Chapter 3

Credibility and Information Selection

Suppose you are worried about greenhouse gasses and climate change and hence are highly motivated to learn more about and to form an attitude toward a new technology that may contribute to the reduction of greenhouse gasses. When surfing the Internet in search of more information about this technology, you run into a report written by an oil company containing information about the pros and cons of this new technology. You decide to download the entire report and read it. But which part of the report will arouse your interest most, the information about the pros or the cons? Will this depend on how you perceive the oil company in terms of credibility? And how will the information selection you make subsequently affect your thoughts and attitudes about the technology? These questions will be addressed in the present research.

In the present research we focus on situations in which people process information in order to form an attitude towards a novel topic about which they do not yet hold strong attitudes. By combining insights from previous research on persuasion and selective exposure, we aim to provide an answer to the question of whether in such setting source credibility can influence people’s thoughts and attitudes through selective exposure to information. Previous research has shown that source characteristics such as credibility can affect persuasion (for an overview see Pornpitakpan, 2004). In this line of research participants typically are presented with fixed messages and are not expected to select information themselves. By contrast, in research on selective exposure participants are encouraged to select information themselves. Researchers in this field have convincingly shown that people’s own initial attitudes may guide their information selection (for overviews see Frey, 1986; Smith, Fabrigar, & Norris, 2008). What has remained unexplored in both fields, however, is whether source characteristics such as credibility can affect people’s information selection, and in this way exert influence on their own thoughts and the attitudes they form. That is, on the one hand persuasion researchers have not addressed the possibility that effects of source credibility on attitudes can be explained by selective exposure processes. On the other hand, selective exposure researchers have not examined the possibility that source

---

1 This chapter is based on: Ter Mors, Weenig, Ellemers, and Daamen (2008b)

37
characteristics can influence information selection (i.e., that information selection can also be source-guided instead of attitude-guided). Moreover, little is known about the implications of selective exposure to information for people’s subsequent thoughts about the issue at hand and the attitudes they form (Smith et al., 2008). The present research contributes to previous research on persuasion and selective exposure by examining whether source characteristics such as credibility can influence people’s thoughts and the attitudes they form through selective exposure to information.

Information selection

In today’s information society the amount of information that people have at their disposal (e.g., via the Internet) is almost unlimited. Hence, even when people are highly motivated and capable to process information in order to form an attitude, they simply cannot pay attention to all information available. As a result, they must make a selection from the total amount of information they have access to. We posit that such information selection is not random. Furthermore, we argue that it has important implications for people’s thoughts about the issue at hand and the attitudes they form. For example, if people predominantly select information in favor of a new technology, this should probably elicit more positive thoughts and attitudes towards this technology than when they predominantly select information arguing against this technology. However, we know very little about the way people’s information selection affects their resulting thoughts and attitudes. That is, surprisingly few researchers in the area of selective exposure to date have attempted to examine the implications of biases at information selection for later stages of processing or attitude formation (Smith et al., 2008).

In the majority of selective exposure studies the main dependent variable and concurrently the endpoint of investigations is the information that participants select. That is, until now, a great deal of work has been done to examine how people’s own initial beliefs, attitudes and decisions affect their information selection. An important and consistent finding from this work is that people tend to select information that supports their own views and avoid information that contradicts them (for an overview see Frey, 1986; Smith et al., 2008). Such a preference for supporting as opposed to conflicting information has been referred to as the self-confirmation bias (Jonas, Schulz-Hardt, Frey, & Thelen, 2001). In this literature on selective exposure, several preconditions for self-confirming information selection have been detailed (Smith et al., 2008). For instance, the self-
confirmation bias appeared to be more pronounced when people were low versus high in their confidence in defending their initial attitudes (Albarracin & Mitchell, 2004) and when people’s initial attitudes were strong rather than weak (Brannon, Tagler, & Eagly, 2007). The only study on selective exposure we know of that did approach information selection as a starting point for further investigations is a study by Smith, Fabrigar, Powell, and Estrada (2007). In this study bias at exposure was found to predict biases at two further stages of information processing, namely attention and memory. Building on the work of Smith and colleagues (2007) in the present research we examine the implications of people’s information selection for later stages of processing and attitude formation. Thus, in extension of previous research that focused on implications of people’s information selection for attention and memory, we focus on the implications of information selection for further thought favorability and attitude formation. As far as we know, no prior selective exposure research has examined these particular implications. We predict that when people process information in order to form an attitude, their thoughts and the attitudes they form will be based on the information they select.

As stated before, in the present research we focus on situations in which people form an attitude towards a novel topic. Previous research (Brannon et al., 2007) suggests that in this type of situation it is not very likely that people’s own initial attitudes will guide their information selection. This raises the question of how people in this case will decide what information to select in order to form an attitude. In the present research we examine the possibility that in this particular situation characteristics of an information source can affect people’s information selection. More specifically, we examine whether source credibility can lead people to select information that is either more consistent or more inconsistent with the source’s expected viewpoint. The possibility that people’s expectations concerning a source’s viewpoint can affect their information selection—as is the case with their own views—has not been previously addressed in empirical research. Should source credibility affect people’s information selection, this may have important implications for their further thoughts and the attitudes they form. That is, when people select more information consistent than inconsistent with a source’s viewpoint, this should result in their own thoughts and attitudes being relatively consistent with the source’s viewpoint as well. Thus, we examine the possibility that information selection can be source-guided while previous research has addressed information selection that was attitude-guided.
Source credibility

The source characteristic we focus on is source credibility, which refers to the perceived expertise and trustworthiness of an information source (e.g., Kelman & Hovland, 1953). That is, credibility comprises the extent to which a source “is perceived to be capable of making correct assertions” (source expertise: Hovland, Janis, & Kelly, 1953, p. 21), as well as its “perceived honesty, integrity, and believability” (source trustworthiness: Erdogan, Baker, & Tagg, 2001, p. 40).

