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## Changing minds through argumentation: Black Pete as a case study

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Deep disagreements are often thought to be unresolvable. In this paper, we discuss a specific case of apparent deep disagreement, namely the public debate on the polemic figure of Black Pete in the Netherlands, where a noticeable change in public opinion has occurred in recent years. We present the preliminary findings of a study on Twitter interactions on the topic, focusing in particular on how arguments spread outside ‘epistemic bubbles’ and ‘echo chambers’.

KEYWORDS: Black Pete, Deep disagreement, Public debate, Racism, Twitter

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<sup>1</sup> CDN came up with the idea for the study, coded Twitter accounts, and wrote most of the article; ES advised on study design, collected and analyzed the data, and wrote sections 4 and 5.1-5.2; TL coded Twitter accounts and contributed to writing process; MA advised on study design and contributed to writing process. All authors contributed valuable ideas at various stages. CDN acknowledges the support of ERC-Consolidator grant 771074 for the project ‘The Social Epistemology of Argumentation’.

## 1. INTRODUCTION

Views on the efficacy of argumentation to change minds in public discourse vary widely. On the one hand, there is a long-standing tradition that emphasizes the significance of argumentation and deliberation for public life (Mill, Habermas etc.), in particular to resolve societal disagreements. On this view, what is specific to argumentation as opposed to some other (non-rational) means to change minds (e.g. propaganda) is that, ideally at least, through argumentation people may change their minds by means of *reasons*, which they reflect upon and come to embrace consciously.<sup>2</sup> Thus understood, argumentation promotes and supports epistemic autonomy. However, the well-documented phenomena of group polarization and confirmation bias suggest that attempts to change minds through argumentation in public discourse are often futile. When presented with information that contradicts their well-entrenched beliefs, rather than examining the reasons and evidence offered objectively, people tend to seek ways to discredit them so as to maintain their original beliefs intact.

One challenge to argumentation as a means to manage disagreement in societies is the phenomenon of *deep disagreement*, a concept introduced in (Fogelin, 1985). As (Kappel, 2012) (p. 7) describes it: “We sometimes disagree not only about facts, but also about how best to acquire evidence or justified beliefs within the domain of facts that we disagree about. And sometimes we have no dispute-independent ways of settling what the best ways of acquiring evidence in these domains are.” In situations of deep disagreement, often there does not seem to be enough common ground for a fruitful exchange of arguments to occur, as there is insufficient background agreement on what counts as evidence or as correct argumentation. Reasons given by one side of the disagreement are not accepted as such by the other side, and vice-versa. In such cases, it would seem that argumentation cannot change minds.

However, in some real-life situations that qualify as deep disagreements, exchange of reasons does seem to lead to changes of opinion at least for some of those involved. These cases suggest that deep disagreements may not be insurmountable after all (which would be good news for argumentation in public discourse), at least if they are deep but not *too deep*; arguably, disagreement depth is a gradable, comparative notion (Aikin, 2018). In this paper, we discuss a specific case of apparent deep disagreement, namely the public debate on the polemic figure of Black Pete in the Netherlands, where a noticeable

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<sup>2</sup> Of course, there may well be other rational ways to change minds beside argumentation.

change in public opinion has occurred in recent years. In particular, we present the preliminary findings of a study on Twitter interactions on the topic, focusing in particular on how arguments spread outside 'epistemic bubbles' and 'echo chambers'.

## 2. BLACK PETE

Black Pete is a popular folk character in the Netherlands. He is presented as the servant of St. Nicholas, and is a crucial figure in the massively popular St. Nicholas festivities of early December. The festivities are meant in particular for children, who enjoy the gifts they receive but also the playful rituals involved. Black Pete, the servant, is traditionally represented with stereotypical racialized features associated with sub-Saharan Africans and their descendants: black face, curly hair, thick red lips. Moreover, he has features such as golden earrings, a servant costume, goofy behavior and (sometimes) a 'funny' accent. (The character is typically played by white people in blackface.)

There have been expressions of concern with what many see as racist aspects of the character for decades, but in recent years the polemic has intensified: critics are vocal in the press and on social media; protests are now regularly organized demanding that the tradition be significantly changed. However, at first sight it may seem that these protests have only led to further group polarization, with much pushback from those who want to maintain the tradition as is. This has included counter-protesters blocking a highway so as to prevent protesters (who had been issued a legal permit to protest) from reaching the main site of the festivities in 2017, and physical attacks on protesters perpetrated by organized groups of football supporters in 2018.

