Judicial Ingroup Bias in the Shadow of Terrorism

By

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Abstract

We study ingroup bias – the preferential treatment of members of one's own group – in naturally occurring data, where economically significant allocation decisions are made under a strong non-discriminatory norm. Data come from rulings in Israeli small claims courts during 2000-04, a period characterized by intense ethnically-based terrorism. Our analysis exploits the essentially random assignment of cases to judges – Jewish or Arab – and the exogeneity of terrorist attacks with respect to the legal procedure. Evidence suggests the existence of substantial bias: a claim is around 15% more likely to be accepted if assigned to a judge of the same ethnicity as the plaintiff. Furthermore, we find that this bias increases with the intensity of terrorism in the vicinity of the court during the period preceding the ruling. The results are consistent with existing theory and lab evidence according to which salience of group membership enhances social identification.

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1 Introduction

People often conceive themselves as members of social groups and these conceptions can affect their behavior. Specifically, individuals who "identify" with a given group care about other members of that group (possibly relative to members of different groups). But people do not necessarily identify to the same extent with all the groups they belong to. In particular, social identification has been shown to be affected by the salience of group-specific attributes.

An intensely studied manifestation of social identification is ingroup bias: the preferential treatment of members of one's own group.[2] Evidence for the existence of ingroup bias and for its sensitivity to group salience comes mainly from lab experiments.[3] In this paper we study ingroup bias and saliency effects in naturally occurring data, where professional decision makers make economically significant allocation decisions under a strong non-discriminatory norm. Specifically, we analyze judicial decisions in Israeli small claims courts during 2000-04.

Several features make this setting ideal for investigating ingroup bias. First, small claims courts handle civil cases between private litigants. When making a decision, a judge in these courts allocates resources between two individuals who may or may not belong to her social group. This feature resembles standard lab experiments which measure ingroup bias.

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[2] Starting with Tajfel et al. (1971), it has been shown that ingroup bias in allocation decisions can emerge even in artificially created groups. This result has been replicated, refined and extended in hundreds of subsequent studies in social psychology. More recently, experimental economists have obtained similar results (see e.g. Charness et al. 2007, Chen and Li 2009, Klor and Shayo 2010). See Shayo 2009, Appendix A, for a review.

[3] Of course, there is plenty of anecdotal and correlational "real world" evidence consistent with ingroup bias. Additional evidence comes from field experiments. See e.g. Bernhard et al. 2006; Fong and Luttmer 2009; Goette et al. 2006; and Ruffle and Sosis 2006. These studies use carefully structured economic games which are carried out outside university laboratories.

However, unlike allocation decisions in lab experiments, the decisions we study are made by professional judges who are expected to apply the law blindly. If ingroup bias exists in the court of law, one might plausibly expect such bias to be even more prevalent in contexts where non-discriminatory norms are weaker.

Second, the Israeli setting allows us to study social identification with naturally occurring, "real-life", groups: Arabs and Jews. Third, the assignment of cases to judges within a given court is essentially random. This facilitates credible estimation of the extent of ingroup bias. Finally, the period studied is characterized by intense ethnically-based terrorist attacks. Since the timing and location of these attacks are exogenous to the legal procedure, this allows us to study the effects of ethnic salience on ingroup bias.

This paper examines several implications of a general model which captures both the behavioral manifestations of social identification and the endogenous determination of the groups people identify with. The basic theoretical framework is developed in Shayo (2009) and is outlined in section 2 below. Social identification is defined in terms of preferences: to identify with different groups means to have different preferences over outcomes. Preferences involve two components. The first is the status of the various groups that exist in the economy. For the present purposes it suffices to say that group status increases with the payoffs of group members.[4] The second component is the perceived similarity between an individual and the other members of the group.[5] An individual is then said to identify with group J if (a) she cares about the status of group J; and (b) she seeks to resemble the members of group J. In equilibrium, each individual identifies with one of the many groups she belongs to. A crucial factor underlying the identification process is perceived distance: people are more likely to categorize themselves as members of a group the smaller the difference they perceive between themselves and other members of that group.

[4] More generally, group status is the relative position of a group on valued dimensions of comparisons such as wealth, occupational status and educational achievement. Thus, if we assume that individuals value consumption, then a group characterized by high levels of consumption will have a higher status than a group characterized by low levels, other things equal.

[5] This component is modeled using the notion of distance in conceptual space from cognitive psychology. Each individual is characterized by a vector of (possibly endogenous) attributes. The perceived distance from a given group is then simply a weighted Euclidean distance between the individual and the prototype of that group, with the weights reflecting the relative salience of the various dimensions.

In this paper we focus on two components of the model. First, that identification implies caring about group status, thus leading to ingroup bias in allocation decisions. Second, that identification is not automatic but is affected by perceived distance, and in particular by the salience of group-specific attributes.

The model relates to several existing models of social preferences. Most importantly, it augments the Akerlof and Kranton (2000) approach – which emphasizes the tendency of group members to follow the prescribed or prototypical behavior of their group – with a second feature of identification: the willingness to sacrifice individual payoffs in order to enhance group status. This last feature also generalizes models of altruism, since in many situations enhancing a group's status is equivalent to raising the welfare of other group members. This altruism, however, is directed at ingroup members only. Furthermore, since the model specifies the factors that determine who is likely to identify with what group, it may help account for some of the observed heterogeneity in altruism and conformity to group norms.

Beyond the literature on social identity, the paper is closely related to the extensive literature on discrimination, both in economics and in law. The literature in economics identifies two major types of discrimination. The first, due to Becker (1957), is taste-based discrimination. The second, due to Phelps (1972) and Arrow (1973), is statistical discrimination.[6] Our paper is more closely related to the former but, as emphasized above, rather than treating the taste for discrimination as exogenously given, we seek to study its determinants.

A significant part of the literature on discrimination in the courts has investigated whether there exists bias against Blacks and Hispanics in the criminal justice system of the United States.[7] The literature has not reached a consensus, largely due to the inability to rule out potential correlation between race and ethnicity on the one hand and unobserved case characteristics on the other. Our paper eschews this problem by exploiting an essentially random procedure of assigning cases to judges of different ethnicities.[8]

[6] For instance, an employer with limited information may use observable characteristics of applicants, such as ethnicity, to infer their expected productivity.

[7] Examples include Abrams et al. (2006), Alesina and La Ferrara (2009), Glaeser and Sacerdote (2003), Mustard (2001), and Schanzenbach (2005).

[8] Two recent studies analyze quantitatively the question of ethnic ingroup bias in the Israeli *criminal* justice system. Fishman et al. (2006) present findings which are inconsistent with the existence of ethnic ingroup bias. In contrast, Gazal-Ayal and Sulitzeanu-Kenan (2009) uncover systematic evidence of ethnic ingroup bias

The main source of data used in our analysis is online transcripts of decisions made by judges in the small claims courts. From these documents we extract and code information on the court, litigants, claim type, timing of decision, and claim outcome. The ethnicity of judges and litigants is deduced from their first and last names. Our dataset covers the universe of documents available for 2000-04 where the first plaintiff is Jewish and the first defendant is Arab as well as those documents where the first plaintiff is Arab and the first defendant is Jewish. Overall we have data on 1,703 judicial decisions, 31% of which were made by Arab judges and 69% by Jewish judges. Additional information on judges is obtained from their biographies. We merge the information on cases and judges with data from several publicly available sources on all Palestinian politically motivated attacks inside Israel and in the Occupied Territories which resulted in civilian fatalities. For each attack we have information about date, location, and number of fatalities.

