

RESEARCH ARTICLE

"Who (Really) is Charlie?" French Cities with Lower Implicit Prejudice toward Arabs Demonstrated Larger Participation Rates in Charlie Hebdo Rallies

"Qui est (Vraiment) Charlie ?" Les Villes Françaises à plus Faible niveau de Préjugés Implicites envers les Maghrébins ont davantage Participé aux rassemblements de Charlie Hebdo

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Following the Charlie Hebdo terrorist attack that happened on January 7th 2015, around 4 million people gathered all over France in a rally of national unity. Soon, however, critics argued that those who participated to the rallies publicly displayed antiracist attitudes, but were driven by implicit prejudice toward Muslims. Our study addresses the question of whether implicit prejudice measured at the city-level can predict participation rates observed in these cities. We used data from the French/Arab IAT of the Project Implicit collected from 2007 to 2014 on the French territory ($n = 3365$, 35 cities) and computed mean IAT scores for each city. We then tested whether the IAT scores predicted the participation rate observed in each city. In sharp contrast with the idea that Charlie Hebdo marchers were implicitly biased against Muslims, we found that cities implicitly biased against Arabs (as compared with French) participated less, and not more, to the Charlie Hebdo rallies. These results also show, for the first time, that the level of implicit prejudice measured at the city-level, sometime several years before an event (2007), can predict large scale social behaviors.

Keywords: Implicit Association Test; Implicit prejudice; Implicit social cognition; Group Behavior; Culture

Suite aux attentats de Charlie Hebdo du 7 janvier 2015, plus de 4 millions d'individus se sont rassemblés en France dans un élan d'unité nationale. Rapidement, des critiques ont émergé, soutenant que même si les manifestants ont affiché des attitudes ouvertement antiracistes, ils étaient en fait motivés par des préjugés implicites vis-à-vis de la population musulmane. Notre étude traite la question de savoir si les préjugés implicites mesurés au niveau d'une ville peuvent prédire les taux de participation aux manifestations dans chacune de ces villes. Pour cela, nous avons utilisé les données issues de l'IAT Français/Maghrébins du *Project Implicit* collectées en France entre 2007 et 2014 ($N = 3365$, 35 villes) et calculé un score IAT moyen pour chaque ville. Nous avons ensuite testé si ces scores IAT permettaient de prédire le taux de participation observé dans chaque ville. Contrairement à l'idée que les « manifestants Charlie Hebdo » aient été poussés par des préjugés implicites vis-à-vis des musulmans, nous avons observé que les villes les plus biaisées à l'encontre du groupe « Maghrébins » (en comparaison au groupe « Français ») ont moins, et non pas davantage, participé aux manifestations Charlie Hebdo. Ces résultats montrent également, pour la première fois, que le niveau de préjugés implicites mesuré au niveau de la ville, parfois plusieurs années avant le comportement cible (2007), permet de prédire des comportements de masse.

Mots clés: Tâche d'Association Implicite; Préjugés implicites; cognition sociale implicite; Comportements collectifs; Culture

"Charlie, as well as Maastricht, functions with two modes, one conscious and positive, liberal and egalitarian, republican, the other unconscious and negative, authoritarian and inegalitarian, which dominates and excludes." Emmanuel Todd (2015, our translation, p. 87).

January 7th 2015, an Islamist terrorist group attacked the office of the satirical weekly newspaper Charlie Hebdo and perpetrated several other shootings. Overall, 17 people were killed. In response to these attacks, around 4 million people gathered all over France in a rally of national unity. Many people participating in these rallies explicitly insisted on the fact that they were not against Muslims. Very soon, however, authors, like the demographer Emmanuel Todd (2015) in his book "Who is Charlie?", questioned the underlying motives of the "Charlie Hebdo marchers". According to Todd, those marchers would publicly display antiracist attitudes, but were ultimately driven by xenophobic unconscious or latent attitudes. In social psychological terms, these marchers, besides showing explicit antiracist attitudes, would hold implicit anti-Muslim attitudes. Social psychology not only provides concepts to translate this point of view, it also provides a tool to measure these implicit attitudes: the Implicit Association Test (IAT, Greenwald, McGhee, & Schwartz, 1998). The current study therefore addresses the intriguing question of whether a French/Arab¹ IAT measured before the attacks and aggregated at the city-level (by relying on the Project Implicit data) can predict the participation rates observed in these cities. Because in the literature explicit and implicit attitudes are often different but still positively related, we predicted, in contrast to Todd but in line with explicitly displayed attitudes, that cities with the lowest implicit level of anti-Arab attitudes should have demonstrated larger participation rates.