Prima facie, the controversy on the Black Pete character appears to be a clear instance of deep disagreement. In particular, the question of whether it is a racist tradition seems intractable, as the different parties disagree on what counts as evidence of racism, especially as they seem to disagree on what counts as racism in the first place. Typically, those who support the tradition associate the phenomenon of racism with explicit attributions of inferiority to a certain group of people vis-à-vis other groups, often accompanied by acts of violence against the group seen as inferior. On this narrow conceptualization of racism, the Black Pete figure is not obviously racist, since he is presented as very likeable and friendly.

However, there are at least two other senses of racism that seem relevant here: historical/structural racism, and implicit racism. Historical/structural racism is a consequence of European colonization, with millions of Africans brought as slaves to the Americas. These

historical events of tremendous implications still now entail racist institutions as well as overall attributions of inferiority to people of color (Mills, 2015). Implicit racism, in turn, pertains to the internalization of these perceived hierarchies such that even those who consciously embrace egalitarian values may harbor implicit negative associations with members of certain groups (people of African descent in this case) (Levy, 2017). From a historical perspective, Black Pete is arguably a colonial figure, the black servant reminiscent of African slaves (even if he is no longer a slave himself), and thus may plausibly be seen as reaffirming racist hierarchies. Similarly, by reinforcing the association between servitude and people of color, the figure of Black Pete perpetuates a perception of people of African descent as inferior, which becomes internalized by children from early on.

Now, if different segments of the population adopt different conceptions of racism, the debate over whether Black Pete is a racist figure, and thus whether it should be modified or remain as is, seems intractable. However, there have been some noticeable changes over the last years, both in public opinion and in how the festivities occur. For example, in a number of larger cities (Amsterdam, The Hague, Utrecht), associations of primary schools decided to exclude the racialized representation of Pete from their celebrations (opting for example for Petes whose faces are covered with 'soot' from the chimneys that they allegedly climb to bring presents). In past years, roughly 5% of people per year changed their minds on the acceptability of the tradition and joined the critical camp (which however remains a minority). While in 2013, 89% were against changes, in 2017 this number went down to 68% (see tables below).

### **Percentage of people interviewed supporting changing the Black Pete tradition<sup>3</sup>**

2014	12%
2015	17%
2016	21%

#### **2016**

Population of Surinamese or Caribbean origin	43%
Others	18%

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<sup>3</sup><https://www.nrc.nl/nieuws/2016/11/02/heimelijk-onderzoek-eenvijfde-wil-andere-zwarte-piet-5100360-a1529881>

### Percentage of people interviewed supporting changing the Black Pete tradition<sup>4</sup>

2013	11%
2017	32%

Thus, it does seem that arguments by critics are having uptake and changing at least some people's minds on the (non-)acceptability of the traditional figure of Black Pete (though again, it may well be that non-argumentative factors also play a role). Perhaps a number of people have come to think that the phenomenon of racism and its negative consequences go beyond what was described above as 'explicit racism', thus recognizing the relevance of more 'subtle' manifestations of racism. Perhaps some people came to appreciate the discomfort experienced by children of African descent during the festivities, as registered in a report by the Children's Ombudsman of the Netherlands in 2016.<sup>5</sup> In sum, while the majority of the Dutch population continues to support the tradition, there have been significant changes in public opinion in a short period of time, which suggests that this controversy is a (deep?) disagreement that is not entirely intractable

### 3. DEBATES ON TWITTER

But how do switchers come to change their minds about the (non-)acceptability of the traditional Black Pete figure? Given the (presumed) phenomena of epistemic bubbles and echo chambers in social media and elsewhere (Nguyen, forth.), it is not immediately obvious how they get exposure to arguments supporting changes to the tradition. In order to study potential networks of propagation for these arguments, we conducted a pilot study on Twitter. To our knowledge, the Black Pete controversy specifically has never been studied on Twitter, but a number of other prominent controversies have been studied recently with corpora of Twitter interactions, including by some of the present authors (Sullivan, et al., forth.).

