

## Chapter 12

# Evidence Quality Variations and Claim Acceptance: an Experimental Investigation of the Role of Distraction and Dilution<sup>1</sup>

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**Abstract.** Studies on persuasive arguments have generally found that claims supported by high-quality evidence are better accepted than claims supported by low-quality evidence. However, an experiment by Hoeken and Hustinx (2007) demonstrated that this effect was only observed in short texts (a claim with evidence), but not in longer texts (where information unrelated to the evidence was added at the end of the text). The present experiment was conducted to examine whether this effect of text length could be explained by distraction (the additional text at the end distracts the reader) or by dilution (the additional text makes the fragment less diagnostic for claim evaluation). Participants ( $N = 629$ ) read two texts with a claim supported by high-quality or low-quality (anecdotal, statistical, or expert) evidence. The text was presented in one of the three versions: (1) short, (2) long with additional information at the end, or (3) new in comparison to Hoeken and Hustinx (2007) – long with additional information at the start. The data found support for the distraction explanation. An effect of evidence quality on claim acceptance was observed in two conditions: in the short text, and in the longer text with additional information at the start. The effect of evidence quality was not found in the longer text with additional information at the end.

### 1. Introduction

People are more likely to accept claims when they are supported by strong arguments (e.g., Carpenter, 2015; O’Keefe, 2013; Park, Levine, Kingsley Westerman, Orfgen, & Foregger, 2007). In their Argumentative Theory of Reasoning, Mercier and Sperber (2011) expect people to be highly capable of distinguishing strong from weak arguments. One of the ways in which the quality of arguments can be defined is through the notion of the argument scheme, which is “a more or less conventionalized way of representing the relation between what is stated in the argument and what is stated in the standpoint” (Van Eemeren & Grootendorst, 1992, p. 96). For argumentation schemes, critical questions have been formulated that serve as criteria to assess an argument’s quality (e.g., Kienpointner, 1992; Walton, Reed, & Macagno, 2008). For the argument from authority, for example, one question relates to the source’s expertise, and another to the source’s credibility (Walton,

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1997). The idea is that an argument that respects such criteria is normatively strong, and that an argument that does not respect one or more criteria is normatively weak or weaker. For instance, a given argument from authority is of higher quality (normatively stronger) when the expert has a higher level of expertise and is more credible (on the normative status of this approach, see Hahn & Oaksford, 2012).

In line with the expectation of Mercier and Sperber (2011), empirical studies investigating the persuasiveness of evidence that is normatively strong or normatively weak have shown that claim acceptance is higher when the evidence provided is normatively strong (respecting critical questions from the related argumentation scheme) than when it is normatively weak (not respecting one or more critical questions from the related argumentation scheme). One caveat in this conclusion relates to the length of the text including the evidence: evidence quality has been shown to matter only for short texts (consisting only of a claim and supporting evidence), but not for longer texts (Hoeken & Hustinx, 2007). The present paper reports on an experiment examining two potential explanations for this interaction between evidence quality and text length: distraction and dilution. The current study may generate better insights into the conditions under which laypeople assess claim acceptance on the basis of the quality of arguments provided.