Persuasion researchers have a rich tradition in examining how information about a source’s credibility affects persuasion. Researchers in this field have commonly found a highly credible source to induce more persuasion toward the position advocated than a low-credibility one (for an overview see Pornpitakpan, 2004). In addition, research has provided convincing evidence that source credibility can affect persuasion through a number of mechanisms (Chaiken 1980, 1987; Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986a, 1986b; Petty & Wegener, 1999). That is, source credibility can serve as a heuristic cue (e.g., Hovland & Weiss, 1951; Petty, Cacioppo, & Goldman, 1981), it can direct the extent of processing (e.g., Heesacker, Cacioppo, & Petty, 1983; Priester & Petty, 1995), and it can influence attitudes by biasing thoughts (e.g., Bohner, Ruder, & Erb, 2002; Chaiken & Maheswaran, 1994; Tormala, Briñol, & Petty, 2007; Tormala & Clarkson, 2007; Ziegler & Diehl, 2003; Ziegler, Dobre, & Diehl, 2007), by affecting the confidence with which people hold their message-relevant thoughts (e.g., Briñol, Petty, & Tormala, 2004; Tormala, Briñol, & Petty, 2006; Tormala et al., 2007) and by serving as a piece of evidence relevant to the central merits of an issue (Kruglanski & Thompson, 1999). In sum, several effects of source credibility on persuasion have been identified.

Importantly, in this line of research participants have been presented with fixed messages from a source presented as either high or low in credibility. As the amount of information conveyed in the source’s message typically was limited, it is highly probable that in these studies participants read and processed all information in the message. Nevertheless, in the real world people rarely pay attention to all information that is at their disposal in order to form an attitude. In today’s society there simply is too much information available to consider and people constantly make a selection from the total amount of information they have access to. In this context, information selection is a topic worthy of consideration. However, the topic of information selection has not been previously addressed in persuasion research.
The present research

The present research aims to contribute to the existing literature by examining the possibility that source credibility may affect attitude formation through selective exposure processes (i.e., information selection). The possibility that source credibility induces source-guided information selection, and in this way affects attitude formation, has not been examined so far. The current research contributes to existing literature a) by examining whether source credibility affects the extent of source-guided information selection occurring; that is, we examine whether information selection is more source-guided under low than under high source credibility, b) by examining whether source credibility affects the direction of such source-guided information selection; that is, we examine whether information about a source’s credibility leads people to predominantly select information either consistent or inconsistent with the source’s expected viewpoint, and c) by examining the implications of people’s (source-guided) information selection for their own thoughts about the issue and the attitudes they form.

Source credibility and the extent of source-guided information selection

A central question that we address in the present research is whether the extent to which people’s information selection is source-guided depends on their credibility perceptions of the relevant information source. Our prediction is that people’s information selection will be more strongly influenced by the information source under low than under high source credibility. Moreover, we predict this effect of source credibility on source-guided information selection to be embedded in people’s expectations regarding information quality.

Previous research in persuasion suggests that low-credible sources trigger people to more carefully examine and process the information provided than highly-credible sources do (Priester & Petty, 1995; Ziegler, Diehl, & Ruther, 2002). After all, information provided by a low-credible source can be expected to be more incorrect or incomplete than information that originates from a highly-credible source. That is, a low-credible source that is a proponent of a novel technology may selectively exaggerate pro arguments and discount arguments arguing against the implementation of this technology. With a highly-credible source, by contrast, the quality of arguments pro and con the technology can be expected to be comparable irrespective of the source’s viewpoint. We posit that people are more likely to bear in mind that some parts of the source’s message may be of higher quality than other parts with a low-credible source compared to a
highly credible source. More specifically, we predict that the mere anticipation of a possible asymmetry in information quality with a low-credible source causes people’s information selection to be more influenced by the source under low than under high source credibility. This notion that the information that people select can be determined by aspects related to information quality converges with previous research in the selective exposure literature (cf. Blumler & Katz, 1973; Fischer, Greitemeyer, & Frey, 2008; Fischer, Jonas, Frey, & Kastenmüller, 2008; Fischer, Jonas, Frey, & Schulz-Hardt, 2005; Fischer, Schulz-Hardt, & Frey, 2007; Jonas, Graupmann, & Frey, 2006).

In sum, in the present research we predict that people expect a greater asymmetry in information quality (i.e., that the quality of certain pieces of the source’s information will exceed that of others) under low than under high source credibility (Hypothesis 1). Secondly, we predict more source-guided information selection under low than under high source credibility (Hypothesis 2a). Moreover, we predict this effect of source credibility on information selection to be mediated by people’s expectation of a greater asymmetry in information quality under low than under high source credibility (Hypothesis 2b).

Source credibility and the direction of source-guided information selection
Besides addressing the question of whether source credibility affects the extent of source-guided information selection occurring, it is also highly relevant to examine the direction of such source-guided information selection, given its potential implications for attitude formation. In the present research we examine whether source credibility leads people to select formation either consistent or inconsistent with the source’s expected viewpoint.

Previous research on biased information processing in persuasion suggests that people’s thoughts and attitudes about issues tend to be more consistent with a source’s viewpoint after reading a message from a credible source than from a less credible source (e.g., Chaiken & Maheswaran, 1994). Although these researchers did not examine information selection, we predict source credibility to affect information selection in a parallel way. We predict that in case of a highly credible source, people are likely to prefer information consistent with the source’s expected viewpoint over source-inconsistent information. For instance, when people are provided with information about a novel technology by a credible proponent of the technology, we anticipate that they select more information about the technology’s advantages than about its disadvantages (and more information
Credibility and information selection

about disadvantages when they expect the credible source to have an adverse attitude towards the new technology).

In case of a low-credible source, by contrast, we expect such source-confirming information selection to be less likely. We predict that when a source is perceived to be low in credibility source-disconfirming information selection is more probable, in which people prefer information inconsistent with the source’s expected viewpoint over source-consistent information. For instance, when people are provided with information about a novel technology by a low-credible source, we anticipate that they select more information about the disadvantages than about the advantages of the new technology when they expect this source to be a proponent of the technology (and vice versa in the case of a low-credible source that is expected to be an opponent).

