Rhetorical uses of precise numbers and semi-magical round numbers in political discourse about COVID-19: Examples from the government of the United Kingdom

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Abstract
This paper examines how the British government has used statistics about COVID-19 for political ends. A distinction is made between precise and round numbers. Historically, using round numbers to estimate the spread of disease gave way in the 19th century to the sort precise, but not necessarily accurate, statistics that are now being used to record COVID-19. However, round numbers have continued to exert rhetorical, ‘semi-magical’ power by simultaneously conveying both quantity and quality. This is demonstrated in examples from the British government’s claims about COVID-19. The paper illustrates how senior members of the UK government use ‘good’ round numbers to frame their COVID-19 goals and to announce apparent achievements. These round numbers can provide political incentives to manipulate the production of precise number; again examples from the UK government are given.

Keywords
COVID-19 statistics, manipulation, round numbers, semi-magical numbers, UK government

This paper critically examines some of the ways that senior members of the UK government use numbers when they talk politically about COVID-19. Before looking at specific examples, it is necessary to distinguish between two types of number: precise and
round numbers. To start with precise numbers. The World Health Organisation (WHO) has a website which regularly publishes and updates figures for COVID-19. At the moment, when the present sentence is being written (3 March 2021) WHO is reporting that globally ‘there have been 114,853,685 confirmed cases of COVID-19, including 2,554,694 deaths, reported to WHO’. Both numbers are precise: they have specific digits for hundreds, tens and units.1

Precise does not mean accurate. The statisticians at WHO will be aware that not all their frequencies have been as rigorously collected and reported to them as they might have been. Nevertheless, they add the various precise numbers to arrive at cumulative totals which are expressed precisely. Worldometer also publishes similar information. Like WHO, they give precise numbers, although their frequencies are somewhat higher than those published by WHO: they list the global number of COVID-19 cases as 116,036,742 and the number of COVID deaths as 2,576,252.2 The precise numbers given by WHO and Worldometer cannot both be simultaneously correct.

The chances are that neither figure is completely accurate. Some countries, especially poorer countries in the South, lack the resources for collecting information with the systematic thoroughness of richer nations.3 However, this does not mean that we should accept the numbers published by wealthier countries as being accurate (Best, 2021). There are different methods for measuring the main variables. Should death from COVID-19 be counted by the number of times COVID-19 is mentioned on death certificates? Or by comparing the number of deaths in a pandemic year with the number in non-pandemic years? Or by deaths within a certain period, such as a month, after a medical diagnosis of COVID-19? Each method has its merits and deficiencies: none should be treated as perfect.4 Accordingly, the precise global numbers are just too precise to be treated as literally accurate.

The precise numbers given for COVID-19 can be contrasted with the round numbers given in the middle ages about the Black Death. Louis Heyligen, a canon living in Avignon, wrote in April 1384 to a clerical colleague in Bruges, warning him of ‘the huge mortality and pestilence’ that had spread from India and would probably soon reach Bruges (Horrox, 1994: 41ff). Rosemary Horrox’s English translation of the letter from the original Latin uses Arabic numerals: there were ‘within the walls of the city more than 7000 houses where no one lives’ and that ‘they say’ in the past 3 months ‘a total of 62,000 bodies’ had been buried in Avignon.5

All these round numbers are actual numbers with zeroes in the columns for denoting hundreds, tens and units. The zeroes indicate that, in this context, the number should be understood as an estimate, rather than as a precise figure. We cannot, however, use the presence or absence of zeros to determine whether or not a number is rounded. Heyligen’s original text, being written in Latin, contains no zeros. He used a mixture of letters and words, writing that in Avignon there were ‘VII millia’ empty houses and ‘LXII millia’ bodies (Smet, 1856: 16–17). Espeland and Stevens (2008) suggest that these numbers were not to be understood literally, but ‘would have communicated an almost unimaginable number, a multitude, rather than a precise measure’ (pp. 405–406). Actually it may have been a bit more complex. 62,000 is not a completely rounded number. It suggests that the estimated total had been adjusted upwards over time, possibly passing through 59,000, 60,000 and 61,000 on its way to 62,000. The medieval folk of Avignon, in
common with modern statisticians, would have adjusted their numbers to describe changing realities.6