As we said, although politicians and marchers pictured the Charlie Hebdo's rallies as unitary and egalitarian, critics like Todd (2015) believe they were in fact unconsciously driven by inegalitarian and anti-Muslim attitudes. In fact, Todd traces back these underlying attitudes to the historical religious roots of French cities. More precisely, Todd defines territories he refers to as "Catholic zombie" as territories where Catholicism was more strongly anchored and was abandoned only recently (hence the term "zombie" meaning these territories are no longer catholic per se), leaving an ideological vacuum in search for a structuring enemy, namely Islam. Todd suggests in turn that if those alleged anti-Muslim territories were particularly prone to take part in Charlie Hebdo rallies, this would demonstrate these rallies were themselves anti-Muslims. In line with this prediction, Todd showed that participation rates were larger in territories he categorized as catholic zombie. Crucially, however, Todd provided no direct data supporting the idea 1) that catholic zombie territories were really anti-Muslim and 2) that this anti-Muslim

attitude really explains (or mediates in methodological terms) the observed relationship. Here we suggest that a direct test of Todd's proposition could rely on what social psychologists refer to as an implicit measure of prejudice.

It is now a truism in social psychology that explicitly asking (often with a self-report questionnaire) a participant whether he/she holds prejudices against a social group is open to many biases, notably because participants are often unable or unwilling to report these prejudices (e.g., Banaji & Greenwald, 2013; Gawronski & De Houwer, 2014; Greenwald, 1990; Greenwald & Banaji, 1995). This is why, in addition to measures that explicitly ask participants what they think or feel about an attitude object (e.g., Muslims), social psychologists designed implicit measures of attitudes (see Banaji & Greenwald, 2013; Fazio & Olson, 2003; Gawronski & Payne, 2010; Wittenbrink & Schwarz, 2007; see also Bardin, Perrissol, Py, Fos, & Souchon, 2016). Implicit measures differ from explicit measures in that they do not require participants to be aware or willing to share their attitudes (Greenwald & Banaji, 1995). In fact, with these measures, that often reduce participants' ability to control their responses, participants are not directly asked about their attitudes toward the social groups under investigation (Gawronski & De Houwer, 2014).

The IAT, developed by Greenwald and colleagues (1998), is the most recognized and widely used implicit measure. The IAT aims at assessing the strength of the association between two attitude objects (e.g., two social groups) and an attribute dimension (e.g., valence). For instance, in a French/Arab IAT participants are asked to categorize, as quickly as possible, whether first names (e.g., Vincent, Djamel) are typically French or Arab and whether clearly valenced words (e.g., joy, pain) are positive or negative. During a block of trials, referred to as the congruent block, participants use the same response key (e.g., the *e* key) for French first names and positive words and the same response key (e.g., the *i* key) for Arab first names and negative words; during another block of trials, referred to as the incongruent block, participants use the same response key for Arab first names and positive words and the same response key for French first names and negative words. The basic idea is that someone associating French first names with positive words and Arab first names with negative words to a larger extent than the reverse combination—which is often referred to as an implicit prejudice (Banaji & Greenwald, 2013)—will be faster in the congruent than in the incongruent block (Greenwald et al., 1998).

