

Running Head: RESONANCE, RESISTANCE AND COUNTERVALENCE

SHIFTING THE VALENCE BALANCE
RESONANCE, RESISTANCE AND COUNTERVALENCE
OF COGNITIVE RESPONSES TO COMMUNICATION FRAMES

Christian Baden

Amsterdam School of Communications Research (ASCoR)

University of Amsterdam

Paper presented at the International Communication Association (ICA) Annual Conference in Chicago, IL, USA, May 2009.

Correspondence address: Christian Baden, ASCoR, University of Amsterdam, Kloveniersburgwal 48, 1012 CX Amsterdam, The Netherlands. Email: c.baden@uva.nl

Acknowledgement: This paper is indebted to the participants of the framing workshop series convening at the Amsterdam School of Communications Research in fall 2006.

ABSTRACT

While people often follow frames in opinion formation, they are also capable of resisting or even counteracting frames under certain circumstances. This paper stresses the importance of cognitive responses to framed messages and investigates the cognitive processes that lead people to follow or resist frames. It develops a schematic model of the frame-cognition interaction and specifies the conditions under which resistance and countervailing responses are expected. The paper experimentally tests the predictions measuring individuals' spontaneous associations with framed messages (N=357). It finds that people counteract frames if these are recognized as unduly biased, and follow frames if their prior attitudes are too disparate to discover frame biases. Furthermore, stronger prior attitudes decrease the strength of successful framing effects, but increase the power of countervailing responses. Framed opinion formation is thus mediated by cognitive responses, which depend not merely on the frame or prior attitudes alone, but on a non-linear interaction between both.

Common wisdom in valence framing is straightforward: Positive frames lead to more positive evaluations, and negative frames to more negative ones. Outcomes are shaped by the frame, and the frame alone. However, this simple view has been called into question by several striking findings. Nelson and Oxley (1999) report that, under some circumstances, people are clearly able to resist the frame-embedded valence, even if they take over other components of the frame such as issue-contexts (see also Baden, 2008; Brewer, 2001; Gross, 2000; Zaller, 1992). People then stick to their previously formed judgments, rather than relying on frame-suggested valences. Chong and Druckman (2007b) have found evidence that frame valences can even backfire if they are not seen as convincing by the participants (see also Barker, 2005; Peffley & Hurwitz, 2007). Both kinds of findings point to the suspicion that the interaction between frame and cognition has not been investigated sufficiently in much framing research. In the interaction between pre-formed attitudes and the frame, either side may prevail, compromises may be forged, or entirely new insights may arise from connections so far unthought. It is the purpose of this study to develop and test a schematic model of the processes through which valenced frames interact with pre-formed attitude structures. Spelling out the roles of salient prior attitudes and densely integrated knowledge in framed cognition, it specifically aims to understand under which conditions framing is likely to fail, or even raise opposing responses. To assess these responses, this study records spontaneous associations raised by a frame and compares their valence to those suggested by the frame. It proposes an understanding that formulates resonant, resistant, and countervailing responses to framing as possible outcomes of the same fundamental cognitive processes. Deriving and experimentally testing specific expectations, the paper aims at contributing to a more inclusive view on framing effects.

THEORY

Kommentar [cb1]: Angle tow outlet, split in 2 §§

Before we can understand what effects frames might have on cognitive processes, it is necessary to review what is known about the role of knowledge structures and attitudes in opinion formation. According to Zaller (1992; Zaller & Feldman, 1992), reported opinions are constructed ad hoc based on various underlying beliefs: Whenever people are asked to give their opinion, they scan their memory for relevant knowledge. Retrieving multiple beliefs, they weight these considerations by importance and then summarize the implied evaluative loadings (Nelson & Oxley, 1999). Variation in opinion can thus be explained by the sampling of beliefs entering the construction (see also Ajzen & Fishbein, 1980; 2000; Baden, 2008; Chong & Druckman, 2007a; Kuklinski & Hurley, 1996; Rhee, 1997; Zaller & Feldman, 1992). If considerations entailing positive evaluative implications prevail, the reported opinion will be positive; negatively charged considerations fuel negative opinions, and an even balance of valences implies an ambivalent response – or, possibly, no response at all (Brewer, 2001; Matthes, 2007; Zaller, 1992).

What is less clear, however, is where these considerations come from. Early researchers in persuasion tended to assume that communicated messages contribute the bulk of considerations used by respondents (e.g., Hovland, Janis, & Kelley, 1953). With the decline of hypodermic theories, more subtle theories have taken over in communications. According to researchers in framing and agenda setting, communicated messages don't necessarily provide the belief content underlying opinion responses. Rather they tap beliefs already stored in the respondent's mind (see D. A. Scheufele, 1999 for a review).¹ To the degree that people possess accessible beliefs about an issue, any reference to that issue activates the range of stored considerations and makes them likely to inform subsequent judgments. Framing scholars have emphasized that by selectively referring to specific contexts of referred-to issues, message frames can direct cognitive activation towards specific subsets of stored information (Shen, 2004). Beliefs resonating with the

frame are likely to be retrieved, whereas mismatching considerations remain below conscious attention. In that sense, although ultimately people's own beliefs feed reported opinion, frames decide to a large degree which subsets of a person's knowledge comes to bear.

Only recently has attention re-focused on some complications in this interaction between communicative and cognitive resources for opinion formation. Most obviously, Price and Tewksbury (1997) remind everyone that, to be tapped by frames, knowledge must be available in a respondent's mind, which may not be the case. Elaborating in the same vein, de Vreese (2004b) and Slothuus (2008) note that frames might well provide new information and affect the respondent's state of knowledge. Moreover, the same authors suggest that frames may induce people to revisit their knowledge, drawing new connections between beliefs already held (see also Baden, 2008; Peterson, 2004). In such cases, activated beliefs can no longer be unambiguously described as either stored considerations or message-proliferated information alone. From the interaction between both, new beliefs may emerge that are not simple functions of either ingredient.

This observation is, of course, not new. In 1968, social psychologist Greenwald noted that the degree to which people received and remembered the contents of persuasive messages predicted reported opinion badly. According to Greenwald, people's cognitions on an issue were dominated by thoughts rooted entirely or at least partly in respondent's pre-existing attitude structures. People used the communicated information, but more often than not interpreted it in light of their own understandings (see also Petty, Brinol, & DeMarree, 2007). Following this perspective, it appears that messages do not directly form the bulk of opinion. Cognitive responses to communicated messages do (Brewer, 2001; Greenwald, 1968; Gross, 2000).

Attitudes & Schemata

When people react to information they perceive, they draw upon their schematic knowledge and attitude structures. Schemata and attitudes are, to a certain degree, two aspects of the same phenomenon. According to theorists in social cognition and cognitive psychology, a person's beliefs are stored not as discrete units, but as a web of relations between all kinds of cognitive objects; all meaning is relational, as Holyoak and Thagard (1995) aptly summarized: One cannot believe "that X", but only "that X relates to Y (in a particular way)" – i.e., X has property Y, causes effect Z, or a whole range of other semantic relations. The environment of a concept stored in the mind determines the range of meanings it can assume. Thus, the set of all beliefs a person holds can be represented by a large network of semantic relations between concepts. However, within the cognitive networks, there are subsets of relations that are frequently activated together; certain contexts of concept X make sense particularly if other contexts and concepts Y are also present. Such areas within the network are marked by a high density of connections: Very likely, the common neighbor concepts of X, which are usually activated together, are seen as semantically related as well. Such highly integrated subnetworks thus form relatively coherent knowledge structures grouping beliefs held to be strongly related: They build cognitive schemata that can be retrieved and act as wholes (B. Scheufele, 2004; van Dijk & Kintsch, 1983; Zaller, 1992).

Since beliefs often carry evaluative implications (Ajzen & Fishbein, 2000), such schemata cannot only be thought of as coherent knowledge structures, but also as relatively stable and readily applicable resources of valenced beliefs for opinion formation: attitudes. Within schemata, beliefs are frequently considered together, enabling and motivating people to resolve evaluative dissonances (Visser, Holbrook, & Krosnick, 2007). Thus, schematically organized beliefs will yield highly coherent and strong judgments. For enhanced clarity, attitudes will be referred to in this paper as the evaluative loads

contributed by the beliefs of coherent schematic structures, rather than potentially all beliefs pertaining to an object.

While evaluative implications tend to be relatively coherent within schemata, different schemata about the same object – also neighboring ones – may carry quite different valences. Thus, whenever people possess multiple schemata about an object, this implies that they hold multiple attitudes towards it, which may (and often will, see Zaller & Feldman, 1992) be countervailing (de Liver, van der Pligt, & Wigboldus, 2007; Gamson & Modigliani, 1987; Zaller & Feldman, 1992). Depending on which attitudes people rely on when forming an opinion, their judgment may differ dramatically (Price & Tewksbury, 1997; B. Scheufele, 2004; Tourangeau & Rasinski, 1988).