Van Dijk (1993, 2019) has described what he calls the ‘numbers game’ in relation to immigration. Right-wing politicians and newspapers raise the image of ‘thousands’ of immigrants or refugees ‘flooding’ into the country (see also: Goodman and Kirkwood, 2019; Pérez-Paredes et al, 2017). Politicians and newspapers will use large round numbers to evoke such fears; they also use what we might call non-numerical number words. The word ‘thousands’, in this context, is not an actual number because the number of thousands is left unspecified. One cannot add ‘thousands’ to a number and come up with the sum of the two. In this regard, ‘thousands’ is unlike ‘one thousand’ or ‘sixty-two thousand’ both of which are specific numbers. In English, unspecified number-plurals are often used to exaggerate: ‘I’ve seen that film hundreds/thousands/millions of times’. In the context of immigration, such unspecified plurals can convey the image of vast, unmanageable numbers of people, especially when the number of persons leaving the country is left unmentioned.

Different numbers and, also, different types of numbers can be used differently for different political purposes. The numbers that right-wing politicians might use when talking of immigration will differ from the ones they use when talking of COVID-19. Here, as we look at political talk about COVID-19, we will find ourselves examining round and precise numbers rather than unspecified non-numbers such as ‘thousands’ or ‘millions’. One matter, however, is constant: how politicians manipulate the rhetoric of numbers can reveal their unadmitted purposes. Also illustrated is something related that also cuts across specific issues: that, to adapt the words of Arendt (1977: 236), truth and politics can often be ‘on rather bad terms with each other’.

**Precise round numbers in an age of quantification**

Today we face what Hacking (1982) called an avalanche of numbers. The medieval canon in Avignon had no precise numbers to hand; he had to base his estimates on what he could see with his eyes and what people were telling him. From the 1830s onwards, as Hacking recounts, precise numbers became readily available as national censuses, registrations of births and deaths became common in more and more countries. In Britain, the annual reports of the first Registrar General, William Farr, were compendiums of precise statistics detailing the nation’s condition, especially its health (e.g. Farr, 1840). So were companion volumes such as John McCulloch’s *Descriptive Statistical Account of the British Empire* (1837/1854).

Farr (1840) used death certificates to list precise frequencies of deaths from epidemics such as smallpox and cholera. The overall numbers were broken down into various subcategories, such as age and place. By calculating deaths from particular diseases per head of population, Farr (1840) was able to show that the rates of epidemic death were higher in the poor districts of cities and lower in rural areas. Unlike COVID-19, smallpox struck the youngest hardest with Farr providing numbers for deaths in different age bands (p. 94).

Many of Farr’s and McCulloch’s categories are still being used today. In the United Kingdom, for example, on most days the government publishes precise official figures for the daily total of UK COVID-19 cases, the daily number of deaths, cumulative totals
and so on. The national figures are broken down into precise numbers for different regions of the United Kingdom. The BBC website enables people to check the rates for their own district, or for any other UK district. The modern inhabitants of Avignon are in a similar position. Precise numbers are only a click away.

One might assume that the use of round numbers in official discourse about mass disease has entirely given way to precise numbers. According to Espeland and Stevens (2008), more and more aspects of social life are becoming quantified, including health. Today we live in ‘metric societies’ in which qualities are being systematically quantified, whether in relation to disease, economic output, crime, professional performance and so on (Espeland and Stevens, 1998; Mau, 2019; Muller, 2018).

For quantification on this scale, large statistical bureaucracies are necessary (Espeland and Stevens, 2008). Without the pre-existence of statistical bureaucracies, which are well-practiced in producing health and other statistics, a new disease such as COVID-19 could not have been quantified so systematically and so rapidly. In the United Kingdom, tabulating the disease’s spread, its death-rates, etc., falls under the broad remit of the Office of National Statistics, the official national body for producing and monitoring statistics.

