Implicit Attitudes Turned Upside Down: How the Utøya Massacre May Have Affected Norwegians’ Perceptions of the “Hussein” Word

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Abstract
Did the Utøya massacre on July 22, 2011, affect Norwegians’ implicit attitudes on issues related to Islam or Islamic people? Experiments carried out on student cohorts before and after the incident show that the U.S. President’s middle name, “Hussein,” was negatively associated with the students’ perceptions of Obama’s ability to fight terror in 2010, but in 2011 the effect was significantly more positive. The difference in attitudes between the cohorts was prevalent for politically decisive students only, and the effect may be attributed to the Utøya incident. The “Hussein” word did not affect the perceptions of Obama’s abilities as President on other items listed.

Keywords
balance theory, cognitive dissonance, controlled experiments, implicit attitudes

Introduction
Did the Utøya massacre on July 22, 2011, affect Norwegians’ attitudes on issues related to Islam or Islamic people? Shortly after the terrible incident, it became evident that the perpetrator, Anders Behring Breivik, was not a Muslim and he in fact claimed that one of his goals was to fight Islamic influence in the society. Evidently, this should not have any negative impact on attitudes toward Muslims, but could it have an opposite positive effect? Through the conceptual lenses of Heider’s (1946) classical balance theory and Festinger’s (1957) theory of cognitive dissonance, I will study this research question. More specifically, I will study implicit racial or religious attitudes toward Islam or Islamic people by comparing data from two student cohorts; one sampled before the Utøya incident and the other sampled roughly 7 weeks after.

An attitude can be defined as a “learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object” (Fishbein & Ajzen, 1975, p. 6). Explicit attitudes are “deliberate evaluative dispositions that are amenable to introspection and under conscious control” (Ottaway, Hayden, & Oakes, 2001, p. 98). Implicit attitudes, on the contrary, are automatic evaluative dispositions in the absence of conscious reflection, introspection, or control (Banaji & Bhaskar, 2000; Fazio, 1990; Greenwald & Banaji, 1995). Implicit and explicit racial attitudes are weakly correlated (Greenwald, McGhee, & Schwartz, 1998; Ottaway et al., 2001). Research also indicates that the predictive validity is stronger for implicit attitudes than for explicit attitudes (Duffy & Verges, 2010; Greenwald, Poehlman, Uhlmann, & Banaji, 2009; Kim, Chen, & Hwang, 2011). To avoid being judged as prejudiced, a person may be unwilling to express an explicit negative attitude toward a particular religion or ethnic group (cf. Greenwald & Breckler, 1985), which may explain the low predictive validity.

A central aspect when studying implicit attitudes is to minimize the candidates’ awareness that particular attitudes are being scrutinized (Ottaway et al., 2001). For instance, to measure racial attitudes toward an ethnic group, the candidate is framed with a name that is typical for that group, and she or he is next requested to associate the name with either pleasant or unpleasant words. A basic assumption of the methodology is that a relatively slow response time in associating names with pleasant words is indicative of racial prejudice, and the methodology has been coined the implicit association test (Greenwald et al., 1998).