Which attitudes are likely to be drawn upon in opinion formation depends on the spread of activation across schemata (Gross, 2000). Depending on where the search for information commences, and how the surrounding areas of the cognitive network are organized, people may retrieve very different subsets of their attitudes towards an issue. Activation spreading from one point within a particular schema is very likely to reach further beliefs from the same schema (Feldman & Conover, 1983; Willnat, 1997); once a critical number of schema-contained beliefs are tapped, the schema as a whole is activated,² contributing its stored information and overall evaluative load (Graber, 1988; Price & Tewksbury, 1997; Rhee, 1997). It is important to note, however, that the same beliefs may be meaningful in more than one context, taking part in various schemata at once: Schemata may overlap (Ajzen & Fishbein, 2000; Conover & Feldman, 1984; Nelson & Kinder, 1996; Petty et al., 2007; van Gorp, 2007). To the degree that schemata are densely connected or overlapping, activation spreading within one schema is likely to spill over to beliefs from neighbouring schemata, and eventually activate enough of these to retrieve the schema as well. If two schemata overlap to a large degree, retrieving one will likely also retrieve the other. Hence, spreading activation will not retrieve a random

sample of relevant beliefs, but a biased sample of schemata adjacent to the ones where retrieval began. The information base retrieved to form an opinion thus depends mainly on two main factors, which will be discussed below: First, which beliefs, in which contexts, the search for information commences from is strongly influenced by how the issue is *framed*. Second, the cognitive web across which activation spreads and from which evaluative loads are retrieved is formed by the integration of relevant attitudes – i.e., their *attitude strengths*.

Attitude strength

According to Miller and Peterson (2004), there are four main dimensions that determine attitude strength, three of which are closely interrelated: The richness of beliefs underfeeding an attitude, the integration density of relevant beliefs, and the resolution of ambivalences and resulting extremity of evaluative loads all concern the amount of rehearsal and consideration an attitude receives. The fourth dimension concerns the structural salience of attitudes, which may be higher for beliefs related to one's self-concepts and core values (Bizer & Krosnick, 2001; Lavine, 2001; Miller & Peterson, 2004; Peterson, 2004; Petty et al., 2007; Price & Tewksbury, 1997; Visser et al., 2007). In view of the above discussion, I might want to add a fifth aspect: The degree to which attitudes are distinct or overlapping, i.e., their external integration with other attitudes, should matter for their role in opinion formation as well.³

This leaves me with two predictions about what attitudes will be used by people upon opinion formation: On the one hand, people will tend to rely strongest on attitudes that relate to their own everyday experience; frequently activating and linking these beliefs, accumulating more knowledge, integrating beliefs more densely and resolving incongruencies with greater diligence, such attitudes make the best and easiest applicable guides for decisions. On the other hand, attitudes touching people's self concepts and values are likely to be perceived as highly important and consulted even if otherwise less

relevant and well-formed (Wegener, Petty, Smoak, & Fabrigar, 2004).⁴ Unfortunately, however, it is difficult to know which attitudes these are, as different people have their own experiences and idiosyncratic identities. Therefore, the most fruitful attempts to predict the use of attitudes in reasoning stem not from analyses of the cognitive, but of the communicative environment within which reasoning takes place.

Frames & Cognitive Responses

The communicative context of opinion formation informs people about which contexts, and thus which kinds of attitudes are valid guides for opinion formation (Chong, 1996; Nelson & Oxley, 1999; Petty et al., 2007; Price & Tewksbury, 1997). Most commonly, this effect is referred to as framing, although it is worth noting that also other forms of selectively making specific contexts salient – e.g., the situation one finds oneself in – can perform the same function. Frames have been found to reliably induce bias into people's preferences, cutting across all kinds of idiosyncrasies. Essentially, frames function by selectively tapping certain contextual beliefs, thus directing activation to more easily retrieve those schemata marked as appropriate for understanding and processing information (Nelson & Kinder, 1996; Rhee, 1997; Shah, Domke, & Wackman, 2001; van Gorp, 2007). Obviously, framing effects break down if a person has not formed the referred-to schematic knowledge. This is why framing research focuses mostly on manipulating opinion on issues of public contention, where media discourse can be expected to have informed largely similar schematic understandings among most people. However, as Brewer and Gross (2005) have demonstrated, framing may still fail. People may receive the frame and follow its suggested semantic context, but resist or even counteract the evaluative drift it indicates.⁵ There are two major ways of accounting for this failure. On the one hand, people's schemata pertaining to an issue may be often similar, but rarely identical. If a frame successfully activates a referred-to schema, the specific properties of this schema influence what information enters the decision making

process. However, there may be only few, or weakly integrated beliefs available, such that the information does not suffice to come to a meaningful conclusion; also, the evaluative loads attached to the contained beliefs may differ, reflecting people's different preferences. Thus, although the frame succeeds in activating the intended schema, people's stored beliefs may lead to quite different evaluative outcomes. Only to the degree that schemata are indeed formed and evaluated in quite similar ways by most participants can a frame reliably produce the same bias in opinion formation.

On the other hand, a frame may fail to activate a schema, or lead the individual to retrieve different, not intended information (Gross, 2000). A person possessing very strong attitudes towards asylum migration, for instance, may perceive a labour migration frame, yet completely ignore the implied economic context. Others may follow the frame to retrieve some of the suggested context information, yet be reminded of their adjacent schemata about wage dumping and welfare cheats (Zaller, 1992). The stronger adjacent attitudes are, the more likely is activation to spill over and summon other information along the way – which, stemming from strong attitudes, may then overpower the evaluations contributed by the originally targeted attitude (Chong & Druckman, 2007a; Druckman, 2001; Lecheler, de Vreese, & Slothuus, 2008; Matthes, 2007). Likewise, spilling-over activation is facilitated by dense connectedness and overlaps between schemata (Conover & Feldman, 1984; van Gorp, 2007).

Assuming discourse-informed, not too idiosyncratically structured schemata and evaluations, the above baseline expectations can thus be refined regarding the effectiveness of communicative frames in activating stored attitudes. A frame will be able to deliver its systematic bias in opinion formation to that degree that targeted attitudes have medium to high strength and are clearly distinct from other attitudes pertaining to the same issue (Ajzen & Fishbein, 2000). Very strong attitudes can be successfully targeted by frames, but would also have been activated without the frame, so there is no

change in opinion. Frames will fail to produce an effect if schemata are unavailable or insufficiently differentiated. If targeted attitudes are neighboring or overlapping with strong attitudes, it will be difficult to retrieve one without also activating others.

Kommentar [cb2]: Shorten all above so below comes earlier

Frame failure & frame backfiring

These above expectations finally enable me to explain how frames may come to raise cognitive responses which are, or are not, in line with the evaluative drift indicated by the frame. For a “successful” framing effect, three conditions need to be met: First, a frame needs to be understood, i.e., the contexts referred to by the frame need to be available. Second, these frame-indicated starting points need to be capable of channeling activation in the intended direction, retrieving most of, and not much beyond the targeted schemata (Gross, 2000).⁶ This implies that the targeted schemata do not neighbor or overlap with other attitudes that attract much of the activation. To affect opinion, it is furthermore required that the targeted attitudes, or at least many of their evaluation-carrying beliefs, would not have been retrieved in relation to the issue anyway. Third, the retrieved schemata need to contribute the evaluative loads anticipated by the frame.

At each of these stages, the framing process may fail. Several such phenomena have been described in the literature: If targeted attitudes are either absent, framing fails in stage one; In stage two, targeted attitudes may be successfully retrieved, but overshadowed by much stronger attitudes activated regardless of the frame. “Inertial resistance” (Zaller, 1992) follows: Some beliefs are added to the information base, but their influence remains so small compared to the rest that opinion changes are imperceptible (see also Druckman, 2003; Gross, 2000; Knowles & Linn, 2004). Similarly, activation may follow the frame, but retrieve non-targeted, adjacent, but countervailing attitudes as well that neutralize the effect (Brewer & Gross, 2005). Finally, the frame may successfully bias belief activation, but people’s attitudes are so diverse that, on average, no effect is recorded.

In this framework, backfiring frames (e.g., Barker, 2005; Peffley & Hurwitz, 2007) can be understood as well: While frame resistance only requires that frame-tapped information is relatively inconsequential compared to other information activated regardless of the frame, backfiring means that the frame actually succeeds in activating beliefs that would otherwise not have been retrieved; however, the frame fails either in stage two or three: It either retrieves strong countervailing beliefs in addition to the successfully activated targeted beliefs; or it successfully summons the targeted beliefs only to find that these contribute an unanticipated, countervailing judgment (Nelson & Oxley, 1999).