Multiple studies have shown that implicit prejudice measured with the IAT can predict discriminatory behaviors (e.g., Green et al., 2007; McConnell & Leibold, 2001; Ziegert & Hanges, 2005). More generally, a meta-analysis confirmed that implicit prejudice measured with the IAT can predict discriminatory behaviors and in fact even more so than explicit measures (Greenwald,

Poehlman, Uhlmann, & Banaji, 2009). Although implicit measures can predict discriminatory behaviors to a larger extent than explicit measures, it is important to highlight that these two kinds of measures are still positively related (Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005). Therefore, given that Tiberj and Mayer (2015, see also Mayer & Tiberj, 2016) found that Charlie Hebdo marchers explicitly endorsed less prejudice than non-marchers, we predict, in contrast to Todd's (2015) claim, that cities with more implicit prejudice should have participated to a lesser extent to Charlie Hebdo rallies than cities with lower implicit prejudice. In more technical terms, we therefore expect a negative relationship between city-level IAT scores (higher IAT scores indicating stronger bias favoring French over Arab first names) and participation rates. In sharp contrast to this prediction, Todd's proposition leads to expect a positive relationship with higher IAT scores leading to higher participation rates. If we do find a relationship, however its direction, it would be the first demonstration that the general level of implicit prejudice measured at the level of a large group (here city-level) can predict such a large-scale social behavior.

Method

Design and Participants

In this study, our main goal was to assess a level of implicit prejudice for each city (what we would coin a cultural level of implicit prejudice) and to test whether this city-level implicit prejudice could predict the participation rate observed in those cities. It follows that we do not assume that participants who took the IAT did or did not take part in the Charlie Hebdo rallies. Those participants simply allowed us to assess the relative cultural level of implicit prejudice in each city (we emphasize that we focused on the "relative" cultural level, meaning that what was critical here was the relative level of each city, not its absolute level—see the discussion section).

In line with this general approach, we had two sets of participants: those enabling to assess the level of implicit prejudice in each city and those who joined the Charlie Hebdo rallies. First, participants for the IAT scores were selected among the 3895 visitors of the Project Implicit website (<https://implicit.harvard.edu/implicit/>; Nosek et al., 2007) who took the French/Arab IAT in France between 2007 and 2014 (i.e., the whole dataset available). After the IAT, participants provided the postal code of their longest place of residence. They also provided the postal code for their current place of residence, but we chose to use the postal code of their longest place of residence because people who lived the longest in a city should be the most representative of its cultural values. Because people living around large cities could join the Charlie Hebdo rallies of these largest cities, we recoded the first three numbers of the postal code as a function of the largest city in the area. Finally, in order to meaningfully assess the IAT level of each city we chose an a priori criterion of at least 20 participants per city. We chose this value because, on the one hand, this is now the bare minimum recommended per condition (Simmons,

Nelson, & Simonsohn, 2011) and, on the other hand, setting a larger criterion could have left us with not enough cities for our analysis (cities being the unit of analysis). This criterion led to an acceptable sample of 35 cities and a total of 3365 participants.² Fifty-three percent of these participants were female and their mean age was 27.48 (SD = 9.55). Among the other demographic features of this sample, we could mention that: 1) the most represented socio-economic categories were students (42%), and executive and intermediate professions (20%)³; 2) the most represented religious categories were Atheists (48%) and Catholics (29%)⁴; 3) the sample political orientation was center-left ($M = 4.85$, $SD = 1.70$; with scale ranging from 1 = extreme-right and 7 = extreme-left). Second, participants for the participation rates were the estimated 3,868,000 marchers in the 35 cities used in our sample (i.e., cities with at least 20 IAT scores).

