

**Lateral Attitude Change: Delayed Focal Effect After Displacement?**

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**Abstract**

According to the lateral attitude change (LAC) model (Glaser et al., 2015), persuasion attempts addressing a focal topic may cause attitude change toward lateral (= related) topics. This may take the form of either generalization, where explicit and implicit attitudes toward both focal and lateral topics change, or displacement, where explicit attitudes toward lateral objects change but explicit attitudes toward the focal object do not change. In the case of displacement, a process similar to the sleeper effect (Hovland et al., 1949) may lead to delayed focal change, thus turning a displacement pattern into a generalization pattern. We tested this in an experiment where students ( $N = 99$ ) read arguments for or against inclusive schooling (the focal topic) and subsequently received either a validation cue (a text emphasizing the arguments' soundness) or a discounting cue (a text stating the arguments were made up). Explicit and implicit attitudes toward the focal topic and a lateral topic (*prolonged primary school*) were assessed both immediately (T1) and after a two-week delay (T2). As we found no displacement pattern at T1, the hypothesis on delayed focal change could not be tested. We report further exploratory analyses.

*Keywords:* discounting cue, displacement, explicit attitude, implicit attitude, lateral attitude change, sleeper effect

### **Lateral Attitude Change: Delayed Focal Effect After Displacement?**

Influence attempts targeting attitudes toward one object (= the focal object) may affect attitudes toward other, related objects (= lateral objects). The lateral attitude change (LAC) model (Glaser et al., 2015) describes two types of LAC: (1) generalization, where explicit and implicit attitude change is observed toward the focal and lateral objects, and (2) displacement, where we observe explicit attitude change toward lateral objects but not toward the focal objects, while implicit change is still evident toward both focal and lateral objects. Displacement (vs. generalization) is assumed to occur when a recipient consciously rejects (vs. accepts) the focal influence attempt, for example based on information discrediting a persuasive message's validity. LAC may then still occur because of spreading activation from focal to lateral object at an associative level (which is detectable at the level of implicit attitudes), especially if the recipient does not consciously link the reasons to reject the focal attitude with the lateral object. However, after initial rejection of focal change, such focal change may occur with a delay, so that, over time, a pattern of displacement may turn into a pattern of generalization (Glaser et al., 2015). Examining such delayed focal change was the main goal of the present research.

On the level of explicit attitudes, an example for delayed focal change was observed in research on the leniency contract model of minority influence by Crano and Chen (1998). These authors predicted and found that strong majority messages resulted in focal change on a topic, whereas the influence of minority messages was immediately visible only in terms of indirect attitude change (on related topics); over time, however, delayed focal change was observed as well (Alvaro & Crano, 1997; Crano & Chen, 1998). But minority sources are just one among many factors that may prevent immediate focal change and foster delayed focal change. Research on the sleeper effect has shown that any kind of discounting cue that discredits the message source or the message itself may do so (Kumkale & Albarracín, 2004). Examples of the sleeper effect include studies where the trustworthiness of the message

source was manipulated (e.g., U.S. nuclear physicist Robert J. Oppenheimer vs. the Soviet communist party newspaper “Pravda” arguing on the topic of atomic submarines; Hovland & Weiss, 1951), or where the message was simply framed as being false (Gruder et al., 1978).

The literature on the sleeper effect features competing explanations for delayed persuasion. The *forgetting hypothesis* stated that the discounting cue would be forgotten but the message content would still be remembered. It was falsified because participants showing a sleeper effect were still able to name the untrustworthy source (Hovland et al., 1949; Hovland & Weiss, 1951; Kumkale & Albarracín, 2004; Pratkanis et al., 1988). Later, researchers claimed that the association between the untrustworthy source and the message content would be weakened (*dissociation hypothesis*, Hovland & Weiss, 1951; Kumkale & Albarracín, 2004; Pratkanis et al., 1988). Accordingly, participants may remember both, but would not access both simultaneously. According to the *differential decay hypothesis* (Greenwald et al., 1986; Pratkanis et al., 1988), the message and the source are hardly integrated and decay at different rates. The *availability-valence hypothesis* states that evaluation would depend on the valence of accessible information. As cognitive resources are limited, the message, being the more elaborated information, would be most accessible (Hannah & Sternthal, 1984; Hovland & Weiss, 1951; Kumkale & Albarracín, 2004).

The LAC model offers a new ingredient that the memory-based hypotheses had not considered: the implicit level. According to the LAC model, focal attitude change, being a result of elaboration of the message, should be detectable on an implicit level both immediately and after some delay. As long as recipients remember the discounting cue, however, this implicit attitude change is not paralleled by explicit attitude change. Only after a delay, when recipients do not consciously remember the discounting cue any more, will they accept focal change and report it as a conscious attitude as well.