In section 4 we exploit the essentially random procedure of assigning cases to judges in order to estimate a baseline level of judicial bias, i.e. a level of bias that is characteristic of the period as a whole. Using several alternative outcome variables and estimation techniques we find robust evidence for the existence of ingroup bias. The magnitude of the bias is substantial: a claim is around 15% more likely to be accepted if assigned to a judge of the same ethnicity as the plaintiff. In monetary terms our estimates suggest that the bias is worth around $230 per case.

In section 5 we rely on the fact that the timing of terrorist attacks in the vicinity of the court is exogenous to the legal procedure, in order to test whether heightened ethnic salience increases social identification and hence ingroup bias. The results suggest that this is indeed the case. We find that for cases where the plaintiff is Jewish, more intense terrorism in the period preceding the trial leads to more favorable outcomes for the plaintiff when the judge is Jewish and to more favorable outcomes for the defendant when the judge is Arab. We find no effect of terrorism intensity on judicial bias when the plaintiff is Arab. Interestingly, the effect of terrorism intensity seems to be localized: variation in terrorism intensity in more distant areas of the country has no additional effect on judicial bias.

in detention decisions.

2 Theoretical framework

This section briefly outlines a general model of social identity and relates it to judicial decisions in an ethnically heterogeneous society. The model attempts to capture concisely empirical regularities documented in three well-established strands of research that study behavior in groups: the minimal group paradigm; public goods experiments; and the study of conformity.[9] A more thorough discussion of the model and the underlying evidence can be found in Shayo (2009).

Consider an economy with a set N of individuals and a given set G of *social groups:* $G = \{J|J \subseteq N \text{ is a social group}\}$. For the present purposes it suffices to say that a social group is not any arbitrary subset of the population but an existing category that individuals learn to recognize when growing up and living in a society. Denote by G_i the set of social groups to which individual i belongs: $G_i = \{J : J \in G \text{ and } i \in J\}$. We will say that an individual i *identifies* with group J if she prefers outcomes where (1) group J's status is high and (2) her perceived distance from typical members of group J is low (we make the terms status and distance precise in equations 1 and 2 below). Specifically, let T be the set of outcomes of individuals' actions and let $\pi_i(t)$ be i's material payoff from outcome $t \in T$ (e.g. i's monetary transfer resulting from litigation). Similarly, let $S_J(t)$ be group J's status and $d_{iJ}(t)$ be i's perceived distance from group J.

Definition 1 *Individual i is said to identify with group J if her preferences over outcomes can be ordered by a utility function of the form:*

$$U_i(t; J) = u(\pi_i(t), S_J(t), d_{iJ}(t))$$

such that u is increasing in $S_J(t)$ and decreasing in $d_{iJ}(t)$.

Given this definition, identification can be inferred from individual behavior by revealed preference. Of course, people do not necessarily care about (or seek to resemble) members

[9] Standard two-person economic experiments (e.g. dictator, ultimatum and prisoner's dilemma games) have mostly abstracted from group-related issues. Recently, however, a number of studies began incorporating groups into the design of these games. Results, while still relatively scarce, are consistent with the social identity model proposed here. See Bernhard et al. (2006), Charness et al. (2007), Chen and Li (2006), Fowler and Kam (2007) and Goette et al. (2006). Klor and Shayo (2010) study one component of the model in a political economy setting.

of any group they belong to. The following equilibrium concept attempts to capture the endogenous determination of the groups people identify with. For simplicity we assume that each individual identifies with a single group. Denote by A_i the set of actions available to individual i and suppose the outcome of individual actions is given by some function $f : A \to T$ (where $A = \times_{i \in N} A_i$ is the set of possible action profiles).

Definition 2 *A Social Identity Equilibrium (SIE) is a profile of actions $a = (a_i)_{i \in N}$ and a profile of social identities $g = (g_i)_{i \in N}$ such that for all $i \in N$ we have $a_i \in A_i$, $g_i \in G_i$ and*

$$U_i \left(f(a_i, a_{-i}); g_i \right) \geq U_i \left(f(a_i', a_{-i}); g_i' \right)$$

for all $a_i' \in A_i$ and all $g_i' \in G_i$.

Thus, SIE requires not only that actions be optimal given what others are doing, but also that each individual's social identity be optimal given her social environment. Specifically, an individual is more likely to identify with a group the higher is its social status and the smaller is the perceived distance between herself and that group.

So far, we have been rather vague about the meaning of perceived distance and status. We now offer specific ways to operationalize these concepts and provide some brief motivation for their role in Definition 2.

Perceived distance. A key factor in categorization decisions in the cognitive psychology literature is the perceived difference between an object that is to be categorized and the attributes of the available categories. Following Turner et al. (1987) we adopt this approach to the process of categorizing *oneself* into a group. A convenient way to model perceived difference, is to use the notion of "distance in conceptual space" (e.g. Nosofsky 1986, 1992; Gärdenfors 2000). Each individual is characterized by a vector of attributes (or qualities) $q_i = (q_i^1, q_i^2, ..., q_i^H)$. A social group is characterized by the "typical" attributes of its members, denoted q_J. For simplicity assume q_J is the mean across group members, i.e. $q_J = \frac{1}{|J|} \sum_{i \in J} q_i$. q_J is called the *prototype* of group J. If attributes are coded as binary variables, then q_J^h is simply the proportion of agents in group J with attribute h. The *perceived distance* between individual i and social group J is represented by a weighted Euclidean distance function:

$$d_{iJ} = \left(\sum_{h=1}^{H} w_h (q_i^h - q_J^h)^2 \right)^{1/2} \tag{1}$$

where $0 \leq w_h \leq 1$ and $\sum w_h = 1$. The w's are *attention weights* (Nosofsky 1986): the more salient is attribute h relative to other attributes, the more attention is devoted to it, which is captured by a higher w_h.

This specification allows the social environment to affect perceived distances in two distinct ways. First, distances may change as the attributes of the agents (namely the values of q_i and q_J) change. For example, the higher the fraction of people in a group that speak my language, the more similar I perceive myself to that group. Second – and this is the effect studied in this paper – perceived distances can change as the attention paid to the various dimensions changes, e.g. as ethnicity becomes more salient relative to other attributes.

In particular, consider a binary attribute – call it attribute e – shared by all members of group J and only by them. For concreteness think of e as a specific ethnicity and of J as the ethnic group. That is $q_i^e = 1$ if $i \in J$ and $q_i^e = 0$ otherwise. This means that $q_i^e - q_J^e = 0$ for all members of J. Suppose that there are also other attributes (e.g. rich/poor) which characterize some but not all members of J, such that $q_i^h \neq q_J^h$ for $i \in J$ and some attribute h. From equation (1) we know that in this case $d_{iJ} > 0$ for $i \in J$. Now, consider an exogenous increase in the salience of attribute e, reducing the salience of all other attributes (w_e increases while w_h decreases for all $h \neq e$). This means an increase in the attention paid to an attribute shared by all group members and a decrease in the attention paid to other attributes, which implies that d_{iJ} decreases.