## **2. Evidence Quality and Text Length**

### ***2.1. Evidence Quality and Claim Acceptance***

Researchers have been interested in the relationship between the quality of evidence and the acceptance of claims supported by the evidence. In a number of experiments, participants have been exposed to claims supported by high-quality and low-quality evidence. In Hornikx and Hoeken (2007, Study 2), for instance, 20 claims were presented with statistical evidence (which relies on a large number of observations) or with expert evidence (which relies on the expertise of a source) to Dutch and French participants. The quality of statistical evidence was manipulated on the basis of the sample size (small, large), and the quality of expert evidence was manipulated on the basis of whether or not the field of expertise of the source corresponded to the claim's topic. For Dutch participants, claim acceptance was higher after high-quality than after low-quality evidence; for French participants, however, this effect of evidence quality was absent. The effect of expert evidence quality on claim acceptance found for the Dutch participants has been replicated in studies conducted in the Netherlands (Hornikx & Ter Haar, 2013, Study 1), India (Hornikx & De Best, 2011), and Germany (Hornikx & Ter Haar, 2013, Study 1). The effect of statistical evidence was also observed in studies conducted in the Netherlands (Hornikx & Ter Haar, 2013, Study 1), but not in Germany (Hornikx & Ter Haar, 2013, Studies 1 and 2). Finally, effects of the quality of anecdotal evidence (which relies on a single observation) on claim acceptance have been reported in Hoeken and Hustinx (2009, Study 3). In that study, conducted with Dutch participants, high-quality anecdotal evidence resulted from the similarity between the case in the anecdotal evidence and the case in the claim; low-evidence quality was the result of a dissimilarity between the two cases. Analyses showed that high-quality anecdotal evidence was found to be more persuasive than low-quality anecdotal evidence.

In the studies discussed above, low-quality evidence differed from the high-quality evidence only in one critical question, such as the similarity between two cases. Two studies made comparisons between high-quality evidence on the one hand and different variations of low-quality evidence on the other. Hoeken, Timmers, and Schellens (2012)

investigated anecdotal and expert evidence. The low-quality anecdotal evidence presented a dissimilar case (just as in Hoeken & Hustinx, 2009) or a case that was similar on a characteristic that was irrelevant to the claim in question. Both variations were found to be less persuasive than the high-quality counterpart. For expert evidence, the researchers developed five variations of low quality, such as when the expert had only moderate expertise in the field, or when the expert had a vested interest in the claim. For three of the five comparisons, high-quality evidence resulted in higher claim acceptance than low-quality evidence. While the claims in Hoeken *et al.* (2012) were related to the desirability of measures or behavior (e.g., ‘The increased consumption of fruit drinks is a good thing’), the claims in Hoeken, Šorm and Schellens (2014) concerned the probability that measures or behavior resulted in specific effects (e.g., ‘Obligatory driving lessons for people over 70 can reduce their fear in traffic’). Expert evidence had four different low-quality manipulations, causal evidence (which relies on an explanation of the relationship described in the claim) had three low-quality variations, and anecdotal evidence had two different variations of a low-quality manipulation. Across the three types of evidence, nine comparisons were made between high-quality and low-quality evidence, and in seven cases high-quality evidence resulted in higher claim acceptance than low-quality evidence. These results underline the impact of argument quality for claim acceptance.

## ***2.2. Evidence Quality in Longer Texts***

The studies presented under section 2.1 used claims with evidence without any other context to examine effects of evidence quality. This methodological choice resulted in high internal but low ecological validity: findings may not hold for evidence quality in realistic, longer texts. Only a limited number of studies have used longer texts to investigate the impact of evidence quality on claim acceptance. In Hoeken and Van Wijk (1997), participants read one longer text about tax increases in a Dutch city. The high-quality (low-quality) anecdotal evidence consisted of a similar (dissimilar) city where the increase had led to beneficial effects. While the manipulation of high versus low quality was found to be successful, the two quality variations were equally effective in terms of beliefs, attitudes, and voting behavior. The experiment conducted by Hornikx and Houët (2009) aimed at higher ecological validity by presenting a realistic municipal letter to actual inhabitants of the municipality that was said to send the letter. Again, the high-quality (low-quality) anecdotal evidence consisted of a city similar (dissimilar) to the municipality. Moreover, in half of the letters this city was said to be taken as example from a large sample of cities where the benefits had been observed. Only in the letters with this statistical evidence was the attitude towards the proposed measure higher for the high-quality than for the low-quality condition. In other words, the effect of evidence quality seems more pronounced in material that only consisted of claims with evidence than in material that embedded these in a longer text.