In our previous research on LAC, we have used various methods designed to cause immediate explicit rejection of a persuasive message in order to examine displacement effects

(Linne et al., 2020). For example, participants read reviews of products and then learned that those reviews were fake, having been paid for by either by the advertising company (positive reviews) or a competing company (negative reviews). However, such manipulations were not completely effective in eliminating focal effects of the message; they only reduced the size of those effects. This lack of effectiveness may be caused by participants' applying conversational norms to the experimental instructions, asking themselves "Why would the experimenter give me the information if it did not have some validity?" (see Grice, 1975, "maxims of quality and relevance"), and thus using the information to some extent, despite the discounting cue they had received.

Therefore, in the present research, we tackled this problem by providing participants with a rationale for why they would read information that is afterwards declared false. While reading a (positive vs. negative) persuasive message on a focal topic and later learning that the content of the message was either validated by scientific literature (validation cue condition) or completely made up (discounting cue condition), participants wore bogus electrodes on their index and middle fingers that were said to measure electrodermal activity to assess participants' reaction to the text. Also, following Kumkale and Albarracín (2004), we used a message-disclaimer note instead of a noncredible source as a discounting cue because this had been shown to elicit a stronger sleeper effect. Later, we assessed participants' explicit and implicit attitudes toward the focal and a lateral topic both immediately (T1) and after a two-week-delay (T2).<sup>1</sup>

Kumkale and Albarracín (2004) reported that finding a sleeper effect was more likely when participants' motivation to think about the message was high. Therefore, one potential moderator could be the participants' need for cognition (NFC; Cacioppo & Petty, 1982; Cohen et al., 1955). Furthermore, attitudes toward the political topic inclusive

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<sup>1</sup> We had started out with a one-week delay but changed this after running the first few participants (see Method section for details.)

schooling (focal object) might be biased by political ideologies such as social dominance orientation (SDO; Crowson & Brandes, 2014; Sidanius & Pratto, 1999). To control for these potential moderators, both NFC and SDO were assessed.

Based on Glaser et al. (2015), we set out to test the following hypotheses:

*H1.* At T1, participants in the validation cue conditions will change their explicit and implicit attitude toward the focal and (to a lesser extent) toward the lateral topic in accordance with the valence of the message (positive vs. negative). Hence, generalization will occur.

*H2.* At T1, participants in the discounting cue conditions will not change their explicit attitude toward the focal topic, whereas they will change their explicit attitude toward the lateral topic in accordance with the valence of the message (positive vs. negative).

Participants will change their implicit attitude toward the focal and (to a lesser extent) toward the lateral topic in accordance with the valence of the message (positive vs. negative). Hence, displacement will occur.

*H3.* At T2, participants in the validation cue conditions will still show the generalization pattern described in H1, but weaker than at T1.

*H4.* At T2, participants in the discounting cue conditions will show explicit and implicit focal attitude change in accordance with the valence of the message (positive vs. negative). Hence, a delayed generalization pattern will be observed.

Taken together, at T1, a generalization effect will occur in the validation cue conditions and a displacement effect will occur in the discounting cue conditions. At T2, a (weaker) generalization effect will occur in all conditions.

## **Method**

### **Participants**

One hundred and forty-three participants were recruited on Bielefeld University campus or via social networks. Participants received EUR 10 for their participation. Several cases had to be excluded from analyses: 16 participants had been re-invited for T2 after a one-

week interval, but reported that they had perfectly recalled their previous responses and tried to repeat them; therefore, these cases were dropped and the interval was extended to two weeks (plus or minus 2 days). Twenty-eight additional participants could not be scheduled for a T2 session within the intended time period (9 cases), did not return for a T2 session (12 cases), or their data from T1 and T2 could not be matched (7 cases). This resulted in a final sample size of  $N = 99$  (65 female, 34 male;  $M_{age} = 24.66$ ,  $SD_{age} = 6.39$ ; 94% students). All participants gave their informed consent at both T1 and T2.

### **Procedure and Design**

The experiment used a 2 (message: pro vs. contra) x 2 (post-message cue: discounting vs. validation) x 2 (topic: focal vs. lateral) x 2 (time of measurement: T1 vs. T2) mixed design, with the first two variables varying between subjects and the last two variables within subjects. Most parts of the experiment were run on a computer.

At T1, participants read a printed persuasive message that argued either pro or contra the focal topic inclusive schooling (for the German wording, see Appendices A and B). In a pilot test, the persuasive messages had worked as intended: Participants who had read the pro inclusion text rated inclusive schooling more positively ( $M = 5.29$ ,  $SD = 1.14$ ) than did participants who had read the contra text ( $M = 4.36$ ,  $SD = 1.26$ ),  $t(65) = 3.14$ ,  $p = .003$ ,  $d = 0.758$ .