There is a particular reason why information coming from official institutions may not necessarily be accurate, or even necessarily more accurate than the round-numbered estimates of medieval chroniclers. As societies become more dependent on statistics, so they produce ever more data and train ever more experts to produce this data; and then there arise ‘ever more ways to manipulate and misread numerical information’ (Espeland and Stevens, 2008: 424). The persons best able to do the manipulating and misreading are trained statisticians. Governments put pressure on their statisticians to produce politically convenient, numerical information (Aragão and Linsi, 2020; Prewitt, 2010). It is little wonder that there is generally ambivalence towards statistics. On the one hand there is a tendency to think numbers provide solid evidence about the world (Porter, 2020); one observer has written that we seem to have become hypnotised by numbers (Blauw, 2020). On the other hand, statistics are widely distrusted: to quote a common saying, there are lies, damned lies and statistics (Best, 2001).

Quantification cannot be the whole story, for the reverse process of turning quantities back into qualities also occurs with regularity. Quantified levels of performance might lead to those with the higher levels of performance being rewarded economically and those at the lower levels going unrewarded or even penalised. Those who are rewarded or penalised on this basis might then be described in qualitative categories, such as being ‘successful’ or ‘poorly performing’ etc. In this way, categories indicating social and personal qualities are superimposed upon metric continua.

However, it is not this aspect that is of direct interest here, but the way that round numbers can be discursively used to convey both quantity and quality. Words like ‘hundred’, ‘thousand’ and ‘million’ have meanings beyond their strict numerical meaning. They can indicate simultaneously both quantity and quality and, as will be suggested later, politicians find them politically useful for gaining political advantages in a time of pandemic.

In statistical terms, whole numbers are ordered democratically: in an additive series of frequencies the same numerical distance separates each succeeding whole number from the previous number. The difference between 99 and 100 is no greater than that between any other two adjacent whole numbers. The death of a monarch from smallpox
adds the same unit to the precise tables of smallpox deaths as does the death of a labourer or chamber-maid. Nevertheless, some numbers are treated as being rhetorically more important than others. The decimal, ten-based number system is used almost universally today (except for computing, which is based on the binary number system). Round hundreds, thousands and millions can leap beyond the whole number below them, taking what they supposedly measure into a different class. The history of the English language illustrates this. Originally the word ‘myriad’ denoted the number ‘ten thousand’. While ‘million’ and ‘thousand’ have retained their numerical senses together with their rhetorical senses of magnitude, ‘myriad’ must have been used so often to describe a ‘great many’ and so infrequently in its numerical sense, that the former meaning remains while the latter has disappeared.

Round numbers can indicate simultaneously both quantity and quality. A billionaire is more than someone whose assets amount to a billion dollars or more. Billionaires are seen to possess a different class of wealth separating them from ordinary people. A hundredth birthday is not just another birthday. The person becomes special: in the United Kingdom, a letter from the monarch will mark the occasion. In statistic-filled sports such as baseball and cricket round numbers provide qualitative breaks on the continuum of whole numbers. A hundred home-runs in a baseball career is more than a single home-run more than ninety-nine: it takes the batter into a different class or ‘club’. Five-hundred home-runs carries even greater status. In cricket, as batters approach a score of a hundred in a single innings, they are liable to become nervous. To be dismissed on ninety-nine will be a disappointment; to obtain the extra run is a special achievement. Much more than a single run separates the two scores.

The use of special round numbers is by no means confined to celebratory or sporting activities. Best (2001) points out that campaigners rhetorically use round numbers to bring a social problem to the public’s attention. In the 1980s activists who were publicising homelessness in the United States would claim that there were two to three million homeless persons. The round numbers were an estimate because the problem had not yet been researched properly and the word ‘millions’ conveyed the magnitude of the problem. We can see that the numbers also conveyed quality: homelessness, being in its millions, possessed the quality of being a serious problem.