In sum, should information about a source’s credibility affect people’s information selection, we predict that source-confirming information selection would be most likely in case of a highly-credible source, whereas source-disconfirming information would be most likely in case of a low-credible source (Hypothesis 3).

Implications of (source-guided) information selection for thoughts and attitudes

Should source trustworthiness affect the direction of information selection as predicted in Hypothesis 3, we argue that it likely has important implications for people’s subsequent thoughts and the attitudes they form. That is, when a low-credible source causes people to select more information inconsistent than consistent with a source’s viewpoint, this is likely to result in subsequent thoughts and attitudes that are also relatively inconsistent with this source’s viewpoint. In this way, people’s thoughts and the attitudes they form may be explained by their information selection. Following Hypothesis 3 we predict people’s thoughts and attitudes to be relatively source-confirming in case of a highly credible source and to be relatively source-disconfirming in the case of a low credible source (Hypothesis 4a). Moreover, we predict that source-(dis)confirming information selection should, at least in part, mediate later biases in thought favorability and resulting attitudes (Hypothesis 4b).

Overview

In sum, in the present research we examine whether source credibility can influence people’s information selection, and in this way can have an effect on their
own thoughts and the attitudes they form. Hereby we aim to extend previous work in different ways. The goals of the present research are twofold. First, we aim to examine how two important aspects of a source’s credibility—trustworthiness (Studies 3.1 and 3.2) and expertise (Study 3.3)—affect information selection. Our second aim of the present research is to examine the implications of information selection for people’s thoughts about the issue at hand and their resulting attitudes (Studies 3.2 and 3.3).

**Study 3.1**

The aim of Study 3.1 was to examine whether stakeholder credibility affects the extent to which people’s information selection is source-guided. To examine this, we focused on the trustworthiness dimension of stakeholder credibility and we compared people’s self-reported explanations for their information selection under low source trustworthiness with their explanations under higher source trustworthiness. In Study 3.1—as well in the following studies—we focused on the situation in which people process information in order to form an attitude towards a novel topic. The topic under consideration was the potential implementation of a novel technology.

First of all, in Study 3.1 we hypothesized that participants would expect a greater asymmetry in information quality in the low-trust than in the high-trust condition (Hypothesis 1). That is, we predicted that participants would be more inclined to expect the quality of technology-favoring information to deviate from that of technology-opposing information than participants in the low-trust than in the high-trust condition. Furthermore, we hypothesized that participants would be more likely to indicate that their information selection was source-guided in the low-trust compared to the high-trust condition (Hypothesis 2a). Finally, we predicted this source trustworthiness effect on self-reported motives for information selection to be mediated by expectations regarding information quality asymmetries (Hypothesis 2b).

**Method**

*Participants and design*

Ninety-one undergraduate students (39 men, 52 women, mean age = 20.64 years) from Leiden University participated in the study. They were randomly allocated to
Credibility and information selection

one of the two source trustworthiness conditions: high or low trustworthiness. Participants received 3 Euros for their participation.

Procedure

On arrival at the laboratory participants were seated in separate cubicles containing a computer. After having provided informed consent, participants learned that the researchers were interested in their attitudes towards “the large-scale implementation of a new technology of carbon dioxide capture and storage (CCS) in the Netherlands”. By selecting a topic that we expected to be perceived as highly interesting and relevant by the student population under investigation, we aimed to induce a setting in which participants would be motivated to process information in order to form an attitude. A pilot study (N = 30) confirmed that students consider the topic of CCS to be interesting (M = 5.43, SD = 1.19) and of personal relevance (M = 4.83, SD = 1.26).  

Participants first received a brief introduction about CCS via the computer. Next, we informed them that they would be given the opportunity to read about potential positive and negative consequences of large-scale implementation of CCS in the Netherlands. We told them that the Dutch government had asked a range of stakeholders to individually write a report about potential positive and negative consequences of large-scale implementation of CCS. We pointed out that each stakeholder has its own goals and interests in CCS and that these could influence the content of the stakeholder’s report. Participants then learned that they could inspect one of the reports that had been published and they were told that this report (i.e., the information) had been written by an oil company (i.e., the source). We described this source as being either high or low in trustworthiness. The description of the source in the high- and low-trustworthiness conditions was identical, except for the trustworthiness manipulation. For example, participants read that on basis of acts in the past the oil company had a reputation of being “very trustworthy and honest in the context of greenhouse gasses and technology” (high-trustworthiness condition) or “not very trustworthy and honest in the context of greenhouse gasses and technology” (low-trustworthiness condition).

After this, participants were presented with the CCS information. The information was identical in both experimental conditions and consisted of seven positive and seven negative potential consequences of large-scale implementation.

---

1 Measured on a 7-point scale ranging from 1 = not at all interesting/relevant, to 7 = very much interesting/relevant.

2 Italics added to highlight the differences between stimulus materials.
of CCS in the Netherlands (based on De Best-Waldhober, Daamen, & Faaij, 2006). We informed participants that they could select a maximum of 10 out of the 14 available consequences and that any number of consequences chosen between 0 and 10 would be adequate. We presented the message to participants by means of a computerized information display board (IDB; Payne, 1976). In this IDB the separate consequences were structured in a matrix and consequences were marked as being either positive or negative. Participants could select the consequences one by one. Each consequence was described in a few catchwords, and after participants selected a consequence the accompanying statement explaining this consequence appeared. At any point in time participants could return to the information matrix and decide whether they wanted to select another consequence or whether they wanted to quit the matrix.  

After participants had selected and read the CCS information they completed the dependent measures.

**Measures**

**Manipulation check.** To check the effectiveness of the trustworthiness manipulation we asked participants to indicate whether they expected the oil company to be trustworthy and honest in the context of greenhouse gases and technology (1 = *not at all*, 7 = *very much*). Expected trustworthiness was computed by averaging participants’ responses to the two trustworthiness items (*r* = .85) with higher scores indicating higher expected trustworthiness.

