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### Communication, contextualization & cognition: Patterns & processes of frames' influence on people's interpretations of the EU constitution

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**Publication date**  
2010

[Link to publication](#)

#### **Citation for published version (APA):**

Baden, C. (2010). *Communication, contextualization & cognition: Patterns & processes of frames' influence on people's interpretations of the EU constitution*. [Thesis, fully internal, Universiteit van Amsterdam]. Eburon.

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# VII

## Frame Acquisition

When forming their personal understandings, people draw upon those frames offered to them by public discourse. The close interaction between communicated frames and those schematic knowledge structures used for and formed upon processing has been demonstrated in chapter IV. Chapter V has documented the wide variety of frames provided by political actors and journalistic media. I have argued that news sources in particular perform a crucial role in establishing common knowledge, while political accounts provide possible narrative integrations to make sense of these commonly known facts. At the same time, chapter VI has found that people relied widely on common belief structures, but used diverse framing strategies to weave these beliefs together. What remains to be done is to put the pieces together: In this chapter, I will investigate to what degree, and in which contexts, which sources' frames have shaped people's understandings of the EU constitution.

While comparison of provided and acquired knowledge structures cannot provide a definite test of this causal connection, several considerations support the inference (Brewer & Gross, 2010). In order to establish causality, two phenomena must be (1) statistically and (2) logically associated, while (3) the inverse direction of causation, as well as (4) all other possible causes must be ruled out. The below comparison is suitable to detect statistical association. While logically it is unlikely that voters have been directly exposed to all frames included in the below analysis, the implied causation does not necessarily presume *direct* exposure. Saliently published interpretations are regularly picked up by other sources, reiterated and spread by word of mouth and social communication (Brewer & Gross, 2010; de Vreese & Boomgarden, 2006). Such informal exchange of picked up interpretations is particularly common within political campaigns (Morgan, 2009; Southwell & Yzer, 2009). The captured frames represent those interpretations advanced recurrently in widely visible media and campaigns, and hence likely to be further proliferated throughout society. The observed independent variable – public discourse – has been nearly exhaustively captured from the EU Constitution's first public appearance till beyond its demise, up to the day when the measurement of acquired understandings concluded. Regarding confounding causes, I have argued in chapter III that the present case considerably constrains the range of resources available to inform people's interpretations. Prior knowledge on EU politics is limited and well charted (Hewstone, 1986; Medrano, 2003; Scheuer, 2005), and no knowledge can have been formed about the EU Constitution before it existed. European politics cannot be directly experienced (Peter, 2003) and also other motivations than forming a vote choice can be largely excluded given people's limited concern with European matters (Thomassen, 2006). Public sentiments should hardly be able to develop without the influence of public discourse. It is grossly implausible that public opinion drove media coverage and political debates. There are, arguably, several possibilities for feedback – media responding to publicly acquired beliefs, or allowing citizens to speak in their coverage. However, due to

journalistic selection, such occurrences represent the communicative intent of the journalist rather than the voice of the people, and serve as information source for others once published (Hagen, 1992). While the linearity of the assumed transmission oversimplifies matters, it is clearly the predominant direction of information transfer. Where marked similarities exist between proliferated and acquired frames, the most plausible explanation is that frame acquisition has occurred.

## VII.1. Expectations

Public discourse provides the prime source of schematic knowledge that people acquire to make sense of the European constitution. What remains unclear, however, is how much which sources inform people's accounts, and on which issues. Regarding the strength of influences, two influences speak in favour of a heavy dependency on publicly communicated frames: On the one hand, the range of other available sources for opinion formation has been restricted by the choice of the case (Tewksbury & Scheufele, 2009). On the other hand, people's limited motivation to think deeply about issues of only indirect personal relevance suggests that compelling accounts should be readily taken over where possible. At the same time, several influences limit the dominance of publicly proliferated frames in people's accounts. First, people's selective and unsystematic attention and retention of provided information severely reduces the range of frames committed to memory. Second, as argued in chapter II.3, frames are regularly transformed and elaborated upon reception (see also chapter IV.5). Proliferated information merges with prior knowledge and current cognitive states into constructions which bear only limited resemblance to the communicated frame.<sup>67</sup> Third, despite all limitations imposed by the case selection, people remain capable of applying their prior knowledge and experiences to the issue matter. The strength of influences should therefore depend (negatively) on people's motivation and knowledge, as well as (positively) their attention to public discourse. All three factors are associated with high political interest.

*H1.1: Due to their diminished exposure and inattention to public discourse, politically disinterested people acquire less schematic knowledge from it than politically more interested people.*

*H1.2: Due to their superior ability to transform knowledge upon acquisition, politically highly interested people derive knowledge from public discourse in a less isomorphic way than politically less interested people.*

Concerning differential influences on different issues, a first expectation holds that consonant media coverage should be more able to influence people's interpretations than diverse frames proliferated in public. Where agreement across media sources is high, similar interpretations can be expected also within participants' accounts (Peter, 2003;

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<sup>67</sup> This property of the frame acquisition process also limits the possibilities for detecting transformed frames by comparing structurally equivalent networks: Unless it is known how exactly a frame will be transformed, only a comprehensive reading of provided and acquired frames can determine which belief structures support frames similar or otherwise related to a source. Nevertheless, semantically similar frames necessarily overlap in some affiliated beliefs even after transformation. While transformations will show up as unexplained variance in the analysis, at least some correspondence needs to be present and allows a detection of influences.

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B.T. Scheufele & Scheufele, 2010; Slothuus & de Vreese, forthcoming; Walgrave & van Aelst, 2006). This case needs to be distinguished from the possibility that long standing social representations structure both media reporting and people's beliefs: Where consonance is high on issues enshrined in prior cultural knowledge, a causal influence of public discourse during the observed period cannot be inferred. Frames about the euro, the democratic deficit, the single market, bureaucratic inefficiency and costs, and other Euro-stereotypes (chapter III) should be consonant due to prior common knowledge. Marked similarities between communicated and acquired frames can be expected also with regard to novel concepts such as the EU constitution, even if consonance is low: Also if the meaning of new issues is contested in public, provided frames remain people's prime source for understanding the issue. Inversely, people's interpretations should be largely independent from media frames regarding information that can be directly experienced (Gamson, 1992).