Round numbers also play an important part in understanding historical time. We divide modern historical time into centuries and decades. Each is felt to have its own qualitative character: the ‘sixties’ differ from the ‘fifties’ and the ‘seventies’; the nineteenth century from the twentieth and so on. This fits Henri Tajfel’s social psychological theory of categorisation. He claimed that when we impose categories upon a continuum, we tend to exaggerate the similarities of instances within a category and to exaggerate the differences between categories – it is as if we exaggerate how similar the years of the fifties were to each other and we exaggerate their difference from the forties and the sixties (Corneille, 2002; Tajfel, 1981; Tajfel and Wilkes, 1963).

The way that statisticians present their data, including their precise figures, can illustrate the pull of round numbers. Tables showing cases of a disease or deaths from the disease often give frequencies per hundred, per thousand or per million of a population. There is no mathematical reason why these numbers should be chosen, apart from their ease of calculation before the age of computers and non-specialists’ familiarity with the decimal number system.
system. Statistically the same relationships could be expressed in terms of the proportion of cases within specific populations without mentioning per cents, per thousands and per millions. Non-specialists would understand the frequency of COVID-19 cases in their own nation, as compared with the estimated frequencies of other nations calculated on the basis of those nations having the same overall population as their own nation.

Such is the power of round numbers that their use is taken for granted. The lack of justification for common discursive usage can be a sign of deeply embedded cultural assumptions. If round numbers can transform the steady addition of frequencies, as they qualitatively separate the numbers below, they seemingly do this as if by magic. However, an exact hundred, thousand or million is not a magic number, in the sense that individuals, especially children, have favourite numbers that they hope will magically bring them luck. The round numbers are not personal favourites; their transformative significance is shared and, thus, cultural. How and why they have their effects may be hard to explain. They just do it, again and again and, in this respect they are not ordinary, routine numbers. They are semi-magical – not quite magical but certainly not ordinary.

**Round numbers and testing for COVID-19**

Before proceeding to the specific examples of politicians using round numbers, a distinction needs to be made, and this is followed by a brief comment about statistics and nations. The distinction is that from a politician’s point of view, round numbers, like other statistics, can be good or bad – namely, they can be the sort of numbers about social life that the politician might want to publicise or the sort of numbers the politician would want to avoid, even hide. In relation to COVID-19, good numbers for members of a government might be high numbers of successful vaccinations and low numbers of cases; bad numbers might be high numbers of deaths and low numbers of recoveries from the disease. We will be giving instances of the UK government handling both good and bad round numbers – especially good numbers because these can reveal reasons why a national government might be tempted to manipulate the production, and not just the interpretation, of statistics.10

The comment that a government might have an incentive to manipulate the production of statistics assumes that nation-states have their own official bureaucracies for producing statistics and that they can influence, or try to influence, these bureaucracies. The historical link between statistics and the nation is demonstrated by the origin of the word ‘statistics’. Because the new numbers of the early 19th century were based on the information that states were collecting about the state’s population, they became known as ‘statistics’ (Blauw, 2020).

There are parallels in the 21st century. The global figures for COVID-19 on the WHO and Worldometer sites are principally provided by nation-states. These two websites publish international tables whose default option is to list the world’s nation-states in order, with the country with the highest number of Covid cases placed at the top, all the way down to the country with the lowest number at the bottom. Such tables facilitate international comparisons.11 At present, the United States occupies first place on the default WHO and Worldometer tables, with India in second place. The United Kingdom is in fifth place on both tables. For governments of highly placed nations, these are not good numbers.
In the United Kingdom, the government does not use round numbers to estimate the number of cases of the disease but, as we will see, it finds round numbers to be useful for other purposes, especially political purposes. All our examples come from the UK’s conservative, right-wing government. Some researchers prefer to collect examples from a wide variety of sources, but concentrating on a single source can enable greater depth of analysis (Billig, 2019; Billig and Marinho, 2017). Certainly, British conservative politicians are not the only political users of round numbers. If they were, then their rhetoric would not be readily comprehended, nor appear so familiar that it is scarcely noticed.