**Expected asymmetry in information quality.** Prior to selecting information about CCS, participants indicated their expectations concerning information quality (1 = *very poor*, 7 = *very high*). They did so separately for positive and negative consequences of CCS. In order to examine the extent to which participants expected the quality of information about positive consequences to deviate from that of negative consequences, we calculated the absolute difference between these two measures of expected information quality. Higher scores on this measure indicate a greater expected asymmetry in information quality (i.e., a stronger expectation that the quality of positive and negative consequences would differ).

---

1 In research on selective exposure an information search procedure is often used, in which the pieces of information that participants wish to read are not handed out until the selection phase is finished (*simultaneous information seeking*; Jonas et al., 2001). This procedure does not capture critical features of information seeking in real-life situations, however (cf. Jonas et al., 2001). In real-life, people read and process the information they select before they select another piece of information. The IDB technique we used resembles this naturalistic way of information selection more closely, as in this technique selected pieces of information are processed during the selection phase (*sequential information seeking*; Jonas et al., 2001). The IDB also allowed us to keep track of the type and the amount of information that participants consulted, a function we will use in Study 3.2.
Source-guided information selection. We measured the extent to which participants’ information selection was guided by expectations regarding the source by means of a series of self-report items. We presented participants with twelve possible motives for their information selection and asked them to indicate the extent to which each applied to their information selection (1 = not at all, 7 = very much). Of these twelve motives eight were filler items. An example of a filler item was “I selected the information I considered most valuable”. Participants’ responses to the eight filler items did not depend on the source trustworthiness manipulation, $F(8, 82) = 1.26$, ns. The four focal items assessed information selection that was motivated by the source (e.g., “My information choice was affected by the notion that the information originated from an oil company”). The source-guided information selection score was computed by averaging the responses to the four items ($\alpha = .74$), with higher scores indicating more evidence of source-guided information selection.

Results

Manipulation check

Participants in the low-trust condition clearly expected the source to be less trustworthy ($M = 2.70$, $SD = .95$) than participants in the high-trust condition did ($M = 4.49$, $SD = 1.04$), $t(89) = -8.59$, $p < .001$, as intended. Thus, the source trustworthiness manipulation was successful.

Expected asymmetry in information quality

Our prediction (Hypothesis 1) of a greater expected asymmetry in information quality in the low-trust than in the high-trust condition was supported by the data, $t(89) = 3.25$, $p = .002$: Participants in the low-trust condition more strongly expected the quality of positive and negative consequences in the information to differ ($M = 2.11$, $SD = 1.76$) than participants in the high-trust condition did ($M = 1.02$, $SD = 1.39$).

\(^m\)

\(^m\) Participants in both experimental conditions—but in particular in the low-trust condition—expected the quality of positive consequences ($M_{overall} = 4.67$, $SD = 1.34$) to exceed that of negative consequences ($M_{overall} = 3.57$, $SD = 1.51$). A plausible explanation for this finding is that participants probably expected the source to be a proponent of CCS, and hence expected the quality of viewpoint-consistent information (i.e., positive consequences) to exceed that of viewpoint-inconsistent information (i.e., negative consequences).
Source-guided information selection
The results for the analysis on the self-report measure of source-guided information selection revealed that participants were more likely to indicate that their information selection was influenced by the source in the low-trust condition ($M = 3.28, SD = 1.11$) than in the high-trust condition ($M = 2.75, SD = 1.17$), $t(89) = 2.20$, $p = .030$. Thus, as predicted in Hypothesis 2a, information selection was reported to be more strongly source-guided under low than under high source trustworthiness.

Mediation analyses
We used mediation analyses (Baron & Kenny, 1986) to test whether the effect of source trustworthiness on self-reported degree of source-guided information selection was due to expected asymmetry in information quality. The results for these analyses were that the effect of the source trustworthiness manipulation on self-reported degree of source-guided information selection ($\beta = -.23, p = .030$) became nonsignificant ($\beta = -.15, p = .154$, Sobel $Z = -2.08, p = .038$) after controlling for expected asymmetry in information quality (see Figure 3.1). Thus, as predicted in Hypothesis 2b, the greater tendency to display source-guided information selection in the low-trust compared to the high-trust condition was due to a stronger expectation that the quality of positive and negative consequences would vary under low than under high source trustworthiness.
Figure 3.1. Schematic representation of expected asymmetry in information quality mediating the effect of source trustworthiness on the self-report measure of source-guided information selection: Study 3.1.

\[ \beta = .28^{**} \]

\[ \beta = -.33^{**} \]

\[ \beta = -.23^{*} / \beta = -.15^{ns} \]

\[ \text{Sobel } Z = -2.08, p = .038 \]

**Discussion**

The results of Study 3.1 confirm our predictions. Participants reported more source-guided information selection under low than under high source trustworthiness. Moreover, we found this effect of source trustworthiness on information selection to be embedded in participants’ expectations regarding information quality. Study 3.1 shows that people more strongly anticipate an asymmetry in information quality with an untrustworthy than with a trustworthy source, which results in more source-guided information selection under low than under high source trustworthiness.

**Study 3.2**

Study 3.2 was designed to replicate and extend the findings of Study 3.1. As in Study 3.1, we examined whether source trustworthiness affects the extent of source-guided information selection occurring. In Study 3.2, however, we extended our measure of source-guided information selection. In addition to measuring the degree of source-guided information selection occurring by means of a self-report measure (Study 3.1), this time we also examined participants’ actual information selection behavior. In line with the findings of Study 3.1, we predicted both measures to reveal more source-guided information selection under low than under high source trustworthiness (Hypothesis 2a).
In extension of Study 3.1, in Study 3.2 we also examined the direction of such source-guided information selection. That is, we examined whether source trustworthiness leads people to predominantly select information consistent (source-confirming information selection) or inconsistent (source-disconfirming information selection) with a source’s expected viewpoint. We predicted that source-confirming information selection would be most likely in the high-trust condition, whereas source-disconfirming information would be most likely in the low-trust condition (Hypothesis 3).