Political science research on implicit attitudes has recently begun to emerge. Sheets, Domke, and Greenwald (2011) find that U.S. voters’ implicit attitudes toward presidential
candidates’ “American-ness” and “Christianity” is related to the voting tendency toward the candidates. The effect is stronger for Republican than for Democratic voters. “This suggests that these [implicit] perceptions are casting a halo—for better or worse—over the candidates, and affecting votes” (Sheets et al., 2011, p. 479). A related study shows that a Christian religious appeal affects implicit attitudes and political preferences for individuals who consider themselves as Christian (Albertson, 2011). This finding is perhaps not strikingly surprising, but another study illustrates that implicit cognitive connections between gender and party stereotypes cements the impression of viewing American Republicans as masculine and the Democrats as feminine (Winter, 2010). Moss-Racusin, Phelan, and Rudman (2010) examine how Democratic White adults’ voting preference in the primary election between Barack Obama and Hillary Clinton is consistent with their implicit attitudes. Carraro and Castelli (2010) study the effect of negative campaigning on implicit attitudes, finding that “the reliance on negative messages was associated with more negative spontaneous affective responses toward the source, but also with a spontaneous conformity to such a source” (p. 617). Studies from Italy show that implicit attitudes were good predictors, and more effective than explicit attitudes, to forecast the result of the National Election in 2006 (Arcuri, Castelli, Galdi, Zogmaister, & Amadori, 2008; Roccati & Zogmaister, 2010). Another study finds that positive implicit attitudes toward Hispanics increase the likelihood of supporting a Hispanic candidate (Kam, 2007). Yet perhaps more disturbingly, Perez (2010) shows that implicit attitudes toward Latino immigrants in the United States affect preferences for immigration policy and intolerance toward immigrants.

However, despite an increasing body of knowledge examining implicit attitudes in political behavior and psychology, to my knowledge, this is the first study which compares implicit attitudes before and after what has been coined a terrorist attack committed by a White nationalist. As noted, the implicit association test developed by Greenwald et al. (1998) is often applied to measure implicit attitudes, but in this article, I have instead carried out randomized controlled experiments in which I study whether the U.S. President’s middle name, “Hussein,” has had any effect on students’ perceptions of his ability to handle different challenges. Hussein is of Arabic origin, a common middle name in Muslim cultures, and accordingly resembles an association to Islam and Islamic people, I will argue. The methodology furthermore enables me to study whether implicit attitudes are related to one or more particular items or issues, and to my knowledge, this is the first contribution which examines this topic.

In the following, I will first elaborate the balance theory (Heider, 1946) and the theory of cognitive dissonance (Festinger, 1957), and argue how these perspectives can explain possible differences in student cohorts’ racial and religious attitudes as a result of the Utøya incident. Then I will explain details about the methodology for this study.

Next, I will present the empirical results, discuss the findings’ implications, address the study’s limitations, and suggest avenues for future research.

Theory

I have defined an attitude with Fishbein and Ajzen (1975) as a “learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object” (p. 6). Attitudes are accordingly not innate, but learned. Learning an attitude can take place through the exposure of external stimuli from family members, friends, peers, literature, mass media, or practically any source. Second, an attitude is not an observable act by itself, but a predisposition to act or respond in a certain way. Classical writings by LaPiere (1934), Corey (1937), and Ajzen and Fishbein (1977) discuss the link between attitudes and behavior, but in this article, I focus on the very concept of attitudes—more specifically, implicit attitudes—and not their possible consequences in actual behavior. According to the definition, an attitude is also directed toward an object and is furthermore amenable to change if a person is exposed to novel stimuli.

Let us now assume that a person (P) at the outset is holding an attitude toward and object (O), which in our case is an ethnic or religious group. A basic assumption in Heider’s (1946) classical balance theory is that individuals strive to obtain cognitive balance between affective elements that they come across. Another assumption is that the link between P and O is either positive or negative. There is furthermore an association between X and O, in which X is a related object; that is, a person, an attribute, a consequence, or incident, and so on. In our case, X can, for instance, represent historical incidents or persons that are associated with the religious or ethnic group. The relationship between X and O is either positive or negative, and finally there is a positive or negative association between P and X. The possible relations are illustrated in Figure 1.

