cast their ballots for these parties? In explaining the appeal of political Islam, early scholarship focused on the causal role of religious beliefs. However, in recent years, scholars have refocused our attention to the material and organizational factors that undergird Islamist success. The first such argument is that Islamist parties benefit from mobilizational advantages conferred upon them by networks of mosques and other religious institutions (Blaydes 2011; Kandil 2014; Masoud 2014b; Wickham 2002; Wiktorowicz 2004). A second set of arguments locates the Islamist electoral advantage in their provision of social services (Bayat 2007; Brooke 2017; Cammett and Issar 2010; Clark 2004; Ismail 1998; Wedeen 2003). A third set of arguments contends that Islamist parties earn votes because their religious characteristics serve as a signal of other, nonreligious attributes, such as incorruptibility, purity, a commitment to social justice, honesty (Brown 2012; Cammett and Luong 2014; Wickham 2002), or their economic policy positions (Pepinsky, Liddle, and Mujani 2012).

Although all of these arguments find empirical validity across the Muslim world, they tend to de-emphasize the role of religion in generating support for movements that are distinctively religious. In this article, we revisit and test an additional explanation for support for Islamist parties that takes their religious characteristics seriously. Specifically, we argue that the religious character of Islamist parties makes them particularly attractive to voters undergoing economic hardship. As several scholars have observed, individuals seek refuge from worldly misfortune in religion’s promise to believers of divine compensation in the afterlife. The faith teaches that these rewards accrue to those who perform actions that please God, such as offering daily prayers and donating to charity. Islamist parties claim that casting ballots in their favor is just such an action, and individuals undergoing economic hardship, and thus eager to earn divine rewards, are particularly likely to respond to it. Thus, for at least some segments of voters, supporting religious parties is just one more way in which people turn toward the comforting promises of religion during times of stress.

Our research strategy rests on two pillars. The first is observational, establishing a correlation between economic strain and support for Islamists at both the micro- and macro-levels. First, through Arab Barometer survey data, we show that poorer respondents are more likely to trust Islamist parties. Second, we show through electoral returns that Tunisia’s Islamist party performed better in areas that were economically worse off in the country’s post–Arab Spring elections.

Having established a correlation between strain and support for Islamists, the second pillar of the research strategy moves to test the causal relationship. We explore the causal mechanism at the individual level through a series of laboratory experiments conducted in Tunisia. These experiments induced feelings of economic strain among participants and found a causal effect increasing trust in—and even the likelihood of voting for—Tunisia’s Islamist party. Importantly, this causal effect of economic strain on support for Islamists is mediated through a desire for divine rewards in the afterlife. In testing the causal mediation, we implement a “parallel design” (Imai, Tingley, and Yamamoto 2013), manipulating not only strain but also adding a second treatment to manipulate the mediator. This rigorous test of causal mediation increases our confidence that the effect of strain on Islamism operates through a channel of increased desire for divine rewards.

The remainder of the article is organized as follows. The next section surveys the literature on political Islam and sets out a theory that connects economic strain to support for Islamist parties. In the following section, we present observational evidence linking strain and political Islam at the micro- and macro-levels. The subsequent section then introduces the laboratory experiments we conducted to trace the causal mechanism linking strain and support for Islamist parties. The final section concludes with implications of this study.

### Strain, Religion, and Political Islam

Although current scholarship on Islamism generally eschews psychological mechanisms in favor of material ones, early scholarship on the phenomenon was highly attentive to its psychological aspects. Much of the literature on the rise of political Islam saw it as a response to social and economic grievances. Structural shifts like modernization (Berman 2003; Deeb 2006; Ibrahim 1980), urbanization (Ayubi 1993), Western imperialism (Esposito 1998; Gellner 1991), and authoritarianism (Wickham 2002) were theorized to produce psychological strains that caused individuals to seek redress in religious political ideologies. With their promises of paradise in the afterlife, Islam and Islamism were seen as comforting coping strategies.

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2 This argument is consistent with Scheve and Stasavage’s (2006) contention that religion offers to individuals a form of insurance against adverse life events.
mechanisms for individuals to rely on during moments of upheaval and distress.

This view of Islamists and the sources of their popular support can be seen as an extension of Emile Durkheim’s major contributions to the sociology of religion. According to Durkheim (1893), abrupt economic and social changes are disruptive, generate anomie (or normlessness), and inflict an emotional and psychological toll. The resulting strain leads individuals and societies to adopt a variety of behaviors—such as greater religious observance—in order to cope with these disruptions. Religion, defined by Durkheim (1912, 62) as “a unified system of beliefs and practices relative to sacred things,” is presumably uniquely capable of alleviating the psychological suffering experienced by strained individuals. This view shares much with Nietzsche’s earlier ([1866] 1914, 81) contention that religion offers to the poor an “invaluable contentedness with their lot and condition” and Marx’s ([1844] 2012, 42) view of religion as “the opium of the people.”

Of the countless potential sources of strain, the one that has acquired the most currency in academic and policy discourse is economic strain, which we define as a state of stress induced by a scarcity of resources to meet one’s needs and expectations. Communities plagued by poverty, unemployment and underemployment, and a lack of economic opportunity are thought to be strongholds for Islamist parties. Recent literature has provided quantitative support for a correlation between economic strain and religiosity (De La O and Rodden 2008; Norris and Inglehart 2004), between economic strain and political Islam (Binzel and Carvalho 2017), and between religiosity and political Islam (Collins and Owen 2012; Tessler, Jamal, and Robbins 2012). However, these studies have neither identified a causal effect of economic strain on political Islam nor articulated the causal mechanism through which it might operate.

