Toward an Implicit Cognition Account of Attribute Agenda Setting

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We propose an implicit cognition account of attribute agenda setting (AAS). We draw a distinction between implicit AAS, which conceptualizes media effects on automatically activated object-attribute associations, and explicit AAS, which deals with their overt expression. Previous research has relied almost exclusively on explicit AAS. This is unfortunate, because people must have the motivation and the ability to report inner mental associations. We investigated AAS in the context of the 2014 European Union parliamentary elections using a content analysis and a two-wave panel survey. Exposure to the mediated attribute agenda elicited implicit AAS effects, but no impact on the explicit dimension could be discerned. Only by additionally taking into account implicit cognition were we able to reveal substantial AAS effects.

Keywords: attribute agenda setting, implicit, cognition, attitudes, European Union, Affect Misattribution Procedure

Agenda setting is one of the most prolific theories for research on media effects. Beginning with the seminal study conducted by McCombs and Shaw (1972), the focus of traditional agenda-setting studies has been to investigate the transfer of object salience from the media to the public. On the most basic level, agenda-setting theory predicts that if an object (e.g., issues, candidates, nations) is covered frequently and prominently, the audience will regard the object as more important. As Cohen (1963) suggested, the media tell the public what to think about. However, recent research is no longer limited merely to the question of what individuals think about, but also investigates whether the media can tell the public how to think and feel toward what they have been told to think about (McCombs, 2005). This so-called attribute agenda setting (AAS) effect is the focus of this article.

Previous AAS research has completely relied upon overtly expressed verbalizations of an individual's thoughts and feelings toward an object. In a typical agenda-setting study, the measures rely on self-reports; that is, explicit responses to questions are analyzed. Thus, in previous research, there has been the inherent assumption that individuals are able to and are motivated to report their inner thoughts and feelings. However, sometimes people have no introspective access to mental content (Greenwald & Banaji, 1995), participants are motivated to conceal their inner thoughts and feelings for impression

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management (Greenwald et al., 2002), or self-reports of thoughts and feelings of which the respondent is consciously aware might be masked by factors such as demand characteristics (Orne, 1962). In a nutshell, previous AAS research has neglected the importance of motivation, ability, and automatic activation. This is unfortunate, because automatically activated mental content can predict social and political behavior, including voting, in a meaningful way (Glaser & Finn, 2013; Greenwald, Poehlman, Uhlmann, & Banaji, 2009).

The present article proposes an implicit cognition account of AAS. We build our reasoning on recent theorizing on social cognition (Gawronski & Bodenhausen, 2006; Greenwald et al., 2002; Strack & Deutsch, 2004) and communication (Arendt, 2013). We draw a distinction between *explicit AAS*, which deals with a transfer of attribute salience on overtly expressed thoughts and feelings toward objects, and *implicit AAS*, which conceptualizes media effects on automatically activated object-attribute associations. When people decide not to report their mental content or do not have the ability to do so, an agenda-setting study relying only on the explicit dimension may fail to reveal substantial AAS effects. However, there still may be effects on the implicit dimension.

First, we will provide a literature review on AAS. Next, we will outline our implicit cognition account. We then present the results of an empirical study by investigating AAS effects during the 2014 European Union parliamentary elections in Austria.

Attribute Agenda Setting

Traditional agenda setting is a theory about the transfer of the salience of objects in the media to the salience of objects in individuals' minds. According to the basic agenda-setting hypothesis, objects that are prominent in the media become prominent in the public's mind (McCombs & Shaw, 1972). The object agendas can be composed of any set of objects, including, but not limited to, issues, political candidates, and nations (McCombs, Llamas, Lopez-Escobar, & Rey, 1998). Beyond the agenda of objects, however, is an *agenda of attributes*. Each object has numerous attributes, which are the "characteristics and properties that fill out the picture of each object" (McCombs et al., 1998, p. 704). It is important to note that as objects vary in salience, so do their attributes (McCombs & Shaw, 1993). Some attributes are emphasized, others are mentioned only in passing, and many others are ignored (McCombs, Lopez-Escobar, & Llamas, 2000). By journalists' use of selection, emphasis, exclusion, and elaboration (see Tankard, Hendrickson, Silberman, Bliss, & Ghanem, 1991), specific attribute agendas for each object are constructed and diffused through the media. The AAS hypothesis assumes that there is a transfer of salience of the attributes in the media to the salience of attributes in individuals' minds (McCombs, 2005). The media may not dictate what individuals will think and feel about objects, but they may direct, guide, or orient the content of what individuals deem worthy to think and feel about (McCombs et al., 1998).

It is generally argued that two types of attributes can influence how individuals view objects (Golan & Wanta, 2001; see also McCombs et al., 1998; Rill & Davis, 2008). First, *cognitive attributes* involve "factual pieces of information that are linked to an object" (Wanta & Mikusova, 2010, p. 223). For example, if a political candidate is repeatedly presented in news coverage about the economy, the mediated pairing of the candidate with the economy should lead to a mental link between both. Therefore,

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when news consumers are asked to report some of their thoughts about the candidate, respondents may recall the strengthened mental link and may be more likely to respond by mentioning the economy. The key assumption here is that individuals mentally link these mediated cognitive attributes to objects to a similar degree to which the attributes are mentioned in the media (Wanta, Golan, & Lee, 2004).

