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## I am a Viking! DNA, popular culture and the construction of geneticized identity

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In this article, we analyze how genetic genealogy reshapes popular notions of historical identity, as it facilitates a genetically informed understanding of ethnicity and ancestry. Drawing on interviews with Swedish, British and American individuals who have employed genetic ancestry tests (GATs) to prove ancestral connections to Vikings, we explore how the desire to "be a Viking" is articulated through a convergence of pre-existing discourses around Vikings and DNA. By combining signs from genetic science and popular depictions of Vikings, our interviewees create a new discourse of geneticized Viking identity. In this new discourse, socio-historically constructed ideas about Vikings are naturalized as the innate qualities of individuals who possess a certain genetic composition. Images of "the Viking" once created for political, cultural or commercial purposes are revived in new embodied forms and can start to circulate in new social contexts, where they, by association, appear to be confirmed by genetical science.

**Keywords:** genetic genealogy; genetic ancestry tests; haplogroup; whiteness; discourse

#### Introduction

In a 2018 video advertisement for History channel's series *Vikings*, a middle-aged and slightly overweight white man opens the door to his suburban villa and hurries towards the mailbox. Finding the box empty, he gets deeply disappointed. As the process repeats itself, the man becomes increasingly exasperated. One day, however, he finds an envelope in the box. Impatiently jerking it out, he notes that his genetic ancestry test has arrived. The document provides a detailed account of his ethnic background: he is, for instance, "91.4% European," "5% Native American" and "2% Nonspecific East Asian." As the man skims through these figures, his eyes are suddenly opened wide. According to the test results, he is "0.012% Viking." With tears in his eyes, he falls on his knees and yells

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with excitement. In the next clip, he stands outside his house dressed as a Viking warrior. To the sound of epic music, he raises his sword towards the skies and roars to the Gods (History channel 2018).

Among genealogists and root-seeking individuals from Scandinavia, UK and USA, the desire to "be a Viking" is a recurring phenomenon. On social media and online forums, persons share news about their "Viking descent," "Viking connections," "Viking ancestry" or "Viking DNA" (Rimmer 2011; Rootsweb.com, May 20, 2018, https://lists.rootsweb.com/hyperkitty/list/celts@rootsweb.com/thread/4062238; Suhr 2016). In her best-selling book *My European Family*, the Swedish journalist Karin Bojs speculates whether her grandfather's genetic haplogroup means that she is "a Viking of sorts" (2017, 205). On a YouTube video viewed over 50 000 times, the American blogger James Stillwell explains that his DNA test shows that he "may be part Viking," which, he adds, "is kind of cool" (2014).

It appears that these exclamations of Viking ancestry hinge upon the convergence of several pre-existing discourses: on the one hand, discourses which give meaning to the word "Viking," and, on the other, discourses surrounding genetic ancestry. On the Internet, many who claim a Viking ancestry openly refer to their genetic ancestry tests (GATs) (Rimmer 2011; Stillwell 2014). The idea that DNA could reveal Viking ancestry has even triggered online discussions about a "Viking gene" that can be discovered in contemporary individuals (Eupedia.com 2013, https://www.eupedia.com/forum/threads/29254-Viking-Gene; Rötter.se, April 2, 2018, https://forum.rotter.se/index.php?topic=152376.0).

In this article, we explore the desire to "be a Viking" among persons who employ GATs in order to find their origins. Through interviews with a selected group of individuals who claim Viking ancestry and have used GATs in order to prove this ancestry, we seek to understand how the fulfilled desire to "be a Viking" is articulated through discourses around Vikings and DNA. How is the information provided by genetic genealogy companies employed and interpreted in the construction of Viking identities? What hopes and expectations do GAT consumers project on DNA analysis when it comes to establishing Viking lineages? How do people claiming genetic connections to "Vikings" appropriate signs from Viking- and DNA-related discourses to rationalize their own lives? And how does the figure of the Viking, as depicted by our interviewees, relate to notions of whiteness?

#### Methods and materials

This study emanates from a multidisciplinary research project investigating meaning-making practices around historic DNA. In this article, we examine how a group of GAT consumers who claim to be related to Vikings understand and interpret their test results by navigating through pre-existing discourses relating to Vikings and DNA, and thereby contribute to the formation of a new discourse of geneticized identity.

The study's theoretical and methodological framework draws on social constructionist discourse analysis (Jørgensen and Phillips 2002). From Foucault, we borrow the basic definition of discourse as historically contingent regimes of knowledge which are saturated by power relations and, moreover, limit the formation of social identity and what is possible to claim as truth (e.g. Foucault 1972). Our approach diverges from Foucault's, however, in that we see discourses as the result of active and constant efforts to fix the meaning of different signs in a particular coherent order, and thus understand the manifest stability of a discourse as a result of an ongoing struggle and negotiation to settle meaning. In this sense, we are more inclined toward discourse theory as presented by Laclau and Mouffe (1985), from whom we also borrow the concept of "nodal point."

According to Laclau and Mouffe, a nodal point refers to a "partial fixation" which is the result of an attempt to "arrest the flow of differences" in the field of discursivity, and hence appears as a point of crystallization in a discourse (1985, 112). A nodal point can be analyzed as a privileged sign that attracts other signs, which both give meaning to the nodal point and acquire their own meaning through their association with it. Discerning a nodal point and the signs attracted to it makes it possible to identify a specific discourse in a floating field of discursivity, to tease out its densities and articulations, and to analyze the signs it contains and their organization in relation to each other.