Most studies linking poor economic conditions to political Islam instead emphasize the role Islamist parties play in material redistribution and social service provision. For instance, Wedeen (2003, 55) writes that “as the state has retreated economically in the Middle East, [Islamist] movements have tended to fill in the gaps, providing goods and services states do not proffer.” Islamist parties are thought to capitalize on this relationship and convert it into political support at the ballot box. Bayat (2007), Cammett and Issar (2010), Clark (2004), Ismail (1998), Wickham (2002), and Wicktorowicz (2004) all argue that Islamist parties have been able to convert this reliance on their social services into votes at the ballot box in a traditional clientelistic manner. Alternatively, these services may give Islamist parties credibility (Masoud 2014a) or signal their competence and approachability (Brooke 2017).

Although these material explanations certainly explain some of the variation in support for Islamist parties, we argue that religion may also be an important part of the story. This does not mean that voting for Islamist parties is an intrinsically religious act for all those who do it. We are unlikely to find a simple explanation for this, or any, social phenomenon. What we attempt to do in this study is to revive the possibility that religion is an important, independent driver of support for political Islam. We do not simply argue that religion matters, but rather specify conditions under which it exerts a greater effect on vote choices (during periods of economic strain), and articulate a particular mechanism through which it operates (through the promise of divine rewards).

**Strain and the Appeal of the Afterlife**

Our hypothesis is straightforward: Economic strain causes individuals to exhibit a greater desire for divine rewards in the hereafter, which in turn leads them to perform acts that they are told are religiously meritorious, including voting for Islamist parties. Belief in heaven and hell, and related rewards and punishments, is a core tenet of the Islamic faith, and practicing Muslims believe that one’s destination is contingent on one’s balance of good and bad deeds. According to the Pew Global Islam Project surveying 38,000 Muslims across 39 countries in 2011–12, 94% of self-identifying Muslims believe in the afterlife. The promise of paradise in the hereafter is likely to provide comfort to individuals suffering economic strain. The afterlife (al-akhirah) is explicitly presented to Muslims in the Qur’an as an abode of compensation for difficulties encountered in this life. The Qur’an’s second chapter (al-Baqarah, the Heifer) reads:

> We will surely test you with something of fear and hunger and loss of wealth, lives, and fruits, but give good tidings to the patient ones who, when afflicted with calamity, say: “Truly! To Allah we belong and truly, to Him we shall return.” They are the ones on whom are the blessings from their Lord and His Mercy. (verses 155–57)

To secure these blessings and rewards, Muslims are instructed to perform good deeds. Chapter 4 (al-Nisa, the Women), verse 40, of the Qur’an reads: “If there be a good deed, Allah will multiply it, and will bestow out of His grace a mighty reward.” Verse 124 continues: “Anyone who performs good deeds, whether it be a man or woman, provided that he is a believer, shall enter Paradise.” Such
exhortations appear to influence the behavior of Muslims. For instance, a full 56% of Muslims in the fourth wave of the Arab Barometer reported that they donate to charity for the sole purpose of receiving rewards in the hereafter.

These good deeds, we contend, involve not just prayer and charity, but can also include more political acts, such as joining Islamist movements or voting for Islamist political parties. Through their symbols and rhetoric, these parties present themselves as the parties closest to God and inspired by the Qur'an. Voters seeking to earn God’s favor may be particularly responsive to such messages. If this is the case, then Islamist parties must be understood to enjoy a religious advantage over secular parties, which cannot credibly claim to offer voters a path to divine approval.

Indeed, Islamists often deploy rhetoric about the hereafter in order to mobilize their supporters. For instance, Sayyid al-Qutb and Hassan al-Banna, considered the founders of political Islam, emphasized divine rewards in their writings. In his authoritative work Milestones, Qutb (2006, 159) exhorts his supporters to believe in “the assurance that the reward is in the Hereafter, the reward before which the troubles of the world and all its sorrows become insignificant.” Al-Banna similarly reminds his followers of the hereafter: “Belief in the greatness of the message of Allah, pride in embracing this message, and hope in His support, were the three things that the First Guide [The Prophet] managed to embed in the hearts of his companions. . . . They replaced the evils of materialistic stagnation with the blessings of eternal life” [emphasis added]. Muslims in pursuit of eternal rewards, especially when facing economic hardship, are explicitly encouraged by Islamists to turn to political Islam to receive divine blessings in the hereafter.

On the campaign trail, Islamist politicians are even more explicit. Rached Ghannouchi, president of Tunisia’s Ennahda, announced: “God wants you to vote for the party that will protect your faith.” In 2005, the Salafist politician Hazem Abu Ismail, at the time running for parliament as a member of Egypt’s Muslim Brotherhood, told his supporters, “A vote for us is a vote for Islam.”

Although Muslim politicians of all stripes routinely declare their faith in God, Muslims may be unique in their attempt to portray the act of casting a ballot for them as resulting in God’s favor. It stands to reason, then, that voters most in need of God’s favor would be most susceptible to such appeals.

**Linking Economic Strain to Support for Political Islam**

In this article, we theorize that individuals may vote for Islamists out of a belief that doing so is God’s will and will help them earn divine rewards. As a first step in testing our theory, we seek to establish that there is a correlation between economic conditions and support for Islamist parties. We do so at two levels: at the micro-level using survey data, and at the micro-level using electoral returns from Tunisia’s 24 governorates.

To gauge whether there is a correlation between poor economic conditions and support for political Islam at the individual level, we turn to survey data from the Arab Barometer. We first look to surveys from Egypt (n = 1,219) and Tunisia (n = 1,196) conducted in 2011 just before these countries’ first free and fair elections. As the two Arab Spring countries where Islamist parties performed best in postrevolutionary elections, they are arguably the most important cases for our analysis. In addition, we also merge all Arab countries from both Wave 2 (2010–11) and Wave 3 (2013–14) of the Arab Barometer, including, in addition to Egypt and Tunisia, Algeria, Jordan, Kuwait, Lebanon, Morocco, Palestine, and Sudan (total N = 10,330).

