# Implicit and Explicit Attitudes as Predictors of Gatekeeping, Selective Exposure, and News Sharing: Testing a General Model of Media-Related Selection

#### Abstract

Media-related selection (MRS) is an umbrella concept for selection processes such as gatekeeping by journalists, selective exposure by audience members, and news sharing by social network site (SNS) users. Importantly, individual attitudes can influence MRS. Previous research on attitude-based MRS has relied almost exclusively on overtly expressed evaluations (i.e., explicit attitudes) as predictors of selection outcomes. We tested whether automatic affective evaluations (i.e., implicit attitudes) can predict MRS as well. In three studies (gatekeeping, selective exposure, news sharing), we found that journalists', audience members', and SNS users' implicit and explicit attitudes predicted selection. Thus, attitudes may exert their influence even "under the radar" of conscious awareness.

*Keywords:* selective exposure, gatekeeping, news sharing, implicit attitudes, EU, mediarelated selection

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# Implicit and Explicit Attitudes as Predictors of Gatekeeping, Selective Exposure, and News Sharing

Selection decisions are omnipresent in mediated news environments. When humans interact with mediated communications, they have to select. For example, audience members cannot—and oftentimes do not want to—allocate their media choices and available time equally to the available cornucopia of media messages. Instead, they rather demonstrate preference and avoidance patterns due to situational circumstances and predispositions (Zillmann & Bryant, 1985). One line of research on this *selective exposure* phenomenon is concerned with media users' tendency only to expose themselves to media content that is consistent with their attitudes (Klapper, 1960).

The process of selection is not limited to the audience side of the mass communication process. It also holds true journalists: Since it is impossible for the news media to report on each and every event, journalists have to make a series of selections (Lippmann, 1922). Such *gatekeeping* decisions regarding whether or not a specific event is published are central to reducing the sheer number of available potential news events into the smaller number of news items that are actually transmitted (Shoemaker, Eichholz, Kim, & Wrigley, 2001).

Some decades ago, the division of labor was clear: Journalists produced news and audiences consumed it. Today, however, the situation is different: Modern digital communication technologies contribute to a blurring of the lines between the traditional roles of sender and receiver (see Cappella, Kim, & Albarracin, 2015). Online news sites increasingly facilitate the sharing of their content on social network sites (SNSs) such as Facebook or Twitter. Although in principle people can freely choose what news content to share, the sheer number of available options makes selection necessary when *sharing news*.

*Media-related selection (MRS)*—a term we use as an umbrella concept for selection decisions related to mediated communications—, is often biased based on factors such as attitudes (see below). Unfortunately, previous research on attitude-based MRS has relied almost exclusively on overtly expressed evaluations (i.e., explicit attitudes) as predictors of selection biases. In a typical study, individuals are asked to verbalize their attitudes, which are used to predict MRS. We tested whether automatically activated evaluations (i.e., implicit attitudes) can predict MRS as well. The use of implicit attitudes as a supplement to explicit attitudes was based on the assumption that social cognition research (see below) revealed that both (more or less) controlled, verbalized evaluative judgments (i.e., explicit attitudes) and impulsively activated, spontaneous evaluations (i.e., implicit attitudes) predict human decision-making.

In the present paper, we first provide short reviews of research on gatekeeping, selective exposure, and news sharing. We then theorize on implicit and explicit attitudes and their expected role in MRS. The central aim of the study was to show that both implicit and explicit attitudes predict MRS decisions. In a series of three independent studies, we present empirical evidence for this hypothesis.

## **Previous Research on Media-Related Selection**

Although MRS can be located at numerous stages of the mass communication process, we focus on three important MRS phenomena: We have chosen gatekeeping, selective exposure, and news sharing due to their importance in the communication process. Importantly, a confirmation bias in MRS at each stage of the mass communication process may have serious consequences, because exposure to opposing arguments is indispensable for well-informed citizens and for democracy's ideal of a marketplace of ideas (Knobloch-Westerwick, 2015). **Gatekeeping: Media-Related Selection by Journalists** 

Gatekeeping (White, 1950) has often been described as a series of decision points in which journalists select some available potential news items for dissemination. The selected news content is either continued allowed to pass through or halted as it passes through a gate (e.g., from an event, to a reporter, to a series of editors). At each gate, there are forces (Lewin, 1951) that either facilitate or constrain the flow of news content.

Although forces can be studied on different levels of analysis (Shoemaker & Reese, 1996), we focus on gatekeeping decisions on the individual level based on factors such as journalists' likes and dislikes. In his seminal study, White (1950) found that a journalist (called "Mr. Gates") he observed had negative attitudes toward the Roman Catholic Church that seemingly reduced the likelihood that specific stories related to the Roman Catholic Church would pass through his gate. There is a series of studies that investigated gatekeeping in this tradition and obtained similar findings—including a replication with the same, but seventeen years older, Mr. Gates (Snider, 1967). Although there are clearly important organizational and societal constraints to the individual journalist (e.g., Shoemaker et al., 2001)—journalists often work "in a strait jacket" (Gieber, 1956, p. 423)—, there is evidence that attitudes play a substantial role in the selection process (see Shoemaker & Vos, 2009, for a review).

# Selective Exposure: Media-Related Selection by Audience Members

On a most basic level, media users' selective exposure can be defined as "any systematic bias in selected messages that diverge from the composition of accessible messages" (Knobloch-Westerwick, 2015, p. 3). Hart and colleagues (2009) outlined two fundamental motives guiding selective message exposure: defense and accuracy motivations. First, individuals want to feel validated and try to avoid emotional discomfort arising from the presence of dissonant cognitions. This defense motivation has often been called a confirmation bias. Second,

individuals want to know the truth. Environmental information can help the individual to adapt to and cope with the environment. Thus, accuracy motivations can be responsible for exposing oneself to a (possibly annoying) message.

The assumption that media users craft a news diet that reflects their attitudinal predispositions has a tumultuous 70-year history (Garrett, 2013), including several landmark studies such as those by Lazarsfeld, Berelson, and Gaudet (1948), and Klapper (1960). Scholarly work has accumulated supporting empirical evidence across print (e.g., Noelle-Neumann, 1973), broadcast (e.g., Iyangar & Hahn, 2009), and online media (e.g., Knobloch-Westerwick & Meng, 2009) during the last few decades. Taken together, media users tend to prefer messages that are in line with their own attitudes (for a review, see Knobloch-Westerwick, 2015).