Finally, also in extension of Study 3.1, in Study 3.2 we examined the implications of source-guided information selection for people’s own thoughts about the topic and the attitudes they form. Following Hypothesis 3 we predicted that people’s thoughts and attitudes they form should also be relatively source-confirming in case of a highly credible source and relatively source-disconfirming in the case of a low credible source (Hypothesis 4a). Moreover, we predicted that source-(dis)confirming information selection should, at least in part, mediate later biases in thought favorability and resulting attitudes (Hypothesis 4b).

**Method**

*Participants and design*

Thirty-six undergraduate students (11 men, 25 women, mean age = 21.58 years) from Leiden University participated in this study. They were randomly allocated to one of the two experimental conditions: high or low source trustworthiness. Participants received 3 Euros for their participation. The design and procedure were almost identical to that of Study 3.1, but there were two key modifications. As in Study 3.1, participants were presented with two-sided information about a novel technology of CCS attributed to a source described being either high or low in trustworthiness. However, unlike in Study 3.1, preceding their information selection participants indicated their expectations regarding the source’s viewpoint about CCS. We used this measure to determine whether participants’ actual information selection was source-guided, in addition to the self-report measure of source-guided information selection we used in Study 3.1. Also, this expected-viewpoint measure allowed us to determine the direction of such source-guided information selection (i.e., source-confirming or source-disconfirming information selection). Second, in extension of Study 3.1, in Study 3.2 we added a cognitive responses measure and an attitude measure to the design to examine the
implications of participants’ information selection for their own thoughts and the attitudes they would form.

**Independent variable**
The trustworthiness manipulation was essentially identical to that from Study 3.1.

**Measures**
The manipulation check of source trustworthiness \(r = .88\) and the self-report measure of source-guided information selection \(\alpha = .88\) were comparable to that from Study 3.1.

*Source’s expected viewpoint.* In this experiment, after the source trustworthiness manipulation but prior to selecting information, participants indicated to what extent they expected the oil company to be a proponent or opponent of CCS \((1 = \text{strong opponent}, 7 = \text{strong proponent})\). Given that the source itself did not express a viewpoint concerning CCS in the message provided (but only provided information about an equal number of positive and negative consequences of CCS), this measure purely represents participants’ expectations concerning the source’s viewpoint. Scores on this measure ranged from 1 to 7, and on average participants expected the source to be a proponent of CCS \((M = 4.72, SD = 1.78)\). Importantly, the source’s expected viewpoint did not depend on the source trustworthiness manipulation, \(t(34) = -1.3, ns\).

*Information selection.* An index of preference for pro (positive consequences) versus con (negative consequences) CCS information was calculated by subtracting the number of con-CCS arguments selected from the number of pro-CCS arguments selected. This number was then divided by the total number of arguments selected in order to obtain a proportion of pro to con CCS information selected. Thus, the potential score ranged from -1 (only con choices) to +1 (only pro choices). This index formed the basis for our examinations of source-guided information selection. Basically, a relationship (either positive or negative) between the index and the viewpoint participants expected the source to have would indicate that source-guided information selection had occurred. With regard to the direction of such source-guided information selection, a positive relationship between the information selection index and the source’s expected viewpoint

---

\* Note that this finding is consistent with our suggestion that participants in Study 3.1—given that they expected the quality of quality of CCS-favoring arguments to exceed that of CCS-opposing arguments—probably expected the source to be a proponent of CCS (see Footnote m).
would indicate source-confirming information selection, whereas a negative relationship would indicate source-disconfirming selection.

Thought favorability. After participants had read the CCS information and prior to assessing their own attitudes, they were given three minutes to list all thoughts they had had while reading the information. Two independent raters (blind to experimental conditions) classified relevant thoughts as either favoring or opposing large-scale implementation of CCS, or as being neutral towards CCS. Correspondence between raters was high (94.4%) and differences were resolved through discussion. Thought favorability was calculated by subtracting the number of thoughts opposing CCS from those favoring CCS. This number was then divided by the total number of favoring and opposing thoughts in order to obtain a proportion of favoring to opposing CCS thoughts. Thus, the potential scores on the thought favorability measure ranged from -1 (completely opposing CCS) to +1 (completely favoring CCS).

Attitudes. Finally, participants indicated their own attitude towards large-scale implementation of CCS on a 9-point scale (1 = strongly opposed to large-scale implementation of CCS, 9 = strongly in favor of large-scale implementation of CCS).

Results

Manipulation check
Participants in the low-trust condition clearly expected the source to be less trustworthy ($M = 2.32, SD = .97$) than participants in the high-trust condition did ($M = 4.88, SD = .88$), $t(34) = -8.27, p < .001$, as intended. Thus, the source trustworthiness manipulation again was successful.

Source-guided information selection
The results for the analysis on the self-report measure of source-guided information selection revealed that participants were more likely to indicate that their information selection had been influenced by the source in the low-trust condition ($M = 3.54, SD = 1.13$) than in the high-trust condition ($M = 2.53, SD = 1.45$), $t(34) = 2.34, p = .025$. Thus, like in Study 3.1 and as predicted in Hypothesis 2a, information selection was reported to be more strongly source-guided under low than under high source trustworthiness.

Next, we examined whether the findings of participants’ actual information converged with the findings from the self-report measure. To examine this, we regressed participants’ information selection scores onto the viewpoint they had
expected from the information source. We performed separate analyses for each experimental condition. Our prediction was that participants’ information-selection scores would be more strongly related to the source’s expected viewpoint in the low-trust than in the high-trust condition, indicating more source-guided information selection under low compared to high trustworthiness (Hypothesis 2a). Moreover, with regard to the direction of source-guided information selection, we predicted source-confirming information selection in the high-trust condition and source-disconfirming information selection in the low-trust condition (Hypothesis 3).

