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# THE INFLUENCE OF ERKENBRAND: A HYPERLINK NETWORK ANALYSIS OF THE DUTCH LANGUAGE RIGHT-WING EXTREMIST NETWORK

Verwegen, Ralph

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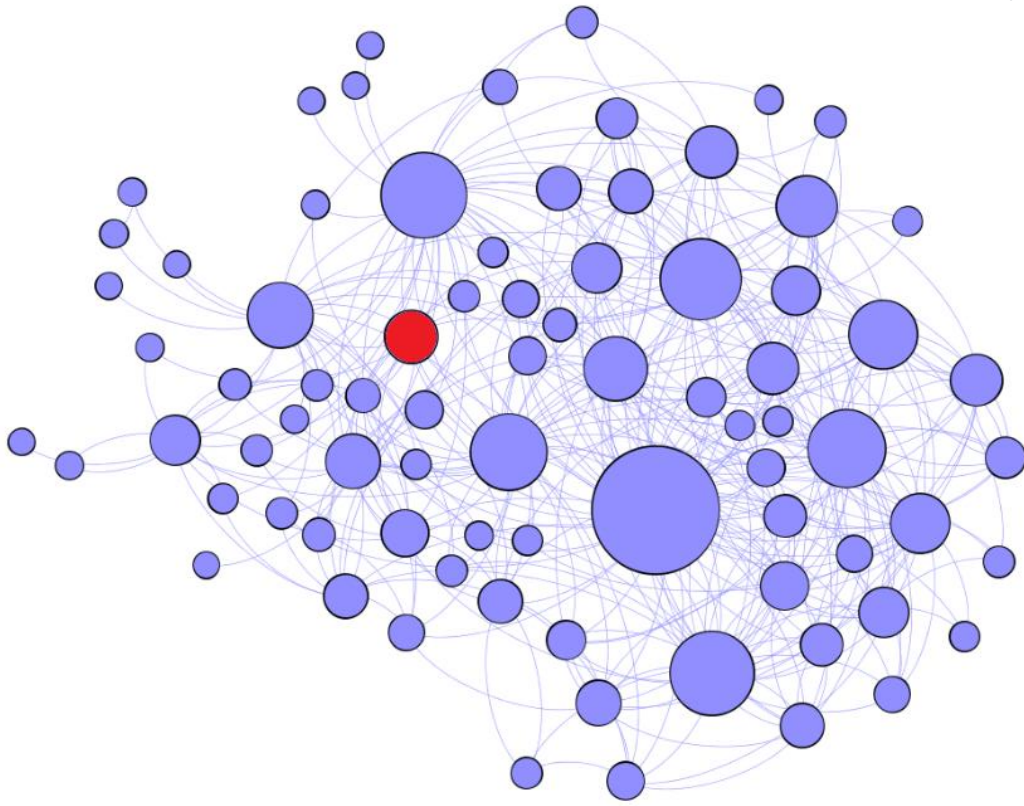
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# THE INFLUENCE OF ERKENBRAND

A HYPERLINK NETWORK ANALYSIS OF THE DUTCH LANGUAGE RIGHT-WING  
EXTREMIST NETWORK

Ralph Verwegen, s1576801

Leiden University, FGGA

Supervisors: Dr. Veilleux-Lepage

and Dr. van Buuren

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# 1 Introduction

*“Western women simply belong to western men. Het mantra of “My body, my choice” is nonsense and only leads to low fertility. Do you believe that you, as a western man can’t claim a woman? Or don’t you want to impregnate her? Remember there are endless hordes of third world men waiting to do it for you.”*

The excerpt above was published on the main website of the self-dubbed ‘study-association’ Erkenbrand (AIVD, 2018, p.9). It exemplifies the overall tone of the website, where most publications are drenched in a complex combination of rightwing extremist themes like racial purity, traditional family values and ethno-nationalism. This exact excerpt would also feature in the Dutch General Intelligence and Security Service’s (AIVD, 2018) report on right-wing extremism in the Netherlands, as evidence that Erkenbrand is an extremist organization. The AIVD went on to claim that Erkenbrand personifies a new trend within the Dutch extreme right environment, where flexible online movements have come to replace the more ‘classical’ far right movements, like skinheads and neo-Nazi’s, as the core of the Dutch extreme right.

Having officially been branded as a right-wing extremist group by the AIVD and featuring as the centerpiece in their 2018 report on Dutch right-wing extremism (AIVD, 2018), this small study association was catapulted from obscurity into the fore of the national consciousness.

Considerable journalistic attention resulted in several painful exposés on the movement. One of the movement’s leaders ‘Fausto’, one of the few members that didn’t operate under anonymity, was exposed to be a proud neo-Nazi, who encouraged violence against minorities (Kranenberg, 2017).

Despite these and other scandals, the movement, though robbed of some of its clout, has persisted. With its leadership purged of those leaders who had become controversial figures and with public attention receding, the movement continued its publications (Wagenaar, 2019). More than that, Erkenbrand has seemingly thrived and remains one of the most notorious movements in the Dutch extreme right environment.

In fact, Erkenbrand represents a new brand of right-wing extremism in the Netherlands (AIVD, 2018). Moreover, anti-extremist watchdogs and the AIVD consider Erkenbrand a potentially influential organization within the Dutch right-wing extremist milieu (AIVD, 2018; Wagenaar, 2019). As such, the consensus is that Erkenbrand, with its innovative vocabulary and strong online presence is poised to be a major right-wing extremist organization. It is considered the embodiment of the ‘flexible online movements’ that will come to replace the more ‘classical’ far right movements.

Despite Erkenbrand’s notoriety and alleged importance in the Dutch extreme right environment, it remains a barely understood organization. Academic attention to Erkenbrand is entirely non-existent; at the time of writing no peer-reviewed or journal published articles on Erkenbrand could be found. Moreover, while journalists have published copiously on the subject (Kafka, 2017; Kranenberg, 2017; Wagenaar, 2019), they have primarily concentrated on the timeline of its existence, developments in its leadership, on exposing its virulently racist thought and on individual motivation for membership. As such, little to nothing is known about the actual extent of Erkenbrand’s influence or the role it fills within the broader context of the Dutch extreme right environment.

## 1.1 Research question

As it stands, Erkenbrand's reputation as an influential organization with a key role in its environs has not been substantiated. This paper tests the assertion that Erkenbrand is indeed an influential or central player in the Dutch extreme right milieu. It will do so by answering the following question: *"What role does Erkenbrand play within the Dutch language right-wing extremist online network and how influential is it?"*

This paper attempts to answer this question by applying an online research method called hyperlink network analysis (HNA) a branch of traditional social network analysis (SNA), which studies relations between individuals, organizations and states (Park & Thelwall, 2006). By capturing the web of hyperlinks that connects right-wing online extremists online (as visualized in figure 1), we can start to discern the structure within that network and determine Erkenbrand's role and importance.

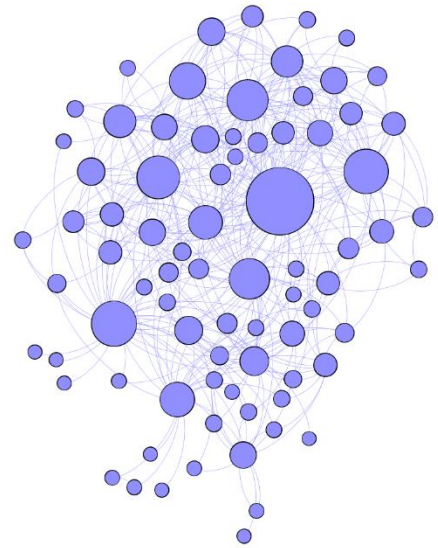
We conceptualize influence and role through the lens of SNA.<sup>1</sup>In this methodological framework actors are reduced to a single node within a network of other nodes. Relationship between actors are reduced to edges, connecting the disparate nodes and creating a network (Park & Thelwall, 2006).

As such, in SNA the characteristics of an individual organization, website, etc. are exclusively a product of that actor's relationships with other actors. The depth and nature of its relationships are not measured. Instead, relationships are reduced to their bare essence; flows of information. Every relationship is a conduit for information from actor to actor, from node to node.

In SNA *influence* is a product of a node's relationships with other nodes. Influence is a combination of a node's ability to censure, disseminate and amend information flowing through the network. As such, Influence is a result of how central a node is to the network, how well it can interpose itself between other nodes, and how influential its direct partners are (Friedkin, 1998).

A node's *role* within a network is also determined solely by its relations. For example, a node might be crucial in connecting a distant section of the network to the whole, or it might be a very active bridge builder, engaging many different nodes thereby increasing the connectedness of the network (Merton, 1958).

We have chosen to focus exclusively on Erkenbrand's role and influence within the Dutch right-wing extremist scene. While an understanding of Erkenbrand's reach across the entire online world could be more informative, it would make the scope of this paper unwieldy. Measuring Erkenbrand's influence among its ideological peers provides convenient context, allowing us to easily compare and contrast



*Figure 1 A demonstration of how related nodes together form a network, also called a diagram*

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<sup>1</sup> The explanation here of HNA and the concepts of influence and role is a short introduction. Full explanations can be found in the chapter 'Methods' in the sections 'Hyperlink network analysis, what is it?' and 'Defining and operationalizing influence and role'.

different extremist actors. Moreover, this focus allows us to uncover the broader mechanics that steer online interaction in the right-wing extremist sphere. Again, this will allow us to contextualize our results.

## 1.2 Hypothesis

We expected to find that Erkenbrand is an influential actor within the online extreme right environment for two primary reasons.

Firstly, the prominence afforded to it by the AIVD (2018) and the Anne Frank instituut (Wagenaar, 2019) indicate Erkenbrand has considerable influence. According to them, Erkenbrand has seized upon a trend of increased digitalization in the milieu and embodies a new brand of extremism that appeals to a wider audience than traditional actors. Both facts suggest Erkenbrand might have acquired a prominent role in the milieu.

Secondly, Erkenbrand has high turnouts to its gatherings for an extremist organization, indicating a high membership. This does not necessarily mean that Erkenbrand has a well-connected status to other right-wing groups. However, there is a trend the Dutch right-wing extremist milieu towards overlapping loyalties (AIVD, 2018), meaning that extremists often hold several memberships. As such, Erkenbrand's higher membership count increases the odds some of its members hold split loyalties, and thus connect with different groups. Moreover, Erkenbrand's average member fits the bill of the extremist with split loyalties, often being younger, and very active online (Kranenberg, 2017).

We also expected it to be a key bridge builder. Erkenbrand's careful presentation, with a distinct vocabulary, pseudo-intellectualism and precisely curated website (Kranenberg, 2017) suggest that it is attempting to appear as a palatable alternative to equally radical peers. As such, we expected Erkenbrand takes a position as a gatekeeper between right-wing extremists of differing degrees of radicalization.

Furthermore we expected to find its connections to other right-wing extremist groups grow closer with ideological similarity, meaning it broadcasts more effectively to other alt-right movements than it does to say the PVV, which staunchly supports Israel; a position that is incompatible with Erkenbrand's belief that Judaism stands at the root of many societal ills (Wagenaar, 2019).

## 1.3 Main findings

We found HNA extremely useful for investigating both the entire extremist network and Erkenbrand individually. It informed us of the patterns of interaction within milieus and the importance of different actors.

Our results demonstrate that Erkenbrand is indeed an influential actor. It is primed to efficiently and effectively disseminate, amend and stop flows of information in its milieu. Though by no metric the single most important node in the network, Erkenbrand is a local powerhouse, geared to influence exchanges between its subgroup, bloc and the wider network. Moreover, it is primed as the face of the more radical streams of thought within the network. Its influence is especially strong among ethno-nationalist, new right and neo-fascist groups and weaker amongst anti-democratic and xenophobic groups.

Given Erkenbrand's influence and role in the right-wing extremist milieu it is likely that it will continue radicalizing others towards its ideology. Erkenbrand's considerable influence should be a cause for concern and merits close monitoring by civil and state watchdogs.



## 1.4 Reading guide

This section serves as a guide to the content of this paper, summarizing the content and relevance of each chapter.

*Chapter 2 Societal relevance:* This chapter explains why this thesis was worth writing and why it is worth reading. It emphasizes the need for continuous vigilance concerning right wing extremism and that Erkenbrand deserves special attention.

*Chapter 3 Academic relevance:* In this chapter we acknowledge the body of knowledge upon which we build, and identifies the gaps in understanding it still leaves. We take the position that HNA is currently underutilized in this field, and that it can be leveraged to research individual actors on its own merits.

*Chapter 4 Methods:* Here we report our methodological choices and justify them with the accompanying theory. This chapter serves several purposes. Firstly, it explains how our methods actually tackle our research question. Secondly, it allows others to critically examine our choices. And thirdly, it provides the uninitiated reader with an understanding of the concepts of HNA.

- *4.1 Hyperlink network analysis: what is it?:* Here the basic theoretical mechanics of SNA and HNA are explained. This section argues that HNA can be used to map right wing extremist networks and that those networks hold analytical value.
- *4.2 Hyperlink network analysis: how does one do it?:* This section reports our system of operations and the tools used with accompanying justification.
- *4.3 Defining right wing extremism:* This section provides a practical definition of right wing extremism and justifies it.
- *4.4 Defining and operationalizing influence and role:* This section builds a conceptual link between our research question and the methods. It defines and operationalizes influence and role, identifying HNA concepts useful in measuring influence.
- *4.5 Analyzing hyperlink network analysis data:* This section reports and justifies our choices during analysis and explains the different metrics used and how they were acquired.

*Chapter 5 Results and analysis:* This chapter reports our data and presents accompanying analysis. Divided in three, each section tackles a different aspect of influence and role.

- *5.1 Macro level results and analysis:* Here we analyze the general character of the network as a whole. Also, in this section we analyze the network's overall cohesion.
- *5.2 Meso level results and analysis:* In this section we examine the network's subgroups and the relationships between them, by exploring their internal and mutual cohesion and centralities.
- *5.3 Micro level results and analysis:* Here we zoom in a single node, Erkenbrand, explore five different forms of centrality to determine its importance to its subgroup and the network as a whole.

*Chapter 6 Discussion:* This chapter contains our reflections on the results and the research process.

- *6.1 Answering the research question:* This section concludes the argument of this thesis with a summary our results and analysis.
- *6.2 Reflections on the hypothesis:* Here our hypothesis is contrasted with the final results.

- *6.3 Challenges:* Here we discuss the complications encountered during data collection, concerning mainly the friction between the data and the inclusion criteria.
- *6.4 Limitations:* This section concerns the limitations inherent to our method and how they impacted the quality of our research.
- *6.5 Future research:* Here we propose opportunities for future endeavors and amendments in methodology.

*Chapter 7 Conclusion:* This chapter restates our goals, our process, our findings and our recommendations.

## 2 Societal relevance

Extremist thought can be harmful to society, especially in the case of rightwing extremist thought. The particular brand of rightwing extremism adhered to by Erkenbrand and its ilk champion racial purity, and holds that race wars are inevitable. Such convictions, and the resultant preparations foster intolerance and violence (Eckstrand, 2018).

We bear a collective responsibility to be vigilant for ideologies that preach intolerance and violence. A continuous commitment to understanding the nature and spread of intolerant worldviews are essential to a healthy democratic society. The growth and evolution of right-wing extremist communities deserve special attention, lest we let reality outpace our understanding. Erkenbrand's represents a new stage in this evolution. Hence, its influence merits attention.

Alt-right movements have proven particularly influential. Authors such as Daniels (2018) and Woods and Hahner (2019), assert that the alt-right engages in clever and strategic use of the internet, to move the 'Overton Window' in order to set up a large scale cultural shift. Woods and Hahner assert that the alt-right prolifically crafts persuasive memes to disseminate its views. Moreover, the international alt-right movement has demonstrated its capacity for violence with a number of terroristic attacks (Laqueur & Wall, 2018).

Erkenbrand is the largest Dutch alt-right movement (AIVD, 2018). And it is one of the most prolific, producing a steady stream of podcasts, articles and videos (Maly, 2018). In its mission statement Erkenbrand (2019) conceptualizes itself as a "platform for kindred spirits" that focusses not on activism but on "spreading our ideas and friendship..." It also demands from its members as "certain intellectual level", thereby reinforcing its self-conception as a platform for higher thought. As such, Erkenbrand differentiates itself through a focus on actively constructing and spreading its ideology. Both its online and offline activity emphasize these goals. Offline meetups mostly occur in the context of readings and conferences (Wagenaar, 2019).

Given that Erkenbrand is deeply engaged in the spread of rightwing extremist thought and that such thoughts merit attention an investigation Erkenbrand's influence holds value. Moreover, such an investigation has not yet been done. While creative and meritorious journalistic publications have engaged with this question at some level (Kranenberg, 2017; Miserus, 2017; Sterkenberg, 2017), they lacked scientific rigor and were unable to produce a clear picture of Erkenbrand's role within the wider Dutch extreme right environment.

Although far from being *sui generis*, Erkenbrand appears to present policy makers with novel challenges. Its activities are mainly online and its structure and ideology do not conform to those of more traditional extreme right movements such as the NVU (AIVD, 2018; Maly, 2018; Wagenaar, 2019). Given the prominence the AIVD (2018) has afforded it in its reports, and the fact that it holds Erkenbrand up as a personification of a larger shift within the topography of the Dutch extreme right, a better understanding of the reach of Erkenbrand's influence and role might serve it and other policy makers. Intervention in the form of disruption, censure, or counterpropaganda could be deployed more strategically based on such knowledge.

### 3 Academic relevance

This paper hopes to contribute to the wider corpus of academic literature concerning the alt-right. As such, it must position itself within this field. The following section surveys the field, moving from more general literature to publications that engages with the influence of the alt-right, and then to literature that deals specifically with the Dutch alt-right, while relating its findings to the research question.

#### 3.1 Defining the alt-right

The origins of Erkenbrand's worldview lie outside the Netherlands, and have been traced to the United States (AIVD, 2018; Maly, 2018; Wagenaar, 2019). It owes its existence to an international movement that popularized the alt-right across the Western world. It therefore makes sense to conceptualize Erkenbrand in the context of the wider body of knowledge on the alt-right.

The term 'alt-right' was devised by the American Richard Spencer (Wallace-Wells, 2016) in an effort to set a new branch of right-wing thought apart from traditional American conservative ideology. It mostly differentiated itself on the subjects of free markets, globalization and pro-war policies (Eckstrand, 2018). Stevens (2016) argues that the alt-right was founded on four core tenets:

- Nationalism: conceptualized as "the historical definition of related groups of people indigenous to a land", their relation being based on shared "culture, values, morality, religion and heritage".
- Decentralization: conceptualized as the opposition to "centralization and the replacement of natural developments with human intentions" and the enforcement of the common will through government intervention.
- Traditionalism: conceptualized as the belief in practices that "achieved the best results in the past", holding certain traditions as based on ageless truths.
- Natural Law: conceptualized as the belief that some social arrangements are ordained by nature itself and contrasting these truths against what are believed to be unnatural and therefore forced social arrangements.

However, these core tenets do not neatly delineate the alt-right movement, and a large diversity of ideas is persist within it (Maly, 2018; Wagenaar, 2019). For example, the comparison between Erkenbrand and its foreign counterparts only goes so far. While Erkenbrand adopts the extremely racist and anti-Semitic views of its U.S. predecessors, most other European alt-right movements are less extreme. Additionally, Erkenbrand differentiates itself in its inclusion of tenets from early Italian fascism within its worldview (Wagenaar, 2019). Overall, 'alt-right' remains a badly defined term referring to a loose collection of organizations and movements harboring a plethora of diverse worldviews and agendas (Maly, 2018).

The lack of a clear label, or a clear group to label has done little to dissuade academics from publishing on the alt-right. In fact, one of the salient debates within the field concerns the nature and origins of the alt-right (Belew, 2018; Tinnes, 2020). Considerable effort has gone into determining where to place the alt-right within the borders of the extremist right. Many have argued that the alt-right is in fact a continuation of more traditional movements such as the Ku Klux Klan and National Socialism (Daniels, 2018; Eckstrand, 2018; Futrell & Simi, 2017; Maly, 2018). While some focus on proving the ideological debt the alt-right has towards these movements (Maly, 2018), others attempt to prove their political and rhetorical methods are the same (Eckstrand, 2018), others still hold that the alt-right is a natural product stemming from the traditional extreme right (Futrell & Simi, 2017). Given strong pushback

and a hostility in mainstream culture, right-wing extremists retreated from public spaces, moved onto the internet and rebranded themselves (Futrell & Simi, 2017). These efforts seem to be motivated primarily by a desire to push back against the perceived attempts by the alt-right to rebrand right-wing extremist thought as a reasoned and self-restrained alternative to traditional right-wing extremist movements (Eckstrand, 2018).

### 3.2 The influence of the alt-right

There is a growing body of literature that actively engages the question of the actual influence of the alt-right or the function it fulfills within right-wing extremists milieus (Tinnes, 2020). However, the research that exists is still sporadic or niche.

Woods and Hahner (2019), for example, engage exclusively with the spread of alt-right memes and focus on the structure of the web itself to explain the influence of alt-right actors, not networks. While insightful, this approach sacrifices an understanding of the actors and their reach for depth of understanding of a specific medium: memes. So, though this research does contribute to our understanding of how alt-right influence, and to it does so with a limited scope.

Others, like Neiwert (Fekete, 2018) and Koblenz-Stenzler (2020), paint with broad strokes when exposing the growth of alt-right influence, highlighting trends and patterns. They provide important context for a deeper understanding of the growing importance of the alt-right. However, they fail to demonstrate the importance of the alt-right relative to its ideological peers, or rigorously measure the influence and positioning of the alt-right.

The challenge of quantitatively measuring the alt-right's influence has been met by some authors (Berger, 2018; Bevenssee & Ross, 2019; Gallaher, 2020). While all take a digital approach, their methods vary. Some like Gallagher (2020) and Berger (2018) focus solely on Twitter to map the influence of alt-right propaganda. Overall, there appears to be no established academic conventions on the measurement of influence. Bevenssee and Ross (2019) acknowledge the infant state of the field and specifically set out to explore different digital methods for the future exploration of alt-right influence. Interestingly, there is no literature that attempts to contrast the alt-right's influence with that of similar movements. Moreover, we could find no literature that attempted to map the influence of a specific extremist actor.

### 3.3 Hyperlink network analysis and the extreme right

HNA has been recognized as a promising digital method for gauging the relative influence and role of extremist actors. Most notable are the efforts of Caiani, Della Porta, & Wageman (2012)(2009), who have used HNA to map right wing extremist networks in several European and North American countries. Their groundbreaking efforts established the utility of HNA in investigating right wing extremist networks. They focus on contrasting the topography of national networks, assessing the general differences in cohesion and mobilization capacity. Their efforts have seen some follow-up by others (Fujdiak & Ocelík, 2019; Kaiser, 2019; Karl, 2016), who adopt a similar community oriented approach.

HNA is also used in studies that go beyond macro level network research. Froio (2018), for example, combines HNA with a frame analysis to track the spread of political discourse within right wing extremist circles. Another prime example, is Zuev (2010), who investigates a single actor, the most central node in Russia's extreme right milieu, using HNA. Like Froio he uses HNA in combination with a qualitative method.

No literature could be found that used only HNA to research a single extreme right wing actor. HNA driven studies interested in single actors complement their studies with qualitative methods and Studies that only leverage HNA tend to stick to a macro level and only sporadically engage in sub-group analysis (Caiani et al., 2012; Caiani & Wagemann, 2009; Fudjak & Ocelík, 2019; Kaiser, 2019). This state of affairs is interesting because SNA *does* provide the tools to investigate single actors (Friedkin, 1998; Scott, 2017; Wasserman & Faust, 1994). It appears that the HNA research into extremist networks at present fails to leverage the full toolkit at its disposal. In the section 'Defining and operationalizing influence and role' we explore those tools in detail.

### 3.4 The Dutch alt-right

There is a specific dearth of knowledge on the alt-right in the Netherlands. Little has been published on the subject. Dutch language publications focus mainly on the U.S., or concern themselves mainly with the alt-right in general terms, preferring to explain the phenomenon in its full breadth (Maly, 2018). A systematic mapping of the dissemination of alt-right ideas in the Netherlands has yet to be conducted, let alone for Erkenbrand specifically. Dimitri Tokmetzis, writing for the Correspondent, seems to have conducted a network analysis on Erkenbrand's twitter activity, publishing some of his raw results in 2017. However, he is yet to follow this up with a fleshed out article (Tokmetzis, 2017).

Moreover, though communities in Belgium, Germany, France, Italy, UK and US have been mapped (Caiani et al., 2012; Caiani & Wagemann, 2009) no attempt has been undertaken to map the Dutch or Dutch language right-wing extremist milieu using HNA. As such, our research would represent a first step in mapping the Dutch language right-wing extremist milieu.

In conclusion, this paper addresses several holes in academic literature identified above. It conducts a quantitative assessment of extremist influence, directly contrasts an extremist actor with its peers and focusses on a single extremist actor.

Furthermore, it engages with an existing gap in the literature when it comes to the Dutch alt-right. Additionally, by mapping Erkenbrand's network we construct the first network of the Dutch language right-wing extremist milieu, thereby possibly affording some understanding on how this network functions and providing a source of comparison for similar work on different extreme right of alt-right groups within our outside the Netherlands.

## 4 Methods

Here we report our methodological choices and justify them with the accompanying theory. This chapter serves several purposes. Firstly, it provides the uninitiated reader with an understanding of the concepts of HNA. Secondly, it explains how our methods actually tackle our research question. And thirdly, it allows others to critically examine our choices.