# News Sharing: Media-Related Selection on Social Network Sites

SNSs have become a constitutive part of online news distribution and consumption (Mitchell & Page, 2015). According to the 2016 Reuters Institute Digital News Report (Newman, Levy, & Nielsen, 2016), 44% of respondents regularly use Facebook to read, watch, share, or discuss the news. Due to tools such as the "Tweet" or "Share" buttons, both online news sites and SNSs facilitate and simplify news sharing—a phenomenon that marks a significant change in news consumers' acquisition and handling of information.

Previous research investigated whether people tend to share news articles that reflect their own (political) views. In a series of studies, An and colleagues (An et al., 2014; An, Quercia, & Crowcroft, 2014) looked at the influence of attitudes on news-sharing behavior. They found supporting evidence for the notion that news sharing on SNSs heavily depends on what a person likes and agrees with. However, they also found (albeit weak) evidence that people share news with different viewpoints when they suspect their followers/friends are interested in the story.

Furthermore, Himelboim, McCreery, and Smith (2013) found that Twitter users tended to post links to sources that corresponded to their own political leaning. Although there is also evidence that contradicts this assumption, the bulk of empirical evidence supports the attitude-based newssharing hypothesis (for an overview, see Kümpel, Karnowski, & Keyling, 2015).

# Summary

MRS can occur at all stages of the mass communication process. Journalists act as gatekeepers and decide, at least partly based on their own attitudes, which events become news. Audience members choose which news items to expose themselves to from the available cornucopia of media messages that have already passed through a series of journalistic gates. SNS users—audience members of traditional "old" mass media as well as gatekeepers in "new" SNSs—then choose which news to share. These decisions can be influenced by attitudes.

It is important to note that we are not arguing that journalistic gatekeeping, readers' news selections, and SNS users' sharing decisions are identical phenomena. Conversely, they represent different phenomena and research on them builds on distinct intellectual traditions. For example, research has shown that news-sharing behavior is rooted in specific motivations such as a user's need to socialize with others and to achieve a sense of belonging (Lee & Ma, 2012). Conversely, professional journalism relies more on motivational goals that are not a primary factor for most readers and SNS users (e.g., professional journalistic norms such as objectivity). Clearly, there are different motivational orientations at work (Cappella et al., 2015).

We acknowledge idiosyncrasy, but emphasize similarity: All MRS contexts involve human decision-making, relying on the same set of mental processes that has developed and adapted throughout our evolutionary past (Buss, 2009). In fact, the brain architecture that enables (automatic) affective reactions seems to be rooted in phylogenetically ancient mechanisms (Mahajan et al., 2011) that hardly differentiate between the selections of alternatives in different MRS domains. Thus, although there are important differences, we assume that attitude-based selection biases are observable in all three MRS domains. As Lang (2013) noted, our "midrange theories continually increase in complexity without increasing in explanatory power or adding much to generalizable knowledge" (p. 14). We contribute to generalizability by integrating distinct but related theoretical concepts. We now turn to implicit and explicit attitudes to present our theoretical idea of a unified perspective on MRS.

# **Implicit and Explicit Attitudes**

We provide a MRS model that builds upon existing models from social psychology (Gawronski & Bodenhausen, 2006; Greenwald et al., 2002; Olson & Fazio, 2009; Strack & Deutsch, 2004), political science (Lodge & Taber, 2013), and communication (Arendt, 2013). The model goes beyond previous research by thoroughly specifying the processes underlying selection decisions. It predicts that MRS is based on two kinds of mental processes: activation and validation. We use the gate metaphor (White, 1950) to illustrate this idea: A number of forces (Lewin, 1951) are responsible for the MRS door opening or closing. Attitudes are one of such forces. We assume that each process can metaphorically open or close one door of the swing gate (see Figure 1).

# **Processes of Activation**

Processes of activation are defined as the automatic activation of associations in the memory (Strack & Deutsch, 2004). Stated differently, processes of activation are responsible for what comes to mind automatically. Importantly, concepts that have been evaluated in the past (e.g., democracy, fascism, affirmative action, asylum seekers, political parties) are affectively charged and mere exposure to them automatically activates this affective charge within

milliseconds (Taber & Lodge, 2005). A conscious intention to evaluate the concept is not necessary (Greenwald et al., 2002).

Implicit attitudes are defined as automatic affective reactions (Gawronski & Bodenhausen, 2006): Importantly, such "gut reactions" (Gawronski & Bodenhausen, 2011) shape—whether consciously appraised or not—subsequent decision-making (Nosek, Graham, & Hawkins, 2010). This claim is supported by research showing that humans are able to sense whether a concept that they have thought about and evaluated in the past is good or bad, even when the decision makers are unable to explain why (Dijksterhuis & Aarts, 2003; Lodge & Taber, 2013). In this way, processes of activation can "give rise to major biases of intuitive judgment" (Morewedge & Kahneman, 2010, p. 435).

Processes of activation (e.g., via its outcome of implicit attitudes) are concerned with an impulsive orientation that is achieved by the mental system being preset toward approach or avoidance (Cacioppo, Priester, & Berntson, 1993). In fact, human information processing uses automatic affective reactions as "real-time information to promote quick, efficient, spontaneous responses to what should be approached and what avoided" and this "prepares the organisms for approach–avoidance behavioral responses within 200–300 milliseconds of exposure and appear to enter the evaluation process spontaneously moments before cognitive considerations come to mind" (Lodge & Taber, 2013, p. 48). What is relevant for the media context is that even the processing of *mediated* information can trigger impulsive motivational orientations (Lang, 2000). Avoidance orientations (e.g., elicited by implicit attitudes) facilitate an increase in the (real or metaphorical) distance between the decision maker and the news item. Conversely, approach orientations facilitate a decrease in the distance between the person and the news item.

Psychological theorizing and some prior empirical research (e.g., AUTHORS; Galdi, Gawronski, Arcuri, & Friese, 2012; Taber & Lodge, 2006) suggest that negative (positive) implicit attitudes toward a socio-political concept should lead to avoidance-(approach-)related selection decisions. For example, Lodge and Taber (2013) emphasized the importance of implicit attitudes when noting that selection biases are "triggered by an initial (and uncontrolled) affective response" (p. 151). Unfortunately, Lodge and Taber did not use implicit attitudes as a predictor for selective exposure, but relied on explicit measures.

Taken together, it seems reasonable to assume that MRS is partly based on impulsive behavioral tendencies elicited by processes of activation. Figure 1 visualizes this assumption by letting one door of the swing gate be controlled by implicit attitudes. Although previous MRS research has already acknowledged the importance of "deeply held, often subconscious, biases" (Shoemaker & Vos, 2009, p. 49, see also Cuillier, 2002), there is a lack of empirical evidence.