*H2.1a: People are most likely to acquire frames from public discourse when the offered frames are consonant.*

*H2.1b: Consonant framing in public discourse mostly refers to long-standing social representations.*

*H2.2: People rely strongly on public discourse for frames regarding novel issues.*

*H2.3: People do not strongly rely on public discourse for frames regarding obtrusive issues.*

To the degree that people are offered various and diverse interpretations over the duration of public debate, people should be able to selectively pick and recombine compelling frames (Druckman, 2004). Chapter V showed that political authors provide coherent but diverse narratives, whereas media frames were more consonant, but hardly integrated. As a consequence, reliance on different media outlets should be easily reconciled, whereas frames adopted from political sources should collide with other sources' frames (Edelman, 1993; Nelson *et al.*, 2010; Tewksbury *et al.*, 2000). Accounts should tend to take over frames on related issues from the same party's discourse, increasing coherence. The similarity of people's knowledge to political discourse should be dominated by few selected sources, taking into account also voters' agreement with the author's stance toward the referendum proposal (Slothuus, forthcoming; Slothuus & de Vreese, forthcoming). In line with the findings from chapter VI, Yes voters' accounts drew heavily on specific information related to the EU Constitution, while No voters relied on their long standing EU stereotypes as well as personal intuition. Their different preoccupations should be reflected in the detected similarities.

*H3.1: Yes voters' frames about the constitution and its implications are taken over from public discourse.*

*H3.2: No voters' frames about the constitution and its implications are not taken over from public discourse.*

*H3.3: People acquire frames from political sources in a selective, consistent manner on related issues.*

*H3.4: People acquire frames predominantly from political sources that support their vote choice.*

Regarding the relative influence of sources, the literature continues to disagree whether television or print media are more important for learning from the media

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(Culbertson & Stempel, 1986; Eveland, 2001; Graber, 2001; Neuman *et al.*, 1992; Robinson & Levy, 1986). Likewise, contradicting predictions can be derived for the relative influences of (opinion leading) broadsheet and (popular, closer to the people) regional and tabloid newspapers (Grabe, Lang, & Zhao, 2003; Newton, 1999; van Dijk, 1985). The scarcity of tabloid coverage on the EU constitution speaks against a pronounced influence, however, it remains possible that those few frames published there have been widely adopted.

*RQ1: Which kind of media is most influential for acquired accounts?*

A final distinction concerns at what time people acquire the schematic knowledge structuring their interpretations. Since the provision of information was spread out over a long period, including phases of scarce coverage, three main factors should determine when people's interpretations were formed: First, low durability of storage in memory may lead people to rely on recently acquired information, while lasting storage enables a profound influence of early interpretations on later knowledge integration (Tewksbury *et al.*, 2000; Tourangeau & Rasinski, 1988). The schematic network theory, which holds that detailed knowledge on the relatedness of beliefs is stored within the schematic structure, supports the latter view: Early exposure to information should be consequential. Second, scarce coverage – e.g., in phases I (when the treaty was formally introduced), III (covering the renegotiation of voting mechanisms), and VII (after the constitution had been declared dead) – may fail to register and initiate a construction of schematic knowledge (Ferejohn, 1990). To the degree that high salience is needed for the acquisition of knowledge from public discourse, the campaign phase (V) and – to a lesser degree – phases VI (debating the reasons and consequences of the outcome) and II (marked by intergovernmental conflicts over the power balance and the preamble of the constitution) should prove most influential. Third, people's motivation for knowledge formation should be strong and rising as the referendum approaches and low thereafter (Huckfeldt & Sprague, 1990; Schönbach, 1983). Information provided during the campaign phase should dominate most accounts. However, if knowledge has been acquired early on – either in phase I, or the more salient second phase – it should structure subsequent interpretations acquired at a later point in time. Despite the relative salience of the postcampaign phase, major influences from the last two phases are not expected: On the one hand, little motivation remained after the referendum to further consider the issue – also because the outcome led to the public burial of the project. On the other hand, acquired knowledge should be sufficiently well developed by then such that further additions and alterations are difficult to achieve.

*H4.1 (prestructuring): People structure their knowledge early on during the public debate (phases I & II).*

*H4.2 (insensitivity): People do not acquire knowledge from scarce coverage (phases I, III, & VII).*

*H4.3 (motivation): People acquire most knowledge briefly before the referendum (phases IV & V).*

*H4.4 (saturation): People do not acquire much knowledge after their opinion is formed (phases VI & VII).*

In order to assess the above expectations, a comparative strategy is needed that takes into account both the global degree of similarity between sources and over time, as well

as the local commonalities among specific concepts' context structures between sources. With regard to those expectations concerning the consonance of public discourse, it furthermore makes sense to first assess the similarities within public discourse before turning toward the analysis of frame acquisition. In the following, I will set out a comparative methodology that is capable of meeting these requirements.

## VII.2. Approach

A crucial necessity for the development of a rigorous comparison between provided and acquired knowledge is that both are measured in ways that are directly comparable. With regard to the networks compared in this chapter, equivalence must be established between the sets and definitions of coded concepts, as well as the definitions of relations coded between these. Hence, before the comparison can proceed, it is necessary to bridge the gap between the different approaches to measurement chosen in chapters V and VI (Tewksbury & Scheufele, 2009).

Regarding the coding of concepts, equivalence needs to be established at the semantic, not the lexical level: Unlike journalistic actors, laypeople routinely refer to concepts by means of circumscriptions, incomplete or incorrect terminology, or figurative expressions (Kitzinger, 1994). Across public discourse and private accounts, different lexical indicators are used to refer to the same concepts. Since the range of lexical expressions used in informal ad hoc accounts can hardly be predicted, the focus groups have been analyzed inductively, determining the range of concepts referred to by means of manual, comprehensive code development (chapter VI.3). Subsequently, the analysis of public discourse has utilized the same concept definitions derived from the focus group discussions. Operationalizing the same concepts with a view toward the different language use in public discourse, the code system applied in chapter V.3 has been developed based on the same definitions, although not necessarily the same indicators as the focus group analysis. Reflecting the needs of the deductive approach taken for the analysis of public discourse, also related, meaningful concepts that failed to occur throughout the focus group discussions had to be taken into account. The range of coded concepts has been expanded considerably. However, since these concepts were added precisely because they did not occur in the group discussions, their addition makes no difference to the equivalence of coding systems: Were the expanded concept list applied to the discussion transcripts, all codes newly created for the analysis of public discourse would show zero incidences. Both sets of coded concepts can be considered equivalent (see also van Gorp, 2010).