### 4.1 Hyperlink network analysis: what is it?

To answer our research question we employed hyperlink network analysis (HNA). To understand its value we must take a step back and trace its origins. HNA is a branch of traditional social network analysis (SNA), which studies relations between individuals, organizations and states (Park & Thelwall, 2006). Social network analysis conceptualizes all actors as nodes within a wider networks of nodes, which can, but do not necessarily connect to each other. Connections between nodes are constituted by relationships, such as friendship, kinship or business relations. SNA chooses not to focus on the identity of the actors, but on the nature of the relationships that actors share. As such it allows researchers to map the complicated web of interactions that constitute a social group. In short, by prioritizing the relationships between actors rather than actors as the subject of study, SNA allows researchers to better understand the nature of the interactions and flows of information that constitute a social group.

Moreover, SNA allows one to visually map actors (nodes) and their relationships (edges), resulting in an overview of a social network. Such a map allows one to assess the topography of a social network, possibly revealing clusters of related actors or the most connected actors. Unfortunately, a traditional SNA approach in the case of Erkenbrand is unfeasible; members of right-wing extremist groups are notoriously uncooperative and often operate anonymously and via online media.

HNA provides a way of overcoming these obstacles. Park & Thelwall (2006 p. 1) summarize hyperlink network analysis as follows: “*HNA casts hyperlinks between Web sites (or Web pages) as social and communicational ties, applying standard techniques from Social Networks Analysis to this new data source*”. Jackson (2006) suggested in the late 90’s that SNA could be leveraged in computer-mediated communication processes, importing SNA into the digital world. Jackson emphasized the value of hyperlink-based social network analysis in interpreting online information flows. Indeed, Wellman (2001) asserts that computer mediated communication processes may contain social networks, in which hyperlinks embody the relationships between actors. HNA thus conceptualizes hyperlinks as a chief tool through which actors maintain relationships, making hyperlinks an appropriate unit of analysis for a SNA approach. HNA has been operationalized in a number of studies on a variety of subjects, such as insurgency and terrorism studies, varies international blogospheres (Etling et al., 2010; Etling, Kelly, Faris, & Palfrey, 2009; Kelly & Etling, 2008), and online extremist networks (Caiani & Wagemann, 2009; Tateo, 2006).

When one conducts online research, one can operationalize a host of technological artifacts such as websites, webpages, words, hyperlinks and web search engine results. We have chosen hyperlinks (or URLs) as our unit of analysis. To understand why we favor hyperlinks as a unit of analysis we must understand what a hyperlink is. Park & Thelwall (2006) define a hyperlink as “a technological capability that enables, in principle, one specific Web site to connect seamlessly with another. The shared (bilateral or unilateral) hyperlinks among Web sites allow documents and pictures to be referred to through the Web. The information or contents may be ‘transmitted’ through the simple click of a mouse” (p. 4).

While an internet user can technically access (almost) all content on the web, hyperlinks direct the attention and behavior of internet users. A hyperlinks often suggests related content, and can function as an implicit or explicit recommendation. Making hyperlinking “perhaps the most significant mechanism of online gatekeeping” (Napoli, 2008 p.63). In short, the structure of hyperlinks steers the browsing behavior of internet users, and as such directs what information is consumed by internet users (Park & Thelwall, 2006).

Moreover, hyperlinks are not created randomly. In fact they strategically selected by their creators. As such, hyperlink structures are likely to reflect the communicative agendas of web creators (Jackson, 2006). In conclusion, hyperlinks are a significant factors in structuring the flow of information on the web, and they are the product of a conscious choice in association. Consequently, they can serve as an appropriate proxy for more traditional relationship (like kinship and friendship) as conceptualized in SNA. In combination with other methods HNA thus enables us to start tracing why and how certain content appears on websites (Park & Thelwall, 2006).

## 4.2 Hyperlink network analysis: how does one do it?

### 4.2.1 Data collection

Data was collected using the free web crawler Hyphe, a research driven web-crawler designed by SciencesPo for use in online research in the social sciences. Hyphe was selected because it is freely available and designed for use of HNA in social sciences. Hyphe allows one to collect all the hyperlinks on a website through automated crawling. The data management process is traceable and easily understandable, allowing a researcher to critically examine their findings. It has been used successfully in several publications (Jacomy, Girard, Ooghe, & Venturini, 2016). A notable example is Pedroja’s research into the online network of climate deniers, a use case similar to ours (Pedroja, L’hôte, Chapoy, Levain, & Dépasser, 2016).

Hyphe is described by its creators as follows: “Hyphe has a web application, accessible from a HTML5 browser, and a server coded in Python and Java. The application comprises of different screens with lists to monitor data and a live network visualization with a Javascript implementation of the ForceAtlas2 layout algorithm. The core code in Python Twisted serves the client API and orchestrates the data flows between clients, crawler and memory structure. We use the Scrapy framework for crawl agents spawning and scheduling (scrapy.org). The core indexes the pages and hyperlinks in a Lucene memory structure with specific features that support a dynamic aggregation of pages into web entities (Jacomy et al., 2016, p. 596).”

The collection of data began on the main website of Erkenbrand, picking up more websites after every round of crawling and categorization to create a snowball effect. In this manner the corpus grew from a single website to 79 web entities.

Our full method is detailed here:

1. We set up our VPN: eduVPN, available at <https://www.surf.nl/en/eduvpn>. Research into right-wing extremism, even online research, may bring unforeseen risks. The VPN serves to protect our identity from webhosts and any institutions that monitor online activity.
2. We start to crawl at Erkenbrand’s main website: <https://www.erkenbrand.eu/nl/>. We crawl at a depth of three. This refers to the number of “clicks” the crawler makes away from the homepage within the crawled WebEntity. This depth was maintained for all crawls.



3. Hyperlinks were tested against the inclusion criteria through a hybrid method. To start, hyperlinks were fed through a custom-made computer program, which accomplished two tasks.

Firstly, it removes all social media pages by discarding all URLs belonging to pages by that included the keywords Twitter, Facebook, Reddit, Tumblr, Instagram, Pinterest, Whatsapp or LinkedIn. Social media were excluded because some social media platforms, like Facebook, Twitter and Instagram, are hard to crawl, necessitating a parallel methodology to tackle these URLs. Moreover, the nature of social media platforms makes it challenging to accurately attribute content to specific actors. While an approach that incorporates social media is promising, the extra labor and complexity it imposed exceeded our resources.

Secondly, it identifies the language of a website by scraping a website's homepage and running it through a language identification tool called lang.py (Lui & Baldwin, 2012). If it determines that the most likely language used on the homepage was Dutch, the URL is retained. Other URLs are discarded. About 4% of all URLs failed to be processed automatically. URLs that failed to be automatically checked passed directly on to manual evaluation.

4. After the automated filtering, the corpus consisting of only Dutch language URLs and those URLs that failed to be processed automatically was manually evaluated. Here we assess the URLs one by one, by visiting the URL and reviewing its content.

To be included in the corpus, a URL must:

- a) Engage with right-wing extremist thought, meaning it (a) exhibits an ideology of inequality and (b) rejects established political systems. For an elaborate discussion on this definition, see the section 'Defining right-wing extremism'.

or

- b) Be associated with a known Dutch language right-wing extremist organization or movement. Association with a right-wing extremist political group can be determined by identifying authors, stated allegiances by the web creators or active users. The documentation of known right-wing extremist organizations by Anne Frank institute (Wagenaar, 2019) and Kafka was used to assist in identifying websites as belonging to a right-wing extremist movement ("Kafka | Antifascistische onderzoeksgroep," n.d.).

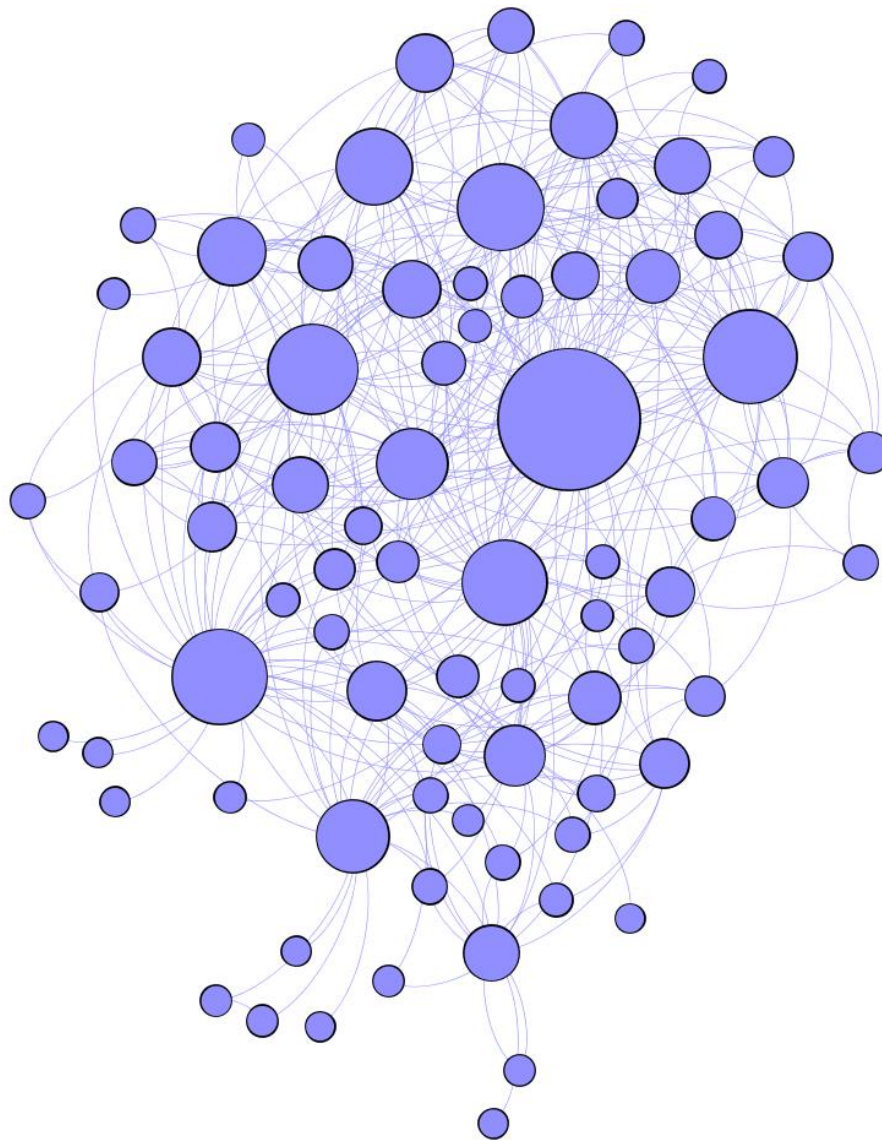
5. Once all the links found to meet the inclusion criteria are included in the corpus, the process detailed in points 1, 2 and 3 is repeated for each entity found. This process was repeated until we had built a corpus that was of a comparable size found in similar research. While continuing this process up until a point of exhaustion (meaning no new extremist organizations could be found) could have yielded more valid results, this goal demands an unrestricted and possibly unmanageable investment of time.

#### 4.2.2 Visualization and processing

The final methodological phase consists of the visualization of the data. In this step the gathered data is transformed into a visual image through the use of a graphic visualization tool. As SNA, HNA allows researchers to network diagram for a collection of networked websites see figure 2. The finished data set was processed using Gephi (Bastian, Heymann, & Jacomy, 2009), a graphic visualization tool chosen because it is freely available and because it is well documented, allowing researchers to critically examine their process.

The network diagrams are produced by combining two link analysis strategies: link impact assessment and link relationship mapping. Impact assessment considers how many hyperlinks flow from and to other websites within the network, so that we may determine the relative importance of certain node. Link relationship mapping identifies overall patterns of interlinking websites.

*Figure 2 Unlabeled graph of Erkenbrand's network*



Campana & Ducol (2015 p.686) succinctly capture the way Gephi processes the hyperlink data: “It (Gephi) considers the force between two nodes, showing the relationship between any two websites that are linked online. All websites are then shown in terms of their direct links as well as, more importantly, the links among their shared neighbours. The position of each dot—or node—in the diagram is a function of its links with neighbouring dots. Two websites will be shown as near each other if they are linked. The

position of each website depends on the number of links it contains that refer to other websites and the number of links on other websites that refer to it. Clusters of dots are thus an indication of densely interlinked network neighbourhoods. For example, websites that share many common neighbours will be close together on the map, even if they are not directly linked to one another.”

Using Gephi we analyzed the data, producing the metrics found in the results section. Some metrics, which Gephi does not provide, were produced in Networkx (NetworkX, n.d.), a freely available Python package. Also, all network diagrams were produced with Gephi.

### 4.3 Defining right wing extremism

The definition of right-wing extremism is contested. Minkenberg (2000) alone counts 26 different definitions used by scholars. Moreover, academics, laymen and institutions can vastly differ in their definitions. Their differences are often motivated by their practical needs and goals. We have also allowed practical consideration to guide us in our definition.

Given that we are motivated by a desire to learn where Erkenbrand is situated in the larger corpus of the Dutch right-wing extremist sphere, we are best served by a broad, flexible definition of right-wing extremism. A broad definition mitigates the prejudice that the establishment of inclusion criteria inherently imports into research.

Caiani, Della Porta and Wageman (2012) offer a useful definition, constituted by with what they call the “central elements of the extreme right”: Ideologies of inequality and an acceptance of violence. Ideologies of inequality can be understood to mean ideologies that advocate a growth in inequality of, for example, rights, means and social status. Examples are Nationalism and Racism. Acceptance of violence can be understood to mean that a willingness to achieve the realization of the aforementioned ideologies through violence.

A cursory inspection of Erkenbrand’s website shows that outright calls for violence are few and far between. Given its sharp media awareness and careful curation of posts this is not surprising. Therefore, in anticipation of similar online content, a combination of the two core elements of right-wing extremism in the ideology espoused on a website was considered a necessary element for inclusion into the data corpus. This would lead to an unduly restrictive definition, and a corpus vastly limited in scope.

Though the espousal of ideologies of inequality are a necessary constitutive element to define content as right-wing extremist, by itself it is, however, not a sufficient marker of right-wing extremism. Libertarian and nationalist ideologies, for example, though ideologies of inequality, are not necessarily extremist in nature. As such, we have chosen to expand upon the core elements of Caiani, Della Porta and Wageman (2012), by broadening the second element; acceptance of violence. We have chosen to expand on the willingness to employ violence with the inclusion of more traditionally ‘extremist’ markers: Anti-democratic and anti-parliamentarian rhetoric and the rejection of egalitarianism. All of these markers, including the employment of violence, may be understood as a rejection of established political systems as a means of realizing political goals (Caiani et al., 2012).

As such, the definition of right-wing extremism used for this research, and specifically for the inclusion of websites and organizations into our data corpus is as follows: Right-wing extremists thought is constituted by a combination of an ideology of inequality *and* a rejection of established political systems.

However, during data collection it became evident that the inclusion criteria needed refinement. The inclusion criteria had purposefully been kept broad so as not to unduly restrict the scope of the data set. While this approach succeeded in that goal, when faced with the heterogeneity of reality the inclusion criteria proved insufficient to guarantee consistent categorization throughout the process. As such, we felt necessitated to revisit our inclusion criteria.

Consequently, after 3 rounds of crawling we examined the 42 entities that had been included in the dataset as positively belonging to right-wing extremists. Drawing inspiration from grounded theory we immersed ourselves in the existing data with the goal of identifying the uniting traits among them. Through an iterative process of reading and rereading the sources, codes formed organically. Together the resulting codes reflect the commonalities found in the selected right-wing extremist entities.

The coding scheme is not designed as a final standardized test. The coding scheme does not establish a precise threshold for inclusion. It provides no set number of codes or frequency of occurrence to satisfy. Some codes overlap, and none individually suffice to categorize an entity as right-wing extremist. The nature of the task demands that inclusion or rejection remains a matter of judgment. The purpose of the coding scheme is to act as a guide. As the researcher recognizes more codes in a given entity his confidence can grow that the entity in question merits inclusion. With the coding scheme one can test new entities against a standardized set of codes. This reduces the process's reliance on the researcher's judgment and therefore also their biases.

Code:

- **Rejection of democratic political system**

Subcodes:

- The democratic system is broken
- Democracy is inherently undesirable/infeasible
- Political pluralism is harmful to the nation
- The political system does not reflect the will of the people (nation)
- The establishment is corrupt
- The political system has been coopted by nefarious powers
- Parliamentary democracy fails to represent the individual
- Extrajudicial violence is a legitimate political recourse
- The need for law and order supercedes the need for individual liberty and equality
- The powers of parliament should be restrained

- Effective leadership requires concentration of power with a single individual or select group of virtuous individuals
- Law and policy should reflect ethnic and racial hierarchy
- Civil unrest or war is desirable or inevitable
  
- **Ideologies of inequality**
  - o *Racism*
    - Different races and ethnicities are fundamentally different
    - Different races and ethnicities exist in a hierarchy
    - Different races and ethnicities are irrevocably locked in a struggle for dominance
    - Different races and ethnicities have right to their own separate spaces
    - Integration of different races and ethnicities is impossible or undesirable
  
  - o *Nationalism*
    - The basis of the state is the nation
    - The basis of the nation is the ethnic community (based on shared cultural, linguistic, genetic and/or historical traits)
    - The nation-state is a natural and therefore most legitimate polity
    - The nation should function as an indivisible whole
    - Nations should resist foreign elements
    - The interests of the nation should prevail over the interest of the individual
    - Liberalism, multiculturalism etc. erode the nation
  
  - o *Xenophobia*
    - Foreign cultures and ethnicities are undesirable

- Foreign religions (particularly Islam) are incompatible with the native culture or religion
- Immigration harms the nation through:
  - Division of will and norms
  - Excessive crime
  - Unacceptable strain on state resources
- Immigration harms the integrity of the nation
- Members of the native nation have a stronger claim to resources and rights than foreigners
- Immigrants need to be repatriated

## 4.4 Defining and operationalizing influence and role

This section builds a conceptual link between our research question and the methods. It defines influence and role using Friedkin's (1998) structural theory of social influence. We identify visibility, cohesion and centralization as the central concepts to measuring influence and role and relates them to specific HNA concepts.

### 4.4.1 Defining Influence

We conceptualize influence through the lens SNA, specifically through the lens of Friedkin's structural theory of social influence.

To Friedkin (1998, p. 4) influence is an extension of social control, which refers to “the occurrence and effectiveness of ongoing efforts in a group to formulate, agree upon, and implement coordinated lines of action.” As such, influence is a measure of an actor's ability to affect the processes by which a given group comes to shared opinions and action.

Friedkin (1998) holds the dynamics of social control should be evaluated on a structural level. He argues that the structure of a network determines the patterns of recurring interactions between actors. Consequently, the processes of social control, arising from patterns of recurring interactions within the networks, are shaped by a network's structure. Accordingly, actors, depending on their position in the network, which is determined by their varying relationships with other actors, will have more or less influence.

To summarize, by mapping a network we can capture the structure that determines the patterns of interactions that shape the processes of social control within it. By finding Erkenbrand's position within the network and the patterns of interaction in which it partakes we can determine its influence.

### 4.4.2 Defining role

Friedkin (1998) recognizes that the positioning or behavior of an actor within a network may confer a specific role upon that actor. The nature of those roles may vary significantly in form and significance. For instance, an actor might be extremely gregarious, meaning it actively builds one-sided relationships with other actors. This actor might be termed a bridge builder (Park & Thelwall, 2006). Or, an actor may stand as the lone gateway between several subgroups, making it an important gatekeeper.

An actor's roles is always rooted in data. For example, the bridge builder and gatekeeper phenomena may be measured using out-degree centrality and betweenness centrality respectively (Friedkin, 1998). These concepts are explained further below, in the section 'The micro level'.

### 4.4.3 Operationalizing Influence

Besides explaining that influence is a result of structural factors in social networks, Friedkin (1998) claims that influence can indeed be measured. He explains that influence is constituted by a number of measurable factors.

In the sections below they are expounded. The purpose of this section is to establish the theoretical weight of the metrics used in the analysis in determining influence.

#### 4.4.3.1 Visibility

Friedkin (1998) holds that visibility is a prerequisite condition of influence. An influential actor has to be visible to others, as other actors can only react to an actor when its behavior is first observed. For an

opinion to disseminate, or an action to become popularized, it needs to be observed by a second party. Those who are never observed can never be influential.

Visibility is provided by the relationships an actor holds. It is observed firstly by those it holds direct relationships with and secondly by those who it has indirect relationships with. As such, an actor's influence is partly determined by the amount of relationships it has and the direction of those relationships. This aspect of influence is captured by indegree centrality, which is the amount of incoming hyperlinks. Incoming hyperlinks are the building blocks of an actor's visibility as an incoming hyperlinks represents the flow of information from a given actor to the actor establishing the connection (Friedkin, 1998). This concept is explained further below, in the section 'The micro level'.

#### 4.4.3.2 *Cohesion*

Friedkin (1998) holds that the cohesion of a network or subgroup is a primary determinant of influence. Cohesion refers to the overall strength of the ties that bind a network together. Traditionally, a cohesive group is a group wherein members are all strongly tied to one another.

However, SNA de-emphasizes the strength of relationships. Granovetter (1983), for example, argues that fundamental factors of cohesion are based on weak ties of acquaintance and collegiality. Instead SNA treats all relationships equally and focusses on the number of relationships and the distance between members.

As such, to us cohesion is a measure of the 'knittedness' of a group. Cohesion is positively associated with the rapid diffusion of ideas, and is consequently positively associated with the capacity of a network to cooperate and mobilize (Friedkin, 1998; Park & Thelwall, 2006).

Cohesion is also positively associated with greater influence. Greater cohesion, founded on greater interconnectedness, entails the quick dissemination of information and opinion. A cohesive environment makes the average actor more visible, priming it to affect the behavior of other actors. As cohesion may vary across a network, an actor may thus have variable influence on others according to its varying cohesion (Friedkin, 1998).

The cohesion of a network can be captured using distance, diameter, density and the average degree of a network (Friedkin, 1998; Park & Thelwall, 2006). We used these three metrics test the overall 'knittedness' of a network. Distance and diameter do so by capturing the distance information needs to cover to reach throughout the network. Density does so by contrasting the amount of existing relationship versus the theoretical maximum number of relationships, giving a ratio of interconnectedness. The average degree does so by capturing how many relationships the average actors has, mirroring the function of density. These concepts are explained further below, in the section 'The macro level'.

#### 4.4.3.3 *Centralization*

One of the best tested measures of influence is centrality. A central position within a network provides a basis for visibility. But, more importantly, central actors have more opportunities to acquire and affect information. Consequently, they are better capable of interposing themselves in the social control processes. Moreover, a central positioning ensures shorter paths of communication, allowing for efficient dissemination of opinions (French & Snyder, 1959).

The various facets of centralization can be measured by degree centrality, closeness centrality, betweenness centrality and eigenvector centrality. Degree centrality is a straightforward indication of the



amount of direct relationships an actor has and therefore reflects to what degree an actor itself functions as a hub. Closeness centrality measures the length of the paths of communication to all other nodes of an actor. Betweenness centrality captures how many other actors rely upon a given actor to connect them to others, enhancing the power of that actor to affect the processes of social control. Finally, eigenvector centrality assigns value to actors based on the prestige of their direct associates, in turn capturing the prestige of that actor. These concepts are explained further below, in the section 'The micro level'.

## 4.5 Analyzing hyperlink network analysis data

The metrics involved in HNA are not always intuitive. Additionally, the analysis of networks is not straightforward. It involves choices in metrics and how to acquire them. This section reports and justifies our choices during analysis and explains the different metrics used and how they were acquired. For those unfamiliar with HNA this chapter should serve as a reference when reading the analysis.

### 4.5.1 Directionality

In HNA the term edges refers to the relationships that connect nodes. In our case edges represent the hyperlinks linking from one web entity to another. It is important to note that the nature of a relationship between two web entities as represented by hyperlinks is directional. This means that information flows into *one* direction, but not the other. If one website links to another using a hyperlink, this act directs viewers from one to the other; the reverse is not necessarily true (Park & Thelwall, 2006).

Some relationships measure using SNA are undirected, meaning that all relationships are by nature equal, i.e. co-appearances of actors in a movie. However, unless a reciprocal hyperlink exists on the receiving website, in HNA this traffic is one-directional. Appreciating directionality when analyzing a network paints a more nuanced picture (Park & Thelwall, 2006).

As discussed, visibility is a key building block of a node's influence. Visibility is a directed affair; the observer is not necessarily itself observed. Imagine for example a node that promotes a large number of other nodes by linking to them, while having little to incoming edges. With an undirected analysis this node will appear far more authoritative than with a directed analysis.

So in the interest of accuracy and validity, we have chosen for a directed analysis. One may assume that all metrics were calculated using a directed analysis, unless explicitly stated otherwise.

### 4.5.2 Structuring the analysis

A major advantage of SNA is its flexibility. It can be used to analyze a wide range of interactions; the interactions between individual nodes (micro), between individual nodes and direct environment (micro), between individual nodes and an entire network (micro), inside different subgroups (meso), between different subgroups and an entire network (meso), and to analyze networks as a whole (macro).

To leverage this flexibility without overwhelming the reader with a flood of seemingly unrelated statistics, we have divided our network in three sections; a micro, meso and macro level. This structure has a progressively narrowing scope, slowly zooming into the primary subject; Erkenbrand. Consequently, each step provides context necessary to interpret the results in the following step.

### 4.5.3 The metrics of HNA: their meaning and method of acquisition

#### 4.5.3.1 *The Macro level*

We start at the macro level so we may provide some necessary context before we zoom in on subgroups and Erkenbrand. Here we describe the general character of the network as a whole, like its size and cohesion.