P’s attitude toward O can, according to Heider (1946), be predicted as a function of P’s attitude toward X, and the valence of the association between X and O. Thus, if P’s attitude toward X is positive (e.g., P holds a positive attitude...
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Table 1. The Seven Items Regressed on the “Hussein” Dummy in the 2010 Student Cohort (n = 67).

| M   | SD  | Item                                | Regression coefficient | SE  | p value |
|-----|-----|-------------------------------------|------------------------|-----|---------|
| 4.51| 1.19| Armament and armed conflicts        | -0.314                 | 0.289| 0.282   |
| 4.66| 1.16| The fight against terror            | -0.796                 | 0.269| 0.004   |
| 4.39| 1.24| Unemployment                        | -0.071                 | 0.306| 0.816   |
| 4.09| 1.23| The deficit                         | -0.003                 | 0.302| 0.993   |
| 5.12| 1.39| The health service                  | -0.004                 | 0.342| 0.992   |
| 4.09| 1.18| Criminality                         | -0.361                 | 0.286| 0.212   |
| 4.58| 1.37| Poverty and social problems         | -0.226                 | 0.337| 0.504   |

Note: Two-tailed p values tests of significance.

Table 1 shows the results of the regression of the seven items on the “Hussein” dummy. The regression coefficients indicate the change in score associated with the presence of the “Hussein” word. The coefficients range from -0.314 to -0.226, with p values ranging from 0.282 to 0.504, indicating that the effect of the “Hussein” word was not statistically significant for any of the items.

Results

I regressed each of the seven items on the “Hussein” dummy, and Tables 1 and 2 report the results of the 2010 and the 2011 cohorts, respectively. In Table 1, we observe that the “Hussein” dummy has a negative effect on all items listed, but it is only significant on the students’ perceptions of the U.S. President’s ability to fight terror. Independent variables for this study are modeled as nominal factors in the statistical software program SAS/JMP7. The regression coefficients in Tables 1 and 2 report the difference in scores between students being framed with the “Hussein” word and the control group. For example, in Table 1, we observe that students being framed with the “Hussein” word have an average score which is .796 lower than the control group (in a range between 1 and 7 on the Likert-type scale) regarding their perception of Obama’s ability to fight terror.

Table 2 reveals a more mixed picture than Table 1. Some items report a positive effect, others report a negative effect, but none of the results are statistically significant.

To assess whether there are differences between the 2010 and the 2011 cohorts, I tested the interaction effect between the “Hussein” dummy and the year dummy on all items, but only the students’ perception of Obama’s ability to fight terror yielded significant results. They are reported in Models 1a and 1b in Table 3 (upon request, I can provide statistical details on the interaction effects of the other items). The interaction term yielding a significant and positive effect in Model 1a implies that the difference in score between

toward a particular other person) and the valence of the association between X and O is positive (e.g., the particular other person expresses a positive attitude toward O), then P’s attitude toward O will also be positive. However, if P–X is positive, X–O is negative, then P–O will also be negative. Moreover, if P–X is negative, X–O is positive, then P–O will be negative. Finally, if both P–O and X–O are negative, then P–O will be positive. These possible triadic configurations are described as balanced (Heider, 1946).

A limitation of Heider’s (1946) theory is that it portrays attitudes as either positive or negative, not allowing any intermediate levels between dichotomies. Festinger’s (1957) theory of cognitive dissonance, however, permits variations in degrees of attitudes. P does not necessarily need to have either a positive or negative attitude toward O, but on a scale somewhere between the extremes. The same goes for P’s attitude toward X.

If we now return to the aftermath of the Utøya incident, most Norwegians (evidently) have a negative opinion of Mr. Breivik, and he himself has a negative opinion of Muslims. Here, the perpetrator represents X, and according to Heider’s (1946) theory, both the P–X and X–O are consequently negative. Referring to Heider’s (1946) balance theory, the Utøya incident should induce a positive attitude toward Islam or Islamic people in Norway, and referring to Festinger’s (1957) theory of cognitive dissonance, it should push Norwegians’ attitudes toward Islam or Islamic people in a positive direction.

In this article, I have access to comparable data from two student cohorts; one sampled before the Utøya incident and one sampled after. This enables me to study possible differences in attitudes before and after the incident. In the following I will address the methodology for the study.