Our analysis is based on a close reading of semi-structured interviews with fourteen root-seeking individuals who claim ancestral connections to Vikings and refer to GATs in order to prove these connections. The interviewees were recruited through user-generated social media groups for genetic genealogy and Viking history. Interviewees were selected from two criteria: first, everybody should claim some kind of ancestral connection to Vikings, and, second, have taken at least one GAT in order to prove this connection. From these criteria, fourteen individuals from Sweden, UK and USA agreed to participate in semi-structured interviews.<sup>2</sup> The interviews were carried out in person or on telephone between September and November 2018, and lasted between 35 and 60 min. All interviewees were asked the same set of questions about genetical genealogy, ethnicity charts, personal identity and Viking history. While they were free to decide the turns of the conversation, there were two factors in the interview situation that might have influenced their answers. First, when asked how they would conceptualize their relations to Vikings, they were given some pre-formulated alternatives: did they consider themselves to be related to Vikings, to have a Viking heritage, or to be a Viking themselves? Although the interviewees were free to give different answers, these alternatives ought to have had an impact on their responses. Second, the fact that the information was produced in a formal interview setting led by an academic researcher might have influenced how the interviewees formulated their answers (Diefenbach 2009). As no other types of sources have been consulted, our original research material consists exclusively of these interviews.

#### Genetic ancestry tests

Today, a plethora of direct-to-consumer (DTC) companies markets personalized GATs. Customers can normally choose from three kinds of tests: an "autosomal test" where DNA is analyzed from all 46 nuclear chromosomes; a "mtDNA test" which analyzes the mitochondrial DNA that is passed down unchanged through the maternal lineage; and—for men—a "Y-DNA test" which analyzes the Y-chromosome DNA which is passed down from father to son.

The test results typically include two or three elements. First, potential "matches"—that is, other customers with a high proportion of shared genetic markers. Second, if the customer has taken mtDNA or Y-chromosome tests, a list of "haplogroups." Haplogroups, or haplotypes, are sections of DNA that remain intact through generations and can be identified in an individual's genome. Designated with coded names such as "I-253," haplogroups are found either in the mitochondrial DNA or in a particular section of the Y-chromosome which are passed down from mother to daughter, and father to son respectively (Bolnick et al. 2007; Jobling, Rasteiro, and Wetton 2016). And third, a chart of how the customer's DNA relates to different geographic areas or ethnic groups. While many DTC companies hold that these ethnicity charts reveal a person's "unique genetic origins" (Ancestry.com 2015) or "ethnic and geographic background" (FamilytreeDNA.com 2016), they are actually based on a comparison between the customer's DNA and the samples of other, now-living individuals in the companies' reference databases. In this way, contemporary individuals are used as "proxies for ancient populations" (Hogan 2019, 89). In spite of the fact that the ethnicity charts reveal genetic relations to present-day customers of the same DTC company rather than persons in the remote past, however, their attraction seem to lie in their ostensible power to reveal an individual's "ancestry from 80,000 years ago until recent times," as claimed by one genetic genealogy company (LivingDNA.com 2020). In a similar way, the DTC company 23andMe promises customers to "trace your path[s] back thousands of years" and "[t]ravel back in time to gain a clearer picture of where you came from" (23andMe 2020).

#### **GATs and geneticized identities**

As observed by several researchers, the breakthrough of the DTC industry has had profound implications for popular notions of identity, race, origin and belonging (Carlson 2020; Greely 2008; Nash 2004, 2015; Phelan *et al.* 2014; Roth and Ivemark 2018; Scodari 2017; Scully, Brown, and King 2016). With the growth of companies selling GATs where the genetic composition of an individual is represented as percentages of pre-existing racial, ethnic or national categories, the question has arisen whether such tests reify notions of ethnicity and race as a biological reality. Some scholars (Greely 2008; Hogan 2019; Nash 2004; Phelan *et al.* 2014; Scodari 2017) argue that this is the case, and that GATs essentialize notions

of distinct human races. By ascribing racial or ethnic categories to the physical bodies of individuals, race is comprehended as a corporeal substance which can be discovered through scientific analysis. Genetic genealogy thereby promotes a "genetic essentialism" (Arribas-Ayllon 2016; Bliss 2013; Nordgren and Juengst 2009; Roth et al. 2020) which renders the individual as biologically bound to a racial group. As Scodari puts it:

In utilizing "ethnic ancestry" and similar terminology, constructing ancestry classifications consistent with culturally constituted racial categories, basing their entire enterprise on unquestioned assumptions of ethnicity and race as essential and decipherable from an individual's DNA, [...] genetic ancestry firms are complicit not only in the processes of racialization but in racist misappropriations of genetic science. (Scodari 2017, 12)

The claim that genetic genealogy automatically leads to a biological reification of race has been challenged by other studies (Hofmann 2016; Rose 2007; Roth and Ivemark 2018; Scully, Brown, and King 2016; Shim, Rab Alam, and Aouizerat 2018). Concluding their interviews with British genealogists tracing their "Viking ancestry," Scully, Brown, and King (2016) emphasize that GATs do not supply individuals with definite ethnic identities, but provide material which can be incorporated into more complex narratives of identity. In a similar vein, Rose argues that today's "biopolitics of identity" is "linked to the development of novel 'life strategies' for individuals and their families, involving choice, enterprise, self-actualization, and prudence in relation to one's genetic makeup" (2007, 177). And in opposition to what they call the "genetic determinism theory," Roth and Ivemark suggest that GAT consumers always enjoy different "genetic options":