We operationalize our dependent variable, support for Islamists, using a question that assesses a respondent’s trust in Islamist parties along a continuum from great, medium, low, to absolutely no trust. The question is tailored to each country’s major Islamist party (e.g., the Muslim Brotherhood in Egypt, the Ennahda Movement in Tunisia). We measure our key independent variable, economic strain, as the respondent’s self-reported

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3For the role of divine rewards in motivating violence, see Wiktorkowicz and Kaltenthaler (2006) and Walter (2017).

4Our theory contrasts with scholars arguing that Islamist parties’ religious symbols serve only to signal “earthly” values, like purity (Brown 2012; Cammett and Luong 2014) or economic policy (Pepinsky, Liddle, and Mujani 2012).

5See the complete works of Hassan al-Banna: https://thequranblog.files.wordpress.com/2008/06/5._our-message-in-a-new-phase.pdf.

6See http://www.sunjournal.com/islam-takes-center-stage-egyptian-election-campaign-heats

7Sample sizes, dates, and questions used are detailed in the supporting information (SI, p. 3).

8While the Justice and Development Party (PJD) in Morocco swept its country’s 2011 elections, the trust in Islamist parties variable was only asked in Egypt and Tunisia.

9For Wave 2, the trust in Islamist parties question was asked in Egypt and Tunisia. In Wave 3, it was asked in all countries.

10We exclude three countries undergoing civil war at the time of the survey: Libya, Iraq, and Yemen.
POVERTY AND DIVINE REWARDS

The income variable is considerably right-skewed, and thus we normalize it by taking the log and rescaling it between 0 and 1. We then run a simple linear regression of Islamism against income, controlling for age, gender, religion, marriage, and—when analyzing all Arab countries—country fixed effects.\footnote{We do not control for education due to its correlation with income (Pearson’s $r = 0.4–0.5$, depending on the model).}

Figure 1 presents the results. As expected, we find that poor respondents are more likely than their more affluent counterparts to trust Islamist parties, whether in Egypt (Figure 1a), Tunisia (1b), or all Arab countries (1c).\footnote{By contrast, poorer individuals were not more trusting of the “government,” “political parties,” or “armed forces,” suggesting they were not simply more trusting of institutions in general.} In both Egypt and Tunisia, the poorest individuals in the sample are more trusting of Islamist parties by about 40–50 percentage points than the wealthiest respondents. Combining all Arab countries, the poorest individuals are about 15% more trusting of Islamists than their wealthiest counterparts. These correlations suggest that there is a link between poor economic conditions and support for Islamist parties at the individual level.

If individuals experiencing economic strain are more likely to vote for Islamists, we should observe a spatial correlation between economic conditions and support for Islamist parties. In order to probe this relationship, we examine post–Arab Spring election results in Tunisia. Tunisia is alone among Arab countries in having held two free and fair legislative elections in 2011 and 2014, which allows us to compare changes in support for that country’s principal Islamist party, Ennahda (Hizb Harakat Ennahda, or the Renaissance Movement Party) over time. Ennahda emerged out of an Islamist movement founded in 1981 and contested legislative elections in 1989, but it was heavily repressed for most of its history. After the 2010–11 uprising that ousted Tunisia’s dictator Zine El-Abidine Ben Ali, Ennahda emerged as a central political actor during the country’s transition to democracy.

In the 2011 election for the National Constituent Assembly, Ennahda placed first, winning 37% of the vote and 89 seats in parliament. In the 2014 legislative elections, Ennahda placed second, winning 28% of the vote and 69 parliamentary seats. In line with classic pocketbook voting arguments (Feldman 1984), observers often attribute the decline in electoral support for Ennahda to the worsening economic situation between 2011 and 2014, during which the party headed a coalition government.

However, we find that the areas hardest hit by the declining economy were actually more likely to remain supportive of Ennahda. Figure 2a plots Ennahda’s 2011

\textbf{Note:} Linear regression includes controls for age, gender, religion, marriage, and, for Figure 1c, country fixed effects.
Figure 2  Unemployment and Electoral Results in Tunisia

(a) Ennahda Vote Share and Unemployment by Governorate, 2011

(b) Ennahda Vote Share and Unemployment by Governorate, 2014

(c) Change in Ennahda Vote Share and Unemployment Rates by Governorate, 2011-2014

vote share by the 2010 unemployment rate in each governorate. The figure exhibits a positive trend: Governorates where unemployment was higher saw larger vote shares for Ennahda in the first free and fair elections. Figure 2b then presents Ennahda’s vote share in 2014. Ennahda had now been in power for 3 years, and, according to the pocketbook account, should have been punished in governorates where unemployment remained high or increased. Instead, what we find is that governorates with higher rates of unemployment in 2014 more strongly supported Ennahda.

Finally, Figure 2c plots the change in the unemployment rate from 2010 to 2014 and the change in Ennahda vote share from 2011 to 2014. The figure reveals that in the five governorates where unemployment decreased under Ennahda’s tenure—Tunis, Nabeul, Gafsa, Tozeur, and Sousse—Ennahda actually lost its greatest number of votes. By contrast, where unemployment increased, Ennahda lost fewer votes. Most strikingly, unemployment rose in the three governorates where Ennahda increased its vote share—Medenine, Tataouine, and Sidi Bouzid. These patterns suggest that Ennahda’s electoral fortunes may have been augmented by economic strain.

Taken together, these micro- and macro-level findings offer support for the hypothesis that economic strain may help drive popular support for Islamist parties. However, mere correlations based on observational data alone cannot demonstrate the causal mechanism outlined in our theory. If economic strain leads to support for Islamists, then we should find that when economic strain is exogenously induced, it causes individuals to place a greater value on divine rewards, in turn rendering them more likely to vote for Islamist parties. In the following section, we describe a series of experiments designed to test these expectations.

Unpacking the Causal Mechanisms

We conducted two laboratory experiments in Tunis, the capital of Tunisia, in June 2016 and January 2017. Tunisia is an ideal location for this study for three reasons. First, since 2011, Tunisians have witnessed two consecutive free and fair elections, and enjoy fewer restrictions on speech and other freedoms than practically any other Arab country. Tunisian survey respondents are thus more able than other Arabs to express potentially controversial opinions, including support for Islamist groups, without fear of government retribution.