Second, it is assumed that the mass media can influence *affective attributes*. Positive (negative) coverage of an object—the tone of the coverage—will influence how positively (negatively) individuals view that object (Golan & Wanta, 2001; see also McCombs et al., 1998). If the media not only mentions the economy when discussing the political candidate but do so in a positive light (e.g., "She keeps the economy afloat," "She is good for the economy"), readers may mentally link this positive valence to the political candidate. Therefore, when individuals are asked about their feelings toward the candidate, they may recall the strengthened mental links and may respond with a more positive evaluation.

A study conducted by Rill and Davis (2008) provides a prime example that illustrates the difference between the cognitive and affective dimensions. The researchers employed experimental testing of AAS by using the 2006 war in Lebanon waged between Israel and Hezbollah as the issue of focus. Thus, Israel and Hezbollah were the objects of interest. Participants from the United States read either one of four differently framed versions of a news story about Hezbollah and Israel or a control article about an unrelated issue. The tone was manipulated by the mentioning of positively or negatively valenced attributes toward Israel or Hezbollah. After reading one of the five stimulus articles, the researchers measured how participants thought and felt about Israel and Hezbollah. First, respondents completed an open-ended questionnaire asking them to overtly express their thoughts about the roles of Israel and Hezbollah in the war in Lebanon. The researchers compared the attributes found in the stimulus articles with the open-ended responses provided by the participants. This was done to measure the cognitive dimension of AAS. Second, feeling thermometers for Israel and Hezbollah were used to measure the affective dimension of AAS. The researchers were able to document different word choices when the participants were discussing Hezbollah and Israel in the open-ended responses (cognitive AAS) as well as differences in their evaluations of Israel and Hezbollah (affective AAS).

As already noted, participants must have the motivation and ability to overtly express their inner thoughts and feelings. We question whether this is always an accurate assumption and think that, under certain circumstances, this may not always be the case. This can be illustrated with an example from a thought experiment from Austria, where the present study was conducted: The overt expression of negative thoughts and feelings toward Israel may elicit emotional discomfort in an individual due to a perceived historical responsibility toward Israel because of the Nazi war crimes during World War II. Even if an individual read negatively valenced media coverage about Israel, this individual may decide not to overtly express negative evaluations—even when they actually exist—due to the motivational goal of acting favorably toward Israel. In this context, researchers relying only on the explicit dimension may not be able to uncover substantial AAS effects. However, as already noted, AAS effects may still exist at an implicit level.

Toward an Implicit Cognition Account of AAS

We provide a model describing the mental mechanisms underlying implicit and explicit AAS. This model builds heavily upon existing research on social cognition (Gawronski & Bodenhausen, 2006; Greenwald et al., 2002; Strack & Deutsch, 2004) and communication (Arendt, 2013). The model goes beyond previous AAS research by thoroughly specifying the processes underlying AAS effects: Whereas implicit AAS is conceptualized as the behavioral outcome of the *process of activation*, explicit AAS represents the behavioral outcome of the *process of validation*. We outline both types of processes in the next section. A graphic illustration of the processes is depicted in Figure 1.

Implicit Attribute Agenda Setting

The *process of activation*, which is the underlying mechanism for implicit AAS, operates rather automatically. To understand the process of activation fully, a discussion of human memory is necessary. Human memory is conceptualized as an associative network consisting of interconnected mental concepts. What is most important for AAS is that objects as well as attributes are concepts. The links correspond to various types of associations between concepts, and these vary in strength. The strength of the automatic association can be understood as the potential for one concept (e.g., object) to activate another (e.g., attribute; see Greenwald et al., 2002). We made three fundamental assumptions (McNamara, 2005): (a) Exposure to a concept activates its internal representation; (b) activation spreads from one concept to associated concepts; (c) and residual activation accumulating at concepts facilitates their subsequent activation (i.e., the more residual activation, the less additional activation energy is needed to overcome the activation threshold).

Which associations are activated when encountering a specific object is assumed to depend on the person's associative network and the overall configuration of environmental input stimuli (see Gawronski & Bodenhausen, 2006). For example, watching a Black person in a jazz bar may activate the stereotypical attribute *musical*, whereas observing the same Black person in a gym may activate the stereotypical attribute *athlete*. Stated differently, what gets activated in an individual's mind (i.e., what comes to mind) depends on person- and situation-related factors.

It is important to note that environmental input stimuli that can activate concepts in memory could be mass mediated. A fundamental assumption is that the association between concepts is strengthened by the simultaneous activation of both concepts (Greenwald et al., 2002). If the mass media repeatedly pair an object with an attribute, then both concepts become linked. For example, if *Israel* and *killing* were to have been activated simultaneously in the Rill and Davis (2008) study described above, the strength of the automatic association between these concepts would have increased. When an attribute is negatively (positively) valenced, an additional link between the object and the negative (positive) valence is strengthened (see the links within the object/attribute/valence triangle in Figure 1). Hence, when a corresponding stimulus is encountered in a subsequent situation (e.g., a researcher asks a respondent to report his or her spontaneous thoughts toward Israel), cues that activate *Israel* (object) in the memory

will also be more likely to activate *killing* (cognitive attribute) and a negative valence (affective attribute) with an increased likelihood (see Arendt, 2013).