Hoeken and Hustinx (2007) provide empirical support for the relationship between text length and evidence quality. Their participants judged short texts (claims with normatively strong or weak anecdotal evidence) and longer texts (claims with normatively strong or weak anecdotal evidence, and with additional information irrelevant to the evidence). An interaction effect between evidence quality and text length was reported: an effect of evidence quality on claim acceptance was found in the short texts but not in the longer texts. Hoeken and Hustinx (2007) investigated 16 different claims – allowing some level of generalization to other claims. However, as they remarked themselves, they only included one type of evidence: “Whether laypeople are sensitive to other distinctions in argument quality is unclear” (2007, p. 630). The first goal of the present study therefore is to

reexamine the interaction effect between evidence quality and text length for anecdotal, statistical, and expert evidence. The effect is expected to occur independently of the type of evidence:

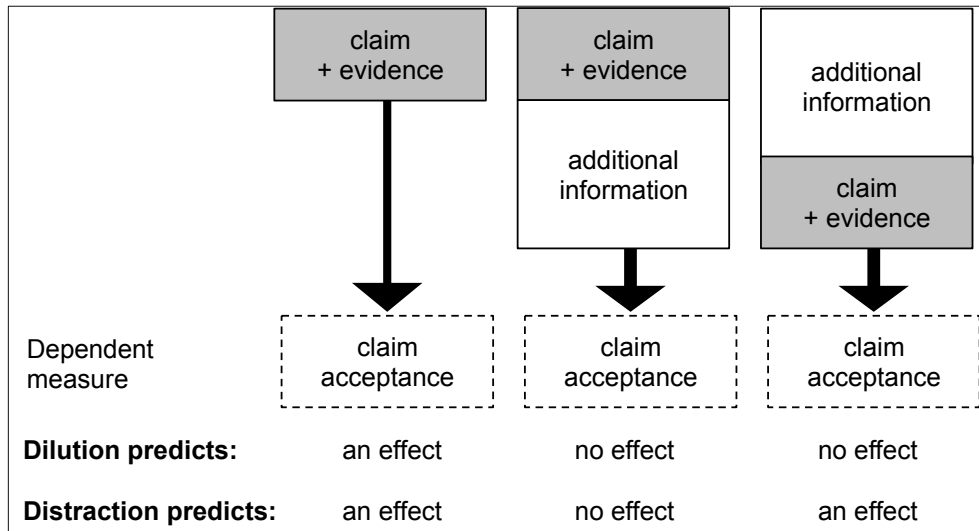
- H1 For anecdotal, statistical, and expert evidence, high-quality evidence leads to stronger claim acceptance than low-quality evidence in the absence of additional information but not in the presence of additional information.

### ***2.3. Distraction or Dilution as Explanation?***

People's sensitivity to the quality of arguments is generally said to depend on people's motivation and capacity to scrutinize the message that contains arguments (Elaboration Likelihood Model; Petty & Cacioppo, 1986; Petty, Rucker, Bizer, & Cacioppo, 2004). Hoeken and Hustinx (2007, p. 628) attribute their findings to the participants' low capability in the longer text condition: "It could be that the additional text distracts the participants' focus on the arguments." In the short texts, the "absence of context may have helped the participants to focus their attention completely on the argument itself thereby increasing the chance that they notice the differences in quality" (2007, p. 629). The two text conditions in Hoeken and Hustinx (2007) differed in two ways: text length and the *position* of evidence in the text. In the short text, the evidence was the last information participants read before indicating claim acceptance; in the longer text, the non-diagnostic additional information served as last information.

Distraction seems a plausible explanation for their findings, but an alternative may be the dilution effect (Nisbett, Zukier, & Lemley, 1981; Tetlock, Lerner, & Boettger, 1996), also known as the nondiagnosticity effect (Troutman & Shanteau, 1977). In one of the five studies presented in Nisbett *et al.* (1981), for instance, participants were asked to predict behavior of other people, such as how many movies these people had seen lately. Diagnostic information relevant to that prediction was given (i.e., whether they were premedical students or English majors), and – in half of the cases – additional non-diagnostic information was presented (e.g., about their religious background and spare time activities). Participants' judgements were found to be dependent on the diagnostic information, but much less so when non-diagnostic information was also presented in the material. The additional information diluted the total information that was available about the students in the text, and lowered the impact of the diagnostic information.