Second, Tunisia boasts significant diversity in levels of religiosity and attitudes toward religion in politics. We have therefore less reason to fear the social desirability bias that may contaminate survey responses about religion in societies that are either highly religious or

13 Unemployment data were obtained from Tunisia’s National Institute of Statistics.
areligious. Finally, Tunisia’s ideological diversity means that its political parties represent clear, easily distinguished alternatives, enabling us to conduct a clean test of our argument. Unlike in other Arab countries, where Islamist and non-Islamist parties alike deploy religious rhetoric and symbols, in Tunisia the dual legacies of French colonialism, with its imposed policies of laïcité, and the following aggressive state secularization project under the regime of Tunisia’s first postindependence president, Habib Bourguiba, have created a unique set of political actors that includes strong, viable, secular opposition choices. Ennahda therefore represents a clearly more “Islamist” choice than is available in other countries.

In all of our experiments, our dependent variable—support for political Islam—is operationalized as support for Ennahda. As the only Islamist party in Tunisia to ever win seats in parliament, Ennahda is the natural choice for us to measure support for an Islamist party. Although Ennahda in 2016 attempted to distance itself from the label “Islamist,” voters continue to perceive it as an Islamist party. Moreover, its continued deployment of religious rhetoric—for instance, recently rejecting equal inheritance as contradicting “the peremptory texts in the Qur’an and Sunna”—suggests that the party has not yet fully separated religion and politics.

The two sets of experiments were conducted on a sample of adult Tunisian citizens (n = 654) in a rented storefront in downtown Tunis. The lab was located close to metro stations in order to increase our likelihood of recruiting a cross-section of Tunisians both living downtown and commuting into the city. Our sample was comparable to nationally representative samples of adult Tunisian citizens in terms of age, income, and basic political preferences, though it skewed more urban and educated given the location of the laboratory. In both experiments, participants were first asked a series of demographic questions, then were exposed to the experimental intervention, and finally were asked questions capturing the dependent variables and mechanisms. Questions were written on electronic tablets in Tunisian Arabic and delivered by enumerators trained by our local partner, One to One for Research and Polling.

The experiments were designed to test the causal mechanism laid out by our theory:

Economic strain $\rightarrow$ Increased demand for divine rewards $\rightarrow$

Support for Islamist parties

In both experiments, we implement a between-subjects design in which one group (the treatment group) received a treatment designed to induce economic strain, whereas the other (the control group) was not strained. Since respondents are randomly sorted into treatment and control groups, any differences between them can be attributed to the treatment. We hypothesize that the treatment group, having been strained relative to the control group, will become more demanding of divine rewards (the mediator) and thereby more supportive of Ennahda (the dependent variable). In the second experiment, we also implemented a parallel design (Imai, Tingley, and Yamamoto 2013), adding a second manipulation designed to directly influence the mediator. Although a single-experiment design can rule out any potential pretreatment confounders by randomizing the treatment, the parallel design allows us to also rule out posttreatment confounders by randomizing the mediator, thereby increasing confidence in the theorized causal mediation.

While we cannot randomly assign respondents to circumstances of poverty and unemployment, we can randomly assign them to subtle interventions that induce feelings of scarcity in a laboratory setting. As we will see, even these mild treatments produced significant effects. To demonstrate the robustness of the theory to different operationalizations of economic strain, the two experiments implemented different treatments, one in which economic strain was due to the actions of another individual (which we call “attributional strain”), and a second in which strain was the result of a random process (which we label “random strain”). In the first experiment, attributable strain was induced through a modified coordination game, in which participants either won or lost real money based on the actions of an unseen, but named, confederate. In the second experiment, random economic strain was induced by exposing respondents to hypothetical financial scenarios employed by Mani et al. (2013). These scenarios described random economic shocks, such as a car breaking down or refrigerator requiring maintenance, and asked respondents how they would cope with them. We have no theoretical reason to expect results to differ across these different treatments and employ them in order to test the robustness of our theory.

14The Reform Front is the only other Islamist party that has contested elections in post-2011 Tunisia, though it is not well known among voters and has never won a seat.


17Details on recruitment and experimental design are available in the SI (p. 5).
### Experiment 1: Coordination Game

In Experiment 1, economic strain was induced by causing the respondent to lose a modified coordination game. Participants (n = 253) were each given 5 dinars ($2.50) and asked whether they wanted to play the game, which would require them to give the dinars back to the enumerator. Participants were told that if the other player, “Hassan,” also decided to play the game by contributing his 5 dinars, the total contributed 10 dinars would be quadrupled and both the respondent and “Hassan” would win 20 dinars each, or 15 more than the amount with which they began the game. However, if “Hassan” decided not to contribute, the respondent would lose his or her 5 dinars (see payoffs in the SI, p. 9). In reality, “Hassan” was fictitious, permitting us to randomize winners and losers. In a debriefing following the survey, we revealed that “Hassan” was not a real person and his “decision” to participate had been randomly determined by the software on the enumerator’s tablet.