# **Processes of Validation**

Processes of validation are superordinate to processes of activation and are defined as the validation of automatically activated associations (Gawronski & Bodenhausen, 2006). Stated differently, processes of validation can be perceived as reasoning processes that occur when individuals consciously ruminate about ideas that come to mind automatically. The model assumes that input from the associative store is transformed into a propositional format (Strack & Deutsch, 2004): Processes of validation form (self-reported) declarative beliefs (cognitive relations, e.g., "The EU is a peace project") and attitudes (affective relations, e.g., "The EU is good"). Note that we do not assume that propositional beliefs are separately stored in the memory. Conversely, we assume that all information is stored in the form of concept associations: Following Morewedge and Kahneman (2010), we understand both processes as

"operating systems" (i.e., software, not hardware). Thus, all (conscious) thinking based on processes of validation is based on the biased sampling of automatically activated associations.

Although processes of activation are defined by the mere activation of concepts in the memory independent of subjective truth, processes of validation assess the subjective truth of automatically activated concepts (Gawronski & Bodenhausen, 2006): Despite the fact that individuals cannot decide whether (or not) affect will be automatically activated, an important characteristic of processes of validation is that they can flexibly generate and change declarative mental content. Importantly, automatically activated affect can be overruled by processes of validation (e.g., "Despite what my gut tells me, the EU is *not* good"). Accordingly, impulsive motivational orientations elicited by processes of activation (e.g., the tendency not to select an EU news item) can be overruled by (more or less) reasoned conscious reflection (e.g., based on the deliberative motivational goal to select different political standpoints). Thus, MRS decision makers can deliberately decide to select news items even if their impulses would prefer not to select them. Although processes of validation enable great flexibility, they operate slowly and are highly dependent on intention.

Explicit attitudes are the outcome of processes of validation (Gawronski & Bodenhausen, 2006) and are assessed with self-reports (Greenwald et al., 2002). As previous attitude-based MRS research has relied on self-reports, it can be assumed that MRS is partly based on explicit attitudes. Figure 1 visualizes this idea by letting the second door of the swing gate be controlled by explicit attitudes. Importantly, this door is "heavier" than the other door that is operated by implicit attitudes: It requires time, cognitive resources, and the motivation to think about potential news content to open the door. However, when this condition is met, this door is "larger" and can overrule the "decision" of the other door; it is the superordinate door.

It is important here to reiterate that human decision-making is assumed to be determined by *both* processes (Strack & Deutsch, 2004). Although both processes follow different operating principles, they operate *in parallel* most of the time (Gawronski & Bodenhausen, 2006). Note that processes of activation can directly elicit impulsive approach or avoidance orientations. In addition, processes of activation can elicit indirect effects on decision-making through their influence on processes of validation (e.g., activated associations bias the conscious interpretation and evaluation of mediated information; see Lodge & Taber, 2013). As implicit attitudes have been shown to add predictive value to explicit attitudes in predicting decision-making (Galdi et al., 2012; Greenwald, Poehlman, Uhlmann, & Banaji, 2009), we assumed that MRS would be influenced by both implicit and explicit attitudes.<sup>1</sup>

## **Target Elements of Attitude-Based Media-Related Selection**

MRS's gate metaphor can be used to describe "why and how some items pass on their way, step by step, from discovery to use" (Shoemaker & Vos, 2009, p. 15). This indicates that MRS is "more than just selection" (p. 233); it also includes how news content is "shaped" (p. 233). Based on this differentiation made by previous research, we assumed that attitude-based MRS could theoretically operate related to a minimum of two target elements. First, there can be preference and avoidance patterns with regard to the mere *selection* of a news item (i.e., subject matter). Decision makers with positive attitudes toward, for example, the EU, can seek out and select news content that includes the EU. Stated differently, audience members with negative (positive) EU attitudes may avoid (approach) EU news. The important content element in this case is the attitude object per se. We call this dimension *object-based selection*.

Second, MRS can be targeted at how an attitude object is presented. Decision makers with negative (positive) EU attitudes may avoid (approach) the sharing of negative EU content.

The central element in this context is the valenced depiction of the attitude object (i.e., how the subject matter is presented). We call this dimension *position-based selection*. By showing preference and avoidance patterns regarding valenced news content, decision makers can *shape* news. The theoretical arguments outlined above lead to a general prediction:

*H1: Explicit and implicit attitudes predict object-based (H1.1) and position-based (H1.2) selection.* 

We acknowledge the possibility that the predictive power of both attitudinal constructs is different in the three MRS domains. For example, professional journalists (compared to news consumers and online news sharers) presumably rely more on a (deliberative) motivational goal to select different standpoints following journalistic norms of objective reporting. This may reduce explicit attitudes' predictive power, because journalists may decide not to rely on their own attitudes. For explorative purposes, we thus included the following research question:

*RQ1:* Is implicit and explicit attitudes' predictive power different in the three MRS domains (gatekeeping, selective exposure, news sharing)?

Lodge and Taber (2013) noted that after "five decades of well-replicated research, it is simply no longer tenable for those interested in understanding political attitudes, public opinion, campaigns, media, or vote decisions to ignore the effects of automaticity" (p. 42). We agree. It is important to note that the general idea that automaticity plays a substantial role in human decision-making is far from new. However, the present study investigated the basic idea of individual-level selection biases based on implicit and explicit attitudes for three important stages of the mass communication process. Although selective exposure has been extensively studied by psychologists (but see Knobloch-Westerwick, 2015, emphasizing the importance of

research on media by media scholars, e.g., p. 133), to the best of our knowledge, the present study is the first to use implicit attitudes in the journalism and online news-sharing context.

# **Overview of the Empirical Work**

We conducted three independent studies in different MRS research domains (selective exposure, gatekeeping, news sharing). We used the EU as the attitude object of focus and a comparable methodology in all studies: We conducted three web-based MRS studies in which participants (study 1: audience members, study 2: journalists, study 3: SNS users) were asked to choose between headlines. We constructed two target-discrimination tasks: First, participants could decide between a non-EU and an EU headline (object-based selection): Do those who have negative attitudes toward the EU tend to ignore EU coverage per se? Second, participants could choose between a positively and a negatively valenced EU headline (position-based selection): Do those who have negative attitudes toward the EU tend to prefer negative EU coverage?

We used headlines to measure MRS because this content dimension is relevant across different media outlets and genres and ensures comparability across the three studies. Headlines are relevant for traditional media environments, especially for print content. Nevertheless, they are also of relevance for media environments based on new digital communication technologies.