Method

I carried out randomized controlled experiments in ordinary classes at a midsize college in Norway; the first in September 2010 and the second in September 2011, roughly 7 weeks after the Utøya incident. Before carrying out the study, I informed the students in general terms that I was interested in their opinions on some issues. Both student cohorts were enrolled in the same program and were in same grade at the time of data collection. Less than 5% of the students sampled were non-Caucasians.

I requested the students to indicate on a 7-point Likert-type scale their perceptions of the U.S. President’s ability to handle the following seven challenges (ranging from 1 = to a very little extent to 7 = a very large extent): armament and armed conflicts, the fight against terror, unemployment, the deficit, the health service, criminality, poverty, and social problems. The experimental group was framed with the name Barack Hussein Obama, and for the control group I omitted the “Hussein” word. My aim was to study whether the “Hussein” word was associated with the students’ perceptions of the President’s abilities on the different items listed.

I also accessed data on the students’ political affiliation by requesting them to indicate which among the seven major political parties they would vote for in a national election. The “don’t know” and “don’t want to vote” responses were merged into one group. I received 146 usable responses; 67 from the 2010 cohort and 79 from the 2011 cohort.
students being framed with the “Hussein” word in 2010 and 2011 has taken positive direction, and the discrepancy between the scores takes a value of 1.22 (in a range between 1 and 7 on the Likert-type scale).

To take account for possible unobserved heterogeneity between the two cohorts, I controlled for the students’ political affiliation in Model 1b, but we now observe that the interaction effect is actually stronger and more robust than in Model 1a. The least square mean plots reported in Figure 2 are derived from Model 1b in Table 3 and illustrate the “Hussein” dummy’s effect on the 2010 and the 2011 cohorts, respectively. (In unreported analyses, I also controlled for gender, but this effect is absent and does not alter the conclusion of the reported findings. I also correlated the gender variable—women coded 0 and men coded 1—with the year variable, which yields an insignificant coefficient of .023; \( p = .787; n = 145 \) of which 87 are women and 58 are men. This indicates that the student cohorts are not heterogeneous in terms of gender distribution.)

Model 1b furthermore shows that students on the extreme right (the Progress Party) and left (the Socialist Left Party) wing of the political landscape have a negative perception of the U.S. President’s ability to fight terror (possibly out of opposite reasons), whereas students affiliated with the Labor Party, the Conservative Party, and the “don’t know” and “don’t want to vote” respondents are in more favor of the President. The nominal factor of political affiliation is modeled “to represent differences from each level to the average response across all the nominal levels” (JMP, 2007, p. 17). For instance, the effect of the Labor Party reported in Model 1b shows that students affiliated with this party on average report a perception of Obama’s ability to fight terror which is .678 higher than the average of each nominal factor. The same goes for all the eight nominal factors in the variable. An advantage of this methodology is that it enables the inclusion and comparison of nominal factors taking more than two values without omitting the “default” factor from the analyses (which is the case for the control variable of political preference). The methodology has no implication of the model fit and the tests of significance for the other independent variables in the table (for further details, see JMP, 2007).

Shortly after the Utøya incident, the media in Norway reported that political parties from left to right experienced an increasing number of new members. This may indicate that the terrorist attack has had a more prevalent effect on politically decisive persons because the Utøya incident took place at a political youth camp. I therefore omitted the “don’t know” and “don’t want to vote” students from the sample in Models 2a and 2b in Table 3 and we observe that the interaction effect is stronger in these models than in Models 1a and 1b. Model 3 only includes the “don’t know” and “don’t want to vote” students, and we observe that the interaction effect is insignificant and the directional effect is furthermore the opposite of what is reported in the other models.