With respect to the coding of relations, the recording of semantic relations in chapter VI provided considerably more detail than the co-occurrences detected in chapter V. In order to achieve equivalence of coded relations, hence, the distinctions between semantic relation qualities, associations and dissociations need to be discarded. What remains to be shown is that significant co-occurrences in public discourse pick up on the same association structures within accounts as the explicit references coded in the group discussions. The main reason why co-occurrence had not been adopted as a measure for the focus group discussions lies in the disorderly structure of laypeople's ad hoc accounts:

People both regularly interrupt ongoing trains of thought and refer back to ideas mentioned earlier (Kitzinger, 1994). The conclusion that nearby propositions are related whereas distant ones are not is not necessarily valid. By contrast, it mostly holds in public, (semi)professional discourse: Public speakers considerably craft their messages to form thematically well-contained units, arranging propositions such that related claims appear in adjacent locations. Concepts that regularly co-occur within one another's context can reasonably be expected to be semantically related (van Dijk, 1985). While connections between concepts had to be coded manually in the discussion transcripts, the automatic, distance based coding procedure should validly record the same semantic relations in public discourse. The associations recorded in chapters V and VI can be considered equivalent (van Atteveldt, 2008).

Having established the equivalence of networks, a detailed comparison can be conducted at different levels of abstraction: At the network level, it can be measured how influential media learning is for people's knowledge in general. At the level of a concept's context structures (ego-networks, see below), the acquisition of semantic contexts (frames) from communicated messages can be assessed (Schaap, Renckstorff *et al.*, 2005). At level of individual dyads, finally, one could also investigate which specific propositions have been acquired. This last option, however, will not be exploited in the present study: On the one hand, the acquisition of individual beliefs matters for people's understandings only to the degree that these are integrated into coherent, meaningful frames. On the other hand, given the size of the present data set, the estimation of more than five million parameters is neither statistically feasible nor substantially informative.

### VII.3. Method

#### Data reduction & recoding

In order to compare the networks, I first restricted the range of concepts considered to those linked to some other concept in at least five of the included networks. Next, I recoded the 28 kinds of links coded in the focus group networks (14 qualitative forms available as positive or negated each) into simple associations: Also salient explicit dissociative links should register as systematic co-occurrences. In addition to the total network including all focus groups' contributions, I also created the sliced networks representing individual focus group discussions (FG1: students' group; FG2: blue collar workers' group; FG3: senior citizens' group; FG4: white collar workers' group), Yes- and No voters' contributions, and those contributions made by participants with high, medium, and low political interest, respectively. In total, 82 networks including 353 considered concepts entered the comparative analysis: Beside one total and nine sliced networks from the focus groups, these included eight newspapers over seven (Metro: five) phases, five television outlets as well as 13 (7 Yes- ↔ 6 No-camp) political discourses.

#### Analysis

The comparative analysis comprised both a descriptive (assessing the degree and pattern of consonance across networks) and an inferential part (predicting acquired

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knowledge structures based on the available information). Both parts involved an analysis of global similarities between networks, as well as an analysis on the level of local context structures. For the inferential analysis, the networks were distinguished into 72 independent networks (representing media and political discourse) and ten networks representing the various subsets of contributions to the focus group discussions.

### *Descriptive analysis*

In order to determine the degree of consonance in interpretations – both over time and across outlets – first, the global similarity between networks was measured as the correlations estimated by the ‘Quadratic Assignment Procedure’ (QAP). This procedure was developed specifically for the comparative analysis of network data, wherein statistical assumptions about the independence of observations are violated. Instead of a normal distribution, it obtains a sample distribution of parameter estimates by randomly permuting the order of columns and corresponding rows in one of the compared matrices (Krackhardt, 1988, 1992; Simpson, 2003).

Second, the similarity of local contexts associated with each considered concept was assessed. For this, I considered each concept’s ego-networks (i.e., the star shaped subgraphs induced by all links containing a focal concept, constituting the range of directly related contextual concepts), throughout all sources. Two indices were created: One ‘Commonality Count’ Index (CC) counted, for each concept, the intersection of links present in a pair of non-identical networks (theoretical range: 0-352; actual range: 0-90,  $M=0.529$ ,  $SD=2.181$ ). The other measure is a Jaccard Index (J) that assesses the degree of commonality between two considered link sets. It is defined as the relative size of the intersection over the union of links in a pair of (ego-)networks (range: 0-1,  $M=0.018$ ,  $SD=0.054$ , Leydesdorff, 2008; Snijders, van de Bunt, & Steglich, 2010; Wasserman & Faust, 1994). However, the Jaccard index is indifferent to the size of compared ego-networks and assigns high values to very small (dyadic or triadic) stable patterns. Large ego-nets, by contrast, are unlikely to be fully stable, and will receive medium sized values even if many links are unchanged. The commonality count, by contrast, is liable to assign high values to large context structures even if they are relatively unstable. As a consequence, either index can be drawn upon to address the other’s weakness. Taken together, they give a good measure of the amount and degree of similarity in the focal concept’s contexts. From each index, a 3-dimensional matrix of  $353$  (concepts’ contexts)  $\cdot 82 \cdot 82$  (networks, diagonal entries disregarded) was constructed. Within this matrix, I focused on those  $82 \cdot 82$  slices pertaining to two concepts already discussed in some depth in chapters V and VI – the EU Constitution as well as the common currency. The analysis proceeded analogously to the above global similarity measures.

### *Predictive analysis*

Due to computational strain, the prediction of acquired knowledge structures was restricted to three dependent networks: Aside of the total network comprising all contributions from all focus groups, I considered those slices representing the contributions of Yes- and No voters only.

On a global level, the predictive power of the 72 independent networks was assessed using an extension of the QAP mentioned above. This MRQAP (Multiple Regression

QAP) essentially performs a multiple regression but uses the permutation-based sample distribution instead of the normal distribution (assuming independence of observations) for the standard errors (Dekker, Krackhardt, & Snijders, 2007). Since each matrix contains 62,128 unique data points,<sup>68</sup> the large number of independent networks does not present a problem for statistical power. Both QAP and MRQAP are implemented in the software package UCInet (Borgatti *et al.*, 2002).

At the level of frames, a parametric predictive test is not feasible: Adjacent concepts' contexts overlap and hence violate independence assumptions in a way not yet considered by network analytic or statistical research. However, a manual, uncontrolled analysis is possible. Within the similarity index matrices, those slices pertaining to the total, Yes- and No voters' focus group contributions contain all other networks' local similarities relative to the considered dependent networks. Based on these 353 · 72 sized slices, I assessed the pattern of index values, identifying those sources most similar to specific frames used by the focus group participants. Based on the above four analytic steps, it is possible to analyze the patterns of consonance and dissimilarity between sources, such that the formulated hypotheses can be addressed.

## VII.4. Results

### Descriptive analysis

#### *Global similarity*

The detected correlation structure displayed in figure VII.1 mostly ties in with existing knowledge about the structure of similarity within public discourse: Most notably, first, the networks representing focus group discussions (right component) are clearly distinct from all other networks, and highly similar to one another. The latter, obviously, is partly an artifact: Some slices contain the same statements, and even the mutually exclusive slices (Yes- vs. No voters; high, medium, and low political interest) derived from the same actual interactions and are thus not independent. However, also the fully independent slices (representing the different focus groups) are more similar to one another than to any media or political discourse network (correlations at least double as large). Similarities between focus group contributions and media discourse are markedly diminished for politically disinterested participants and slightly reduced also for highly interested ones. Findings thus support both the effect of reduced exposure to public discourse and of transformative acquisition expected in *H1.1* and *H1.2*.