Of 253 subjects, 209 agreed to participate in the coordination game. Among the 209 participants, 102 won the game, receiving 20 dinars, and 107 lost the game, losing 5 dinars (see Table 1). The strain induced from losing, however, entails not only losing 5 dinars, but also losing the opportunity of winning an additional 15 dinars. Although 20 total dinars ($10) is not a large amount, we expect it to induce mild strain for the poorest half of the sample, who make less than the median 1,000 dinars a month. Although in this experiment there is no pure control group, we compare those who lost the game with those who won the game, hypothesizing that losing the game would be an exogenous strain that would push these individuals toward greater desire for divine compensation and therefore greater support for Islamists. There was slight imbalance between the treatment and control groups on one demographic variable (urban/rural), and thus to ensure comparability between treatment groups, we matched the winners and losers on a set of demographic variables.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>N</th>
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<tbody>
<tr>
<td>Win Game</td>
<td>102</td>
</tr>
<tr>
<td>Lose Game</td>
<td>107</td>
</tr>
<tr>
<td>Total</td>
<td>209</td>
</tr>
</tbody>
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To capture support for Islamist parties, respondents were asked to report their level of trust in Ennahda on the same 1–4 scale used in the Arab Barometer: from absolutely no trust (1) to a great extent of trust (4). Figure 3 presents the results. Overall (top figure), trust in Ennahda among those who were strained by losing the game was significantly higher than among those who won the game (p = .029). We find that this effect is driven entirely by the poorer half of the sample (bottom figure), for whom losing the game is most likely to be straining. For the poor, trust in Ennahda increased by about 0.62 (p = .0039). This effect size is substantial for a lab game, representing 16% of the 4-point scale.

These results suggest that there is a causal effect of strain on trust in Islamist parties. To provide evidence of our hypothesized mechanism—that strain induces greater desire for divine rewards—we asked respondents for their level of agreement (on a scale of 1–5) with the following statements. Without matching, two of three tests are significant: trust in Ennahda (p = .139), divine rewards (p = .007), and trust in Ennahda among those who seek rewards (p = .08). Without matching but with a control for the imbalanced covariate (urban/rural), all results are significant (p = .061, p = .001, and p = .0328, respectively).

For the richer half of the sample, trust in Ennahda is no different whether losing or winning the game (p = .735). We believe this null result is because the treatment was not straining for the rich.

Instead of subsetting to the poor, an interaction between the treatment and income is significant at p = .048.

See the SI (p. 9) for all descriptive statistics.
following statement: “Fighting injustice is never worth the cost, and we should just rely on God’s compensation in the afterlife.” This question was intended to capture whether after a perceived injustice (here, losing money as the result of “Hassan’s” actions) the respondent would believe in seeking retribution or instead simply seek comfort in the promise of divine compensation.

Figure 4 presents the effect of economic strain on a respondent’s expectation of divine compensation. As with trust in Ennahda, the richer half of the sample was not affected by the treatment. For the poorer half of the sample, however, reliance on divine compensation was about 0.91 points higher among those who lost the game than those who won \((p = .0087)\). This effect is sizable, representing 18% of the 5-point scale.

Taken together, these results demonstrate that among the poor, the treatment increased both a reliance on divine compensation as well as trust in the Islamist party Ennahda. To determine whether respondents supported Ennahda to receive divine rewards, we add the belief in divine compensation as a covariate alongside the treatment in predicting trust in Ennahda among the poor in our OLS model (Baron and Kenny 1986).

While the coefficient on the treatment does not quite lose significance, the \(p\)-value drops from \(.0039\) to \(.01\), suggesting that the effect of losing the coordination game on trust in Ennahda is at least partially mediated through a belief in divine compensation. In Experiment 2, we employ a parallel design (Imai, Tingley, and Yamamoto 2013) that allows us to more directly assess whether the effect of strain on Islamism is causally mediated by an increased demand for divine compensation.

Finally, to show more clearly that it is those who came to rely on divine compensation who also saw the increase in trust in Ennahda, Figure 5 subsets the poor, where the effect was most visible, by their level of reliance on divine rewards, dividing above and below the median.\(^{22}\) The results suggest that trust in Ennahda was indeed higher \(only\) for those who reported relying on divine compensation \((p = .0087)\), providing suggestive evidence that the promise of divine benefits may be the mechanism through which individuals come to trust Ennahda.

Experiment 1, therefore, yielded three primary results. First, economic strain induced by losing a coordination game increased trust in Ennahda among the poor \((p = .0039)\). Second, losing the game increased reliance on divine compensation among the poor \((p = .0087)\). Finally, support for Ennahda was greatest among poor respondents who lost the game and who exhibited the greatest demand for divine rewards \((p = .0087)\). Given that we run multiple tests using the same data, we check for false positives using a series of multiple comparisons corrections. All three comparisons remain statistically significant \((p < .05)\) when adjusting the \(p\)-values using the

\(^{22}\)The covariates remain balanced when subsetting by reliance on divine compensation. See the balance plots in the SI (p. 11).
Experiment 2: Strain Scenarios

Single-Experiment Design. Experiment 2 induced economic strain by exposing participants \((n = 201)\) to four hypothetical financial scenarios developed by Mani et al. (2013). Half were randomly assigned to a “hard” condition, in which the four scenarios involved financial costs that were relatively high, whereas half were assigned to an “easy” condition that involved substantially lower costs. We replicated the experimental procedure used by Mani et al. (2013), only changing the monetary amounts into Tunisian dinars. For instance, one scenario read as follows: “Imagine that your car is having some trouble, and requires a \(X\) dinar service. You can pay in full, take a loan, or take a chance and forego the service at the moment . . . . How would you go about making this decision?”. In the “hard” condition, \(X\) was set at 3,000 dinars ($1,500), whereas in the “easy” condition, \(X\) was set at 200 dinars ($100). Each of these scenarios also came with its own manipulation check questions, such as whether this would be a hard decision and whether it would have long-term financial consequences. These checks indicate that the scenarios were read as written and understood as intended.

As each scenario describes “random” economic shocks, this experiment should trigger economic strain that is not attributable to any person. Of 201 respondents in these treatment conditions, 95 were presented with easy scenarios, and 106 were presented with hard scenarios (see Table 2). Randomization of the treatment resulted in covariate balance across treatment groups (see the SI, p. 16).

Mani et al. (2013) find that the hard scenarios are straining for the poor (below the median in their sample) but not for the rich, mirroring our results in Experiment 1. In Experiment 2, we therefore excluded the rich, defined as those making above the national average of 1,000 dinars per month, during recruitment. When analyzing the results of the experiment, we also explore heterogeneous treatment effects by dividing participants into “poor” and “middle class,” depending on where they fell relative to our sample median of 600 dinars per month.

