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## Coca-Cola: An Icon of the American Way of Life. An Iterative Text Mining Workflow for Analyzing Advertisements in Dutch Twentieth-Century Newspapers

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#### Abstract

This article analyses advertisements to shed light on the ways in which the Coca-Cola Company tried to shape the Dutch perception of an American way of life, and by extension provided the discursive building blocks for the construction of a mental map of America. Since the National Library of the Netherlands (KB) digitized its newspaper collection, we could analyze newspapers using both computational and traditional means. The central question this article addresses is: Did Coca-Cola advertisements in Dutch newspapers communicate themes that represented the American way of life? Using two separate workflows, we demonstrate how we combined computational and traditional methods in an iterative and transparent manner. These workflows are systematic descriptions of how we used computational tools to answer this paper's central research question.

# 1. Introduction

In 1938, the American newspaper editor William Allen White famously described Coca-Cola as the "sublimated essence of all that America stands for — a decent thing, honestly made, universally distributed, conscientiously improved with the years" [Pendergrast 2000, 183]. Ever since, scholars have described Coca-Cola as the quintessential representation of American values, ideas, and practices, or rather as the American way of life. For many European businesses, states, and consumer groups the American way of life was a model they sought to mimic [Oldenziel and Hård 2013, 195]. This model based on cultural ideas, policies, and practices emerged onto the European market in the twentieth century alongside American businesses and American consumer goods [Nolan 2012, 36]. According to Richard Pells, in the eyes of European consumers no other "export served as a more potent symbol of the American way of life than Coke" [Pells 1997, 199]. Greg Castillo, however, rightly points out that scholars should not approach American products, such as Coca-Cola, as "ironclad vehicles of an American way of life." He argues that they need to be studied as "indeterminate signifiers" within their local context separated from their original U.S. context [Castillo 2010, xiv]. This is precisely what this article sets out to do: to analyze to what extent Coca-Cola functioned as a symbol of an American way of life within the Netherlands.

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The specific interpretation of an iconic brand such as Coca-Cola within a national context can, according to Douglas Holt, reveal the "collective anxieties and desires of a nation" [Holt 2004, 6]. Mark Pendergrast, in other words, underlines that the local interpretation of Coca-Cola has functioned as "the best barometer of the relationship with the US" [Pendergrast 2000, 243]. Hence, Dutch newspaper discourse not only offers a lens on the local framing of Coca-Cola and its symbolic connotations but also on the position of Dutch consumers vis-à-vis the United States.

The United States had a strong cultural, economic, and political presence in the Netherlands throughout the twentieth century. The Dutch perception of this American presence vacillated between bouts of anti-Americanism and pro-Americanism. In the interwar period (1919-1939), as American cultural products such as movies appeared in the Netherlands, Dutch interest in American culture grew, despite anti-Americanism voiced by intellectuals such as Johan Huizinga [Toebes 1996] [Kroes 1986] [Verhoef 2015a]. After the Second World War, "the attention of the Dutch population was actively focused on America, the new model country" [Roholl 1992, 152] (see also: [Kennedy 2009, 931–48]; [Schuyt and Taverne 2004, 407–10]). Especially when it came to new consumption patterns, scholars point out that the Dutch perceived America as a guiding country [Roholl 1992] [Elteren 1990] [Schot 1997]. The Vietnam War incited a new kind of anti-Americanism in the Netherlands. The U.S. politics of war mustered up fierce protests in the late 1960s and early 70s [Hellema 2012, 63] [Kroes 1986, 44–45] [Rossem 1981, 26–27]. Amid anti-American protests, youth did not "reject American mass culture, even as they attacked the excesses of consumerism" [Nolan 2012, 277–78]. This illustrates that Dutch feelings of anti-Americanism were not unequivocal, rather they were marred by ambivalence. Little is known, however, about how American consumer goods, such as Coca-Cola, contributed to the Dutch attitude toward the United States.

We analyzed advertisements to shed light on the ways in which the Coca-Cola Company shaped the Dutch perception of an American way of life, and by extension provided the discursive building blocks for the construction of a mental map of America [Eijnatten 2013]. Since the National Library of the Netherlands (KB) digitized its newspaper collection, we could analyze newspapers using both computational and traditional means.<sup>[1]</sup> Advertisements provide a valuable source of information which "fully reflects the spirit of the past, [as it] indicates development of certain industries, but also covers all aspects of cultural and social life" [Trtovac and Dakic 2014, 9]. Even though the principal motivation of advertisers was to sell products, as Roland Marchand points out "advertisers also communicated broader assumption about social values" [Marchand 1985, xviii]. One of these social values was "consumption as a way of life" [Sassatelli 2007, 115]. Scholars describe the ethic of consumption as constitutive of the American way of life [Lears 1994, 235–36] [McGovern 2006, 262]. Therefore, the central question this article addresses is: in what ways did Coca-Cola advertisements in Dutch newspapers communicate themes that represented the American way of life?