However, the story does not end there. As Gross and D'Ambrosio (2004) have shown, countervailing cognitive responses bring the mismatch between frame and attitudes to attention (Johnson, Smith-McLallen, Killeya, & Levin, 2004). A negative emotional response is raised, expressing dissatisfaction with the frame. Trying to restore evaluative balance, people need to somehow resolve the disagreement, which will typically happen by discounting the frame as not persuasive, or worse, hostile (Druckman, 2001; Hardyck, 1968; Ottati & Wyer, 1990; Taber & Lodge, 2006).⁷ Particularly in the latter case, individuals may become motivated to search for additional arguments countering the frame in order to defend their pre-formed attitudes (e.g., Bizer & Petty, 2005; Knowles & Linn, 2004; Taber & Lodge, 2006; Wegener et al., 2004). A person strongly in favor of migration will, when exposed to an anti-migration frame, recount and stress her beliefs why migration is actually a positive thing. She will thus arrive at a more strongly positive judgment than otherwise. This effect will be the stronger the more decidedly people disagree with the frame; however, it also requires that people feel threatened by the frame and do not simply disregard it as obviously pointless. Thus, countervailing responses are most likely where attitudes are well developed, informed, and linked to self-concepts, but not strong enough to simply disregard the threat posed by the frame.

A particularly interesting case arises when a person holding differently valenced, but closely related or overlapping attitudes about an issue is exposed to a strongly positive or negative frame. There are two possibilities: If the frame succeeds in retrieving this person's equivalent beliefs without also tapping the countervalent ones, a classic and strong framing effect occurs. If, however, positive and negative attitudes are too densely integrated for selective retrieval, something completely different happens: Together with the equivalent targeted attitudes, also strong countervalent attitudes are retrieved, and the evaluative mismatch is brought to the person's attention (see also Petty et al., 2007). The frame is perceived as unduly biased, raises a negative affective response, and is thus resisted (Druckman, 2001); however, as the arguments pointing in one direction are already made salient by the frame, the person needs to remind herself of the strong counterarguments to defend her own pre-formed attitudes. Recounting why the frame-suggested position is not acceptable, she thus puts additional stress on the countervalent responses, shifting her overall judgment away from the frame-suggested stance.

Due to the dissatisfaction induced by hostile frames, judgments following mismatching frames are generally likely to be more negative than those following frames perceived as friendly. Frames capable of completely barring countervalent considerations from retrieval, as well as frames perceived by the individual as duly balanced, by contrast, will raise more affective positive responses, and thus more positive overall opinion.

Returning to my starting point about opinion formation, I expect cognitive responses to predict reported opinion. The retrieved belief valences depend in predictable, but non-trivial ways on both the frames and stored dispositions relevant to an issue; they should be badly predicted by either alone. Notably, cognitive responses to the frame should explain the possible countervalent direction of framing effects, which cannot logically be understood from the frame (Wegener et al., 2004).

Case

Putting these expectations to the test, I have opted for opinions about European politics as a suitable case for this study. As most political context, this case fulfills the basic requirement for framing effects: Due to public discourse, the main issues considered in the study are understood in largely similar ways by most people. At the same time, most political issues can be (and empirically are) considered with respect to quite different aspects of political, social, and economic life (various schemata are potentially relevant, Gamson & Modigliani, 1987). Since political actors introduce people to contrary evaluations of politically contested issues, attitudes with different valences should be present in most cases, enabling frames to selectively target differently charged beliefs. Crucially, political attitudes are very diverse, which allows me to manipulate all main dimensions expected to matter for the generation of cognitive responses.

In one framing condition, an economic context is presented, to a field in which rich everyday experiences can be assumed, but extreme valences are unlikely. People are used to understanding economic life in terms of gains and losses, and should be very accustomed to two-sided and ambivalent judgments. Knowledge should be densely integrated, and a selective reference to either positive or negative beliefs alone should be difficult. According to the above reasoning, a countervailing response should result whenever a frame is perceived as unduly biased. In the other framing condition, the raised context concerns feelings of identity. In contrast to economic attitudes, feelings about identity may well take on extreme valences, and are rather inhospitable to ambivalence (e.g., Ivaldi, 2006). People may understand both positive and negative references to identity categories, but will rarely perceive both simultaneously as salient for themselves. Activation does not spill over; Selective retrieval should be easy.

Regardless of the framing condition, cognitive responses should be generally more negative if frames are seen as biased, and more positive if they are perceived as well balanced. While in this study, I do not test people's perceptions directly, the case is

selected such that people's attitudes will be ambivalent at least to some degree. Thus, whenever positive and negative attitudes are closely interrelated, people are expected to perceive frames raising only positive, or only negative comments as biased.

H1: Balanced frames raise more positive cognitive responses than clearly valenced frames.

H2: Clearly valenced frames raise countervailing cognitive responses if referred-to attitudes are closely linked to other attitudes.

H3: Clearly valenced frames raise equivalent cognitive responses if referred-to attitudes are distinct from other attitudes.

Kommentar [cb3]: 2ab?

Depending on the strength of attitudes, this pattern may differ, however: the predicted countervailing response requires densely integrated attitudes, and may break down if knowledge is sufficiently sparse to allow some selective retrieval. Thus, the countervailing effect should be the stronger the more people have formed densely integrated, well-rehearsed attitudes (Taber & Lodge, 2006; Wegener et al., 2004). For equivalent effects, attitude strength matters as well: Strong personal involvement may cause some attitudes to be retrieved regardless of the frame, diminishing the relative impact of selectively adding considerations to the already salient ones (Brewer & Gross, 2005; Lecheler et al., 2008; Zaller, 1992). If attitudes are weak, equivalent framing effects should be strong. Strong prior attitudes thus always play against the frame, weakening equivalent and strengthening countervailing responses.

H4: Countervailing cognitive responses are more pronounced if attitudes are stronger.

H5: Equivalent cognitive responses are less pronounced if attitudes are stronger.

Kommentar [cb4]: 3ab?

In order to put the effect of attitude strength to the test, I employed two different issues, referring to attitudes rooted, or not rooted, in personal everyday experience: The first issue, the European common currency, is a fact of daily life, at least in the Netherlands. Following heated and lingering debates about its economic and social effects, most people should have a wide range of highly developed and valenced schemata at the ready

(Baden & De Vreese, 2008; van Gorp, 2007). Strong attitudes have been developed. The other issue, EU enlargement is a far more distant experience for most Dutch; it has been strongly publicized, such that diverse knowledge can be assumed (Kleinnijenhuis, Takens, & van Atteveldt, 2005), but attitude strength – the density and evaluative loading of schemata – should be far lower.

As a final consideration, the validity and importance of the whole transmission process should not escape empirical scrutiny. Due to the non-linear dependence of responses on the frame, I generally expect at most a weak direct influence of frame valence on opinion. If the above hypotheses hold, only specific factor combinations of frame valence and attitude organization should reliably predict opinion. However, these conditions' direct explanatory power should be largely absorbed by the cognitive responses when included. Unless subsequent weightings of considerations systematically stress a countervailing minority of retrieved beliefs – which is implausible⁸ – the overall balance of retrieved considerations should mediate the effect of the frame on opinion formation.

H6: The valence of cognitive responses mediates the framing effect on overall opinion.

METHOD

This study uses an experimental design embedded in an online survey. The experimental stimulus manipulated the density of schematic knowledge likely developed with regard to the considered issue (the euro vs. EU enlargement), the issue-specific frame (economy vs. identity) and the valence of the frame (positive vs. negative). A total of 357 participants (Mean age: 23.3, 71% female) were randomly assigned to one out of seven framing conditions (economy-positive, economy-negative, identity-positive, identity-negative, two mixed conditions, and control) within either of two issue conditions. All variations between the conditions were confirmed by a prior manipulation check (N=112, all manipulations significant at .001 level); the difference between higher and lower attitude

strength was ascertained again in the main experiment, asking how close and how familiar participants held the selected issues to be.

Framing manipulation

The framing material was designed to resemble a newspaper article, without being overly informative. All framing conditions avoided presenting relevant new information, applying only familiar arguments to either issue. The articles treated distant and unfamiliar countries (Estonia planning to join the Eurozone, Croatia planning to accede to the European Union) and provided only unhelpful (e.g., names of Estonian/Croatian politicians) or common-knowledge information (e.g., the country is small). Both the issue-framing and valence manipulations were achieved by changing the headline and a paragraph within the text (Rhee, 1997). In the economy condition, implications for trade and industry were highlighted, whereas the identity condition referred to hopes and fears about national identity and a European society. For the positive conditions, economic actors or popular movements were cited endorsing the EU- or Eurozone accession, and rejecting it for the negative conditions. The frame paragraph consisted of a factual claim about the political or economic situation and prospects, and quoted a related speaker commenting on the accession plans, using pro- or con-arguments generally familiar in the debate. The mixed conditions combined the abridged framing devices of the pure conditions, thus referring simultaneously to positive and negative, economic and identity-related aspects. The other parts of the article were identical. The two issue conditions were largely identical as well, exchanging word and phrases mainly to alter the content. The stimulus material is reprinted in the appendix.