The second experiment included two additional improvements over the first experiment. First, we strengthened our dependent variable from trust in Ennahda to voting for Ennahda. Respondents were asked, “If elections were held tomorrow, which party would you vote for?” Respondents selecting Ennahda were coded as 1 and otherwise 0. Vote choice is a generally more fixed concept than trust, and especially in the context of a lab experiment, it is likely more difficult to influence by a mild treatment, providing a harder test for the theory. Second, we refined our measure of divine compensation, the mediator through which economic strain increases support for Islamist parties, by framing it explicitly in the context of financial shocks. Respondents were asked for their level of agreement (1–5) with the following statement: “When people lose money or experience other shocks, they should rely on God’s compensation in the afterlife and not worry too much about losses in this life.”

Figure 6 presents the results for voting for Ennahda. In the full sample, those receiving the hard scenarios were 8 percentage points more likely to say they would vote for Ennahda, approaching but not quite reaching statistical significance \((p = .14)\). As in Experiment 1, this effect is increasingly significant for the poorest half of the sample, for whom the hard scenarios increase the likelihood of voting for Ennahda by 18 percentage points \((p = .02)\). While in the easy (control) scenarios, 10% of the poor stated they would vote for Ennahda, in the hard scenarios, 28% said they would. Taken together with Experiment 1, we therefore see causal evidence that strain, whether attributable or random, increases support for Islamist parties among the poor.

Figure 7 presents results for our proposed mediator, divine compensation. For the full sample, the hard scenarios increased reliance on divine compensation by 0.45, or 9% of the 5-point scale \((p = .06)\). For the poor, the

<table>
<thead>
<tr>
<th>Table 2 Treatments, Experiment 2, Single-Experiment Design</th>
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<tbody>
<tr>
<td>Treatment</td>
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<tr>
<td>---------------------------</td>
</tr>
<tr>
<td>Easy Scenarios</td>
</tr>
<tr>
<td>Hard Scenarios</td>
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<td>Total</td>
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23See the SI (p. 14) for the wording used in each scenario.

24Results for manipulation checks are available from the authors.

25Instead of subsetting to the poor, an interaction between the treatment and income is significant at \(p = .062\).
hard scenarios increased reliance by 0.6, or 12% of the scale (p = .076).

Among the poor, the strain scenarios increased both reliance on divine compensation and the likelihood of voting for Ennahda. Reliance on divine compensation similarly has a significant positive effect on voting for Ennahda among the poor (p = .045). To see whether this increased reliance on divine compensation causally mediates the effect of the treatment on voting for Ennahda, we add it as a covariate alongside the treatment in predicting voting for Ennahda (Baron and Kenny 1986). Although the coefficient on the treatment does not quite lose significance, the p-value drops from .02 to .045, suggesting that the effect of economic shocks on support for Islamists is at least partially mediated through reliance on divine compensation. Below, we present the parallel design that allows us to achieve the conditions required for a causal mediation analysis (Imai, Tingley, and Yamamoto 2013).

To rule out other mechanisms, we also explicitly asked respondents why they intend to vote for the party they chose. To capture redistribution of wealth, respondents provided their level of agreement with the following statements: “This party cares for the poor more than other parties” and “This party will be more likely than others to provide public goods and services to people like me.” For both of these assessments, poor respondents were no more likely to agree when in the hard scenarios than in the easy scenarios (see the SI, p. 20). Moreover, poor respondents choosing Ennahda were no more likely to agree with these statements than those choosing other parties. In short, the results do not seem to be driven by an expectation that the party would undertake redistribution on behalf of the poor.

Parallel Design: Priming Divine Rewards. Although the Baron and Kenny (1986) analysis we conducted in the single-experiment design suggests that the effect of strain on support for Ennahda may be partially mediated by an increased reliance on divine rewards, it is not definitive. There are two assumptions involved in causal mediation analysis (Imai, Keele, and Tingley 2010). The first is that the treatment is randomized, which the single-experiment design above addresses. The second is that the mediator is as-if random, given the observed treatment status and observed pretreatment covariates. That is, among respondents who share the same treatment status and the same pretreatment demographics, the mediator can be considered as if it were randomized. The problem is that there may be posttreatment confounders that, even if measured, cannot be controlled for without introducing post-treatment bias. As a result, Imai, Tingley, and Yamamoto (2013) propose a parallel design, in which an additional group of respondents receives both the original experiment and an additional manipulation designed to influence the mediator. By exogenously manipulating the mediator, investigators can be more certain that the causal pathway leading from the treatment through the mediator to the dependent variable is not the result of a posttreatment confounder, whether observed or unobserved.
To implement the parallel design, we recruited an additional 200 respondents and conducted the same strain scenarios procedure detailed above. However, in this iteration of the experiment, we directly manipulate the mediator—reliance on divine rewards—in two additional treatments that included a recording of the Qur’an, Islam’s holy text, playing in the background while subjects participated in the experiment. We played the Qur’an’s 33rd chapter, entitled Al-Ahzab (the Parties),27 which repeatedly mentions the importance of reliance on God to receive the “generous rewards” in the afterlife. We expect this additional treatment to encourage believers to discount losses in this life and instead rely on God to receive his rewards in the afterlife. Table 3 presents the four treatment conditions in the parallel design. The first two, easy and hard scenarios without the Qur’an, are the same ones that were discussed in the previous section. The second two include the additional experimental condition of the Qur’anic recording. Covariates were relatively balanced across the treatment groups (see the SI, p. 16).28

The primary requirement for this additional treatment is the consistency assumption, which stipulates that the mediator should have the same effect on the outcome no matter whether it is freely chosen by the respondent or induced by the Qur’an (Imai, Tingley, and Yamamoto 2013). Respondents should “not be aware of the fact that they are being manipulated” (Imai, Tingley, and Yamamoto, 2013 15) by the Qur’an and should behave “as if they chose the mediator value on their own” (2013, 26). We believe this assumption is reasonable in our case. In Muslim-majority countries, the Qur’an is regularly heard on the radio, and it is common to hear it playing in taxis, stores, offices, and cafés. Consequently, we have no reason to believe that experimental subjects assigned to the Qur’anic treatment condition found the recordings odd, out of place, or otherwise artificial.29 Furthermore, care was taken to ensure that the Qur’anic recording was not seen as part of the experiment, but rather just experienced as background noise. For instance, experiment administrators initiated the playing of the recording before respondents entered the room and at no time manipulated the tape player during the experiment, as the 25-minute chapter lasted for the entire 20-minute survey.