Group status. Social identification involves more than just a cognitive process of self-categorization. It also includes an important affective factor that relates to the "value" of the group. Studies in social psychology argue that the evaluation of a group is often performed by social comparisons to other groups along valued dimensions of comparisons (Tajfel and Turner 1986). In our setting, one such dimension is material payoffs. Thus, we can think of group status in terms similar to those found in standard treatments of individual status (e.g. Boskin and Sheshinski 1978; Clark and Oswald 1998). That is, we can represent the status of group J as a function

$$S_J(t) = \mathcal{S}_J(\overline{\pi}_J(t), \overline{\pi}_{-J}(t)), \tag{2}$$

where $\overline{\pi}_J$ is the mean material payoff of individuals that belong to group J and $-J$ is the reference-group of group J (which in a two-group setting is simply the other group). We

assume that the status of group J is strictly increasing in $\overline{\pi}_J$ and is weakly decreasing in $\overline{\pi}_{-J}$.[10] Given equation (2), identification with a group implies caring about the material payoffs of other group members.

2.1 Judicial decisions

The above model is grounded primarily in results from lab experiments that document behavior in groups. This paper examines two major implications of the model in naturally occurring data. First, that members of a social group may behave in a way that takes into account the payoffs of other members of their group. Second, that such behavior is more likely to be observed when group-specific attributes become salient (hence reducing perceived distance from the group prototype).

Consider a judge who is also a member of some ethnic group. The judge is faced with a plaintiff and a defendant, and needs to decide the outcome of the trial, namely the monetary transfer t from defendant to plaintiff (which could be negative). The material payoffs of the litigants are then simply:

$$\begin{aligned} \pi_{plaintiff} &= t \\ \pi_{defendant} &= -t. \end{aligned}$$

The judge's own material payoff is not directly affected by her ruling, but one might suspect that wrong decisions can entail loss of utility for various reasons (e.g. the existence of strong non-discriminatory norms or reduced prospects of promotion). If we denote by $\widehat{t}$ the "correct" decision, we can write

$$\pi_{judge} = -(t - \widehat{t})^2$$

Let $E, E' \in G$ be two ethnic groups that partition N. Let $q_i^e = 1$ if $i \in E$ and $q_i^e = 0$ otherwise, and denote by w_e the associated attention weight. As in the example above, assume that the groups are not homogeneous, i.e. there are attributes which characterize some but not all members of each group. Finally, assume that attributes and attention weights are not

[10] If the status function is constant in $\overline{\pi}_{-J}$, group J's status depends on the group's mean absolute, rather than relative, payoff. As our data consist of decisions that transfer money from an ingroup member to an outgroup member, we cannot distinguish in this paper between actions that enhance relative and absolute group payoffs.

affected by the judicial decision. Denoting by t^* the transfer determined by the judge, we have two straightforward results.

Claim 1 *Suppose plaintiff* $\in E$ *and defendant* $\in E'$*. Then* $t^* > \widehat{t}$ *if the judge identifies with group* E*; and* $t^* < \widehat{t}$ *if the judge identifies with group* E'*.*

Claim 2 *The higher is the relative salience of ethnicity* (w_e)*, the more likely it is that in equilibrium the judge identifies with her ethnic group.*

We next describe the institutional context in which we carry out our empirical investigation and discuss its suitability for examining these claims. In section 4 we use Claim 1 to examine the extent of ethnic identification among judges and in section 5 we test Claim 2.

3 Small claims courts

Small claims courts operate in many countries around the world, including the United States, England, Canada, Australia, and Israel. These courts handle civil cases between private litigants. The amount of monetary judgments they can award is capped: in Israel, during the period under investigation, the cap was set at the equivalent of roughly $US 4,000.

The rules of civil procedure and of evidence in the Israeli small claims courts are relatively simple. The procedure starts when the plaintiff registers a claim at the court, provides supporting documentation, and pays a small fee. Claims can only be submitted to the court where either: (1) the defendant lives or works; or (2) the relevant transaction took place or was supposed to take place.

Upon registration the case is assigned a trial date and a judge. Each case is assigned to the first available slot. Due to a backlog in the system, trials are scheduled several months in advance. Available slots are predetermined.[11] This means that the assignment of judges to cases within a court is in principle orthogonal to characteristics of the case (in particular litigant ethnicity) and is therefore essentially random.

[11] Judges submit to the court secretariat several months in advance the dates and times in which they are available. If more than one judge is available at a given time, cases are allocated to judges by alphabetical order of their last names.

Immediately following the registration stage the defendant is notified of the claim and is instructed to provide a defense statement within fifteen days. The defendant has the right to submit a counter-claim to which the original plaintiff needs to respond within seven days.

The judge receives the case materials no earlier than a week before the trial. Importantly, the plaintiff and the defendant represent themselves in the trial, i.e. the litigants appear without lawyers. During the trial, which typically lasts only a few minutes, the judge sees the litigants for the first time and hears their arguments. The judge has to issue a ruling in the case within seven days of the trial. Litigants who wish to appeal a ruling need to first request approval by the relevant district court.

Analyzing judicial decisions in small claims courts offers several advantages. First, unlike courts which handle criminal cases, in small claims courts the judge decides on monetary transfers between two individuals. Our investigation is restricted to cases where litigants belong to two different ethnic groups. Since the judge belongs to one of these groups, this generates a situation resembling standard lab experiments measuring ingroup bias (Tajfel et al. 1971; see Brewer 1979 and Bourhis and Gagnon 2001 for reviews). However, there are three crucial differences between our setting and typical experimental settings. In our setting (a) the two groups constitute a natural and central feature of the society studied and are not formed by the researcher; (b) monetary stakes are relatively high; and (c) decision makers are professional and operate under a strong non-discriminatory norm (equality before the law).

A second advantage of small claims courts is that judges meet the litigants only once and are forced to produce decisions quickly. This helps the analysis in two ways: (a) the proximate timing of the judge's decision is known, implying that it can be temporally linked to exogenous events that can affect judicial decision-making; (b) the fact that judges need to make decisions quickly potentially makes them more susceptible to stereotyping and bias.[12]

Finally, since the ability of litigants to appeal decisions is limited and since the decisions do not attract media attention, judges in the small claims courts enjoy almost complete discretion.

[12] On implicit bias see, for example, Bertrand, Chugh, and Mullainathan (2005), Jolls and Sunstein (2006), and Price and Wolfers (2007).

4 Judicial ingroup bias

In this section we examine the extent of social identification as revealed in judicial decisions in Israeli small claims courts during 2000-04. As stated in Claim 1, such identification leads judges to favorably treat members of their own ethnic group.

4.1 Data

The main source of data used in the analysis is online transcripts of decisions (rulings) made by judges in the small claims courts. Rulings first became available online in late 2000 in a handful of courts and coverage widened over time. The documents typically consist of several paragraphs which sketch the arguments made by the litigants and the ruling of the judge. From these we extract data on the court, litigants, claim type (e.g. breach of contract, traffic accidents etc.), timing of decision[13] and claim outcome. In some cases there are several plaintiffs and defendants.[14] Litigants are not necessarily all private individuals (e.g. they could be firms). We restrict attention to those cases where the first plaintiff and the first defendant are both private individuals.

To establish the ethnicity of judges and litigants we examine their first and last names. This method relies on the fact that there is little overlap between Jewish and Arab first and last names and on the fact that marriages across ethnic lines are extremely rare.[15] Our dataset covers the universe of available documents where the first plaintiff is Jewish and the first defendant is Arab as well as those documents where the first plaintiff is Arab and the first defendant is Jewish. Overall there are 1,703 such decision documents available for 2000-04.[16] Summary statistics are in Appendix Table A1.