Further analyses on the 2011 cohort show that the “Hussein” word had a positive effect on students affiliated with each political party of which I had comparable information (except for the Socialist Left Party, but here I only had data from four students). However, for the “don’t know” and “don’t want to vote” respondents, the “Hussein” word had an opposite negative effect, which deviated significantly from the rest of the 2011 sample (regression estimate of the interaction −1.89; \( SE = .842; p = .028 \), two-tailed test of significance; \( n = 76 \). Figure 3 reports the mean square plots. (Omitting the “don’t know” and “don’t want to vote” respondents, I also replicated the analyses on the 2011 cohort reported in Table 2 finding that “the fight against terror” item is now significantly positive: regression estimate = .684; \( SE = .298; p = .025 \), two-tailed test; \( n = 69 \).)

Taken together, the empirical findings show that the student cohort sampled in September 2011 had a significantly more positive attitude toward the “Hussein” word in relation to the U.S. President’s ability to fight terror as compared with the student cohort sampled in September 2010. Further analyses indicate that this difference in attitudes is prevalent for politically decisive students only. In the following, I will discuss the findings’ possible implications.

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**Table 2. The Seven Items Regressed on the “Hussein” Dummy in the 2011 Student Cohort.**

| Item                                | Regression coefficient | SE | \( p \) value | \( n \) |
|-------------------------------------|------------------------|----|---------------|-------|
| Armament and armed conflicts        | .248                   | .276| .371          | 79    |
| The fight against terror            | .425                   | .278| .131          | 79    |
| Unemployment                        | −.169                  | .303| .579          | 79    |
| The deficit                         | −.090                  | .314| .775          | 79    |
| The health service                  | .152                   | .326| .643          | 79    |
| Criminality                         | −.128                  | .269| .636          | 77    |
| Poverty and social problems         | .133                   | .294| .651          | 79    |

Note: Two-tailed \( p \) values tests of significance.

**Figure 2.** Least square mean plots comparing the 2010 cohort with the 2011 cohort (derived from Model 1b in Table 3).
Table 3. OLS Regressions Analyses.

|                | 1a       | 1b       | 2a       | 2b       | 3         |
|----------------|----------|----------|----------|----------|-----------|
| Intercept      | 4.44**** (.098) | 4.01**** (.137) | 4.35**** (.106) | 3.87**** (.151) | 4.88**** (.250) |
| “Hussein” dummy (HD) | −.185 (.195) | −.068 (.188) | −.040 (.211) | .027 (201) | −.750 (.499) |
| Year dummy (YD) | −.450** (.195) | −.267 (.191) | −.446** (.211) | −.265 (.207) | −.583 (.499) |
| HD × YD        | 1.22*** (.391) | 1.29**** (.374) | 1.45**** (.423) | 1.59**** (.402) | −.833 (.998) |
| The Progress Party | −.689* (.392) | −.593 (.384) |          |          |          |
| The Conservative Party | .490** (.189) | .637*** (.196) |          |          |          |
| The Social Liberal Party | .064 (.419) | .154 (.412) |          |          |          |
| The Centre Party | .167 (.455) | .334 (.446) |          |          |          |
| The Labor Party | .678*** (.207) | .824*** (.212) |          |          |          |
| The Socialist Left Party | −1.13*** (.503) | −.987*** (.490) |          |          |          |
| The “don’t know/want to vote” | .907**** (.249) |          |          |          |          |
| R²             | .098     | .245     | .112     | .263     | .199      |
| Adjusted R²    | .079     | .190     | .090     | .205     | .065      |
| F value        | 5.12***  | 4.39**** | 5.04***  | 4.53**** | 1.49 ns   |
| n              | 146      | 146      | 124      | 124      | 22        |

Note: OLS = ordinary least squares. Regression estimates with standard errors are in parentheses. Two-tailed tests of significance. Dependent variable: The students’ perception of the U.S. President’s ability to fight terror. Models 1a and 1b include the whole sample from both student cohorts. Models 2a and 2b exclude the “don’t know” and “don’t want to vote” respondents, and Model 3 only includes the “don’t know” and “don’t want to vote” respondents. *p < .10. **p < .05. ***p < .01. ****p < .001.