In Hoeken and Hustinx (2007), both dilution and distraction may explain the effects that were observed. A third condition would be needed to reveal which explanation holds, namely a condition that consists of a longer text that ends with evidence. If dilution is the explanation, an effect of evidence quality would occur in the short text condition, but not in the longer text conditions as the largest part of the text is non-diagnostic information (regardless or whether that information is positioned at the beginning of at the end of the text). If distraction is the explanation, an effect of evidence quality would also occur in this third condition (as there is no distraction between the evidence presented and the claim acceptance measure) and in the short text condition, but not in the longer text condition that ends with non-diagnostic information. Figure 1 shows the expected effects in the three conditions.



**Figure 1.** Dilution and distraction as predictors of an effect of evidence quality in the three conditions

The second, and most important goal of the present study is to investigate whether the interaction between evidence quality and text length can be explained by dilution or distraction:

RQ1 Does distraction or dilution explain the interaction between text length and evidence quality on claim acceptance?

### 3. Method

An experiment was designed in which participants were presented with two different texts including a claim with evidence. The texts in the different conditions varied in the quality of the evidence, the type of evidence, and the structure of the text.

#### 3.1. Material

In order to select appropriate claims, 20 Dutch students (age:  $M = 22.90$ ,  $SD = 2.02$ ; 70% female) rated the 16 claims used in Hoeken and Hustinx (2007) on 7-point probability scales. Two claims were selected that scored around the midpoint of the scale (cf. Hornikx & Hoeken, 2007); in a Dutch translation, they read ‘A longer wine list will increase drinking sales in restaurants’ ( $M = 3.45$ ), and ‘Driving schools will see their registration rise when they paint their learner cars in pronounced colours’ ( $M = 4.05$ ).

For each of the two claims, three different structures were designed, based on the short text in Hoeken and Hustinx (2007).<sup>2</sup> The factor Structure was a combination of the absence/presence of non-diagnostic text, and – if present – of the position of this addition (beginning or end of the text). In the short text, an introductory sentence was followed by a claim and by supporting evidence. In the longer texts, non-diagnostic information consisting of 139 words was added before the short text, or after. Example (1) shows an

<sup>2</sup> The author wishes to thank Hans Hoeken and Letticia Hustinx for sharing their material.

English translation of the condition with the longer text starting with the non-diagnostic information:

(non-diagnostic addition) Bistros are popular in the Netherlands. You can find them in villages and cities. Sometimes they were founded years ago, and still have the same owner. In other cases, they are relatively recent, such as in new housing estates, bringing to the neighborhood the necessary atmosphere that is often lacking. Local authorities are very interested in bistros. They believe these bistros are important for the vividness and livability of the areas. In most bistros, popular dishes are on the menu, such as soups, salads, satay, and spare ribs. For their turnover, the weekends are crucial for bistros. On special occasions, such as local events, they can be very busy. However, bistros are having a hard time in the Netherlands. (introductory sentence) Bistro ‘Het Hommeltje’ in Heerlen is a profitable bistro where customers can eat a lot of food at a reasonable price. Nevertheless, the consumption of drinks is fairly low. (claim) A good possibility to increase drinking sales is to present a longer wine list. (evidence) For bistro ‘Den Dikke Dragonder’ in Kerkrade, which targets the same type of customers, a longer wine list has increased drinking sales.