Procedure

After a few demographic questions, participants read the brief framing text. The control groups (one for each issue) started right away without reading an article before. Subsequently, participants were asked to think of the euro, respectively enlargement, in

general. This served to invalidate direct use of the little remaining information contained in the texts, retaining only the frame to guide associations. Every respondent was asked to produce at least five and up to ten different associations ($M=6.53$, $SD=1.91$), which could consist of up to 20 characters. The task description stressed that this should be done quickly, without deep thinking. On the following page, people were presented with a ten point scale (1=dislike very much, 10=like very much) to rate their own opinion about the euro ($M=7.46$, $SD=1.94$) or enlargement ($M=6.44$, $SD=2.29$), respectively. Next, they filled in another three to six associations ($M=3.76$, $SD=1.78$) thinking of reasons for their opinion (for similar ways of measuring cognitive responses and ambivalence, see Greenwald, 1968; Miller & Peterson, 2004). All together, 3033 entered associations were included in the analysis. Aside this, a number of control variables (political interest, need for cognition, European identity, and involvement with the issue) were recorded.⁹

For further treatment, all associations were coded with respect to their valence (see also de Vreese & Boomgarden, 2003; Price, Tewksbury, & Powers, 1997). On a scale from 1 (very negative) to 7 (very positive), topics could be negative (2; e.g., “poverty”), neutral (4; e.g., “money”) or positive (6, e.g., “welfare”). For already valenced topics with explicit emphasis (e.g., “more poverty”, “better human rights protection”) the scale endpoints were coded. If a negative topic was negated (e.g., “against poverty”), the comment was coded as mildly positive (5), and vice versa (e.g., “less welfare” would be coded 3, Beukeboom, Finkenauer, & Wigboldus, 2009). Neutral topics could become positive (6) or negative (2) by explicit qualification (e.g., “practical money”, “ugly money”). Except for the negations which were underrepresented, valence was approximately normally distributed along this scale.

Analysis

In order to test the hypotheses, a series of ANOVA- and ANCOVA-designs was utilized. In particular, I first estimated the impact of the experimental factors on association valence as main effects only, to see whether there are any relevant differences that hold regardless of changes in the other factors. Next, a full factorial model was tested to estimate the hypothesized contingency of valence framing effects on attitude strength and integration. In addition, the individual effects (*Cohen's d*) of all possible combinations for changing one of the three factors were calculated from the means table.

However, since the influence of individual predispositions on association valence is likely to be very strong, I opted to not rely solely on randomized assignment to conditions for control. Notably, one would expect respondents favoring European integration associate more positive beliefs with EU Enlargement and the Euro than those opposing it, regardless of the framing condition. Likewise, people very familiar with these issues might associate systematically differently; also information processing styles have been found to severely influence cognitive responses. Thus, even slightly uneven distributions of these idiosyncratic variables across conditions might easily confound the results. For this reason, the above ANOVA was re-estimated as ANCOVA, controlling for four covariates expected to capture most of the influence of idiosyncrasy: to control for support of European integration, European identity was included in the model; general and specific familiarity with the issues are captured by issue involvement and political interest; finally, need for cognition was included to control for different reactions by shallow and deep thinkers (Barker, 2005). Based on these covariates, the means table was re-estimated, holding the covariates constant. Effect sizes were corrected for the influence of the covariates, using Cortina and Nouri's (2000) recommended procedures.

Finally, in order to assess the mediating role of the cognitive responses in overall opinion formation, measured opinion was regressed on association valence, and two more ANCOVAs were estimated: The first predicted measured opinion from the three

experimental factors and the four covariates alone; the second re-estimated their influence controlling for association valence.

RESULTS

The first result is that the issue manipulation did not matter much for the present analysis; aside a slight level difference (Enlargement being seen more negatively), cognitive responses to both the Euro and EU Enlargement followed the same patterns. Only for one experimental condition (identity-negative) there was a significant difference between means, Enlargement raising decidedly more negative associations.

The next striking, yet not unexpected finding is that the most positive responses are raised by two conditions that were not positively framed: Mean association valences are significantly higher than in the control condition for the negative economic framing condition, which will be discussed further below, and the mixed conditions.¹⁰ The main effect of the mixed condition is the only one that is consistently significant, both compared to the control group and to the grand mean of non-balanced conditions. *H1* receives considerable support.

TABLE 1 ABOUT HERE

By contrast, the main effects of positive and negative valence as well as economic and identity framing are not nearly as clearly cut. An ANOVA testing only the three factors' main effects shows that none explains much variance; both the framing and valence manipulations remain non-significant. Closer investigation of mean association valences across conditions reveals that there is a strong interaction effect between framing and valence, which is fully in line with *H2* and *H3*: within the identity conditions, more positive framing is associated with more positive cognitive responses ($d=0.121$, $p<0.1$); within the economy conditions, however, there is a significant countervailing effect ($d=0.268$, $p<0.001$). A comparison across issues shows that the interaction is strongly present in both issue conditions, but it is differently pronounced: For EU Enlargement,

both effects are significant, the equivalent framing effect in the identity condition ($d=0.242$, $p<0.01$) being somewhat larger than the countervalent effect in the economy condition ($d=0.189$, $p<0.1$). For the Euro, the countervalent effect is large and significant ($d=0.356$, $p<0.001$) in the economy condition, while there is no significant effect in the identity condition. As expected in *H4* and *H5*, stronger attitudes boosted the countervalent effect, but dampened the equivalent one. The interaction effect of valence and framing is by far the strongest factor in the full factorial ANOVA, as shown in table 1: Depending on whether an economic or identity context is tapped, the effects of positive and negative frame valence on association valence differ dramatically. R squares remain low, reflecting the large variance introduced by idiosyncratic predispositions. In order to control for undesirable influences of not perfectly random distributions of these highly influential idiosyncratic factors, the model was re-estimated as an ANCOVA, controlling for the relevant covariates.

TABLE 2 ABOUT HERE

The ANCOVA shows only minor changes: The explanatory power of the issue condition main factor moves towards the issue-valence-interaction, which advances to be the second strongest factor behind the frame-valence interaction. The valence condition main effect gains significance, but remains weak. The covariates extract about twice as much variance as the experimental manipulation, confirming the importance of idiosyncratic predispositions. Analyzing the effect sizes between the re-estimated means, holding the covariates constant, the same pattern as before reappears; some effects are slightly smaller, but almost all effects remain significant; no significant or even near-significant effect changes in direction. Only the equivalent effects in the identity framing condition loses significance, weakening support for *H3*. Thus, also after controlling for the covariates, hypotheses one to five remain accurate descriptions of the patterns found in the data. The negative economy framed condition yields the most positive responses,

followed by the positive identity framed condition. On enlargement, the negative identity frame raises the strongest negative response, whereas the positive economic frame does the same in case of the euro. All means and effects are shown in table 3.

TABLE 3 ABOUT HERE

Kommentar [cb5]: Reducible?

Finally, I need to assess the mediation of framing influence through cognitive responses, as hypothesized in *H6*. As expected, the main effects of frame and valence alone explain less than a percent of the variation in opinion (framing is non-significant), only the issue factor is relevant on its own ($\eta^2=0.072$, $p<0.001$). In the full factorial model, the overall explanatory power doubles: the frame-valence-interaction ($\eta^2=0.021$, $p<0.001$) as well as the frame-issue-interaction ($\eta^2=0.026$, $p<0.001$) are significant, while the influence of the issue alone drops to an eta-square of 0.048 ($p<0.001$). The direct unmediated effect of the experimental conditions on opinion explains about 14.1% of variance.

Kommentar [cb6]: We? It?

Association valence is systematically predicted by the experimental condition, as I have shown above. Taken as sole predictor, it explains 9.8% of variance in reported opinion. In order to confirm the mediation, it is required that, when association valence is controlled for, the direct influence of the experimental factors is clearly reduced. Predicting opinion from experimental condition, association valence and the other four covariates, the ANCOVA in table 4 shows that the explanatory power of association valence is more than double as large ($\eta^2=0.079$, $p<0.001$) as the contribution of the second strongest predictor, the issue condition ($\eta^2=0.035$, $p<0.001$). Obviously, association valence captures the cognitive effect of the framing conditions imperfectly, leaving some explanatory power to the three experimental factors (the full factorial model contributes $\eta^2=0.091$). Thus, the total explanatory power of the experimental conditions drops by about a third; the conditions for mediation are met. *H6* is confirmed,

as well. All taken together, about a quarter of variation in opinion is accounted for, the bulk of which is credited to association valence.