The motivating idea for our study was the following observation: activist accounts (both pro- and anti-Pete) are likely followed and interacted with only by people who already have a firm opinion on the controversy (either people who follow them because they already agree with the position being defended, or people who

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<sup>4</sup><https://eenvandaag.avrotros.nl/panels/opiniepanel/alle-uitslagen/item/draagvlak-voor-traditionele-zwarte-piet-loopt-terug/>

<sup>5</sup><https://www.nrc.nl/nieuws/2016/09/30/kinderombudsman-zwarte-piet-in-strijd-met-kinderrechtenverdrag-a1524070>

vehemently disagree and follow them to engage in overt confrontation). By contrast, accounts whose profiles are not strongly associated with a specific position in the controversy (and thus are followed for unrelated reasons) are likely to have followers with less firm opinions on Black Pete, and thus more susceptible to change their minds. Such accounts would arguably have uptake also outside of the relevant bubbles and echo chambers. Our hypothesis is that accounts that are *verified* by Twitter, which are presumed to be of general public interest, might (among others) be playing the role of broadcasters of messages supporting changes to the Black Pete tradition. They not only have wider reach across bubbles and echo chambers, but their followers presumably attribute a certain degree of epistemic trust to them for reasons unrelated to this specific controversy. These include accounts for news organizations such as newspapers and accounts of public figures such as journalists, celebrities, and artists. More generally, in a cacophony of messages being broadcast and competing for the receivers' limited attention (what has been described as the 'economy of attention' (Franck, 2019)), there are gigantic disparities in how much each of the 'voices' in the conversation is heard.<sup>6</sup>

The role of celebrities in politics has been a topic of interest for decades, but in recent years interest has intensified in view of the pervasiveness of social media. For example, a recent study (Archer, Cawston, Matheson, & Geuskens, forthcoming) presents an analysis of the role of celebrities in politics from the perspective of social epistemology. In particular, the authors describe celebrities as having the core feature of capturing attention, and attribute to celebrities a high degree of epistemic power: "A person has epistemic power to the extent she is able to influence what people think, believe, and know, *and* to the extent she is able to enable and disable others from exerting epistemic influence." (Archer, Cawston, Matheson, & Geuskens, forthcoming)

Beside simply having a wider following on social media—which translates in what is described as 'attention capital' (Franck, 2019)—the concept of epistemic power thus understood suggests that celebrities may also inspire a high level of epistemic trust given their artistic or otherwise achievements. In other words, a fan is likely to be open to considering carefully the views professed by their favorite celebrities also on matters that do not pertain to the achievements they are famous for. Imagine a person with a certain political leaning, who will typically dismiss outright views that clash with their political convictions (Taber

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<sup>6</sup> More generally, the role of social factors and social influence in the spread of beliefs and information is now increasingly recognized as crucial (O'Connor & Weatherall, 2019).

& Lodge, 2006). If these views are defended by their favorite artist, this may have the upshot of disabling the otherwise default response of outright rejecting views clashing with one's own original convictions. It is in this sense that arguments put forward by celebrities and people with significant social influence may be able to change minds more readily than when the source of an argument is perceived either negatively or neutrally by the receiver.

#### 4. STUDY DESIGN

To investigate the role of public figures in societal debates, we conducted a pilot study on the Black Pete discussion on Twitter.<sup>7</sup> The main theoretical hypothesis we sought to explore was whether social power predicts content uptake, in particular given that those with greater social power both off- and online are likely to have a wider reach than 'regular' Twitter users, and to inspire an overall sense of epistemic trust. Our study focused on two aspects of this thesis: do public figures get higher engagement with their tweets about Black Pete, compared to 'regular' accounts tweeting about Black Pete? Do public figures get higher engagement with their tweets about Black Pete, compared to their other, non-Pete-related content? More concretely, we considered the following initial hypotheses:

(H1) Tweets about Black Pete from **verified** accounts will have more engagement (i.e. more retweets and more likes) than tweets about Black Pete from **non-verified** accounts.

(H2) Tweets about Black Pete from **verified** accounts will have more engagement than tweets from **verified** accounts *not* about Black Pete.

(H3) Tweets about Black Pete from **non-verified** accounts will have more engagement than tweets from **non-verified** accounts *not* about Black Pete (as a control group).