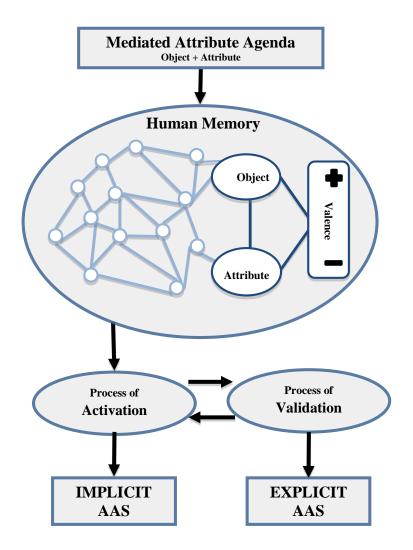


Figure 1. Implicit cognition model of attribute agenda setting (AAS).

Relevance of implicit cognition. One may question whether implicit cognition is an important and socially meaningful outcome factor. Based on our reading of the research conducted in social cognition over the last two decades, we would definitely argue that it is. Despite implicit cognition's ability to explain the mechanisms underlying the development of overtly expressed thoughts and feelings (Gawronski & Bodenhausen, 2006)-which justify scholarly attention in its own right-there is a further very persuasive argument: Implicit cognition predicts social and political behavior. A meta-analysis by Greenwald and colleagues (2009) demonstrated that both implicit and explicit cognition predicted important outcomes. Importantly, implicit cognition increased the predictive ability beyond that provided by explicit cognition (i.e., incremental validity). An additional finding was that implicit cognition is a better predictor of behaviors within socially sensitive areas (e.g., prejudice), where implicit cognition significantly exceeded the predictive power of explicit cognition. This makes sense when we consider the fact that selfreport measures in socially sensitive domains might suffer from impression-management distortions. The predictive power of implicit cognition extends, however, to behaviors traditionally associated with more controlled rumination. For example, even something as putatively deliberative as voting is unlikely to be completely isolated from subtle influences of implicit cognition (Glaser & Finn, 2013). Because agenda setting has typically used objects related to public affairs (McCombs, 2005), the latter is of special relevance for AAS.

Explicit Attribute Agenda Setting

Whereas the process of mere automatic activation is responsible for implicit AAS, the *process of validation* is assumed to underlie explicit AAS. The assumption is that automatically activated associations can be transformed into a propositional format, which creates declarative knowledge (Gawronski & Bodenhausen, 2006). For example, a strong automatic association between *Israel* and *killing* can be transformed into the proposition *Israel is killing* by applying a relational schema. Most importantly, these propositions are then assessed for their perceived validity based on the consistency of this proposition with other propositions that are considered relevant (Gawronski & Bodenhausen, 2006). If other propositions (e.g., the motivational goal of appearing unprejudiced and acting favorably toward Israel; see our Austrian thought experiment described above) are in conflict with the propositional implication of the automatically activated object-attribute association (e.g., *Israel is killing*), this inconsistency has to be resolved to avoid aversive feelings of cognitive dissonance (Festinger, 1957). This can be done, for example, by reversing the perceived "truth value" of the propositional implication of the object-attribute association (e.g., *Israel is not* killing; see Gawronski & Bodenhausen, 2006, for a thorough discussion of this mental process).

Whether object-attribute associations are used for an explicit judgment depends heavily on their accessibility. Accessibility refers to the ease with which mental associations can be retrieved from memory and is essentially a function of how often and how recently a person has been exposed to an object-attribute pairing (Kim, Scheufele, & Shanahan, 2002). Repeated exposure to a mediated attribute agenda increases the accessibility of the corresponding object-attribute associations in the memory. Thus, the use of specific attributes when thinking about an object depends heavily on the ease with which associations could be brought to mind.

So far, we have discussed only the motivational dimension of a potential implicit–explicit AAS dissociation (i.e., the decision that "Israel is *not* killing"). However, as we already noted, there are ability-related factors as well (see Gawronski & Bodenhausen, 2006, for a review). For instance, not all implicit mental associations are subject to introspective access (Greenwald & Banaji, 1995). Such associations cannot be translated into reportable declarative knowledge. Memory traces of past experiences may be too weak to influence overtly expressed reports (see Greenwald & Banaji, 1995). Thus, it is possible that mental associations lay dormant in the depths of the realm of human memory. Although researchers might be able to intrude into these deep-seated traces of past experiences (i.e., implicit cognition), participants might not be able to rely upon them when constructing their explicit judgment (i.e., explicit cognition). Taken together, it is possible that researchers will reveal implicit (explicit) AAS effects even when there are no explicit (implicit) AAS effects due to several reasons.

Operating Principles Versus Operating Conditions

Recent agenda-setting research using an information processing perspective has drawn a distinction between whether information is processed with high or low cognitive effort. For example, Bulkow, Urban, and Schweiger (2013) assumed a thoughtful agenda-setting process when the issue involvement is high and a more automatic agenda-setting process when issue involvement is low. Similarly, Pingree and Stoycheff (2013) distinguished between "agenda cueing" and "agenda reasoning." The central variable in these dual-process models of agenda setting is the degree of cognitive elaboration.