TABLE 4 ABOUT HERE

DISCUSSION

The above findings show, first of all, that the cognitive response raised by communication frames does not necessarily follow the valence suggested by the frame. Only in a minority of cases did negative framing indeed raise more negative responses; in several cases, there was no significant difference between conditions, and in the presence of economic contexts raised by the frame, there was a significant countervailing effect. Taken all together, despite the clear and pronounced shifts in retrieved evaluative loads, the direct main effect of frame valence on association valence was non-significant. These somewhat unorthodox findings are, however, fully in line with the expectations developed above: What evaluative beliefs valenced frames lead people to retrieve depended crucially on the structure of attitudes relevant to the issue. Where beliefs were sufficiently densely interconnected, respondents recognized frames omitting contrary considerations as unduly biased; they resisted the frame and even retrieved a surplus of countervailing considerations in their effort to get back to what they perceived to be a balanced judgment. Only when people's retrieved attitudes were sufficiently distinct, frames could selectively highlight only some of the relevant attitudes without making people aware of their countervailing attitudes. Strong convictions limited the power of frames to shift responses in an intended direction, but lent additional force to the defense reaction if undue bias was detected.

An interesting detail concerns the negative identity frame applied to the enlargement condition, which raised an extraordinarily strong negative response (missing significance by an inch); while the other framing conditions on that issue, as well as the control condition testify to the effect that these strongly negative attitudes are not normally

salient enough to be considered, the frame apparently stroke a chord; retrieving many more negative attitudes from the referred-to identity fears in the enlarging Europe, there seems to be something like a resonance effect: The finding might be explained by the frame tapping a rich set of beliefs which is well-organized and strongly valenced, but usually not close enough to beliefs about enlargement to come to mind. Going back to the raw, uncoded associations, it appears that the frame taps schemata which, unless tapped, are not present at all. By contrast, most other frames mainly affected into which adjacent areas around a stable set of always applicable beliefs activation would spill over.

Another specific pattern which deserves being stressed is the documented preference for balanced over biased frames. Repeatedly turned up by studies in social psychology, there are quite different explanations for this phenomenon. Greenwald (1968), for instance, seems to suggest that responses to balanced messages are best described as participants' "true" own opinions, as the non-leading treatment invites them to make up their own mind. However, as I have shown elsewhere (Baden, 2008), and as also the deviant behavior of the one mixed condition named above illustrates, cognitive responses remain influenced by the frame. While balanced frames almost by definition raise a broader variety of contexts, thus enabling activation to spread to more diverse attitudes, the basic dependency of retrieval on its starting point remains (de Vreese 2004a). Rucker and colleagues (Rucker, Petty, & Brinol, in press), by contrast, hold that people trust messages more if they have reason to believe that their authors have given fair weight to both pros and cons of an issue. While their experiment makes this point impressively, I am not entirely convinced that this argument applies in political communication, however. People hold their own prior attitudes and may actually welcome a certain bias; likewise, the "hostile media effect" suggests that also demonstratively "balanced" coverage can be perceived as unduly biased. I therefore believe that the explanation derived from the above model – a perceived mismatch between frame and cognitive

response – offers the more flexible, more compelling explanation (see also Johnson et al., 2004; Wegener et al., 2004). In line with Gross and D'Ambrosio's (2004) argument, frame-resonant cognitive responses raise a positive affective response, coloring retrieved information in a brighter light. If I accept this interpretation, this means that (at least an initial) cognitive response precedes affective response: To classify a message as friendly or hostile, one needs to first summon one's own beliefs to attention and find out whether one agrees (Barker, 2005). Thus, as cognitive appraisal theory holds, affective response is rooted in cognitive response (Ortony, Clore, & Collins, 1988; Roseman, 1991).

More importantly, however, the same is true for overall opinion. The above analysis has demonstrated the close link between association valence and opinion (Johnson et al., 2004). Once the cognitive response is raised, the rest of opinion formation is relatively straightforward. People may still apply different weights to the retrieved considerations (Nelson & Oxley, 1999), affective responses may shift judgment (Brewer, 2001; Gross & D'Ambrosio, 2004), but the stuff from which opinion is made is already there. The interesting part of the process is the one by which the cognitive response is collated. The frame strongly influences where information retrieval commences, guiding along which avenues activation travels and what attitudes are tapped along the way (Baden, 2008; Nelson & Oxley, 1999); however, it does all but determine the range of retrieved beliefs, and has only very indirect influence on the evaluative loads gathered upon retrieval. In that sense, framing is predominantly a semantic effect, which leads people to think of different schematic knowledge they possess. Frames try to affect opinion mostly by highlighting attitudes expected to carry a certain valence. The evaluative implications of framing are, to a large degree, not rooted in the frame, but in the valences of the attitudes rendered applicable (Brewer, 2001; Brewer & Gross, 2005; Druckman, 2001; Gross & D'Ambrosio, 2004). Nevertheless, neither does the attitude structure alone determine the

cognitive response. Although strong attitudes have a fair chance of being considered, they may still be overlooked entirely if activation is directed the other way. Only together do frame and cognitive network direct activation and summon the cognitive response.

Thus refining our understanding of the framing process and the circumstances under which people follow, resist or counteract frames may also shed new light on the controversy over who is most strongly affected by framing: those uninformed about an issue, the experts, or some group in between (Druckman, 2001, 2004; Lecheler et al., 2008; Willnat, 1997); according to the view presented above, the liability to fall for the frame does not so much depend on the amount of knowledge, but on the salience and integration density of attitudes. An expert, commanding much detailed knowledge, may or may not have installed dense links between the stored attitudes; people who only possess a handful of relevant schemata may have it much easier to achieve sufficient integration to prevent selective retrieval – if only they care enough to create these links. Arguably the likelihood of one or few highly salient attitudes colonizing, but thereby also stabilizing decision making decreases with the breadth of expertise. The most resistant person would be someone with very strong convictions that are linked to all other possibly relevant stored attitudes (Chong, 1996) – think of ideologues, or conspiracy theorists, whose distrust in government is salient and so well connected that it is virtually impossible to tap related beliefs without the activating the stereotype as well (see also Taber & Lodge, 2006). The prototypical frame victim holds a wide range of differentiated, only locally connected, differently valenced attitudes without subscribing to any of them in particular – journalists, but also academics are likely examples. Their only defense against framing is to link their diverse attitudes such that none can be tapped in isolation (Zaller, 1992).

Limitations

One obvious limitation of this study, the omission of within-framing-condition balanced frames, has been mentioned above. Another issue concerns the measurement of the cognitive response. The broad variety of associations, including trivial, peripheral and obscure ones, assures me that respondents did indeed associate spontaneously. Nevertheless, verbalization and, in particular, typing into an online form, may instate a filter that bars access to more subtle, potentially systematically different considerations. Moreover, there may be subconscious, yet relevant processes and influences that simply cannot be measured without literally looking into people's brains. Tapping cognition directly is always difficult, and I believe I have found a defensible compromise. The main limitation, however, concerns the selected issues and operationalizations; political attitudes, European attitudes at that, may be particular, and the assumption that attitudes are formed in largely similar ways may be heroic indeed. For my purposes, the chosen operationalizations – in particular, the two framing conditions – have fulfilled their purposes, yet one cannot be entirely sure of the assumed properties of the attitude structure I have engaged. Although I judged this to be too invasive and feared priming respondents, controlling directly for attitude strengths, integrations, and valences would be desirable.

Conclusion

These limitations notwithstanding, there are at least three main implications of the present study that merit further development and empirical testing. First, if one conceptualizes the cognitive network within which activation travels as schematically structured, a small set of simple activation rules suffices to account for phenomena as diverse as equivalent, countervalent, and indifferent responses to framing. This study has tested some of the derived predictions, but has not come close to exhausting the range of testable claims of model. Second, the advanced model suggests a central role of semantic information retrieval in the framing process, which is contingent upon the interaction

between frame and cognitive structure; it thus extends models that rely primarily on either frame valence or belief accessibility and complements those focusing on the weighting and integration of retrieved information. Integrating the different perspectives certainly holds promise for future research. Third, the role of affective response to summoned cognitions is all but sufficiently understood. Practically, however, I believe that the most important conclusion from this study is as easy as this: we should not disregard the complexity of the human mind when investigating framing effects. Only in collaboration with what people already know and believe can frames affect opinion at all – engaging people’s evaluative thoughts, raising cognitive responses, and eventually shifting the valance balance.