Assessing consonance within journalistic discourse, second, similarity is either synchronous across different media (covering similar news in similar ways), or diachronic within the same outlet (representing editorial lines, etc). Consonance is highest within the campaign phase, where most news media are assigned to the same cluster by the clustering procedure (*violet cluster in the left component*). Coverage in the immediately pre- and succeeding phases shows some similarities to the campaign coverage, but there is more differentiation between journalistic media: Different clusters differentiate broadsheet from regional newspapers (*pink vs. white cluster in phase IV, light blue vs. dark blue in phase*

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<sup>68</sup> 353 · 353 minus the diagonal, and divided by two due to the symmetry of the matrix

V), while the popular newspapers show inconsistent alignments, if any. Television news is distinct from other news, but the public and private news shows are clustered together (*light orange*). Diachronically, the highest consistency over time is detected among the coverage of the broadsheet newspapers, notably, NRC Handelsblad.

Third, political discourse is dissimilar from journalistic discourse, and also internally fragmented, corroborating findings from chapter V: No two parties are clustered together or adjoined by correlations exceeding 0.1. The only cluster within political discourse combines the EU's official campaign publications and the discourse of the Anti-Constitution NGO platform Comité Grondwet Nee – presumably due to both discourse's preoccupation with citing specific provisions (*yellow cluster*). Aside of this, the free newspaper Metro clusters with the government's discourse in phase V, but with the opposition party SGP in phase VII (*green & dark red*). The ChristenUnie was apparently able to present its frames well in its leader's appearance on the talk show NOVA, reflected in a strong correlation (*dark orange*). Other than these, political discourses remained outside any clusters.

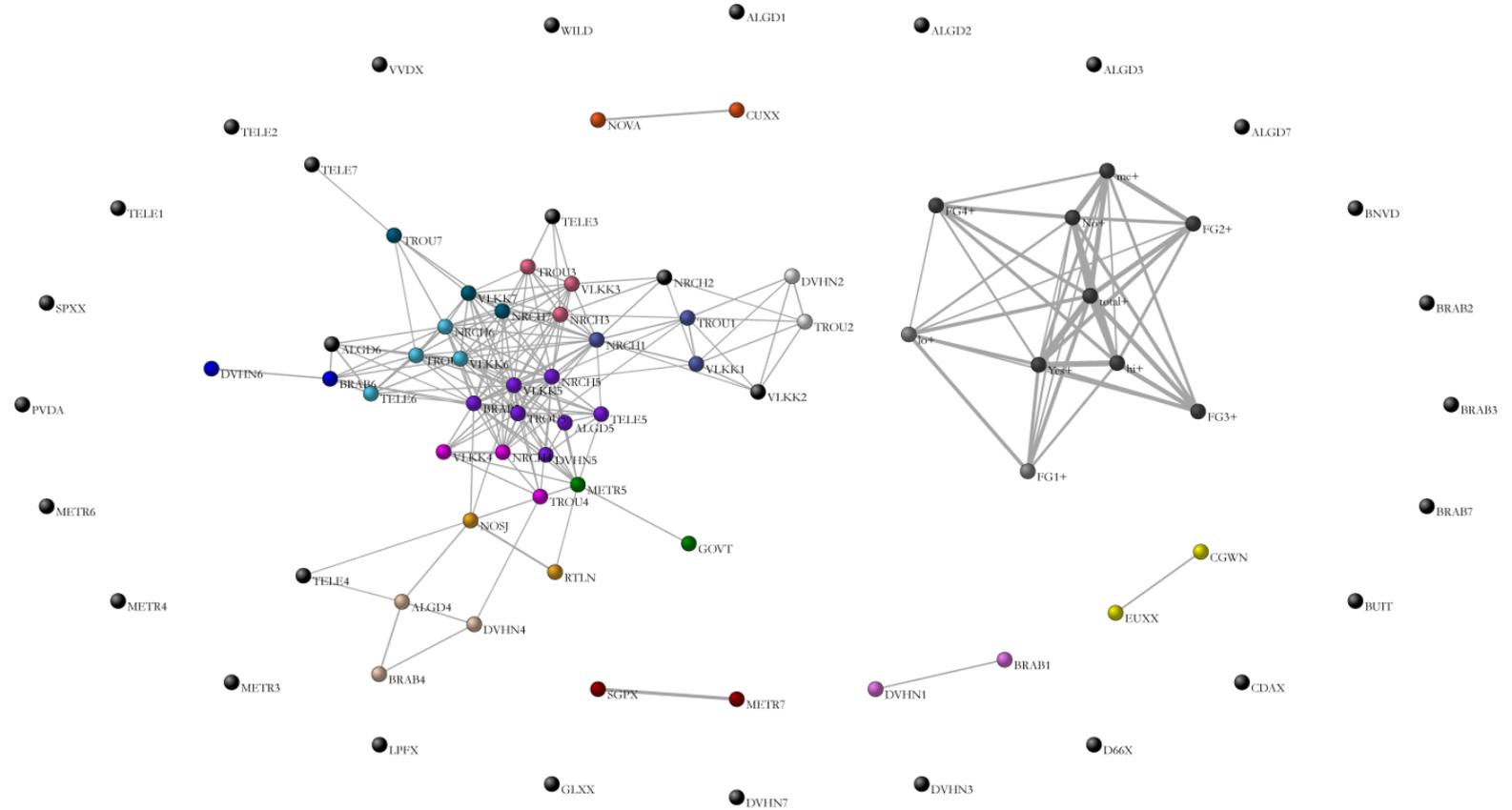
#### *Local similarity*

With regard to the local contexts of the euro and the EU constitution, the first observation is that the two constructed indices yield highly similar results. The Jaccard index is hardly affected by small, highly consistent substructures. The count index can hence be disregarded as largely redundant. As a second finding, similarities are markedly higher concerning the EU constitution than the euro. Structurally, however, the detected patterns shown in figures VII.2-3 do not deviate much from the one described above. Again, the focus group discussion networks are similar to one another but hardly anything else. Party discourses are relatively dissimilar from one another and most other networks, although some similarities exist (*red & green nodes in the upper left corner of figure VII.2, various locations in figure VII.3*). Among the public discourse networks, similarity is highest among the newspapers during the campaign phase (*light red*), and generally among the broadsheet papers. On the EU constitution at least, the TV news outlets resembled the similarity structure of the regional and – less so – quality newspapers. Coverage in phase VI (*pink*) and, less so, phase I (*blue*) is highly similar to this cluster, too, whereas it is less similar in other phases. The quality newspapers provided frames of the EU constitution similar to those proliferated throughout the campaign already in phase IV. By contrast, frames of the euro still differ largely during phase IV. The coverage of phases II, III and VII is peripheral in either case.