[D]espite the "scientific" nature of genetic ancestry information, consumers do not simply accept the tests' results as given. Instead they choose selectively from the estimates, embracing or ignoring particular genetic ancestries [...]. Depending on how they assess their ancestry results [...], this practice leads to a selective geneticization, with consumers picking and choosing the genetic ancestries they want to embrace. (Roth and Ivemark 2018, 152)

In line with Nelson (2008, 761), we suggest that research on genetic genealogy should seek to transcend this binary debate. Our interviews indicate that the construction of identity through GATs is a complex process of negotiation and interpretation which draws both on a constructivist and a primordial understanding of identity. A dominant perspective in contemporary scholarship in the humanities and social sciences (cf. Morning 2018), the constructivist definition of identity holds that ethnic or racial identity relies on discourse and is acquired through interaction. According to this perspective, ethnic identity is malleable, situational and contingent (Jiménez 2010), and co-constituted by factors like age, sexuality, class and gender. Researchers in social science and the humanities have demonstrated how race and ethnicity are articulated and ascribed through processes of "othering" which involve elements of strategy, power and politics (Hall 1996; Hylland Eriksen and Jakoubek 2018). The constructivist understanding of identity is often framed in opposition to a primordial definition, in which ethnic identity is an objective, essential and substantial quality acquired at birth (Hofmann 2016, 103–106; Morning 2018, 51–52; Smith, Kohl, and Vermeersch 2004).

The breakthrough of the DTC industry and its claim to provide customers with a "unique identity" or "unique ethnicity" (African Ancestry 2020; Ancestry.com 2016) have resulted in an amalgamation of the constructivist and primordial understandings of identity. Our interviews show that the "geneticized identities" (Bliss 2013; Nelson 2008; Novas and Rose 2000) facilitated by genetic genealogy are both based on what are presented as immutable genetic facts, and on subjective interpretations of these facts. While DTC companies might foster the idea that selfhood is not "a matter of existential choice but one of empirical discovery" (Nordgren and Juengst 2009, 162), the open-endedness of genetics—i.e. the fact that GATs enable multiple paths of identification—leaves a great deal of agency for the individual consumer. Test takers use the genetic data provided by the DTC companies in a selective and productive manner, synthesizing a primordial and constructivist understanding of identity in a form of "affiliative self-fashioning" (Nelson 2008). As Nelson argues, consumers appropriate their results with "a complex of alternative identificatory resources" which reflect their personal aspirations and desires (2008, 771). She stresses, however, that the individual test taker's agency is ultimately circumscribed by existing power hierarchies and, more specifically, legacies of colonialism, slavery and racialization. In a similar vein, Roth and Ivemark (2018) argue that the genetic options enjoyed by GAT consumers depend on the social appraisal of their fellows, and that individuals already racialized as nonwhite tend to be more reluctant to change their identities on the basis of genetic data. With these observations in mind, it seems important to stress that the genetic options provided by GATs, and the processes of (re)-racialization they might instigate, are always embedded in existing discourses of identity and systems of racialization.

#### The Viking figure

Root-seeking individuals who seek to prove that they descend from Vikings are almost exclusively white and belong to majority cultures in Europe or North America. In a previous study, claiming genetic ancestry to Vikings has been described as a "low stakes" enterprise without aspirations to interfere in political or legal disputes over rights and benefits (Scully, Brown, and King 2016). While this may be true in the sense that geneticized Viking ancestry is unlikely to settle any concrete political conflicts in the present, however, this argument overlooks how "the Viking" as a discursive sign has historically been affiliated to notions of whiteness and Nordic identity.

The figure of the Viking first appeared in the national romanticist movement in late nineteenth-century Northern Europe. In this context, it emerged as a key signifier rooting Scandinavian nation states in the Norse culture of the ninth to eleventh centuries (Svanberg 2003; Wilson and Roesdahl 1992). The word "Viking" was appropriated from the ancient terms "víkingr" and "víking" words that historically were used to designate individuals undertaking faraway journeys (Downham 2012; Hofmann 2016)—and then applied as an ethnic denominator of people living in Scandinavia at the end of the first millennium. While people with Norse religion and runic script inhabited Scandinavia during this period, with some groups traveling the rivers of Russia and some pillaging and settling in present-day Brittany, UK and Ireland, little indicates that these groups considered themselves to be an ethnic unity, let alone called themselves Vikings (Downham 2012; Svanberg 2015, 34). Thus, it was primarily as an answer to the desires of the nineteenth-century nation builders that the figure of "the Viking"—a white, fierce, brave, bearded man who explored and conquered foreign territories—appeared in the popular imagination. During the twentieth century, the Viking became an influential figure and motive in art, politics and popular culture across the world. As a sign of whiteness, strength and expansionism, it gained prominence in social and political discourses, such as the fascist movements in Northern Europe (Cederlund 2011; Lönnroth 1997; Scheen Jahnsen 2015). In the UK, where the Viking had first represented a barbaric invader, it became a symbol for Northern England's industrial wealth, and later a highly commercialized symbol for Britain's Nordic heritage (Lönnroth 1997; Service 1998). And in North America, where Norse seafarers were said to have arrived in the early eleventh century, the Viking has alternately symbolized white civilization, adventurous exploration, technological innovation and economic enterprise (Blanck 2016; Service 1998; Steel 2018).