According to recent theorizing in social cognition (Gawronski & Bodenhausen, 2006), we have to make a distinction between questions related to the operating principles of a given process (i.e., *What* does a particular process do? Activate or validate?) and questions related to the operating conditions (i.e., *When* does a specific process operate? Does the process operate when cognitive resources are limited?). Whereas the models proposed by Bulkow et al. (2013) and Pingree and Stoycheff (2013) are mainly concerned with questions related to the operating conditions, the implicit cognition account outlined in this article provides an in-depth view on the operating principles.

Summary

We assume that repeated exposure to a mediated attribute agenda increases the strength of the automatic association between an object and an attribute, leading to implicit AAS effects. Stated differently, over time, exposure will lead to a transfer of the attribute salience from the media's agenda to the recipient's agenda of automatically activated attributes. This implicit AAS effect may be associated with a corresponding explicit AAS effect unless motivation- or ability-related factors preclude the overt expression.

Overview of the Empirical Work

We used a standard paradigm to investigate AAS: First, we conducted a content analysis to reveal the mediated attribute agenda. Based on the results, we developed specific effect hypotheses for

the implicit and explicit dimensions of AAS. Second, we conducted a survey in which we measured implicit and explicit cognition toward our object of focus. The movement of the salience of attributes is not conceptualized in terms of a simple one-way process, but as a dynamic process (Kiousis, Bantimaroudis, & Ban, 1999). Therefore, we decided against a simple cross-sectional design and used a two-wave panel design. This allowed us to draw more confident causal inferences.

The investigation of implicit AAS on both the cognitive as well as the affective dimension within one study requires two different implicit measures. Although possible, the use of two implicit measures within one study involves some limitations. First, participants need more time to complete the surveys. Second, the measures can influence each other. This is the reason that we decided to investigate implicit AAS only on one dimension. Until fairly recently, far more attention has been paid to the cognitive dimension than to the affective dimension (McCombs, Holbert, Kiousis, & Wanta, 2011); thus, we decided to investigate the affective dimension of implicit and explicit AAS. However, no claim is made regarding this dimension being more important than the other one.

We decided to investigate AAS with regard to the European Union as the object of focus. Although Austria joined the EU in 1995, Austrians are generally skeptical about the EU (Eurobarometer 81, 2014). The EU was chosen for two main reasons. First, it is helpful to know how the media is likely to report on objects before conducting a study. Although scientists are not prophets of future events, we were able to build upon previous content-analytic work, which enabled us to make more confident predictions. In Austria, where the present study was conducted, one specific newspaper, *Kronen Zeitung*, had been conveying a clear negative tone in the coverage of the EU, as previous content analyses indicated (Arendt, 2010; Brantner, 2009, 2010; van Spanje & de Vreese, 2014).¹ Second, while the present research project was being conducted, the 2014 EU parliamentary elections were taking place (May 25). This ensured that the EU was getting sufficient media attention, which is, of course, a prerequisite for AAS effects to occur.

Study 1: Content Analysis of the Mediated Attribute Agenda

To produce empirical evidence to develop evidence-based AAS hypotheses, a quantitative content analysis was conducted. Based on previous research reported above (Arendt, 2010; Brantner, 2009, 2010), we hypothesized that there would be a clear negative tone in the EU news coverage. Of interest, these previous studies found that text type moderated the intensity of the bias: Although the pairing of the EU with negatively valenced attributes had even been found in news reports as well as in journalistic commentaries, the strongest bias had been found in letters to the editor (Brantner, 2009, 2010). Thus, we hypothesized that the specific newspaper under investigation would repeatedly pair the EU with negatively valenced attributes and that this bias would be strongest in the letters to the editor (Hypothesis 1).

¹ The Austrian print media market is highly concentrated (see Brantner, 2010). The tabloid-style newspaper *Kronen Zeitung* is the dominant player and has been called the "mainstream of the Austrian print-based symbolic environment" (Arendt, 2010, p. 148).

Method

Sample and procedure

News coverage between March 15 and June 2, 2014, was analyzed. This time period was chosen based on the two-wave panel survey reported below: We started about two weeks before the first panel wave started and ended with the second panel wave's last day of data collection. Texts were selected when they included the key terms *EU*, *European Union*, or related terms. The unit of analysis was one text. The coding was done by one trained coder. A total of 652 texts were identified as relating to the EU. All texts were coded.

Coding of tone

Each text was coded in terms of whether it exhibited a positive, negative, ambivalent, or no evaluation of the EU. The coding was undertaken according to a coding schema from Früh (2007), which had been used in previous studies (Arendt, 2010). An article was coded as positive if the EU was paired with positively valenced attributes such as "peace project" or "good for the economy." An article was coded as negative if the EU was paired with negatively valenced attributes such as "corruption" or "democratic deficit." The code ambivalent was used when both positively and negatively valenced attributes were present within one text. The code "no evaluation" was used when there were neither positively nor negatively valenced attributes. For the reliability analysis, a second trained coder coded 65 cases (i.e., 10%). Krippendorff's a was .84, indicating a reliable measurement.