Materials and Procedure

IAT. Participants who visit the Project Implicit website can choose between several IATs. Our participants were those who took the French/Arab IAT. This IAT is divided into 7 blocks (Nosek et al., 2007). In Block 1, for 20 trials participants sort first names (i.e., 6 French and 6 Arab first names)⁵ as typically French or Arab (for instance by using the *e* key for French and the *i* key for Arab first names). In Block 2, for 20 trials participants sort words (i.e., 8 positive and 8 negative words)⁶ as positive or negative (for instance by using the *e* key for positive and the *i* key for negative words). In Block 3, for 20 trials participants sort the four types of exemplars with one group and one valence category sharing a response key (e.g., *e* key for French and positive words) and the other group and the other valence category sharing the other key (e.g., *i* key for Arab and positive words). In Block 4, participants perform the same task as in Block 3, but now for 40 trials. In Block 5, participants perform 40 trials with the same task as in Block 1 (i.e., sorting first names), but now with a reversed key mapping (e.g., *e* key for Arab, *i* key for French first names). In Block 6, for 20 trials participants sort the four types of exemplars with the key mapping implied by Block 5 (e.g., *e* key for Arab first names and positive words, *i* key for French first names and negative words). In Block 7, participants perform the same task as in Block 6, but now for 40 trials. Blocks 1, 2, and 5 are considered as training blocks, while the critical ones are Blocks 3, 4, 6, and 7. As we mentioned earlier, when intending to measure a prejudice against Arab, congruent blocks (in our example Blocks 3 and 4) will be defined as the blocks for which the same key is used for French first names and positive words, while the other key is used for Arab first names and negative words. Incongruent blocks (in our example Blocks 6 and 7) will be blocks with the opposite association. Key mapping (e.g., positive words on the left and negative words on the right side), as well as congruency order (i.e., whether Blocks 3 and 4 were congruent or incongruent) was counterbalanced across participants. After the IAT, participants were presented demographic questions.

Participation rates. In order to assess the level of participation in the Charlie Hebdo rallies, and in line with Todd's (2015) procedure, we computed a participation rate by dividing the number of marchers by the urban area population of each city (i.e., the city and the area surrounding the city). The number of marchers was based on the data provided by the authorities (the only exception being Nîmes for which this figure was lacking, instead we used the figure reported in the regional press).⁷ For the urban area population, we used the figures provided by the last INSEE report (2011).

Results

An IAT *D* score was computed for each participant following the procedure suggested by Greenwald, Nosek, and Banaji (2003). First, the response times exceeding 10,000 ms were excluded, as well as participants having more than 10% of their response times being inferior to 300 ms. Second, the average response time of the congruent condition was subtracted from the average response time of the incongruent condition and this score was divided by the standard deviation of response times per participant. Therefore, the IAT score represents the level

of implicit prejudice with higher scores meaning stronger implicit prejudice (or more precisely a stronger favoritism for French names over Arabs names).⁸

The main question we wanted to address is whether the level of implicit prejudice at the city-level can predict the participation rate observed in those cities. As a main analysis, we therefore started by simply regressing the participation rates on the IAT scores with cities being the unit of analysis.⁹ This analysis revealed a significant negative relationship between these two variables, $b = -31.39$, $t(33) = 2.28$, $p = .029$, $\eta_p^2 = .14$, such that cities having a larger implicit prejudice level (i.e., large IAT scores) participated less to the Charlie Hebdo rallies (see **Figure 1**). This result clearly contradicts Todd (2015) who suggested that cities with a high level of implicit prejudice should participate more, and not less, to these rallies.

Although this first result already contradicts Todd's (2015) claim, we also wanted to test Todd's assumption that catholic zombie territories participated more to the rallies because they were more biased against Muslims (Cohu, Maisonneuve, & Testé, 2016). To do so, we conducted three regression analyses. Before doing so, and following Todd's classification, each city was classified as