By exogenously enhancing the salience of divine rewards, the recording of the Qur’an should alleviate the impact of our economic strain conditions. We hypothesize that among those primed to rely on divine rewards through the Qur’an, the hard scenarios will no longer be more straining than the easy scenarios, and as a result, we should see no difference between the hard and easy treatment conditions on support for Islamists.

Table 4 presents the results for the poor. Model 1 replicates the results of the previous section, showing that without the Qur’an, the treatment increased the likelihood of voting for Ennahda by 18%. With the Qur’an (Model 2), however, the poor were not affected by the treatment: Those in the hard scenarios and easy scenarios were no different in their likelihood of voting for Ennahda by 18%. With the Qur’an (Model 2), however, the poor were not affected by the treatment: Those in the hard scenarios and easy scenarios were no different in their likelihood of voting for Ennahda. Models 3 and 4 present similar results for divine

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26 We conducted the parallel design immediately after the single-experiment design, including 50 respondents on the same day, thus eliminating any “seasonality” or other time effects.

27 See https://www.youtube.com/watch?v=-TEt0mY1cg.

28 Covariates were balanced along the main treatment: the hard versus easy scenarios with the Qur’an (and among hard vs. easy without the Qur’an). Comparing the 201 without Qur’an to the 200 with Qur’an, covariates are balanced on all demographics except marriage. Results are robust to controlling for marriage.

29 Only one respondent asked the enumerator to turn off the Qur’anic recording. Nearly all respondents were not bothered by the background noise, nor did they appear to realize that its intent was to increase support for Ennahda.
POVERTY AND DIVINE REWARDS

Figure 8 Parallel Design Causal Mediation Analysis (Experiment 2)

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<tr>
<th>Parallel Design Causal Mediation Analysis</th>
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<tbody>
<tr>
<td>ACME</td>
</tr>
<tr>
<td>ADE</td>
</tr>
<tr>
<td>Total</td>
</tr>
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<td>-0.2</td>
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<td>0.0</td>
</tr>
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<td>0.2</td>
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<tr>
<td>0.4</td>
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Note: Crosshatches indicate 95% confidence intervals.

rewards. Whereas the treatment increased reliance on divine rewards without the Qur’an (Model 3), it has no effect on reliance when the Qur’an was playing (Model 4). Examining just the easy scenarios (the constants in Table 4), the Qur’an also increased reliance on divine rewards from 3.08 to 3.4, and the likelihood of voting for Ennahda from 10% to 16%, though neither of these quite reach statistical significance. In the SI (p. 19), we also show that the treatment increased self-reported levels of stress without the Qur’an, but not when the Qur’an was playing.

Having established the validity of the Qur’anic treatment in enhancing the salience of divine rewards and thereby alleviating strain, we now return to the causal mediation analysis. We employ the strain scenarios as the primary treatment, with the Qur’an as an additional manipulation to directly affect the mediator (rewards). We relax the stringent and untestable assumption (Imai, Tingley, and Yamamoto 2013) of no unit-level treatment–mediator interaction, as it is at least plausible that reliance on rewards may have a larger effect on support for Islamist parties when individuals are strained than when they are not. Given this possibility, we instead employ the homogenous interaction assumption (Imai and Yamamoto 2013) and report sensitivity analyses to violations of this assumption in the SI (p. 21).

The parallel design causal mediation suggests that strain has a causal effect on voting for Ennahda that is significantly mediated through divine rewards. As in the single-experiment design, Figure 8 finds that there is an overall, positive effect of strain on voting for Ennahda to the tune of 0.18 (i.e., 18% increase in the likelihood of voting for Ennahda; p = .009). The average causally mediated effect (ACME) is a positive 0.23 through divine rewards. Strain increases the likelihood of voting for Ennahda by 23% (p = .033). Moreover, the average direct effect (ADE) of strain (not operating through rewards) is not statistically significant (p = .51). Since the direct effect is not significant, this suggests perfect mediation, with the entire effect of strain on voting for Ennahda running through divine rewards among the poor.

The lack of a direct effect suggests that there are no other mechanisms by which the strain treatments or the Qur’an may have increased the likelihood of voting for Ennahda. However, it is possible that playing the Qur’an induced alternative religious mechanisms—such as increased piety or support for Islamic law—that may be correlated with divine rewards. In the SI, we show that the parallel mediation remains significant (p = .026) when explicitly accounting for these two potential confounders.

Experiment 2 thus yields three primary findings. First, the hard scenarios increased the likelihood of voting for Ennahda among the poor in the “no Qur’an” condition (p = .024). Second, the hard scenarios increased reliance on divine rewards among the poor in the no Qur’an condition (p = .075). And third, employing the parallel design, the effect of the treatment on voting for Ennahda was mediated through divine rewards (p = .033). Given that we have multiple comparisons, we again run tests to check for false positives. All results maintain conventional (p < .05) or marginal (p < .1) levels of significance under the Benjamini-Hochberg or Holm’s procedures (see the SI, p. 21).

In sum, the two laboratory experiments suggest that inducing economic strain increases reliance on divine rewards, and that this in turn increases support for Islamist parties. These experiments boast a high degree of internal validity, and the parallel design enables us to identify the causal mediation with a higher degree of certainty, thereby increasing our confidence in the hypothesized causal relationship between economic strain and voting for Islamist parties.