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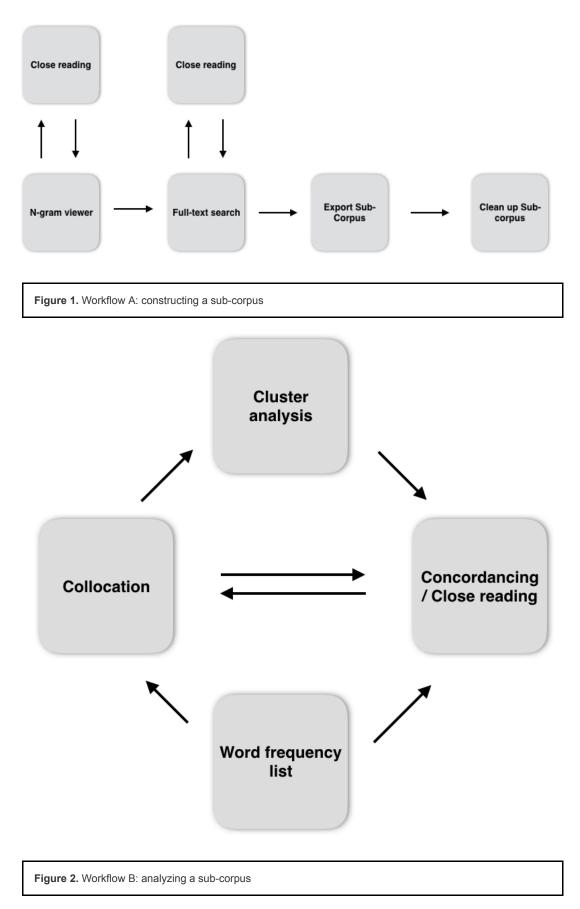
### 2. Computational Tools for Cultural Historians

The application of computational methods in humanities research has led to fierce debates. These frequently focus on the practice of "distant reading" [Moretti 2013], which denotes reading "the archive from a distance" [Nicholson 2012, 246] and more specifically "the automated search for patterns" [Kirschenbaum 2007] in vast corpora of text. In these debates, we identify three groups of scholars. One group heralds the merits or "the bright sight" of distant reading (e.g. [Graham et al. 2015]; [Eijnatten et al. 2013]); whereas another warns against the "siren call" of such methods (e.g. [Kirschenbaum 2014]; [Hitchcock2014]). Most scholars, however, offer a more nuanced perspective and contend that we have to move beyond the false dichotomy between traditional and computational methods. They argue that computational methods are an addition to, not a replacement of traditional, humanistic interpretation (e.g. [Berry 2011]; [Blaxill 2013]; [Bod 2013]; [Porsdam 2013]; [Ramsay 2011]; [Rieder and Röhle 2012]; [Ross 2014]; [Underwood 2016]). This is a view we share. Researchers can achieve "synergistic interaction" by "'rapid shuttling' between quantitative information and hermeneutic close reading" [Hayles 2012, 31]. Moreover, we concur with Matthew Kirschenbaum: Digital Humanities is "work (...). So let's talk about this work, in action, this actually existing work" [Kirschenbaum 2014, 61].

Within the field of cultural history, relatively few examples of actual digital historical research have appeared [Blaxill 2013, 318] [Nicholson 2013, 63]. This is surprising since analyzing texts is among cultural historians' core business. Using words like "potential," "promise," and "possibilities" to address the prospects of digital techniques, Cameron Blevins maintains, historians talk the talk, but rarely walk the walk. Therefore, he urges historians to practice what they preach and start *doing* digital historical research [Blevins 2015]. Others add that they should do so in an explicit manner: "the creation of, interaction with, and interpretation of data must become more integral to historical writing" [Gibbs and Owens 2013].

This article takes these pleas to heart. By means of two separate workflows, we demonstrate how we combined computational and traditional methods in an iterative and transparent manner. These workflows are systematic descriptions of how we used computational tools to answer this paper's central research question. Workflow A (Figure 1) describes how n-gram analysis and full-text searching are apt methods to construct a sub-corpus from a larger corpus of textual data. Used in combination with close reading of specific documents, these methods guide the

construction of a sub-corpus. Subsequently, workflow B (Figure 2) lays out how we explored a sub-corpus using AntConc, a corpus analysis toolkit. Workflow B offers various strands of analytical information derived from distant reading and shows how they directed close reading. In answering the research question, we constantly moved back and forth between these modes of analysis.



## 3. Workflow A: Constructing a Sub-Corpus of Coca-Cola Advertisements

Before being able to answer whether advertisements linked Coca-Cola to an American way of life, it is necessary to answer the following questions. Did the Coca-Cola Company advertise Coca-Cola in Dutch newspapers? If so, when and how frequently? Answering these kinds of descriptive questions has changed considerably with the advent of n-gram viewers and full-text searching as instruments to query digitized archives. Researchers can now use single or strings of keywords to trace specific words or concepts without having to manually browse through the archive to find them (e.g. [Nicholson 2013]; [Bingham 2010]).

In our research the use of an n-gram viewers served two principal functions. First, it helped to quickly locate specific words in a corpus, which aided the construction of our sub-corpus. By inputting keywords in an n-gram viewer, the tool produced an instant overview of the frequency of words in the corpus relative to the total number of words in one year within the corpus. The graphs generated by n-gram viewers enabled us to compare and trace n-grams to pinpoint continuities and discontinuities in language. This made the mapping of ideas, practices, and products within digitized sources more comprehensive and rigorous.