##### 4.1 *Collecting users*

From October 10, 2018 to October 29, 2018, using the free developer version of the Twitter Stream API we collected tweets that contained

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<sup>7</sup> Of course, it may be objected that Twitter debates are not an accurate representation of public debates at large. While this is possible, it is now widely (though not unanimously) thought that social media significantly influences public opinions, so we assume that the results presented here reveal at least something significant about the debates on Black Pete at large.



the string 'zwarte piet', 'black piet', and their variations.<sup>8</sup> By collecting the target users for our analysis this way, we hoped to avoid researcher bias of hand picking particular accounts. Our search resulted in 16,384 distinct users who tweeted about Black Pete at least once. Of these users, 116 were from verified accounts, which (as mentioned) tend to be news organizations and public figures. Thus, 16,286 of the users identified were from non-verified accounts, with 2,690 users tweeting about Black Pete at least 5 times during the collection period.

We included all 116 of the verified accounts in the main study, and took a random sample of non-verified users who tweeted 5 times or more about Black Pete during the initial collection, resulting in 114 accounts (in order to have a similar sample size between verified and non-verified accounts). Since the collection window from October is slightly outside the peak discussion season (which ranges from early November until December 5<sup>th</sup>, the day of the festivities), this suggests that the users we identified have strong interest in the controversy.

#### *4.2 Following identified users*

From November 5<sup>th</sup> to December 31<sup>st</sup>, 2018, using the free developer version of the Twitter Stream API, we collected all the tweets (on Black Pete or otherwise) that each user in our identified user list (verified and non-verified) tweeted during this window. We used Twitter's follow function that allows us to collect tweets, retweets, and replies created by the user during the requested time period.

#### *4.3 Getting engagement statistics*

Collecting tweets through the Twitter stream API collects tweets as they happen, thus there is no retweet or like count provided with the tweet in real time. On March 16, 2019 we made another call to the Twitter rest API that received the updated information for each tweet based on each specific tweet-id. There were several tweets for which we were unable to get the engagement data because the tweets were no longer available. This can be because these tweets were deleted by the user, removed by the platform, or the user set their account to private.

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<sup>8</sup> The full search query contained the following terms: 'zwarte piet', 'black piet', 'zwartepiet', 'zwartepieten', '#zwartepiet', '#zwartepieten', '#blackpiet', 'zwarte', 'black', 'piet', 'pieten'.

#### 4.4 Data pre-processing

We engaged in data pre-processing with the data collected from November 5<sup>th</sup> to December 31<sup>st</sup>, 2018. We were specifically interested in adding particular labels to the data:

- **Verified versus non-verified:** This is a built-in Twitter category that is directly taken from the data provided by the Twitter API.
- **Black Pete tweets versus non-Black Pete tweets:** Using the same criteria as our initial search criteria from October, we labeled particular tweets as being about Black Pete or not.
- **News organization versus non-news organization:** Within the verified accounts there exist public figures in addition to news and journalistic outlets. We labeled specific accounts as news organization. It is possible that the uptake of journalistic accounts display different patterns, and that users share them for different reasons. Therefore, we wanted to have this information for exploratory purposes.<sup>9</sup> (The labeling of news versus non-news was done by someone with thorough familiarity with the Dutch media landscape.)
- **Deleted tweets versus non-deleted tweets:** The tweet-ids that were not found as of March 15<sup>th</sup>, 2019, when we collected the engagement metrics, were labeled as a deleted tweet.
- **Anti-Black Pete leaning users versus Pro-Black Pete leaning users:** For each user we had two independent Dutch speakers hand-label whether particular Twitter accounts are pro-Black Pete or anti-Black Pete, neutral or irrelevant. Evaluation was done by each evaluator looking at the user's tweet history and profile description to determine whether the user was likely to be Anti-Black Pete (i.e. believing the tradition should be ended or changed significantly) or Pro-Black Pete (i.e. believing the tradition should be maintained as is). Interrater reliability was 74% (Fleiss's Kappa of .64), indicating adequate agreement between the raters. The most common points of disagreement were between labeling an account as neutral versus irrelevant and labeling an account as neutral or irrelevant versus anti or

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<sup>9</sup> In our sample, for the original Black Pete tweets there was not much difference in engagement between news and non-news accounts, at an average of 16 retweet count versus 14, respectively. For this reason, we will not discuss this distinction further, though for our purposes news and non-news verified accounts are treated differently (for example, all news accounts are labeled as neutral).