The evidence in the example was high-quality anecdotal evidence: the case in the evidence (bistro Den Dikke Dragonder) was a bistro similar to the case in the claim (bistro Het Hommeltje). The low-quality manipulation of anecdotal evidence, also borrowed from Hoeken and Hustinx (2007), consisted of presenting the case of the Da Vinci restaurant, proud owner of a Michelin star, which also saw its turnover increase after introducing a longer wine list. For each of the three conditions, high-quality and low-quality evidence were created for statistical and for expert evidence. Statistical evidence provided information about a large number of cases. Following the manipulation in Hornikx and Hoeken (2007), high-quality statistical evidence reported about a large sample size and a high percentage: ‘A Dutch study among 104 restaurants has shown that a longer wine list increased drinking sales for 74% of those restaurants’. The low-quality evidence reported sales increases for 36% of the 28 bistros in the study sample. For expert evidence, the quality was dependent on the vested interest of the expert (cf. Hoeken *et al.*, 2014). In both cases ‘Dr Glastra argues that a longer wine list increases drinking sales in restaurants’. In the high-quality variant, he was described as a person ‘who has a PhD in food and beverage management and who currently is a professor of retail marketing at Rotterdam University’, and in the low-quality variant, he was described as a person ‘who has a PhD in food and beverage management and who currently is sales director of wine merchant Colaris in Weert’. In total, there were 18 versions of each of the two texts, differing in Structure, Evidence Type, and Evidence Quality.

### **3.2. Participants**

A total of 629 participants took part in the experiment, of whom 53.6% were female. The Dutch participants were on average 32.32 years of age ( $SD = 14.21$ ; range: 15-84), and their highest education level ranged from primary school (1%) to a Master’s degree (37%). The participants were randomly assigned to the 18 conditions of the material. Between these conditions, no differences were observed in the participants’ mean age ( $F(17, 611) = 1.60$ ,  $p = .06$ ), gender distribution ( $\chi^2(17) = 12.67$ ,  $p = .76$ ), or educational level ( $\chi^2(68) = 67.51$ ,  $p = .49$ ).

### 3.3. Instrumentation

The questionnaire included a series of questions on 7-point scales that were identical for the two texts on bistros and driving schools: claim acceptance, distraction, motivation to read, and issue involvement.

The main dependent measure was the acceptance of the claim, which was repeated after the text ('question 1'), and which was followed by three items ('very improbable – very probable', 'very unbelievable – very believable', and 'very unreasonable – very reasonable' (text 1 about bistros:  $\alpha = .94$ ; text 2 about driving schools:  $\alpha = .95$ ).

Distraction was measured with three items. Likert scales followed three items (inspired by the fluency scale of Lee, Keller, & Sternthal, 2010): 'It was easy to answer question 1', 'For question 1, I was able to easily recall the topic of the text', and 'I had to think hard before I could answer question 1'. As the three items were not reliable (text 1:  $\alpha = .58$ ; text 2:  $\alpha = .65$ ), only item 1 and 3 were taken together (text 1:  $r(627) = .43, p < .001$ ; text 2:  $r(629) = .39, p < .001$ ). Perceived text comprehension was included as an additional measure of distraction: 'The text about the bistros / driving schools was: difficult – easy, complex – simple, unclear – clear' (text 1:  $\alpha = .85$ ; text 2:  $\alpha = .92$ ).

The questionnaire also checked participants' motivation to answer question 1 with Likert scales after the items: 'I found it interesting to answer question 1' and 'It was fun answering question 1' (inspired by the engagement scale of Lee *et al.*, 2010; text 1:  $\alpha = .83$ ; text 2:  $\alpha = .87$ ). Involvement with the topics of the texts was measured with three of the four items developed in Wegman (1994), and adapted to these texts: 'To what extent do bistros / driving schools preoccupy you personally?', 'Do you ever think about bistros / driving schools?', and 'How important you feel bistros / driving schools are to you?' (text 1:  $\alpha = .88$ ; text 2:  $\alpha = .91$ ). The questionnaire ended with questions about participants' age, gender, and highest educational level.

### 3.4. Design

The experiment had a 3 (Structure: short, long starting with evidence, long ending with evidence) x 3 (Evidence Type: anecdotal, expert, statistical) x 2 (Evidence Quality: low, high) x 2 (Text: bistros, driving schools) design. Text was a within-subject factor: each participant responded to the two different texts. The other factors were between-subject factors. This means that participants responded to one of the 18 structure x quality x type conditions (for each of the two texts).