During the campaign phase, several news outlets transported party-specific frames of the EU Constitution, reflected in high similarity: Notably, the three broadsheet papers as well as the regional Brabants Dagblad related to multiple party frames. By contrast, with regard to the euro, the television outlets (*light orange*) reliably showed specific links to some political party's frame: The coverage of NOS Journaal resembles the CDA frame; RTL Nieuws frames the euro in similar ways to GroenLinks; on NOVA, the ChristenUnie's interpretation received privileged consideration, and Barend & van Dorp echoed the PvdA's frame. No outlet related to more than one interpretation of the euro. While on the EU constitution, news outlets synthesized various provided frames, they advanced disparate views about the euro.

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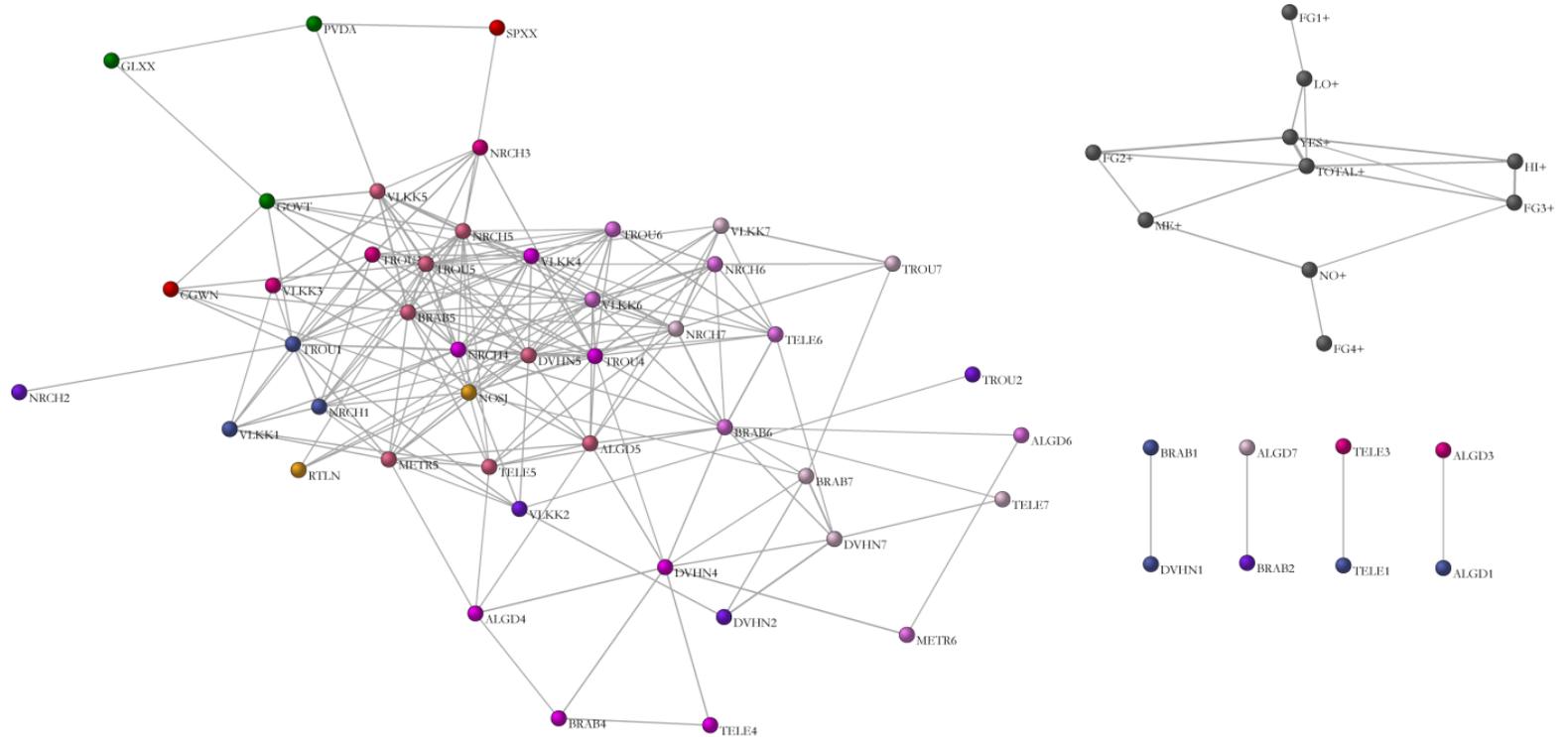
Figure VII.1: *Global similarity structure of networks*



Note: Lines denote correlation strengths (only values of 0.2 or above shown); Colors indicate cluster membership; Acronyms are resolved in annex IX.14

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Figure VII.2: *Similarity of frames of the EU Constitution*



Note: Lines denote association strengths measured as the Jaccard Index between the focal concept's ego-networks (only values of 0.3 or above shown); Colors indicate media type and phase; Acronyms are resolved in annex IX.14



## Inferential analysis

### *Local similarity*

Shifting the focus towards frames acquired by focus group participants, the comparison with publicly provided frames reveals a range of relatively consensual context patterns: The frames applied to Dutch identity, financial contributions to the EU, relations toward the United States, and price rises were similar across a wide variety of sources across all phases. Merely the concern with price rises became consensual only in phase V. As expected in *H2.1a*, consonant framing in discourse is reflected also in people's knowledge. However, and in line with *H2.1b*, most issues on which consonance occurred represent long standing concerns embedded in social representations. Novel issues were not framed consonantly. A causal influence of consonant coverage, as implied in *H2.1a*, cannot be inferred. Moreover, the consensually framed issues mostly did not play central roles in the accounts of voters (chapter VI).

Rather, frames used for those concepts structuring voters' accounts drew upon specific sources. Both Yes- and No voters' criticism of the provided information (and their own knowledge states) resembles coverage in NRC Handelsblad and NOS Journaal. A third important source appears to be Trouw, whose coverage resembled people's interpretation of contradictory information. These observations contradict the expectation that the influence of discourse should be low regarding obtrusive objects (*H2.3*). Considering focus group participants' framing of the euro, the sources most similar to both Yes- and No voters' accounts were the coverage of Dagblad van het Noorden (phase V), the public service news (NOS Journaal) and the talk show NOVA. Among the Yes voters, also the green party's frame (which considered the euro an invalid reason for voting, see chapter V) was successful (GroenLinks). The quality broadsheets as well as prior and later phases play hardly a role at all. Participants' frames about the government, the last central theme, did not markedly resemble any of the source frames.