The first example comes from the early days of the pandemic. On 2 April 2020 the UK Minister of Health, Matt Hancock, gave a press briefing about testing for COVID-19. The previous day, the Prime Minister, Boris Johnson, had tweeted that testing was the key to defeating the disease. Testing would, he wrote, ‘unlock the coronavirus puzzle’; that was ‘how we will defeat it in the end.’ Even before the development of a vaccine, it was implausible to suggest that the disease would be defeated by testing. Johnson is a politician who prefers being upbeat to being truthful (Billig and Marinho, in press; Oborne, 2021).

Hancock began his briefing with some precise numbers: a hundred and sixty thousand, one hundred and ninety-four people have now, he said, been tested for the virus and of these ‘thirty-three hundred and seventeen have tested positive.’ Further precise numbers followed. Then he focussed on his big theme. Public Health England, said Hancock, should take pride in its ‘world-beating work done on testing’. The phrase ‘world-beating’ is a curious one in the context of a serious pandemic, as if the national league tables, produced by WHO and Worldometer, were reporting the results of an international sporting competition in which England (not the United Kingdom in this case) were beating the rest of the world. The loyal minister was using a nationalist phrase that his prime minister often employs.

Hancock then announced ‘my plan to boost testing’. Two different types of goal can be distinguished: a goal defined in terms of a specific task and a goal defined in terms of numbers to be achieved. Hancock began with a task-based goal: ‘our ultimate goal is that anyone who needs a test should have one’. This may have been the ‘ultimate goal’, but it was too far into the future to be the present one: ‘I am now setting the goal of one hundred thousand tests per day by the end of this month; that is the goal and I am determined that we will get there’.

One hundred thousand is presented as a self-evidently desirable, difficult and entirely natural goal to choose. The goal was being framed in terms of a round number with two big-number words: ‘hundred’ and ‘thousand’. Both words conveyed magnitude of an entity for which few non-experts would know a high frequency from a low one. Hancock reinforced the sense of magnitude with a rhetorical nudge: ‘I am determined that we will get there’. The phrase implied that the number was so large that it would be difficult to attain: his determination was required.

Hancock’s announcement contained a significant absence. He did not justify his choice of goal – to say why he had chosen that particular number. Sometimes what is left unsaid can be as important, if not more important, than what is said, for it can indicate cultural and ideological assumptions (Billig and Marinho, 2017; Murray and Durrheim, 2019; Scott, 2018, 2019; Zerubavel, 2006). Here, Hancock did not justify the use of a
round, rather than a precise, number to frame his goal. In the next section, we will be describing criticisms from opposition politicians. They too did not criticise the goal itself; they questioned whether it had been legitimately achieved.

On 1 May at a press briefing Hancock declared that his goal had been successfully achieved: ‘I can announce that we have met our goal’. He gave a precise number: ‘The number of tests yesterday on the last day of April was a hundred and twenty-two thousand, three hundred and forty-seven’. The theme of nationhood was present: this ‘unprecedented expansion in British testing capability’ was ‘an incredible achievement’ for the whole nation: ‘We’re making real progress...setting ambitious goals in a crisis has a galvanising effect’. The precise number for 30 April was the proof of the achievement, not the achievement itself and, therefore, it was rhetorically serving the round number. In parliament five days later, the Prime Minister continued the celebration and set another round-numbered goal for the end of May: ‘We are running at about one hundred thousand a day, but the ambition, clearly, is to get up to two hundred thousand a day by the end of this month, and then to go even higher.’ The little word ‘even’ was his rhetorical nudge: ‘two hundred thousand’ was itself a high goal.

In a press conference on 9 September 2020, Johnson specified his even higher goal. He declared that ‘we’re now processing 1.2 million tests per week’; he did not mention that this figure is less than 200,000 tests a day. There were boastful comparisons with other countries. Britain had carried out more tests than any other European country and ‘more per head than other European countries like Germany and Spain’. He picked the countries for the latter comparison carefully. He did not say, as he did for the absolute number of tests, that Britain had conducted more tests per head of the population than any other European country, for that claim would be easy to disprove. Johnson’s choice of COVID-19 comparisons is always partial. He never compares the British figures for total number of cases and deaths with those of other European countries. The WHO and Worldometer tables show that on those particular measures the United Kingdom is European leader.