Table 1 shows, for each court, the percentage of cases by the ethnicity of the judge, plaintiff and defendant. There is wide variation in the number of cases per court. This is largely due to the combination of two factors. First, the Israeli Arab population is concentrated in the

[13] Trial dates are not reported in the decision documents. As mentioned above, the decision is made within seven days of the trial.

[14] Out of 1,703 cases, 1,507 had a single plaintiff. Out of these cases, 730 had a single defendant. See Appendix Table A1 for details.

[15] Note that the data only allows us to distinguish between Jews and Arabs, and not between subgroups (e.g. Muslim and non-Muslim Arabs).

[16] Of these, 4 documents are from 2000, 144 from 2001, 409 from 2002, 544 from 2003, and 602 from 2004.

north of the country. Second, online coverage of cases began earlier in the north than in other parts of the country. Overall, 31% of the rulings in our data were made by Arab judges. Arabs make up 43% of the plaintiffs and 57% of the defendants. In several courts there are no Arab judges and very few Arab litigants while in others most of the cases are ruled by Arab judges and a large proportion of litigants are Arab.

We use three alternative measures of the trial outcome. The first is an ordered categorical variable that takes three values (coded $0, 1, 2$): a claim could be either rejected (25.3% of the total), partially accepted (36.9%), or fully accepted (37.8%). A second measure is a binary variable which takes the value of one if the claim was accepted (partially or fully) and zero otherwise. A third measure of trial outcome is the ratio between the monetary compensation awarded by the judge to the plaintiff and the sum requested by the plaintiff. Unfortunately, in more than half of the cases in the dataset the decision document does not specify the amount of monetary compensation requested by the plaintiff.[17]

Additional information on judges was obtained from their biographies. Most biographies are available online; the rest were obtained from the court system using freedom of information procedures. Table 2 provides summary statistics for judge characteristics.

4.2 Results

The first goal of our analysis is to exploit the essentially random assignment of cases to judges within each court in order to estimate a baseline level of judicial bias, i.e. a level of bias that is characteristic of the period as a whole.

Table 3 tests whether the ethnicity of the judge is associated with the ethnicity of the plaintiff, controlling for court fixed effects. As expected from the assignment procedure described in section 3, we do not find a significant association between the ethnicity variables (column 1). The same conclusion obtains when we additionally control for case characteristics and the timing of the ruling (column 2).

Figure 1 presents raw data on claim outcomes. It displays the share of claims accepted

[17] Note that we cannot use the monetary transfer as the outcome variable without taking into account the amount requested. A ruling that awards a plaintiff \$1,000 when the amount requested is \$1,000 means that the judge awarded the plaintiff the maximum transfer. In contrast, a ruling that awards \$1,000 when the amount requested is \$3,000 represents only a partial acceptance of the claim.

(partially or fully) under the four possible judge-litigant ethnicity combinations. In cases where the plaintiff is Jewish and the defendant is Arab (left pair of bars), 79% of claims are accepted when the judge is Jewish while only 72% are accepted when the judge is Arab. In contrast, in cases where the plaintiff is Arab and the defendant is Jewish (right pair of bars), only 69% of claims are accepted when the judge is Jewish while 77% of the claims are accepted when the judge is Arab. This seems to suggest the existence of judicial ingroup bias.[18]

We now turn to an econometric investigation of the baseline bias. The specification we use is of the form

$$\begin{aligned} y_{ijct} &= \alpha_0 + \alpha_1 ArabPlaintiff_i + \alpha_2 ArabJudge_i + \alpha_3 ArabPlaintiff * ArabJudge_i \\ &\quad + X_i'\beta + X_j'\delta + \gamma_c + \eta_t + \epsilon_{ijct} \end{aligned} \tag{3}$$

where i indexes cases, j indexes judges, c indexes courts and t indexes the time of the judicial decision. y is the outcome of the trial while *ArabPlaintiff, ArabJudge* and the interaction term *ArabPlaintiff*$*$*ArabJudge* are dummy variables. The vector X_i is a list of case-specific controls that include: claim type; a dummy variable for "no defense"[19]; a dummy variable for cases where the defendant submitted a counter-claim; dummy variables indicating whether the second and third litigants (if they exist) are businesses or government agencies; ethnicity of the second and third private litigants (if they exist); and gender of all private litigants. The vector X_j contains judge-specific controls including: gender; age; tenure at job; immigration status; and dummies for highest degree received and the institution where the judge received the LLB. γ_c is a court fixed effect and η_t is a vector of year, month and day of week dummies. ϵ_{ijct} is an error term that may be clustered within judge.

Equation (3) allows for two possible differences across ethnic groups which do not indicate ingroup bias. First, it is possible that claims submitted by Arab plaintiffs have different unobserved characteristics than those submitted by Jewish plaintiffs. Thus, α_1 may be nonzero even in the absence of ingroup bias. Second, it is possible that Arab judges are differently

[18] In principle, due to the absence of an ethnicity-free benchmark, it is impossible to establish whether Jewish judges discriminate in favor of Jewish litigants, Arab judges discriminate in favor of Arab litigants, or both.

[19] Some documents note that the ruling was given under a condition of "no defense". This means either that no defense statement was submitted or that the defendant(s) failed to appear in the trial. It is not possible to distinguish between these two possibilities.

inclined towards plaintiffs than their Jewish colleagues. In other words, α_2 may be nonzero even in the absence of ingroup bias. Our interest is in α_3, which captures ingroup bias.[20]

Table 4 presents estimates of the baseline level of bias using our ordinal outcome measure.[21] Column 1 presents a bare bones specification, controlling only for court fixed effects. The positive coefficient on the interaction variable between the ethnicity of the plaintiff and that of the judge indicates the existence of ingroup bias: an Arab plaintiff can expect a significantly more favorable trial outcome when the judge is Arab rather than Jewish. In column 2 we additionally control for judge characteristics. This does not affect the estimated bias. In column 3 we also control for case characteristics. As a result, the explanatory power of the regression increases markedly. The estimated bias is somewhat higher and its statistical significance increases. Finally, in column 4 we add time controls. This does not affect our main result. Our estimate of judicial bias is rather large: the value of the coefficient on the interaction variable in the last column (0.27) is roughly a third of a standard variation of the outcome variable.

In Table 5 we re-estimate the baseline regression (column 4 of Table 4) using different definitions of the outcome variable and different econometric methodologies. For ease of comparison, column 1 replicates the baseline regression from Table 4. Since claim outcome is an ordinal variable, in column 2 we carry out the analysis using ordered probit. As before, the interaction coefficient is positive and highly statistically significant.

Columns 3 and 4 employ the more readily interpretable outcome measure used in Figure 1, namely a binary variable which takes the value of 1 if the claim is accepted (partially or fully) and 0 otherwise. Column 3 reports the results of a linear probability model while column 4 reports marginal effects from a probit model.[22] The results are rather striking. A claim

[20] This coefficient can be interpreted as a difference-in-differences. To see this note that

$$E(y|ArabJudge,\ JewishPlaintiff,\ controls) - E(y|JewishJudge,\ JewishPlaintiff,\ controls) = \alpha_2$$

$$E(y|ArabJudge,\ ArabPlaintiff,\ controls) - E(y|JewishJudge,\ ArabPlaintiff,\ controls) = \alpha_2 + \alpha_3.$$

[21] We report OLS estimates for ease of interpretation. Results obtained using alternative econometric techniques are presented below. Summary statistics for the variables used in the analyses are presented in Appendix Table A1.