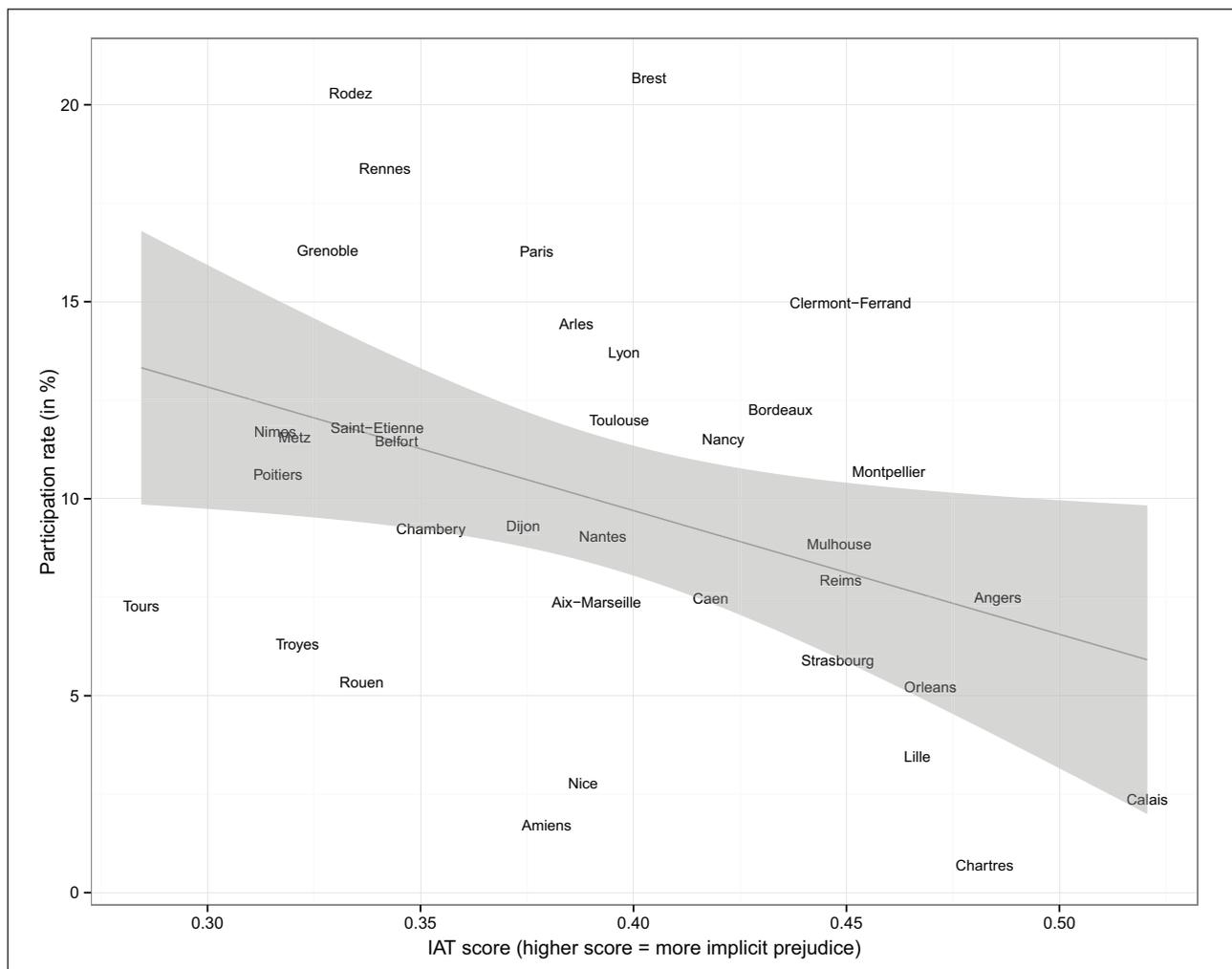


Figure 1: Participation rates in Charlie Hebdo rallies as a function of the average IAT score per city. The grey area represents the 95% CI of the regression slope.

insignificantly, mildly, or highly (his own terms) catholic zombie and we computed two orthogonal contrasts from this classification: one testing a linear trend and one testing a quadratic trend.

We first tested the effect of this classification on IAT scores. Following Todd's reasoning, cities classified as highly catholic zombie should have the highest IAT scores, followed by mildly and insignificantly catholic zombie in that order. We found no such effect with respectively, $b = 0.006$, $t(32) = 0.26$, $p = .80$, $\eta_p^2 = .002$, and $b = -0.027$, $t(32) = 1.53$, $p = .14$, $\eta_p^2 = .068$, for the linear and quadratic contrasts.