The regression analysis in the high-trust condition first of all demonstrated that participants’ information selection was not related to the viewpoint they had expected from the source ($\beta = .01$, ns). In other words, in the high-trust condition neither source-confirming nor source-disconfirming information selection occurred. By contrast, the regression coefficient in the low-trust condition did prove significant ($\beta = -.52$, $p = .022$). Thus, findings of the regression analyses converge with participants’ self-reported motives for information selection: Information selection appeared to be somewhat more source-guided in the low-trust condition than in the high-trust condition (Fisher’s $Z = -1.60$; $p = .055$, one-sided), like in Study 3.1 and as predicted in Hypothesis 2b. Moreover, the negative value of the regression coefficient in the low-trust condition indicates that participants’ information selection in this condition indeed was source-disconfirming, providing support for Hypothesis 3. That is, the more participants in the low-trust condition expected the source to be a proponent of CCS, the more they preferred information con CCS over information pro CCS. In sum, the findings of Study 3.2 corroborate with our predictions about the influence of

---

* The number of consequences participants selected was near the maximum value of 10 ($M = 8.28$, $SD = 2.56$) and did not vary with source trustworthiness, $t(34) = -0.61$, ns. Also in both experimental conditions participants selected a considerable amount of both positive ($M = 3.81$, $SD = 1.56$) and negative ($M = 4.47$, $SD = 1.53$) CCS consequences, which can be interpreted as a relatively balanced information selection.
In this study we also measured participants’ initial attitudes to check for the occurrence of attitude-guided information selection. Analyses revealed that participants’ information selection in both experimental conditions was unrelated to their pre-measure of attitudes ($p$-values of regression analyses $\geq .217$. This indicates that attitude-guided information selection did not occur in either of the experimental conditions. Moreover, the source-guided information selection we found in the low-trust condition can not be explained by participants’ own attitudes, as the viewpoint participants expected from the source was unrelated to their own initial attitudes ($p = .447$).
source trustworthiness on the extent and direction of source-guided information selection.

**Information selection as a determinant of cognitive responses and attitudes**

How did this source-disconfirming information selection in the low-trust condition influence later stages of attitude formation? As the viewpoint expected from the source was found to be a significant predictor of information selection in the low-trust condition, we first explored whether the source’s expected viewpoint also predicted thought favorability and resulting attitudes in this condition. Two separate regression analyses revealed the expected source-disconfirmation bias in thought favorability and resulting attitudes under low trust (see Figure 3.2 for standardized coefficients of the simple regression analyses). That is, in line with Hypothesis 4a, participants’ thoughts and the attitudes they formed both countered the source’s expected viewpoint in the low-trust condition. The more participants’ expected the distrusted source to be a proponent of CCS, the more negative their thoughts and resulting attitudes concerning CCS were. These results indicate that in the low-trust-condition a source-disconfirmation bias occurred not only in information selection, but also in thought favorability and resulting attitudes. But did the bias in information selection account for the biases in thought favorability and resulting attitudes, as predicted in Hypothesis 4b?

We used a regression-based approach to examine this question (see Baron & Kenny, 1986). Figure 3.2 shows the standardized regression coefficients of the regression analyses in the low-trust condition. To start with, mediation analyses confirmed that the information that participants selected accounted for their source-disconfirmation bias in thought favorability. That is, the negative relationship between the viewpoint expected from the source and thought favorability ($\beta = -0.59, p = 0.008$) became less pronounced ($\beta = -0.38, p = 0.097$, Sobel $Z = -1.97, p = 0.049$) after controlling for information selection. Thus, the observation that participants’ thoughts countered the viewpoint they had expected from the source was due to their information selection, as predicted in Hypothesis 4b. The bias in attitudes could not be explained by participants’ information selection, however. In sum, we found partial support for Hypothesis 4b, as the source-disconfirmation bias in information selection accounted for the bias in thought favorability, but not for the bias in resulting attitudes.

In the high-trust condition no source-confirming or source-disconfirming biases in information selection, thought favorability or attitude formation (significance level of standardized regression coefficients $\geq 0.333$) were found.
Concerning the relationship between information selection, thought favorability and attitudes in this condition, information selection in itself did not significantly predict thought favorability or attitudes formed (significance level of standardized regression coefficients ≥ .327). Thought favorability was somewhat related to resulting attitudes ($\beta = .42$, $p = .092$), however, as was the case in the low-trust condition. This is consistent with the notion that participants in both experimental conditions processed information in order to form an attitude.

Figure 3.2. Path diagram representing the simple regression standardized coefficients of the relationship between viewpoint expected from source, information selection, thought favorability and resulting attitudes (low-trust condition): Study 3.2.

* $p < .05$, ** $p < .01$

**Discussion**

The findings of Study 3.2 replicate and extend those of Study 3.1. As in Study 3.1, we found that people’s information selection is more source-guided under low than under high source trustworthiness. In extension of Study 3.1, this result was found to be true both at the self-report and the behavioral level. Furthermore, the regression analyses we conducted in Study 3.2 provided additional evidence that an untrustworthy source triggers people to pay more attention to the information provided compared to a trustworthy source. That is, the results of the regression
analyses revealed significant relationships information selection and thought favorability, and between thought favorability and resulting attitudes in the low-trust condition (indicating information processing, cf. Cacioppo & Petty, 1981), but to a much lesser extent in the high-trust condition. Hence, we have good reason to believe that participants’ information selection involved more effort in the low-trust condition than in the high-trust condition.

Also in extension of Study 3.1, Study 3.2 demonstrated that the direction of such source-guided information selection under low source trustworthiness is source-disconfirming. That is, we found that an untrustworthy source causes people to select information that counters the source’s expected viewpoint, as predicted. We expect that this disconfirmation bias in information selection reflects that when people do not trust an information source, they test the quality of information provided. That is, under low source trustworthiness people probably examine whether the untrustworthy source indeed provides counterattitudinal information in a biased fashion. An alternative explanation would be that the source-disconfirmation bias obtained in the present research reflects that people rather thoughtlessly disqualify an untrustworthy source’s viewpoint in their information selection (“The source’s viewpoint is A, so I pay a lot of information to information that is inconsistent with A”). This explanation seems less plausible than the information-quality testing explanation, however, given the considerable amount of information processing that occurred in the low-trust condition.