[22] The number of observations in column 4 is slightly reduced as some outcomes are perfectly predicted.

submitted by an Arab plaintiff is around 15% more likely to be accepted when it is assigned to an Arab rather than to a Jewish judge.

Columns 5 and 6 examine monetary outcomes. Specifically, we define the "monetary yield" of a claim as the ratio between the amount of money awarded by the judge to the plaintiff and the sum requested by the plaintiff. In column 5 the monetary award does not include legal expenses paid by the defendant to the plaintiff. In column 6 it does. Due to missing data on the award requested by the plaintiff, the number of observations is significantly reduced. Nonetheless, we still observe a positive and statistically significant bias. Not counting legal expenses, an Arab plaintiff receives a 16 percentage points higher monetary yield when assigned an Arab judge rather than a Jewish one. When counting legal expenses, this yield differential rises to 19 percentage points. Given that the average monetary compensation requested by plaintiffs was roughly $1,300, these estimates suggest that ethnic ingroup bias in judicial decisions during this period was worth around $230 per case.

5 The shadow of terrorism

The previous section establishes the existence of a baseline level of judicial ingroup bias in Israeli small claims courts during 2000-04. This is consistent with ethnic identification on the part of judges as stated in Claim 1 of our theoretical model. In this section we examine Claim 2: that heightened ethnic salience increases social identification and hence ingroup bias. To test this claim we need exogenous variation in ethnic salience. Terrorist attacks along ethnic lines provide a plausible source of such variation. Recall that trials are scheduled months in advance. This means that the timing of terrorist attacks in the vicinity of the court is exogenous to the legal procedures we investigate.

5.1 Data

We use data on all Palestinian politically motivated attacks inside Israel and in the Occupied Territories (Judea, Samaria, and the Gaza Strip) which resulted in civilian fatalities. For each attack we have information about date, location, and number of fatalities. The dataset combines information from several sources: B'Tselem, the Israeli Information Center for Human Rights in the Occupied Territories; The Israeli Ministry of Foreign Affairs; and the Israeli

National Insurance Institute. Data obtained from these sources were cross-checked and augmented using media reports obtained via the LexisNexis service. See Romanov et al. (2009) for details on this dataset. We merge the fatality data with the judicial decision data used above.

Table 6 reports the number of civilian fatalities from terrorist attacks by district and year. The table reveals significant variation across districts and over time: the most severely hit districts were the Occupied Territories and Jerusalem; the intensity of violence increased until 2002 and subsided in the following years.

Our main measure of terrorism intensity is the number of fatalities from attacks that occurred in a given geographical area around the court during the week preceding the judicial decision. We examine five alternative geographical areas around the court. Natural area is the smallest geographic unit examined, followed by sub-district, district, all areas under Israeli control before the 1967 war ("Green Line"), and all areas currently under Israeli control.[23] Descriptive statistics are in the bottom panel of Appendix Table A1.

5.2 Results

Figure 2 presents the raw data. We compare case outcomes (share of claims accepted) when there are no fatalities in the close vicinity (natural area) of the court to outcomes obtained when the number of fatalities is positive. Panel A looks at cases where the plaintiff is Jewish. In cases where the number of fatalities is zero, the share of claims accepted is 79% when the judge is Jewish and 73% when the judge is Arab. This pattern is very similar to the one presented in Figure 1. Twenty nine cases in our dataset were decided in weeks with a positive number of fatalities. In these cases, the difference in outcomes between Jewish and Arab judges widens markedly: the share of claims accepted is 89% when the judge is Jewish and only 55% when the judge is Arab.

Panel B examines cases where the plaintiff is Arab. The left two columns again show a very similar pattern to the one seen in Figure 1: the share of claims accepted is lower when the judge is Jewish. In weeks with a positive number of fatalities the share of claims

[23] Twenty five natural areas, sixteen sub-districts, and seven districts are represented in the dataset. The Occupied Territories are not officially divided into sub-districts and natural areas. Note in Table 1 that only one of the 1,703 cases is from a court located in the Occupied Territories.

accepted by a Jewish judge is even lower (63% compared to 69% in weeks with no fatalities). Contrary to our theoretical prediction, the share of claims accepted by an Arab judge declines more strongly (from 77% in weeks with no fatalities to 33%). Note, however, that there are only three cases with an Arab judge making a decision in a week with a positive number of fatalities.

Our econometric analysis is carried out by augmenting the baseline specification (column 4 of Table 4) with measures of terrorism intensity interacted with ethnicity variables. Each of the regressions reported in Table 7 now includes interactions between the number of fatalities inside and outside a given area and indicator variables for the four judge-litigant ethnicity combinations. Column (1) uses the narrowest area containing the court and the following columns use successively broader areas.

Consistent with Figure 2A, column 1 shows that for cases where the plaintiff is Jewish, more intense terrorism in the period preceding the judicial decision leads to more favorable outcomes for the plaintiff when the judge is Jewish and to more favorable outcomes for the defendant when the judge is Arab (first two rows). In contrast, we find no effect of terrorism intensity on judicial bias when the plaintiff is Arab (rows 3-4). This may be due to the small number of such cases with a positive number of fatalities. Interestingly, we find that terrorism intensity outside of the natural area of the court has no additional effect on judicial bias (rows 5-8). Notice that ingroup bias exists even in weeks when there are no terrorism fatalities. This is seen from the interaction coefficient between the judge's ethnicity and the plaintiff's ethnicity, at the bottom of the table. The magnitude of this bias is roughly the same as the baseline bias estimated in Table 4.

Similar results are obtained when examining fatalities in the same sub-district as the court (column 2). The effects of terrorism intensity are attenuated when examining fatalities at the district level (column 3) and disappear when taking into account all fatalities inside the "green line" (column 4) and country-wide (column 5).

Table 8 examines the robustness of the results of Table 7 to changes in the sample. To facilitate comparison, the first column replicates column 1 in Table 7. The first issue we tackle has to do with the Arab residents of East Jerusalem, who are not citizens of Israel and maintain strong ties with the Palestinian population of the West Bank. In these respects they differ from Arabs living in other parts of Israel. This may affect judicial decisions in various

ways. To address this concern, in column 2 we exclude cases from the Jerusalem court. A second concern arises from the possibility that certain defendants, especially Arab ones, may decide not to show up for the trial when it takes place in the aftermath of a fatal terrorist attack. In column 3 we exclude cases with "no defense" (see footnote 19 above). A third concern has to do with cases in which the ethnicity of the first plaintiff is different from that of other plaintiffs or in which the ethnicity of the first defendant is different from that of other defendants. To address this concern in column 4 we exclude cases with mixed litigant ethnicity. Our main results – both the effects of terrorism in the top two rows and the level of bias in absence of terrorism in the bottom row – are not significantly altered by these changes in the sample.

6 Conclusion

The study of ingroup bias and its determinants has mostly relied on lab experiments and on structured field experiments. This paper contributes to our understanding of this important phenomenon by examining behavior in naturally occurring data. Using a novel identification strategy we find support for both the existence of ingroup bias and for its sensitivity to the salience of group membership.