Discussion and Conclusion

The focus in this article has been to study whether the Utøya Massacre on July 22, 2011, committed by Anders Behring Breivik, a blond Caucasian of Norwegian descent, may have affected Norwegians’ implicit attitudes toward Islam or Islamic people. I studied implicit attitudes in randomized controlled experiments by requesting student cohorts to indicate their perceptions of the U.S. President to handle different challenges. One student cohort was sampled before the Utøya incident, and the other was sampled afterwards. For the experimental group, I included Obama’s middle name, “Hussein,” and for the control group, I omitted this name. As noted, “Hussein” is of Arabic origin, a common middle name in Muslim cultures, and may accordingly resemble an association to Islam and Islamic people.

Drawing upon Heider’s (1946) balance theory and Festinger’s (1957) theory of cognitive dissonance, I have argued that the Utøya incident can have pushed Norwegians’ implicit attitudes toward Islam or Islamic people in a positive direction. My empirical data support this argument in that the “Hussein” word in September 2011, measured roughly 7 weeks after the Utøya incident, was significantly more positively associated with Obama’s ability as President to fight terror, as compared with the data from the student cohort sampled in September 2010 (see Models 1a-2b in Table 3 and Figure 2). The data indicate that the difference in attitudes is prevalent for politically decisive students only. One explanation of this finding might be that politically decisive students have a stronger loathing for Mr. Breivik as the Utøya massacre took place at a political youth camp.

Taken together, this study indicates that there has been a robust positive change in politically decisive students’ association with the U.S. President’s middle name, “Hussein,” regarding his ability to fight terror. I have argued that this is a change in implicit attitudes and may be a consequence of the Utøya incident. A limitation, however, is that the “don’t know” and “don’t want to vote” respondents represent a relatively small part of the sample. Another limitation may be that unobserved heterogeneity between the two student cohorts has generated spurious results. Granted, such an...
explanation cannot be ruled out, but as noted, the students were enrolled in the same program of study, and they were sampled at about the same time of the year and in same course of study (which was also mandatory for all of them). Both cohorts can furthermore be considered as relatively similar in terms of abilities and distribution in age. In addition, to take account for possible heterogeneity between the student cohorts, I controlled for political affiliation, which actually strengthened the interaction term between the “Hussein” and the year dummy (see Table 3).

One may also argue that the assassination of Osama bin Laden has altered the perception of the U.S. President’s ability to fight terror, but this should not be genuinely associated with the “Hussein” word. In Table 3, we actually observe a negative difference between the 2010 and the 2011 cohorts in regard to the students’ perceptions of the President’s ability to fight terror (which is also statistically significant when controlling for the students’ political affiliations). This is most likely a reflection of a general decline in the students’ perceptions of Obama’s abilities as President, which I also observed in unreported models regarding his ability to handle unemployment, the deficit, the health care system, and poverty.

It is interesting to note that the “Hussein” word only altered the perceptions of the President’s ability to fight terror (and not any of the other items listed). It may be argued that this is a statistical artifact, but the strongly significant effects of the interaction term reported in Models 1a to 2b in Table 3 indicate that this is not the case. At face value, I also find it intuitive that the “Hussein” dummy is associated with the U.S. President’s ability to fight terror. It is a matter of fact that serious terrorist attacks have been carried out by persons who at least claim to be Muslims. Associating the “Hussein” name with an item incorporating the notion of “terror” may accordingly be explicable (and throughout this article, I have argued how the Utøya incident may have altered attitudes that are associated with the “Hussein” word in a more “favorable” direction). The finding can accordingly imply that implicit attitudes are not general, but are related to particular issues. To my knowledge, this is the first study which indicates that implicit attitudes may take such a property, and future research should further investigate this topic. Future research should finally study whether the probable change in implicit attitudes is temporal or permanent.

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