pro. Each disagreement was resolved by taking the more extreme position. For example, if a user was evaluated as irrelevant by one rater and pro by the other rater, we gave the user a pro label. If a user was evaluated as both irrelevant and neutral we labeled the user as neutral. (All news organizations were labeled neutral, despite the fact that some news organizations express a particular ideological slant, e.g. *De Telegraaf* for conservative positions.) The results were as follows:

	Anti-Pete	Pro-Pete	Neutral	Irrelevant
Verified	42%	13%	35% (half of them news)	10%
Non-verified	11%	71%		16%

We were somewhat surprised by such a high preponderance of pro-Black Pete accounts among our sample for non-verified accounts (71%), which was selected randomly. This suggests that there is a high preponderance of pro-Black Pete users among the non-verified accounts that tweet about Black Pete as a whole. By contrast, among verified accounts, anti-Pete accounts were the largest group, and this already partially confirms our initial hypothesis that celebrities are among the disseminators of anti-Pete arguments.

## 5. RESULTS

Our dataset from November and December resulted in a total of 438.610 tweets, with only 2,3% of those tweets about Black Pete, as shown in Table 1. 8,4% of the tweets about Black Pete were deleted or removed by March. This resulted a filtered dataset of 402.782 tweets for further analysis. Table 2 shows the number of tweets broken down by account type for our final dataset. The first interesting observation is that non-verified accounts tweet more often about Black Pete compared with verified accounts, both in terms of the raw number of tweets and the ratio between Black Pete tweets and other tweets. We also see that the percentage of tweets about Black Pete is small. This suggests that the identified accounts are largely not single-issue accounts, but rather focus on several topics.

	<b>Black Pete tweets</b>	<b>Non-Black Pete</b>	<b>Total</b>	<b>Percentage of Black Pete</b>
<b>Tweets from non-verified accounts</b>	8.109	267.432	275.541	2,94%
<b>Tweets from verified accounts</b>	2.001	161.068	163.069	1,23%
<b>Total</b>	10.110	428.500	438.610	2,31%

Table 1 - Number of tweets collected from Nov. 5 – Dec. 31, 2018

	<b>Black Pete tweets</b>	<b>Non-Black Pete</b>	<b>Total</b>	<b>Percentage of Black Pete</b>
<b>Tweets from non-verified accounts</b>	6.160	245.412	251.572	2,40%
<b>Tweets from verified accounts</b>	1.753	149.457	151.210	1,16%
<b>Total</b>	7.913	402.782	402.786	1,94%

Table 2 - Number of tweets remaining after filtering for engagement

### 5.1 Hypothesis testing

*(H1) Tweets about Black Pete from verified accounts will have more engagement (i.e. more retweets and more likes) than tweets about Black Pete from non-verified accounts.*

Table 3 shows the summary statistics for tweets about Black Pete that originated from verified and non-verified accounts. Figure 1 shows the density distribution of favorite and retweet count. We excluded retweets in our analysis because our central interest is in the engagement of the tweets that originated from our identified users. Our

results show that verified accounts do indeed get more engagement for their Black Pete tweets compared to the Black Pete tweets from non-verified accounts. A Wilcoxon rank-sum test shows these results to be significant, with  $w = 607650$  and a  $p$  value of  $< .0001$  for favorite count, and  $w = 681140$  and a  $p$  value  $< .0001$  for retweet count. Of course, it should not be surprising that verified accounts get greater engagement, since they have a greater number of followers compared with non-verified accounts.

	Favorite Count		Retweet Count	
	Non-Verified	Verified	Non-Verified	Verified
Total Tweets	1746	1277	1746	1277
Mean	2.572	38.888	1.426	15.425
Std. Deviation	11.902	141.863	7.848	49.855
Variance	141.656	20125.159	61.589	2485.566
Minimum	0.000	0.000	0.000	0.000
Maximum	206.000	2701.000	183.000	714.000