Johnson’s 9 September onwards and upwards message involved another round-numbered goal: ‘We’re working hard to increase our testing capacity to five hundred thousand tests a day’ by the end of October. Johnson gave his round number a little rhetorical nudge to emphasise that this was an ambitiously high number. He described the plan as his ‘Moonshot’. The actual Moonshot involved the task-related plan of getting to the moon and back, not a semi-magical numbered task such as travelling five hundred thousand miles in space.

**The rhetorical power of round numbers**

Johnson’s and Hancock’s round-numbered testing-plans signify quality through quantity by dividing up the continuum of testing frequencies. Any number above one, or two, or five hundred thousand would be classed as a success and any number below a failure. This was like cricketing centuries or the funds of billionaires. The round number acts as a semi-magical division of reality – a division whose indication of quality is taken for granted but whose confirmation of attainment requires precise numbers.
By dividing up an additive continuum, these round-numbered targets set up an incentive to manipulate the measurement of precise numbers to ensure that they fall on the politically good side of the dividing line. Campbell (1979) famously declared that the more a quantitative measure is used for social decision-making ‘the more apt it will be to distort and corrupt the social processes it is intended to indicate’ (p. 85). Best (2021) has shown how politicians, especially in the USA, have provided new examples of Campbell’s Law in dealing with the COVID-19 crisis. The so-called law receives further confirmation from Hancock and Johnson boasting about their testing successes. Accusations of manipulating numbers swirl around their triumphant claims.

**Taking round numbers for granted**

Even before Hancock announced that he had met his one hundred thousand testing target, he was facing methodological criticisms. The day before his announcement, Keir Starmer, the leader of the left-wing opposition, had queried whether the government was inappropriately boosting the number of tests by including tests that had been sent out to potential participants but had not actually been completed, analysed or even returned. This information was on the government’s own website, which specified that, for testing subcontracted to private companies, tests sent out but not returned were being counted as processed tests.

A few days later, Labour’s new spokesperson on health, Rosena Allin-Khan, irritated Hancock when she suggested in Parliament that the ‘testing figures are now being manipulated’. The next day on 6 May during Prime Minister’s Question Time, Starmer questioned whether the government had actually achieved its target of one hundred thousand tests a day, since that target had only been met on one day, namely 30 April. Quoting official statistics, Starmer said that the subsequent daily figures had been well below the target number. It was as if tests had been illegitimately assigned to a single day, in order that one day would be above the hundred thousand mark.

Hancock faced another challenger, Sir David Norgrove, the chair of the UK Statistics Authority, an independent, official body charged by parliament to ensure the proper use of statistics in British public life. Norgrove wrote Hancock two official letters. The first diplomatically raised doubts about the way that the number of tests was being calculated. In reply, Hancock brushed aside Norgrove’s concerns and emphasised the government’s achievements. Norgrove’s second letter on 27 May was more direct. Like Starmer, he suggested that the figures had been improperly boosted: tests, which had been sent out but unreturned, were being counted in the overall total of tests carried out. The aim, Norgrove wrote, seems to have been ‘to show the largest possible number of tests, even at the expense of understanding’. For a public servant in the United Kingdom, this was unusually strong criticism.

Norgrove and opposition politicians were claiming that Hancock, despite his claims, had not in fact met his target. They were criticising his numbers and the claims he was making on the basis of those numbers. The opposition politicians, by not criticising the goals, were taking for granted that, in an age of precise numbers, politicians would frame their goals in semi-magical round numbers, thereby setting up an incentive for a government to manipulate numbers.
How to hide inconvenient numbers: a textbook example

There were similar criticisms following the announcement of the two hundred thousand triumph. It seems that unreturned tests continued being counted in the overall figure for testing, although by now the government was claiming that it was measuring testing capacity rather than tests carried out.