All participants selected news content first, and both attitude constructs (in random order) were measured afterwards. We predicted selection decisions via implicit and explicit attitudes. The three studies are presented in the order in which we collected the data. Analyses related to RQ1 are presented after the presentation of the three studies.

#### **Study 1: Selective Exposure**

# **Participants**

The study was conducted in Austria. A total of 516 students enrolled in an introductory lecture on communication research methods provided answers to all variables. Of the participants completing the online questionnaire, 80% were female. The participants ranged in age from 17 to 35 (M = 20.47, SD = 2.22). The sample showed a slightly left political leaning (M = 4.59, SD = 2.10) measured on a scale ranging from *left* (coded as 1) to *right* (coded as 11). **Focal Predictors** 

**Implicit attitudes.** We used the *affect misattribution procedure* (= AMP; Payne, Cheng, Govorun, & Stewart, 2005). Individuals were presented with a prime stimulus (80 ms), which was followed by a presentation (250 ms) of an unknown symbol (a Chinese character). This task used pictures of the EU as the primes and pictures related to Austria as the reference category (e.g., flags). Participants were instructed to rate the "visual pleasantness" of the unknown symbol in a total of 40 trials (i.e., 20 Austrian and 20 EU trials). Individuals typically evaluate unknown symbols more favorably when they have been primed with a positively valenced stimulus (Payne et al., 2005). If a participant has positive spontaneous evaluations toward the EU (and less positive spontaneous evaluations toward Austria), the individual should rate the unknown symbols as visually more pleasant when placed after an EU prime. Difference scores were calculated by comparing the pleasantness ratings after the EU and Austrian primes (Payne et al., 2005). Higher values indicate more negative implicit EU attitudes (M = 0.12, SD = 3.88).

**Explicit attitudes.** We used a seven-point bipolar scale (1–7) using four items (good-bad, positive-negative, fair-unfair, meaningful-meaningless). Higher values indicate more negative evaluations (M = 2.80, SD = 1.19,  $\alpha = 0.88$ ). There was a small correlation between implicit and explicit attitudes, r(514) = .18, p < .001.

# **Media-Related Selection Measures**

A total of 35 choice trials were employed and presented in random order. In each individual trial, participants were presented with two headlines and were to choose the one that they preferred reading compared to the corresponding article (see Galdi et al., 2012).

**Object-based selection.** In the first target task, participants had to choose between a non-EU and an EU headline. This was done to test the theoretical assumptions surrounding the attitude object per se. Do those who have negative attitudes toward the EU tend to ignore EU coverage per se? In each of five choice trials, participants were presented with one EU headline (e.g., "Jean-Claude Juncker: President of the EU Commission on travel") and a matched Austrian headline (e.g., "Heinz Fischer: Austrian President gets visit"). In each trial, the EU headline was coded as 0 and the Austrian headline was coded as 1. We summed up all choice decisions to compute the measures. Higher values indicate a greater tendency to read Austrian headlines (M =2.73, SD = 1.45, range = 0–5).

**Position-based selection**. In the second target task, participants had to choose between a positively and a negatively valenced EU headline. This should measure effects concerning the valenced depiction of the attitude object. Due to external validity considerations, we decided to use valenced arguments that are regularly used by the public and in the media. We constructed a list of 20 positive (e.g., "The EU as a social union: Big success") and 20 negative headlines (e.g., "Undemocratic EU: There are more than 17,000 lobbyists in Brussels").

The use of real arguments to increase external validity limits the possibility of being able to manipulate the headlines. This can be a threat to internal validity. When considering the manipulation of "object-based selection" headlines, it is easy to substitute, for example, the President of the European Commission with the President of Austria. As this limitation is a possible source of heightened error variance, we decided to use a total of 20 trials. The

negatively valenced EU headline was coded as 0 and the positively valenced EU headline was coded as 1. Again, we summed up all responses. Higher values indicate a greater tendency to read positively valenced EU headlines (M = 10.69, SD = 3.85, range = 0–20).

**Media-related selection control measures.** We controlled for two predispositions. By considering valence (negativity) and emotional arousal as covariates, we ensured that effects found for the EU-related choice tasks could not be attributed solely to valence and arousal.

*Valence.* We measured the tendency to read positively valenced (e.g., "The sun and the warm temperature make people feel happy") compared to negatively valenced (e.g., "Meteorological disturbance causes massive damage") headlines per se. This was done to control for the effect of mere *valence*. Note, the EU or Austria were not mentioned in these headlines. We used five choice trials and coded the negative headline as 0 and the positive headline as 1. Higher values on the sum score indicate a greater tendency to read positive headlines. There was a slight tendency to read negatively valenced headlines (M = 1.91, SD = 1.24, range = 0–5).

*Emotional arousal.* We measured the tendency to read emotionally arousing articles. For the EU-related choice task using the valenced headlines, it was not possible to match positively valenced and negatively valenced EU headlines in terms of emotional arousal, because the negative arguments toward the EU are more fueled with emotional arousal than the positive arguments are. Thus, we had to control for the tendency to read emotionally arousing articles per se. We constructed arousing (e.g., "Aggressive fighting dog bites poor child") and non-arousing (e.g., "Dog bites a child in the leg") headlines. Again, we used five choice trials, and coded the non-arousing headline as 0 and the arousing headline as 1. Higher values indicate a greater tendency to read emotionally arousing headlines (M = 2.47, SD = 1.57, range = 0–5).<sup>2</sup>

# Controls

Age, gender (0 = female, 1 = male), political orientation (see above), and EU knowledge (measured using four EU-related knowledge questions where correct answers were coded as 1 and summed up; M = 1.79, SD = 1.29, range = 0-4) were used as control variables.

# **Statistical Analysis**

We calculated a path model (df = 0) in AMOS where we predicted both target MRS measures (i.e., object-based and position-based selection) simultaneously by age, gender, political orientation, EU knowledge, valence, emotional arousal, explicit attitudes, and implicit attitudes. Figure 2 provides a visual depiction of the model, which we used in all three studies.<sup>3</sup>

## Results

Hypothesis 1 assumed that both attitudinal constructs predict selective exposure. To test this hypothesis, we predicted both selection measures simultaneously by implicit and explicit attitudes in a multivariate path model. As can be seen in Table 1, negative explicit attitudes increased the tendency to avoid EU coverage per se and positive EU coverage. Importantly, implicit attitudes predicted selection decisions, but only for object-based selection: The explanatory power of implicit attitudes failed to achieve significance when individuals made position-based selections. Thus, H1.1 was supported: Implicit and explicit attitudes predicted the avoidance of EU news items per se (object-based selection). However, H1.2 was not supported: Only explicit attitudes predicted selections regarding to the valenced depiction of the attitude object (position-based selection).