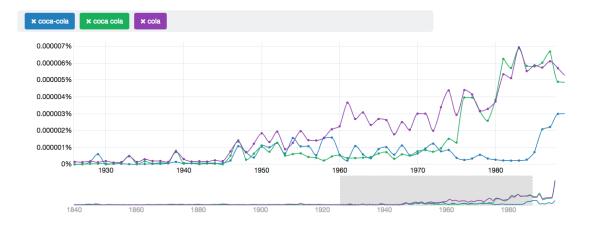
The KB n-gram viewer offered a quick way to establish whether and when Dutch newspapers wrote about Coca-Cola.<sup>[2]</sup> The visualization produced by the KB n-gram viewer (Figure 3) displays the occurrence of the n-grams "Coca-Cola", "Coca Cola", and "Cola".<sup>[3]</sup> Figure 3 shows that "Coca-Cola" first appeared in this corpus in 1928.<sup>[4]</sup> Thereafter, newspapers spent relatively little attention to the caramel-colored beverage. After the Second World War, the number of publications steadily rose, and then remained stable until 1974 after which "Coca-Cola" decreased and "Coca Cola" sharply increased. "Cola" increased in tandem with "Coca Cola", which coincided with the growing popularity of soft drinks in the Netherlands. In 1958, soft drink consumption in the Netherlands was ten liters per capita. By 1968, this number had drastically increased up to fifty liters per capita [Zwaal 1993, 20]. In short, this graph shows when and how often newspapers wrote about Coca-Cola.

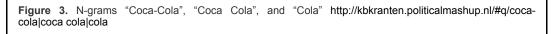
Secondly, we used the KB n-gram viewer to compare the relative occurrence of different consumer goods, which added context to the prevalence of Coca-Cola (cf. [Blaxill 2013, 319]). For example, the visualization (Figure 4) of the n-grams *"koffie"* (coffee) and *"bier"* (beer) shows that coverage of these consumer goods eclipsed that of Coca-Cola. This suggests that Coca-Cola was not a staple good, whereas beer and coffee were.

The information gathered from the visualizations produced by the KB n-gram viewer necessitated critical interpretation. First, this particular viewer does not offer the option to distinguish between colonial and non-colonial Dutch newspapers, nor can users discriminate articles from advertisements.<sup>[5]</sup> Put differently, from this visualization alone, we could not determine whether Coca-Cola appeared in advertisements, articles, or both. Secondly, the KB erroneously digitized numerous newspapers editions twice, most notably the popular Dutch newspaper *De Telegraaf* between 1970 and 1978. This heavily skews the n-gram visualization from the 1970s onwards. To overcome these objections, we turned to full-text searching to further refine our sub-corpus.

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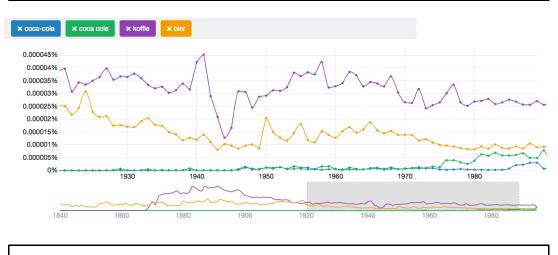


Figure 4. N-gram "Coca-Cola", "Coca Cola", "Koffie", and "Bier" http://kbkranten.politicalmashup.nl/#q/coca-cola|coca cola|koffie|bier

#### 3.1 Full-text searching

After roughly establishing when and how often newspapers mentioned Coca-Cola, we turned to full-text searching to assemble a sub-corpus of Coca-Cola advertisements. We used the text mining tool Texcavator to query the digitized newspaper corpus. This tool was developed as part of the research project Translantis [Eijnatten et al. 2014] [Eijnatten et al. 2013] [Huijnen et al. 2012]. Using this tool, we filtered results based on metadata such as article type (advertisement, article, personal announcement, and captioned illustration), newspaper type (regional, colonial, and national), periodization, and newspaper title. Furthermore, we used wildcards, Boolean operators, and fuzzy matching to improve the relevant number of hits associated with a query [Blaxill 2013, 328–30]. As such, full-text searching enabled a more extensive and advanced way of mapping the corpus than the n-gram viewer was able to do.<sup>[6]</sup>

The first step in locating Coca-Cola advertisements involved determining whether Coca-Cola actually advertised in Dutch national and regional newspapers. Searching for "Coca-Cola" yielded numerous advertisements. These were not only advertisements for Coca-Cola, but also for the soft drink brands Fanta and Sprite. The Coca-Cola Company also produced these drinks and was therefore mentioned.<sup>[7]</sup> Since we were only interested in the role of Coca-Cola, we excluded these by altering our search query.<sup>[8]</sup> We relied on probes of close reading to improve our search query, which corroborates the interdependence between close and distant reading.

The refined search query found 2,905 advertisements in regional and national newspapers published between 1890 and 1990. In the same period, 4,517 advertisements contained "Cola" without mentioning "Coca-Cola".<sup>[9]</sup> This demonstrates

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that Coca-Cola advertisements formed a large portion (39.1%) of the advertisements for Cola beverages.<sup>[10]</sup> Advertisements for Coca-Cola (n = 2,905) and Cola drinks — both Coca-Cola and other brands — (n = 7,422) formed only a small portion of all the digitized newspaper advertisements (n = 18,645,511); only 0,016% contained "Coca-Cola" and 0,040% "Cola". This shows that Coca-Cola was the most dominant Cola brand, but in relation to the overall advertising corpus the ads for Coca-Cola formed a relatively small portion.