Macro-metrics aggregate the information of all nodes and edges and as such represent the overall character of the network. Generally, super-networks<sup>2</sup> as assessed by their relative compactness, efficiency in information transferal within the network and cohesion (Caiani & Wagemann, 2009). To this end we have chosen several macro-metrics that measure these: Distance, diameter, density, average degree, and network centralization.

#### 4.5.3.1.1 Distance

Distance, or the average path length, refers to the average shortest distance between all pairs of nodes. Two directly connected nodes have a distance of one. A pair of nodes whose shortest path necessitates the use of a third node have a distance of two. A pair of nodes whose shortest path necessitates the use of third and fourth node have a distance of 3, and so forth (Wasserman & Faust, 1994). For example, Erkenbrand and 'Identiteit Nederland' have a shortest path length of 2 as the shortest path needs to cross through 'de nieuwe zuil' (see figure 4 on p. 34).

When measuring the shortest average path length of all possible node pairs (distance) we can gauge how compact the network is. The smaller the distance, the more compact the network. SNA assumes that if the distance information needs to travel is shorter it will arrive sooner. Thus, the more compact the network is, the more efficient it will disperse information within it. In contrast, a high distance is associated with a complex, inefficient network (Wasserman & Faust, 1994).

#### 4.5.3.1.2 Density

Density is another macro-metric measuring the cohesion of a network. It calculates the 'completeness' of a network, by contrasting the existing number of edges versus the theoretical maximum number of edges, a state in which all nodes are connected to each other bi-directionally. Density is measured on a scale of 0 to 1, where 1 represents a state of full 'completeness'. So, the larger the density, the larger the relative number of relations within a network. Besides allowing for comparison between itself and a theoretical maximum, density allows for the comparison between networks of differing sizes, as density as a metric is not dependent on absolute numbers of edges and nodes within a network (Scott, 2017).

#### 4.5.3.1.3 Average degree

The average degree of the super-network is closely related to the density of a network. It too examines the number of edges within the network. The term degree refers to the number of edges that a node possesses, regardless of the directionality of those edges (Scott, 2017). For example, Erkenbrand has an 8 incoming hyperlinks (indegree) and 10 outgoing hyperlinks (outdegree), meaning that its degree is 18. The average of all the nodes' degree one can be used to judge the relative cohesion of a network. A high average degree indicates a relatively well connected and thus cohesive network, while a low average will indicate a loosely connected, or incohesive, network.

#### 4.5.3.1.4 Network centralization

The final macro-metric is network centralization. Centralization can be measured for both an individual node and the entire network. Where the former captures the relative importance of a node, global centrality examines the extent to which a network has a centralized structure. So where density reflects

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<sup>2</sup> The term super-network is used to refer to the *whole* network. Networks can and are subdivided into smaller constituent networks. When discussing them confusion may arise. The term super-network is used to emphasize that a statement concerns the entirety of the network in order to avoid confusion.

on the cohesion of a network, centralization captures to which extent this cohesion is organized around central points (Wasserman & Faust, 1994).

Like high cohesion, high centrality is positively associated with the mobilization potential of a network. Networks with high centralization can rely on a small number of powerful nodes to activate other less influential nodes, while decentralized networks must rely on nodes of equal size struggle to mobilize each other (Friedkin, 1998; Wasserman & Faust, 1994).

Network centralization is a ratio, ranging from 0 to 1, of the existing inequality in individual centrality between all nodes contrasted with the most unequal configuration theoretically possible<sup>3</sup> (Scott, 2017).

The relative difference in point centrality within the network is acquired by comparing the most central point in the network with the centrality of all other nodes. The sum of these differences is subsequently divided by the sum of the differences between the most central point the theoretical most centralized version of the network and the other nodes in that network.

With this understanding of centralization we can see why it can also be conceptualized as a measure of inequality or hierarchy in a network. A perfectly centralized network requires all information to pass through a single central node, making it the ultimate information broker among a sea of dependent nodes. An entirely decentralized network, where all nodes have an equal centrality, is entirely egalitarian in the sense that nodes have equal access to consume, produce or moderate information. As such, the higher the centralization, the more inequality and hierarchy exists in a network (Caiani et al., 2012).

We used Freeman's (1979) method of acquiring centrality, which leverages closeness centrality.<sup>4</sup> Indegree centrality captures a node's popularity, while out-degree centrality represents its gregariousness. A website with a high indegree centrality receives a large number of incoming hyperlinks from other websites, meaning that it's a popular website to link to. A website with a high out-degree centrality has a high number of hyperlinks on its webpages that direct to other webpages. In a sense, this website is actively building bridges; it's reaching out.

#### 4.5.3.2 *The Meso level*

In the meso level analysis we identify subgroups and the relationships subgroups share with each other.

##### 4.5.3.2.1 *Identifying subgroups*

Naturally, the density, centralization and distance will vary across a network. Some sets of nodes share relationships that are stronger than their relationships with the rest of the network. As a result, such sets are more cohesive than the whole. Consequently, using density, naturally occurring groups of nodes may be identified within a super-network. A subgroup is a set of at least three nodes that share stronger connections with each other than the other nodes in the network. Any node can only be member of one subgroup (Wasserman & Faust, 1994).

The classification of right-wing extremist organizations is a contentious issue. Political thought often defies easy classification; extremist thought even more so. Additionally, the clear cut identification

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<sup>3</sup> The theoretically most centralized configuration of a network is always star shaped.

<sup>4</sup> There are multiple methods for calculating network and subgroup centralization. Previous literature does not explain or justify its methods. Without a clear standard to follow method we opted for Freeman's method, because it is popular in other fields and straightforward (Scott, 2017).

of an actor as belonging to a sub-category can prove challenging (Minkenberg, 2000). For these reasons, we have chosen to forgo the creation of a classification based on ideology.

Instead, we will identify naturally occurring groups using SNA. The identification of subgroups through SNA has the advantage of being rooted in data. Sub groups identified through SNA are likely to share similar ideologies, goals or geographic area of operation. However, what defines them as a subgroup is a stronger than average cohesion (Friedkin, 1998; Wasserman & Faust, 1994). As such, a classification gathered through SNA has the advantage of not having to lean on the assumption that similar ideology, goals, etc. encourages cooperation and association. Instead, it measures the level of association between actors and groups actors based on their actual behavior.

Using stronger than average cohesion to identify subgroups has another advantage. As high cohesion is positively associated with higher influence (Friedkin, 1998), it follows that actors are more influential within their own subgroups than outside of it. So by identifying Erkenbrand's subgroup we identify its region of strongest influence.

Several methods of group identification in networks exist. We generated subgroups using Louvain's method of community detection (Blondel, Guillaume, Lambiotte, & Lefebvre, 2008) in Gephi. This technique measures what is known as modularity. Modularity leverages the contrast between the edges connecting a given set of nodes and a theoretical expected set of edges based on the network's overall density. Modularity algorithms lift out sets of nodes that beat the 'null condition': the global density of the super-network. Groups of nodes that share more edges than the global average are consequently considered a subgroup. A high modularity score indicates a network has high density within subgroups and sparse connections between subgroups.

We should note here that group identification algorithms suffer from resolution restrictions, meaning they often fail to identify small subgroups. Moreover, the chosen resolution for a modularity algorithm strongly impacts the number identified subgroups. Depending on the resolution one could find dozens or only single subgroups. This matter is complicated by the fact that there is no standard convention as how to judge if the modularity of a network is meaningful. High modularity scores don't equal a meaningful partition (Scott, 2017); the algorithm simply gathers nodes into groups based on whether they can beat the 'null condition'. In fact, high modularity scores have been reported for randomly generated networks. Consequently, it is imperative not to take the results of a modularity algorithm at face value. One should experiment with the resolution and judge subgroups based on their internal density after they are detected. Additionally, the task demands qualitative evaluation of subgroups on their composition to assess the validity of a grouping (Krings & Blondel, 2011).

Unfortunately, current literature in the extremism surveillance field fails to address this issue or to justify their choice in resolution. Without convention to lean on we designed the following procedure.

We explored resolutions ranging between 0.4 and 1.0 with steps of 0.1. These bounds were chosen based on the number of subgroups they produced. At a resolution of 1.0 we found 3 subgroups. At a resolution of 0.4 we found 15 subgroups. We judged that any number of subgroups below 3 would obviate the utility of community detection as the groups become too unwieldy and large to make meaningful conclusions. Additionally, we judged that any number of subgroups above 15 would be too cumbersome and exceed our resources.

For each resolution we identified the subgroups and the network’s modularity at that resolution. Next, for each subgroup found, we calculated the density of the subgroups in order to assess whether density of subgroups was substantially higher than the super-network density. Some resolutions were discarded at this stage, as some subgroups were not exceeding the global density by more than single percentage point. Next, all subgroups were assessed on whether they had evident themes uniting their constituent nodes (see table 1).

*Table 1 Modularity scores and qualitative assessment of community detection at different resolutions*

<b>Resolution</b>	<b>Modularity score</b>	<b>Qualitative Assessment</b>
<b>1</b>	0.274	2.5/10
<b>0.9</b>	0.282	8/10
<b>0.8</b>	0.254	8/10
<b>0.7</b>	0.257	7/10
<b>0.6</b>	0.23	7/10
<b>0.5</b>	0.224	6/10
<b>0.4</b>	0.204	5/10

Based on this assessment we decided to use a resolution of 0.9, as the highest modularity was achieved at a resolution of 0.9 and it tied for highest score in the qualitative assessment. The subgroup densities range from 12.2 to 23.9% (see table 7 in the appendix); all substantially higher than the super-network’s global density (6.9%).

#### 4.5.3.2.2 Intergroup dynamics

This section explains how the dynamics between the subgroups were analyzed.

Just as the cohesion between nodes varies across a network, the cohesion between subgroups varies across super-networks. In other words, some subgroups share relationships that are stronger than their relationships with other subgroups. The varying strength of relationships between subgroups reveals the depth of association and coordination, or lack thereof, between those subgroups (Burriss, Smith, & Strahm, 2000).

By pairing all subgroups while eliminating the remainder of the network, subgroups combinations can be analyzed as a single whole (Burriss, Smith, & Strahm, 2000). We compared the density, distance and centrality of subgroup combinations with those of the super-network and individual subgroups.

We focused on the group pairings that include Erkenbrand’s subgroup; the ethno-nationalist group. Understanding the relationships of Erkenbrand’s group with the wider network contextualizes Erkenbrand’s role in the wider network and within the group.

A high density value for a group combination signals a relatively high cohesion within the combination. As high cohesion is positively associated with higher influence, it follows that actors are more influential within subgroups combinations with high cohesion (density). So, by identifying with which other sub-groups Erkenbrand’s subgroup has high density, we identify its regions of strongest influence.

It must be noted here the density measured across a combination of subgroups should be interpreted with care. A group with a high internal density will still perform well in group combinations because its internal density is still weighed in the new combined calculation. Moreover, size difference between groups will exacerbate this issue, as the calculation doesn't weigh the groups equally. As such, when interpreting the density of a subgroup combination internal density should be considered as context.

One should pay particular attention to the drop between the density of the subgroup combination compared to the internal density of the constituent groups. As the groups were composed to optimize internal density, when both groups are combined the overall density will drop. Except if both groups are equally well connected to each other as they are within themselves, meaning they could be considered a single unit. A large drop in density means that the groups are barely connected at all. To capture this effect we propose the following formula<sup>5</sup>:

$$\text{Density Differential} = \frac{(\text{Den1} \times \text{N1} + \text{Den2} \times \text{N2})}{\text{N1} + \text{N2}} - \text{DenCombo}$$

Den1 and 2 are the individual group densities where N1 and 2 are the number of nodes in a group. DenCombo is the density of the groups when combined. The resulting density differential expresses the fall in density as a result of the combination of the groups weighted by the number of nodes in each group. In other words, it is an expression of the degree to which two groups overlap. A differential lower than zero suggests that a grouping is more cohesive as a result of the combination. A positive differential suggests that some loss of cohesion is experienced as a result of the combination, with a higher differential meaning a higher loss of cohesion. In turn this can be interpreted as a measure of how much two groups overlap.

#### 4.5.3.3 *The Micro level: Individual nodes*

At the micro level the focus rests on individual nodes, specifically on Erkenbrand. At this level, a concept of particular interest is point centrality and its different variations. Whereas before we measured the centralization of networks and subgroups, now we measure the centrality of single nodes. So where network centrality measures the degree to which a network is organized around a single point, point centrality measures to what degree single nodes are central to the network. We use four variants of point centrality, degree centrality, closeness centrality, betweenness centrality and eigenvector centrality to assess individual nodes on their importance and role in the network.

##### 4.5.3.3.1 Degree centrality

Degree centrality is the simplest centrality variation. It is the sum of the edges connecting a given node. Undirected degree centrality sums all edges regardless of direction, whereas indegree and out-degree centrality measure the number of incoming and outgoing edges, respectively (Scott, 2017).

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<sup>5</sup> There is not convention on how to assess the meaningfulness of group combination densities (Fluit, 2017). Burris et al. (2000) also struggle with this problem. They propose a system by which group combination densities are judged against a predetermined scale. This solution does not address our concerns regarding scaling and initial density. Therefore we propose our own method.

Indegree centrality is a measure of popularity; how many nodes engage with a given node. This measure also determines the visibility of a node. An incoming edge captures the flow of information from that node to the node establishing the connection (Scott, 2017).

Out-degree centrality is a measure of gregariousness; how many nodes a given node engages with. The out-degree centrality of a node speaks to its role as a bridge builder in the network. Nodes with a high out-degree centrality take on a connecting role within networks (Scott, 2017). They increase the overall cohesion of the network and can boost the visibility of nodes they endorse (Friedkin, 1998).

#### 4.5.3.3.2 Closeness Centrality

Closeness centrality measures how close a given node is to every other node in the network. It calculates the shortest path between a given node and every other node and then produces the average path length. This variation of centrality captures how efficiently a node can communicate with the rest of the network. A high closeness centrality score (low average shortest path length) means information moves quickly between the node and network. A low centrality score means that information has to cover more distance before it is dispersed (Scott, 2017). In other words, closeness centrality captures how well a node can communicate with the rest of the network.

We chose to use undirected closeness centrality as opposed to directed closeness centrality here because for a substantial number of nodes directional centrality could not be calculated, due to their lack of bidirectional relationships with the network. In other words, nodes and sections of the network only had edges coming in and none going out. As such, a directional approach wiped a substantial number of nodes and sections of the network out, making it an unbalanced representation of the network.

#### 4.5.3.3.3 Betweenness centrality

Betweenness centrality captures the dependence of the network on a given node. It does so by calculating the shortest paths between all sets of nodes and determining what percentage of those paths include a given node. A node that is part of many shortest paths is important for the flow of information and overall cohesion of a network. Betweenness centrality can be conceived of as a measure of a node's status as a gatekeeper (Scott, 2017).

#### 4.5.3.3.4 Eigenvector centrality

All metrics above attempt, in some way or another, to capture the importance of a node. And all operate on the assumption that every node has equal value; in their calculation every node has a value of one. Eigenvector centrality challenges the assumption of equality. Instead, it assumes that the driving force of a node's value is its degree. In other words, eigenvector centrality assigns value to nodes based on the value of their neighbors, meaning that being connected to high value nodes makes a node more important. Eigenvector centrality is also referred to as prestige (Scott, 2017; Wasserman & Faust, 1994).



## 5 Results and analysis

This section presents our results and provides an analysis of the results. A comprehensive summary of the results and their part in answering the research question can be found in the discussion section.

This section follows the structure expounded above, descending in scope from the macro, through the meso, to the micro level. Following Social Network Analysis conventions, web entities, representing their respective right-wing extremist entity, are referred to as nodes.

### 5.1 Macro level results and analysis

We start at the macro level, so we may provide some necessary context before we zoom in on subgroups and Erkenbrand. Here we describe the general character of the network as a whole, like its size and cohesion.

Assessing the general character of the network is an important step in answering the research question. The question of Erkenbrand's influence can, in some regards, already be settled here.

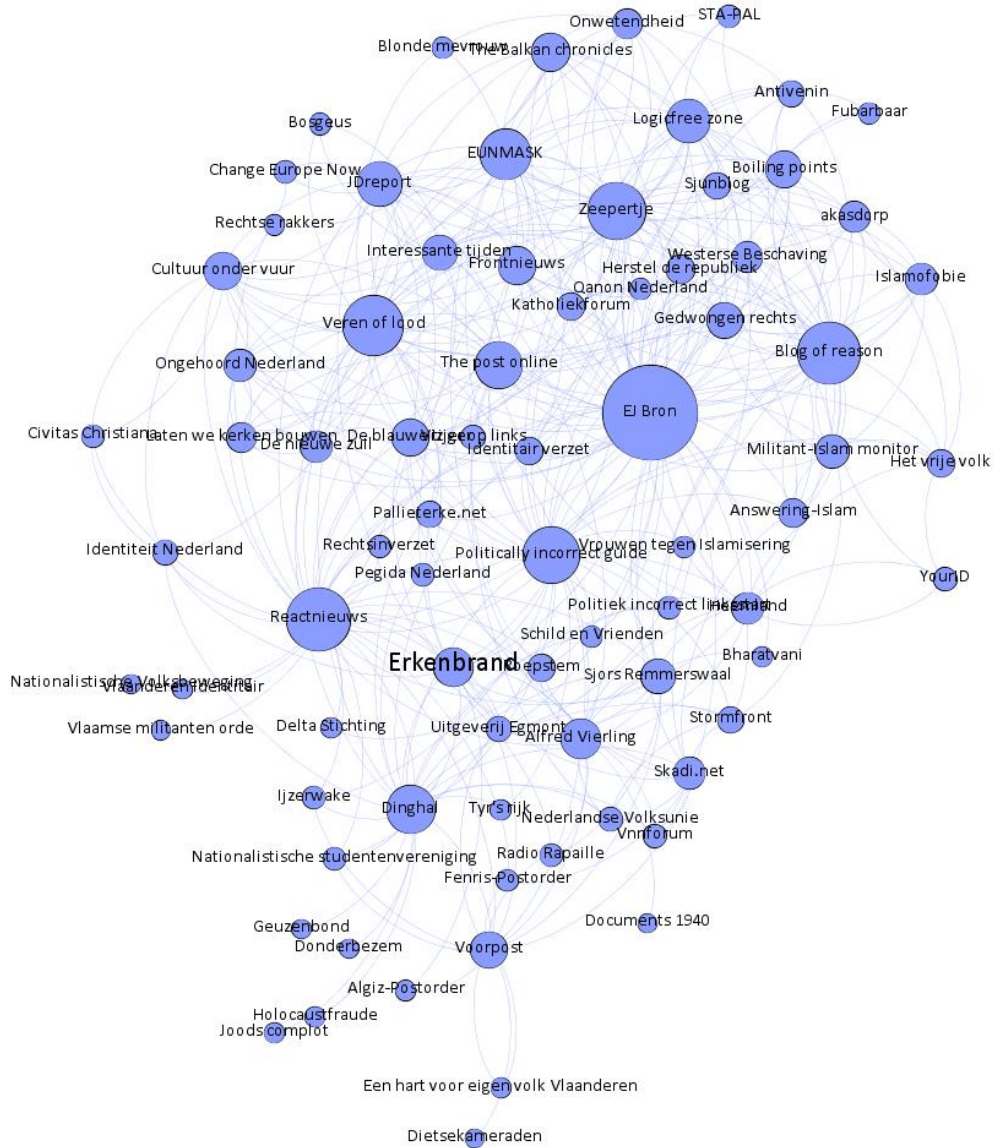
To contextualize and thus provide a basis to judge them, the macro-metrics produced below are compared with results from similar research into other right-wing extremist networks in Europe and North America. We rely on two sources, Ciania et al. (2012) who lead this field of research and Fluit (2017), who authored a study similar to this one on Belgian right-wing extremism. These studies investigate national networks, rather than networks based around a single entity and therefore also do not cross borders. However, given their similar size, subject matter and the fact that all metrics of Erkenbrand's network fall within the range established by these studies, a comparison is justified.

#### 5.1.1 Size and membership

Through the use of the snowball method applied in Hyphe we identified 79 websites, connected by 426 edges.

Table 11 in the appendix shows a list of all the network's websites and their URLs. Figure 3 below shows a labeled diagram of the network.

Figure 3 Labeled diagram of Erkenbrand's network



In the size and membership of Erkenbrand's network the first indication of its influence can be gleaned, in that shape of the network delineates the reach of Erkenbrand's influence. As Friedkin (1998) notes, visibility and relationships are a prerequisite for influence. As Erkenbrand is not visible to those outside its network and shares not relationships with them, it follows that Erkenbrand's cannot influence those outside its network. As such, the borders of its network neatly delineate its maximum reach. In other words, those right-wing extremist groups that fall outside of the network, fall outside of Erkenbrand's

reach. In this regard, those right-wing extremist groups that are not on this list are as informative as those that are.<sup>6</sup>

With 79 members Erkenbrand operates in a network of middling size, compared to similar networks (see table 2). Erkenbrand has moderately sized set of actors it can potentially influence. As such, we can conclude that the reach of its influence is not limited or enlarged by the size of its network.

Table 2 Cohesion and centralization of European and American online right-wing networks and Erkenbrand's network (Caiani et al., 2012; Fluit, 2017)

	France	Spain	United Kingdom	United States	Germany	Italy	Belgium	Erkenbrand
<b>Number of nodes</b>	58	87	129	134	69	79	74	79
<b>Density</b>	7.3%	4.7%	2.8%	0.9%	8.3%	6.8%	2.5%	6.9%
<b>Average distance</b>	2.914	2.92	3.42	3.22	2.41	2.93	2.61	2.68
<b>Average degree</b>	4.12	4.02	3.57	1.26	5.64	5.29	1.79	5.39
<b>Centralization (out-degree)</b>	49.67%	11.74%	16.88%	5.83%	25.91%	26.91%	21.1%	50.0%
<b>Centralization (indegree)</b>	17.55%	42.32%	27.90%	11.92%	22.92%	19.12%	7.20%	24.2%

### 5.1.2 Distance and diameter

The network has a distance of 2.68, meaning that nodes have, on average, approximately two and a half edges between them. Similar research into American and European right-wing extremist networks yields similar numbers. Overall, the distance within such networks floats within an approximate range of 2.41 (Germany) and 3.42 (UK). A distance of 2.68, thus means that Erkenbrand's network has a relatively low distance (see table 2).

A low distance means information has only a short distance to travel between actors. Every extra node information needs to travel is another barrier where it might be stopped or amended. Hence, a low distance means barriers for interaction and the dissemination thought are few. This eases the meaning Erkenbrand operates within a relatively efficient network in which information moves rapidly.

The diameter of Erkenbrand's network, i.e. the longest path length between any node pair, backs this conclusion. With diameter of 6, information in the network has to move along a maximum of 6 edges; a relatively short distance. The Belgian right-wing extremist network, also a relatively compact network, had an identical diameter.

<sup>6</sup> A comparison of Erkenbrand's network with all right-wing extremist organizations that are active online, would be informative, as it would demonstrate exactly what groups Erkenbrand *cannot* influence. Unfortunately, no such list exists.

### 5.1.3 Density and average degree

The density of Erkenbrand's network is 0.069, meaning 6.9% of all theoretically possible edges exist. Again this falls within the established range for European and North American networks, which ranges from 0.9 (US) to 8.3% (Germany). The Italian, Belgian and German networks, for example, had a 6.8, 2.5 and 7.9% density respectively (see table 2) (Caiani et al., 2012; Caiani & Wagemann, 2009; Fluit, 2017). Moreover, our density is situated relatively highly within this range, meaning that Erkenbrand's network is highly cohesive.

The average degree of Erkenbrand's network is 5.39, meaning an average node has between 5 and 6 edges connecting it to other nodes. Once more, this value falls within the established range for similar networks, which ranges from 1.26 (U.S.) to 5.65 (Germany). It should be noted here that comparisons of average degree between networks is less reliable than comparisons of density, as the average degree may vary more strongly with the absolute number of nodes in a network. However, the number of nodes within networks against which we are comparing are within the same order of magnitude, ranging from 58 (France) to 134 (U.S.). Yet again, our network is situated relatively high within this range, reinforcing the conclusion that the network is relatively highly cohesive.

That both the average degree and density are relatively high comes as no surprise as they co-vary to a degree. Both reflect the relative number of edges within a network. While the average degree may vary with the size of a network, when comparing networks of similar size average degree and density should be directly related (Scott, 2017). Together, they allow us to conclude that Erkenbrand's network is highly cohesive. This means that Erkenbrand's network is relatively well suited for cooperation and mobilization. So, while compact and thus capable of efficient internal communication it's also cohesive, meaning that it actually leverages this compactness and is potentially capable of relatively strong cooperation and mobilization.

Interestingly, Erkenbrand's network, which contained many of the same (Flemish) nodes Fluit (2017) found has a higher cohesion than the Belgian network she mapped. Fluit hypothesizes that the language divide in Belgium plays into the relatively low density (2.5%) and average degree (1.79) in Belgium. The fact that the Erkenbrand's network, which straddles the border between the Netherlands and Flanders, shows a far higher cohesion indicates that Flemish/Dutch speaking Belgian right-wing extremist may be more closely integrated within a Dutch language network than within a national Belgian network. This puts into question the habit within this field of research to delineate their networks along national lines.