# Study 2: Gatekeeping

Study 2 is a conceptual replication of MRS in the gatekeeping context and was conducted in Germany. The methodology followed study 1, but was adapted: A series of gatekeeping trials were employed. In each individual trial, journalists were presented with two news headlines.

This strategy was utilized following Gandy (1982, p. 21), who viewed gatekeeping as a series of binary decisions (i.e., pass through the gate or not?). We presented the news messages as coming from external sources such as news agencies, similar to the study by White (1950). We asked journalists to choose the one that they would prefer to select and let pass through the gate. We told them that the goal was to write a fact-based news article.

# **Participants**

A total of 124 journalists completed the web-based survey. Journalists were enrolled by sending invitation letters by e-mail. Addresses of journalists were obtained from publicly available records. We obtained a quite diverse sample with great variability on several important factors. Of the participants, 65% were male. The journalists ranged in age from 21 to 74 years old (M = 45.28, SD = 11.37). Only a minority (4%) had no high school diploma, 18% had a high school diploma, and 78% had a university degree. The sample showed a rather left political leaning (M = 4.81, SD = 1.84). The participants' professional journalistic experience ranged from 1 to 46 years (M = 19.69, SD = 10.11). One third of the sample (33%) had a leading position in their media company and 12% of the whole sample indicated that they were an editor-in-chief, editor, or program director. A total of 27% of the journalists reported working for daily newspapers, 17% for television, 31% for radio, 7% for news agencies, and 19% for stand-alone online media. The journalists worked for different newspaper sections: politics, 27%; economy, 27%; police and crime, 20%; culture and feuilleton, 25%; sports, 17%; health, 14%; and entertainment, 21% (multiple answers were possible).

#### **Focal Predictors**

**Implicit attitudes.** The AMP (Payne et al., 2005) was used for the measurement of implicit EU attitudes. The only difference relative to study 1 was that we used Germany as the reference category (M = -0.10, SD = 3.02).

**Explicit attitudes.** We used the same seven-point scale to assess journalists' explicit EU attitudes (M = 2.59, SD = 1.07,  $\alpha = 0.82$ ). Implicit and explicit EU attitudes were unrelated, r(122) = -.08, p = .37.

# **Media-Related Selection Measures**

**Object-based selection.** We used the same headlines as in study 1, but adapted them for the German context (e.g., "Angela Merkel: German Chancellor gets visit"; M = 2.17, SD = 1.42, range = 0-5).

**Position-based selection.** Higher values indicate a greater tendency to avoid positive EU news (M = 2.35, SD = 1.42, range = 0-5). Based on prior experience, we expected that it would be hard to motivate journalists to participate. Thus, we decided only to use five trials, because we wanted to ensure that the survey was as short as possible.

Media-related selection control measures. Emotional arousal (M = 1.83, SD = 1.44) and valence (M = 1.90, SD = 1.07) were controlled for as in study 1.

# Controls

Age, gender, education (1 = no high school diploma, 2 = high school diploma, 3 = bachelor's degree, 4 = master's degree, 5 = Ph.D. degree), political orientation, years of professional journalistic experience, leading position (0 = No, 1 = Yes), and EU knowledge (M = 2.45, SD = 1.19, range = 0–4) were used as control variables.

# Results

As Table 2 shows, the more negative both the implicit as well as explicit attitudes are, the greater the tendency to close the gate for news content related to the EU per se. This supports H1.1. Furthermore, explicit attitudes predicted selective exposure to valenced EU news. Importantly, consistent with the results of study 1, negative implicit attitudes did not predict the tendency to close the gate for positive EU news (object-based selection). Again, H1.2 (position-based selection) could not be supported.

#### **Study 3: News Sharing**

Study 3 is a conceptual replication in the news-sharing context and was conducted in Germany. We used the following introduction: "Journalistic online news sites typically provide buttons for the sharing of articles. The specific design of those buttons might differ slightly between news sites, e.g. [accompanied by pictures of different share button designs], but the idea behind it is always the same: News content can be recommended to friends. In this study, we are interested in the question regarding which news content you would select for sharing by clicking on the share button."

# **Participants**

A total of 167 individuals participated and provided data. Participants were enrolled by two research assistants using convenience-sampling techniques through SNSs. Of the participants completing the web-based survey, 77% were female. The participants ranged in age from 14 to 55 (M = 23.98, SD = 6.36). A minority had no high school diploma (7%), 52% had a high school diploma, and 41% had a university degree. The sample showed a slightly left political leaning (M = 4.66, SD = 1.70).

# **Focal Predictors**

**Implicit attitudes.** We used the AMP (Payne et al., 2005) with Germany as the reference category. Higher values indicate stronger negative implicit EU attitudes (M = -0.50, SD = 3.51).

**Explicit attitudes.** We measured explicit attitudes using the seven-point scale (M = 2.53, SD = 0.86). Implicit and explicit EU attitudes were unrelated, r(165) = .01, p = .88.

# **Media-Related Selection Measures**

We employed the same 20 trials as in study 2. Higher values on the *object-based* selection measure indicate a greater tendency to avoid the sharing of EU news (M = 2.24, SD = 1.28, range = 0–5). In addition, higher values on the position-based selection measure indicate a greater tendency to share positive EU articles (M = 2.84, SD = 1.35, range = 0–5). Again, we controlled for two predispositions: the tendency to share valenced content (M = 2.47, SD = 1.33) and the tendency to share emotionally arousing news content (M = 1.90, SD = 1.58).

# Controls

As in study 2, age, gender, education, political orientation, and EU knowledge (M = 1.26, SD = 1.15) were used as control variables.

#### Results

As can be found in Table 3, those with more negative implicit and explicit EU attitudes tended to avoid sharing EU news (object-based selection). Although explicit attitudes predicted news sharing of valenced news content, implicit attitudes did not (position-based selection). Thus, H1.1 was supported and H1.2 was not supported.