This brief history casts light upon two important aspects of the Viking figure. First, its prominence as a key signifier in ethno-nationalist discourses in Northern Europe shows that the figure of the Viking has frequently been used as a metonym for whiteness. While claiming geneticized Viking ancestry do not necessarily bring a person into the category of GAT consumers who actively try to establish a relation between genes and white supremacy (Panofsky and Donovan 2019), nor should it be seen as a "low stakes" enterprise without implications for existing orders of race and racialization. It seems more adequate to say that claiming Viking roots is a subtle way of appropriating what Ahmed (2007) calls "whiteness as an orientation": a subjective phenomenological approach to the world constituted by the socio-historical hegemony of whiteness.5

Second, while the figure of the Viking is strongly attracted to the notion of whiteness, it is also characterized by a considerable semantic elasticity (Hofmann 2016; Service 1998; Wawn 2000). As Wawn has pointed out:

The ubiquity of the term "Viking" masks a wide variety of constructions of Vikingism: the old northmen [...] are merchant adventurers, mercenary soldiers, pioneering colonists, pitiless raiders, self-sufficient farmers, cutting-edge naval technologists, primitive democrats, psychopathic berserks, ardent lovers and complicated poets (Wawn 2000, 12).

There seem to be two main reasons for the semantic elasticity of the Viking. First, Vikings are not recognized as a contemporary ethnic group, but refer to a premodern historical register in which myth and chronicle intersect. The absence of contemporary representatives makes the sign "Viking" a convenient carrier of varying meanings and desires. Second, and as already noted, the idea of a homogenous "Viking Age" or "Vikings" as a cohesive social group is essentially a modern construction (Cederlund 2011; Svanberg 2003). From the nineteenth century until today, the Viking has been used as a malleable prop in various political projects, commercial enterprises and cultural events. This has equipped it with the wide range of characteristics that we now see appropriated in contemporary processes of identity construction.

#### **Geneticized Viking identities**

To explore the desire to "be a Viking" among root-seeking individuals who employ GATs, we conducted interviews with fourteen persons who had taken one or several DNA tests for genealogical purposes. We began by asking the interviewees about their thoughts on genetic genealogy in general. In relation to this question, several argued that genetics provides more definite answers than conventional family research. Catherine, a 41-year-old woman from Wisconsin, claimed that historical documents always involve uncertainties. "People can change answers and embellish on answers," she said. DNA, on the other hand, appeared to be a reliable source. "It's not like you could just cover it up or leave something out. It's there or it's not there. DNA tests are more objective [than historical records]." A similar stance was taken by Kristina, a 59-year-old woman from Sweden. A long-time genealogist, she had begun her research by studying historical documents. Fearing that this material might contain incorrect information, Kristina turned to DNA instead. "DNA doesn't lie," she said. "It's used in all kinds of ways, and it has to be true. It's not something that can be fiddled with."

Lars, a 61-year-old family researcher from Sweden, said that GATs had "opened up an entirely new world" to him. "What we have in the church records is infinitesimal in relation to what DNA can show," he said. Others expressed their thoughts about genetic genealogy in more personal terms. Ray, an 82-year-old man from California, argued that GATs had helped him to create an identity:

It began to confirm or at least lay the basis for the person that I am. It first established my European and Scandinavian roots. [...] You even have a stronger background there, and a more exciting one than you ever envisioned.

However, Ray also cautioned against making racial distinctions on the basis of DNA. "None of us is pure, there's no such thing as a pure Swede or Finn or Dane," he said. "Ever since people started moving back after the last Ice Age, they've been mixing with different versions of each other."

In other words, Ray both employed and criticized the ethnic categories from his GAT. A similar ambivalence was expressed by Bruno, a 64-year-old family researcher from Sweden. His test stated that he was "72% Scandinavian, 10% Britannic, 12% Slavic and 0.6% Ashkenazi Jewish." When asked about these results, Bruno said that they corresponded well to his perception of himself as a "Northman" (Swe: *Nordman*). At the same time, he was skeptical of the racial categories provided by the DTC companies. "There's only one race on earth today, and that is Homo Sapiens," he said. "We all come from the same family." Like Ray, Bruno was thus ambiguous about the relation between genetics and race. While he appreciated how DNA connected him to categories like "Scandinavian" and "Jewish," he questioned a genetic division of people into racial subcategories. If Bruno stressed the unity of humanity by referring to its common origin, Ray emphasized mixing—the fact that everyone descends from different groups.

#### Viking DNA

Asked if their connections to Vikings had been strengthened by the employment of GATs, ten of the fourteen interviewees answered affirmatively. According to the responses, there were three ways of establishing such connections. First, several interviewees had taken GATs to find "matches"—persons with a high proportion of shared genetic markers—who could be used for establishing common ancestral lineages. Karin, a 59-year-old woman from Visby, had done family research for several decades and found connections to Gorm the Old, a tenth-century Danish king often described as a Viking. To find unknown relatives, Karin bought autosomal and mitochondrial DNA tests. "I wanted to find connections to now-living people with a common ancestry," she said, adding that the tests "provided confirmations of the paper research."