### 5.1.4 Network centralization

The indegree centrality of the network is 24.2%. The out-degree centrality is 50.0%. Caiani et al. (2012) suggest that centralities in our approximate range are moderately above average. Erkenbrand's network is thus relatively centralized, meaning there is a relatively high inequality between nodes, with some nodes taking prominent positions, while a majority is left somewhat marginalized. However, no nodes appears to have taken an overwhelming leadership position within the network. The node with the highest closeness centrality is EJ Bron, with a value of 0.67; still a long stretch from the theoretical maximum value of 1.

The out-degree centrality (50.0%) is surprisingly high. It rides on the top of the range reported by Caiani; 5.9 to 49.7% (see table 2). In this aspect our network most closely resemble the French network, which had by far the highest out-degree centrality in Caiani's report. Consequently, we can conclude a high

inequality exists within Erkenbrand's network in which nodes engage connections with other nodes. In other words, some websites are far more active in establishing connections with others in the network than other nodes.

Our indegree centrality (24.2%), on the other hand, rides moderately above the mean established by Caiani's results, only being exceeded by the Spain (42.3%) and the UK (27.9%). In this aspect our network bears the closest resemblance to the German network (22.9%) (see table 2). Erkenbrand's network comparatively moderate to high indegree centrality indicates a moderate to high inequality in popularity between nodes; meaning some nodes are substantially more popular and prestigious than others.

Like high cohesion, high centrality is positively associated with the mobilization potential of a network. Networks with high centralization can rely on a small number of powerful nodes to activate other less influential nodes, while decentralized networks must rely on nodes of equal size struggle to mobilize each other (Park & Thelwall, 2006; Scott, 2017). Consequently, we may conclude that Erkenbrand's network is relatively, though not extremely, well suited for mobilization.

#### 5.1.5 Summary

Overall, Erkenbrand's network most closely resembles the French and German networks. All three share a high density, high average degree and low distance. In its centralization profile Erkenbrand's network most resembles France, with a moderate out-degree centrality and remarkably high indegree centrality. Caiani reports that the French and German networks are the 'strongest' far right networks based on these metrics. Erkenbrand matches or even exceeds their performance.

The macro-metrics show that Erkenbrand operates in a network that is compact, cohesive and moderately well centralized. The online Dutch language right-wing extremist community is well developed, allows for an efficient exchange of information and has a relatively high capacity to mobilize resources. As such, our network is conducive to the existence of influential organizations that rapidly disseminate extremist thought.

## 5.2 Meso level results and analysis

In the meso level analysis we identify subgroups and the relationships subgroups share with each other. Here we can identify Erkenbrand's regions of strongest influence. Additionally, it sets up the context for understanding Erkenbrand's role within the network later.

Using community detection algorithms we detected five subgroups: a xenophobic, anti-democratic, ethno-nationalist, neo-fascist and a new-right group. Erkenbrand belongs to the ethno-nationalist subgroup. Explanation of the community detection process can be found in the section 'Identifying subgroups'. Table 3 contains the metrics that demonstrate their general character. Figure 4 shows the network diagram partitioned by subgroup. A list of all nodes ordered by subgroup can be found on table 12 in the appendix

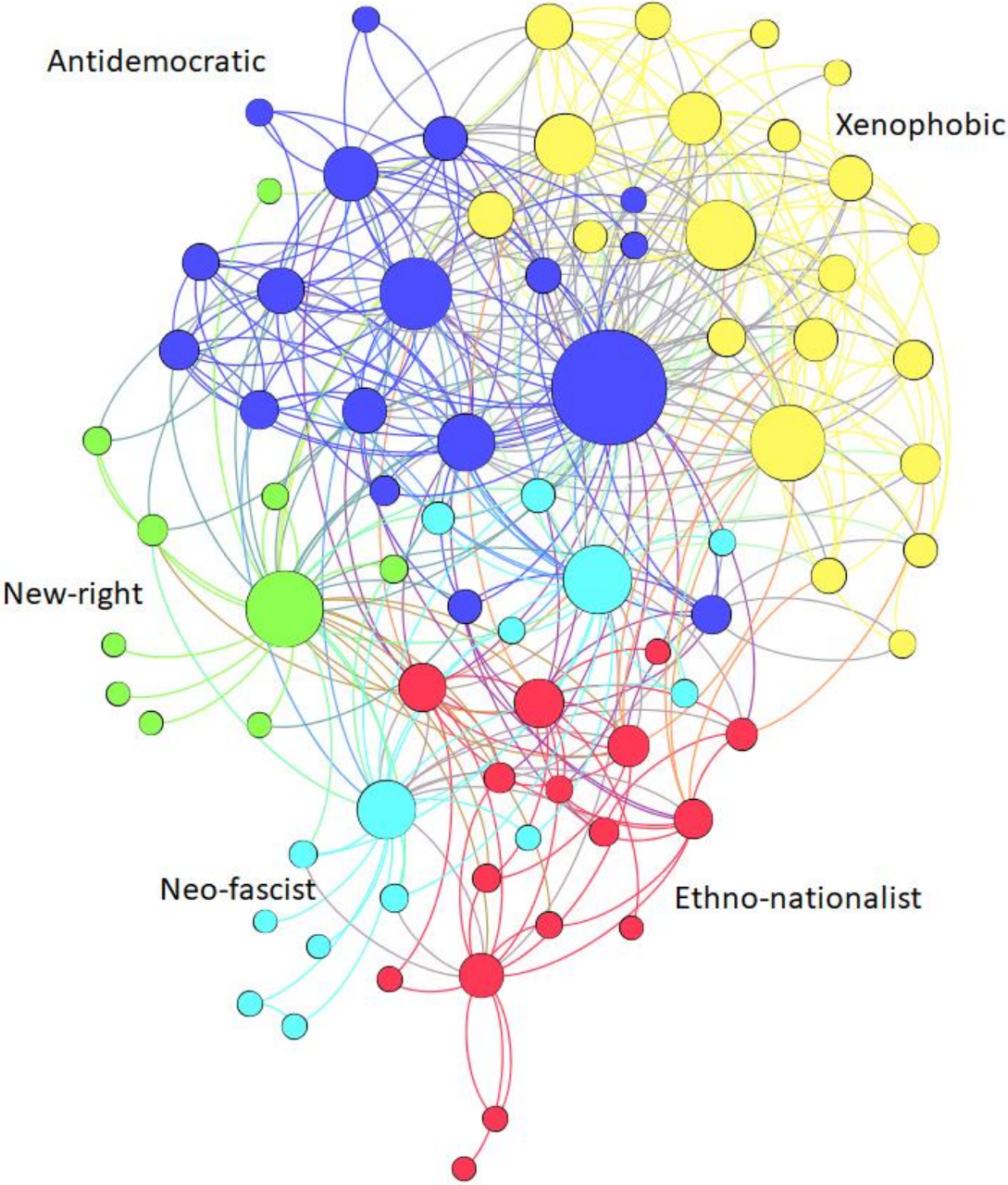
This section will briefly explore the composition and structure of each subgroup, paying particular attention to Erkenbrand's subgroup. Following that, the intergroup dynamics are explored.

*Table 3 Subgroups and their general character*

	<b>Xenophobic</b>	<b>Anti-democratic</b>	<b>Ethno-nationalist</b>	<b>Neo-fascist</b>	<b>New-right</b>
<b>Nodes</b>	21	18	16	14	10
<b>Edges</b>	95	73	32	23	11
<b>Density</b>	0.219	0.239	0.133	0.126	0.122
<b>Undirected centrality</b>	63.9%	68.1%	30.8%	5.6%	23.4%
<b>Out-degree centralization</b>	53.1%	58.5%	40.0%	79.7%	87.8%
<b>Indegree centralization</b>	29.7%	31.2%	13.9%	25.2%	9.9%

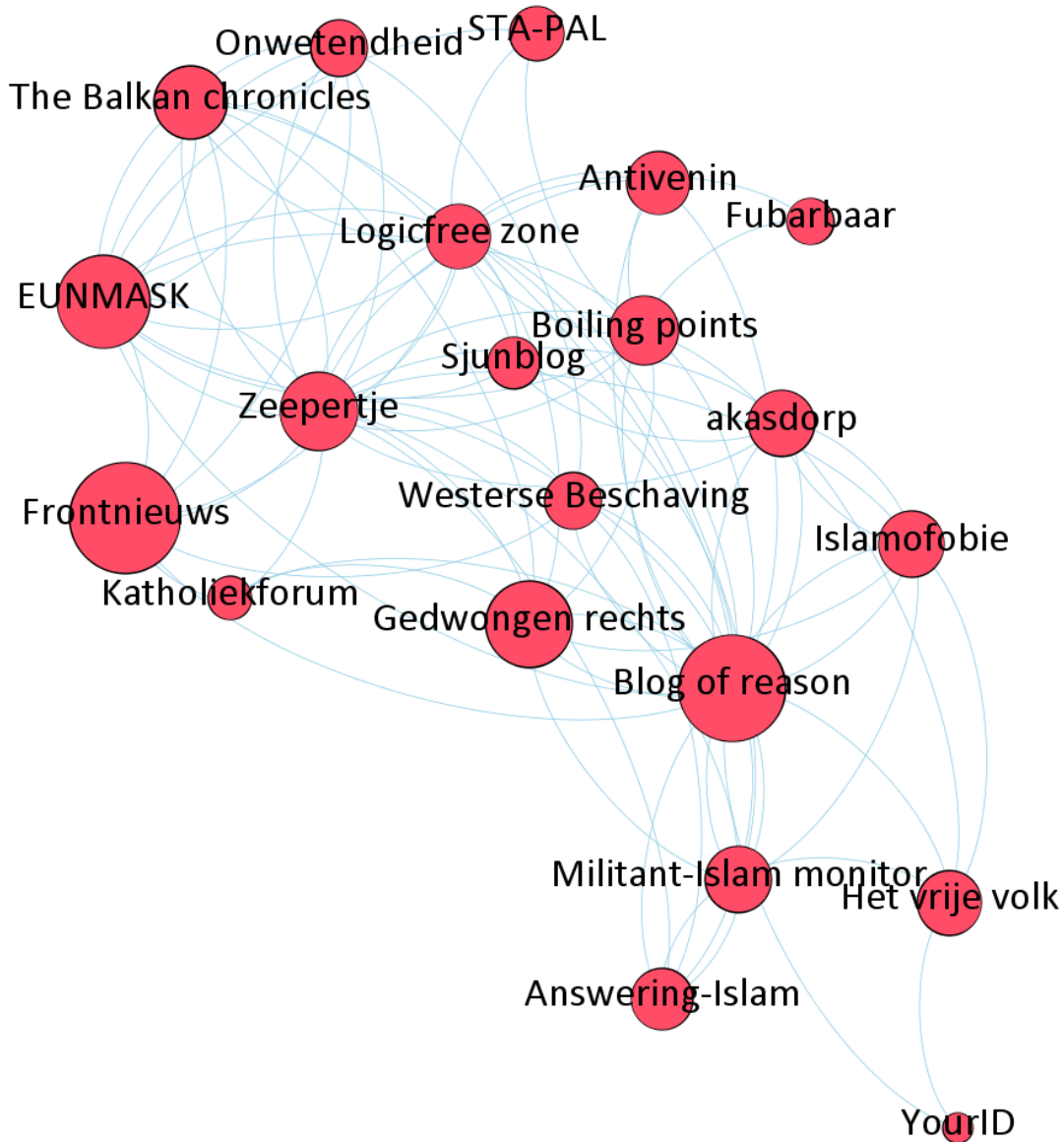


Figure 4 Network diagram partitioned by subgroup



### 5.2.1 The xenophobic/Islamophobic group

Figure 5 Diagram of the xenophobic subgroup



The largest subgroup consists of 21 nodes connected by 92 edges and is characterized by xenophobia, Islamophobia in particular. The subgroup is surprisingly ideologically cohesive. All websites in the group are primarily focused on Xenophobia. Most commonly this is expressed through Islamophobia and a rejection of multiculturalism. The names of the websites often immediately reveal their content. Take for example, answering-Islam.org or militantIslammonitor.org. Only one node, Katholiekforum, defies the trend. While it too rejects multiculturalism and Islam in particular, it has no particular focus on the matter. It's best characterized by its rejection of modern liberalism.

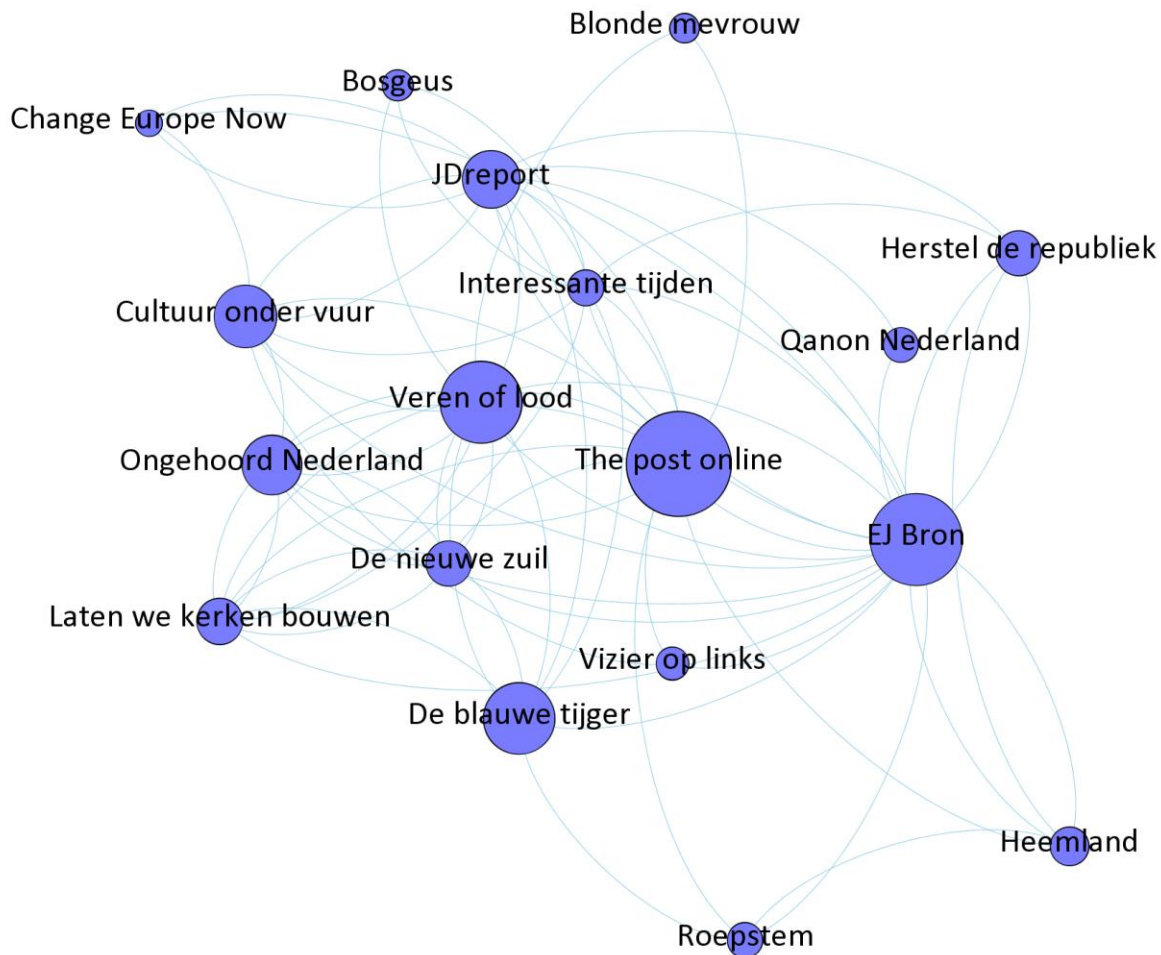


With a density of 21.9% this group triples the global super-network density (6.9%), beating it by a solid margin. The group is centralized (63.9%) with a relatively uneven distribution of edges among its population. There are clear frontrunners set to dominate the subgroup. A few nodes like Zeepertje achieve an impressive point centrality (0.83). They are in strong position to lead mobilization.

The characteristics of this subgroup suggest the existence of a well-developed, centralized xenophobic scene. The relatively high density in this subgroup may be explained by the fact the majority of actors in this group aren't political movements, but for example blogs or information websites. The latter types of nodes may benefit more from cooperation, while political movements may compete amongst themselves more strongly. Otherwise, the explanation may be found in the fact that xenophobia and Islamophobia are relatively well represented by conventional political parties in Netherlands and Flanders. In fact, most websites in this group sympathize or endorse Geert Wilders, an infamously Islamophobic and successful politician, and his PVV. The PVV's virtual monopoly on political Islamophobia in the Netherlands may be precluding internal competition within this group.

### 5.2.2 The anti-democratic group

Figure 6 Diagram of the anti-democratic subgroup



The second largest subgroup counts 18 nodes connected by 73 edges. Although this subgroup is significantly more heterogeneous than the former subgroup, some consistency can be discerned. The core of the subgroup consists of right-wing extreme reformists. These actors, though not rejecting democracy outright insist that the current democratic system is broken and corrupt. It's no surprise that in this subgroup we find TPO.nl, Ongehoord Nederland and JDreport, alternative news media infamous for authoring articles aimed at undermining the established political order (AIVD, 2018). Actors like De nieuwe zuil and De blauwe tijger embody the label reformist extremism, agitating constantly against the liberal democracy while only sparsely engaging in openly xenophobic, racist or nationalist discourse.

Less prominent, though undeniably present within the group is a Christian conservative element. Interessante tijden and Cultuur onder vuur are prominent examples. Their ideology, or at least the element that makes it extremist aligns with the theme identified above, as they too reject liberal democracy in the Netherlands as corrupt, unrepresentative and decadent.

Finally, nodes in this subgroup contain a minor though noticeable amount of conspiracy theories. Qanon Nederland, Change Europe Now and JDreport exemplify this trend. However, these nodes align with the overall group trend in that the element that primarily characterizes them as extremist is their rejection of liberal democracy. Qanon, for example, is not overtly nationalistic or xenophobic. Instead it's focused entirely on undermining democracy, claiming it to be corrupted. So, though this group has notable outliers, like Blonde mevrouw, whose main preoccupation is Islamophobia, this group has an identifiable common theme.

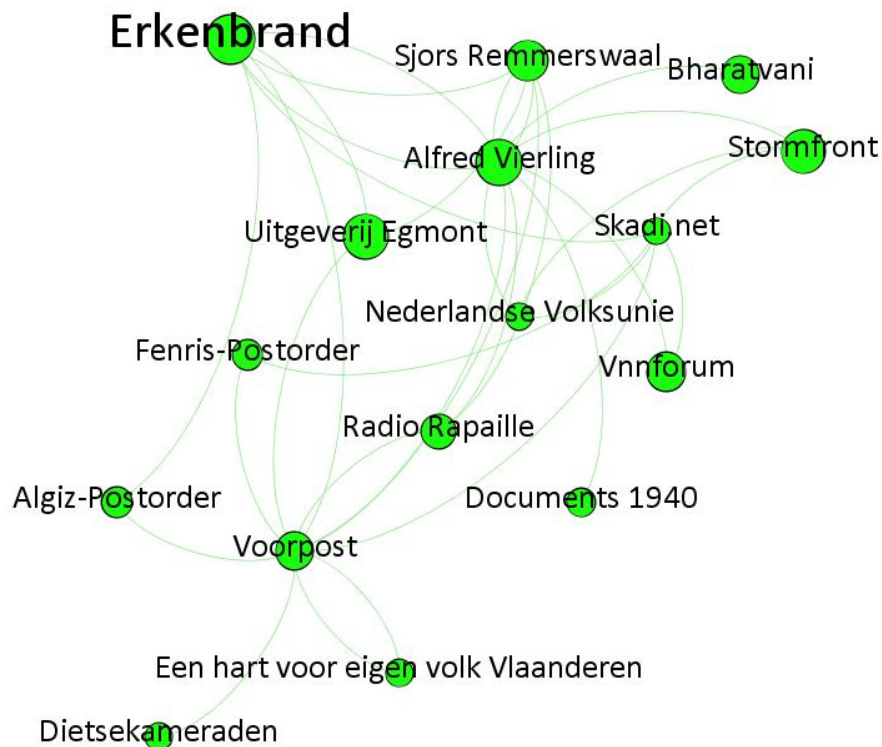
With a density of 23.9%, the highest of any of the subgroups, the anti-democratic group, despite its heterogeneity, is a cohesive and compact network. Moreover, the subgroup is relatively centralized (68.1%), easing group mobilization. The most central node, and best primed to activate its subgroup, is EJbron, with a point centrality of 0.85.

It's curious that the most ideologically heterogeneous subgroup has the highest density. One would expect that high ideological homogeneity would correlate with high density as similarity removes disagreements as a barrier for association and common goals encourage association. This subgroup defies that expectation.

The high density might be explained by the concentration of alternative media within this group. The alternative news websites attract a disproportional amount of traffic from across the super-network, perhaps because they provide a continuous stream of material for other websites. TPO, for example, has an indegree of 24, the highest of any node in the super-network. Within the subgroup it retains an indegree of 12. As such, the alternative media's high degrees, which make up a disproportionate number of the total edges, might be skewing the density relative to the other groups. Consequently, one might wonder if this group's density is not overinflated.

### 5.2.3 The ethno-nationalist (Erkenbrand's subgroup)

Figure 7 Diagram of the ethno-nationalist subgroup



The third most populous group counts 16 nodes connected by 32 edges. Despite having a low density (13.3%) compared to the two groups above its population is quite ideologically homogeneous. Overall, the group can be characterized by a shared racist and nationalist ideology. Three broad streams of thought can be discerned within the group: in descending order of population size, ethno-nationalism, alt-right extremism and neo-Nazism.

In contrast to the other groups this group largely rejects engagement with the democratic system outright. Some elements go so far as to openly agitate for violent action. Additionally, their ideology is strongly characterized by a focus on ethnicity and race, with many agitating for racial and ethnic hierarchies.

The core of this group consists of ethno-nationalist websites like Voorpost and Skadi. Neo-Nazi's are represented by the Nederlandse Volks Unie (NVU) and Dietse Kameraden. Furthermore, there is a presence of alt-right websites, like Erkenbrand and Documents1940.

This group also contains a number of web shops, like Algiz Postorder, that peddle right-wing extremist paraphernalia and literature. One particular web shop, the Flemish publishing house Uitgeverij Egmont, is a strange outlier. Egmont publishes a range of secessionist and ethno-nationalist literature and is also known to occasionally publish anti-Semitic literature. Its overall character however is far more mainstream than the rest of the population.

The fact that the alt-right websites are grouped in with the more ethno-nationalist and neo-Nazi websites is curious. Generally alt-right discourse diverges from traditional ethno-nationalism. The ethno-nationalist elements of their ideology tend to be obfuscated by pseudo intellectual discourse, repackaging old extremist thought for a new age. However, this grouping seems to suggest that the Dutch alt-right, despite its outward declarations and modernized vocabulary, is intimately connected to ethno-nationalist and fascist organizations. On some accounts these connections are unsurprising. On several occasions links between individual members of Erkenbrand and neo-Nazi's/fascists have been uncovered. The intimate connection between Erkenbrand and Jared Taylor (An infamous American Neo-Nazi) come to mind (Wagenaar, 2019). Also, race is an essential component to Erkenbrand's ideology. Moreover, Erkenbrand's anti-Semitic convictions align well with the neo-Nazi ideology.

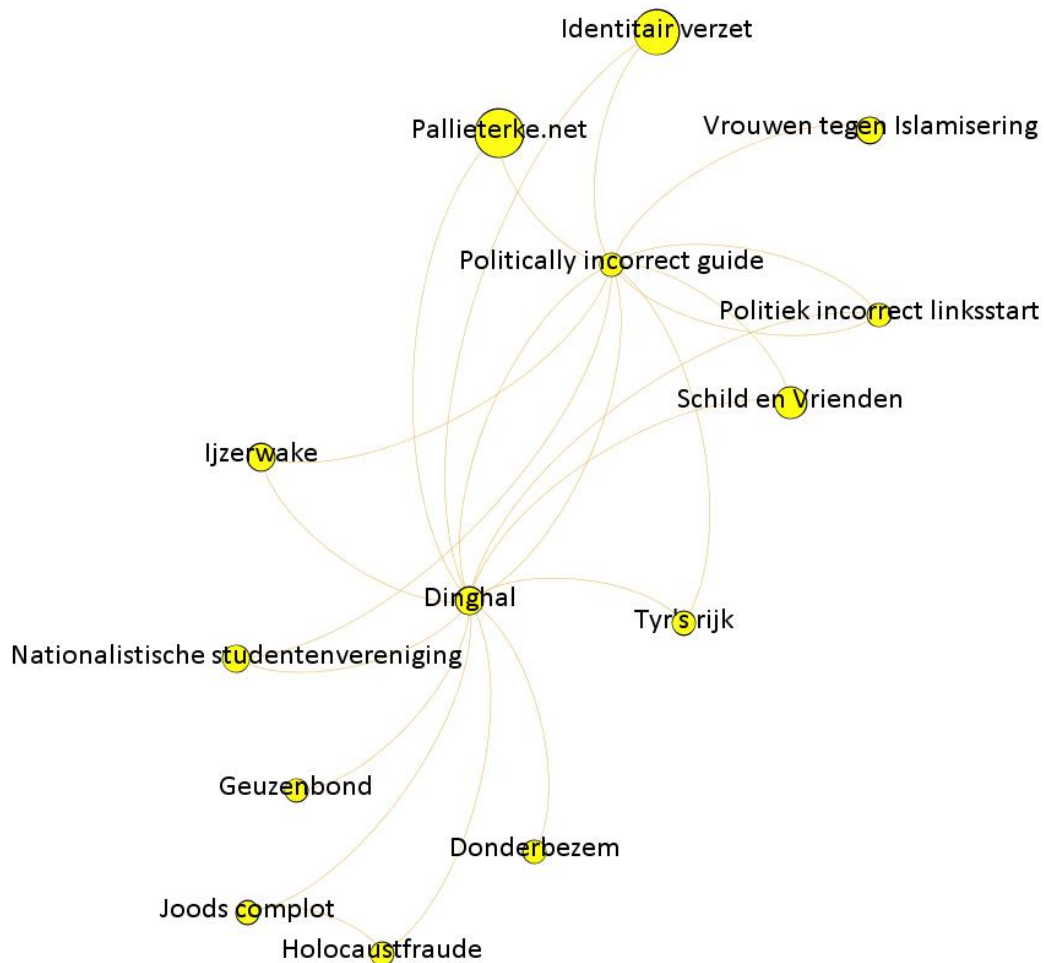
While substantially exceeding the global density, this group has a lower density (13.3%) than the anti-democratic and xenophobic group. The fact that the cohesion (density) in this subgroup is substantially lower than two subgroups above, should not be taken as evidence that this grouping has no analytical value. Friedkin notes that in SNA "it is not an oxymoron to refer to a cohesive 'secondary' group in which a substantial proportion of the possible interpersonal ties are weak or absent".