### 3.5. Procedure and Statistical Tests

Participants were approached individually to take part in one of the conditions of the study. When they agreed, they were randomly assigned to one of the conditions. The study was introduced as being about their judgements about bistros and driving schools. Participation took between 10 and 15 minutes.

H1 was addressed by examining the effect of evidence quality for the two conditions used in Hoeken and Hustinx (2007): short texts, and longer texts starting with evidence. RQ1 was addressed with two contrast analyses, one for distraction and one for dilution (see Van den Bercken & Voeten, 2002). For distraction, the longer text starting with evidence was contrasted to the other two texts; for dilution, the two longer texts were contrasted to the short text. No significant interactions were found between Text and the other factors; this means that effects that were (non) significant for the first text, were also (non) significant for the second text. Because of these non-significant interactions, data were

collapsed over the factor Text; all means and standard deviations in the results section are based on data of the two texts together<sup>3</sup>.

## 4. Results

### 4.1. Preliminary Analyses

Significant correlations were observed between claim acceptance and motivation ( $r(629) = .14, p < .001$ ), and between claim acceptance and involvement ( $r(629) = .26, p < .001$ ). Therefore, motivation and involvement were used in the GLM as covariates. The pattern of results was identical in analyses with and in analyses without these covariates.

### 4.2. Hypothesis and Research Question

The experiment was conducted to examine whether distraction or dilution could explain the interaction between evidence quality and text length. There was a main effect of Evidence Quality on claim acceptance ( $F(1, 609) = 20.82, p < .001, \eta^2 = .03$ ): claim acceptance was higher after high-quality evidence ( $M = 4.34, SD = 1.06$ ) than after low-quality evidence ( $M = 3.89, SD = 1.13$ ). This main effect was not qualified by an interaction with Evidence Type ( $F(2, 609) = 1.22, p = .30$ ). RQ1 was addressed with two contrast analyses examining the interaction between Evidence Quality and Structure. The first contrast analysis supported the distraction explanation ( $F(1, 621) = 20.57, p < .001, \eta^2 = .03$ ); the second contrast analysis did not support the dilution explanation ( $F(1, 621) < 1$ )<sup>4</sup>. Figure 2 shows that evidence quality had an effect on claim acceptance in the short texts and in the longer texts ending with evidence, but not in the longer text starting with evidence.

For each Structure type, the effect of Evidence Quality on claim acceptance was measured (see also Figure 2). An effect of Evidence Quality was observed for the short texts ( $F(1, 201) = 7.24, p < .01, \eta^2 = .04$ ) and for the longer texts ending with evidence ( $F(1, 203) = 15.90, p < .001, \eta^2 = .07$ ), but not for the longer texts starting with evidence ( $F(1, 201) = 1.13, p = .29$ ). This result seems to suggest that the effect obtained in Hoeken and Hustinx (2007) for anecdotal evidence was replicated here for three types of evidence. However, the interaction between Structure and Evidence Quality was not significant when only short texts and longer texts starting with evidence were considered ( $F(1, 404) = 1.49, p = .22$ ). H1 was not supported.

The overall interaction between Structure and Evidence Quality may be further explained by participants' fluency of judging claim acceptance or their perceived text comprehension. There was no main effect of Structure on fluency ( $F(2, 626) = 1.62, p = .20$ ), but there was an effect of Structure on perceived comprehension ( $F(2, 626) = 6.26, p < .01, \eta^2 = .02$ ).

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<sup>3</sup> There were no significant interactions between Text x Structure ( $F(2, 611) < 1$ ), Text x Evidence Type ( $F(2, 611) = 1.30, p = .27$ ), Text x Evidence Quality ( $F(1, 611) < 1$ ), Structure x Evidence Type ( $F(4, 611) < 1$ ), Evidence Quality x Evidence Type ( $F(2, 611) = 1.39, p = .25$ ), Structure x Evidence Quality ( $F(2, 611) < 1$ ), or Structure x Evidence Quality x Evidence Type ( $F(4, 611) < 1$ ).