Results and Discussion

Hypothesis 1 assumes that the tabloid repeatedly paired the EU with negatively valenced attributes and thus conveyed a negative tone. This bias should be strongest in the letters to the editor. To test this hypothesis, we examined the frequency distribution depending on the tone. With regard to the tone of the EU coverage over the whole data collection period, 307 texts (47.1% of a total of n = 652) were coded as negative, and only 20 texts (3.1%) were coded as positive. Of the remaining articles, 309 (47.4%) had no evaluation, and only 16 (2.5%) were considered ambiguous. This is indicative of a negative bias. Thus, there was a repeated pairing of the EU with negatively valenced attributes (see Table 1).

| | | Tone of the text (texts with valenced EU attributes) | | | |
|------------------------------|-----|---|------------------|----------|------------|
| | | Positive | No evaluation | Negative | Ambivalent |
| | п | | | | |
| Text Type | | | | | |
| News reports | 211 | 6 | 164 | 38 | 3 |
| Journalistic commentaries | 95 | 3 | 55 | 34 | 3 |
| Letters to the editor | 319 | 9 | 68 | 232 | 10 |
| Other | 27 | 2 | 22 | 3 | 0 |
| Totals | 652 | 20 | 309 | 307 | 16 |

Table 1. Cross-tab of the Prevalence of Articles With a Specific Tone Among Different Text Types.

Note. $\chi^2 = 192.12$. V = .32. p < .001.

In the next step, we looked at this bias depending on the text type. As expected, we found the strongest negative bias in the letters to the editor. Most of them were coded as negative (72.7% of a total of n = 319), and only a few were coded as positive (2.8%). Of interest, journalistic commentaries and news reports were much less slanted toward the EU. There were only 34 (35.8% of a total of n = 95) journalistic commentaries and 38 (18.0% of a total of n = 211) news reports with negatively valenced attributes. When additionally considering the fact that almost half (48.9%) of the paper's total EU coverage—measured as the mere number of texts—was found in readers' letters to the editor and more than three-quarters (75.6%) of all texts with negatively valenced attributes were letters to the editor, it became obvious that the bias was conveyed mainly through the text type of letters to the editor.

Although this finding generally supports H1, there was a somewhat surprising result. Although we expected the strongest bias in the letters to the editor, neither the comparatively low bias in the other text types nor the high share of letters to the editor in the total EU coverage were expected.²

² We also examined the bias over time. The negative tone of the EU news coverage was present at a similar magnitude throughout the entire data collection period.

Study 2: Panel Study of AAS Effects

The results of study 1 allowed for the development of specific AAS hypotheses. We hypothesized that the more individuals read the newspaper, the more negative their automatic affective reactions toward the EU would be (i.e., implicit AAS) and the more negative overtly expressed evaluations of the EU they would have (i.e., explicit AAS). However, we expected this effect to occur only in individuals who regularly read the letters to the editor. Thus, readers' attention to the letters to the editor should moderate the newspaper exposure's effect on implicit (Hypothesis 2) and explicit (Hypothesis 3) EU cognition.

Method

We used an online survey with two waves. The first wave included 918 participants, beginning in April 2014. The second wave took place about two months later, at the end of May 2014. Data collection for wave 2 started one day after the 2014 EU parliamentary election (i.e., on May 26) and lasted until June 2. A total of 485 individuals participated again. We excluded those participants who completed the survey in under 14 minutes (i.e., speedsters, n = 2). This was done because it seemed unlikely that individuals could complete the survey in less than 14 minutes. In addition, the matching of wave 1 and wave 2 data did not work for some participants due to inaccurate identification codes (n = 5). Furthermore, we only used participants who completed the whole survey. This resulted in a final sample size of 460 individuals who participated in both waves.

Participants

We used a quota sample of Austrian citizens based on age, gender, education, and province. We bought an online sample from a commercial market research company. Of the participants completing the online questionnaire, 53.5% were women. The participants ranged in age from 16 to 74 (M = 44.06, SD = 12.83).³ Approximately half of the participants had no high school diploma (46.1%), 34.3% had a high school diploma, and 19.6% had a university degree. The distributions of the quota categories in the final sample roughly correspond to the Austrian population. The elderly (age category 60–74 years) and individuals with no high school diploma were slightly underrepresented.

Measures

After filling out some quota-related questions, implicit and explicit EU cognition and newspaper exposure were measured. Of importance, the order of data collection was randomly varied. Control variables were measured at the end of the survey. Implicit and explicit evaluations were measured in both waves by using the same measurement procedures—that is, a self-report scale for explicit evaluation and the Affect Misattribution Procedure (Payne, Cheng, Govorun, & Stewart, 2005) for implicit evaluation.

³ The voting age for the 2014 EU parliamentary election had been set to 16 in Austria.