The timelines in Figure 5 show the absolute and relative annual frequency of Coca-Cola advertisements.<sup>[11]</sup> In order to compare the proportion — and thus significance — of Coca-Cola advertisements between periods, we normalized the absolute frequency of Coca-Cola to the total number of advertisements in the corpus. These timelines show that the first advertisements appeared during the 1928 Olympics in Amsterdam when the Coca-Cola Company launched the beverage in the Netherlands [Zwaal 1993, 72–73].<sup>[12]</sup> Figure 5 also demonstrates that after 1929 the number of Coca-Cola advertisements dwindled, and started to grow again around 1950. From the 1960s onwards, the relative number of Coca-Cola advertised stayed relatively stable (green line) while the absolute number of advertisements (blue line) mushroomed. These peaks in absolute frequency correlate with a general increase of advertisements in the digitized newspaper corpus, which rose from 163,666 in 1960 to 275,585 advertisements in 1980. After normalization, these peaks slimmed down and suggest that the proportion of Coca-Cola advertisements within the total corpus of advertisement did not change substantially.

Contextualizing these results by close reading shows that the majority of advertisements in the 1970s consisted of job ads by the Coca-Cola Company or advertisements authored by others, such as supermarket chains.<sup>[13]</sup> Even though this is an interesting find, the focus here is on how the Coca-Cola Company advertised Coca-Cola. Close readings of advertisements in the other periods exhibited that the majority of advertisements in the sub-corpus were indeed advertisements by the Coca-Cola Company. For this reason, the following analysis will focus on a sub-corpus of Coca-Cola advertisements published between 1928 and 1970. In the next workflow, we show how we analyzed this sub-corpus of Coca-Cola advertisements.

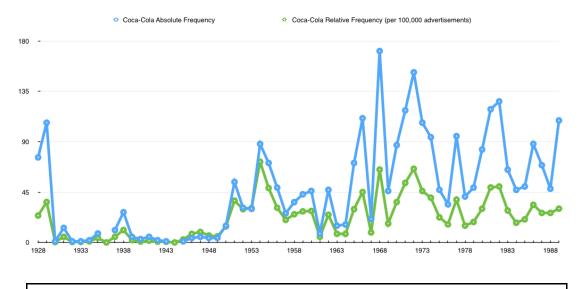


Figure 5. Absolute frequency (blue) and relative frequency (green) of "Coca-Cola" and "Coca Cola" in Dutch newspapers

## 4. Workflow B: Analyzing Coca-Cola Advertisements

The analysis underlying this workflow consisted of three steps. First, we set out to establish whether the Coca-Cola Company explicitly linked Coca-Cola to the United States. Next, we used AntConc to discern two central themes in Coca-Cola advertisements. Lastly, we examined to what extent these themes signified an American way of life.

#### 4.1 How American was Coca-Cola?

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We looked at the co-occurrence of references to the United States and Coca-Cola to determine whether the Coca-Cola Company related its leading drink to the United States. When calculating the frequency of these co-occurrences, we used context words and a context horizon — two functionalities offered by AntConc. Context words are words that must appear within a set distance — a context horizon — to the search word. We set this distance to ten words to the right and ten to the left of a search word. In our case the context words included different ways of referring to the United States as expressed by the search query: "coca?cola".<sup>[14]</sup>

We used context words and a context horizon for two reasons. First, the OCR software did not always correctly compartmentalize the advertisements in the newspaper corpus during digitization. Especially in the case of classified ads, the software grouped multiple ads as one single advertisement [Verhoef 2015b]. There are instances where "Coca-Cola" and "America" appeared in the actual newspapers in two separate advertisements, whereas after digitization, they were indexed as one single advertisement. A context horizon required the search word and the context words to be in close proximity, which reduced faulty results produced by composite advertisements in which the search word and context words would often be further apart.

Secondly, the co-occurrence of two words does not necessarily indicate a relationship between them; it merely suggests the possibility of a relationship. By setting a context horizon, we only looked for references to America in the proximity of "Coca-Cola". The proximity we selected is a good indicator of a semantic relationship between words [Tognini-Bonelli 2001, 101].

Using the context words and the context horizon, AntConc yielded not a single document in which Coca-Cola and a reference to the United States co-occurred. As this was an unanticipated result, we established whether "coca-cola" co-occurred with "america" in advertisements without being in each other's proximity. This was the case in fifty-one advertisements. We did a close reading of these advertisements, which corroborated that the Coca-Cola Company did not explicitly advertise Coca-Cola as an American product. It also confirmed that most of the co-occurrences resulted from grouped advertisements, or from advertisements in which the words were unrelated. This verified the advantages of setting a context horizon and using context words.

A full-text search for the phrase "American Cola" in the entire corpus of advertisements produced sixty-six results.<sup>[15]</sup> Close examination of these articles showed that from 1964 onwards, retailers and producers other than the Coca-Cola Company occasionally presented Colas as American cola. For instance, the American brand Royal Crown specifically branded its drinks as "real American Cola."<sup>[16]</sup> This shows that other brands explicitly promoted their Cola as American, while the Coca-Cola Company refused to explicitly present its cola as an American cola.