The message was followed by either a discounting cue or a validation cue; these were short texts telling participants that the persuasive arguments were completely made-up or well-founded, respectively (for the German wording, see Appendix C). To make it plausible that participants received a text and after reading were told that the text was false (discounting cue), participants in both conditions took a fake skin conductance test while reading. For this, the experimenter fastened two single EEG electrodes around the participant's left index and middle finger tips. The electrodes were connected to an Apple MacMini that was switched on and supposedly assessing skin conductance. Before continuing with the experiment,



participants read on the computer screen that they should remove the electrodes and place them back into a box. Participants were told that we were interested in their physiological reaction to different topics.

Then participants completed both explicit and implicit measures of attitudes toward the focal topic *inclusive schooling* as well as the lateral topic *prolonged primary school*. Similarity awareness between attitudes toward the focal and lateral topic had been high in a pilot test (see Boege et al., 2020, Figure 15). At T2, participants completed the same explicit and implicit attitude measures as at T1. Finally, they completed questionnaires assessing NFC, SDO, and demographics.

### **Explicit Attitudes**

At both T1 and T2, explicit attitudes toward the focal topic were assessed with the question “What do you personally think of inclusive schooling?” (in German: “Wie finden Sie persönlich Inklusion an Schulen?”), which was followed by four seven-point semantic differential items: *bad – good*, *unpleasant – pleasant*, *unlikable – likable*, *useless – useful* (in German: *schlecht – gut*, *unangenehm – angenehm*, *unsympathisch – sympathisch*, *sinnlos – sinnvoll*). Explicit attitudes toward the lateral topic were assessed with the question “What do you think of a change of schools after six instead of four years?” (In German: “Wie finden Sie den Schulwechsel nach sechs anstatt vier Jahren?”). Because the idea of prolonged primary school is not as common as the idea of inclusive schooling, a short explanation was given before the question stating “In most federal states, primary school lasts for four years, in Berlin and Brandenburg, it lasts six years. Which way is the best for our children is a controversial topic. Critics on both sides fear either mental over- or underload for the children.”). The semantic differential items were the same as for the focal topic. A focal attitude index and a lateral attitude index were created for both T1 and T2 by averaging across the respective items, coded 1 to 7 (all Cronbach's alphas > .84).

### **Implicit Attitudes**

At both T1 and T2, participants carried out two single-category implicit association tests (SC-IATs; Karpinski & Steinman, 2006) that were designed to measure implicit attitudes toward the focal and lateral topics, respectively. Each SC-IAT consisted of five blocks: one general practice block (Block 1, 23 trials), two task-specific practice blocks (Block 2 & Block 4, each 23 trials), one test block in which the attitude object was named in the upper left corner paired with the word “good” (Block 3, 72 trials), and one test block in which the attitude object was named in the upper right corner paired with the word “bad” (Block 5, 72 trials).

Practice Block 1 showed the word “good” in the left upper corner and the word “bad” in the upper right corner of the screen. Participants learned to categorize eight valenced words (four “good” and four “bad”) that appeared in the center of the screen into these two categories by pressing the appropriate mouse key. Participants answered via the left and right mouse keys using their index fingers. The valenced words were *positive, useful, correct, reasonable, negative, useless, wrong, and foolish* (in German: *positiv, sinnvoll, richtig, vernünftig, negativ, sinnlos, falsch, unvernünftig*).

Practice Block 2 introduced the attitude object. Participants read in the upper left corner “Good or Inclusion (Prolonged primary)” and categorized four additional words (or two-word phrases) in the target category. For “inclusion” the words were: *inclusive, diversity, participation, and inclusion* (in German: *inklusiv, Diversität, Teilhabe, Einbezug*). For prolonged primary, the words were: *6th grade, six, six years, and prolonged primary school* (in German: *6. Klasse, sechs, sechs Jahre, Grundschule länger*).

Block 3 was the first test block encompassing 72 test trials that were structured in the same way as described for Block 2. Then, the second task-specific practice block (Block 4) followed. Here, the attitude object was named in the upper right corner (e.g., “Bad or Inclusion”). Block 5 was the final test block encompassing 72 test trials that were structured in the same way as described for Block 4.

In an SC-IAT, presenting all three word-categories (e.g., “Good,” “Inclusion,” and “Bad”) within a test block with equal frequency would lead to one key being pressed twice as often as the other. Therefore, to reduce response bias to one side, we followed a recommendation by Karpinski and Steinman (2006) and presented the attitude-object words, the “good” words, and the “bad” words in a 7:7:10 ratio when attitude object and “good” shared a key, and in a 7:10:7 ratio when attitude object and “bad” shared a key. This resulted in 58% of correct responses for the key representing two categories and 42% correct responses for the key representing one category. The resulting *d*-values of the SC-IAT can result in any value from  $-2$  to  $+2$ . More negative (positive) values indicate more negative (positive) implicit attitudes.