The second way of establishing Viking connections through genetic genealogy was by taking Y-DNA tests which revealed a haplogroup associated with "Vikings" or Scandinavian populations. Kyle, a 53-year-old man from Texas, said that his GAT showed that he "had a Viking haplogroup" (I-M253) and that it confirmed a "Viking lineage" on his father's side. Ray explained that he "belong[ed] to a particular haplogroup [...] very much associated with what we know as Vikings." Lars had identified his maternal grandfather's haplogroup, which he argued indicated Viking ancestry. Jeremy, a 66-year-old man from the UK, said that he "was [sic] one of the haplogroups which is definitely Viking," and that this information gave him "no choice but to trust [himself] as part Viking." Brian, a 36-year-old family researcher from the UK, explained that he "belonged to haplogroup R-1A," which was "the best identifier for Norse ancestry in the UK." He was, however, reluctant to use the word Viking, and instead preferred to identify as "Scandinavian-Nordic" or "Norse-Gael."

The third way of establishing Viking connections through GATs was by drawing conclusions from the ethnicity charts. For instance, Ray's test stated that he was "91.5% Scandinavian." Raised by Swedish immigrants, he took this as a proof of his ancestral connections to Vikings:

I could have jumped for joy, because it absolutely confirmed that I was Swedish and that I was a Viking, and that made me very proud. I was very excited, it was very inspirational.

Ray thus read the "91.5% Scandinavian" figure as an absolute confirmation of being a Viking. A similar conclusion came from Lena, a 56-year-old woman from Sweden. Her ethnicity chart from Ancestry DNA stated that she was "65% Swedish, 15% Germanic, 11% Norwegian, 8% English, Welsh and Northwestern European, and 1% Finnish." These figures, Lena argued, proved that she was related to Vikings. "Since I know that there's a very big percentage in the Nordic countries (Swe: *Norden*) and Great Britain and Germany and France, [...] then there's a direct link to the Vikings," she said. If Ray equated his Swedish ancestry and Scandinavian label on the ethnicity chart with "being a Viking," Lena took her Northwestern European DNA as a proof of Viking ancestry.

By contrast, several interviewees—and especially those who had already pursued conventional genealogical research—were skeptical towards the ethnicity charts. Karin said that she did not remember her ethnic percentages, and Brian explained that he took the charts "with a pinch of salt." Lars was even more vocal in his dismissal:

I haven't cared about it, because they [the ethnic percentages] are pretty useless. It's no exact thing, more like a way for the DNA companies to make people curious. I've never cared about it. Having done quite extensive paper research, I know where my ancestors came from.

There was, in other words, no consensus on the utility of the ethnicity charts. While some interviewees ascribed a lot of importance to them, others were skeptical or even directly dismissive.

#### Conceptualizing Viking identities

When asked how they would conceptualize their ancestral connections to Vikings, the interviewees were given three alternatives: did they see themselves as related to Vikings, to have a Viking heritage, or to be Vikings themselves? Three persons formulated their answers in terms of physical substance. Catherine said that she had "Viking blood." Raised by Norwegian immigrants, she grew up with stories about her family being descendants of Leif Eriksson, the Viking who is said to have discovered North America. To prove this, she bought an autosomal test which indicated a high percentage of "Norwegian DNA." This result, Catherine

said, "reaffirmed that all the stories that I grew up with were probably pretty accurate and true." She continued: "If Viking was recognized as a modern type of person, I would say I am a Viking."

Lena also formulated her relation to Vikings in terms of blood. She described her life as "rootless" and lacking a sense of identity. "I felt that I wanted to take this DNA test and see where I originate from," she said. She bought an autosomal test which indicated that her DNA related to Scandinavia and the "Germanic regions of Europe"—a fact which she took as a proof of being related to Vikings. These results gave her a sense of belonging:

When you're rootless, you get happy when learning that you belong to this particular group. Now I know who I am and what my origins are. [...] I'm very proud of having Viking blood.

If Lena seemed confident about her "Viking blood," Oliver, a 33-year-old man from the UK, was more ambivalent. "I believe I have Viking blood," he said. Having grown up with a Norwegian father and a Swedish mother, Oliver had yearned for a Scandinavian identity all his life. While he was reluctant to draw any clear conclusions from his ethnicity chart, he expressed a strong sense of affinity with Vikings:

I feel proud over having this history in my family. The hairs on the back of my neck just stand up when I think about it, it's just such a powerful sense of connection to it. I don't know where it comes from apart from this belief that it's my history.

If Catherine, Lena and Oliver described their connections to Vikings in terms of blood, the other interviewees used more generic terms. Five said that they had a "Viking ancestry." Diana, a 60-year-old woman from Pennsylvania, called the Vikings her "original ancestors" and said that she felt "very much [to be a] part of Viking history." She learned about her ancestors from a relative whose genealogical research indicated that the family descended from an Irish-Gaelic lord who Diana claims "was a Viking." After buying a GAT which stated that she was "76% Irish" and had a high percentage of DNA relating to Northern Europe, Diana felt that her Viking ancestry was confirmed.

Like Diana, Kristina said that she had a "Viking ancestry" (Swe: vikingaanor). She had pursued traditional genealogy and traced her lineages to Viking-Age individuals, like the tenth-century Normandy ruler Gaange Rolf. Unlike the interviewees above, however, Kristina did not ascribe too much importance to this. When learning about her roots, she explained, "it was like: 'Doesn't everyone who live here [have them]? I suppose that the majority of the population in Scandinavia have a Viking ancestry."