Overall, searching for co-occurrences offered an inkling of possible trends in the corpus, in this case that the Coca-Cola Company did not explicitly associate Coca-Cola with America or the United States. Moreover, these searches also ruled out that advertisers used the phrase "the American way of life." If Coca-Cola advertisements depicted an American way of life, or referred to the United States, they did so in implicit terms or through visual content.

#### 4.2 A Symbolic Depiction of an American Way of Life

In the next step of the analysis, we examined whether Coca-Cola advertisements included themes that might symbolize an American way of life. For this purpose, we used AntConc's clustering, concordancing, collocation, and word frequency functionalities. We used clustering to detect common phrases that contain specific keywords. Collocation was used to look for words that co-occurred within a specified context horizon [Sinclair et al. 2004, 10]. We looked for collocates within a window span of five words to the left and five to the right, and a minimum collocate frequency of ten. We did not use the MI-score that is able to calculate the strength of the collocation as it is not very useful for analyzing advertisements, since these tend to be relatively short. AntConc's concordancing option allowed us to quickly determine the context in which the discovered words and phrases appeared. Moreover, we turned to the word frequency functionality for a list of all the words and their frequencies within the corpus.

In order to keep track of possible changes within advertising discourse, we divided the sub-corpus of Coca-Cola 26

advertisements into four ten-year periods: 1928-1937 (n = 220), 1938-1947 (n = 53), 1948-1957 (n = 372), and 1958-1967 (n = 414). Collocation analysis demonstrated that the relatively small set of advertisements between 1938 and 1947 contained no collocates that were of historical relevance. Therefore, our analysis focused on 1928-1937, 1948-1957, and 1958-1967.<sup>[17]</sup>

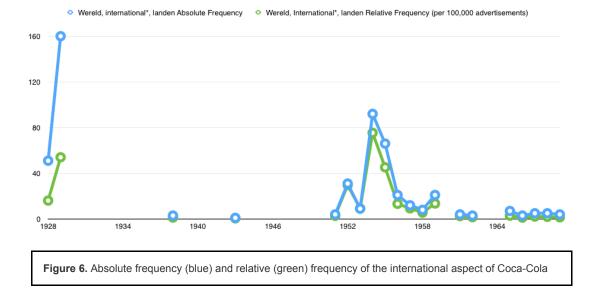
From the list of collocates from all three periods, we discerned two themes: the drink's international and local connotation of the drink, and Coca-Cola's refreshing and invigorating taste.

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#### 4.3 Coca-Cola: Not an American, but a Glocal Brand

The first element in Coca-Cola advertisement was the international character of the drink, as expressed by the following words: "world", "countries", and "international".<sup>[18]</sup> Advertisements in the interwar period put more emphasis on this theme, as evinced by the higher relative frequency of these words in this period. Figure 6 shows how the international aspect of Coca-Cola appeared during its introduction in the Netherlands in 1928 and 1929, and then virtually disappeared from advertisements until the 1950s. When the drink re-appeared in the 1950s the international aspect more clearly was part of Coca-Cola's brand identity. As early as 1929, one advertisement read: "Coca-Cola quickly conquered the entire world. In Europe, Coca-Cola is the most beloved drink in all the trendsetting places."<sup>[19]</sup> After 1929, the connotation to the brand's global popularity seems to have disappeared from advertisements. It is important to keep in mind that the number of advertisements between 1930 and 1950 was relatively low, which explains why references to the drink's international character might not have been found through querying. In the 1950s — when the corpus also contains a sizeable number of ads — internationalism re-emerged as part of Coca-Cola's brand identity. Throughout the 1950s advertisements continued to highlight the global character of the drink.<sup>[20]</sup> Advertisers repeatedly mentioned the number of countries and continents in which the Coca-Cola Company sold the drink.<sup>[21]</sup> This number increase helped to establish the idea with Dutch consumers that the global popularity of Coca-Cola was growing.



In addition to the drink's global character, advertisers tied the drink to the Netherlands. They did so by mentioning the Dutch bottling companies in advertisements. Words such as "bottler," "to bottle," "Amsterdam," "Schiedam," "Schiedam," "Scheveningen," and "local" situated Coca-Cola within a local context.<sup>[23]</sup> After the Second World War, the Coca-Cola Company allowed local Dutch bottling plants to import Coca-Cola's trademarked syrup, which bottlers mixed with local mineral water [Zwaal 1993, 145–49]. The names of towns that housed the bottling plants appeared in small print at the bottom of advertisements. The appearance of their names in these ads connected Coca-Cola to particular Dutch places. <sup>[24]</sup> Advertisers further emphasized the "local" nature of franchises when they claimed that "everywhere bottling and distribution of Coca-Cola is a local enterprise."<sup>[25]</sup> In 1955, *De Tijd* wrote that "the Coke bottle is not only known all over

the world, it is also of local importance," which further underlines the entanglement of the global and local.<sup>[26]</sup>

Advertisers not only mentioned the locations of bottling plants, they also linked Coca-Cola to Dutch towns, such as Scheveningen, Amsterdam, and Leeuwarden. In 1928, the regional newspaper *Leeuwarder Courant* wrote that after its global success, Dutch consumers could now also buy a Coke in Leeuwarden.<sup>[27]</sup> After opening a new factory in Amsterdam in 1961, an ad in *De Telegraaf* announced that "Amsterdam and Coca-Cola belonged together!"<sup>[28]</sup> These ads illustrate how Coca-Cola symbolized the entwinement of the global with the local. The association between the global and the local is what Roland Robertson labels "glocalization", the interplay between local developments and currents of globalization [Robertson 1995]. Advertisements presented Coca-Cola as a global, international brand somewhat tailored to the local context.