Two factors offer themselves as an explanation for the somewhat lower density. Firstly, two of the nodes in this group, VNN and Stormfront, weren't crawled. They were included as endpoints because they aren't majority Dutch language websites, but do have Dutch language chapters. As such they offer no outgoing hyperlinks, leaving them disconnected. There are some indications Stormfront and VNN are active hubs for Dutch and Flemish extremism (Wagenaar, 2019), so we may presume that our network fails to capture some activity, especially within this group. Moreover, the Dutch neo-Nazi scene is notoriously fractured (AIVD, 2018), suffering from infighting. It's no surprise this fractious climate is reflected in the network. Regardless of the causes, mobilization is harder and information travels less efficiently in this group than in the xenophobic and anti-democratic groups.

Though this subgroups is not the most cohesive subgroup, this set of actors does holds the most cohesion for Erkenbrand. As noted before, high cohesion is positively associated with higher influence and actors are more influential within their own subgroups than outside of it. So by identifying Erkenbrand's subgroup we identified its region of strongest influence.

## 5.2.4 The neo-fascist group

Figure 8 Diagram of the neo-fascist subgroup



The fourth group consists of 14 nodes connected by 23 edges. With a density of 12.6% it has a density similar to the ethno-nationalist group, substantially higher than the global density, but significantly lower than the other groups.

This group relatively heterogeneous in composition. While some common themes emerge, this group contains mainly nodes of two differing ideologies. On the one hand, Dinghal, Donderbezem and Tyr's rijk represent a neo-fascist strain of thought. Others, like the Dutch Geuzenbond and Identitair verzet, are identitarian movements with neo-fascist leanings. For example, the Geuzenbond emphasizes the need to recapture a glorified past and holds on to irredentist claims on Flanders.

On the other hand, the Nationalistische Studentenvereniging (NSV), IJzerwake, Pallieterke and Schild en Vrienden hold a Flemish nationalist, secessionist and conservative agenda. This second theme is quite distinct from the mainly Dutch neo-fascist theme. Curiously, these nodes do not have any particularly strong connections among themselves, but are dependent on the surrounding nodes in the group to connect them. Two explanations present themselves. Firstly, there is some ideological overlap between some nodes bearing out the second theme and the neo-fascist/identitarian theme. The NSV and Schild en Vrienden both have identitarian leanings. The NSV is known to maintain casual relationships with identitarian organizations like Generation Identity (Deckers, 2013). Schild en vrienden straddles the divide perfectly, having a distinct identitarian ideology while also pursuing Flemish independence and conservatism. Ideological similarity might thus underlie the relationship.

For the second explanation we have to examine the structure of the network, which shows that the nodes bearing the second theme are marginal, holding no more than 2 incoming edges and no outgoing edges. This indicates that these websites do not engage with the network themselves, they are being engaged by others. As such it is likely that other nodes in the network are trying to engage these nodes for their own purposes. In fact, Flemish nationalism and secessionism aligns well with the aims of nodes that hold irredentist claims on Flanders. A Flemish secession would bring an ethnic unification one step closer. The lack of reciprocity from Flemish nationalists suggests the enthusiasm is not mutual.

Within this group we also find two holocaust denial websites: Joods complot and Holocaustfraude. Their presence is somewhat curious, as anti-Semitism as a theme is stronger in the previous group. Ideological consistency would suggest they would be grouped there. However, both of nodes only connected to Dinghal, a website with strong neo-Nazi leanings that consistently glorifies the Third Reich.

Finally, we must note the presence of two nodes of a peculiar nature in the group. Politically incorrect guide and Politically incorrect linksstart are two almost identical websites that contain no content except a curated list of hyperlinks to 'politically incorrect' websites, some of which contain extremist content. Though they contain extremist content by themselves the obvious role they fulfill as information brokers in the network and the amount of extremist content they promote justified their inclusion. The reason for their presence in this group seems to be that they, together with Dinghal are responsible for all incoming links to the Flemish nationalist/secessionist nodes. Unfortunately, there is no clear motivation for their gregariousness towards Flemish nationalists.

### 5.2.5 The new-right/identitarian group

Figure 9 Diagram of the new right subgroup



The final group has 10 members connected by 11 edges. A density of 12.2% puts it far above the global density and on a similar level as the neo-fascist/identitarian group and ethno-nationalist group. This grouping appears to be entirely predicated on the gregariousness of its central node and the lack of other connections the marginal nodes have to other nodes/subgroups in the network.

The group's ideological composition is relatively homogeneous, with some notable outliers. The group's core ideology is new right (Nouvelle Droite) and identitarian, a stream of thought closely related to the new right. Pegida, Rechts in verzet, Vlaanderen identitair and Identiteit Nederland are identitarian movements. ReActnieuws, the group's indisputable center, and Knooppunt Delta are best described as a new right websites.

Interestingly, two group members are practically defunct neo-Nazi organizations, Vlaamse militanten orde and Nationalistische volksbeweging, which are only intermittently active online. Their presence is surprising, as they might reasonably be expected to be more closely related to other neo-Nazi movements. Civitas Christiana, is the final ideological outlier, being an ultra-conservative Christian movement.

The group's most striking characteristic is its heavy dependency on a single node; ReActnieuws. In fact, it closely resembles the star-structure of a theoretic maximally centralized network. This group is in



fact by far the most centralized of the groups. ReActnieuws has a centrality of 1 within the subgroup, meaning it connects to every single node. Moreover, ReActnieuws is exceptionally gregarious, with a group specific out-degree of 9. We hypothesize that ideological similarity underlies its preference for identitarian groups in its gregariousness.

ReActnieuws functions as a bridge builder; it actively engages others in the group. Without its presence only a fraction of the connections would exist. Moreover, for four nodes the single indegree edge from ReActnieuws are the only connection tethering them to the network. In other words, ReActnieuws' gregariousness is necessary for their presence.

However, the lack of reciprocity is telling, as ReActnieuws remains unpopular within its own subgroup. It is no more popular than any of the other group's nodes, with an indegree of 1; only one of the nodes ReActnieuws attempts to engage reciprocates. This characterization also holds true for ReActnieuws on a super-network level. Here too, it receives only a fraction of the indegree edges for its out-degree edges at a ratio of approximately 1 to 5. Curiously though, ReActnieuws is more popular across the network than inside the subgroup it dominates, only managing a ratio of 1 to 10 within the group.

The one-sided and one-directional dominance in the group reveals much about the marginal nodes. The marginal nodes are a collection of identitarian and neo-Nazi groups. Their lack of engagement (gregariousness) is characteristic for them on a super-network level too. The group (excluding ReActnieuws) has an average out-degree of 0.56 as opposed to an average super-network out-degree of 5.1. Only three marginal nodes have any connections outside the group at all. Given this fact in combination with their low indegree, we can conclude that these nodes are minimally popular and not at all gregarious. Overall, these facts paint a picture of an identitarian community that is relatively fractured and reliant on a small number of ideologically allied movements to connect them. The fact that we find identitarian movements spread across the neo-fascist and this group further evidences this fact. The same characterization holds for the neo-Nazi scene. The presence of neo-Nazi websites in this ideologically dissimilar group further evidences the fractured nature of the Dutch neo-Nazi scene.

## 5.2.6 Intergroup Dynamics

### *Group combination densities*

To understand the relationships between different subgroups we measured density differentials, a metric of our own design. Density differential measure the drop off in density resultant in the combination of two subgroups, where a high differential correlates with a weak relationship between two subgroups.<sup>7</sup>

Erkenbrand's subgroup's density differentials split the remaining subgroups into two camps. Combinations with the neo-fascist and new right group result in a differential of only 5% while combinations with the xenophobic and anti-democratic groups result in an 8% differential (see table 4). Consequently, we may conclude that the ethno-nationalist group has considerably more overlap with the former two groups.

*Table 4 Density differentials for all subgroup combinations ordered from low to high (Combinations involving Erkenbrand are displayed in bold)*

Group Combination	Density differential:
New right / Neo-fascist	4.8%
<b>New right / Ethno-nationalist</b>	<b>4.9%</b>
<b>Neo-fascist / Ethno-nationalist</b>	<b>5.0%</b>
Anti-democratic / New right	5.9%
<b>Anti-democratic / Xenophobic</b>	6.2%
<b>Neo-fascist / Xenophobic</b>	7.2%
<b>New right / Xenophobic</b>	7.4%
<b>Anti-democratic / Neo-fascist</b>	7.8%
<b>Antidemocratic / Ethno-nationalist</b>	<b>8.0%</b>
<b>Xenophobic / Ethno-nationalist</b>	<b>8.1%</b>

Moreover, Erkenbrand's differentials with the new right and neo-fascist groups are the second and third lowest differentials. Interestingly, the pair with the overall lowest differential is composed of those two partners. The low differential for all three combinations shows there is significant overlap between the three groups, indicating they function as a relatively cohesive whole. This conclusion is not wholly surprising given the ideological cross contamination between the three groups. For example, the new right group has some neo-Nazi parties and Identitarian movements are divided over the new right and neo-fascist groups. Overall, these findings suggest that these three groups are relatively cohesive, forming a larger bloc within the network.

Conversely, Erkenbrand's group's differentials with the anti-democratic and xenophobic groups are the highest of all differentials, meaning that these pairings result in the largest loss of density. As such, it has the least overlap of any group with those groups. The lack of overlap appears to be arise from a divergence in ideology. This group might be considered too radical by the xenophobic and anti-democratic groups. The wholesale rejection of the democratic apparatus found on, for example Stormfront, stands in

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<sup>7</sup> For those interested in the raw densities tables with the densities for individual subgroups (table 7), densities for all subgroup combinations (table 8) and a ranking of subgroup combination densities (table 9), can be found in the appendix.

stark contrast with the far more cautious reformist attitudes in the anti-democratic group. Regardless of the cause, the ethno-nationalist group's integration into this section of the network is weak, problematizing communication and coordination between the groups.

#### 5.2.6.1 Group combination distances

Distance measures the average path length and can be used to compare and contrast the compactness of group combinations. A low path length implies a compact combination. As such, it can be used to gauge what other groups the ethno-nationalist groups can most efficiently communicate with.

The lowest combination distance value for the ethno-nationalist group is with the new right group (see table 5). In fact, it's the second lowest value for any combination. Only the new right and neo-fascist combination has a lower distance. The next best combination for Erkenbrand's group is with the neo-fascist group. This grouping also performs above average.

Table 5 Group combo distance ranking (Combinations involving Erkenbrand are displayed in bold<sup>8</sup>)

Subgroup combination	Distance
<b>New right / Neo-fascist</b>	1.897
<b>New right / Ethno-nationalist</b>	<b>1.966</b>
<b>New right / Xenophobic</b>	2.078
<b>Xenophobic / Neo-fascist</b>	2.087
<b>Ethno-nationalist / Neo-fascist</b>	<b>2.116</b>
<b>Anti-democratic / Xenophobic</b>	2.195
<b>Anti-democratic / Neo-fascist</b>	2.211
<b>Xenophobic / Ethno-nationalist</b>	<b>2.452</b>
<b>Anti-democratic / New right</b>	2.57
<b>Anti-democratic / Ethno- Nationalist</b>	<b>2.572</b>
<b>Average</b>	2.214

Interestingly, the overall best performing group combination is composed of Erkenbrand's two best partners; the new right group and the neo-fascist group. In fact, the performance of all combinations within this trio is excellent. These finding further evidence the existence of a compact trio, as discussed above. Given their low mutual distances this trio forms a compact whole that communicates efficiently. As such, Erkenbrand operates in an environment that provides it with short communication paths with the neo-fascist and new right elements of the Dutch language right-wing extremist network.

The ethno-nationalist group's distance to the other two groups is *above* average, meaning it has longer communication lines with them. This reinforces the conclusion of the previous section that this group is relatively loosely related to the xenophobic and anti-democratic groups. Moreover, a longer distance also problematized coordination and communication.

<sup>8</sup> Table 10 in the appendix is also shows the distance values for subgroup combinations, but in a format more suited for finding specific group combinations.

### 5.2.6.2 *Subgroups and blocs*

Overall it appears the network can be divided into two sections, the xenophobic and anti-democratic bloc and the ethno-nationalist, new right and neo-fascist bloc. There are multiple ways to characterize this split. For example, the two blocs differ significantly in internal density and overall size.

One could argue that perhaps the split is based on the degree of radicalization, as one of the blocs contains groups (not all) whose ideology demands violence, whereas the other contains mostly radical reformists. Such an explanation is supported by Schachter (1951) who explains that often conflict within a network is limited by 'abridgement'; the cessation of interaction with 'deviant' actors who hold highly divergent opinions. One can imagine that the more radical stances of actors like the NVU create conflict for more moderate groups, who therefore terminate relations. Similarly, Merton (1958) suggests that networks will naturally make structural arrangements to reduce conflict between members. For instance, structural arrangements might isolate a 'deviant' actor, reducing his visibility, and thereby the conflict he causes. This observation is congruent with the peripheral position of the most radical members of the network, like Stormfront. The isolation and abridgement dynamics, explain the relatively low density and centrality of the radical bloc. The high cohesion amongst this trio itself is consistent with this explanation, as these subgroups would not experience each other as particularly 'deviant', they themselves being quite radical.

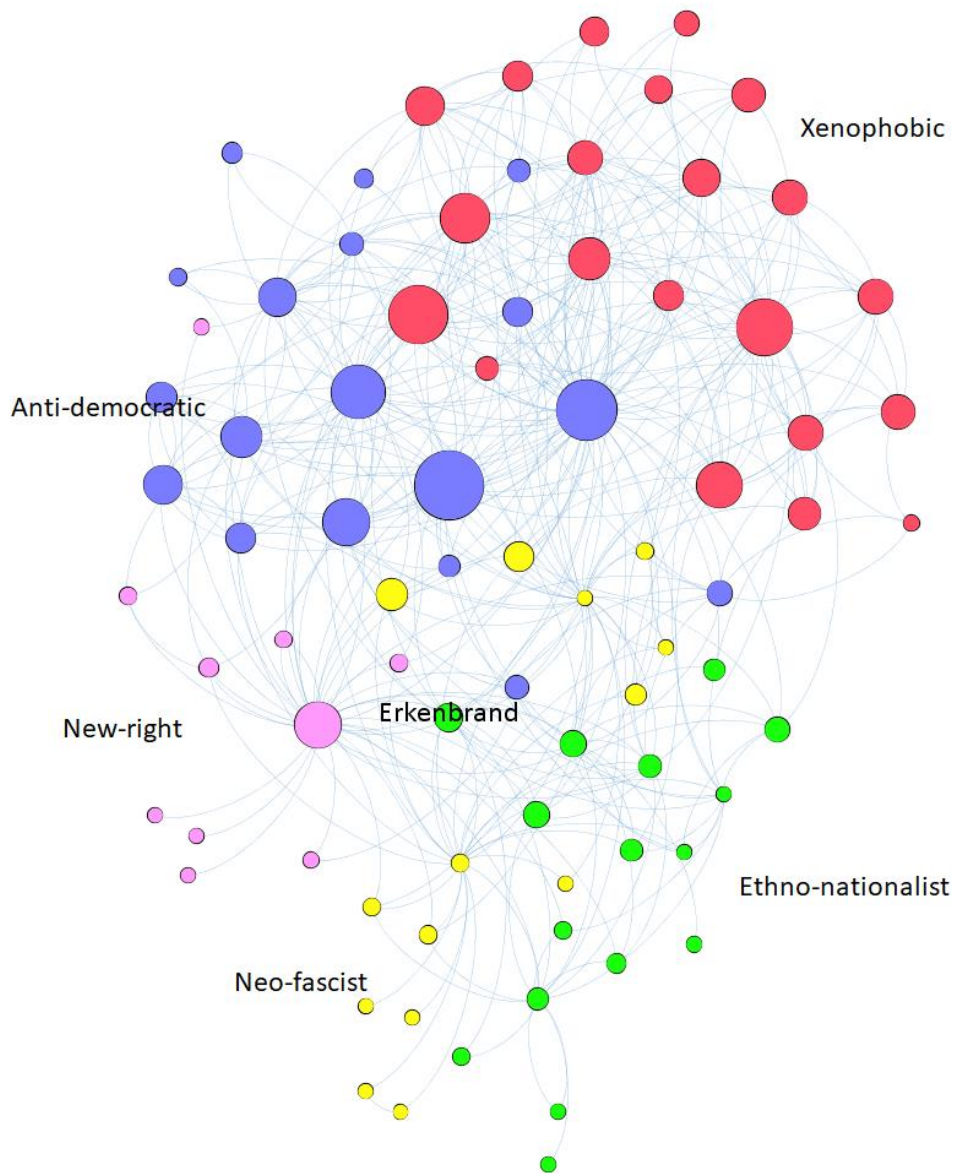
As a result of the network's split into two internally cohesive but mutually incohesive blocs, the influence of actors outside their blocs is limited, while it is stronger inside their blocs. This observation is consistent with Festinger's (1954) social comparison theory, that suggest that influence actors have on one another decreases with the degree of ideological disagreement between those actors. Here the ideological disagreement seems rooted in a disagreement on the means by which to affect social change.

### 5.3 Micro level results and analysis

At the micro level the focus rests specifically on Erkenbrand. Following Friedkin's (1998) concept of influence we use different variations of centrality to assess Erkenbrand's influence. We used degree centrality, closeness centrality, betweenness centrality and eigenvector centrality to assess individual nodes on their importance and role in the network. Tables 13 through 18 contain the different centrality rankings and can all be found in the appendix.

#### 5.3.1 Network Diagram Placement

Figure 10 Diagram of Erkenbrand's network. Node size scales with degree centrality.



Erkenbrand is positioned just off the diagram’s midpoint (see figure 10). This indicates it is a moderately central node. Furthermore, Erkenbrand appears to be one of the most central nodes in the radical bloc. It’s furthest removed from the xenophobic group, but has some connections with the anti-democratic group.

Though not the most central node, Erkenbrand is positioned in the space where the different subgroups border each other. This position makes Erkenbrand a potential gatekeeper between different communities.

### 5.3.2 Degree centrality

Erkenbrand has an undirected degree centrality of 18, putting it in 13<sup>th</sup> place out of 79 (see table 14 in the appendix) Table 6 shows all of Erkenbrand’s edges and their direction. It significantly outperforms the average of degree (5.4), but lags significantly behind the frontrunners, which top out at 66. Interestingly, Erkenbrand is outperformed by only one member of its own group, and only three of members of the group trio identified in the meso level analysis.

*Table 6 Erkenbrand's edges and their direction*

<b>Node</b>	<b>Direction</b>
Dinghal	Bidirectional
Alfred Vierling	Bidirectional
Skadi	Indegree
Sjors Remmerswaal	Indegree
Politically incorrect guide	Indegree
EJBron	Indegree
Zeepertje	Indegree
ReActnieuws	Indegree
Voorpost	Outdegree
Algiz Postorder	Outdegree
Uitgeverij Egmont	Outdegree
Frontnieuws	Outdegree
TPO	Outdegree
De blauwe tijger	Outdegree
JDreport	Outdegree
Identiteit Nederland	Outdegree

Judged by this metric Erkenbrand appears to be a relatively well connected node of mediocre to high importance in the super-network. The majority of nodes outperforming it belong to different groups, however. This suggests that while Erkenbrand’s global influence may not be extremely high, it might still play a central role within its group or even the bloc.

Erkenbrand has an indegree centrality of 8 and an out-degree centrality of 10, ranking it at the 12<sup>th</sup> and 15<sup>th</sup> spots (see table 15 and 16 in the appendix), respectively. Given these findings, Erkenbrand is a moderately to highly popular actor and a moderately to highly active bridge builder.

Some nodes vastly outperform Erkenbrand by indegree centrality, yet none of better performing nodes belong to Erkenbrand’s group or bloc. This lends credibility to the idea that Erkenbrand is especially

important to its own group or even bloc. From the meso level analysis we know that Erkenbrand's subgroup is the most marginalized group in the network. Given that Erkenbrand is the most popular member of that group, Erkenbrand might be crucial in directing traffic into its group/bloc and thus dispersing information (and ideology) outside of it. In other words, it might function as the 'face' of the group. This hypothesis is strengthened by the fact that 5 of Erkenbrand's 8 indegree edges originate from outside its subgroup. Moreover, the originators of these edges appear to be relatively important nodes in their own right, like Dinghal, EJBron, Zeepertje and Reactnieuws.

Additionally, indegree centrality is an important measure in determining visibility. Visibility is directly related to influence. Hence, based solely on indegree centrality Erkenbrand can be said to be a moderately to highly influential actor.

Though the most popular member of its subgroup and bloc, Erkenbrand is not the most gregarious member. Skadi and Alfred Vierling, member of its subgroup, are somewhat more gregarious. ReActnieuws, Dinghal and Politically incorrect guide, members of its bloc, are far more gregarious than Erkenbrand. So, while it is perhaps the 'face' of its group and bloc, Erkenbrand is not the most active community builder. This suggests that the potential Erkenbrand's popularity affords it is perhaps underutilized. We hypothesize that Erkenbrand is limited in its gregariousness by its careful self-presentation. Careless association and promotion of other websites doesn't fit their style.

A large imbalance in out and indegree centrality can define the role of a node. For example, extremely popular nodes with negligible gregariousness, like TPO, can act as a resource of articles and information of others, while retaining an air of impartiality by keeping other extremist actors at arm's length. Conversely, nodes with high gregariousness and low popularity, like Politically incorrect guide, play the role of bridge builders, being purely designed to make information in the network as accessible as possible. Erkenbrand has a comparatively balanced division of in and outgoing edges. Its gregariousness only exceeds its popularity by a small degree. As such, its role is not defined by imbalanced in and outdegree centralities.

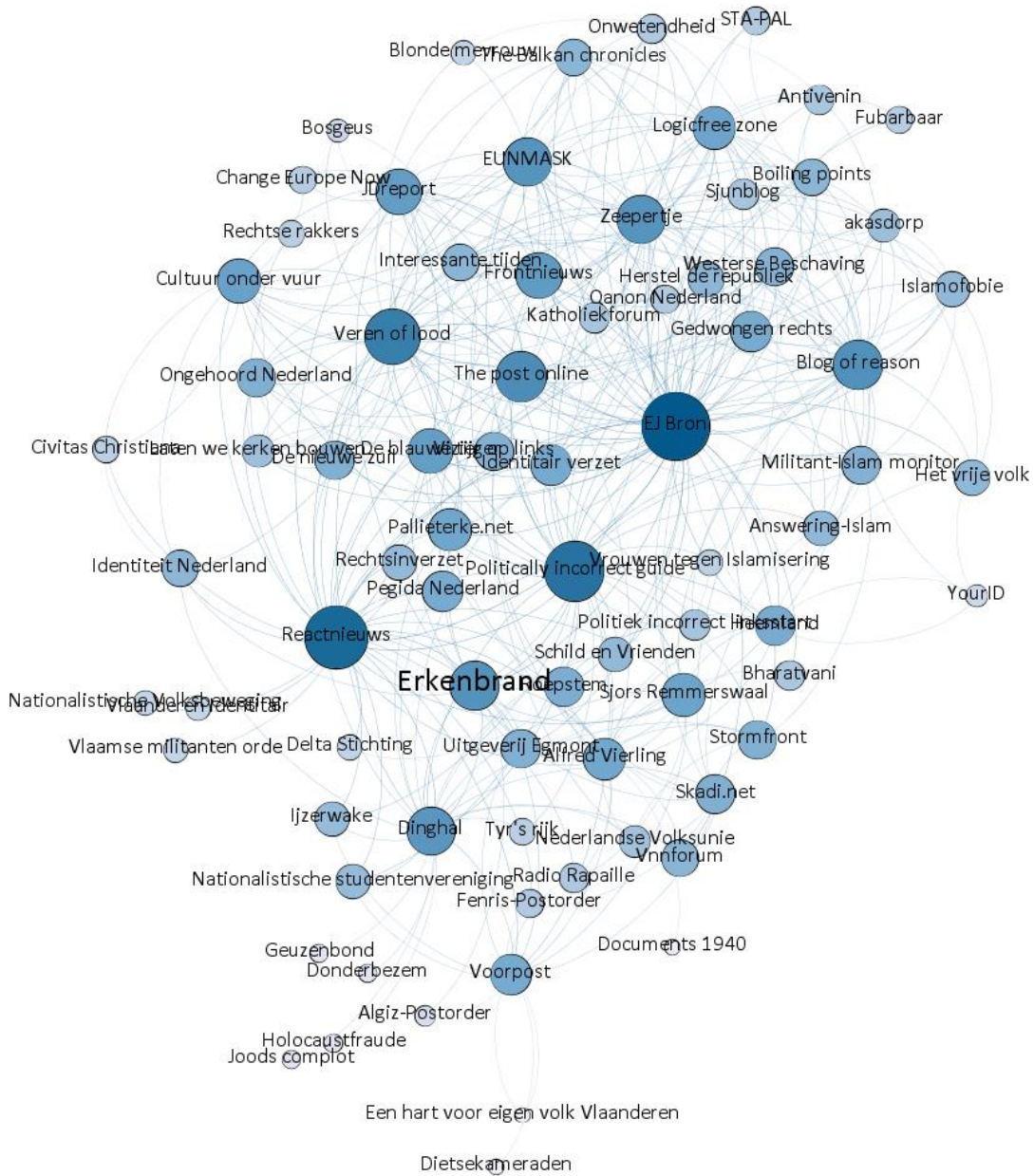
### 5.3.3 Closeness Centrality

Erkenbrand's closeness centrality of 0.549 ranks it as the 7th most central node (see table 13 in the appendix). This high centrality is somewhat curious. All other nodes with high closeness centrality have high degrees. In fact, total degree and closeness centrality correlate very strongly (the correlation coefficient is 0.862). Erkenbrand defies this trend. One explanation can be found in the fact that while Erkenbrand's connections are few, they are of relatively high quality. Many of Erkenbrand's edges connect it to nodes with both a high degree and closeness centrality. Another explanation could be that a large number of nodes that lie beyond Erkenbrand's ego-network are dependent on Erkenbrand as their most efficient path to the rest of the network. This notion is explored further in the section on betweenness centrality.