Two of the interviewees, Bruno and Lars, said that they had "Viking connections." None of them seemed too agitated about this: Bruno said that "it doesn't matter much," and Lars said that he did not "want to boast about being a Viking." The same was the case with Karin, who presented herself as a "Viking descendant" (Swe: *vikingaättling*). While she was thrilled to find connections to Gorm the Old, she did not find her Viking descendance particularly important:

If we consider the fact that my ancestor was a king. In that case, has it gone uphill or downhill for my family? [...] What is it that I should be proud of? I haven't done anything. I can't go around pretending that I'm royal, because I'm not.

Like Kristina, Bruno and Lars—all from Sweden—Karin did not want to make a big fuss about her potential Viking descent. Those who ascribed the greatest importance to their Viking identity used the word "blood"—a term denoting a corporeal relation to Vikings—rather than the less substantial "ancestry," "descent" or "connections."

#### Viking characteristics

When the interviewees were asked what "Viking" meant to them, their answers revolved around a few themes. Almost everyone who answered by referring to physical attributes associated the word Viking with strong, tall and blond men. Those who answered by describing activities and enterprises alternated between two different accounts: the word Viking was either referring to violent berserkers or innovative explorers and entrepreneurs.

#### Strong, tall and blond

The idea that a Viking is strong, tall and blond was particularly explicit among American interviewees. Catherine said that Vikings were "very fierce people" who were "big, tall, blond" and had "light-fair hair and skin." Kyle suggested that Vikings were "stronger and taller than the average person," adding that they had an "explosive war-like anger." Laura, a 57-year-old woman from North Carolina, said that "the Vikings were strong people." And when Diana described her purported Viking relative in Ireland, she claimed that he was "a big, red-headed man who was very strong."

In contrast to the American interviewees, the only of the five persons from Sweden who gave physical descriptions of Vikings was Lena. She said that Vikings were "blond, red-headed and even dark." Among the three English interviewees, Oliver compared himself to a Viking. "Many people say that I look like a Scandinavian Viking," he explained. "I've got a beard [...]. I'm 1.90 [6'2" feet] tall, taller than most people, I'm pretty big."

Notwithstanding Lena's suggestion that Vikings can be "dark," the quotes above construct a consistent image of the Vikings as big, strong, and blond. If the emphasis on physical properties like strength, size and beard genders the figure of the Viking as a man, the references to height, blondness and light-fair skin racialize him as white. Combined with geographic markers like "Nordic," "Norse" or "Northern European," these references indicate that there are strong discursive articulations between the figure of the Viking and notions of whiteness.

#### Berserkers

The male gendering of the Viking was also implicit in the recurring description of Vikings as violent and aggressive. Kyle said that his "Viking lineage" could explain the violence and abuse perpetrated by men in his family. Asked about his reaction when learning that his Y-lineage haplogroup was associated with Vikings, he answered:

It made sense, because there was a lot of violence in my family. The Vikings were called berserkers, and some people think that the berserker trait was genetic. I can see it among the men in my family. [...] Knowing that we're descended from Vikings has made it more clear to me why there might be a genetic preponderance of violence and explosive anger in my family.

For Kyle, learning about his Viking ancestry thus explained the propensity of violence in his family. Diana had a similar experience. She argued that her Viking connection explained why her childhood was afflicted by physical abuse. Asked what attributes she would ascribe to Vikings, she answered:

Being strong, being capable, the fighting, the willingness to go to war if we need to, even if it's in our own household. As a younger woman, I was a warrior. I tend to think of my Viking heritage as the violent survivor. I got that from the Vikings.

Diana thus connected the Vikings' alleged inclination for violence to her own experiences. "I don't think [my family] would have been active in that violent way if it hadn't been for our heritage," she said. A similar account was provided by Catherine. While maintaining that her Viking ancestors "didn't just rape and pillage," she described them as "very fierce people, fierce warriors." When asked about her personal connections to Vikings, she answered:

If something is happening in my personal life, I'm going to conquer it, I'm not going to surrender or give in to it. There are times in my life when everything imaginable has gone wrong, my kids being involved in car accidents, I've been evicted from an apartment. Instead of just folding, I've rose to the occasion. I think I have that will to survive, which I'd like to think comes from my Viking ancestral roots.

Similar ideas were expressed by Laura. When asked what Viking meant to her, she answered: "A warrior." Like Diana and Catherine, Laura could discern such features in herself:

I know I'm a strong person, a fighter. I really think that passes down in your DNA. I've always been a very independent, stand-up-for-myself kind of person and I'm going to go out and get what I want. My mother was a strong person. I just think that a fighting spirit gets passed down.

However, other interviewees protested against the berserker perception of Vikings. Ray argued that Vikings were not more violent than other peoples during medieval times, and said that such ideas stemmed from "embellished stories written primarily by monks or religious people two or three hundred years later."

#### Explorers and entrepreneurs

Against the image of Vikings as violent and brutal, several interviewees depicted them as peaceful traders, explorers or technologists. Catherine described the Vikings as "amazing sea-navigators which were way ahead of time with technology," and said that they "built ships and traded all over the world." Emphasizing their history as pioneers and settlers, she found similar traits in herself:

This could be silly, but I love to travel, I love to explore. I have a hard time sitting still, I'm always moving, I've moved houses every year ever since my childhood. [...] I've always had that need like I have to go, I have to see new lands, I have to see new places, I have to explore. When my grandma was alive, she joked about it: "Well, that's the Viking in you, it can't sit still."