<sup>4</sup> The contrast analysis for distraction was significant for the first text ( $F(1, 621) = 15.83, p < .001, \eta^2 = .02$ ) and for the second ( $F(1, 621) = 9.48, p < .01, \eta^2 = .02$ ). The contrast analyses for dilution were not significant for the first and second text (each text:  $F(1, 621) < 1$ ).



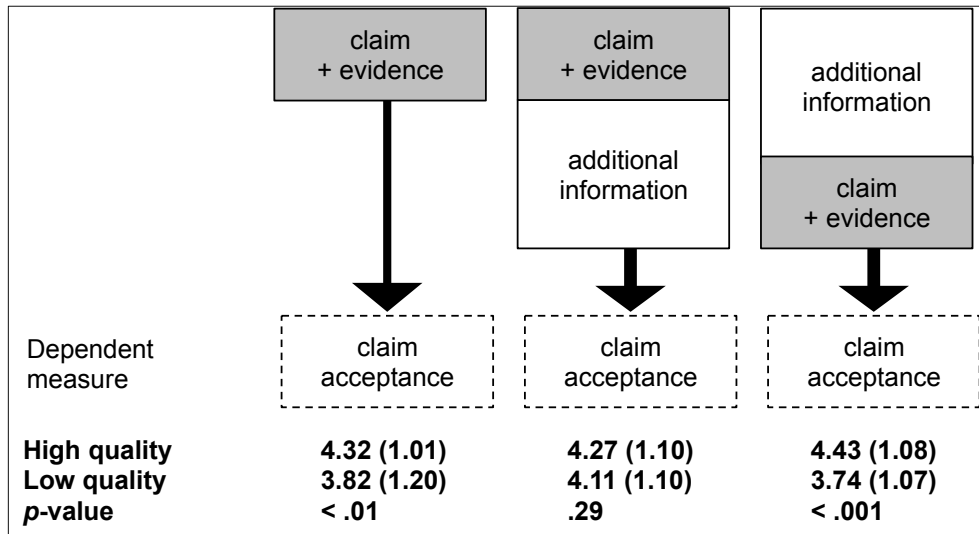


Figure 2. The effect of evidence quality in the three conditions (*SD* in brackets after *M*)

A post-hoc test with Sidak correction showed that perceived comprehension was higher for the short text ( $M = 5.95$ ,  $SD = 0.91$ ) than for the longer text starting with evidence ( $M = 5.62$ ,  $SD = 1.01$ ). However, including perceived comprehension as covariate in the contrast analyses did not alter the results (distraction:  $F(1, 620) = 19.79$ ,  $p < .001$ ,  $\eta^2 = .03$ ; dilution:  $F(1, 620) < 1$ ). Therefore, perceived comprehension did not have strong power in explaining the interaction between Structure and Evidence Quality.

Structure	Type	High Quality			Low Quality			
		<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	
<i>short</i>	<i>total</i>	4.32	1.01	104	3.82	1.20	105	
	<i>anecdotal</i>	4.30	0.95	35	3.87	1.05	35	
	<i>statistical</i>	4.56	0.92	34	3.86	1.21	35	
	<i>expert</i>	4.01	1.12	35	3.74	1.34	35	
<i>long, evidence</i>	<i>total</i>	4.43	1.08	104	3.74	1.07	107	
	<i>at the end</i>	<i>anecdotal</i>	4.46	1.01	35	3.84	0.94	35
	<i>statistical</i>	4.63	0.94	35	3.77	1.22	37	
	<i>expert</i>	4.19	1.26	34	3.62	1.05	35	
<i>long, evidence</i>	<i>total</i>	4.27	1.10	104	4.11	1.10	105	
	<i>at the start</i>	<i>anecdotal</i>	4.40	1.18	35	4.13	1.27	35
	<i>statistical</i>	4.48	0.98	34	4.27	0.99	35	
	<i>expert</i>	3.92	1.08	35	3.93	1.03	35	