Its high closeness centrality demonstrates that Erkenbrand communicates efficiently with the network. It is in the position to receive and disperse information and ideology efficiently. As such, by this measure, Erkenbrand is one the most influential nodes in the network.



Figure 11 Diagram of Erkenbrand's network. Size and color of nodes scale with closeness centrality. Darker and larger entails a higher centrality.





#### 5.3.4 Betweenness centrality

With 4.98% of all shortest paths including Erkenbrand, it ranks 8<sup>th</sup> in betweenness centrality (see table 17 in the appendix). Within its subgroup it's outperformed only by Alfred Vierling (5.44%) and closely followed by Voorpost (2.46%) Interestingly, both the neo-fascist and new right groups have one standout member with high betweenness centralities; Dinghal and ReActnews respectively. A scan of those subgroups' structure confirms that both those groups lean heavily on a single member to connect them to the super-network. Erkenbrand's group is nowhere nearly so dependent on a single member. While it does not dominate the information flow from and into its group in the same way as ReActnieuws and Dinghal do, Erkenbrand is one of a select number of gatekeepers within it the ethno-nationalist group. So, though it is not exceedingly important Erkenbrand is a moderately to highly influential gatekeeper.

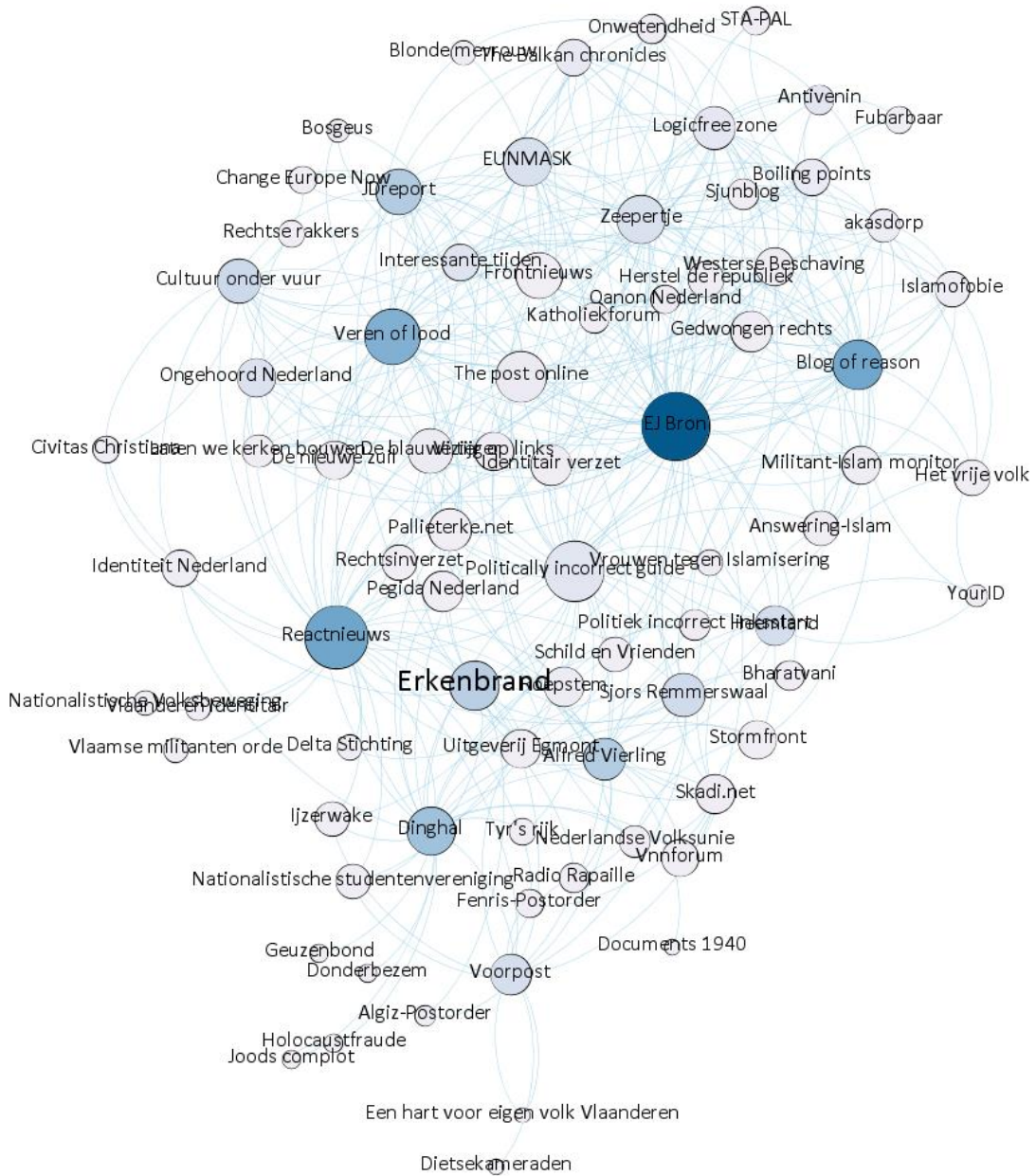
Here we may also test how well positioned Erkenbrand is between subgroups. Table 19 (see appendix) shows Erkenbrand's betweenness centrality in different subgroup combinations. In no combination, nor in its bloc, is Erkenbrand the most central node. However, for each subgroup combination Erkenbrand consistently ranks high, floating between 2<sup>nd</sup> and 7<sup>th</sup> place.

Consequently, Erkenbrand is not a dominant gatekeeper between any two subgroups. It is nonetheless a consistent factor in bridging communities. Moreover, it also a highly influential gatekeeper within its bloc.

As Erkenbrand is a moderately to highly influential gatekeeper between all subgroups and within its bloc, we may surmise from this that Erkenbrand is uniquely positioned within the network. It takes a position at the conflux of all subgroups, specifically on the dividing line between the two blocs, priming it to affect each one.

Erkenbrand's consistently central positioning in different group-combinations indicates that it is well accepted by each subgroup. This acceptance allows it to act as a representative for its community, be it subgroup or bloc. This level of universal acceptance is unique in the network. We hypothesize that a combination of Erkenbrand's new (alt-right) vocabulary and its pseudo intellectualism allow it to appeal to a broad audience. Its vocabulary is specifically designed to differ from traditional radical rhetoric, perhaps allowing it to build relationships where other, equally radical actors might not. Its pseudo-intellectualism endows it with a degree of legitimacy that masks its radical agenda, again allowing it appeal to actors who might otherwise shun it.

Figure 12 Diagram of Erkenbrand's network. Size and color of nodes scale with betweenness centrality. Darker and larger entails a higher centrality.



### 5.3.5 Eigenvector centrality

By eigenvector centrality Erkenbrand ranks 30<sup>th</sup>. This confirms the conclusion that, to the overall network, Erkenbrand is only moderately important. However, table 18 (see appendix) reveals there is more to Erkenbrand's mediocre eigenvector centrality.

When we hold subgroup membership next to the eigenvector centrality table (see table 18 in the appendix) it becomes obvious that, barring two, all nodes in the ethno-nationalist, new right and neo-fascist groups perform worse than Erkenbrand still. Moreover, almost all nodes with a higher centrality belong to the xenophobic or anti-democratic groups.

It is important to note that these groups have, by far, the highest average degrees and density. Due to the way eigenvector centrality is calculated, concentrations of nodes with a relatively density and comparatively high degrees have a self-reinforcing effect. In practice this means that even nodes with small degrees can easily outpace nodes of equal or greater degree by virtue of their proximity to such concentrations.

We can see this effect in action on table 18 (see appendix) and figure 13 where otherwise marginal and unimportant nodes like STA-PAL outperform Erkenbrand by virtue of their membership of a highly dense subgroup. As demonstrated in the meso level analysis the ethno-nationalist, new right and neo-fascist groups share little connection with the two dense groups. Moreover, their average degrees and densities are far lower. As such, they have only small degrees (the basis for prestige) and hardly benefit from the prestige of surrounding nodes.

This perspective can reframe how we look at Erkenbrand's eigenvector centrality and prestige. While only moderately prestigious in the overall network, Erkenbrand is the most prestigious member of its subgroup. Within the bloc, only Pallieterke and Identitair verzet are more prestigious. Both seem to derive most of their prestige from their connections to very prestigious nodes in the xenophobic and anti-democratic subgroups. The same seems true for Erkenbrand, which has a number of high value partners in those groups see figure 14.

Erkenbrand is the most prestigious member of a group that is otherwise low on prestige. This fact further evidences Erkenbrand's role as a regionally important node. On one hand as the most prestigious member of its subgroup, Erkenbrand is primed as an influential trendsetter. Actors within its group and node are likely to look at Erkenbrand for leadership and ideological cues. On the other hand, this same prestige makes it a logical and credible representative of its community toward the rest of the network.

Figure 13 Diagram of Erkenbrand's network. Size and color of nodes scale with eigenvector centrality. Darker and larger entails a higher centrality.

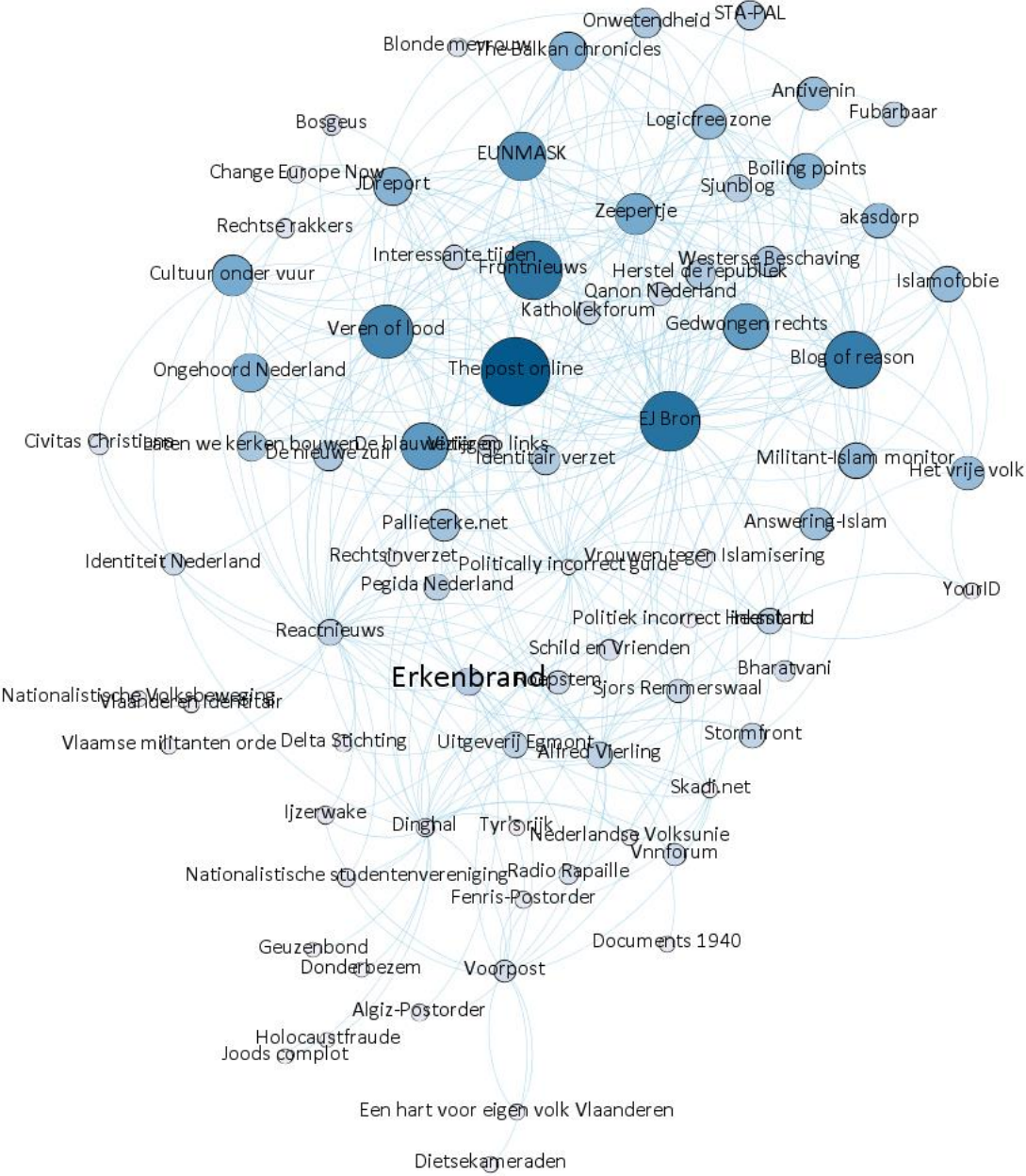
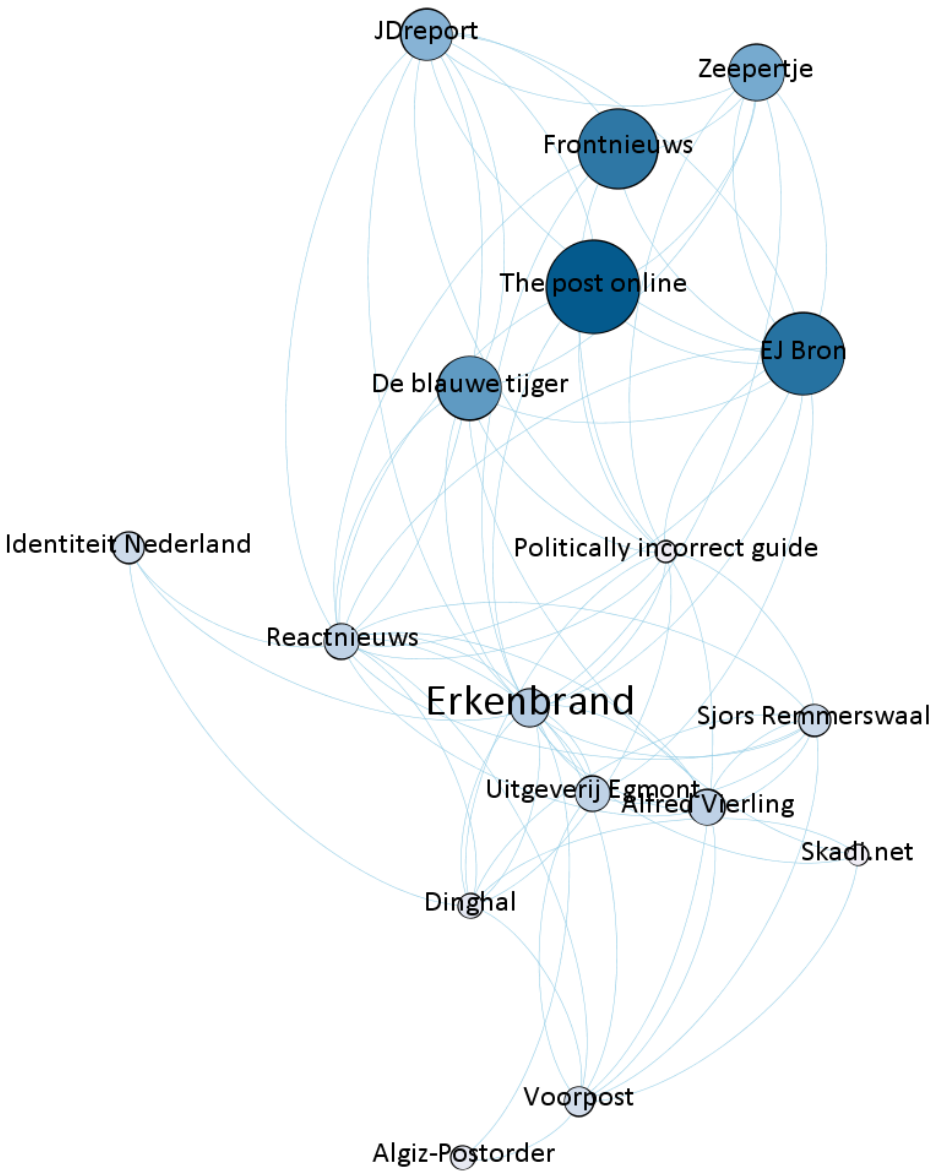


Figure 14 Ego network diagram of Erkenbrand. Size and color of nodes scale with eigenvector centrality. Darker and larger entails a higher centrality.





## 6 Discussion

### 6.1 Answering the research question

Compared to other European and American networks, Erkenbrand operates in a network that is compact, cohesive and moderately well centralized. Therefore, it allows for an efficient exchange of information and has a relatively high capacity to mobilize resources. Single actors may disseminate information and mobilize resources efficiently within this network, and thus flourish. As such, our network is conducive to the existence of influential organizations that are suspected to rapidly disseminate extremist thought.

The super-network can be divided into two blocs, the xenophobic and anti-democratic bloc and the ethno-nationalist, new right and neo-fascist bloc. This split is likely based on the degree to which the group members are radicalized. Erkenbrand is positioned in the radical bloc. It wields more influence there than outside of it.

Erkenbrand is deeply embedded in the ethno-nationalist subgroup. Within this group, Erkenbrand experiences the highest cohesion, and thus influence. Despite having a comparatively low density this subgroup is moderately ideologically homogeneous. Three broad streams of thought can be discerned within the group, in descending order of population size: ethno-nationalism, alt-right extremism and neo-Nazism. The group is characterized by a shared racist and nationalist ideology. This grouping suggests that the Dutch alt-right, and Erkenbrand specifically, despite its outward declarations and modernized vocabulary, is intimately connected to ethno-nationalist and fascist movements.

Erkenbrand's group has little overlap with the xenophobic and anti-democratic subgroups. Instead, it overlaps mostly with neo-fascist and new right subgroups. This shows that Erkenbrand is primed to exercise its influence more effectively on those groups.

Degree and eigenvector centrality demonstrate that Erkenbrand itself is a relatively well connected node of mediocre to high importance in the super-network. It is the most popular node in its subgroup and bloc, which suggests that it functions as a gateway into its subgroup and bloc. Though less gregarious than its direct peers, Erkenbrand's prestige is comparatively high. This reaffirms Erkenbrand's identity as a restrained bridge builder that values quality over quantity.

Erkenbrand's high closeness centrality demonstrates that it is in the position to receive and disperse information and ideology efficiently. It is positioned to fully exploit the fertile environment of its super-network.

Erkenbrand's betweenness centrality confirms it as a moderately to highly influential gatekeeper. It is one of a number of influential gatekeepers within the ethno-nationalist subgroup. Erkenbrand is not a dominant gatekeeper between any two subgroups. It is nonetheless a consistent and important factor in bridging communities. Moreover, it also a highly influential gatekeeper within its bloc.

While only moderately prestigious in the overall network, Erkenbrand is the most prestigious member of its subgroup and one of the most prestigious in its bloc. It derives its prestige from powerful connections outside of its subgroup and bloc. Yet, it is also deeply embedded within its subgroup and bloc. As such, it is in a unique position at the conflux of subgroups and blocs. Its exceptional prestige within its direct environs strengthens its status as a gatekeeper

Together, Erkenbrand's high betweenness centrality, high closeness centrality, prestige and unique positioning between different subgroups and blocs cement Erkenbrand's position as an influential actor. It is primed to disseminate, amend and stop flows of information. Though by no metric the single most important node in the network, Erkenbrand is a local powerhouse, geared to influence the flow of information between its subgroup, bloc and the wider network. Moreover, it is primed as the face of the more radical streams of thought within the network.

## 6.2 Reflections on the hypothesis

We expected to find that Erkenbrand is an influential actor within the online extreme right environment. This expectation was motivated by the prominence afforded to it by the AIVD (2018) and the Anne Frank Institute (Wagenaar, 2019).

Given our results their wariness of Erkenbrand was justified. Results demonstrate that, indeed, Erkenbrand is an influential player in the Dutch language right-wing extremist milieu. Though not the most central player in the network, it holds a unique position at the conflux of different extremist groups, where it functions as the new face of Dutch right-wing radicalism.

These findings align with our expectations that, with its careful presentation, distinct vocabulary, and pseudo-intellectualism Erkenbrand is attempting to appear as a palatable alternative to equally radical peers. It indeed takes up the position of gatekeeper between right-wing extremists of differing degrees of radicalization.

The prediction that Erkenbrand holds more influence over ideologically similar peers also appears correct. Community detection demonstrated that Erkenbrand functions in cohesive subgroups and blocs with those who hold similarly racist, nationalistic and anti-Semitic views. Its influence is less strong amongst xenophobic and anti-democratic groups, whom it shares less ideological overlap with.

## 6.3 Challenges

Here we discuss the complications encountered during data collection, concerning mainly the friction between the data and the inclusion criteria.

### 6.3.1 Nationality and language

Firstly, the goal to include only Dutch entities quickly proved untenable due to the heavy presence of Flemish websites in the network. For most websites the nationality could be ascertained at first glance by noting the language, country of focus and stated identity of the authors. This process was far more challenging for Dutch language websites that had no explicit country of focus, or focused equally on Dutch and Belgian affairs. Ascertaining the national origins of the authors many websites proved to be a time-consuming task.

We decided to broaden the inclusion criteria to Dutch language entities, rather than websites of Dutch origin. The fact that the national origin of websites is hard to determine presumably also holds for visitors of those websites. There is also a very high degree of interconnection between Dutch and Flemish right-wing extremist websites. There exists a number of websites that have no clear focus on either country. As such we might assume that the flow of information and users between these two groups is so significant that the Flemish and Dutch right-wing extremist ecosystems are inseparable, and are, in fact, one ecosystem. As such, drawing a line based on national origin would amount to drawing a line where, arguably, one does not exist in practice.

Another challenge to the geographic constraint in the inclusion criteria emerged in the form of popular right-wing message boards like Stormfront. Stormfront is, by origin, an American website. However, the message board has several foreign chapters as well, amongst which a Dutch language chapter. They have a meaningful Dutch language presence, but failed the inclusion criteria. These cases pose the following question: what portion of the content needs to be Dutch language to fulfill the Dutch language criteria?

In answering it, we allowed ourselves to be guided by the practical restraints on our research. While crawling Stormfront would undoubtedly yield a large amount of right-wing extremist entities, we expect that it will yield mostly foreign language entities. As such, crawling Stormfront and similar message boards would likely yield an amount of work that does not weigh up to the potential benefits. However, we have decided to include these message boards as endpoint in our network. Consequently, we can't accurately gauge their role in the network, but at least gain some understanding as to their role in the Dutch language right-wing extremist ecosystem.

### 6.3.2 Alternative media

Right-wing extremism is notoriously contested concept (Minkenberg, 2000), making a practical definition an elusive task. This heterogeneity is particularly pronounced online.

Right-wing extremist organizations come in a myriad of forms, all borrowing and imitating others, intentionally or by accident. While variation was anticipated, some variants were unexpected and proved hard to categorize. We were particularly challenged by the considerable overlap that emerged between online news media, conspiracy theory websites (which in turn have considerable overlap) and right-wing extremist though.

Right-wing extremist news media challenged the inclusion criteria because they do not carry out an ideology as a political platform would. Instead of directly and openly stating beliefs, goals and methods, they work indirectly, by cherry-picking news items, misrepresenting facts or brazenly manufacturing a new reality. The strength of these 'alternative media' probably lies in their imitation of legitimate media and in the subtlety by which it informs its readers of its bias, yet they leave a similar taste in the readers mouth as conventional extremist actors. The question these entities pose the researcher is: "How do we reliably distinguish right-wing extremist news media from legitimate right news media despite their reluctance to state their underlying ideology?"

Modern scholarship offers a number of research methods by which one can reliably and systematically extract the substance from media and ascertain its underlying ideology. However, given the sheer number of news media we found, we chose for a simplified method for ascertaining the nature of news media. Firstly, all methods of determining the ideological nature of an entity other than assessing the news articles were exhausted. For example, we looked for mission statement and 'about us' sections. Moreover, we looked for opinion segments in the news outlet. If these were not conclusive, we assessed the news articles.