### **Control Variables**

#### ***Need for Cognition***

NFC was measured using a German short form (Keller et al., 2000) of the NFC scale (Cacioppo & Petty, 1982; Keller et al., 2000). This scale comprises 14 items (e.g., “I don’t like to have responsibility of handling a situation that requires a lot of thinking” – reverse-coded; in German: “Ich trage nicht gerne die Verantwortung für eine Situation, die sehr viel Denken erfordert”) with a response scale from 1 = *do not agree at all* to 7 = *fully agree*. The wording of all items but one (Item 14) was such that high scores mean low NFC. Therefore, all items but Item 14 were reverse-coded; then item scores were averaged into an overall NFC score (Cronbach’s alpha = .807).

#### ***Social Dominance Orientation***

To control for SDO, a German version of the SDO<sub>7</sub> scale was used (Saldarriaga et al., 2017). The SDO<sub>7</sub> scale consists of 16 items (e.g., “Group equality should be our ideal” – reverse-coded; in German: “Gruppengleichheit sollte unser Ideal sein”) with a response scale from 1 = *strongly disagree* to 7 = *strongly agree*. After reverse-coding the negatively-cued

items (Items 5-8 and 9-12), item scores were averaged into an overall SDO<sub>7</sub> score (Cronbach's alpha = .901).

## Results

### Text Credibility Check

To check whether the post-message cue worked as intended, participants replied to the question: “How do you rate the text you have read in the beginning now, after being informed about its background?” (in German: “Wie bewerten Sie den eingangs gelesenen Text, nachdem Sie nun über den Hintergrund des Textes informiert wurden?”) on three semantic-differential items using a nine-point-scale (*absolutely non-credible – absolutely credible*, *absolutely not persuasive – absolutely persuasive*, and *absolutely not founded – absolutely well founded*, in German: *absolut unglaublich – absolut glaubhaft*, *absolut nicht überzeugend – absolut überzeugend*, *absolut nicht fundiert – absolut fundiert*) that were averaged into a 1-9 credibility scale (Cronbach's alpha = .886). Overall, participants rated the text as significantly more credible when the validation cue was given ( $M = 6.68$ ,  $SD = 1.54$ ) than when the discounting cue was given ( $M = 4.79$ ,  $SD = 1.86$ ),  $t(97) = 5.51$ ,  $p < .001$ ,  $d = 1.108$ . Thus, the cue manipulation was successful.

### Hypothesis Testing

Tables 1 and 2 show the condition means and standard deviations of explicit and implicit attitudes, respectively, toward the focal and lateral topic. To test our hypotheses, we conducted four separate 2 (topic: focal vs. lateral) x 2 (post-message cue: validation vs. discounting) x 2 (message valence: pro vs. contra) mixed-model ANOVAs with repeated measurement on the first factor, at each time of measurement (T1 and T2) and for explicit and implicit attitudes, respectively.

#### *Explicit Attitudes at T1*

According to Hypotheses 1 and 2, at T1, a generalization effect in the validation cue conditions and a displacement effect in the discounting cue conditions were predicted for

explicit attitudes. This implies a specific three-way interaction pattern. Inspection of the left half of Table 1 shows that the result pattern did not resemble this prediction; also, the ANOVA yielded no significant three-way interaction,  $F(1, 95) = 0.210, p = .648, \eta^2 = .002$ . Instead, we found a main effect of topic, with attitudes toward the focal topic ( $M = 5.20, SD = 1.19$ ) being significantly more positive than attitudes toward the lateral topic ( $M = 4.65, SD = 1.50$ ),  $F(1, 95) = 9.36, p = .003, \eta^2 = .09$ . This was qualified by a two-way interaction of topic and message valence,  $F(1, 95) = 4.20, p = .043, \eta^2 = .04$ . Simple-effects tests revealed that the message affected only focal attitudes (pro conditions:  $M = 5.53, SD = 1.07$ ; contra conditions:  $M = 4.83, SD = 1.23$ ),  $t(97) = 3.03, p = .003, d = 0.610$ , but not lateral attitudes (pro conditions:  $M = 4.64, SD = 1.44$ ; contra conditions:  $M = 4.65, SD = 1.58$ ),  $t(97) = -0.03, p = .974$ .

No further effects were significant, all  $F < 1$ . Thus, although message valence affected focal attitudes in the validation cue conditions as predicted, it did so in the discounting cue conditions as well, and its effect on lateral attitudes was zero. The most important precondition for testing a delayed focal effect at T2, a displacement effect in the discounting cue condition at T1, was therefore not fulfilled. Nonetheless, for the sake of completeness, we report the remaining analyses for T1 and T2.