Table 3 - Summary Results for H1: Black Pete tweets

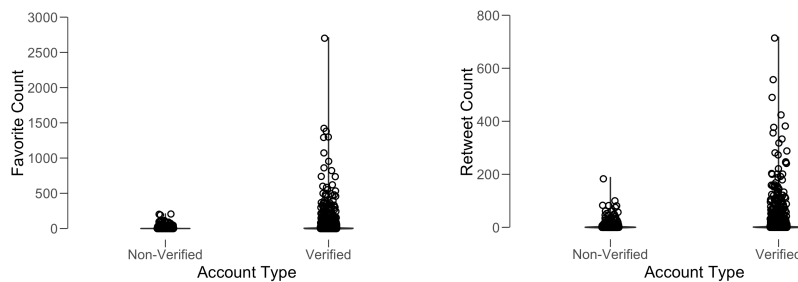


Figure 1 - Summary Results for H1: Black Pete tweets

*H2) Tweets about Black Pete from verified accounts will have more engagement than tweets from verified accounts not about Black Pete.*

Table 4 shows the summary statistics for original tweets that were created by verified accounts, broken down by tweets about Black Pete and all other tweets. Figure 2 shows the density distribution of favorite and retweet count. We see that on average original tweets about Black Pete get more than double the engagement compared to tweets not about Black Pete from verified accounts, which indicates in particular uptake of anti-Pete arguments (recall that 42% of the verified accounts were labelled anti-Pete, as opposed to 13% pro-Pete verified accounts). However, it is important to notice that the most engaged with tweets

are not about Black Pete; these are so-called ‘viral’ tweets that get through-the-roof levels of engagement. But the Black Pete tweets taken as a whole show consistent patterns of higher engagement than most other topics. A Wilcoxon signed-rank test shows these results to be significant with  $w = 241348$  and a  $p$  value of  $< .001$  for favorite count, and  $w = 164782$  and a  $p$  value of  $< .001$  for retweet count.

	Favorite Count		Retweet Count	
	Black Pete	Not BP	Black Pete	Not BP
Total Tweets	1277	117891	1277	117891
Mean	38.888	16.671	15.425	6.636
Std. Deviation	141.863	160.627	49.855	57.182
Variance	20125.159	25800.905	2485.566	3269.760
Minimum	0.000	0.000	0.000	0.000
Maximum	2701.000	36992.000	714.000	11920.000

Table 4 - Summary Results for H2: Verified accounts

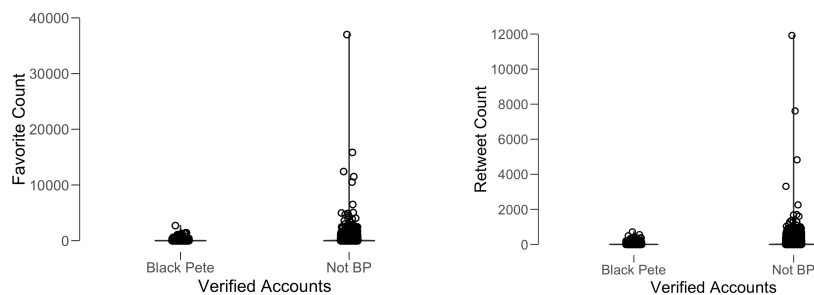


Figure 2 - Summary Results for H2: Verified accounts

*(H3) Tweets about Black Pete from non-verified accounts will have more engagement than tweets from non-verified accounts not about Black Pete.*

Table 5 shows the summary statistics for original tweets that were created by non-verified accounts, broken down by tweets about Black Pete and all other tweets. Figure 3 shows the density distribution of favorite and retweet count. The same trend appears: on average, tweets about Black Pete get more engagement. In the case of retweets there is nearly three times as much engagement with tweets about Black Pete compared to the other tweets created by the same users. However, again, the highest engaged-with tweets are not about Black Pete. This suggests that there is a limited reach that Black Pete tweets get compared to other tweets. A Wilcoxon signed-rank test shows these

results to be significant with  $w = 254127$  and a p value of  $< .001$  for favorite count, and  $w = 83461$  and a p value of  $< .001$  for retweet count.