## **Integrated Analysis**

Research question 1 asked whether implicit and explicit attitudes' predictive power is different in the three MRS contexts. To answer this question, we merged the data sets of the three independent studies and conducted a multigroup analysis in AMOS. The underlying idea

was to estimate implicit and explicit attitudes' effect coefficients first. Second, we assessed whether or not these coefficients differ between the data files of the three independent studies: We tested whether attitude constructs' coefficients differed among the three MRS domains by examining the fit of the model (see Figure 2) when freely estimating attitude constructs' coefficients in all three MRS domains (= moderator) relative to a model in which the coefficient of each attitude construct on both outcomes (object-based or position-based selection) is constrained to be equal in each MRS domain (see Hayes, Matthes, & Eveland, 2011, for this procedure). We did not find evidence for a significant moderation effect with regard to implicit attitudes' predictive power for object-based selection,  $\Delta \chi^2(2) = 0.30$ , p = .86, or for positionbased selection,  $\Delta \chi^2(2) = 2.21$ , p = .33. Furthermore, we did not find evidence for a moderation effect with regard to explicit attitudes' predictive power for object-based selection,  $\Delta \chi^2$  (2) = 0.01, p = .99. However, there was evidence for moderation with regard to explicit attitudes' predictive power for position-based selection,  $\Delta \chi^2(2) = 12.69$ , p < .01: Explicit attitudes showed the strongest predictive power for news sharing, followed by selective exposure; explicit attitudes showed the weakest predictive power (albeit still substantial and statistically significant) for journalistic gatekeeping (see Tables 1-3).

# **General Discussion**

Previous research on MRS has relied almost exclusively on overtly expressed evaluations (i.e., explicit attitudes) as predictors of selection biases. We tested whether automatically activated evaluations (i.e., implicit attitudes) can predict MRS as well. The use of implicit attitudes as a supplement to explicit attitudes was based on the assumption that both (more or less) controlled, verbalized judgments (i.e., explicit attitudes), and impulsively activated evaluations (i.e., implicit attitudes) predict decision-making. The primary contribution of the

present study is to show that both explicit *and* implicit attitudes are able to predict selective exposure, gatekeeping, and news sharing.

We argued that automatically activated associations in the memory elicit immediate affective reactions (i.e., implicit attitudes). Such automatically elicited reactions can trigger impulsive motivational orientations leading to avoidance (approach) orientations that facilitate an increase (decrease) in the real or metaphorical distance between the decision maker and the news item. Importantly, gut-level reactions may not be endorsed as overtly expressed, conscious evaluations (i.e., explicit attitudes). The assumption is that both processes of activation (implicit attitudes) and processes of validation (explicit attitudes) operate in parallel most of the time (Gawronski & Bodenhausen, 2006).

Previous MRS research has already acknowledged that MRS decision makers are typically not aware of processes governing media choice decisions and that self-reports may suffer from an impression-management bias (Knobloch-Westerwick, 2015). The present study contributes to the literature by providing supporting empirical evidence: Replicating previous research findings in the MRS domains of gatekeeping, selective exposure, and news sharing, we found evidence for explicit attitude's predictive power: Journalists, audience members, and SNS users partly relied upon explicit attitudes when making their selection decisions regarding the attitude object per se (object-based selection). Furthermore, decision makers partly relied on implicit attitudes when making their selections regarding the attitude object per se (object-based selection). This supports H1.1. Importantly, although explicit attitudes predicted MRS decisionmaking regarding the valenced depiction of the attitude object, implicit attitudes did not (position-based selection). This was unexpected and does not support H1.2. Nevertheless, the empirical evidence appears to be very clear across all three studies. This raises the question as to

why implicit attitudes were able to predict object-based selection, but were less able to predict position-based selection. Although speculative to some degree, we offer a tentative explanation:

News consists of several "objects." For example, the word "EU" can be deemed as an object. Human information processing can easily identify this object by mere pattern recognition (e.g., in a headline). As spontaneous evaluations are activated when encoding this word, it is theoretically sound that implicit attitudes predicted selections of these easy-to-identify objects. Objects, however, can also consist of more complex stimulus configurations. This is the case, for instance, in valenced headlines. Human information processing has to evaluate more than one word and set them into a propositional relation. Consider the headline "Again and again: Too much of our money trickles away into a bloated EU administration." MRS decision makers have to read the whole headline to get the *meaning*. The mere pattern recognition of the word "EU" is not enough to get the meaning. Due to this additional amount of necessary cognitive elaboration, spontaneous implicit evaluations might be less able to influence such MRS decisions. This post hoc explanation is supported by research demonstrating a disjuncture between (sometimes unconscious) affective processing and (conscious) semantic processing relying on meaning, with humans able to sense that an environmental stimulus is good or bad, even when they are unable to explain why (Dijksterhuis & Aarts, 2003).

This unexpected finding is also compatible with Festinger's (1957) theory of cognitive dissonance, which has guided much of the research on attitude-based selection. The theory of cognitive dissonance applied to MRS proposes that counter-attitudinal messages produce a state of cognitive dissonance, because the message content is perceived as incompatible with currently held attitudes. This state is experienced as unpleasant and individuals are assumed to strive to terminate it or prevent it from developing. As dissonance reduction or avoidance both rely on

meaning—Is the currently held belief or the mediated statement true and consistent with other momentarily considered propositions?—, cognitive dissonance has been regarded as an inherently propositional phenomenon based on processes of validation (Gawronski & Bodenhausen, 2006). Due to the fact that the outcome of processes of validation is explicit attitudes, the finding that position-based selection was predicted by explicit attitudes is consistent with dissonance theory. Future research should elaborate on this post hoc theorizing.

# Limitations

As with every study, the studies have several limitations. First, we used the EU as the topic of focus. The use of only one specific topic may elicit concerns with regard to the generalizability of our findings. For example, implicit attitudes might show an even stronger predictive value in other, socially more sensitive areas (e.g., in the media stereotyping domain) partly because of explicit measures' limitation in terms of the accurate measurement of prejudiced attitudes. Furthermore, implicit attitudes may show a stronger explanatory power regarding topics for which individuals have not already built an overtly expressible, explicit attitudinal judgment (e.g., no introspective access because individuals may have never thought about the topic). However, there might still be measureable traces of past experiences that are responsible for implicit attitudes (see Greenwald et al., 2002).

Second, convenience-sampling techniques were applied due to economic reasons. Possible confounding factors such as higher education may be interpreted as possible threats to validity. As our primary interest was concerned with the added predictive power of implicit attitudes, we think that the use of convenience samples can be justified.

Third, we utilized choice tasks where participants had to indicate their preference out of two alternatives. Although this strategy renders the analysis and interpretation of the data easy,

external validity concerns can be raised. In everyday life, MRS decision makers rarely have only two alternatives to decide between. Despite the limitations related to the use of a series of binary decision trials, the utilized procedure allowed us to separate out the independent contribution of implicit and explicit attitudes with a comparable method across different research domains.