### ***Implicit Attitudes at T1***

According to Hypotheses 1 and 2, at T1, a generalization effect was predicted for implicit attitudes, independent of cue condition, with a stronger message valence effect on focal than on lateral attitudes. The two-way interaction of text valence and topic was significant,  $F(1, 95) = 7.75, p = .006, \eta^2 = .08$ , but the pattern of means did not resemble the predicted pattern, as can be seen in the left half of Table 2. There was no effect of message valence on focal attitudes (pro conditions:  $M = 0.42, SD = 0.27$ ; contra conditions:  $M = 0.37, SD = 0.21$ ),  $t(97) = 1.03, p = .307$ , and a reversed effect of message valence on lateral attitudes (pro conditions:  $M = 0.11, SD = 0.24$ ; contra conditions:  $M = 0.23, SD = 0.21$ ),

$t(97) = -2.66, p = .009, d = -0.536$ . The only further effect that emerged was a main effect of topic, with more positive implicit attitudes toward the focal topic ( $M = 0.39, SD = 0.24$ ) than toward the lateral topic ( $M = 0.17, SD = 0.23$ ),  $F(1, 95) = 51.18, p < .001, \eta^2 = .35$ .

### ***Explicit Attitudes at T2***

According to Hypotheses 3 and 4, at T2, a (reduced) generalization effect was predicted for explicit attitudes, independent of post-message cue condition. This implies a specific two-way interaction pattern of message valence and topic. This two-way interaction was not significant,  $F(1, 95) = 2.16, p = .145$ . The only significant effect obtained was a main effect of topic, with focal attitudes ( $M = 5.16, SD = 1.10$ ) being more positive than lateral attitudes ( $M = 4.66, SE = 1.55$ ),  $F(1, 95) = 8.89, p = .004, \eta^2 = .09$ . Condition means are shown in the right half of Table 1.

### ***Implicit Attitudes at T2***

Contrary to Hypotheses 3 and 4, the only significant effect obtained for implicit attitudes at T2 was a main effect of topic. Implicit focal attitudes ( $M = 0.35, SD = 0.29$ ) were more positive than implicit lateral attitudes ( $M = 0.17, SD = 0.27$ ),  $F(1, 95) = 23.70, p < .001, \eta^2 = .20$ . Condition means are shown in the right half of Table 2.

## **Exploratory Analyses**

### ***Need for Cognition and Social Dominance Orientation***

Exploratory analyses with NFC (dichotomized) as an additional independent variable yielded no meaningful effects. Exploratory analyses with SDO (dichotomized) as an additional independent variable yielded the expected correlation pattern with the focal topic. Explicit attitudes toward the focal topic inclusion correlated negatively with SDO,  $r(97) = -.52, p < .001$ , whereas explicit attitudes toward the lateral topic prolonged primary school did not correlate significantly with SDO,  $r(97) = -.15, p = .148$ . A similar pattern emerged for implicit attitudes, where focal ST-IAT scores for inclusion correlated significantly with SDO,  $r(97) = -.28, p = .006$ , whereas lateral ST-IAT scores for prolonged

primary school did not,  $r(97) = .01, p = .946$ . Furthermore, the two-way-interaction of text valence and SDO was significant for explicit attitudes toward the focal topic at T1,  $F(1, 95) = 4.73, p = .032, \eta^2 = .05$ . Only for participants high in SDO did the text valence make a difference, with more positive explicit attitudes in the pro condition ( $M = 5.26, SD = 1.18$ ) than in the contra condition ( $M = 4.23, SD = 1.04$ ),  $t(47) = 3.26, p = .002, d = 0.931$ . This was not the case for participants low in SDO ( $M_{pro} = 5.75, SD = 0.95; M = 5.64, SD = 0.90$ ),  $t(45) = 0.39, p = .697$ . At T2, no significant interaction effects with SDO were found.

### Discussion

The current experiment was designed to test the LAC model's assumption that a displacement pattern will change into a generalization pattern over time. This hypothesis could not be tested because the experimental manipulation failed to cause a displacement effect in the discounting cue condition and a generalization effect in the validation cue condition. Instead, we found no evidence for LAC at all, and throughout all analyses, a stimulus effect was evident at both explicit and implicit levels, with the focal topic inclusion being evaluated more positively than the lateral topic prolonged primary school.

At T1, explicit attitude change as a function of the persuasive message (pro vs. contra text) was found only for the focal topic. However, this effect did not generalize to lateral explicit attitudes toward prolonged primary school. Lateral attitude change was absent although a pilot test had shown that the two topics (a) were close in semantic space and (b) the probability of attitude change on one topic causing attitude change on the other was rated as high (Boege et al., 2020). It is possible, however, that these pilot results were partly caused by the two topics being the only topics related to schooling, among many other topics also piloted. In the present experiment, by contrast, this association might not have been as salient. Perhaps other focal and lateral topics whose similarity is less context-dependent would have been more amenable to showing the hypothesized effect patterns.

Also, at T1, no implicit attitude change was found for the focal topic, and implicit attitudes toward the lateral topic showed a reversed pattern with more positive ST-IAT scores in the contra (vs. pro) message condition. Finally, at T1, the post-message cues did not show any effect on attitudes toward the focal topic.

At T2, at both explicit and implicit levels, neither focal nor lateral attitude change effects as a function of the persuasive message were evident. The only effect observed at T2 was the (theoretically uninteresting) main effect of topic. The general decay of the focal effect is consistent with the sleeper effect literature that has shown persuasion effects decaying over time.