We then tested a second model by regressing the participation rates on these two contrasts. Replicating Todd's work, this analysis revealed a marginally significant positive linear relationship between the catholic zombie classification and the participation rates, $b = 3.61$, $t(32) = 1.94$, $p = .061$, $\eta_p^2 = .11$, such that territories classified as highly catholic zombie ($M = 12.04$; $SD = 4.49$) participated to a larger extent than insignificantly catholic zombie territories ($M = 8.43$; $SD = 5.02$). It is worth mentioning here that this effect is only marginal (and not significant as in Todd's analysis) simply because we do not use as many cities as Todd did. The quadratic contrast was not significant, $b = 0.30$, $t(32) = .20$, $p = .84$, $\eta_p^2 = .001$, meaning that the mean for the mildly catholic zombie territories ($M = 9.78$; $SD = 5.50$) did not differ significantly from the middle of the other two conditions.

Finally, we regressed the participation rates on the same two contrasts and IAT scores. As the two separate analyses (i.e., one with the catholic zombie classification and one with the IAT scores), this regression revealed opposite effects: a positive linear relationship for the catholic zombie classification, $b = 3.81$, $t(31) = 2.22$, $p = .034$, $\eta_p^2 = .14$, and a negative effect of IAT scores, $b = -34.88$, $t(31) = 2.56$, $p = .016$, $\eta_p^2 = .17$. The quadratic contrast was again not significant, $b = -0.64$, $t(31) = 0.46$, $p = .65$, $\eta_p^2 = .007$. Overall, this analysis demonstrates that the effect of catholic zombie territories cannot be attributed to anti-Arab prejudice, because these two effects actually co-exist and the IAT effect is opposite to what Todd would have argued.

As an additional analysis and because one might wonder whether socio-economic status relates to the previous findings, we conducted a model where we added as predictors the proportion of executive and intermediate professions and the proportion of laborer/manual laborer in each city (we used the same figures Todd used in his book). This analysis only revealed, again, a significant linear contrast for the catholic zombie classification, $b = 4.32$, $t(29) = 2.52$, $p = .018$, $\eta_p^2 = .18$, and for the IAT scores, $b = -30.61$, $t(29) = 2.30$, $p = .029$, $\eta_p^2 = .16$ (all the other $ps > .12$).

Discussion

Although explicitly presented as egalitarian, a national unity march, one could question what really drove Charlie Hebdo's marchers. Critics like Todd (2015) suggested there was actually a sharp contrast between those marchers explicit egalitarian values and their

"unconscious" or "latent" inegalitarian, we would say implicit, driving forces. Todd, however, provided no direct measure of such implicit inegalitarian implicit attitudes. The goal of our study was to provide exactly that by relying on the French/Arab IAT that 3426 people took from 2007 to 2014 on the Project Implicit website. We found, opposite to Todd's claim, that cities being more implicitly inegalitarian participated less to the Charlie Hebdo rallies. We believe these results contribute both to the question of what drove those marchers and more generally to the literature on implicit attitudes.

In his work, Todd (2015) claims that a city culture can be a determinant of individual behavior (e.g., participating in Charlie Hebdo rallies) and that a critical aspect of this culture would be its religious history. For instance, cities falling into catholic zombie territories (cities with strong catholic roots even if practicing Catholics are now a minority) would come, he argues, with (unconscious) inegalitarian attitudes, notably against Muslims. Showing that cities from catholic zombie territories participated to the rallies to a larger extent would therefore suggest, Todd argues, that those marchers hold inegalitarian attitudes against Muslims. Importantly, this demonstration relies on the assumption that this is because catholic zombie territories are implicitly biased against Muslims that they demonstrate higher participation rates. Our study strongly contradicts this assumption: We found no reliable evidence that catholic zombie territories come with higher level of implicit prejudice against Arabs and more critically that a higher level of implicit prejudice, the presumed mediator, comes with less participation in the rallies. Instead of showing, as Todd would expect, that catholic zombie territories joined the rallies to a larger extent because they were implicitly prejudiced, our results show that those are two independent aspects of cities' culture influencing actual social behavior. Therefore, it is still important to notice that our results are in line with Todd's idea that to some extent Charlie Hebdo marchers seem to be driven by the cultural values of their city.