REFERENCES

- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Upper Saddle River, NJ: Prentice-Hall.
- Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behavior relation - reasoned and automatic processes. *European Review of Social Psychology*, 11(1), 1-33.
- Alvarez, M. R. (1997). *Information and elections*. Ann Arbor, MI: University of Michigan Press.
- Baden, C. (2008). *Semantic association and weighted consideration: How framing shifts people's information bases in opinion formation*. Paper presented at the ICA Annual Conference, Montreal, Canada.
- Baden, C., & De Vreese, C. H. (2008). Making sense: A reconstruction of people's understandings of the European constitutional referendum in the Netherlands. *Communications*, 33(2), 117-146.
- Barker, D. C. (2005). Values, frames, and persuasion in presidential nomination campaigns. *Political Behaviour*, 27(4), 375-394.
- Beukeboom, C. J., Finkenauer, C., & Wigboldus, D. (2009). *The negation bias: When people deny their expectancies in describing other people*. Paper presented at the Etmaal van de Communicatiewetenschap, Nijmegen, the Netherlands
- Bizer, G. Y., & Krosnick, J. A. (2001). Exploring the structure of strength-related attitude features: The relation between attitude importance and attitude accessibility. *Journal of Personality and Social Psychology*, 81, 566-586.
- Bizer, G. Y., & Petty, R. E. (2005). How we conceptualize our attitudes matters: The effects of valence framing on the resistance of political attitudes. *Political Psychology*, 26, 553-568.
- Brewer, P. R. (2001). Value words and lizard brains: Do citizens deliberate about appeals to their core values? *Political Psychology*, 22, 45-64.

- Brewer, P. R., & Gross, K. (2005). Values, framing, and citizens' thoughts about policy issues: Effects on content and quantity. *Political Psychology, 26*, 929-948.
- Cacioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin, 119*, 197-253.
- Chong, D. (1996). Creating common frames of reference on political issues. In D. C. Mutz, P. M. Sniderman & R. A. Brody (Eds.), *Political persuasion and attitude change* (pp. 195-224). Ann Arbor, MI: University of Michigan Press.
- Chong, D., & Druckman, J. N. (2007a). Framing theory. *Annual Review of Political Science, 10*, 103-126.
- Chong, D., & Druckman, J. N. (2007b). A theory of framing and opinion formation in competitive elite environments. *Journal of Communication, 57*, 99-118.
- Conover, P. J., & Feldman, S. (1984). How people organize the political world: A schematic model. *American Journal of Political Science, 28*(1), 95-126.
- Cortina, J. M., & Nouri, H. (2000). *Effect sizes for ANOVA designs*. Thousand Oaks, CA: Sage.
- de Liver, Y., van der Pligt, J., & Wigboldus, D. (2007). Positive and negative associations underlying ambivalent attitudes. *Journal of Experimental Social Psychology, 43*, 319-326.
- de Vreese, C. H. (2004a). The effects of frames in political television news on audience perceptions of routine political news. *Journalism & Mass Communication Quarterly, 81*, 36-52.
- de Vreese, C. H. (2004b). *Public support for the EU enlargement*. Paper presented at the Annual Meeting of the American Political Science Association.
- de Vreese, C. H., & Boomgarden, H. (2003). Valenced news frames and public support for the EU. *Communications, 28*, 361-381.

- Druckman, J. N. (2001). The implications of framing effects for citizen competence. *Political Behaviour, 23*, 225-256.
- Druckman, J. N. (2003). On the limits of framing effects: Who can frame? *The Journal of Politics, 63*(4), 1041-1066.
- Druckman, J. N. (2004). Political preference formation: Competition, deliberation, and the (ir)relevance of framing effects. *American Political Science Review, 98*, 671-686.
- Feldman, S., & Conover, P. J. (1983). Candidates, issues and voters: The role of inference in political perception. *The Journal of Politics, 45*, 810-839.
- Gamson, W. A., & Modigliani, A. (1987). The changing culture of affirmative action. In R. G. Braungart & M. M. Braungart (Eds.), *Research in Political Sociology* (Vol. Vol. 3, pp. 137-177). Greenwich, CN: JAI Press.
- Greenwald, A. G. (1968). Cognitive learning, cognitive response to persuasion, and attitude change. In A. G. Greenwald, T. C. Brock & T. M. Ostrom (Eds.), *psychological foundations of attitudes* (pp. 147-170). New York: Academic Press.
- Graber, D. A. (1988). *Processing the news: How people tame the information tide* (2 ed.). White Plains, NY: Longman.
- Gross, K. (2000, 27-30 April 2000). *The limits of framing: How framing effects may be limited or enhanced by individual level predispositions*. Paper presented at the Annual Meeting of the Midwest Political Science Association, Chicago, IL.
- Gross, K., & D'Ambrosio, L. (2004). Framing emotional response. *Political Psychology, 25*, 1-29.
- Hardyck, J. A. (1968). Predicting response to a negative evaluation. *Journal of Personality and Social Psychology, 9*(2), 128-132.
- Holyoak, K. J., & Thagard, P. (1995). *Mental leaps: Analogy in creative thought*. Cambridge, MA: The MIT Press.

- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion: Psychological studies of opinion change*. New Haven, CT: Yale University Press.
- Ivaldi, G. (2006). Beyond France's 2005 referendum on the European Constitutional Treaty: Second-order model, anti-establishment attitudes and the end of the alternative European utopia. *West European Politics*, 29(1), 47-69.
- Johnson, B. T., Smith-McLallen, A., Killeya, L. A., & Levin, K. D. (2004). Truth or consequences: Overcoming resistance to persuasion with positive thinking. In E. S. Knowles & J. A. Linn (Eds.), *Resistance and persuasion* (pp. 215-233). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kleinnijenhuis, J., Takens, J., & van Atteveldt, W. (2005). Toen Europa de dagbladen ging vullen. In K. Aarts & H. van der Kolk (Eds.), *Nederlanders in Europa: Het referendum over de Europese grondwet* (pp. 123-144). Amsterdam: Uitgeverij Bert Bakker.
- Knowles, E. S., & Linn, J. A. (2004). The importance of resistance to persuasion. In E. S. Knowles & J. A. Linn (Eds.), *Resistance and persuasion* (pp. 3-10). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kuklinski, J. H., & Hurley, N., L. (1996). It's a matter of interpretation. In D. C. Mutz, P. M. Sniderman & R. A. Brody (Eds.), *Political persuasion and attitude change* (pp. 125-144). Ann Arbor, MI: University of Michigan Press.
- Lavine, H. (2001). The electoral consequences of ambivalence towards presidential candidates. *American Journal of Political Science*, 45, 915-929.
- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1948). *The people's choice: How the voter makes up his mind in a presidential campaign*. New York: Columbia University Press.
- Lecheler, S. K., de Vreese, C. H., & Slothuus, R. (2008, 7-8 February 2008). *Issue Importance as a Moderator of Framing Effects*. Paper presented at the Etmaal van de Communicatiewetenschap, Amsterdam, The Netherlands.

- Matthes, J. (2007). Beyond accessibility? Toward an on-line and memory-based model of framing effects. *Communications, 32*, 51-78.
- Miller, J. M., & Peterson, D. A. M. (2004). Theoretical and empirical implications of attitude strength. *The Journal of Politics, 66*, 847-867.
- Nelson, T. E., & Kinder, D. R. (1996). Issue frames and group-centrism in American public opinion. *The Journal of Politics, 58*, 1055-1078.
- Nelson, T. E., & Oxley, Z. M. (1999). Issue framing effects on belief importance and opinion. *The Journal of Politics, 61*, 1040-1067.
- Ortony, A., Clore, G. L., & Collins, A. M. (1988). *The cognitive structure of emotions*. Cambridge, UK: Cambridge University Press.
- Ottati, V. C., & Wyer, R. S. J. (1990). The cognitive mediators of political choice: Toward a comprehensive model of political information processing. In J. A. Ferejohn & J. H. Kuklinski (Eds.), *Information and democratic process* (pp. 186-216). Urbana, IL: University of Illinois Press.
- Peffley, M., & Hurwitz, J. (2007). Persuasion and resistance: Race and the death penalty in America. *American Journal of Political Science, 51*, 996-1012.
- Peterson, D. A. M. (2004). Certainty or accessibility: Attitude strength in candidate evaluations. *American Journal of Political Science, 48*, 513-520.
- Petty, R. E., Brinol, P., & DeMarree, K. G. (2007). The meta-cognitive model (MCM) of attitudes: Implications for attitude measurement, change, and strength. *Social Cognition, 25*, 657-686.
- Price, V., & Tewksbury, D. (1997). News values and public opinion: A theoretical account of media priming and framing. In G. A. Barnett & F. J. Boster (Eds.), *Progress in the communication sciences* (Vol. 13, pp. 173-212). Greenwich, CT: Ablex.
- Price, V., Tewksbury, D., & Powers, E. (1997). Switching trains of thought. *Communication Research, 24*(5), 481-506.