	Favorite Count		Retweet Count	
	Black Pete	Not BP	Black Pete	Not BP
Total Tweets	1746	84076	1746	84076
Mean	2.572	1.403	1.426	0.594
Std. Deviation	11.902	10.108	7.848	5.303
Variance	141.656	102.172	61.589	28.121
Minimum	0.000	0.000	0.000	0.000
Maximum	206.000	1499.000	183.000	672.000

Table 5 - Summary Results for H3: Non-verified accounts

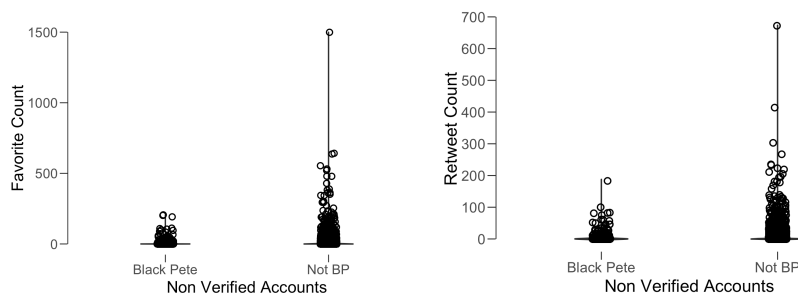


Figure 3 - Summary Results for H3: Non-verified accounts

### 5.3 Word clouds

On the basis of the corpus of collected tweets about Black Pete, we generated word clouds that give us clues as to the specific contents being discussed (so far, we have only considered engagement statistics without looking ‘inside’ the tweets). The word clouds indicate the concepts and themes that are viewed as significant by the different groups. Let us first consider the word clouds for pro-Pete accounts (both verified and non-verified) and for non-verified accounts. These two groups largely overlap, as the 81 pro-Pete non-verified accounts dominate. (The pro-Pete accounts are: 81 non-verified, 15 verified. The non-verified accounts are: 81 pro-Pete, 33 for the rest).

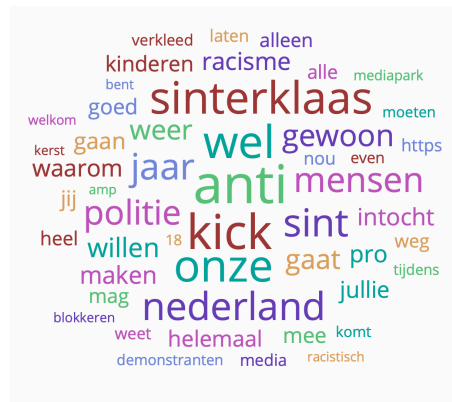


Figure 4 - Word cloud for Black Pete tweets from non-verified accounts



Figure 5 - Word cloud for Black Pete tweets from pro-Pete accounts

Some of the words that stand out here are very telling about the pro-Pete mindset: 'Nederland' (Netherlands), 'onze' (our, used for tradition, culture etc.), 'Sinterklaas'. These word clouds thus reflect the main worry that motivates defenders of the tradition: it is 'our' traditional Dutch culture that is under attack, being rejected by these 'intruders' who do not belong here (i.e. people with a migrant background, in particular people of color). Notice also that, while they appear, words such as 'racisme' (racism) and 'kinderen' (children) are comparatively much less prominent.

By contrast, a word cloud for the Black Pete tweets by critics of the tradition (48 verified accounts, 13 non-verified) gives a very different picture of what they take to be at stake.





also confirmed that there is significant engagement (likes and retweets) with the Black Pete tweets by the verified accounts, indeed on average more than for their non-Black Pete tweets (the same holds for the non-verified accounts), which reflects the importance of the debate in Dutch society. Moreover, as expected, tweets by verified accounts tended to have more reach and uptake than those by non-verified accounts, and this was the case especially of Black Pete tweets.

For this study we did not investigate the structure of networks connecting these different accounts, that is in terms of who follows who and who reacts to whom. A natural continuation would be to investigate these structural factors. This would allow us to further probe the extent to which celebrities do have epistemic power, as conjectured in (Archer, Cawston, Matheson, & Geuskens, forthcoming), especially across putative epistemic bubbles and echo chambers. Moreover, we did not consider patterns of retweets and instead only looked at the original tweets of the accounts in our sample. This too is a distinction worth investigating in future work.

Our aims with this study were modest; indeed we view it as a pilot study, and intend to repeat the data collection in October-December 2019 (with some refinements motivated by what we have learned so far). Nevertheless, our results already lend support to the conceptually motivated idea that celebrities and public figures have some degree of epistemic power when it comes to changing people's minds on societal matters where there is substantive disagreement, as they mitigate to some extent the phenomena of epistemic bubbles and echo chambers.

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