As such, our results also contribute to the literature on implicit attitudes because they show that implicit attitudes aggregated at city-level—what we could conceive as implicit cultural values—can predict an actual social behavior like participating to a rally. This kind of result is in line with recent work showing that countries having stronger implicit gender stereotypes (i.e., "science = male") have larger achievement gaps between male and female in science and mathematics (Nosek et al., 2009). Our results, however, are the first to find such an effect with an actual social behavior. Interestingly, being able to demonstrate this effect is also relevant regarding the criticism often addressed to the IAT, namely that an IAT score captures a mere knowledge about a stereotype, but nothing that could be predictive of an actual behavior (Arkes & Tetlock, 2004; Karpinski & Hilton, 2001). In contrast to the idea that it does not predict actual behaviors, our results demonstrate that these implicit cultural values enable to predict a social behavior like participating to a rally. Importantly, one should keep in mind that what predicts this social behavior in our study is the group-level IAT score, not the

IAT score at the individual-level (an effect that we cannot assess with our design, because the observed behavior is at the group-level). This is an important reminder because previous work showed that the relationship between IAT scores and other variables can be quite different at the group-level and at the individual-level (Marini et al., 2013). It still remains that in our study, IAT scores at the group-level enabled to predict an actual social behavior.

Studying the relationship between group-level IAT scores and a behavior also helps to address several concerns regarding studies showing that the IAT can predict behavior. For instance, Fazio and Olson (2003) suggested that administering the IAT just before the target behavior (e.g., McConnell & Liebold, 2001) could be a concern because it could artificially make salient the social category under scrutiny and increase awareness of one's attitude toward these social groups. In addition, administering the IAT after the target behavior (e.g., Asendorpf, Banse, & Mücke, 2002) would also be a concern because the recently performed behavior could influence the IAT score (Fazio & Olson, 2003). Fazio and Olson concluded that it would be particularly informative to administer the IAT prior to the collection of the target behavior and at a clearly separate point in time. Because we found our effects at the group-level and relying on IAT scores collected sometime several years before the target behavior (data collection started in 2007 for a behavior performed in 2015), these results contribute to the IAT literature by being hard to explain in terms of an interplay between the IAT and the behavior measures or by any interpretation in terms of demand effect.

Limitations

A first limitation we need to mention is that although our results illustrate that one can predict the level of participation in Charlie Hebdo rallies from the IAT score of each city, it does not mean that this is a causal relationship. Indeed, the correlational nature of this study does not allow ruling out that a third variable (e.g., social or cultural) caused both a change in implicit attitudes and in participation rates.

A second possible limitation has to do with the very nature of what we measured with the French/Arab IAT. First, a general criticism addressed to the IAT is that it does not measure the implicit attitude toward one group, but the attitude toward one group relative to another (Karpinski & Steinman, 2006). Accordingly, we did not measure implicit attitudes toward Arabs, but implicit attitudes toward Arabs relative to French. Although it could be seen as a limitation, we believe this is in fact a feature that fits well with Todd's (2015) accusation of marchers being inegalitarian, meaning in this context Arab descent relative to French. Second, it is worth mentioning that the words used in the IAT are Arab first names (i.e., in the French context, from North-Africa), but not words directly related to religion. Hence, we did not exactly measure implicit prejudice towards Muslims (as compared with French), but in fact implicit prejudice toward Arab first names. We would still argue that the North-African population in France is widely known as

being Muslim to the point of it being a defining characteristic, and therefore strongly associated with the concept of Muslim. Therefore, because those two concepts are, for French people, associated to the point of being almost conceptually confounded and since the IAT is very sensitive to such associations, we are reasonably confident that an IAT designed to capture specifically implicit prejudice towards Muslims would provide the same/similar results.

A third possible limitation has to do with the representativeness of our IAT samples. There is indeed little doubt that people taking the IAT on the Project Implicit website were not representative of their city (as we have seen, the two most represented socio-economic categories were students and executive/intermediate professions). It is important to understand, however, that we did not intend to measure accurately the *absolute level* of implicit prejudice in each city. What was critical here is the *relative level* of each city; how each city stands compare to the other. Therefore, following Nosek and colleagues (2009), we believe this selection bias (i.e., an overrepresentation of these two socio-economic categories) does not threaten the validity of the critical relationship between IAT scores and participation rates, as long as it operated in the same fashion across cities. Although, we see no theoretical reasons why they would operate in different fashion across cities, we conducted additional analyses where we controlled for the proportions of these two categories. These analyses led to the same results, the critical effect being still significant ($ps < .039$).