As a robustness check, to demonstrate that strained individuals did not become more supportive of other political parties in general, we reran the analysis on the likelihood to vote for the three major Tunisian secular parties in our survey. The strain scenarios were not correlated with a greater likelihood of voting for Nidaa Tounes (p = .96), Jabha Chaabia (p = .77), or al-Irada (p = .99).

30If so, this may violate the consistency assumption necessary for parallel mediation.
Moreover, reliance on divine rewards was negatively correlated with support for these parties, though not significantly so (p = .21, .38, and .41, respectively).

Voting to Please God. What remains to be shown is that voting for Islamist parties is actually seen by voters as a way to please God, in a manner similar to offering prayer or charity. Here, we also distinguish pleasing God from other reasons plausibly linked to religion, like honesty and trustworthiness, concern for the poor, and provision of public services. In Experiment 2, we asked respondents why they chose to vote for the party they did, giving them six options, including “Allah will be more pleased if I vote for this party than other parties.”

For each answer option, we asked respondents for their level of agreement with the statement and subsequently asked them to rank each statement they agreed with in importance.

Among poor Ennahda voters, the majority—52%—strongly agreed that they voted for Ennahda to please Allah. Furthermore, this 52% is marginally higher (p = .0921) than among Nidaa Tounes supporters (31%), and also higher than the smaller parties, Jabha Chaabia (39%) and al-’Irada (33%).

Ennahda voters tended to also rank pleasing Allah higher in the factors motivating their vote choice. The ranking is a two-step process, as respondents only get to rank factors that they agree with. To model their rankings, we therefore employ a Heckman selection model, analyzing first who agreed that pleasing Allah is important in their vote choice, and then analyzing second who ranked pleasing Allah as one of their top two factors. Results suggest that poor Ennahda voters were about 31% more likely to rank pleasing Allah among their top two factors (p = .096; see the SI, p. 22) than poor supporters of secular parties.

Alternative mechanisms saw little support. Poor Ennahda voters were no more likely than poor voters of other parties to say “this party cares for the poor more than other parties,” “this party will be more likely than others to provide public goods and services,” “this party will defend the revolution more than other parties,” or “members of this party are more honest and trustworthy than other parties.” The alternative religious mechanism—“this party will implement shari’a law more than other parties”—was more likely to be agreed to by poor Ennahda voters. However, we also asked whether they support shari’a “because they are better laws for society, and will make my life better in this world,” or “because they are the will of Allah and that will earn me Allah’s favor in the afterlife.” A full 75% of respondents chose the latter, with only 13% choosing the former. In other words, even those who supported Ennahda because it would be more likely to implement shari’a were supporting shari’a because it would earn them divine rewards.

These findings help to explain why individuals who were economically strained, and therefore reliant on divine rewards, came to support Islamist parties. Voting for these parties was explicitly seen by a majority of poor Ennahda voters as a way to please God.

Conclusion

In this article, we provide evidence that economic hardship predisposes individuals to exhibit a greater need and desire for divine rewards, and, more importantly, that this translates into support for religious parties. Drawing on Arab Barometer survey data, we found that the poor were more likely than their richer counterparts to trust Islamist groups. In recent elections in Tunisia, we found that the Islamist party Ennahda faced less punishment than expected at the polls in places where the economy deteriorated under its governance.

To explore whether the link between economic strain and support for Ennahda is indeed causal rather than correlational, we conducted two laboratory experiments in Tunisia. In the first, we found that losing a modified coordination game increased the value individuals placed on divine rewards and their trust in Ennahda. In the second, we found that exposing poor respondents to strain through a series of hypothetical scenarios in which they were asked to imagine some financial difficulty also had the same effect—increasing their desire for divine rewards and their likelihood of voting for Ennahda.

Our results are comparable to findings in studies of religion and politics in the United States that provide evidence of religious beliefs motivating political behavior. These religious beliefs include literal and spiritual interpretations of the Bible (McClendon and Riedl 2019; McDaniel and Ellison 2008) as well as the day-to-day guidance that Christianity provides for making sense of earthly troubles and challenges (Kelly and Morgan 2008). Moreover, the predictive value of religious beliefs and appeals on vote choice has grown stronger over the last three decades (Albertson 2011; Layman 2001). Although we focus on Islam and voting in the Middle East, there is significant evidence that similar associations

31 The other options were this party would be more likely than others to implement shari’a, care for the poor, provide public goods, be honest and trustworthy, or defend the revolution. See the SI (p. 21) for the wording of each option and results.
exist between religious beliefs and vote choice in other contexts.

We do believe a number of caveats are in order. First, our evidence from the Tunisian case may be most applicable to situations in which a single Islamist party competes against multiple secular parties. In a setting where multiple Islamist parties are in competition, different dynamics may occur. Voters may choose between these parties on the basis of more worldly attributes, unless the parties explicitly try to outbid each other for the mantle of religious purity.

Second, a potential danger of the present study is that its attempt to explore a religious rationale behind voting for Islamist parties could be seen as resurrecting an earlier, outmoded, “Orientalist” brand of scholarship that treats Muslims as uniquely beholden to and largely driven by their religion. However, by exploring variation in support for Islamist parties, and in identifying how this variation is the result of differences in economic conditions, we hope to evade this charge, demonstrating clearly that Muslims neither think nor vote alike.

Finally, just as the causal story presented here does not explain the behavior of every Muslim voter, neither does it purport to explain the behavior of every single Islamist voter. The wealth of research on, for example, the breadth of Islamist social service provision, the Islamist reputation for incorruptibility and Islamists’ role as effective parliamentary opposition, among others, suggests that voters come to support Islamist parties for a plethora of reasons. However, if our findings stand up to replication and extension by future scholars, they will suggest that greater attention should be given to religion in explaining support for Islamist and other religious parties.

References


Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Experiment 1: Materials and Methods

Experiment 2: Materials and Methods