Finally, the results of Study 3.2 provided initial support for our prediction that biases at early stages of attitude formation (information selection) can account for biases in subsequent stages of attitude formation (thought favorability). That is, when an untrustworthy source leads people to predominantly select source-inconsistent information, this results in thoughts towards the issue that also are relatively inconsistent with the source’s viewpoint.

**Study 3.3**

Study 3.3 was designed to further address the relationship between information selection, thought favorability and attitude formation. In line with the results of Study 3.2 we predicted information selection to affect later stages of attitude formation (Hypothesis 5). In addition, in Study 3 we further examined how source credibility affects information people’s selection. In Studies 3.1 and 3.2 we investigated how the trustworthiness dimension of a source’s credibility affects people’s information selection. The question we raise in Study 3.3 is whether
similar conclusions of Studies 3.1 and 3.2 can be drawn for source credibility more generally. What about the expertise dimension of source credibility, will it affect people’s information selection in a comparable way as trustworthiness? In Study 3.3 we explored whether the impact of source expertise on information selection would be comparable to that of source trustworthiness.

Method

Participants and design
Fifty-four undergraduate students (7 men, 47 women, mean age = 20.56 years) from Leiden University participated in the study. They were randomly allocated to one of the two experimental conditions: high or low source expertise. Participants received 3 Euros for their participation.

Procedure and stimulus materials
The procedure and stimulus materials were similar to those of Study 3.1 and 3.2, except that the source characteristic that we manipulated in Study 3.3 was source expertise. The description of the organization in the high- and low-expertise conditions was identical, except for a few words. For example, participants read that on basis of acts in the past the oil company was known to have “a lot of experience and expertise in the context of greenhouse gasses and technology” (high-expertise condition, or “little experience and expertise in context of greenhouse gasses and technology” (low-expertise condition). p

Measures
The source’s expected viewpoint, the self-report measure of source-guided information selection (α = .84), thought favorability (inter-rater correspondence = 94.0%) and attitude towards CCS were measured identical to that in Study 3.2. Concerning the source’s expected viewpoint, scores on this measure ranged from 1 to 7, and on average participants expected the source to be a proponent of CCS (M = 4.57, SD = 1.70). The source’s expected viewpoint did not depend on the source-expertise manipulation, t(52) -.41 , ns.

Manipulation check. To check the effectiveness of the expertise manipulation we asked participants to indicate whether they expected the oil company to be an expert and to be knowledgeable in the context of greenhouse gasses and technology (1 = not at all, 7 = very much). Expected expertise was computed by

p Italics added to highlight the differences between stimulus materials.
averaging the responses to the two expertise items \( r = .93 \) with higher scores indicating higher expected expertise.

**Results**

**Manipulation check**
Participants in the low-expertise condition clearly expected the source to be lower in expertise \( (M = 2.56, SD = 1.16) \) than participants in the high-expertise condition did \( (M = 5.59, SD = .81), t(52) = 46.39, p < .001 \). Thus, the source expertise manipulation was successful.

**Source-guided information selection**
Participants’ self-reported source-related motives for their information choice showed no effect of source expertise on information selection strategies, \( t(52) = .71, ns \). Next, we analyzed participants’ actual information selection to determine whether source-guided information selection had occurred. We regressed the information selection index onto the source’s expected viewpoint separately for each experimental condition. We found that the regression coefficient did not reach significance in either of the expertise conditions \( (p\text{-values} \geq .281) \), however and that regression coefficients did not vary with source expertise, Fisher’s \( Z = .30, ns \). Hence, we did not obtain any evidence that source expertise affected the extent of source-guided information selection occurring, nor did we find any evidence that source expertise induced source-confirming or source-disconfirming information selection.

**Information selection as a determinant of thought favorability and attitudes**
In this study no evidence was obtained of source-guided information selection in either the low or the high-expertise condition. Nevertheless, the question how information selection affects later stages of attitude formation is still relevant, since participants did make a selection from the total amount of information available. Hence, we collapsed the data across expertise conditions and examined whether participants’ information selection predicted the favorability of their subsequent thoughts and their resulting attitudes. The results for these regression analyses revealed that information selection was a significant and positive predictor of both thought favorability \( (\beta = .37, p = .007) \) and attitudes \( (\beta = .29, p = .032) \). This indicates that, as predicted (Hypothesis 5), a stronger preference for selecting pros rather than cons is followed by more positive thoughts about CCS, and to more positive
resulting attitudes (while a preference for cons is associated with negative thoughts and attitudes). The finding that information selection was significantly related to thought favorability converges with the results from Study 3.2. Further, thought favorability was a significant predictor of attitudes ($\beta = .62, p < .001$), such that more positive thoughts about CCS induce positive attitudes towards CCS. Finally, thought favorability mediated the relationship between information selection and attitudes. That is, the relationship between information selection and attitudes ($\beta = .29, p = .032$) became nonsignificant ($\beta = .07, p = .509, \text{Sobel}\ Z = 2.39, p = .017$) after controlling for thought favorability (see Figure 3.3). Thus, even though information selection was not guided by source characteristics in this study, the information that participants selected did influence the favorability of their thoughts about CCS, which in turn explained their attitudes. This provides further support for Hypothesis 5.

Figure 3.3. Schematic representation of thought favorability mediating the effect of information selection on attitude in Study 3.3.

Discussion

The results of Study 3.3 first of all provide further evidence for the validity of our general argument that (biases at) early stages of attitude formation can influence subsequent stages of attitude formation. We found that the information people select affects their subsequent thoughts and the attitudes they form. Second, Study 3.3 shed more light on which dimension of a source’s credibility is most likely to affect people’s information selection. The results of Study 3.3 indicate that, unlike
the trustworthiness dimension of source credibility (Studies 3.1 and 3.2), its expertise dimension does not induce source-guided information selection. We return to this point in the next section of this paper.