Others highlighted the Vikings' skills as businessmen. Suggesting that Vikings were "entrepreneurs," Lars questioned the whole idea of them as pillagers. "If you're going to do business with someone, you have to be on equal terms," he said. Lars connected this account of Vikings to his own political convictions. "Some call me a market extremist," he explained, "because I advocate free trade and a market economy." Lars's idea of Vikings as entrepreneurs was shared by Lena, who described them as "excellent businessmen" and contrasted this to the berserker perception:

Their trade with foreign lands was incredible. First of all because they could make themselves understood wherever they came. [...] They established themselves in the places where they arrived and became successful businessmen. They traded in Russia and China and what not. [...] I see the Viking as a businessman.

Lars and Lena were seconded by Kristina, who claimed that Vikings were equally engaged in peaceful trading as in violent pillaging. Asked what she thought about the violent perception of Vikings, Kristina answered: "People have got hung up on it. [...] It's more exciting than the fact that they went around pursuing business in peaceful ways."

#### **Analysis**

In our interviews, we can discern two key signifiers—DNA and Viking—which in turn attract a number of other signs that form significative clusters. DNA attracts clusters with signs relating to *corporeality* (blood, hair, race, ethnic percentage), *scientific evidence* (confirmation, objectivity, truth), and *lineage* (ancestry, descent, family, haplogroup). Viking attracts clusters with signs denoting *physical appearance* (strong, tall, blond, bearded), *geography-defined identity* (Scandinavian, European, Northern, Northman), *enterprise* (war, conquering, exploring, trading), *social character* (warrior, berserker, survivor, entrepreneur), and *personality traits* (violent, fierce, capable, independent).

When our interviewees reflect on their experiences, the convergence of the key signifiers DNA and Viking generates a new discourse on geneticized Viking identity in which "Viking DNA" figures as a nodal point. The most striking feature of this discourse is that it combines "scientific" signs which relate to genetic analysis, evidence and corporeal material with signs relating to the Viking figure as articulated in historical narratives, politics and popular culture. As a consequence, the new discourse of geneticized identity facilitates an understanding of features that were once formulated for political, commercial or entertainment purposes, in popular culture or nationalistic propaganda—such as whiteness, violence, fierceness, innovativeness and entrepreneurship—as essentially connected with body fabric, and as qualities that are possible to trace, and scientifically prove the existence of, in the genomes of contemporary individuals. In this way, socio-historically constructed ideas about Vikings are naturalized as the innate qualities of individuals who possess certain genetic markers.

A close reading of the interviews transcripts reveals that the new discourse of geneticized Viking identity is characterized by points of consensus as well as disagreement. If some signs are fixed in the sense that all or most interviewees agree on their meaning, others are floating and subjects to diverging interpretations. Beginning with the latter, it is clear that the sign of "ethnic percentage" in relation to DNA and corporeality is contested. If some interviewees construct a steadfast identity out of the data provided by the ethnicity charts, others reject the charts as nonsensical scams. The same can be said about the sign "Viking" in relation to activities, social characteristics and personality traits. Here, there is a notable disagreement among the interviewees. Some tend towards signs denoting war and violence, while others speak of strength and survival, and yet others relate the Viking to signs of exploration, trade or entrepreneurship. In the interviews, the Viking figure is clearly constructed in accordance with the individual experiences, aspirations and emotions of our interviewees. The "market extremist" sees the Viking as an entrepreneur, and the "adventurer" perceives the Viking as an explorer. For interviewees with long-time experiences of violence and physical abuse, Vikings are warriors. These diverging—and sometimes contradictory—articulations show how the figure of the Viking is characterized by a semantic elasticity which allows it to be appropriated in order to explain and rationalize the lives of each individual.6

When it comes to the fixed signs in the discourse of geneticized Viking identity, our interviews demonstrate a near complete consensus on the question of whiteness. The Viking, the interviewees agree, is characterized by physical traits such as being "blond," "redheaded," "bearded," "tall" and having "light-fair hair and skin." More generally, Viking identity is associated with being "Nordic," "Norse-Gael," "Swedish" or a "Northman." Notwithstanding one interviewee's suggestion that Vikings could be "blond, red-headed and even dark," there are strong discursive articulations between the figure of the Viking and signs related to whiteness. While it is important to stress that such articulations do not *per se* make our interviewees' racists or proponents of white supremacy, it should nevertheless be pointed out that the idea of having a genetic connection to Vikings could

be understood as an indirect claim to what Ahmed (2007) calls "whiteness as an orientation," and, consequently, to the prerogatives attached to the socio-historical hegemony of this orientation.

We also note a strong consensus on the epistemic meaning of DNA. In our interviews, DNA is described as an "objective" or "true" source of knowledge which "doesn't lie." Genetic genealogy is portrayed as having extraordinary epistemological possibilities, and all interviewees share strong hopes and expectations on DNA as an instrument for establishing Viking lineages. While some see GAT results as a way of confirming pre-existing childhood stories or family research theories about Viking ancestry, others take the DNA itself as a proxy for "being Viking" or "having Viking blood." The latter position is expressed with particular clarity by one interviewee who explain that her GAT has revealed "who I am"—a statement in which her genetic composition is effectively equated with her existential being.