- Rhee, J. W. (1997). Strategy and issue frames in election campaign coverage: A social cognitive account of framing effects. *Journal of Communication, 47*, 26-48.
- Roseman, I. J. (1991). Appraisal determinants of discrete emotions. *Cognition and Emotion, 5*, 161-200.
- Rucker, D. D., Petty, R. E., & Brinol, P. (in press). What's in a frame anyway? A meta-cognitive analysis of the impact of one versus two sided message framing on attitude certainty. *Journal of Consumer Psychology*.
- Scheufele, B. (2004). Framing-effects approach: A theoretical and methodological critique. *Communications, 29*, 401-428.
- Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication, 49*, 103-122.
- Shah, D. V., Domke, D., & Wackman, D. B. (2001). The effects of value-framing on political judgment and reasoning. In S. D. Reese, O. H. Gandy, Jr. & A. E. Grant (Eds.), *Framing public life: Perspectives on media and our understanding of the social world* (pp. 227-243). Mahwah, NJ: Lawrence Erlbaum Associates.
- Shen, F. (2004). Chronic accessibility and individual cognitions: Examining the effects of message frames in political advertisements. *Journal of Communication, 54*, 123-137.
- Slothuus, R. (2008). More than weighting cognitive importance: A dual process model of issue framing effects. *Political Psychology, 29*, 1-28.
- Taber, C., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science, 50*, 755-769.
- Tourangeau, R., & Rasinski, K. A. (1988). Cognitive processes underlying context effects in attitude measurement. *Psychological Bulletin, 103*, 299-314.
- van Dijk, T. A., & Kintsch, W. (1983). *Strategies of discourse comprehension*. Orlando, FL: Academic Press.

- van Gorp, B. (2007). The constructionist approach to framing: Bringing culture back in. *Journal of Communication*, 57, 60-78.
- Visser, P. S., Holbrook, A., & Krosnick, J. A. (2007). Knowledge and attitudes. In W. Donsbach & M. Traugott (Eds.), *The SAGE Handbook on Public Opinion Research* (pp. 127-140): Sage.
- Wegener, D. T., Petty, R. E., Smoak, N. D., & Fabrigar, L. R. (2004). Multiple routes to resisting attitude change. In E. S. Knowles & J. A. Linn (Eds.), *Resistance and persuasion* (pp. 13-38). Mahwah, NJ: Lawrence Erlbaum Associates.
- Willnat, L. (1997). Agenda setting and priming: Conceptual links and differences. In M. E. McCombs, D. L. Shaw & D. Weaver (Eds.), *Communication and democracy: Exploring the intellectual frontiers in agenda-setting theory* (pp. 51-66). Mahwah, NJ: Lawrence Erlbaum Associates.
- Zaller, J. R. (1992). *The nature and origins of mass opinion*. Cambridge, UK: Cambridge University Press.
- Zaller, J. R., & Feldman, S. (1992). A simple theory of the survey response: Answering questions versus revealing preferences. *American Journal of Political Science*, 36, 579-616.

Table 1

ANOVA predicting mean association valence from experimental conditions, full factorial

Source	Sum of Squares	df	Mean Square	F	Sig.
Corrected Model ^a	102.245	11	9.295	4.377	0.000
Intercept	49933.798	1	49933.798	23516.131	0.000
Main Factors					
framing condition	1.451	1	1.451	0.683	0.408
valence condition	4.696	1	4.696	2.212	0.137
issue condition	8.916	1	8.916	4.199	0.041
Interaction Factors					
framing x valence	28.002	1	28.002	13.187	0.000
valence x issue	12.291	1	12.291	5.788	0.016
framing x issue	9.444	1	9.444	4.448	0.035
framing x valence x issue	0.582	1	0.582	0.274	0.601
Error	6414.746	3021	2.123		
Total	62306.000	3033			
Corrected Total	6516.991	3032			

^aR Squared = .016 (Adjusted R Squared = .012)

Table 2
ANCOVA predicting mean association valence from experimental conditions, with covariates

Source	Sum of Squares	df	Mean Square	F	Sig.
Corrected Model ^a	267.536	15	17.836	8.610	0.000
Intercept	648.240	1	648.240	312.946	0.000
Covariates					
eu identity	136.077	1	136.077	65.693	0.000
issue involvement	12.901	1	12.901	6.228	0.013
political interest	5.430	1	5.430	2.621	0.106
need for cognition	16.046	1	16.046	7.746	0.005
Main Factors					
framing condition	2.654	1	2.654	1.281	0.258
valence condition	8.273	1	8.273	3.994	0.046
issue condition	1.623	1	1.623	0.784	0.376
Interaction Factors					
framing x valence	17.288	1	17.288	8.346	0.004
valence x issue	12.956	1	12.956	6.255	0.012
framing x issue	2.961	1	2.961	1.429	0.232
framing x valence x issue	1.951	1	1.951	0.942	0.332
Error	6249.455	3017	2.071		
Total	62306.000	3033			
Corrected Total	6516.991	3032			

^a R Squared = .041 (Adjusted R Squared = .036)

Table 3
Mean association valence and differences between conditions, keeping all covariates constant

		issue condition: euro				issue condition: enlargement				total			
		positive	Cohen's <i>d</i>	negative	total	positive	Cohen's <i>d</i>	negative	total	positive	Cohen's <i>d</i>	negative	total
economy	M	4.027	→	4.415	4.221	4.208	→	4.561	4.385	4.118	→	4.488	4.303
	SE(M)	0.115	0.275	0.095	0.075	0.103	0.250	0.129	0.083	0.078	0.257	0.079	0.056
	SD	1.442	***	1.451	1.470	1.445	*	1.460	1.493	1.453	***	1.503	1.481
	N	156		231	387	195		129	324	351		360	711
	Cohen's <i>d</i>	↓ 0.177*		↓ n.s.	↓ n.s.	↓ n.s.		↓ -0.397***	↓ -0.191**	↓ n.s.		↓ -0.212***	↓ n.s.
identity	M	4.276	→	4.373	4.325	4.226	→	3.993	4.109	4.251	→	4.183	4.217
	SE(M)	0.105	n.s.	0.106	0.075	0.104	n.s.	0.100	0.072	0.074	n.s.	0.072	0.052
	SD	1.449		1.452	1.460	1.447		1.471	1.464	1.444		1.453	1.444
	N	190		187	377	192		217	409	382		404	786
total	M	4.152	→	4.394	4.292	4.217	→	4.277	4.248	4.184	→	4.336	4.289
	SE(M)	0.078	0.170	0.072	0.040	0.074	n.s.	0.082	0.042	0.053	0.106	0.054	0.027
	SD	1.451	**	1.467	1.585	1.447		1.528	1.619	1.447	**	1.483	1.487
	N	346		418	1551	387		346	1482	733		764	3033
		control		mixed		control		mixed		control		mixed	
	M	4.225		4.435		4.181		4.318		4.203		4.377	
	SE(M)	0.092		0.063		0.097		0.063		0.067		0.044	
	SD	1.442		1.466		1.441		1.446		1.444		1.446	
	N	246		541		220		529		466		1070	

Notes: Shaded means differ significantly from the control group mean. Significance levels: */█ p < .1; **/█ p < .05; ***/█ p < .01

Covariates appearing in the model are evaluated at the variables' mean values: eu identity = 1.95, issue involvement = 10.88, political interest = 4.33, need for cognition = 3.12. Based on modified population marginal means.

Table 4
ANCOVA predicting opinion from association valence and experimental conditions

Source	Sum of Squares	df	Mean Square	F	Sig.
Corrected Model ^a	3719.121	16	232.445	66.781	0.000
Intercept	717.041	1	717.041	206.004	0.000
Covariates					
association valence	897.125	1	897.125	257.741	0.000
eu identity	170.364	1	170.364	48.945	0.000
issue involvement	201.289	1	201.289	57.830	0.000
political interest	17.745	1	17.745	5.098	0.024
need for cognition	92.381	1	92.381	26.541	0.000
Main Factors					
framing condition	0.218	1	0.218	0.063	0.802
valence condition	60.838	1	60.838	17.479	0.000
issue condition	375.687	1	375.687	107.934	0.000
Interaction Factors					
framing x valence	171.825	1	171.825	49.365	0.000
valence x issue	313.838	1	313.838	90.164	0.000
framing x issue	0.022	1	0.022	0.006	0.937
framing x valence x issue	62.828	1	62.828	18.050	0.000
Error	10497.863	3016	3.481		
Total	162736.000	3033			
Corrected Total	14216.984	3032			

^a R Squared = .262 (Adjusted R Squared = .258)

APPENDIX: FRAME MATERIALFrame conditions:

[1][2] Economy

[3][4] Identity

[5][6] Mixed

Valence conditions:

[1][3] Positive

[2][4] Negative

[5][6] Ambivalent

Issue condition: Euro *[1] *Business hails plans for Estonian accession to Euro-zone*[2] *Estonian industry against accession to Euro-zone*[3] *Estonians hail plans to join Euro-zone earlier than planned*[4] *Estonians against giving up their currency for the Euro*[5][6] *Estonia intends to join Euro-zone earlier than expected*

Tallinn (cba). Seven year after its creation, Estonia might become the 13th EU country to adopt the Euro as its national currency. Prime Minister Andrus Ansip announced yesterday that the government considers joining the Euro-zone earlier than planned: "In the current situation, we believe that to tie Estonia closer into the European economic sphere, the next logical step is to adopt the common currency. We are definitely ready for it." With [3][4][5][6] *only 1.3 Million people* [5][6] *and* [1][2][5][6] *a GDP of € 19.8 bln.*, Estonia would become one of the smallest countries within the currency space.