Table 1. Persuasiveness of evidence in function of structure, type, and quality

For the sake of completeness, the other effects in the ANCOVA are also reported. A main effect of Evidence Type on claim acceptance was found ( $F(2, 609) = 6.59, p < .001, \eta^2 = .02$ ). A post-hoc test with Sidak correction showed that anecdotal ( $M = 4.17, SD = 1.09$ ) and statistical evidence ( $M = 4.26, SD = 1.09$ ) generated a higher claim acceptance than expert evidence ( $M = 3.92, SD = 1.15$ ). Finally, the following effects were not significant: the main effect of Structure ( $F(2, 609) < 1$ ), the interaction between Structure and Evidence Type ( $F(4, 609) < 1$ ), and the interaction between Evidence Type, Evidence Quality, and Structure ( $F(4, 609) < 1$ ). Table 1 gives the claim acceptance scores in function of the three factors.

## 5. Conclusion and Discussion

According to Mercier and Sperber (2011), laypeople are good at differentiating between strong and weak arguments. Empirical studies on people's sensitivity to high-quality and low-quality evidence underline this idea. Hoeken and Hustinx (2007), however, argued that this sensitivity is only displayed when people judge short texts with claims and evidence. The present study was designed to examine whether distraction or dilution is able to explain people's insensitivity to evidence quality in the case of longer texts. Support was found for distraction as an explanatory factor: when additional information is present between the evidence and the acceptance measure, people do not consider the quality of the evidence when indicating their claim acceptance. The present study demonstrated that adding non-diagnostic information in itself does not hinder an effect of evidence quality. That is, in longer texts starting with non-diagnostic information and ending with evidence, an effect of quality on claim acceptance was found. The current experiment could not replicate the interaction observed in Hoeken and Hustinx (2007) between evidence quality and text length (short, long starting with evidence), although an effect was found for the short text but not for long text starting with evidence.

The present study contributes to existing research by examining a longer text in which evidence was positioned at the end or at the beginning, allowing the examination of the roles of distraction and dilution, and by extending the types of evidence that were studied. This study contrasted two processes, distraction and dilution, each of which generated different predictions of claim acceptance in one particular condition. Both processes, however, share the characteristic of adding non-diagnostic information to the claim and evidence. Results show that additional information can indeed hinder an effect of evidence quality on claim acceptance in longer texts ending with evidence – predicted by both distraction and dilution. Nevertheless, this additional information does not always dilute: with the non-diagnostic information at the beginning of the text, participants' claim acceptance was found to be sensitive to the quality of evidence. The experimental conditions, for two different texts, used only one length for the manipulation of non-diagnostic information, and one length for the different manipulations of evidence. Future research may vary in the relative proportion of diagnostic and non-diagnostic information to address the question as to how limited the proportion of non-diagnostic information can be to obscure effects of evidence quality on claim acceptance.

Another avenue for future studies is located in participants' involvement. The texts presented in the current study were, on purpose, neutral to the participants. The participants were therefore unlikely to scrutinize the evidence that is presented in the text in order to observe weaknesses in the presented arguments. The current experiment shows that people are insensitive to evidence quality when non-diagnostic information follows. The question is whether people are more sensitive to the quality of evidence presented when they are

involved in the subject of the text? Research addressing this question may improve our understanding of the limits of when argument quality matters.

The results of the current study were based on three different types of evidence, and on two different texts, giving the results some level of robustness. It should be noted that the same effects were found for the second text, when participants had already been exposed to the first experimental condition and the different items. This first text did not help them to be more sensitive to evidence quality in the second text. This suggests that for laypeople, although they may be sensitive to the quality of the arguments that are presented (see Hoeken & Hustinx, 2009; Hoeken *et al.*, 2012, 2014; Hornikx & Hoeken, 2007), a small additional paragraph is enough to distract them from using this quality to assess how likely they find a claim. For persuasion practice, this result may imply that persuaders who do not have strong arguments to underline their claims or who are not sure about the quality of their arguments may still generate successful texts. For researchers, the results of the current study may stimulate further research on people's acceptance of claims supported by arguments differing in quality.

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