We propose a simple model of social identification. The model captures not only the fact that people sometimes care about other members of their group, but also the endogenous determination of such preferences. In particular, people are more likely to identify with a given group the smaller the distance they perceive between themselves and typical members of that group. The model has two main implications for judicial decisions. First, a judge that identifies with her ethnic group is prone to favor litigants from that group. Second, such identification is more likely the higher the salience of ethnic attributes.

Using data from Israeli small claims courts we find evidence of substantial bias: a claim is significantly more likely to be accepted if assigned to a judge of the same ethnicity as the plaintiff. Moreover, we find that this bias increases with the intensity of terrorism in the vicinity of the court during the period preceding the ruling.

Beyond its contribution to the study of social identity in general, our findings contribute to the literature on judicial ethnic bias. We overcome a major challenge facing this line

of research: identifying the role of discrimination given the potential correlation between ethnicity and unobserved case characteristics. A final contribution of the paper lies in the examination of a previously under-studied but important question of the effect of terrorism on decision making in a multi-ethnic democratic society. The evidence demonstrates that even judicial decisions are not isolated from such events.

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APPENDIX TABLE A1: SUMMARY STATISTICS FOR MAIN VARIABLES
(N=1,703)

Variable category		Variable	Mean	Std. Dev.
Claim outcome		Claim outcome (0/1/2)	1.1245	0.7845
		Fully rejected (outcome=0)	0.2531	0.4349
		Partially accepted (outcome=1)	0.3693	0.4828
		Fully accepted (outcome=2)	0.3776	0.4849
Judge characteristics		Arab	0.3106	0.4629
		Male	0.5021	0.5001
		Age	48.339	12.175
		Tenure at job	4.8732	6.6989
		Immigrant (Jewish)	0.2501	0.4332
		LLB degree – Hebrew U.	0.5273	0.4994
		– Tel Aviv U.	0.3617	0.4806
		– Bar Ilan U.	0.0763	0.2656
		– other institutions	0.0346	0.1829
		Highest degree – LLB	0.9107	0.2852
		– master	0.0640	0.2448
		– doctoral	0.0252	0.1569
Case characteristics	Claim type	Breach of sales contract	0.0317	0.1753
		Breach of service contract	0.0945	0.2927
		Housing related	0.0106	0.1023
		Private conflict	0.1427	0.3499
		Traffic accident	0.5414	0.4984
		Miscellaneous	0.0153	0.1226
		Missing	0.1238	0.3702
	Defense	No defense	0.1409	0.3480
		Defense made a counter claim	0.0893	0.2852
	First plaintiff	Arab	0.4339	0.4958
		Male	0.8274	0.3780
	First defendant	Arab	0.5661	0.4958
		Male	0.8732	0.3329
	Second plaintiff	Private individual	0.1122	0.3156
		Arab	0.0417	0.1999
		Jewish	0.0705	0.2560
		Female	0.0388	0.1931
		Male	0.0734	0.2609
		Business	0.0029	0.0541
	Second defendant	Private individual	0.1421	0.3493
		Arab	0.0763	0.2656
		Jewish	0.0658	0.2479
		Female	0.0288	0.1672
		Male	0.1133	0.3171
		Business	0.3817	0.4859
		Government agency	0.0070	0.0837
	Third defendant	Private individual	0.0200	0.1399
		Arab	0.0082	0.0903
		Jewish	0.0117	0.1078

APPENDIX TABLE A1 – CONTINUED

Variable category		Variable	Mean	Std. Dev.
Case characteristics	Third defendant	Female	0.0006	0.0242
		Male	0.0194	0.1379
		Business	0.0869	0.2818
		Government agency	0.0006	0.0238
Timing of judicial decision	Year	2000	0.0023	0.0484
		2001	0.0846	0.2783
		2002	0.2402	0.4273
		2003	0.3194	0.4664
		2004	0.3535	0.4782
	Month	January	0.0711	0.2570
		February	0.0863	0.2809
		March	0.0934	0.2910
		April	0.0664	0.2490
		May	0.0957	0.2943
		June	0.0887	0.2843
		July	0.0752	0.2638
		August	0.0781	0.2684
		September	0.0857	0.2800
		October	0.0898	0.2860
		November	0.0975	0.2967
		December	0.0722	0.2589
	Weekday	Sunday	0.2026	0.4020
		Monday	0.1744	0.3796
		Tuesday	0.2132	0.4097
		Wednesday	0.1762	0.3811
		Thursday	0.1767	0.3816
		Friday	0.0552	0.2284
		Saturday	0.0018	0.0419
Fatalities*		Country-wide	3.0258	5.5562
		Inside "Green Line"	2.3235	5.1324
		In same district as court	0.3018	1.6739
		In same sub-district as court	0.1985	1.4513
		In same natural area as court	0.1556	1.3561

Notes: see Appendix B for sources.
* "Fatalities" = civilian fatalities in the week preceding the judicial decision.

TABLE 1: CASES BY ETHNICITY OF THE JUDGE, PLAINTIFF AND DEFENDANT

Percent in each category by district and court

District	Court	Judge: Plaintiff: Defendant:	Jewish Jewish Arab	Arab Jewish Arab	Jewish Arab Jewish	Arab Arab Jewish	Cases
Jerusalem	Bet Shemesh		100.0	0.00	0.00	0.00	1
	Jerusalem		61.39	0.00	38.61	0.00	101
Northern	Afula		30.84	33.64	11.21	24.30	107
	Akko		39.20	17.60	34.40	8.80	125
	Bet She'an		83.33	0.00	16.67	0.00	12
	Nazareth		4.81	34.44	9.26	51.48	270
	Qazrin		100.0	0.00	0.00	0.00	3
	Qiryat Shemona		65.38	0.00	34.62	0.00	26
	Tiberias		73.91	0.00	26.09	0.00	69
	Zefat		87.50	12.50	0.00	0.00	8
Haifa	Hadera		60.12	0.00	39.88	0.00	173
	Haifa		35.92	24.76	23.30	16.02	206
	Krayot		41.64	14.87	31.97	11.52	269
Central	Netanya		46.88	0.00	53.13	0.00	32
	Petah Tiqwa		65.38	0.00	34.62	0.00	52
	Ramla		45.10	0.00	54.90	0.00	51
	Rehovot		50.00	0.00	50.00	0.00	16
	Rishon Leziyyon		71.43	0.00	28.57	0.00	14
Tel Aviv-Yafo	Tel Aviv-Yafo		54.32	6.17	34.57	4.94	81
Southern	Ashdod		62.50	0.00	37.50	0.00	8
	Ashqelon		40.00	0.00	60.00	0.00	5
	Be'er Sheva		14.29	32.65	10.20	42.86	49
	Dimona		33.33	0.00	66.67	0.00	6
	Elat		75.00	0.00	25.00	0.00	4
	Qiryat Gat		71.43	0.00	28.57	0.00	14
Occupied Territories	Ariel		100.0	0.00	0.00	0.00	1
Total			41.10	15.50	27.83	15.56	1,703

Notes: see Appendix B for sources.

TABLE 2: SUMMARY STATISTICS FOR JUDGES
(N=130)

	Mean	Standard Deviation
Arab	0.115	0.321
Male	0.500	0.502
Year of birth	1954.7	9.440
First year as judge	1997.9	6.563
Born in Israel	0.792	0.407
LLB from – Hebrew University	0.462	0.500
– Tel Aviv University	0.362	0.482
– Bar Ilan University	0.138	0.347
– other institutions	0.038	0.193
Highest degree – LLB	0.815	0.389
– master	0.154	0.362
– doctoral	0.031	0.173

Notes: see Appendix B for sources.