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The Coca-Cola Company acquainted many Dutch consumers in the 1950s and 1960s with a product with a *glocal* brand identity, which made *glocalization* one of the ideas that traveled alongside with Coca-Cola to the Netherlands. Perhaps the *glocalizing* ability of American brands, such as Coca-Cola, explains why in the eyes of scholars and consumers Americanization became a code word for globalization [Oldenziel 2007, 84] [Muthyala 2012]. The Coca-Cola Company did not explicitly relate Coca-Cola to the United States in advertisements. However, the references to the drink's *glocal* character can be read as uniquely American. Ruth Oldenziel alludes to this particular feature by describing America as having the "uncanny ability (…) to be everywhere and nowhere at the same time: omnipresent globally, but territorially deterritorialized" [Oldenziel 2007, 87]. The link to the United States was thus not so much an explicit geographical reference, but rather a more implicit connection to symbolisms and affects associated with the United States. The *glocalizing* ability of prominent American brands such as Coca-Cola also explains how consumers equated the process of Americanization with globalization.

#### 4.4 A Refreshing and Invigorating Taste for Everybody

The second theme that dominated Coca-Cola advertisements was its taste. This became most explicit in advertisements published between 1928-1937 and 1958-1967.

In the interwar period, advertisements described Coca-Cola's taste as "fine", "delicious" and "distinct".<sup>[29]</sup> Other frequent characteristics of the drink included: refreshing, bubbling, and invigorating.<sup>[30]</sup> Soft drinks contained bubbles that produced a tactile sensation, which advertisers connected to refreshment. This link was expressed in the following slogans: "Coca-Cola bubbles in your glass," "Coca-Cola is deliciously refreshing," and "Coca-Cola's fizzes and bubbles."<sup>[31]</sup>

Overall, the description of Coca-Cola's taste did not seem to change drastically between the two periods. Not surprisingly, in both periods the Coca-Cola Company presented their product as delicious and one of a kind. There was, however, another striking characteristic associated with Coca-Cola's taste: its ability to refresh and invigorate. In the period 1958-1967, "invigorating" collocated significantly to "Coca-Cola" and "taste".<sup>[32]</sup> Furthermore, the relative frequency of words denoting invigoration accrued in this period, which substantiates a discursive shift in the Coca-Cola Company's branding strategy. The ads linked the drink's refreshing bubbles to invigoration: "how invigorating that tingling sparkle."<sup>[33]</sup>

In addition to the drink's ability to stimulate the consumer, the Coca-Cola Company claimed the drink could — rather paradoxically — also relax the consumer. In one of the first Coca-Cola advertisements in Dutch newspapers, Coca-Cola was associated with leisure time.<sup>[34]</sup> This theme continued to pop up throughout the years. In 1954, for instance, an advert claimed that the beverage would provide "rest, relaxation, and new energy."<sup>[35]</sup>

By focusing on relaxation, the advertisements also highlighted its counterpart: stress. The advertisements chiefly situated stress within the context of people at work in the office or homemakers doing their chores. Figure 7 shows how advertisements instructed consumers to "stop rushing for a minute! Your nerves will quiet down and all tension will disappear."<sup>[36]</sup> Moreover, Coca-Cola advertisements informed Dutch consumers that stress and relaxation were part of a modern lifestyle. The Coca-Cola Company claimed that the drink's ability to stimulate led to its popularity and turned it into a "drink cherished by modern people."<sup>[37]</sup> The modern businessman and homemaker drank a refreshing bottle of coke during breaks to alleviate stress. This association between products and an urban and modern lifestyle, Marchand shows, blossomed in the United States in the 1930s in cigarette advertisements [Marchand 1985, 337]. Our results show that the Coca-Cola Company actively sought to evoke similar depictions of such a lifestyle, in which consumption was an integral to being a modern consumer.

Another distinctive element of the modern consumer was that both males and female could drink Coca-Cola whenever and with whomever.<sup>[38]</sup> Moreover, ads explicitly pointed out that the "sparkling refreshment" and "unchanging quality" caused people of all ages and in all settings to consume the drink.<sup>[39]</sup> Phrases such as "during work", "during dinner", "during sports and play", and "drank by young and old" demonstrate that the Coca-Cola Company set out to make the drink accessible for everyone.<sup>[40]</sup> Ads for Coca-Cola presented Dutch consumer with a vision of a modern consumer society in which everybody could imbibe the same consumer goods.

This image is what scholars such as Richard Pells, T. Jackson Lears, and Charles McGovern describe as an American way of life. Additionally, Victoria de Grazia argues that many American products available in Europe focused on the democratization of consumer goods [Grazia 2005, 217]. Our analysis shows that Coca-Cola advertisements in the Netherlands also emphasized this aspect.