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Implicit evaluation. For the test of implicit AAS effects, we measured automatically activated affective evaluations of the EU using the Affect Misattribution Procedure (Payne et al., 2005), which are described above. Individuals were briefly presented with a prime stimulus, which was followed by a brief presentation of an unknown symbol. The 20 unknown symbols were taken from previous research (Payne et al., 2005). We used pictures of the EU as the target primes and pictures related to Austria as the reference category (e.g., flags; see the Appendix). Participants were asked to rate the "visual pleasantness" of the unknown symbol. Individuals typically evaluate symbols more favorably when they have been primed with a positively valenced stimulus (Payne et al., 2005). We used a total of 40 trials (20 Austria plus 20 EU). Thus, if an individual has a positive automatic affective reaction toward the EU and a less positive automatic affective reaction toward Austria, the individual should rate the unknown symbols as more visually pleasant when placed after an EU prime (relative to an Austria prime). Scores were calculated by comparing the pleasantness ratings after the EU and Austria primes. We used a scoring procedure described by Arendt (2010), which produces a score between -1 and +1 ($M_{wavel} = -0.10$, $SD_{wave1} = 0.34$; $M_{wave2} = -0.13$, $SD_{wave2} = 0.35$). Positive values indicate a more positive implicit affective EU evaluation (i.e., an implicit preference for the EU over Austria). Negative values indicate a more negative implicit affective EU evaluation (i.e., an implicit preference for Austria over the EU). A value of 0 means neutral (i.e., no implicit preference). There was a substantial correlation between wave 1 and wave 2, r(458) = .456, p < .001.

Explicit evaluation. For the test of explicit AAS effects, we measured overtly expressed affective evaluations of the EU using a seven-point bipolar scale using five items (good-bad, positive-negative, beneficial-harmful, fair-unfair, meaningful-meaningless). Higher values indicate more positive evaluations ($M_{wave1} = 3.72$, $SD_{wave1} = 1.63$, $a_{wave1} = 0.94$; $M_{wave2} = 3.89$, $SD_{wave2} = 1.66$, $a_{wave1} = 0.96$). The scale midpoint (4) means neutral. There was a substantial correlation between wave 1 and wave 2, r(458) = .818, p < .001. Of interest, implicit and explicit evaluations correlated at wave 1, r(458) = .282, p < .001, and wave 2, r(458) = .377, p < .001.

Newspaper exposure. We used six questions presented on different pages of the online survey (e.g., "How many days in an average week do you read *Kronen Zeitung?*" "How many days last week did you read *Kronen Zeitung?*"). We only needed data from wave 1, because the wave 1 measure was used as a predictor for implicit and explicit EU cognition during wave 2 (see below). The outcome of a factor analysis was one factor, which explained 69.63% of the variance. Regression analyses were performed with the factor scores of this variable.

Attention paid to letters to the editor. Participants were asked how often they typically read letters to the editor when reading the specific newspaper under investigation. We used a scale ranging from 1 (*never*) to 7 (*every time*). Again, we needed only the wave 1 data. This measure produced enough variability for further analyses (M = 2.79, SD = 2.10).

Control variables. Age, gender, education, and political orientation (measured on an 11-point scale ranging from 1 = left to 11 = right; M = 5.79, SD = 2.13) were used as control variables.

Results

Implicit AAS

Hypothesis 2 assumed that content-specific newspaper use moderates the effect of total newspaper exposure on implicit EU evaluation, in that newspaper exposure has an effect on implicit evaluation only among those who regularly read the letters to the editor. By using implicit evaluation (wave 2) as the outcome and implicit evaluation (wave 1) as a covariate, we were able to assess the media effect as change over time. We predicted implicit evaluation (wave 2) by newspaper exposure (focal predictor), attention paid to letters to the editor (moderator), their multiplicative interaction term, implicit evaluation (wave 1), and controls (age, gender, education, and political orientation). The Johnson-Neyman technique was used to probe the hypothesized interaction (Hayes & Matthes, 2009). This technique identifies regions in the range of attention paid to letters to the effect of newspaper exposure on implicit evaluation is statistically significant (or not). We report unstandardized regression coefficients.

Most importantly for the test of H2, the interaction term produced a significant effect-size estimate, Coeff = -.017, SE = .008, p = .027. This means that the effect of newspaper exposure on implicit evaluation was moderated by attention being paid to letters to the editor. As expected, it was found that newspaper exposure had no effect on low values of attention paid to letters to the editor. However, a moderator value of 6.24 was revealed, which defines the Johnson-Neyman significance region (i.e., 6.24–7). The estimated effect of newspaper exposure on implicit evaluation was substantial for an individual who typically read the letters to the editor when reading the newspaper (i.e., attention paid to letters to the editor = 7), Coeff = -0.068, SE = 0.033, p = .039. In a nutshell, total newspaper exposure decreased the positivity of implicit evaluation, but only when individuals indicated that they often read the letters to the editor (see Figure 2). This finding supports H2. Neither the coefficients of the focal predictor, Coeff = .049, SE = .030, p = .111, the moderator, Coeff = .006, SE = .008, p = .463, nor the controls achieved significance.

Explicit AAS

Hypothesis 3 assumed that attention being paid to the letters to the editor moderated the effect of newspaper exposure on explicit EU evaluation in that newspaper exposure only showed an effect among those who regularly read the letters to the editor. We used the same analytical procedure as reported above for the test of H2. In contrast to our expectation, the interaction term, *Coeff* = .020, *SE* = .023, *p* = .398, did not produce a significant effect-size estimate. In addition, neither the coefficient of the focal predictor, *Coeff* = -.022, *SE* = .093, *p* = .817, nor the coefficient of the moderator, *Coeff* = -.023, *SE* = .026, *p* = .368, achieved significance. Of interest, political orientation achieved significance, *Coeff* = -0.075, *SE* = 0.021, *p* < .001. This indicates that the more right wing an individual positioned him- or herself, the less positive his or her explicit evaluation of the EU was.