Conclusion

Social psychology has been at the forefront of the research showing that people are often unable or unwilling to report their prejudice against other groups (Banaji & Greenwald, 2013 for a review). Yet, in this time of great trouble where intergroup conflicts can be tempered or inflamed by how other people's behavior is interpreted, it is a great danger to claim—with no strong evidence—that around four million people marched against some of their fellow citizens. In this research, we relied on the most studied implicit measure to test whether Charlie Hebdo marchers were indeed implicitly biased against Muslims. We found quit the opposite: more (implicitly) egalitarian cities had more marchers, not less. "Charlie" might be a catholic zombie, whatever this is, but he is not the enemy of his fellow Muslim citizens.

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All data used in this paper has been collected, archived, and analyzed according to the ethics guidelines of the Commission Nationale de l'Informatique et des Libertés (CNIL-France), authorization n° 1858713v0.

Competing Interests

The authors declare that they have no competing interests.

Notes

- ¹ All along this contribution and for reasons explained in the discussion section, we use the term “Arab” when referring to the implicit measure and the term Muslim when referring to Todd’s work. In addition, we use the term “Arab” instead of “North-African” (*Maghrébin*), because it is more common in the international literature (with 6858 references for “Arab” vs. 326 for “North-African” in PsycINFO).
- ² It is worth mentioning that other similar criteria (e.g., 17, 18, 19, or 21) for the minimum number of participants per city lead to the same results.
- ³ The proportions of the other socio-economic categories were: Employees (*employés*; 9%); Intermediate professions (*professions intermédiaires*; 7%); Artisans, marketers, and business leaders (*artisans, commerçants et chefs d'entreprise*; 1.7%); Non-working people (*sans emploi*; 1.1%); unemployed people (*chômeurs*, 0.50%); Laborer/manual laborers (*ouvriers*; 0.47%); Military people (*militaires*; 0.06%); Farmers (*agriculteurs*; 0,03%); Non-responses (18%).
- ⁴ The proportions of the other religious categories were: Atheists (48%); Catholics (29%); Others (8%); Muslims (8%); Jewish (2%); Protestants (2%); Buddhists (1.0 %); Without opinion (0.06%); Non-responses (3%).
- ⁵ French first names: Brigitte, Caroline, Marie, Julien, Nicolas, and Vincent. Arab first names: Aziza, Fatima, Latifa, Djamel, Mohamed, and Rachid.
- ⁶ Positive attributes: *Joie* (Joy), *Amour* (Love), *Paix* (Peace), *Merveilleux* (Wonderful), *Plaisir* (Pleasure), *Magnifique* (gorgeous), *Rires* (Laughter), and *Heureux* (Happy). Negative attributes: *Douleur* (Pain), *Epouvantable* (frightful), *Horrible* (horrible), *Méchant* (wicked), *Mal* (Evil), *Affreux* (Awful), *Echec* (Failure), and *Blessure* (Injury).
- ⁷ It is worth mentioning that, instead, Todd used the arbitrary value of 1000 marchers for Belfort and Nimes. This value seems far below the estimation provided by the prefecture for Belfort (13,000) and found in the regional press for Nimes (30,000). In the later case, it should be noted that our results stand even if we divide this number by two (given that the local press is not an authority). In the end, the figures we used are the same as those that can be found on the Wikipedia webpage (https://fr.wikipedia.org/wiki/Manifestations_des_10_et_11_janvier_2015).
- ⁸ The data and the statistical R script are available at <https://osf.io/r8w4u/>
- ⁹ For the sake of simplicity, we present a regular regression analysis, it should be noted, however, that our results remain basically identical when using the same weighting procedure used in Nosek et al. (2009; see also

Marini et al., 2013). It should be also mentioned that a multi-level analysis would have been problematic for such a design because the dependent variable (i.e., the participation rate) was at city-level (i.e., Level 2).

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