Following the argument developed in chapter VI, Yes- and No voters' contrasting frames of the Constitution (as the central concern, or a mere symptom of a more general issue) are reflected in the sources informing them. Among Yes voters, the most successful sponsor was the government, followed by four about equally successful parties – VVD, GroenLinks, ChristenUnie and SP. Alongside these party-sponsored frames, several closely related issue frames were taken over, as well: Yes voters framed political cooperation and the concern with human and fundamental rights protection in line with the government's interpretation. Also, the EU-skeptics' (Comité Grondwet Nee, LPF) concerns with the democratic deficit surfaced in Yes voters' accounts, to be subsequently reframed (as laid out in chapter VI). However, influences are not particularly strong. *H2.2*, which expected pronounced influences for novel issues, is generally supported, but the amount of influence remains limited. At the same time, in line with *H3.1*, this influence is markedly more pronounced among Yes- than No voters – whose frames of the constitution and its implications did not resemble any sponsor's frame. Instead, No voters took over the SP's frame that questioned the feasibility of the project as well as the ChristenUnie's worry about the power of small EU countries. As expected in *H3.2*, No voters' accounts showed similarity to the publicly proliferated frames mostly with regard to long standing social representations. They were markedly less influenced by discourse

than Yes voters, reinforcing the conclusions about resource strategies from chapter VI. The figures in annex IX.12 show all similarities with the dependent networks' context structures above a Jaccard index value of 0.15.

#### *Global similarity*

The MRQAP regressions generally corroborate the above findings. The estimated beta coefficients presented in table VII.1 appear small compared to other regression analyses; however, it should be kept in mind that each network contains  $353 \cdot 352$  valid entries, such that even a perfect prediction of 124 links corresponds to an increment of only 0.001 in the R squared. A beta of 0.5 would require that either the value of 62,128 links is perfectly correlated between two networks, or that a correlation of on average 0.5 exists across all 124,256 links. Such high degrees of global similarity are implausible and unexpected. The relative size of coefficients as well as their significance can be interpreted in analogy to common regression analyses.

With regard to *RQ1*, the MRQAP regression shows, first of all, that the largest influences are found among the television broadcasts, followed by broadsheet media and some parties. The prime public news channel, NOS Journaal, proves to be the most influential source. Among Yes voters, the GroenLinks discourse predicts voters' considerations best. Aside of this, official government publications as well as the other oppositional Yes camp party, PvdA, show significant influences. Curiously, the discourses of the government coalition parties (CDA, VVD and D66) fail to reach significance in any of the regressions. Instead, Yes voters took over arguments from two of the No camp groupings, notably, the Socialist party and the NGO platform Comité Grondwet Nee. No voters, by contrast, are influenced by ChristenUnie and the Yes camp party PvdA. In contrast to Yes voters, No voters are even significantly *less* likely to make connections if these have been advanced by the government. Only partly in line with *H3.3*, source reliance was limited to few selected political accounts, however, clusters of related issues taken over from the same narratives could not be found. Either way, source reliance is clearly not confined to those parties supporting the same vote choice, contradicting *H3.4*. The amount of dependency on newspaper discourse does not differ much between Yes- and No voters, with the exception of phase VI. However, No voters' reliance on TV and campaign discourse is markedly smaller than for Yes voters.

Regarding the temporal structure of detected influences, three phases can be characterized as influential for knowledge formation: Most beliefs by far have been taken over from campaign discourse and coverage, reflected by the wide range of significant, positive influences. In line with the expected early schema formation (*H4.1*), but contrary to the insensitivity hypothesis (*H4.2*), the broadsheet media successfully provided some knowledge already in phases I and II. The regional newspaper Brabants Dagblad and the popular Telegraaf published claims in phase I that have been taken up by No voters, at least. By contrast, phases III and IV were largely irrelevant for people's knowledge: Few influences are significant, and most out of these show negative signs, indicating that the claims advanced in these phases were systematically absent in voters' accounts. This result, however, cannot support the insensitivity hypothesis, because people's ability to acquire knowledge from scarce coverage has been already demonstrated in phase I. It also partly conflicts with the motivation hypothesis (*H4.3*), or at least suggests that people's motivation to form an opinion was still low during the precampaign. The coverage in

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phase VI shows a few positive influences on No voters' accounts, who apparently updated their understandings once the result was known, whereas Yes voters did not. Phase VII was again mostly irrelevant. The latter findings are in line with the saturation and motivation hypotheses (*H4.3-4.4*). Overall, the knowledge presented by focus group participants is predicted, in order of declining predictive power, by television and newspaper coverage during phase V, political campaign discourse, and phase I-II newspaper coverage. Early formed schemata, motivation and saturation after the formation of opinions during the campaign all contribute to accounting for the observed data. Insensitivity, by contrast, does not appear to present a major obstacle for knowledge acquisition.

Table VII.1: *MRQAP regression predicting focus group discussions from public discourse*

Dependent network:		total discussions		Yes voters only		No voters only	
		beta	Sig.	beta	Sig.	beta	sig.
phase I	Brabants Dagblad	0.011	0.01			<b>0.014</b>	0.00
	Dagblad van het Noorden	<b>-0.009</b>	0.00	<b>-0.010</b>	0.00		
	NRC Handelsblad	0.010	0.02	0.010	0.02		
	Telegraaf					0.008	0.04
	Trouw			<b>0.010</b>	0.01		
phase II	Algemeen Dagblad	<b>-0.012</b>	0.00	<b>-0.011</b>	0.00	<b>-0.009</b>	0.00
	Dagblad van het Noorden	-0.006	0.04	<b>-0.012</b>	0.00		
	NRC Handelsblad			0.009	0.02		
	Telegraaf			<b>-0.006</b>	0.01		
	Trouw			0.008	0.04		
III	Volkscrant	0.008	0.03			0.008	0.04
	Dagblad van het Noorden	0.008	0.03			0.010	0.01
	Metro	<b>-0.003</b>	0.01	<b>-0.002</b>	0.01	-0.002	0.03
	Telegraaf					<b>-0.010</b>	0.00
	Trouw			<b>-0.010</b>	0.00		
IV	Dagblad van het Noorden	-0.008	0.01	-0.007	0.01		
	Metro	<b>-0.005</b>	0.00	<b>-0.004</b>	0.01	<b>-0.005</b>	0.00
	Telegraaf	-0.007	0.01			<b>-0.013</b>	0.00
phase V	Algemeen Dagblad	<b>0.013</b>	0.01	0.008	0.02	0.008	0.02
	Brabants Dagblad			0.007	0.03		
	NRC Handelsblad	<b>0.016</b>	0.00	<b>0.014</b>	0.00	<b>0.013</b>	0.00
	Trouw					0.007	0.04
	Volkscrant	<b>0.018</b>	0.00	0.010	0.02	<b>0.017</b>	0.00
TV	Barend & van Dorp	<b>0.014</b>	0.00	0.009	0.02	<b>0.012</b>	0.01
	Buitenhof	0.012	0.02	<b>0.016</b>	0.01		
	NOS Journaal	<b>0.023</b>	0.00	<b>0.015</b>	0.00	<b>0.029</b>	0.00
	NOVA / Den Haag vand.	<b>0.016</b>	0.01	<b>0.018</b>	0.00		
Yes	GroenLinks	<b>0.018</b>	0.00	<b>0.021</b>	0.00		
	Government			0.012	0.01	-0.007	0.03
	Partij van de Arbeid PvdA	<b>0.014</b>	0.00	0.009	0.02	0.011	0.01