Given that most news articles pretend to be objective and thus do not carry a clearly defined ideological bias, we assessed them by their purpose. We assumed that a right-wing extremist news operates with the purpose of spreading its worldview. Hence, we assessed news articles based on their apparent purpose. For example, an article describing a robbery highlight the race of the offender and victim, or an article positing a failing governing policy as another crack in the fundamentals of a failing democracy, serve to frame reality so that it aligns with their ideology; ideologies of inequality and a



rejection of the democratic order. If a majority of assessed news articles served these purposes the news website was considered to meet the inclusion criteria.

### 6.3.3 Conspiracy theorists

During data collection it became apparent that the included entities often contained hyperlinks to conspiracy theory websites. A large number proved hard to distinguish from right-wing extremism as defined by the inclusion criteria.

In hindsight the intersection between the two seems obvious. The history of conspiracy theories and right-wing extremism are inseparable. From Tsarist Whites, to Nazism, to Anders Breivik, conspiracy theories are woven into the very fabric of right-wing extremism (Allington, 2021). Beyond anecdotal evidence, research shows that both right and left wing extremists in the USA and the Netherlands are more likely to endorse conspiracy theories. Moreover, research demonstrates a clear association between conspiracism and the propagation of lawbreaking (Imhoff, Dieterle, & Lamberty, 2021).

The challenges in categorizing conspiracy theory websites partly mirrored those faced when categorizing alternative media. The average conspiracy theory website does not promote a clearly identifiable political ideology. Dedicated conspiracy websites mostly contained a myriad of commonplace, relatively benign conspiracy theories. However, a number also featured conspiracy theories typical of right-wing extremism. Most notable are the ubiquity of New World Order conspiracy theories and Anti-Semitic conspiracy theories. This raised the following questions: How much content of a website needs to satisfy the inclusion criteria for a website to be included in the data set? Can a conspiracy theory alone satisfy the conditions set for right-wing extremist content?

The first question mirrors the challenge faced in categorizing online news media, so we chose to use the same criteria for judging conspiracy websites that we used for news websites; a majority of the content needs to satisfy the criteria set for right-wing extremist thought. Restraints in time and resources drove this decision as well. The use of a snowball research method carries with it the risk of data-snowball gaining speed and mass so rapidly that it slips out of the researcher's control. Based on the number of conspiracy theory websites that contained some degree of right-wing extremist thought we judged that a low threshold for the inclusion of such websites would pose too great a risk that the data set would swell beyond our limited resources and would compromise the scope of our research.

The second question also mirrors the challenge faced in categorizing online news media. Conspiracy theories often do not present a coherent political ideology. Instead, they put forward a set of factual claims, often in conflict with reality. Especially on dedicated conspiracy websites these theories are often not woven into a coherent ideology. In this sense, they operate as insidiously as the alternative news media; operating under a cloak of apparent legitimacy, borrowed through a claim of objectivity and 'fact-based' analysis.

Conspiracy theories can be used to spread right-wing extremist thought. Conspiracy theories are typified by the claims that conspiracies are ubiquitous, that they are the motive force in history, and that they require that there is an omnipotent secret group of people plotting to increase their own power at the expense of ordinary people. They amount to a theory of politics which claims that 'true power' is held by conspirators operating behind and or through the visible political system, "whose functionaries are ciphers or puppets" (Allington, 2021). Conspiracy theories, therefore, by definition, satisfy one of the conditions set for the right-wing extremist thought; the rejection of established political systems.

Whether a conspiracy theory amounts to right-wing extremist thought then depends on whether it satisfies the remaining criterion; exhibiting an ideology of inequality. Given that many conspiracy theories were not embedded in a coherent ideology we chose to use the same approach used for categorizing news articles; meaning we judged them by their perceived purpose. If a conspiracy theory serves to frame reality so that it aligns with an ideology of inequality it satisfies the criterion. For example, the Great Replacement conspiracy theory serves to justify a rejection of non-white immigrants, and a such serves to frame reality to align with an ideology of inequality; racism. Consequently, the Great Replacement conspiracy theory qualifies as right-wing extremist thought.

## 6.4 Limitations

Though useful, HNA has some limitations. This section addresses the main limitations of our method.

### 6.4.1 Reliability

The first limitation concerns the quick pace at which data tends to change. Campana & Ducol (2015) report that in their research they struggled with the disappearance of websites and URLs, and the inclusion of missing and offline websites in their data sets. When one researches online organizations with socially undesirable ideas they must be prepared to deal with the disappearance and active changing of websites, as organizations are subjected to censure.

Examples are the practically defunct neo-Nazi organizations, Vlaamse militanten orde and Nationalistische volksbeweging. Crawling jobs were timed to coincide with their activity. The program reported none of the jobs as failed. Yet, their lack of outdegree could be taken as an indication that the crawling jobs did fail.

The second limitation flows from the use of web crawlers. Webtools need to be carefully selected. Preferably, they have been designed with the purpose of academic research in mind, are reliable and freely available (Jones, 1999). In our research we used Hyphe, a research driven web-crawler designed by SciencesPo for use in online research in the social sciences. Though we encountered some performance issues, it was reliable in its creation of academically useful web-entities. For a small number of websites there are indications that the crawling job partially or fully failed. Firstly, the website [politiekincorrect.linkstart](#) was assigned the incorrect homepage by Hyphe. As a result, it was not crawled correctly. Its gregariousness should be far higher. There are no indications other websites were also assigned incorrect homepages.

Additionally, all web crawlers differ, and even when operating at the same time on the same website, they might deliver different results (Park & Thelwall, 2006). As such, direct replicability of our findings is not assured.

Finally, some websites of interest had active protection against crawling. Though they were a small minority we cannot exclude that some of the websites in the network had similar protections. If some did, they would show only indegree edges and no outdegree edges. Given that our network did not have a particularly low density, which would be an indication many connections are going undetected, we are confident this issue did not significantly impact the reliability of our data.

### 6.4.2 Validity

Our first set of limitations flow from the assumptions made in our methodology. One of those assumptions is that the online behavior we captured corresponds to the offline behavior of Erkenbrand and its peers.

An attentive reader could make the argument that offline networks possibly diverge significantly from online networks, thus severely limiting analytical the value of our findings.

The degree to which offline and online communities correlate is the subject of active academic debate. Hogan (2010) explains that social interactions online and offline must be understood differently. He emphasizes that, while they are not wholly dissimilar, structural differences produce different dynamics in online and offline interaction. There is evidence that these structural factors also affect the composition and nature of offline and online networks. Here are some notable examples. Ellison, Steinfeld, & Lampe (2007) suggest that there online communities more easily leverage weak ties. Earl (2010) argues that the coordination of asynchronous movements is easier through online interaction. And Gray (2009) found that marginalized communities build stronger online networks than offline networks, although the online networks in turn strengthened offline networks.

On the other hand there is strong body of literature that establishes the similarity of online and offline social behavior. In fact, Mesch and Talmud (2006) show that online networks tend to mirror offline networks. Dunbar et al. (2015) demonstrate online and offline networks have similar structures. Moreover, it seems individuals adopt online relationship into their offline networks and vice versa (Miller, Bobkowski, Maliniak, & Rapoport, 2015; Vitak et al., 2011). Also, online (political) communication behavior closely mirrors offline behavior (MacAfee & De Simone, 2012; Miller et al., 2015). In fact people only rarely create online persona's that differ greatly from their offline persona (Miller et al., 2015).

We recognize some friction exists between offline and online networks. This is an important fact to bear in mind extrapolating our results beyond the online world. However, we argue, based on existing literature, that there is a solid basis for the assumption that the analysis of online networks can provide valuable insights that can be extrapolated beyond the digital realm.

Another impactful limitation lies in the assumptions regarding the motivations for the creation of hyperlinks. The blanket assumption that hyperlinks constitute endorsement for the linked content neglects the fact that some hyperlinks are in fact based on hostile relations, as they are leveraged to deliver negative criticism (Park & Thelwall, 2006). Moreover, we may never know why hyperlinks are created and we are therefore restricted to operating under assumption. Qualitatively validating the nature of the hyperlinks would exceed our means.

Secondly, there are strong indications that the scope of this research conflicts with the reality of online right-wing extremism. It is a well-known fact that right-wing extremist networks cross national borders. It is traditionally held that the strength of intra-national bonds trumps international bonds. This proposition was challenged during our data-collections.

We encountered a vast amount of websites that satisfied all except the language and nationality inclusion criteria. Flemish websites were ubiquitous and often proved difficult to discern from Dutch websites. This led us, as mentioned before, to amend the original research proposal to change the scope from Dutch to Dutch language websites.

However other foreign extremist websites still easily outnumbered the Dutch(-language) websites. Especially American, French and German websites were encountered often. These findings indicate that delineating the scope of research by nationality, or even by language cuts right across meaningful connections between right-wing extremist communities.

Moreover, we found that Dutch and Flemish communities (often grouped together) were active on websites of an originally different nationality or language. Notable examples are active Dutch language chapters on Stormfront, VNN, 4chan and 8chan. Some of these websites were included only as end-nodes, while others were not included for other reasons. The presence of Dutch and Flemish extremists on these platforms implies that the Dutch language right-wing extremist community has meaningful international ties. We know, for instance, that Erkenbrand actively recruits members on 4chan (Kafka, 2017). It also suggests that Dutch language extremists are not restricted by their language and participate in foreign extremist communities.

The scope of our research does not capture these international connections. There is some evidence that this limitation fails to capture Erkenbrand's meaningful connections. There is only a small number of alt-right websites in the network and Erkenbrand is the only alt-right group of any significance. Yet, we encountered numerous and some infamous American alt-right websites during our data collection. Erkenbrand's offline behavior strengthens this proposition, given that it regularly participates in international conferences and meetups.

## 6.5 Future research

Below we detail some recommendations for future avenues of research and method development.

We recommend our methods for future research into individual extremist groups using HNA. Given the difficulties in mapping the entanglements of extremist organizations, the drawbacks of HNA are worth the payoff. It is no comprehensive substitute for qualitative research, but can function as a valuable complement. Knowing the position and role of an actor within its community is crucial to understanding him at all.

Moreover, employing HNA to research extremist groups can be extremely useful for exploratory research. It can give crucial information to researchers about where to focus their limited resources. It can help them ask the right questions about the right groups. Case in point, our research encountered several actors that merit their own analysis, like Dinghal.

We also recommend research into the connection between and overlap of Dutch-Flemish right-wing extremist communities. One could, for example, create a network using HNA, with multiple starting points in both communities. A significant overlap seems to exist. Statistical proof could overhaul our understanding of Dutch and Flemish right-wing extremism.

In a similar vein, we recommend that similar future research critically examines its assumptions about the natural form of right-wing extremist communities, especially when it comes to nationality. Erkenbrand's network contained many of the same (Flemish) nodes Fluit (2017) found in her Belgian network. Moreover, Erkenbrand's network, straddling the border between the Netherlands and Flanders, shows a far higher cohesion than Fluit's (2017) Belgian network, which was notably split along regional and language lines. Our results thus demonstrate that Flemish/Dutch speaking Belgian right-wing extremist is more closely integrated within a Dutch language network than within a national Belgian network. This finding puts into question the habit within the field of research to delineate their networks along national lines.

Given the rise of the new right and alt-right, which are more internationally oriented than their predecessors, it is likely that these communities will increasingly reach across borders (Maly, 2018). Consequently, so should the scope of future research, lest it be left behind in a 20<sup>th</sup> century mindset.

Delineating research by language rather than nationality is one step in the right direction. In some context a language based approach might be more suitable to capturing a network in its natural form than a national one. This approach would be most viability in researching communities with a shared language *and* a particularly similar culture; communities need to reach across language *and* cultural borders. For instance, German or Hungarian<sup>9</sup> speaking right-wing extremist communities are promising subjects for this approach.

We also recommend exploring the possibilities of discarding nationality and language as factors in HNA research into extremists all together. If one's subject is a particular organization, or broader political movement rather than any nation in particular, a national scope is unduly restrictive. Much might be gained by discarding these self-imposed boundaries. One might instead, delineate their scope by choosing a preset 'depth' to their network. One's dataset would be complete when a chosen number of nodes in the network or number of crawled layers has been reached, keeping the endeavor manageable. Such an approach would allow extremist communities to arise in the data as they exist in their natural form, regardless of nationality or language.

For research that does insist on using national or language restrictions, we recommend exploring the use of language identification algorithms. Identifying the websites that meet your inclusion criteria among a list of thousands of discovered URLs is extremely time-consuming. These tools can significantly reduce a researcher's workload, by filtering all websites that meet at least one of their criteria; the correct language. Using filtering algorithms in general can significantly speed up the prospecting process. We, for example, also filtered out hyperlinks to social media platforms.

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<sup>9</sup> Hungary's partition in the treaty of Trianon has permanently placed a substantial fraction of ethnic Hungarians outside of its borders (World War I Document Archive, 1920).

## 7 Conclusion

The raison d'être of this paper was a drive to understand the Dutch alt-right, a new unknown in the Dutch right-wing extremist milieu. Its natural focal point is Erkenbrand. Erkenbrand is widely considered the personification of current trends within the right-wing extremist milieu; a digitally oriented actor with a novel vocabulary. As such, it has been afforded much attention by media and state agencies.

While Erkenbrand has a strong reputation, this reputation was untested. No academic literature on Erkenbrand exists, and the Dutch right-wing extremist milieu had not been mapped. So, we set out to test the Erkenbrand's reputation as an influential member of the Dutch right-wing extremist milieu. As such, we asked ourselves the question: *"What role does Erkenbrand play within the Dutch language right-wing extremist online network and how influential is it?"*

We used Hyperlink Network Analysis to map and subsequently analyze Erkenbrand's network of Dutch language right-wing extremist actors. We used Hyphe, Gephi and custom built tools to collect, filter and analyze data.

Results demonstrate that Erkenbrand is indeed an influential actor. It is primed to disseminate, amend and stop flows of information in its milieu. Though by no metric the single most important node in the network, Erkenbrand is a local powerhouse, geared to influence exchanges between its subgroup, bloc and the wider network. Moreover, it is primed as the face of the more radical streams of thought within the network. Given Erkenbrand's influence and role in the right-wing extremist milieu it is likely that it will continue radicalizing others towards its ideology.

Erkenbrand and its ilk champion racial purity, and hold that race wars are inevitable. Such convictions, and their resultant actions foster intolerance and violence. We bear a collective responsibility to be vigilant for ideologies that preach intolerance and violence. The growth and evolution of right-wing extremist communities deserve special attention, lest we let reality outpace our understanding. Erkenbrand's represents a new stage in this evolution. Therefore, Erkenbrand's considerable influence should be a cause for concern and merits close monitoring by civil and state watchdogs.

We recommend the continued use of HNA to monitor both extremist networks and individual actors. It informs us of the patterns of interaction within milieus and the importance of different actors. Perhaps this knowledge could be leveraged to more efficiently administer sparse state resources in tracking and combating extremist groups.

We also advise critical examination of the boundaries imposed on future HNA research into similar networks/actors. Increasingly, extremist actors are crossing national borders. The scope of future research should mirror this trend. We recommend future research to use language to delineate the scope of research, when applicable. Much might be gained by dropping geographic or language scope restrictions all together.

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## 9 Appendix

Table 7 Individual subgroup densities

	<b>Xenophobia</b>	<b>Anti-democratic</b>	<b>Ethno-nationalist</b>	<b>Neo-fascist</b>	<b>New right</b>
<b>Density</b>	0.219	0.239	0.133	0.126	0.122

Table 8 Density values for subgroup combinations (Combinations involving Erkenbrand are displayed in bold)

Anti-democratic					
New right	13.8%				
Xenophobic	16.6%	11.4%			
Ethno-Nationalist	<b>10.9%</b>	<b>8.2%</b>	<b>10.1%</b>		
Neo-fascist	11.2%	7.6%	11.0%	<b>8.0%</b>	
	Anti-democratic	New right	Xenophobic	Ethno-Nationalist	Neo-fascist

Table 9 Group combo density ranking (Combinations involving Erkenbrand are displayed in bold)

<b>Group combination</b>	<b>Density</b>
<b>Anti-democratic / Xenophobic</b>	16.60%
<b>Anti-democratic / New right</b>	13.80%
<b>New right and Xenophobic</b>	11.40%
<b>Anti-democratic / neo-fascist</b>	11.20%
<b>Xenophobic / neo-fascist</b>	11.00%
<b>Anti-democratic / ethno-nationalist</b>	<b>10.90%</b>
<b>Xenophobic / ethno-nationalist</b>	<b>10.10%</b>
<b>New right / ethno-nationalist</b>	<b>8.20%</b>
<b>Ethno-nationalist / neo-fascist</b>	<b>8.00%</b>
<b>New right / neo-fascist</b>	7.60%

Table 10 Distance values for subgroup combinations (Combinations involving Erkenbrand are displayed in bold)

Anti-democratic				
New right	2.570			
Xenophobic	2.195	2.078		
Ethno-Nationalist	<b>2.572</b>	<b>1.966</b>	<b>2.452</b>	
Neo-fascist	2.211	1.897	2.087	<b>2.116</b>
	Anti-democratic	New right	Xenophobic	Ethno-Nationalist

Table 11 List of websites in Erkenbrand's network

	Node	Homepage		Node	Homepage		Node	Closeness centrality
1	The post online	<a href="https://tpo.nl">https://tpo.nl</a>	28	Antivenin	<a href="http://antivenin.blogspot.nl">http://antivenin.blogspot.nl</a>	55	Nederlandse Volksunie	<a href="http://www.nvu.info">http://www.nvu.info</a>
2	Blog of reason	<a href="http://worldofreason-blog.blogspot.com">http://worldofreason-blog.blogspot.com</a>	29	Sjors Remmerswaal	<a href="http://sjorsremmerswaal.wordpress.com">http://sjorsremmerswaal.wordpress.com</a>	56	Tyr's rijk	<a href="https://www.tyrsrijk.nl">https://www.tyrsrijk.nl</a>
3	EJ Bron	<a href="http://www.ejbron.wordpress.com">http://www.ejbron.wordpress.com</a>	30	De nieuwe zuil	<a href="https://denieuwezuil.nl/index.php">https://denieuwezuil.nl/index.php</a>	57	Holocaustfraude	<a href="http://www.holocaustfraude.nl">http://www.holocaustfraude.nl</a>
4	Frontnieuws	<a href="https://fenixx.org">https://fenixx.org</a>	31	akasdorp	<a href="https://akasdorp.wordpress.com">https://akasdorp.wordpress.com</a>	58	Politically incorrect guide	<a href="https://politicallyincorrectguide.bes.telinks.nl">https://politicallyincorrectguide.bes.telinks.nl</a>
5	De blauwe tijger	<a href="https://www.deblauwetijger.com">https://www.deblauwetijger.com</a>	32	Islamofobie	<a href="http://www.islamofobie.nl">http://www.islamofobie.nl</a>	59	Politiek incorrect linksstart	<a href="http://politiekincorrect.linksstart.nl/">http://politiekincorrect.linksstart.nl/</a>
6	Veren of lood	<a href="http://verenoflood.nu">http://verenoflood.nu</a>	33	Boiling points	<a href="https://boilingpoints.wordpress.com">https://boilingpoints.wordpress.com</a>	60	Delta Stichting	<a href="https://www.deltastichting.be">https://www.deltastichting.be</a>
7	Gedwongen rechts	<a href="http://rohingyaaremurderers.blogspot.nl">http://rohingyaaremurderers.blogspot.nl</a>	34	Laten we kerken bouwen	<a href="http://www.sidlukassen.com">http://www.sidlukassen.com</a>	61	Bosgeus	<a href="https://bosgeus.blogspot.com">https://bosgeus.blogspot.com</a>
8	EUNMASK	<a href="https://eunmask.wordpress.com">https://eunmask.wordpress.com</a>	35	Westerse Beschaving	<a href="http://westerse-beschaving.org">http://westerse-beschaving.org</a>	62	Vizier op links	<a href="https://vizieroplinks.org">https://vizieroplinks.org</a>
9	Cultuur onder vuur	<a href="https://cultuurondervuur.nl">https://cultuurondervuur.nl</a>	36	Identiteit Nederland	<a href="http://www.idnl.org">http://www.idnl.org</a>	63	Qanon Nederland	<a href="https://qanonnederland.wordpress.com">https://qanonnederland.wordpress.com</a>
10	JDreport	<a href="https://jdreport.com">https://jdreport.com</a>	37	Roepstem	<a href="http://www.roepstem.net">http://www.roepstem.net</a>	64	Vrouwen tegen Islamisering	<a href="https://www.vrouwentegenislamisering.be">https://www.vrouwentegenislamisering.be</a>
11	Zeepertje	<a href="https://zeepertje.com">https://zeepertje.com</a>	38	Radio Rapaille	<a href="http://www.radiorapaille.com">http://www.radiorapaille.com</a>	65	Katholiekforum	<a href="http://www.katholiekforum.net">http://www.katholiekforum.net</a>
12	Erkenbrand	<a href="https://www.erkenbrand.eu">https://www.erkenbrand.eu</a>	39	Vnnforum	<a href="http://vnnforum.com">http://vnnforum.com</a>	66	Documents 1940	<a href="https://documents1940.wordpress.com">https://documents1940.wordpress.com</a>
13	Voorpost	<a href="http://www.voorpost.org">http://www.voorpost.org</a>	40	Ijzerwake	<a href="http://www.ijzerwake.org">http://www.ijzerwake.org</a>	67	Geuzenbond	<a href="https://www.geuzenbond.nl">https://www.geuzenbond.nl</a>
14	Het vrije volk	<a href="http://www.hetvrijevolk.com">http://www.hetvrijevolk.com</a>	41	Pegida Nederland	<a href="http://www.pegidanederland.com">http://www.pegidanederland.com</a>	68	Donderbezem	<a href="https://donderbezem.nl">https://donderbezem.nl</a>
15	Alfred Vierling	<a href="http://alfredvierling.com">http://alfredvierling.com</a>	42	Nationalistische studentenvereniging	<a href="http://www.nsv.be">http://www.nsv.be</a>	69	Skadi.net	<a href="http://www.skadi.net">http://www.skadi.net</a>
16	Stormfront	<a href="http://www.stormfront.org">http://www.stormfront.org</a>	43	STA-PAL	<a href="http://osl-stavast.nl">http://osl-stavast.nl</a>	70	Joods complot	<a href="http://www.joodscomplot.nl/joods-complet-geen-mythe">http://www.joodscomplot.nl/joods-complet-geen-mythe</a>
17	Ongehoord Nederland	<a href="https://www.ongehoordnederland.nl">https://www.ongehoordnederland.nl</a>	44	Onwetendheid	<a href="https://onwetendheid.net">https://onwetendheid.net</a>	71	YourID	<a href="http://yourid.blogspot.com">http://yourid.blogspot.com</a>
18	Pallierterke	<a href="https://pallierterke.net">https://pallierterke.net</a>	45	Sjunblog	<a href="http://sjunblog.wordpress.com">http://sjunblog.wordpress.com</a>	72	Blonde mevrouw	<a href="https://blondemevrouw.nl">https://blondemevrouw.nl</a>
19	The Balkan chronicles	<a href="http://zlj13051967.wordpress.com">http://zlj13051967.wordpress.com</a>	46	Dinghal	<a href="https://dinghal.com">https://dinghal.com</a>	73	Vlaanderen Identitair	<a href="https://www.vlaanderenidentitair.wordpress.com">https://www.vlaanderenidentitair.wordpress.com</a>
20	Militant-Islam monitor	<a href="http://www.militantislammonitor.org">http://www.militantislammonitor.org</a>	47	Schild en Vrienden	<a href="https://schildenvrienden.com">https://schildenvrienden.com</a>	74	Een hart voor eigen volk Vlaanderen	<a href="http://www.eenhartvooreigenvolk.vlaanderen">http://www.eenhartvooreigenvolk.vlaanderen</a>
21	Answering-Islam	<a href="https://www.answering-islam.org">https://www.answering-islam.org</a>	48	Fenris-Postorder	<a href="http://www.fenris-postorder.com">http://www.fenris-postorder.com</a>	75	Dietsekameraden	<a href="http://www.dietsekameraden.com">http://www.dietsekameraden.com</a>
22	Uitgeverij Egmont	<a href="https://www.uitgeverijegmont.be">https://www.uitgeverijegmont.be</a>	49	Interessante tijden	<a href="https://www.interessantetijden.nl">https://www.interessantetijden.nl</a>	76	Rechtsinverzet	<a href="http://rechtsinverzet.nl">http://rechtsinverzet.nl</a>
23	Heemland	<a href="http://www.heemland.nl">http://www.heemland.nl</a>	50	Civitas Christiana	<a href="https://civitaschristiana.nl">https://civitaschristiana.nl</a>	77	Vlaamse militanten orde	<a href="http://www.vlaamsemilitantenorde.com">http://www.vlaamsemilitantenorde.com</a>
24	Reactnieuws	<a href="https://reactnieuws.net">https://reactnieuws.net</a>	51	Fubarbaar	<a href="http://fubarfubar.blogspot.nl">http://fubarfubar.blogspot.nl</a>	78	Change Europe Now	<a href="https://changeeuroopenow.com">https://changeeuroopenow.com</a>
25	Identitair verzet	<a href="http://www.idverzet.org">http://www.idverzet.org</a>	52	Algiz-Postorder	<a href="http://algiz-postorder.com/index.php">http://algiz-postorder.com/index.php</a>	79	Nationalistische Volksbeweging	<a href="https://nationalistischevolksbeweging.nl">https://nationalistischevolksbeweging.nl</a>
26	Herstel de republiek	<a href="https://herstelderepubliek.wordpress.com">https://herstelderepubliek.wordpress.com</a>	53	Bharatvani	<a href="http://koenraadest.bharatvani.org">http://koenraadest.bharatvani.org</a>			
27	Logicfree zone	<a href="https://logicfreezone.wordpress.com">https://logicfreezone.wordpress.com</a>	54	Rechtse rakkers	<a href="https://rechtserakkers.com/curiosa">https://rechtserakkers.com/curiosa</a>			