TABLE 3: RANDOMIZATION TESTS

Dependent variable: Arab judge		
	(1)	(2)
Arab plaintiff	0.002	-0.014
	(0.015)	(0.015)
Court fixed-effects	Yes	Yes
Case characteristics	No	Yes
Time controls	No	Yes
Observations	1,703	1,703
R-squared	0.4435	0.4908

Notes: see Appendix B for sources. The regressions were estimated by OLS (the results are robust to using probit instead). Standard errors, clustered by court, are reported in parentheses.

TABLE 4: JUDICIAL INGROUP BIAS

Dependent variable: claim outcome (0 if fully rejected, 1 if partially accepted, 2 if fully accepted)				
	(1)	(2)	(3)	(4)
Arab plaintiff	-0.218***	-0.220***	-0.130***	-0.124**
	(0.047)	(0.047)	(0.050)	(0.050)
Arab judge	-0.119*	-0.142*	-0.116**	-0.107**
	(0.066)	(0.060)	(0.048)	(0.045)
Arab plaintiff * Arab judge	0.203**	0.211**	0.274***	0.268***
	(0.097)	(0.096)	(0.074)	(0.073)
Court fixed-effects	Yes	Yes	Yes	Yes
Judge characteristics	No	Yes	Yes	Yes
Case characteristics	No	No	Yes	Yes
Time controls	No	No	No	Yes
Observations	1,703	1,703	1,703	1,703
R-squared	0.0765	0.0839	0.2425	0.2579

Notes: see Appendix B for sources. The regressions were estimated by OLS. Standard errors, clustered by judge, are reported in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.

TABLE 5: JUDICIAL BIAS – ALTERNATIVE SPECIFICATIONS

Dependent variable	Claim outcome {0,1,2}		Claim accepted {0,1}		Monetary yield	Monetary yield w/ expenses
Estimation methodology	OLS	Ordered probit	OLS	Probit	OLS	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
Arab plaintiff	-0.124**	-0.220***	-0.075**	-0.078**	-0.058**	-0.076**
	(0.050)	(0.085)	(0.032)	(0.033)	(0.029)	(0.034)
Arab judge	-0.107**	-0.189**	-0.070**	-0.077***	-0.017	0.006
	(0.045)	(0.079)	(0.028)	(0.030)	(0.058)	(0.070)
Arab plaintiff * Arab judge	0.268***	0.472***	0.166***	0.143***	0.164**	0.191**
	(0.073)	(0.118)	(0.050)	(0.030)	(0.064)	(0.076)
Court fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes
Judge characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Case characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Time controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,703	1,703	1,703	1,675	802	802
R-squared/Pseudo R-squared	0.2579	0.1595	0.1310	0.1303	0.3198	0.3157

Notes: see Appendix B for sources. In columns 1-2 the dependent variable takes the value of 0 if the claim was rejected, 1 if the claim was partially accepted, and 2 if the claim was fully accepted; in columns 3-4 the dependent variable takes the value of 1 if the claim was accepted (partially or fully) and 0 otherwise; column 4 reports marginal effects; in column 5 the dependent variable is the ratio between the amount of money awarded by the judge to the plaintiff and the sum requested by the plaintiff; in column 6 the dependent variable is the ratio between the amount of money (including legal expenses) awarded by the judge to the plaintiff and the sum requested by the plaintiff. Standard errors, clustered by judge, are reported in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.

TABLE 6: CIVILIAN FATALITIES FROM TERROIST ATTACKS

	2000	2001	2002	2003	2004	2000-04
Jerusalem	3	30	84	58	19	194
Northern	0	10	18	6	0	34
Haifa	3	28	41	37	0	109
Central	0	15	55	5	0	75
Tel Aviv	0	22	16	27	3	68
Southern	0	0	0	1	33	34
Occupied territories	19	68	83	22	17	209
Country-wide	25	173	297	156	72	723

Notes: see text for sources.

TABLE 7: TERRORISM AND JUDICIAL BIAS

Dependent variable: claim outcome (0 if rejected, 1 if partially accepted, 2 if fully accepted								
				Natural area	Sub-district	District	"Green-Line"	Country-wide
				(1)	(2)	(3)	(4)	(5)
	Judge	Plaintiff	Defendant					
Fatalities inside area *	Jewish	Jewish	Arab	0.047***	0.040***	0.026*	0.003	0.002
				(0.007)	(0.010)	(0.014)	(0.005)	(0.004)
	Arab	Jewish	Arab	-0.057***	-0.062***	-0.037***	0.001	0.001
				(0.009)	(0.014)	(0.014)	(0.007)	(0.008)
	Jewish	Arab	Jewish	0.036	0.032	0.030	0.000	-0.001
				(0.054)	(0.036)	(0.031)	(0.005)	(0.005)
	Arab	Arab	Jewish	0.008	0.000	-0.030	-0.008	-0.006
				(0.012)	(0.012)	(0.019)	(0.006)	(0.006)
Fatalities outside area *	Jewish	Jewish	Arab	-0.003	-0.002	-0.002	-0.009	
				(0.005)	(0.005)	(0.005)	(0.019)	
	Arab	Jewish	Arab	0.005	0.005	0.004	0.005	
				(0.008)	(0.008)	(0.008)	(0.035)	
	Jewish	Arab	Jewish	-0.003	-0.003	-0.003	-0.011	
				(0.005)	(0.005)	(0.005)	(0.025)	
	Arab	Arab	Jewish	-0.007	-0.007	-0.002	0.006	
				(0.007)	(0.007)	(0.006)	(0.026)	
Arab plaintiff				-0.117**	-0.116**	-0.117**	-0.116**	-0.116**
				(0.059)	(0.059)	(0.059)	(0.058)	(0.058)
Arab judge				-0.109*	-0.106*	-0.101*	-0.111*	-0.104*
				(0.057)	(0.056)	(0.057)	(0.060)	(0.057)
Arab plaintiff * Arab judge				0.289***	0.283***	0.280***	0.278***	0.282***
				(0.084)	(0.084)	(0.083)	(0.090)	(0.081)
Court fixed-effects				Yes	Yes	Yes	Yes	Yes
Judge characteristics				Yes	Yes	Yes	Yes	Yes
Case characteristics				Yes	Yes	Yes	Yes	Yes
Time controls				Yes	Yes	Yes	Yes	Yes
Observations				1,703	1,703	1,703	1,703	1,703
R-squared				0.2641	0.2639	0.2619	0.2586	0.2583

Notes: see text and Appendix B for sources. The regressions were estimated by OLS. Standard errors, clustered by judge, are reported in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.