**General Discussion**

The three studies reported here support our general argument that source credibility can affect later stages of attitude formation through information selection. In Studies 3.1 and 3.2, in which we manipulated the trustworthiness dimension of source credibility, we showed that the information that people select is more strongly related to expectations about the source in case of an untrustworthy than with a trustworthy source. Moreover, we demonstrated this effect is due to the expected quality of information provided by this source. With an untrustworthy source people more strongly expect an asymmetry in information quality (i.e., they anticipate that certain parts of a source’s information will be of higher quality than other parts) than with a trustworthy source, hence their information selection is more source-guided. Moreover, with regard to the direction of such source-guided information selection under low source trustworthiness, an untrustworthy source leads people to select more information that is inconsistent than consistent with a source’s expected viewpoint. In Study 3.3 we focused on another dimension of source credibility, namely source expertise. In this study we found that source expertise does not affect information selection. Finally, Studies 3.2 and 3.3 confirmed our expectation that information selection has important implications for people’s thoughts on the topic of concern and the attitudes they form as a result. Thus, information selection appears to be important for attitude formation indeed.

The present findings advance the literature on selective exposure and persuasion in several ways. First, the studies presented in the current paper have focused on the possibility that expectations concerning a source’s expected viewpoint can guide information selection, whereas the vast majority of studies conducted in the domain of selective exposure have focused on the influence of people’s own initial attitudes on information selection (see Smith et al., 2008 for an overview). The present research also extends previous work on selective exposure, as it provides insight in the way people select information when attitude-guided information selection is not likely to occur. We showed that when people form attitudes towards a novel topic, their expectations concerning an information source can guide their information selection.
A second contribution of the present research is that we approached information selection as a starting point of investigations instead of as an end point as is more common in the majority of selective exposure research. To our knowledge, the present research is the first to examine the implications of information selection for thoughts and resulting attitudes. Across studies we found that information selection can account for thought favorability and the attitudes that people form. Thus, the present research corroborates the notion that information selection is an important stage in attitude formation.

A third contribution of the current research is that we explored a possible role of source credibility in attitude formation that has not been previously proposed. That is, we examined the possibility that source credibility can affect the process of attitude formation through selective exposure processes. The findings of the present research indeed indicate that source credibility (i.e., source trustworthiness) can affect information selection, and in this way impacts on the thoughts people form about the issue under consideration. Moreover, it was shown that expectations concerning information quality underlie source-credibility effects on information selection.

Finally, the present research contributes to existing persuasion research as we distinguished between the expertise and trustworthiness dimension of credibility in our studies. We found that source expertise, unlike source trustworthiness, does not affect information selection. At first sight this finding might seem contradictory, as one might expect two dimensions of the same construct—namely source credibility—to affect information selection in a similar way. Nevertheless, we argue that this finding fits with the mechanism underlying source-guided information selection that we uncovered in Study 3.1. That is, results of Study 3.1 indicate that what is needed for source-guided information selection is the expectation that some parts of a source’s information will be of higher quality than other parts. We argue that such an asymmetry in expected information quality is more likely to be induced by the trustworthiness dimension of source credibility than by its expertise dimension. As mentioned before, an untrustworthy source leads people to suspect that the source’s information may be biased by its viewpoint, hence people’s information selection is source-guided. Now consider being provided with information from a source low in expertise. People may expect the accuracy of the information provided by this source to be low overall, just as with an untrustworthy source (Priester & Petty, 1995). However, they have no reason to assume the source’s low expertise will lead to a difference in quality of arguments pro and con. Hence, there is no rationale for them to select
more pros than cons or vice versa, so that source-guided information selection is less likely to emerge. Unfortunately, in the present research we were not able to test this explanation, however, because in Studies 3.2 and 3.3 we did not measure participants’ expectations regarding information quality.

Limitations and directions for future research

Future research should examine differential effects of source trustworthiness and source expertise in information selection in a systematic way, preferably through an experiment in which both dimensions of source credibility are orthogonally manipulated. To start with, such an experiment would allow for direct comparison between effects of source trustworthiness and source expertise on information selection. In addition, such an experiment could test the generalizability of the present findings. For example, it can be argued that in the first two experiments we examined the role of source trustworthiness in information selection given that source expertise was high. After all, participants were informed that the oil company was a stakeholder that had been asked by the Dutch government to write a report. Hence, it remains to be seen whether the source trustworthiness effects on information selection obtained in the present research also hold true when source expertise is low. For this reason, it is highly relevant to examine the role of different combinations of expertise and trustworthiness in information selection.

Second, in the present research we measured participants’ expectations regarding the source’s viewpoint to determine the extent and direction of source-guided information selection occurring. Importantly, the source’s expected viewpoint did not depend on our manipulation of source credibility, nor was it informed by participants’ own attitudes. Also, our correlational approach to determine biases in information selection is not uncommon in research on selective exposure (cf. Smith et al., 2007). Nevertheless, we recognize that for future research on the role of source credibility in information selection it would helpful to manipulate both source viewpoint and source credibility.

Third, in our studies we focused on situations in which people form new attitudes and it is unlikely that their initial attitudes will guide their information selection (cf. Brannon et al., 2007). We found that in such situations information selection can be guided by expectations about the information source’s viewpoint, instead of being attitude-guided. This raises the important question of how people will select information about less novel topics. In this case both attitude-guided and source-guided information can be expected to occur and it remains to be seen how these would relate to each other. Possibly, in this case source trustworthiness serves as a moderator of both attitude-guided and source-guided information
Credibility and information selection

selection. That is, information selection may be relatively more source-guided with a low-trustworthy source, and relatively more attitude-guided with a highly-trustworthy source. We recommend that future research further addresses the relationship between attitude-guided and source-guided information selection.

Conclusions and practical implications
On the basis of these studies we conclude that source credibility—and in particular source trustworthiness—can affect information selection, and in this way impacts on the process of attitude formation. Information sources that are not trusted by the general public should be aware that the information that they provide can be counterproductive, even when people process information in order to form an attitude.