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Table VII.1 *continued*

No Camp	Comité Grondwet Nee	<b>0.016</b>	0.00	<b>0.016</b>	0.00		
	ChristenUnie					<b>0.010</b>	0.03
	Lijst Pim Fortuyn LPF					<b>-0.005</b>	0.01
	SGP	<b>-0.005</b>	0.01	<b>-0.004</b>	0.01	<b>-0.003</b>	0.01
	Socialistische Partij SP	<b>0.009</b>	0.04	<b>0.012</b>	0.01		
	Groep Wilders			<b>-0.006</b>	0.00		
phase VI	Algemeen Dagblad			-0.007	0.01		
	Dagblad van het Noorden			-0.007	0.02	<b>0.009</b>	0.02
	Metro	<b>-0.007</b>	0.01			<b>-0.010</b>	0.00
	Telegraaf			<b>-0.008</b>	0.01		
	Trouw					<b>0.010</b>	0.02
	Volkskrant					<b>0.008</b>	0.03
phase VII	Algemeen Dagblad	-0.004	0.03			<b>-0.006</b>	0.00
	Brabants Dagblad	<b>-0.008</b>	0.01			<b>-0.011</b>	0.00
	Metro					-0.002	0.02
	Telegraaf			<b>0.013</b>	0.00	-0.008	0.01
	Volkskrant	-0.008	0.02				
	R squared	0.009	0.00	0.007	0.00	0.007	0.00
	Adj. R squared	0.008		0.006		0.006	
	N	124,256		124,256		124,256	

Notes: Only entries significant at .05 level shown, bold entries are significant at .01 level; Predictor networks without significant entries are omitted; Positive significant entries are shaded.

## VII.5. Discussion

The above results lend further credibility to the propositions of the schematic network theory. Although the overall degree of similarity between information sources and acquired accounts is low, the observed patterns tie in nicely with the derived expectations. Generally, limited similarity was expected due to selective exposure and the transformative acquisition of frames (Ferejohn, 1990; Sniderman *et al.*, 1990): Voters neither perceive all frames that are offered to them, nor do they leave them unchanged when they integrate them into schematic knowledge. Both influences are large and corroborated by the diminished similarity values among politically highly and hardly interested participants. At the same time, knowledge acquisition was recorded even from scant coverage (Ferejohn, 1990): Despite the severe limitations posed by selective attention and transformative acquisition, some information was still successfully picked up by individuals. Learning was local and confined to few issues per source, but there is little doubt that frames have been acquired from public discourse (Graber, 1988; Neuman *et al.*, 1992). Both the absolute and relative sizes of similarity parameters are clearly in line with expectations.<sup>69</sup>

With regard to those frames that have been successfully acquired, three main findings can be identified. First, the temporal development of knowledge acquisition closely follows the propositions derived from the schematic network theory: Schematic structures were formed early on and influenced subsequent belief integration, maintaining their core belief structures all through the lengthy learning process (Feldman & Conover, 1983). In line with the predicted influence of processing motivation, rich knowledge was acquired briefly before the referendum, whereas hardly any further learning took place after the project had been declared dead (Chew, 1992). Combining the influence of schematic structure and goal-directed learning, also the diminished learning during phases II to IV can be explained: Building upon the schematic knowledge acquired in phase I, people should have sought to relate subsequent information to this schematic organization (Feldman & Conover, 1983; Fiske *et al.*, 1983; Shen, 2004). However, While coverage in phase I had focused on the treaty's provisions and their role in European unification, coverage in the subsequent phases did not tie in well with this structure: Neither the quarrels and renegotiations of phases II and III, nor the debate over the calling of a referendum in the Netherlands should have provided much information easily integrated with the initially formed core structure. If knowledge has been acquired in phases II to IV, it should mostly be stored separately from the treaty- and EU-integration schemata formed in phase I. Only in phase V, contents relating to these belief structures reappeared in public discourse, facilitating the integration of considerable amounts of new information. Drawing upon their initial interpretations and campaign-refined schemata of the EU constitution, knowledge acquired during the other phases should have been found inapplicable and disregarded in people's given accounts.<sup>70</sup>

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<sup>69</sup> Furthermore, the chosen measures relying on link presence generally record considerable instability even for minor changes. For instance, a direct association that is replaced by an indirect relation causes three links to change state.

<sup>70</sup> While one cannot conclude that no knowledge has been acquired, information provided in phases II to IV did not saliently inform people's interpretations of the EU constitution.

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Simultaneously, the information drawn upon for people's understandings shows every sign of motivated, schematically structured, incremental belief integration.

The second main finding concerns the range of sources drawn upon by participants: As expected, participants based their accounts on a variety of sources, patching together their own narratives instead of taking over accounts offered by others. While Yes- and No-voters relied on a similar selection of media proliferated frames, their use of political sources varied systematically. However, contrary to expectations, the range of sources was not confined to those supporting the same evaluative tendency (Slothuus & de Vreese, forthcoming). The observed dominance of television coverage for crafting common knowledge across participants supports the audiovisual camp in the scientific controversy over the relative influences in learning from the media (Graber, 2001; Robinson & Levy, 1986). However, both television news and broadsheet newspapers were widely influential in contributing to people's understandings. By contrast, the role of regional newspapers was limited, and tabloids hardly affected people's accounts – probably also due to the neglect of EU topics in their coverage. Considering the importance of interpersonal communication for spreading interpretations during the campaign, the preeminence of reputable media giving prominence to their EU coverage is hardly surprising (Lenart, 1994; Peter, Semetko, & de Vreese, 2003). Given these quality media's ambitions to balance their coverage and provide dependable facts, also their wide adherence across both Yes- and No-voters ties in well with the media's role for social knowledge formation suggested in chapter V.