By means of advertisements, the Coca-Cola Company injected specific elements into the Dutch public consciousness that shaped how the Dutch viewed the American way of life. These elements also resonated within Dutch advertising discourse for other American products, such as cigarettes [Wevers 2017]. This commonality between different kinds of American consumer goods strengthened Coca-Cola's function as an icon of the American way of life. Further research into different consumer goods is needed to see how they collaboratively contributed to the Dutch perception of the American way of life, or America in general.

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Figure 7. "Coca-Cola advertisement," Het Vrije Volk, July 26, 1957

# 5. Conclusion

This article has shown that the Coca-Cola Company advertised Coca-Cola in newspapers between 1928 and 1970, with the majority of advertisements published between 1950 and 1965. In these advertisements, Coca-Cola was not explicitly presented as an American brand. Coca-Cola's link to the United States was much more implicit. Using corpus analysis tools, we have established that an important feature in Coca-Cola's brand identity was its taste and its international character. Dutch Coca-Cola advertisements unmistakably linked the taste of Coca-Cola to refreshment and invigoration. Furthermore, instead of presenting itself as an American brand, the Coca-Cola Company accentuated Coca-Cola's international and local character, a phenomenon described as *glocalization*.

While ads for Coca-Cola never explicitly mentioned the American way of life, they exposed Dutch consumers to a lifestyle characterized by consumption; a lifestyle often described as an American way of life. Ads provided Dutch consumers with a more symbolic representation of the lifestyle characterized by consumption. The expression of an American way of life in Coca-Cola advertisements manifested on two different levels. First, the advertisements depicted a modern, urban lifestyle — a simulacrum of the burgeoning American consumer society at the time. The second expression of an American way of life took shape in the way advertisers addressed consumers. Consumers in Coca-Cola advertisements or female, and they were depicted being engaged in activities of leisure or work. Coca-Cola represented elements of an American way of life while at the same time its global spread disassociated the product from its actual origins. This fits within what Rob Kroes calls a resemanticization of reality in which American life is turned into an "imaginary realm to be experienced by those who bought a product" [Kroes 2000, 152].

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Further analyses of advertisements of other consumer goods can shed light on the ways in which advertising discourse as a whole shaped Dutch perceptions of the United States and the American way of life. Moreover, by incorporating newspapers articles, researchers can examine how advertising discourse corresponded with public debates on consumer goods, consumerism, and the United States. This kind of comparative analysis has become more feasible with the availability of computational tools and the proliferation of digitized archives.

In addition to answering a cultural-historical research question, this article has demonstrated the practical implications of combining traditional and computational methods. By means of two workflows, we have shown how we first constructed a sub-corpus of Coca-Cola advertisements, which we subsequently analyzed using the corpus linguistic toolkit AntConc.

The workflows highlighted how working with computational tools is not a linear process but requires going back-andforth between generating output, interpreting output, and a close reading of the sources. This results in a combination of distant and close reading that contextualizes results as well as checks against corpus inadequacies [Weller 2013, 7] [Dobson 2014]. When applied in this manner, employing computational tools leads to the discovery of patterns in the dataset, without missing "the power of the particular" [Hitchcock2014]—i.e. an optimal interaction between traditional and computational methods [Huijnen et al. 2015]. Further research has to show what can be gained from adding other computational tools to our workflows, such as distributional semantics for tracing historical concept [Kenter 2013].<sup>[41]</sup>

# Appendix A: Absolute and Relative frequency of collocates to 'Coca-Cola' in Coca-Cola advertisements

	Absolute Frequency	Relative Frequency (per 100 ads)
smaak	61	27.7
overal	40	18.2
dagelijks	40	18.2
heerlijk	39	17.7
aparten	27	12.3
wereld	24	10.9
landen	21	9.5
verrukkelijk	19	8.6
dorst	19	8.6
heerlijke	17	7.7
Leeuwarden	16	7.3
zeldzaam	13	5.9
bijzondere	13	5.9
aparte	11	5.0
verfrisschend	10	4.5
parelt	10	4.5
internationale	10	4.5
aroma	10	4.5

Table 1. 1928-1937 (n = 220)

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	Absolute Frequency	Relative Frequency (per 100 ads)
overal	41	11.0
bottelen	39	10.5
heerlijke	37	9.9
gebotteld	33	8.9
distributie	31	8.3
geniet	27	7.3
landen	24	6.5
sierlijke	23	6.2
sprankelende	22	5.9
plaatselijke	22	5.9
pauze	20	5.4
iedereen	18	4.8
verfrissing	17	4.6
ijskoude	17	4.6
flesjes	17	4.6
heerlijk	16	4.3

**Table 2.** 1948-1957 (n = 372)

	Absolute Frequency	Relative Frequency (per 100 ads)
pauze	88	23.7
verfrist	66	17.7
heerlijke	47	12.6
smaak	42	11.3
sprankelende	39	10.5
lekker	37	9.9
bottelaar	31	8.3
gebotteld	20	5.4
heerlijk	19	5.1
Nederlandse	18	4.8
Schiedam	17	4.6
koele	17	4.6
Amsterdam	14	3.8
ijskoude	13	3.5
verfrissende	12	3.2
verfrissend	11	3.0
verkwikkende	10	2.7
landen	10	2.7

**Table 3.** 1958-1967 (n = 414)

#### Notes

articles, advertisements, personal announcements, and captioned illustrations.