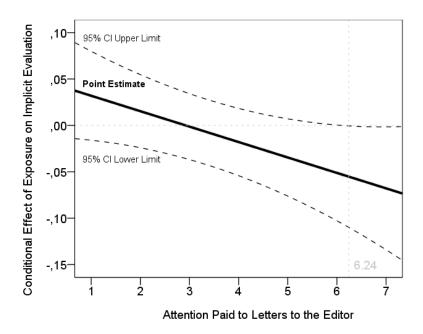


Figure 2. Implicit attribute agenda setting: Newspaper exposure decreased the positivity of implicit EU evaluation, but only when individuals indicated that they often read letters to the editor.

Additional Analyses

Analyses of the wave 1 data revealed that the sample had a negative view toward the EU on implicit evaluation (M = -0.10, SD = 0.34), t(459) = 6.29, p < .001 (significantly different from the neutral value of 0] as well as explicit evaluation (M = 3.72, SD = 1.63), t(459) = 3.70, p < .001 (i.e., significantly different from the neutral value of 4). Explicit evaluation became more positive over time, t(459) = 3.62, p < 001. When looking at explicit evaluation's wave 2 data (M = 3.89, SD = 1.66), the negative view toward the EU (found at wave 1) failed to achieve significance, t(459) = 1.45, p = .15 (i.e., it was not significantly different from the neutral value of 4). Implicit evaluations changed from wave 1 to wave 2 as well. However, implicit evaluation became more *negative* over time at wave 2 (M = -0.13, SD = 0.35), t(459) = 3.62, p < 001. Participants still had a negative implicit view toward the EU at wave 2, t(459) = 8.07, p < .001 (significantly different from the neutral value of 0).

Discussion

The present investigation proposes an implicit cognition account of attribute agenda setting. We draw a distinction between implicit AAS, which describes AAS effects on automatically activated attributes, and explicit AAS, which deals with AAS effects on overtly expressed attributes. Previous AAS research has relied almost exclusively on self-reports. This is unfortunate, because people must have the motivation and the ability to report their thoughts and feelings.

We investigated AAS in the context of the 2014 EU parliamentary elections. The results of our content analysis indicate that a specific Austrian newspaper had a very negative view of the EU. This negative tone, however, appeared mainly in the letters to the editor. Based on this finding, we hypothesized that reading this newspaper would lead to implicit and explicit AAS effects, but only among those who regularly read the letters to the editor. A two-wave panel survey was conducted to test this assumption. We found support for this prediction, but only for the implicit dimension. No effects on explicit AAS could be discerned. Had we only used explicit evaluations as the outcome, we would not have been able to reveal substantial AAS effects.

No Explicit AAS: Why?

Several reasons exist for implicit–explicit AAS dissociations. We are not able to provide a definitive answer to the question of which phenomenon might be responsible for the implicit–explicit dissociation observed in the present study. However, we can offer a speculation. It might be the case that the "trace of past experience" (Greenwald & Banaji, 1995, p. 8) stemming from regular exposure to the mediated attribute agenda was too weak to influence overtly expressed reports: We already pointed to the fact that whether object-attribute associations are used for an explicit judgment depends heavily on the associations' accessibility (Gawronski & Bodenhausen, 2006). It is possible that the altered associations lay dormant in the depths of the realm of human memory. The implicit measure thus was able to reveal an AAS effect, as it could intrude into these deep-seated traces of past experience. Due to the unease with which this mental content might have been retrieved, participants might not have relied upon it when constructing their explicit judgment. This explanation could be a good starting point for future research.

AAS as an Umbrella

As McCombs (2005) noted, agenda-setting theory has incorporated or converged with other theoretical concepts such as media stereotyping, cultivation, and framing. Although not framed as an AAS study, Arendt (2010) investigated a comparable implicit cultivation effect and found that long-term exposure to the media world cultivated implicit evaluations toward a political concept. Similarly, Arendt (2013) investigated the effects of exposure to media stereotypes on implicit associations toward a social group (see McCombs, 2005, for a discussion of the relationship between AAS and framing).

When the assumptions of AAS are taken seriously, the term *object* can be used to designate "the thing that an individual has an attitude or opinion about" (McCombs, 2005, p. 546). In fact, all theoretical communication concepts that are based on mental association are theoretical complements to AAS. A

political concept (Arendt, 2010) or a social group (Arendt, 2013) are objects in AAS's understanding. It is not the goal of this article to blur the lines between different established communication theories (see Takeshita, 2006). However, an integration of theoretical complements could be a worthwhile endeavor for future theorizing. A key question for future research is the following: What are the common grounds and differences between the different theoretical concepts? Of course, cultivation and media stereotyping include more than just association-based dependent variables (see Mastro, 2009; Shanahan & Morgan, 1999). Nevertheless, some important outcomes used to study these phenomena are based on mental associations. We think that an implicit cognition account can contribute to the integration of these related, but nevertheless distinct, theoretical complements.