TABLE 8: TERRORISM AND JUDICIAL BIAS – ALTERNATIVE SAMPLES

Dependent variable: claim outcome (0 if rejected, 1 if partially accepted, 2 if fully accepted

	Cases excluded from analysis:			None	Jerusalem court	No defense	Mixed litigant ethnicity
				(1)	(2)	(3)	(4)
	Judge	Plaintiff	Defendant				
Fatalities inside area *	Jewish	Jewish	Arab	0.047***	0.042***	0.047***	0.047***
				(0.007)	(0.007)	(0.007)	(0.007)
	Arab	Jewish	Arab	-0.057***	-0.058***	-0.060***	-0.054***
				(0.009)	(0.009)	(0.011)	(0.009)
	Jewish	Arab	Jewish	0.036	-0.143***	0.039	0.034
				(0.054)	(0.055)	(0.054)	(0.054)
	Arab	Arab	Jewish	0.008	0.008	0.013	0.008
				(0.012)	(0.012)	(0.014)	(0.012)
Fatalities outside area *	Jewish	Jewish	Arab	-0.003	-0.003	-0.004	-0.002
				(0.005)	(0.005)	(0.005)	(0.005)
	Arab	Jewish	Arab	0.005	0.004	0.013**	0.003
				(0.008)	(0.008)	(0.006)	(0.008)
	Jewish	Arab	Jewish	-0.003	-0.003	-0.004	-0.002
				(0.005)	(0.005)	(0.005)	(0.005)
	Arab	Arab	Jewish	-0.007	-0.008	-0.011	-0.007
				(0.007)	(0.006)	(0.010)	(0.007)
Arab plaintiff				-0.117**	-0.113**	-0.142**	-0.134**
				(0.059)	(0.057)	(0.068)	(0.063)
Arab judge				-0.109*	-0.107*	-0.131**	-0.123**
				(0.057)	(0.056)	(0.065)	(0.060)
Arab plaintiff * Arab judge				0.289***	0.279***	0.333***	0.309***
				(0.084)	(0.081)	(0.098)	(0.089)
Court fixed-effects				Yes	Yes	Yes	Yes
Judge characteristics				Yes	Yes	Yes	Yes
Case characteristics				Yes	Yes	Yes	Yes
Time controls				Yes	Yes	Yes	Yes
Observations				1,703	1,602	1,463	1,651
R-squared				0.2641	0.2730	0.1187	0.2644

Notes: see text and Appendix B for sources. The regressions were estimated by OLS. Standard errors, clustered by judge, are reported in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.

FIGURE 1: BASELINE INGROUP BIAS

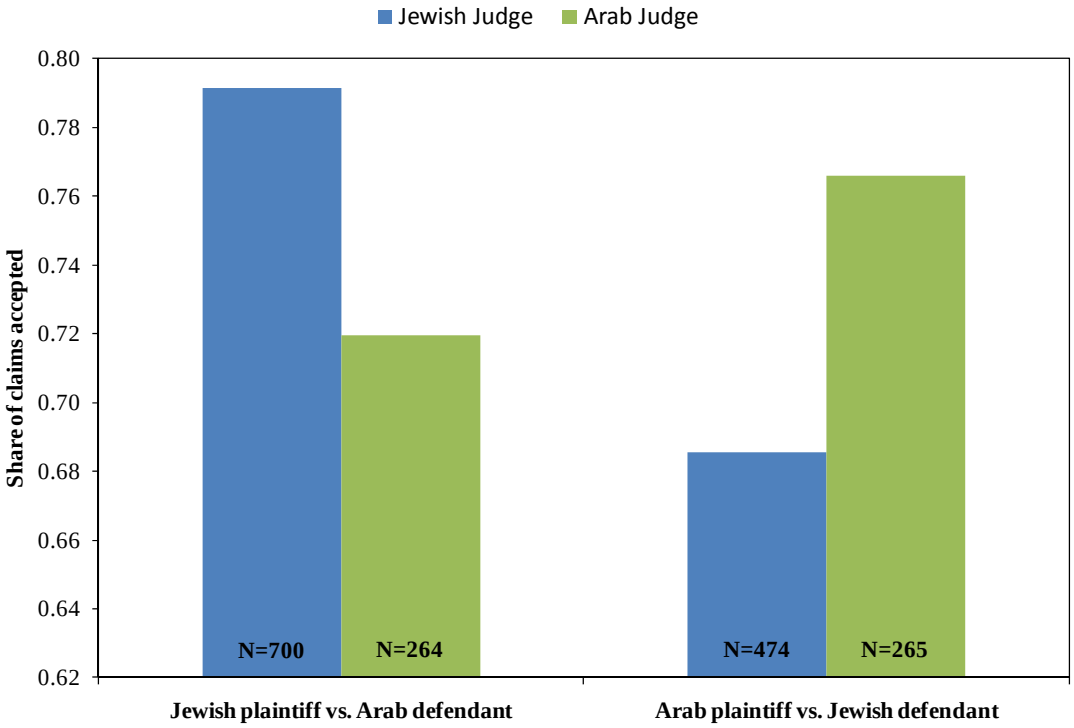
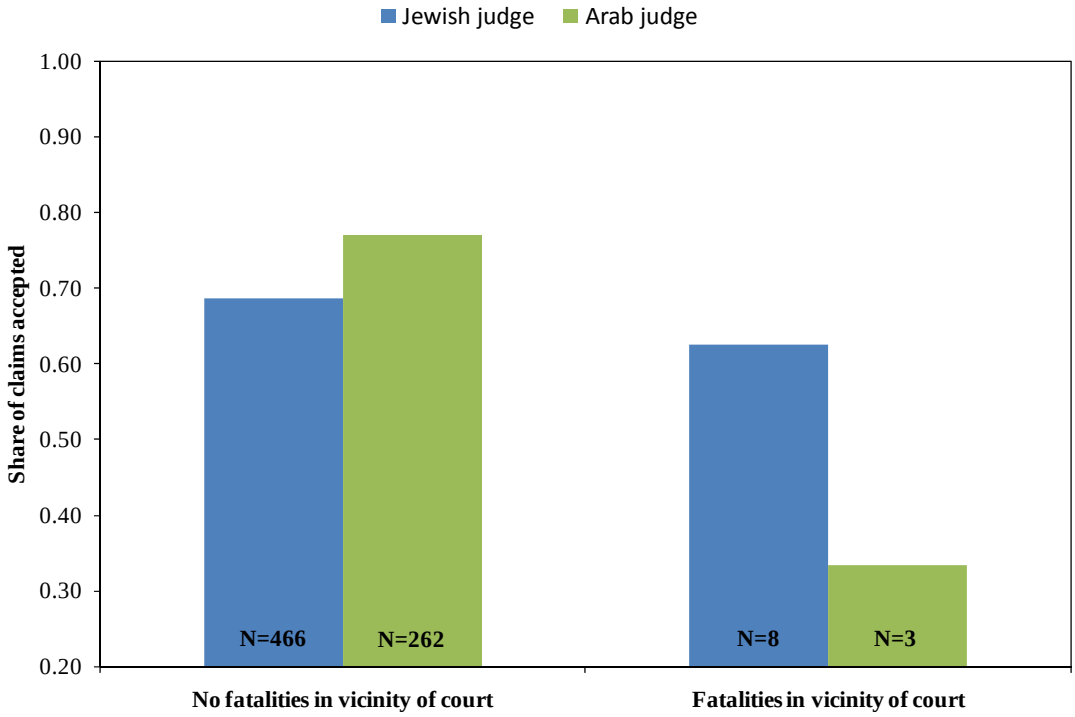


FIGURE 2: TERRORISM AND INGROUP BIAS

PANEL A: JEWISH PLAINTIFF VS. ARAB DEFENDANT

PANEL B: ARAB PLAINTIFF VS. JEWISH DEFENDANT



note: "fatalities in vicinity of court" = civilian fatalities from terrorist attacks that occurred in the natural area containing the court.