Fourth, we found that implicit and explicit attitudes predicted selective exposure, gatekeeping, and news sharing. Importantly, implicit and explicit attitudes' role was very similar across these three MRS domains. In fact, this finding is consistent with the idea that there is a common mechanism behind different MRS phenomena. However, we are not arguing that readers' news selections, journalistic gatekeeping, and SNS users' sharing decisions are identical phenomena. We acknowledge idiosyncrasy, but emphasize similarity. Although the similar predictive power of both attitude constructs in the three different MRS domains support the similarity assumption (i.e., a common mechanism behind different MRS phenomena), it cannot prove it. Future research should elaborate on this issue: Theories in communication science continually increase in complexity without adding much to generalizable knowledge (Lang, 2013). A further investigation of the common grounds can contribute to the generalizability of findings by integrating distinct but related theoretical concepts: What is the common ground? What is the difference?

# Conclusions

Despite these limitations, MRS decision-making seems to be not only driven by (more or less) reasoned conscious reflection, but can be a very subjective product of automatic and sometimes even unconscious thinking as well. In fact, processes of activation can operate "under the radar" of MRS decision makers' conscious awareness. We conceptually replicated this idea in three independent studies. MRS decision situations are increasingly related to time pressure (e.g., "faster" media environments due to new digital communication technologies, the trend of smaller newsrooms due to economic pressure, less time to investigate, a higher number of options). Importantly, time pressure is known as a factor under which implicit attitudes are assumed to add predictive value to explicit attitudes in predicting human decision-making (see Greenwald et al., 2009). Changing media environments may thus contribute to an increase in implicit attitudes' importance in MRS. Especially journalists, as *professional* MRS decision makers, should be aware of and acknowledge the possibility of influences from their own impulsive attitudes, which can sometimes even sneak under the radar of their conscious awareness. This is the prerequisite for any attempts to control for undesired influences.

From a societal perspective, an MRS confirmation bias may have serious consequences, because exposure to opposing arguments is indispensable for well-informed citizens and crucial for democracy's ideal of a marketplace of ideas (Knobloch-Westerwick, 2015). The societal relevance is further emphasized by some scholars who warn that avoidance of attitude-dissonant political news is becoming increasingly common, at least partly because of an ideologically fragmented online news environment that allows individuals to avoid contact with or share content that differs from their own attitudinal predispositions (Garrett, Carnahan, & Lynch, 2013). It is the duty of communication research to study such phenomena. Scholars—in their role as gatekeepers of research findings—should spread this knowledge. By doing so, research could stimulate a discussion about responsible MRS decision-making.

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#### Footnotes

<sup>1</sup> In our theorizing, the terms "implicit" and "explicit" are used to describe the responses assessed by different kinds of measurement techniques (i.e., implicit = indirect measures, explicit = direct self-report measures). Although the implicit–explicit distinction has been used interchangeably from time to time with the differentiation between "conscious" versus "unconscious" and "automatic" versus "controlled," we refrain from this type of interchangeable use. Humans typically have conscious awareness regarding the outcome of processes of validation and are able to control what (explicit) attitudes they overtly express. Although the term "unconscious" has often been used when theorizing on implicit attitudes, the outcome of processes of activation (implicit attitudes) is *not* necessarily outside of conscious awareness. Conversely, humans have experiential access to their affective gut reactions resulting from attitude objects with a substantial affective charge (see Gawronski & Bodenhausen, 2011).

<sup>2</sup>We did not conduct a pretest for positive and negative EU headlines, because we wanted to use arguments that have been regularly used by the public and in the media. However, we had to ensure that the manipulation of the headlines was successful. A rating task was administered in the final part of the questionnaire after all of the relevant variables had been administered. We asked the participants of study 1 to rate the headlines. The manipulation was successful.

<sup>3</sup> Study 1 originally included an experimental factor: processing style (three groups: heuristic, control, systematic; manipulated by the use of a written task importance/accuracy motivation instruction). Processing style did not significantly moderate implicit and explicit attitudes' predictive power. Due to space limitations and comparability to the other studies, we did not include this analysis in the present manuscript. This additional analysis, however, can be requested or found in a conference paper (CITATION COVERED FOR BLIND REVIEW).

# Table 1

Implicit and Explicit Attitudes as Predictors of Selective Exposure by Audience Members

	Object-based Selection				Position-based Selection			
	В	SE	β	р	В	SE	β	р
Controls								
Age	02	.03	03	.51	.10	.07	.06	.11
Gender	11	.15	03	.46	35	.36	04	.33
Political Orientation	.03	.03	.05	.25	01	.07	01	.84
EU Knowledge	09	.05	08	.07	.20	.11	.07	.07
Valence	.03	.05	.02	.58	.92	.12	.30	<.01
Emotional Arousal	.06	.04	.06	.14	68	.09	28	<.01
Conceptual Variables								
Explicit Attitudes	.29	.05	.24	<.01	89	.12	28	<.01
Implicit Attitudes	.07	.02	.19	<.01	.05	.04	.05	.20

*Note.* AMOS was used to predict both outcomes by implicit attitudes, explicit attitudes, and the controls in a multivariate path model (N = 516). The model has zero degrees of freedom. Thus, the model fit could not be tested. *B* = unstandardized path coefficient, *SE* = standard error,  $\beta$  = standardized coefficient, *p* = p-value. The covariation between object-based and position-based selections' error terms was *B* = -.13, *SE* = .19,  $\beta$  = -.03, *p* = .49. As recommended by one anonymous reviewer, we additionally calculated two separate hierarchical regression models (object-based selection, position-based selection) to assess the change in *R*<sup>2</sup> of implicit attitudes' step (1. Step: Controls, 2. Step: Valence and emotional arousal, 3. Step: Explicit attitudes, 4. Step: Implicit attitudes): object-based selection,  $\Delta R^2 = .035$ ,  $\Delta F(1, 508) = 20.729$ , *p* < .001, and position-based selection,  $\Delta R^2 = .002$ ,  $\Delta F(1, 508) = 1.584$ , *p* = .209. Thus, implicit attitudes substantially increased the predictive power of the regression model for object-based selection only.