[1] *Its close trade relations with other EU members, first of all Finland, lead experts to expect an additional boost from joining early. Particularly the Estonian Chamber of Commerce and the Association of Small and Medium Enterprises (EVEA) are enthusiastic: "Estonia's capacities for export are anything but exhausted", said EVEA president Riivo Sinijärvi.*

[2] *Estonia's industry, however, remains sceptical. For them, joining the common currency first of all means higher competition pressure. Numerous jobs, mainly in production, are at stake. "If we don't protect our domestic producers, many enterprises will have to close down", warns Tarmo Kriis of the Estonian Employers Confederation (ETTK).*

[3] *Marking the last step of Estonia's long journey from its soviet past back into the European family, public support for the Euro is high. Indrek Treufeldt, journalist at the Estonian Television, summarized*

that feeling: "Paying with the same coin as all Europeans is like the physical proof that we are no longer the poor Easterners— we are first class Europeans."

[4] Estonia's situation as post-communist country, however, also raises opposition to the government plans. Two out of three Estonians oppose giving up the Estonian Crown after only 16 years of independence. "We are such a small country, we must hold on to those things that make us Estonian," said opposition leader Edgar Savisaar.

[5] Its close trade relations with other EU members, first of all Finland, lead experts to expect an additional boost from joining early. However, two out of three Estonians oppose giving up the Estonian Crown. "We will have to convince them that adopting the Euro does not take away our Estonian identity, but can generate real economic benefits," said Finance minister Ivari Padar.

[6] Marking the last step of Estonia's long journey from its soviet past back into the European family, public support for the Euro is high. However, according to Estonia's industry, numerous jobs are at stake, due to increased competition pressure. "The Euro will accelerate several economic changes, which are necessary if we want to become a truly European Estonia" said Finance minister Ivari Padar.

Although the final decisions are still pending, the current government holds sufficient majorities to get approval from the parliament. Green light from the EU Commission is expected before March.

Issue condition: Enlargement *

[1] Business hails plans for Croatian accession to EU

[2] Croatian industry against earlier accession to EU

[3] Croatians hail plans to join European Union in 2009

[4] Croatians against joining European Union in 2009

[5][6] Croatia aims at joining EU earlier than expected

Zagreb (cba). Five years after the big bang enlargement of 2004, Croatia might become the 28th country to join the European Union. Prime minister Ivo Sanader announced yesterday that the government is pushing towards accession one year earlier than planned: "In the current situation, we believe the time has come to tie Croatia closer to the European Union, to become a full member. We are definitely ready for it." With [3][4][5][6] only 4.5 Million people [5][6] and [1][2][5][6] a GDP of € 50.5 bln., Croatia would become one of the smallest countries in the EU.

[1] Its close economic relations with other EU members, first of all Austria, lead experts to expect an additional boost from joining early. Particularly the Croatian Chamber of Commerce and the

Association of Small and Medium Enterprises (HUP) are enthusiastic: “Croatia’s capacities for export are anything but exhausted”, said HUP chairman Alen Zepec.

[2] *Croatia’s industry, however, remains sceptical. For them, joining the European Union first of all means higher competition pressure. Numerous jobs, mainly in production, are at stake. “If we don’t protect our domestic producers, many enterprises will have to close down”, warns Emil Tedeschi of the Croatian Employers Association.*

[3] *Marking the end of Croatia’s long journey from its war-torn Yugoslav past back into the European family, public support for accession is high. Zeljko Korpar, journalist at the Croatian Television, summarized that feeling: “Joining the European Union is like the physical proof that we are no longer the poor Balkans– we are first class Europeans.”*

[4] *Croatia’s situation as a former Yugoslav republic, however, also raises opposition to the government plans. Two out of three Croatians oppose giving up full sovereignty after only 18 years of independence. “Not long ago we have been fighting to gain our independence. We must hold on to those things that make us Croatian,” said opposition leader Ivica Racan.*

[5] *Its close economic relations with other EU members, first of all Austria, lead experts to expect an additional boost from joining early. However, two out of three Croatians oppose giving up full sovereignty. “We will have to convince them that joining the EU does not take away our Croatian identity, but can generate real economic benefits,” said Foreign minister Kolinda Grabar-Kitarović.*

[6] *Marking the end of Croatia’s long journey from its war-torn Yugoslav past back into the European family, public support for EU accession is high. However, according to Croatia’s industry, numerous jobs are at stake, due to increased competition pressure. “The accession will accelerate several economic changes, which are necessary if we want to become a truly European Croatia” said Foreign minister Kolinda Grabar-Kitarović.*

Although the final decisions are still pending, the current government holds sufficient majorities to get approval from the parliament. Green light from the EU Commission is expected before March.

* translated by the author from Dutch original

ENDNOTES

¹ This observation led to the conclusion that information, e.g., in political campaigns serves mainly a priming function, retrieving old rather than informing new beliefs (Alvarez, 1997; Lazarsfeld, Berelson, & Gaudet, 1948). This view, however, has later been qualified by Peterson (2004, see below).

² By any context-sensitive activation rule – e.g., for each three activated concepts, also activate all concepts linked to all of them – the high connection density within schemata means that relatively few contained concepts suffice to retrieve all others.

³ A schema's external integration can be called its "structural" accessibility: the density of links to neighbouring belief structures determines how easily a schema is generally activated by spilling-in activation. However, this structural accessibility is only locally relevant: Schemata may be well-connected to nearby beliefs, but still badly connected to the location where activation commences (Peterson, 2004). Note that all these dimensions can be expressed as different aspects of the schematic belief structure underfeeding the attitudes: the quantity of participating concepts and relations, their qualitative organization and evaluative loads of relations, and the alignment within the larger cognitive web (Bizer & Krosnick, 2001; Miller & Peterson, 2004).

⁴ A related discussion concerns the formation of so-called "on-line judgments" – stored evaluations which are accessible for reasoning without prior retrieval of the underlying schematic knowledge structure (Matthes, 2007) – and other "metacognitive" beliefs, i.e., beliefs *about* their stored schematic knowledge and attitudes (Bizer & Krosnick, 2001; Petty et al., 2007). I disregard this discussion here, however, for two reasons: First, I deem it unlikely that my test case is sufficiently salient to people to form such online judgments. Second, the metacognitive layer adds a complexity to the model which is, at this stage, not required to account for expected and observed effects, and is thus omitted for parsimony.

⁵ Frames do not necessarily imply certain valence; however, many frames explicitly carry evaluative suggestions, or are at least by their creators considered to point towards clear pro- or con-arguments about an issue. If frames do not imply valence shifts of either kind, they may still trigger semantic changes in understanding, but they are unlikely to systematically affect opinion.

⁶ There is also the unlikely possibility that a frame fails to retrieve intended schemata, but instead taps others that happen to carry the same valence, thus "accidentally" succeeding nevertheless.

⁷ This effect is similar in logic to the so called "hostile media effect": compared to pre-formed judgments, even balanced media coverage is perceived as giving disproportionate weight to the other side; people

activate their stored beliefs and re-affirm their judgments, rejecting the hostile media information (Visser et al., 2007).

⁸ According to Nelson and Oxley (1999) weighting reinforces the considerations raised by the frame; thus, equivalent responses should be strengthened, while for countervailing ones the prediction is unclear; Baden (2008) argues that weighting generally discounts the mismatching minority of considerations.

⁹ Political interest: “Generally speaking, how interested are you in politics?” (6 point scale, $M=4.33$, $SD=1.13$), Need for cognition: measured as average score on a ten item four point shortened battery adapted from Cacioppo, Petty, Feinstein, & Jarvis (1996) ($M=3.12$, $SD=0.38$); European identity: “Would you consider yourself...? (Dutch only, Dutch and European, European and Dutch, European only)” ($M=1.95$, $SD=0.71$); Involvement with the issue: measured by summed scores on 5 point scales for: “Are you personally interested in the following aspects of European integration?”; “How much do you feel you know about these aspects of European integration?”; “What would you say how close these aspects of European integration are to your personal experience?” (EU Enlargement/The Euro) ($M=10.88$, $SD=2.43$)

¹⁰ Unfortunately, the experiment did not include separate mixed valence framing conditions for the identity and economic contexts, where I would have expected even higher appraisal in the (ambivalence-prone) economic compared to the identity condition.