Exploratory analyses showed that participants' level of NFC did not contribute to any meaningful effects. As expected, and replicating previous research (Crowson & Brandes, 2010), SDO predicted explicit attitudes toward the focal topic inclusive schooling (but not the lateral topic prolonged primary school) at both T1 and T2. In general, higher SDO was associated with less positive attitudes toward inclusive schooling. In addition, at T1, participants high in SDO were particularly likely to express negative attitudes toward inclusive schooling when they had read the contra (vs. pro) text. This may indicate that many of the student participants may generally have perceived a message arguing against school inclusion as politically incorrect or as questioning an existing societal consensus. For the contra message to be effective, it was apparently necessary that recipients exhibit a certain level of SDO. For similar reasons, school inclusion may not have been ideal as a focal topic that would form the basis for strong lateral effects. The difficulty to show a displacement effect has been described and discussed in detail by Linne et al. (2020). These authors reported an attenuated generalization effect rather than a displacement effect in conditions where information about an attitude object had been discredited. They argue that perseverance effects might sustain the attitude triggered by the message and that displacement effects may thus be a rare phenomenon outside of the laboratory as well. Further, they argue that the LAC



model might be incorrect in proposing a strict dichotomy between generalization and displacement, that is, *either* complete acceptance *or* complete rejection of focal attitude change accompanied by equally strong lateral attitude change in both cases. Instead, they conjecture, full acceptance and rejection may form the endpoints of a continuum along which any blend of generalization and displacement patterns may emerge. However, in the current study, we did not observe any lateral effects at all, and thus neither generalization nor displacement was detectable. For future studies testing the notion of delayed focal change within a LAC framework, we recommend to use more neutral and fully counterbalanced topics as focal and lateral attitude objects.

**Table 1**

*Means and Standard Deviations of Explicit Focal and Lateral Attitudes by Post-message Cue, Message Valence, and Time of Measurement*

Post-message cue	Message valence	T1		T2		N
		Focal <i>M (SD)</i>	Lateral <i>M (SD)</i>	Focal <i>M (SD)</i>	Lateral <i>M (SD)</i>	
Validation	Pro	5.65 (1.17)	4.64 (1.46)	5.57 (1.11)	4.71 (1.52)	26
	Contra	4.77 (1.30)	4.63 (1.65)	4.71 (1.13)	4.55 (1.71)	23
Discounting	Pro	5.40 (0.96)	4.64 (1.45)	5.24 (0.93)	4.63 (1.49)	26
	Contra	4.89 (1.17)	4.68 (1.55)	5.08 (1.13)	4.74 (1.56)	24

*Note.* Explicit attitudes were measured by averaging semantic-differential ratings across four items, on a scale from 1 to 7. Higher values represent more positive attitudes.

**Table 2**

*Means and Standard Deviations of Implicit Focal and Lateral Attitudes by Post-message Cue, Message Valence, and Time of Measurement*

Post- message cue	Message valence	T1		T2		N
		Focal <i>M (SD)</i>	Lateral <i>M (SD)</i>	Focal <i>M (SD)</i>	Lateral <i>M (SD)</i>	
Validation	Pro	0.38 (0.25)	0.10 (0.20)	0.32 (0.20)	0.15 (0.23)	26
	Contra	0.37 (0.17)	0.21 (0.20)	0.34 (0.21)	0.19 (0.25)	23
Discounting	Pro	0.45 (0.28)	0.13 (0.27)	0.44 (0.37)	0.14 (0.30)	26
	Contra	0.37 (0.21)	0.26 (0.22)	0.31 (0.32)	0.22 (0.30)	24

*Note.* Implicit attitudes were measured using a single-category implicit association test. Its *d*-scores range from -2.00 to +2.00, with higher values representing more positive attitudes.

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## Appendix A

### German Text of the Arguments Pro Inclusive Schooling

Mit der Unterzeichnung der UN-Konvention über die Rechte von Menschen mit Behinderungen verpflichtete sich Deutschland 2006 dazu, ein inklusives Schulsystem umzusetzen. Seither sorgt eine stetige Debatte zwischen Befürwortern und Gegnern von Inklusion für viel Aufruhr. Doch was versteht man eigentlich unter Inklusion genau? Und wie wirkt sich Inklusion wirklich auf unser aktuelles Schulsystem aus?

Durch die Zustimmung zur Gewährleistung eines inklusiven Schulsystems in Deutschland soll sichergestellt werden, dass Menschen mit bspw. geistigen oder körperlichen Behinderungen gleichberechtigt werden. Konkret bedeutet dies, dass in Zukunft alle Kinder, gemeinsam an denselben Grundschulen und weiterführenden Schulen unterrichtet werden sollen. Inklusion soll allen Kindern dieselben Chancen auf individuelle Entwicklung und soziale Teilhabe ermöglichen. Entsprechend ist es Aufgabe der Kindertagesstätten und Schulen, dass sie von vornherein den individuellen Bedürfnissen aller Kinder entsprechen. Die Wertschätzung von Diversität steht im Vordergrund, um zukünftig die Einteilung von Menschen in bestimmte Gruppen (z.B. hochbegabt oder behindert) und damit einhergehend auch Diskriminierung zu vermeiden.