AAS and applicability. The basic agenda-setting hypothesis has often relied on memory-based models of information processing. The traditional agenda-setting approach assumes that the locus of cognitive effect lies (at least partly) within the heightened accessibility an issue receives from news coverage (Price & Tewksbury, 1997, but also see Bulkow et al., 2013; Pingree & Stoycheff, 2013). Conversely, applicability has been used to theorize on (explicit) attribute agenda setting (Scheufele & Tewksbury, 2007): This

term refers to the outcome of a message that suggests a connection between two concepts such that, after exposure to the message, audiences accept that they are connected.... For example, a news message may suggest a connection between tax policy and unemployment rates. The news message may suggest that the best way to think about whether higher or lower taxes are desirable is through a consideration of whether one wants higher or lower unemployment. Thus, the message has said that considerations about unemployment are applicable to questions about taxes. (p. 15)

The notion of applicability has a strong conceptual correspondence with the proposed implicit cognition approach. Consistent with the applicability notion, we described AAS as news coverage's effect on mental object-attribute associations (e.g., "EU plus peace project", "tax policy plus unemployment rates"). However, the implicit cognition approach draws a distinction between the strength of automatic associations in the memory and the overt expression of such mental associations.

Explorative Finding

One explorative finding deserves post hoc theorizing. When looking at the aggregate data of the whole sample, we found that explicit as well as implicit evaluations changed between wave 1 and wave 2. Although the positivity of explicit evaluations increased, that of implicit evaluations decreased. This resulted in a rather neutral explicit EU evaluation immediately after the election at wave 2, but reinforced the negativity of implicit EU evaluations. Thus, the implicit–explicit cognition gap increased. Because most of what we know about distal political concepts such as the EU stem from the mass media (Wanta & Mikusova, 2010, it is likely that the diffusion of mass-mediated information contributed to this increasing cognition gap. What is the underlying mechanism? We offer a possible tentative explanation.

We investigated the effects of one specific tabloid-style newspaper that has often been criticized for its simplistic and negative EU news coverage. This is not representative of the Austrian news media. For example, quality newspapers typically provide much more positive EU news coverage (Brantner, 2009, 2010). However, these media often pick up an argument made by critics (e.g., from the specific tabloidstyle newspaper) and elaborate on it. For example, when the tabloid wrote, "The EU is pervaded by corruption," a quality newspaper attempting more balanced news coverage may respond with, "The EU is not pervaded by corruption." Unfortunately, some ironic effects on the implicit level can result when using the word not (Gawronski & Bodenhausen, 2006): Due to the simultaneous activation of EU and corruption in memory, the strength of the automatic association will increase when repeatedly exposed to the tabloid's statement. Nevertheless, both concepts also become activated in the memory when reading the statement made by the quality newspaper. Of importance, the word not does not seem to have the same qualifying effects on the implicit level that it has on the explicit level (Gawronski & Bodenhausen, 2006). Ironically, the automatic association between EU and corruption may also increase after repeated exposure to the quality newspaper's statement due to the simultaneous activation of these concepts in the memory. Although the reader might be explicitly aware of the meaning of not and reproduce it in a report (which may lead to a more favorable explicit evaluation), the positivity of the implicit evaluation may decrease due to the simultaneous activation of both concepts. It is worthwhile for future research to elaborate on this topic.

Limitations

As with every study, the present one has its limitations. First, we made an a priori prediction about the presence of explicit AAS effects, but we failed to reveal them. We used post hoc theorizing to explain this implicit-explicit dissociation. The present study did not collect data on the aforementioned ability- and motivation-related factors, which may be responsible for the dissociation. Future research could elaborate on this and study the conditions under which explicit (implicit) AAS effects are observable and-equally important-when they are not. Second, although we used a panel design that allowed for more confident causal claims, this study cannot completely prove causal effects. Future studies using laboratory experiments or prolonged exposure designs may add causal evidence. Using a highly controlled experimental design allows for the test of the potential of different types of attributes to elicit AAS effects as well (e.g., aspects vs. central themes; cognitive vs. affective; positive vs. negative). For example, does the attribute "corruption" elicit stronger effects than the attribute "democracy deficit"? As McCombs (2004) noted, specific attributes are "more likely than others to be noticed and remembered by the audience quite apart from their frequency of appearance or dominance in the message" (p. 92). A welldeveloped implicit cognition theory of AAS should be able to answer such questions. Third, we did not investigate the role of moderators already identified by previous research. For example, need for orientation (e.g., McCombs, 2005) is a central concept that may explain the strength of AAS effects. Future research should test the role of potential moderators in explaining implicit as well as explicit AAS.

Conclusion

Uhlmann and colleagues (2012) argued that the use of implicit concepts is most beneficial (1) when the phenomena under investigation are believed to operate (at least partly) at nonconscious levels and do not lend themselves easily to introspection, (2) when participants are unwilling to admit their thoughts and feelings to others, or even to themselves, and (3) when unique variance explained in the dependent variable is critical (i.e., incremental validity). However, we should not get distracted by a horse race between the explicit and implicit dimensions of AAS, because implicit cognition as well as explicit cognition have been demonstrated to be useful predictors of many types of behaviors, including voting (Glaser & Finn, 2013). Thus, we are not arguing for a substitution of explicit AAS research. In contrast, we argue for the consideration of implicit cognition as a supplement to explicit cognition. Both sides of the coin are important.

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Appendix

Prime Stimuli Used in the Affect Misattribution Procedure

Austria



Translation: Österreich = Austria.

European Union