Table 12 Nodes and their subgroup

Node	Subgroup	Node	Subgroup	Node	Subgroup
The post online	Anti-democratic	Dietsekameraden	Ethno-nationalist	Zeepertje	Xenophobic
EJ Bron	Anti-democratic	Nederlandse Volksunie	Ethno-nationalist	The Balkan chronicles	Xenophobic
Veren of lood	Anti-democratic	Skadi.net	Ethno-nationalist	Boiling points	Xenophobic
De blauwe tijger	Anti-democratic	Pallietkerke.net	Neo-fascist	Militant-Islam monitor	Xenophobic
Cultuur onder vuur	Anti-democratic	Identitair verzet	Neo-fascist	akasdorp	Xenophobic
Ongehoord Nederland	Anti-democratic	Schild en Vrienden	Neo-fascist	Islamofobie	Xenophobic
JDreport	Anti-democratic	Ijzerwake	Neo-fascist	Logicfree zone	Xenophobic
Laten we kerken bouwen	Anti-democratic	Nationalistische studentenvereniging	Neo-fascist	Het vrije volk	Xenophobic
De nieuwe zuil	Anti-democratic	Dinghal	Neo-fascist	Antivenin	Xenophobic
Herstel de republiek	Anti-democratic	Vrouwen tegen Islamisering	Neo-fascist	Answering-Islam	Xenophobic
Heemland	Anti-democratic	Politically incorrect guide	Neo-fascist	Westerse Beschaving	Xenophobic
Interessante tijden	Anti-democratic	Politiek incorrect linksstart	Neo-fascist	Onwetendheid	Xenophobic
Roepstem	Anti-democratic	Tyr's rijk	Neo-fascist	STA-PAL	Xenophobic
Qanon Nederland	Anti-democratic	Holocaustfraude	Neo-fascist	Sjunblog	Xenophobic
Vizier op links	Anti-democratic	Joods complot	Neo-fascist	Fubarbaar	Xenophobic
Bosgeus	Anti-democratic	Geuzenbond	Neo-fascist	Katholiekforum	Xenophobic
Blonde mevrouw	Anti-democratic	Donderbezem	Neo-fascist	YourID	Xenophobic
Change Europe Now	Anti-democratic	Pegida Nederland	New right		
<b>Erkenbrand</b>	Ethno-nationalist	Reactnieuws	New right		
Alfred Vierling	Ethno-nationalist	Identiteit Nederland	New right		
Uitgeverij Egmont	Ethno-nationalist	Civitas Christiana	New right		
Stormfront	Ethno-nationalist	Rechtse rakkers	New right		
Sjors Remmerswaal	Ethno-nationalist	Delta Stichting	New right		
Vnnforum	Ethno-nationalist	Rechtsinverzet	New right		
Voorpost	Ethno-nationalist	Vlaanderen Identitair	New right		
Bharatvani	Ethno-nationalist	Vlaamse militanten orde	New right		
Radio Rapaille	Ethno-nationalist	Nationalistische Volksbeweging	New right		
Algiz-Postorder	Ethno-nationalist	Frontnieuws	Xenophobic		
Fenris-Postorder	Ethno-nationalist	Blog of reason	Xenophobic		
Documents 1940	Ethno-nationalist	EUNMASK	Xenophobic		
Een hart voor eigen volk Vlaanderen	Ethno-nationalist	Gedwongen rechts	Xenophobic		



Table 13 Closeness centrality ranking (Erkenbrand appears in bold)

Rank	Node	Closeness centrality	Rank	Node	Closeness centrality	Rank	Node	Closeness centrality
1	EJ Bron	0.672414	32	Westerse Beschaving	0.478528	63	Civitas Christiana	0.404145
2	Reactnieuus	0.639344	33	Vnnforum	0.472727	64	Vrouwen tegen Islamisering	0.402062
3	Politically incorrect guide	0.619048	34	Interessante tijden	0.46988	65	Delta Stichting	0.395939
4	Veren of lood	0.590909	35	The Balkan chronicles	0.46988	66	Blonde mevrouw	0.393939
5	The post online	0.561151	36	Boiling points	0.46988	67	Vlaanderen Identitair	0.39196
6	Blog of reason	0.553191	37	Identiteit Nederland	0.467066	68	Vlaamse militanten orde	0.39196
7	<b>Erkenbrand</b>	0.549296	38	Herstel de republiek	0.467066	69	Nationalistische Volksbeweging	0.39196
8	Zeepertje	0.545455	39	Het vrije volk	0.464286	70	Bosgeus	0.380488
9	EUNMASK	0.545455	40	Answering-Islam	0.461538	71	YourID	0.378641
10	Dinghal	0.541667	41	Islamofobie	0.458824	72	Algiz-Postorder	0.367925
11	Frontnieuus	0.530612	42	Schild en Vrienden	0.458824	73	Holocaustfraude	0.354545
12	JDreport	0.527027	43	Rechtsinverzet	0.458824	74	Joods complot	0.354545
13	De blauwe tijger	0.52349	44	Ijzerwake	0.45614	75	Geuzenbond	0.352941
14	Cultuur onder vuur	0.516556	45	Nationalistische studentenvereniging	0.45614	76	Donderbezem	0.352941
15	Sjors Remmerswaal	0.513158	46	akasdorp	0.448276	77	Documents 1940	0.336207
16	Logicfree zone	0.509804	47	Laten we kerken bouwen	0.445714	78	Een hart voor eigen volk Vlaanderen	0.333333
17	Pallierterke	0.506494	48	Nederlandse Volksunie	0.438202	79	Dietsekameraden	0.333333
18	Alfred Vierling	0.503226	49	Politiek incorrect linksstart	0.433333			
19	Identitair verzet	0.5	50	Sjunblog	0.433333			
20	Voorpost	0.496815	51	Katholiekforum	0.430939			
21	Gedwongen rechts	0.496815	52	Antivenin	0.428571			
22	Heemland	0.493671	53	Bharatvani	0.42623			
23	Pegida Nederland	0.493671	54	Radio Rapaille	0.423913			
24	Roepstem	0.490566	55	Onwetendheid	0.421622			
25	Skadi.net	0.484472	56	Fenris-Postorder	0.417112			
26	Stormfront	0.484472	57	Qanon Nederland	0.417112			
27	Uitgeverij Egmont	0.484472	58	STA-PAL	0.417112			
28	De nieuwe zuil	0.484472	59	Change Europe Now	0.412698			
29	Ongehoord Nederland	0.484472	60	Fubarbaar	0.410526			
30	Vizier op links	0.481481	61	Rechtse rakkers	0.408377			
31	Militant-Islam monitor	0.478528	62	Tyr's rijk	0.40625			

Table 14 Degree centrality ranking (Erkenbrand appears in bold)

Rank	Node	Degree centrality	Rank	Node	Degree centrality	Rank	Node	Degree centrality
1	EJ Bron	66	32	Laten we kerken bouwen	10	63	Fenris-Postorder	3
2	Reactnieuws	39	33	Herstel de republiek	9	64	Fubarbaar	3
3	Blog of reason	38	34	Answering-Islam	9	65	Joods complot	2
4	Veren of lood	36	35	Katholiekforum	8	66	Een hart voor eigen volk Vlaanderen	2
5	Zeepertje	34	36	Identitair verzet	8	67	Algiz-Postorder	2
6	Politically incorrect guide	33	37	Roepstem	8	68	Bharatvani	2
7	EUNMASK	28	38	Het vrije volk	8	69	Rechtse rakkers	2
8	Dinghal	26	39	Sjunblog	7	70	Tyr's rijk	2
9	The post online	25	40	Antivenin	7	71	Holocaustfraude	2
10	JDreport	23	41	Stormfront	7	72	Delta Stichting	2
11	Logicfree zone	22	42	Pallietkerke	7	73	Documents 1940	1
12	Alfred Vierling	19	43	Identiteit Nederland	6	74	Geuzenbond	1
13	<b>Erkenbrand</b>	18	44	Uitgeverij Egmont	6	75	Donderbezem	1
14	The Balkan chronicles	17	45	Nederlandse Volksunie	5	76	Vlaanderen Identitair	1
15	Cultuur onder vuur	17	46	Vizier op links	5	77	Dietsekameraden	1
16	Frontnieuws	17	47	Change Europe Now	4	78	Vlaamse militanten orde	1
17	Voorpost	16	48	Politiek incorrect linksstart	4	79	Nationalistische Volksbeweging	1
18	Boiling points	16	49	YourID	4			
19	De blauwe tijger	16	50	Civitas Christiana	4			
20	Interessante tijden	15	51	Radio Rapaille	4			
21	Gedwongen rechts	15	52	Vnnforum	4			
22	Sjors Remmerswaal	14	53	Ijzerwake	4			
23	Militant-Islam monitor	13	54	Pegida Nederland	4			
24	Heemland	12	55	Nationalistische studentenvereniging	4			
25	Skadi	12	56	STA-PAL	4			
26	Islamofobie	12	57	Vrouwen tegen Islamisering	3			
27	De nieuwe zuil	12	58	Rechtsinverzet	3			
28	Ongehoord Nederland	12	59	Qanon Nederland	3			
29	akasdorp	11	60	Bosgeus	3			
30	Westerse Beschaving	11	61	Blonde mevrouw	3			
31	Onwetendheid	10	62	Schild en Vrienden	3			

Table 15 Indegree centrality ranking (Erkenbrand appears in bold)

Rank	Node	Indegree centrality	Rank	Node	Indegree centrality	Rank	Node	Indegree centrality
1	The post online	24	32	Westerse Beschaving	5	63	Tyr's rijk	2
2	Blog of reason	23	33	Islamofobie	5	64	Holocaustfraude	2
3	EJ Bron	22	34	De nieuwe zuil	5	65	Delta Stichting	2
4	Frontnieuws	17	35	Laten we kerken bouwen	5	66	Joods complot	1
5	Veren of lood	15	36	Onwetendheid	4	67	Een hart voor eigen volk Vlaanderen	1
6	De blauwe tijger	15	37	Sjunblog	4	68	Rechtsinverzet	1
7	Gedwongen rechts	14	38	Roepstem	4	69	Skadi	1
8	EUNMASK	13	39	Identiteit Nederland	4	70	Change Europe Now	1
9	Cultuur onder vuur	13	40	Radio Rapaille	4	71	YourID	1
10	Zeepertje	10	41	Vnnforum	4	72	Blonde mevrouw	1
11	JDreport	10	42	Ijzerwake	4	73	Documents 1940	1
12	Voorpost	8	43	Pegida Nederland	4	74	Geuzenbond	1
13	<b>Erkenbrand</b>	8	44	Nationalistische studentenvereniging	4	75	Donderbezem	1
14	Het vrije volk	8	45	STA-PAL	4	76	Vlaanderen Identitair	1
15	Alfred Vierling	7	46	Dinghal	3	77	Dietsekameraden	1
16	The Balkan chronicles	7	47	Interessante tijden	3	78	Vlaamse militanten orde	1
17	Ongehoord Nederland	7	48	Civitas Christiana	3	79	Nationalistische Volksbeweging	1
18	Militant-Islam monitor	7	49	Schild en Vrienden	3			
19	Answering-Islam	7	50	Fenris-Postorder	3			
20	Stormfront	7	51	Fubarbaar	3			
21	Pallierterke	7	52	Vrouwen tegen Islamisering	2			
22	Reactnieuws	6	53	Politically incorrect guide	2			
23	Logicfree zone	6	54	Katholiekforum	2			
24	Heemland	6	55	Politiek incorrect linksstart	2			
25	Herstel de republiek	6	56	Nederlandse Volksunie	2			
26	Identitair verzet	6	57	Vizier op links	2			
27	Antivenin	6	58	Qanon Nederland	2			
28	Uitgeverij Egmont	6	59	Bosgeus	2			
29	Sjors Remmerswaal	5	60	Algiz-Postorder	2			
30	Boiling points	5	61	Bharatvani	2			
31	akasdorp	5	62	Rechtse rakkers	2			

Table 16 Outdegree centrality ranking (Erkenbrand appears in bold)

Rank	Node	Outdegree centrality	Rank	Node	Outdegree centrality	Rank	Node	Outdegree centrality
1	EJ Bron	44	32	Herstel de republiek	3	63	STA-PAL	0
2	Reactnieuws	33	33	Sjunblog	3	64	Schild en Vrienden	0
3	Politically incorrect guide	31	34	Nederlandse Volksunie	3	65	Fenris-Postorder	0
4	Zeepertje	24	35	Vizier op links	3	66	Fubarbaar	0
5	Dinghal	23	36	YourID	3	67	Algiz-Postorder	0
6	Veren of lood	21	37	Rechtsinverzet	2	68	Bharatvani	0
7	Logicfree zone	16	38	Politiek incorrect linksstart	2	69	Rechtse rakkers	0
8	Blog of reason	15	39	Identitair verzet	2	70	Tyr's rijk	0
9	EUNMASK	15	40	Answering-Islam	2	71	Holocaustfraude	0
10	JDreport	13	41	Identiteit Nederland	2	72	Delta Stichting	0
11	Alfred Vierling	12	42	Blonde mevrouw	2	73	Documents 1940	0
12	Interessante tijden	12	43	Vrouwen tegen Islamisering	1	74	Geuzenbond	0
13	Boiling points	11	44	Joods complot	1	75	Donderbezem	0
14	Skadi	11	45	Een hart voor eigen volk Vlaanderen	1	76	Vlaanderen Identitair	0
15	<b>Erkenbrand</b>	10	46	De blauwe tijger	1	77	Dietsekameraden	0
16	The Balkan chronicles	10	47	Qanon Nederland	1	78	Vlaamse militanten orde	0
17	Sjors Remmerswaal	9	48	Gedwongen rechts	1	79	Nationalistische Volksbeweging	0
18	Voorpost	8	49	Antivenin	1			
19	Islamofobie	7	50	Bosgeus	1			
20	De nieuwe zuil	7	51	Civitas Christiana	1			
21	Heemland	6	52	The post online	1			
22	akasdorp	6	53	Frontnieuws	0			
23	Westerse Beschaving	6	54	Het vrije volk	0			
24	Katholiekforum	6	55	Stormfront	0			
25	Onwetendheid	6	56	Pallierterke	0			
26	Militant-Islam monitor	6	57	Uitgeverij Egmont	0			
27	Ongehoord Nederland	5	58	Radio Rapaille	0			
28	Laten we kerken bouwen	5	59	Vnnforum	0			
29	Cultuur onder vuur	4	60	Ijzerwake	0			
30	Roepstem	4	61	Pegida Nederland	0			
31	Change Europe Now	3	62	Nationalistische studentenvereniging	0			

Table 17 Betweenness centrality ranking (Erkenbrand appears in bold)

Rank	Node	Betweenness centrality	Rank	Node	Betweenness centrality	Rank	Node	Betweenness centrality
1	EJ Bron	0.228449	32	Laten we kerken bouwen	0.000527	63	STA-PAL	0
2	Reactnieuws	0.118242	33	Bosgeus	0.000527	64	Schild en Vrienden	0
3	Blog of reason	0.114895	34	Herstel de republiek	0.000499	65	Fenris-Postorder	0
4	Veren of lood	0.100992	35	Identitair verzet	0.000459	66	Fubarbaar	0
5	Dinghal	0.072562	36	Westerse Beschaving	0.000349	67	Algiz-Postorder	0
6	JDreport	0.056169	37	Blonde mevrouw	0.000213	68	Bharatvani	0
7	Alfred Vierling	0.054478	38	Onwetendheid	0.000153	69	Rechtse rakkers	0
8	<b>Erkenbrand</b>	0.049849	39	Qanon Nederland	0.00015	70	Tyr's rijk	0
9	Cultuur onder vuur	0.031994	40	Answering-Islam	0.000139	71	Holocaustfraude	0
10	Sjors Remmerswaal	0.030055	41	Gedwongen rechts	0.000139	72	Delta Stichting	0
11	Heemland	0.025143	42	Vrouwen tegen Islamisering	0.000132	73	Documents 1940	0
12	Voorpost	0.024607	43	YourID	0.000111	74	Geuzenbond	0
13	EUNMASK	0.021578	44	Politiek incorrect linksstart	0.000071	75	Donderbezem	0
14	Zeepertje	0.020439	45	Vizier op links	0.000056	76	Vlaanderen Identitair	0
15	Ongehoord Nederland	0.018744	46	Sjunblog	0.000033	77	Dietsekameraden	0
16	Interessante tijden	0.015265	47	Joods complot	0	78	Vlaamse militanten orde	0
17	Politically incorrect guide	0.012833	48	Een hart voor eigen volk Vlaanderen	0	79	Nationalistische Volksbeweging	0
18	Antivenin	0.011242	49	Rechtsinverzet	0			
19	Logicfree zone	0.01032	50	Katholiekforum	0			
20	The Balkan chronicles	0.007486	51	Change Europe Now	0			
21	Boiling points	0.004609	52	Civitas Christiana	0			
22	The post online	0.004218	53	Frontnieuws	0			
23	Roepstem	0.003356	54	Het vrije volk	0			
24	De blauwe tijger	0.003131	55	Stormfront	0			
25	akasdorp	0.002073	56	Pallierterke	0			
26	Identiteit Nederland	0.001528	57	Uitgeverij Egmont	0			
27	Militant-Islam monitor	0.001435	58	Radio Rapaille	0			
28	Islamofobie	0.001097	59	Vnnforum	0			
29	De nieuwe zuil	0.000884	60	Ijzerwake	0			
30	Skadi	0.000611	61	Pegida Nederland	0			
31	Nederlandse Volksunie	0.000611	62	Nationalistische studentenvereniging	0			

Table 18 Eigenvector centrality ranking (Erkenbrand appears in bold)

Rank	Node	Eigenvector centrality	Rank	Node	Eigenvector centrality	Rank	Node	Eigenvector centrality
1	The post online	1	32	Pegida Nederland	0.219346	63	Documents 1940	0.02883
2	EJ Bron	0.844391	33	Alfred Vierling	0.218259	64	Rechtsinverzet	0.027644
3	Frontnieuws	0.809221	34	Reactnieuws	0.212017	65	Vlaanderen Identitair	0.027644
4	Blog of reason	0.774208	35	Uitgeverij Egmont	0.211748	66	Vlaamse militanten orde	0.027644
5	Veren of lood	0.717841	36	Heerland	0.203973	67	Nationalistische Volksbeweging	0.027644
6	EUNMASK	0.634827	37	Stormfront	0.196777	68	YourID	0.026866
7	De blauwe tijger	0.597459	38	Fubarbaar	0.184427	69	Een hart voor eigen volk Vlaanderen	0.022045
8	Gedwongen rechts	0.57076	39	Sjors Remmerswaal	0.164978	70	Dietsekameraden	0.022045
9	Cultuur onder vuur	0.492028	40	Interessante tijden	0.162866	71	Politically incorrect guide	0.016677
10	Zeepertje	0.487854	41	Roepstem	0.158834	72	Politiek incorrect linksstart	0.016677
11	Ongehoord Nederland	0.448437	42	Identiteit Nederland	0.154299	73	Tyr's rijk	0.016677
12	The Balkan chronicles	0.432882	43	Katholiekforum	0.15381	74	Nederlandse Volksunie	0.015372
13	JDreport	0.429153	44	Qanon Nederland	0.149308	75	Holocaustfraude	0.015372
14	Boiling points	0.400762	45	Vnnforum	0.142384	76	Skadi.net	0.011194
15	Militant-Islam monitor	0.374039	46	Voorpost	0.138588	77	Joods complot	0.011194
16	akasdorp	0.369867	47	Bharatvani	0.127011	78	Geuzenbond	0.011194
17	Islamofobie	0.369867	48	Vizier op links	0.125826	79	Donderbezem	0.011194
18	Logicfree zone	0.359493	49	Schild en Vrienden	0.114859			
19	Het vrije volk	0.358687	50	Civitas Christiana	0.107046			
20	Antivenin	0.342837	51	Bosgeus	0.102722			
21	Answering-Islam	0.332543	52	Radio Rapaille	0.101126			
22	Pallietkerke.net	0.312947	53	Blonde mevrouw	0.082326			
23	Laten we kerken bouwen	0.284458	54	Rechtse ridders	0.076514			
24	Westerse Beschaving	0.282771	55	Ijzerwake	0.066366			
25	De nieuwe zuil	0.275946	56	Nationalistische studentenvereniging	0.066366			
26	Onwetendheid	0.275478	57	Dinghal	0.066262			
27	Herstel de republiek	0.274852	58	Algiz-Postorder	0.05518			
28	Identitair verzet	0.27093	59	Fenris-Postorder	0.053867			
29	STA-PAL	0.257226	60	Change Europe Now	0.051126			
30	<b>Erkenbrand</b>	0.253747	61	Delta Stichting	0.04863			
31	Sjunblog	0.230124	62	Vrouwen tegen Islamisering	0.046653			

Table 19 Betweenness centrality ranking for group-combinations involving Erkenbrand's subgroup (ethno-nationalist group) (Erkenbrand appears in bold)

	<b>Xenophobic</b>		<b>Anti-democratic</b>		<b>Neo-fascist</b>		<b>New right</b>	
	<b>Label</b>	<b>Betweenness score</b>	<b>Label</b>	<b>Betweenness score</b>	<b>Label</b>	<b>Betweenness score</b>	<b>Label</b>	<b>Betweenness score</b>
1	Blog of reason	0.272	Veren of lood	0.196	Dinghal	0.097	Reactnieuws	0.106
2	Sjors Remmerswaal	0.124	EJ Bron	0.190	<b>Erkenbrand</b>	0.080	Alfred Vierling	0.098
3	Alfred Vierling	0.092	Alfred Vierling	0.171	Voorpost	0.058	Voorpost	0.045
4	Zeepertje	0.089	JDreport	0.081	Alfred Vierling	0.054	<b>Erkenbrand</b>	0.022
5	EUNMASK	0.075	Voorpost	0.074	Politically incorrect guide	0.042	Nederlandse Volksunie	0.010
6	Voorpost	0.063	Ongehoord Nederland	0.074	Sjors Remmerswaal	0.009	Identiteit Nederland	0.003
7	<b>Erkenbrand</b>	0.051	<b>Erkenbrand</b>	0.057	Nederlandse Volksunie	0.003	Sjors Remmerswaal	8.33E-04
8	Boiling points	0.030	Heemland	0.045	Skadi.net	6.16E-04	Skadi.net	0
9	akasdorp	0.017	The post online	0.045	Vrouwen tegen Islamisering	6.16E-04	Stormfront	0
10	Militant-Islam monitor	0.01	Interessante tijden	0.043	Algiz-Postorder	0	Uitgeverij Egmont	0
11	Logicfree zone	0.010	Cultuur onder vuur	0.032	Bharatvani	0	Radio Rapaille	0
12	The Balkan chronicles	0.005	De blauwe tijger	0.015	Dietskameraden	0	Vnnforum	0
13	Islamofobie	0.002	Roepstem	0.005	Documents 1940	0	Pegida Nederland	0
14	Onwetendheid	0.001	Laten we kerken bouwen	0.003	Donderbezem	0	Civitas Christiana	0
15	Westerse Beschaving	0.001	Bosgeus	0.003	Een hart voor eigen volk Vlaanderen	0	Fenris-Postorder	0
16	Answering-Islam	0.001	Nederlandse Volksunie	0.002	Fenris-Postorder	0	Rechtsinverzet	0
17	Nederlandse Volksunie	0.001	De nieuwe zuil	9.47E-04	Geuzenbond	0	Algiz-Postorder	0

18	Sjunblog	3.97E-04	Sjors Remmerswaal	6.31E-04	Holocaustfraude	0	Bharatvani	0
19	Algiz-Postorder	0	Skadi.net	0	Identitair verzet	0	Rechtse rakkers	0
20	Antivenin	0	Herstel de republiek	0	Ijzerwake	0	Delta Stichting	0
21	Bharatvani	0	Stormfront	0	Joods complot	0	Een hart voor eigen volk Vlaanderen	0
22	Dietsekameraden	0	Uitgeverij Egmont	0	Nationalistische studentenvereniging	0	Documents 1940	0
23	Documents 1940	0	Vizier op links	0	Pallieteker	0	Vlaanderen Identitair	0
24	Een hart voor eigen volk Vlaanderen	0	Radio Rapaille	0	Politiek incorrect linksstart	0	Dietsekameraden	0
25	Fenris-Postorder	0	Vnnforum	0	Radio Rapaille	0	Vlaamse militanten orde	0
26	Frontnieuws	0	Change Europe Now	0	Schild en Vrienden	0	Nationalistische Volksbeweging	0
27	Fubarbaar	0	Fenris-Postorder	0	Stormfront	0		
28	Gedwongen rechts	0	Qanon Nederland	0	Tyr's rijk	0		
29	Het vrije volk	0	Blonde mevrouw	0	Uitgeverij Egmont	0		
30	Katholiekforum	0	Algiz-Postorder	0	Vnnforum	0		
31	Radio Rapaille	0	Bharatvani	0				
32	Skadi.net	0	Een hart voor eigen volk Vlaanderen	0				
33	STA-PAL	0	Documents 1940	0				
34	Stormfront	0	Dietsekameraden	0				
35	Uitgeverij Egmont	0						
	Vnnforum	0						
37	YourID	0						