Stellen Sie sich nun vor, dass Sie selbst ein Kind mit leichter geistiger Behinderung haben. Nehmen Sie sich hierfür einen Moment Zeit. Wie würde der Alltag aussehen?

Stellen Sie sich vor, Ihr Kind wird im Sommer sieben Jahre alt und soll dann in die Schule kommen. Ihre Aufgabe ist es nun zu entscheiden, ob eine inklusive Schule für die individuelle Entwicklung und den Lernfortschritt ihres Kindes sinnvoller ist, als eine Förderschule. Da Sie Ihrem Kind die besten Chancen ermöglichen möchten, haben Sie sich im Internet näher mit dem Thema Inklusion auseinandergesetzt und nach Argumenten für oder gegen inklusive Schulen gesucht. Unter anderem sind Sie dabei auf folgende Argumente gestoßen:

### **1. Vorteile für betroffene Kinder:**

*Diverse Vergleichsstudien zu diesem Thema haben gezeigt, dass Kinder mit Förderbedarf im inklusiven Unterricht nicht nur mehr lernen und im Vergleich zu Kindern an Förderschulen eher einen Schulabschluss erreichen, sondern auch, dass sie ein positiveres Selbstkonzept entwickeln und weniger von Stigmatisierung betroffen sind (siehe u.a.: Hildesmidt & Sander, 1996; Myklebust, 2006; Wocken, 2007; IQB; BiLieF).*

### **2. Bedeutung für Kinder ohne Behinderung an inklusiven Schulen:**

*Auch Kinder ohne Beeinträchtigungen werden durch den gemeinsamen Unterricht nicht benachteiligt. Im Gegenteil, sie zeigen keine schlechteren, sondern teilweise sogar noch bessere Lernerfolge (DESI, 2006; Preuss-Lausitz, 2009; Wocken, 1999). Die durch Inklusion entstehende Leistungsheterogenität beeinträchtigt die Leistungsentwicklung von Kindern ohne Behinderungen also nicht.*

### **3. Wertevermittlung und Wirtschaftlichkeit:**

*Inklusion ist keine Gleichmacherei, sie ermöglicht lediglich, dass chancengleich gelernt werden kann. Jedes Kind erhält dieselbe individuelle Förderung. Des Weiteren sorgen heterogene Lerngruppen und Diversität im Bildungskontext besonders auch dafür, dass sowohl Toleranz, als auch soziale Kompetenzen von Beginn der Schulzeit an als wichtige Basis für das spätere Leben in einer demokratischen Gesellschaft hervorgehoben werden. Auf diese Weise reduzieren sie zukünftige Diskriminierung und Stigmatisierung. Hinzu kommt, dass inklusive Schulen auf lange Sicht wesentlich volkswirtschaftlicher sind als Förderschulen. Sie erhöhen nicht nur die Bildungschancen von Kindern mit Behinderungen, sondern auch die aller anderen Kinder, was wiederum direkte Auswirkungen auf das Sozialsystem hat. Inklusion stellt somit ein Menschenrecht dar, welches wahrgenommen werden sollte.*

*Wenn Eltern also vor der Entscheidung stehen sollten, ob eine inklusive Schule für Ihr Kind sinnvoll ist, dann sollten Sie immer die obigen Argumente im Hinterkopf behalten. Ein Kind, das auf eine inklusive Schule geht, lernt effizienter und hat später wesentlich höhere berufliche Chancen.*



## Appendix B

### German Text of the Arguments Contra Inclusive Schooling

Mit der Unterzeichnung der UN-Konvention über die Rechte von Menschen mit Behinderungen verpflichtete sich Deutschland 2006 dazu, ein inklusives Schulsystem umzusetzen. Seither sorgt eine stetige Debatte zwischen Befürwortern und Gegnern von Inklusion für viel Aufruhr. Doch was versteht man eigentlich unter Inklusion genau? Und wie wirkt sich Inklusion wirklich auf unser aktuelles Schulsystem aus?

Durch die Zustimmung zur Gewährleistung eines inklusiven Schulsystems in Deutschland soll sichergestellt werden, dass Menschen mit bspw. geistigen oder körperlichen Behinderungen gleichberechtigt werden. Konkret bedeutet dies, dass in Zukunft alle Kinder, gemeinsam an denselben Grundschulen und weiterführenden Schulen unterrichtet werden sollen. Inklusion soll allen Kindern dieselben Chancen auf individuelle Entwicklung und soziale Teilhabe ermöglichen. Entsprechend ist es Aufgabe der Kindertagesstätten und Schulen, dass sie von vornherein den individuellen Bedürfnissen aller Kinder entsprechen. Die Wertschätzung von Diversität steht im Vordergrund, um zukünftig die Einteilung von Menschen in bestimmte Gruppen (z.B. hochbegabt oder behindert) und damit einhergehend auch Diskriminierung zu vermeiden.