[2] http://politicalmashup.nl/

[3] The N-gram viewer does not represent the complete corpus, for instance, 1-grams that were in the corpus *less* than two times – presumably frequently OCR-errors – are not included.

[4] The digitized newspaper corpus does not contain all newspapers, and the digitized newspapers contain frequent OCR errors. Therefore, it is difficult to ascertain within 100% certainty that this is actually the first mention of "Coca-Cola".

[5] Unlike the website www.delpher.nl, which does allow users to differentiate between articles and advertisements.

[6] Unfortunately, this tool is based on the same faulty corpus as the KB n-gram viewer. For the following steps, we first exported the subcorpus and removed the duplicate advertisements using a Python script.

[7] Moreover, the textual information in advertisement was not always recognized as such during the digitization of the newspapers. As a result, the recall of the querying software is sub-optimal, i.e. instances in which the word Coca-Cola was part of the image were more difficult to find by full-text querying.

[8] Resulting in the following query: +("coca-cola" "coca cola") -("fanta" OR "sprite").

[9] +("cola") -("coca-cola" "coca cola" "sprite" "fanta").

[10] (2,905 advertisements / 7,422 Cola advertisements) \* 100 ≈ 39.1

[11] The relative frequency expresses the number of Coca-Cola advertisements per 100,000 advertisements.

[12] This is the first advertisement in this particular digitized corpus. OCR problems might have obstructed the discovery of possible earlier advertisements.

[13] The presence of job ads is indicated by the occurrence of words such as 'job interview' (*sollicitatie*\*, n = 463), "experience" (*ervaring*, n = 260), "wage" (*salaris*, n = 181), and "education" (*opleiding*, n = 170).

[14] The context words were "ameri?a\*", "vereenigde staten", "verenigde staten", "usa", "u.s.a.", and "united states".

[15] +("amerikaanse cola" "amerikaansche cola" "american cola" "cola uit amerika").

[16] "Royal Crown Cola advertisement,"" Limburgsch Dagblad, December 20, 1966.

[17] See Appendix A for a list of the collocates.

[18] "wereld", "landen", and "internationale".

[19] "Coca-Cola advertisement," Het Volk, June 3, 1929. "Coca-Cola veroverde spoedig de gehele wereld. In Europa, is Coca-Cola nu de meest geliefde drank in alle toonaangevende plaatsen."

[20] "Coca-Cola advertisement," Het Vrije Volk, June 7, 1952.

[21] "Coca-Cola advertisement," Het Vrije Volk, June 10, 1959.

[22] "Coca-Cola advertisement," Het Vrije Volk, June 25, 1959.

[23] "bottelaar", "bottelen", "Amsterdam", "Schiedam", "Scheveningen", and "plaatselijke".

[24] See for instance: "Coca-Cola advertisement," *Leeuwarder Courant*, July 18, 1929; "Coca-Cola advertisement," *Het Vrije Volk*, July 19, 1963.

[25] "Coca-Cola advertisement," Nieuwsblad van het Noorden, October 16, 1954.

[26] "Coca-Cola advertisement," De Tijd, January 15, 1955.

- [27] "Coca-Cola advertisement," Leeuwarder Courant, July 18, 1929.
- [28] "Coca-Cola advertisement," De Telegraaf, April 17, 1961.
- [29] Collocates to "taste": "fijnen" (n = 56), "heerlijken" (n = 44), and "aparten" (n = 41).

[30] Word (absolute / relative frequency): "verfris\*" (144 / 65,44), "fris\*" (16 / 7.27), "verkwik\*" (16 / 7.27), "sprankel\*" (11 / 5), and "parel\*" (25 / 11.36).

- [31] "Coca-Cola parelt in uw glas" (6), "Coca-cola is heerlijk verfrisschend" (6), and "Coca-cola parelt en bruist" (4).
- [32] Collocate to "taste": "verkwikking" (26 / 5.90). Collocate to "Coca-Cola": "verkwikkende" (10 / 2.7).
- [33] "Hoe verkwikkend, die tintelende sprankeling" in "Coca-Cola advertisement," De Telegraaf, August 14, 1959.
- [34] "Coca-Cola advertisement," Het Volk, July 22, 1929.
- [35] "Coca-Cola advertisement," Limburgsch Dagblad, November, 12, 1954.
- [36] "Coca-Cola advertisement," Het Vrije Volk, July 26, 1957; "Coca-Cola advertisement," Het Vrije Volk, July 13, 1956.
- [37] "Coca-Cola advertisement," Het Volk, August 16, 1928.
- [38] "Coca-Cola advertisement," De Waarheid, January 14, 1950.
- [39] "Coca-Cola advertisement," De Tijd, April 19, 1952.
- [40] "onder het werk", "bij het eten", "bij sport en spel", and "voor jong en oud".

[41] For more on distributional semantics to trace historical concepts over time see: https://www.esciencecenter.nl/project/mining-shiftingconcepts-through-time-shico.

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