By contrast, and in line with expectations, the use of politically sponsored frames was much more selective: In line with findings from chapter V, political narratives provided diverse and competing frames which were not easily reconciled within the same account (Edelman, 1993; Nelson *et al.*, 2010). Nevertheless, people combined claims from various narratives, albeit highly selectively so. No party was successful getting their frames across on more than a handful of concepts, but within each camp, characteristic sets of frames were taken over from selected party narratives. In line with findings from chapter VI, participants routinely referred to arguments advanced within opposing parties' interpretations, reframing them to further support their own accounts. These data hence support neither a reliance on evaluatively coherent frames, nor a heuristic selection of sources, which should be reflected in a systematically dismissal of arguments advanced by the opposing camp (Granberg, 1993; Slothuus & de Vreese, forthcoming). Instead, the selections of frames acquired from political narratives seems to follow from semantic coherence requirements (Gamson, 1988; Pennington & Hastie, 1986): For instance, voters concerned with improved decision making and democratic control readily integrated critiques of the EU democratic deficit, arguing subsequently how the constitution might redress the lamented ills (chapter VI). Regarding the selectivity of frame acquisition, the predominantly semantic, schematically structured integration of information assumed in chapter II provides a suitable explanation. The evaluative drift implied by the acquired frames is not taken over, underlining the dominance of semantic over evaluative integration. Frames structured people's interpretations, but not necessarily their judgments (Brewer, 2001; Kim & Rhee, 2009; Rhee, 1997).

As a third main finding, voters' reliance on public discourse differs markedly depending on the novelty of issues concerned. For long standing issues, similarities

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between voters' accounts and available sources are high: They are sustained by common social representations informing voters and journalists alike (Moscovici, 1961). Almost all common EU Stereotypes appear among the concepts showing marked similarities (e.g., bureaucracy, costs, conflicting interests, open borders, democratic deficit, as well as concerns with identity, Hewstone, 1986; Medrano, 2003; Scheuer, 2005); only the euro was framed controversially (chapter VI). By contrast, novel issues as well as current observations were framed less consistently in public discourse, leading people to select those accounts that appeared most persuasive. Both frames concerning the EU constitution and its implications and interpretations of current events were taken over from sources selected largely consensually across participants. These issues included, contrary to expectations, also events that could be directly observed by participants – notably, the confusing and dissatisfying information campaign (chapter VI). Relying on an integrated resource strategy (Gamson, 1992), people verified their own observations through public discourse and grounded media proliferated frames in their own experience, arriving at highly robust, consensual interpretations. Thus doubly ascertained, the acquired understandings served as dependable starting points for the construction of people's narratives (chapter VI). Despite heterogeneous coverage and the considerable complexity of the issue, people successfully identified compelling frames in public discourse, forming consensual schematic knowledge about novel concerns. Seeking semantic coherence within the wide variety of offered interpretations, they selected, transformed and elaborated upon frames from diverse sources and integrated these into their own accounts. Incrementally building their schematic understanding, relying on reputable media for their knowledge of facts and drawing upon diverse political narratives for integration, people formed their own, widely informed but strategically structured, coherent interpretations.

### Limitations

The limitations of this comparative analysis are few but grave. First, the assumption of causal relatedness hinges upon a range of theoretical conjectures which are incapable of filling the void of lacking control (Brewer & Gross, 2010; Slater, 2004). While the arguments supporting the drawn conclusions have been spelled out at the outset of this chapter, several alternative routes of causal explanations remain. Media and politicians may have systematically picked up sentiments in public opinion that developed independently, or reinforced such sentiments by publicizing them. Journalists and voters may have come up with similar frames independently from one another – which is plausible particularly where long standing stereotypes are involved. Also, people's interpretations may derive from occasional references or even single persuasive articles forming frames too unique to register in this analysis. Theoretically, participants may have derived their knowledge from a phone call to their MEP or a conversation with their aunt from Italy. The above analysis has strived to capture the most probable path of causation, but it does anything but exhaust the range of plausible explanations.

The second important limitation concerns the likely non-linear nature of knowledge acquisition: People do not copy and paste propositions from public discourse into their memory, but they abstract, infer, transform, truncate, and otherwise alter propositions as they go along. As a consequence, the share of variance that can be explained by the search for directly corresponding belief structures is miniscule. While I have argued above

that also small detected similarities warrant the conclusion that frame acquisition has taken place, the reverse does not hold: The absence of isomorphically corresponding propositions does not indicate that schematic knowledge is unaffected by a source. That being said, it also needs to be noted that the above comparison delivers highly plausible results. Both the global and local similarity measures reliably distinguished between different kinds of sources, different phases, and different kinds of issues within sources in a consistent way. These regularities lend credibility to the claim that the detected patterns represent real relations within the data. However flawed and limited, the results of this comparative analysis appear to validly represent certain patterns underlying the acquisition of knowledge from public discourse.

### In summary

In summary, the above comparative analysis has extended the findings presented in the preceding chapters by two important nuances. Regarding people's acquired understandings, there appears to be a substantial degree of independence from publicly proliferated interpretations: First, the above results are incompatible with the idea that people mostly copy and paste information from received messages into their knowledge. Albeit one cannot say how far transformative integration remains constrained by the resources and omissions presented in discourse (Gamson, 1992), knowledge acquisition evidently involves considering and substantially altering information content (Graber, 1988; Sniderman *et al.*, 1990; Sotirovic, 2003). Moreover, second, it also involves selecting plausible frames from a variety of perceived accounts. A sponsor successfully advocating one frame may still lose out to others' explanation on other related issues if other frames tie in better with the narrative constructed by an individual. Single sources appear unable to dominate the observed long term process of knowledge acquisition. Third, and in line with the theoretical literature, the degree of people's independence from public discourse depends on the consonance of interpretations (Chong & Druckman, 2007c; Druckman, 2004).

The other important contribution concerns the role of differently structured accounts within public discourse. The influence of journalistic, episodically structured discourse (chapter V) did not differ much between Yes- and No voters. Frames were taken over and combined from diverse news coverage, most reliably from broadsheet and television media. By contrast, politically sponsored frames were adopted much more selectively, appropriating only frames that fit into coherent narratives (chapter VI). These findings give further support that journalistic and political frame repertoires may serve complementary functions in public discourse: While media discourse supports the formation of common belief structures concerning the issues under public discussion, political accounts not only fuel controversy, but also narrative integration. Both episodic media discourse and political narratives perform essential functions to enable political opinion formation.