Stellen Sie sich nun vor, dass Sie selbst ein Kind mit leichter geistiger Behinderung haben. Nehmen Sie sich hierfür einen Moment Zeit. Wie würde der Alltag aussehen?

Stellen Sie sich vor, Ihr Kind wird im Sommer sieben Jahre alt und soll dann in die Schule kommen. Ihre Aufgabe ist es nun zu entscheiden, ob eine inklusive Schule für die individuelle Entwicklung und den Lernfortschritt ihres Kindes sinnvoller ist, als eine Förderschule. Da Sie Ihrem Kind die besten Chancen ermöglichen möchten, haben Sie sich im Internet näher mit dem Thema Inklusion auseinandergesetzt und nach Argumenten für oder gegen inklusive Schulen gesucht. Unter anderem sind Sie dabei auf folgende Argumente gestoßen:

### **1. Nachteile für betroffene Kinder:**

*Es gibt derzeit noch keine aussagekräftigen wissenschaftlichen Belege dafür, dass inklusive Beschulung in Deutschland so erfolgreich ist, wie sie es verspricht. Förderschulen hingegen sind nachweislich an die persönlichen Bedürfnisse der Kinder angepasst und stellen eine Lernumgebung bereit, in der die Kinder gezielt und in ihrem eigenen Tempo lernen können (Carle, 1995; Moosecker, 2008). Sie erhalten genau die individuelle Unterstützung, die sie benötigen. Entsprechend ist anzunehmen, dass vor allem Kinder mit Behinderungen auf regulären Sekundarschulen völlig überfordert wären. Sie würden nicht die Förderung und Aufmerksamkeit erhalten, auf die sie angewiesen sind und infolgedessen keinen Lernfortschritt machen und immer weiter zurückfallen. Hinzu kommt, dass dadurch der Selbstwert der Kinder sinkt und sie womöglich von ihren Klassenkameraden aufgrund ihrer Leistung diskriminiert oder stigmatisiert werden. Es entstehen neue Vorurteile.*

### **2. Bedeutung für Kinder ohne Behinderung an inklusiven Schulen:**

*Da die Lehrkraft im gemeinsamen Unterricht sowohl auf die Bedürfnisse der Kinder mit Behinderungen eingehen muss, als auch auf die der anderen Kinder, werden diese systematisch benachteiligt. Sie werden in ihrem Lernfortschritt aufgehalten und können ihr Potenzial nicht voll ausschöpfen.*

### **3. Wertevermittlung und Wirtschaftlichkeit:**

*Inklusion stellt eine Idealvorstellung dar, an derer Umsetzung es hapert (siehe u.a.: Ahrbeck, 2011, 2017; Dederich, 2014; Wocken, 2011). Sie braucht Zeit, exakte Planung und finanzielle Ressourcen. Die Lehrkräfte müssten sich umstellen, die Einstellungen und Wertevorstellungen der Kinder müssten von vornherein angepasst werden und auch die Schulen selbst müssten mit personellen, sächlichen und räumlichen Ressourcen ausgestattet werden. Inklusion wäre somit mit hohen Kosten und viel Aufwand verbunden.*

*Wenn Eltern also vor der Entscheidung stehen sollten, ob eine inklusive Schule für Ihr Kind sinnvoll ist, dann sollten Sie immer die obigen Argumente im Hinterkopf behalten. Ein Kind, das auf eine Förderschule geht, lernt vermutlich effizienter und hat später wesentlich höhere berufliche Chancen.*

## Appendix C

### German Text of Discounting Cue (Above) and Validation Cue (Below)

**BITTE BEACHTEN:**

Der Text, den Sie soeben gelesen haben, ist **FREI ERFUNDEN**. Die zitierten Studien gibt es nicht. Uns hat Ihre körperliche Reaktion auf die gelesenen Argumente zum Thema Inklusion interessiert.

**NEHMEN SIE NUN VORSICHTIG DIE ELEKTRODEN AB UND LEGEN SIE SIE IN DIE KLEINE BOX.**

**BITTE BEACHTEN:**

Der Text, den Sie soeben gelesen haben, ist **FUNDIERT**. Die zitierten Studien stammen aus ausgewählten wissenschaftlichen Zeitschriften. Uns hat Ihre körperliche Reaktion auf die Argumentation zum Thema Inklusion interessiert.

**NEHMEN SIE NUN VORSICHTIG DIE ELEKTRODEN AB UND LEGEN SIE SIE IN DIE KLEINE BOX.**