# Table 2

Implicit and Explicit Attitudes as Predictors of Gatekeeping by Journalists

	Object-based Selection				Position-based Selection			
	В	SE	β	р	В	SE	β	р
Controls								
Age	04	.02	30	.07	.03	.02	.20	.17
Gender	.03	.29	.01	.92	.06	.25	.02	.81
Education	.05	.13	.04	.69	.04	.12	.03	.76
Political Orientation	.00	.07	<.01	.97	.08	.06	.10	.20
Journal. Experience	.03	.02	.23	.18	04	.02	26	.09
Leading Position	.23	.27	.08	.39	.30	.24	.10	.20
EU Knowledge	02	.11	02	.86	15	.10	13	.12
Valence	10	.12	08	.38	.43	.10	.32	<.01
Emotional Arousal	.11	.10	.11	.24	21	.08	22	.01
Conceptual Variables								
Explicit Attitudes	.32	.12	.24	.01	31	.11	24	<.01
Implicit Attitudes	.08	.04	.17	.04	01	.04	03	.73

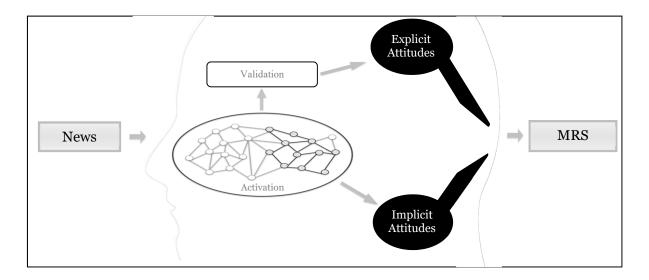
*Note.* AMOS was used to predict both outcomes by implicit attitudes, explicit attitudes, and the controls in a multivariate path model (N = 124). The model has zero degrees of freedom. Thus, the model fit could not be tested. B = unstandardized path coefficient, SE = standard error,  $\beta =$  standardized coefficient, p = p-value. The covariation between object-based and position-based selections' error terms was B = .03, SE = .13,  $\beta = .02$ , p = .82. As recommended by one anonymous reviewer, we additionally calculated two separate hierarchical regression models (object-based selection, position-based selection) to assess the change in  $R^2$  of implicit attitudes' step (1. Step: Controls, 2. Step: Valence and emotional arousal, 3. Step: Explicit attitudes, 4. Step: Implicit attitudes): object-based selection,  $\Delta R^2 = .028$ ,  $\Delta F(1, 112) = 3.860$ , p = .052, and position-based selection,  $\Delta R^2 = .001$ ,  $\Delta F(1, 112) = 0.144$ , p = .706. Thus, implicit attitudes substantially increased the predictive power of the regression model for object-based selection only.

# Table 3

	Object-based Selection				Po	Position-based Selection			
	В	SE	β	р	В	SE	β	р	
Controls									
Age	.02	.02	.11	.18	.02	.02	.08	.31	
Gender	07	.22	02	.77	.04	.22	.01	.87	
Education	23	.13	15	.07	23	.13	05	.52	
Political Orientation	.13	.06	.17	.03	.06	.06	.07	.30	
EU Knowledge	16	.08	15	.05	22	.08	19	.01	
Valence	15	.07	16	.03	.30	.07	.30	<.01	
Emotional Arousal	.05	.06	.06	.45	16	.06	19	.01	
Conceptual Variables									
Explicit Attitudes	.24	.11	.16	.03	58	.11	37	<.01	
Implicit Attitudes	.07	.03	.18	.01	01	.03	02	.71	

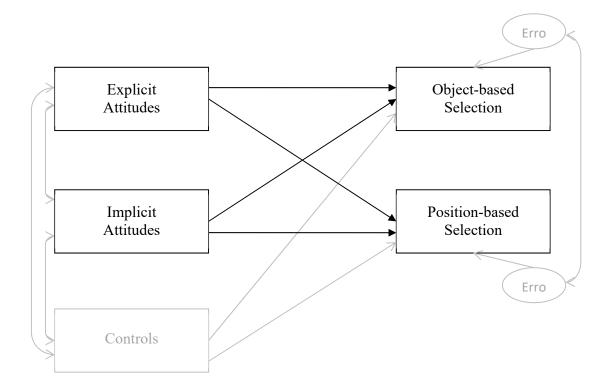
Implicit and Explicit Attitudes as Predictors of News Sharing by Social Network Site Users

*Note.* AMOS was used to predict both outcomes by implicit attitudes, explicit attitudes, and the controls in a multivariate path model (N = 167). The model has zero degrees of freedom. Thus, the model fit could not be tested. B = unstandardized path coefficient, SE = standard error,  $\beta =$  standardized coefficient, p = p-value. The covariation between object-based and position-based selections' error terms was B = -.02, SE = .10,  $\beta = -.02$ , p = .81. As recommended by one anonymous reviewer, we additionally calculated two separate hierarchical regression models (object-based selection, position-based selection) to assess the change in  $R^2$  of implicit attitudes' step (1. Step: Controls, 2. Step: Valence and emotional arousal, 3. Step: Explicit attitudes, 4. Step: Implicit attitudes): object-based selection,  $\Delta R^2 = .029$ ,  $\Delta F(1, 157) = 5.957$ , p = .016, and position-based selection,  $\Delta R^2 < .001$ ,  $\Delta F(1, 157) = 0.113$ , p = .737. Thus, implicit attitudes substantially increased the predictive power of the regression model for object-based selection only.



*Figure 1.* Media-related selection (MRS) is influenced by processes of activation and processes of validation: MRS is driven by automatic, sometimes even unconscious thinking as well as (more or less) reasoned conscious reflection. Exposure to objects in the natural or symbolic environment ("News" rectangle) automatically activates its internal representations in the MRS decision maker's memory (processes of activation). Processes of validation are superordinate and assess the validity of automatically activated thoughts and feelings. However, the latter depend on time, cognitive resources, introspective access, and motivation. Relevant for the present study, implicit attitudes were used as the outcome of processes of activation and explicit attitudes were used as the outcome of processes can open or close the gate and thus shape what will be selected ("MRS" rectangle). In the figure, the gate is metaphorically indicated by two doors: one door is operated by implicit attitudes and the other door is operated by explicit attitudes.

*Note.* This figure is an amalgam of figures developed in the communication (Arendt, 2013; McQuail & Windahl, 1981), social psychology (Gawronski & Bodenhausen, 2006), and political science (Lodge & Taber, 2013) studies.



# Figure 2. Specification of the path models used in all three studies.

*Note.* The factor "Controls"—visually represented by only one rectangle in this figure—consists of "MRS control measures" and "Controls" described in each study's method section. All predictor variables (i.e., explicit attitudes, implicit attitudes, controls) were allowed to correlate. Outcomes: Object-based selection = non-EU news OR EU news; position-based selection = negative EU news OR positive EU news. Statistical analyses were performed with AMOS. All model coefficients were estimated simultaneously by using Maximum Likelihood estimation.