When it comes to the concrete ways in which GATs are used in the construction of Viking identities, our interviews reveal three distinct methods. First, some of the interviewees use "matches" to establish ancestral lineages and prove relatedness to Vikings. In these cases, the GAT becomes a complement to the methods of traditional genealogical research. While genetic technologies might confirm existing theories, it is not DNA as such that lays the foundation for the Viking identity, although it adds an important sense of truth to the identity claim.

Second, and perhaps most interestingly, several of our interviewees—all men—refer to haplogroups as the main indicator of Viking ancestry. By "belonging to" or "being" a haplogroup associated with Vikings, these men become Viking ancestors themselves. While haplogroups say little about genetic relatedness on an individual level—merely that individuals with the same group share one ancestor among the thousands who have left traces in a person's genome (Brubaker 2018, 82)—they have here been rendered as socio-historical collectives with which GAT customers can identify. Here, we witness how a technical term used to denote a section of an individual's Y- or mtDNA is transformed into a group of people to which individuals claim to belong (see also Hakenbeck 2019, 521; Panofsky and Donovan 2019, 670). A geneticized collective identity is created out of something which has never before been a social or historical unit.

Third, the interviews show how Viking identities are constructed through the ethnicity charts in the GATs. While these charts only reflect an individual's genomic composition in relation to other customers of the same DTC company, several of our interviewees interpret them as factual representations of historical ancestries. When signs such as "91.5% Scandinavian" or "65% Swedish" are taken to be proofs of a *de facto* historical Viking ancestry, the ethnicity charts become instruments for the creation of geneticized identity. It should be safe to say that this phenomenon has been bolstered by DTC companies which actively market the ethnicity charts as a way of uncovering their customers' "ancestry throughout human history" (DNAtestingchoice.com 2020).

#### Conclusion

In this article, we have explored the desire to "be a Viking" among a group of individuals who claim Viking ancestry and have used GATs in order to prove such ancestry. We have also sought to analyze how these individuals understand and interpret their test results by navigating through pre-existing discourses relating to Vikings and DNA.

We note that there are different methods of employing the information provided by GATs in order to construct a Viking identity, and that customers use some genetic information and discard other. We discern a profound confidence in the epistemic possibilities of DNA, both as a method of confirming pre-existing genealogical theories and as a way of creating direct, corporeal links to Vikings. We see that GAT consumers, by taking advantage of the semantic elasticity of the Viking figure, appropriate socio-historically constructed ideas about "berserkers," "explorers" or "entrepreneurs" in order to rationalize their own lives. And we observe that the figure of the Viking has a strong discursive attachment to notions of whiteness, which in effect means that root-seekers who claim Viking roots indirectly claim a kind of whiteness for themselves.

When our interviewees construct Viking identities through GATs, they draw as much on the genetic information in their test results as on their own interpretations of this information. Their new, geneticized identities are born at the intersections between the seemingly immutable data of DNA and the personal desires of the individual; between molecular sequences and human dreams.

When the signs "DNA" and "Viking," as well as the significative clusters attracted to these signs, merge into a discourse of geneticized Viking identity, preconceived self-images, individual experiences, family traumas and personal desires become anchored in the very fabric of the body, and life stories become the natural biological expressions of the genome. A life of violence and physical abuse is understood as the result of having berserker genes, and years of restlessness are rationalized as the outcome of being related to Viking explorers. By the same token, popular depictions of Vikings are transformed into genetic matters-of-fact rather than socio-historical constructions. Leveraged by the general confidence in DNA as a source of truth, images of "the Viking" that were once created for political, cultural or commercial purposes are revived in new embodied forms and can start to circulate in new social and political contexts, where they, by association, appear to be confirmed by genetic science. A GAT must in this case be understood as a vehicle that provides such images with a quality of scientific evidence.

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#### **Notes**

- 1. We did not participate in these groups prior to the interviews.
- 2. Six of the interviewees were from USA, five from Sweden and three from UK. 50% were male and 50% were female. The total age span was between 33 and 76 years, and six of the interviewees were between 50 and 60 years old.
- 3. While haplogroups are often found center stage in discussions about GATs, they can only say something about a miniscule portion of a person's ancestry and genetic composition. If we go back a thousand years to one potential ancestor in the Viking Age, this person would have contributed with approximately 0.04% of the entire genome of a now-living person (The Coop Lab 2013).
- 4. In the UK, several research projects have combined surnames and Y-chromosomal haplogroups in search for male lineages that are traceable to medieval times. These projects have focused on Northwestern England—historically known for its Viking influence during medieval times—and used "Viking" as a sign in their academic and public communication (Sykes and Irven 2000; Nash 2004; Scully, Brown, and King 2013, 2016; Scully 2018).
- 5. The intimate discursive connection between Vikings and whiteness is, paradoxically, confirmed by the recent media interest in reports from archaeogenetics that Viking-Age individuals could be dark-haired (e.g. Davis 2020). The reason why this finding gets attention in popular media is most probably that it runs counter to deeply entrenched notions of Vikings and whiteness.
- 6. To some extent, these disagreements seem to reflect different historical discourses around the Viking in the three national contexts. Among the American interviewees, there is a tendency to refer to the Viking as berserker and explorer. Among the Swedes, the Viking is more often described as a trader, entrepreneur and businessman. Among the Brits, finally, the Viking again appears as a berserker. While the limitation of our material does not allow for general conclusions on national differences, they would be worthy of further analysis in future studies.

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