The UK Statistics Authority prefers to achieve good statistical practice by working behind the scenes with government ministries and their statisticians (Dunton, 2017). Eventually the Authority seems to have persuaded the Ministry of Health to change its way of counting COVID-19 tests. On 14 August 2020, the government’s official website issued a long, somewhat technical announcement about changes to its methodology for counting tests.22 It had established an ‘all tests processed’ measure that excluded tests that had only been sent out. Tucked away in this announcement was the statement: ‘An adjustment of −1,308,071 has been made to the historic data for the “tests made available” metric’. This was a result of the ‘more accurate data collection and reporting processes recently being adopted’.

Here is an object lesson in hiding awkward numbers. First: publish them in the middle of a seemingly technical note about methodology. Second: do not publicise the note in a press conference. Third: use neutral language. Rather than writing that you have ‘raised’ or ‘lowered’ the figure, just write that an adjustment has been made. Fourth, and this is perhaps the most surprising lesson: use precise numbers, expressed in numerical terms and not in words. Do not say ‘we have adjusted the figures by removing over a million tests from the total’. Instead, refer to an ‘adjustment of −1,308,071’. A precise number, without a rhetorical nudge, is easier to hide than a round one, especially one with a nudge. The fifth lesson: if you really want to hide numbers, then do not speak them because you will find yourself using words like ‘minus’ or ‘million’ when giving the precise number. It is better to avoid the rhetoric of such words by writing precise numbers, using numerical symbols alone.

Let us imagine a different scenario. Suppose the government discovered that its statisticians had underestimated the number of tests that had been conducted. We might suppose that it would have publicised the fact with words and televised pictures. We can imagine the Health Minister or Prime Minister declaring as publicly as possible: ‘We have conducted over a million more tests than had been thought’. By contrast, precise numbers are easier to hide in plain sight. The flimsy minus symbol does not grab the attention like a round number, and especially a round-numbered word.

As for the tests conducted on 30 April, the only day when the government claimed that its audacious target had been met, the newly adjusted figures should have shown a new total. However, the numbers are uninterpretable: there are too many figures placed in unlabelled columns to extract a simple number for that day. It is impossible to tell whether the recalculated figure was below or above one hundred thousand. On the basis of what was not being said, it is easy to suspect that the figure was below.

Sometimes politicians just seem to forget that round-numbered based goals have not been attained. By mid-October the Prime Minister was no longer mentioning his Moonshot goal. Gareth Iacobucci wrote in the British Medical Journal on 23 October 2020 that the government had abandoned its plans without announcing the abandonment.
According to Iacobucci, leaked legal documents had suggested that Operation Moonshot might be illegal because it ignored scientific evidence and committed vast sums of public money without transparent decision-making. Hence the political silence – another way of hiding attention-grabbing but politically inconvenient round numbers.

The examples, discussed in this section, illustrate how British politicians have manipulated data, encouraging statisticians to use measures that do not measure what they should be measuring. The politicians, whom we have discussed, do this to magnify their own supposed achievements. Their actions illustrate that the so-called quantitative society is not entirely quantitative but round numbers continue to exert rhetorical powers and to produce political temptations.

**An experiment between round numbers and achieved tasks; and the problem of bad round numbers**

We have shown the UK government’s penchant for using round number to describe goals and achievements. We have not presented any direct evidence to test whether, if given the choice, these politicians would prefer to describe achievements in round numbers rather than in terms of specific tasks. In February 2021, the social world presented the government with such a choice.

The issue concerned vaccinations for COVID-19. The government had decided that vaccinations should be given to the population in order of specific priorities, such as age, medical conditions, working in care homes etc. The government announced its goal to vaccinate the four highest priority groups by mid-February 2021. It was at that point that a coincidence occurred that briefly turned the nation into an experimental laboratory for testing a psychological hypothesis. At virtually the same moment when the government could claim to have offered vaccinations to the four highest priority groups, the total cumulative number of vaccinations passed fifteen million. We can ask which of these two achievements took rhetorical priority in the government’s publicity.

It was clear in the government’s coordinated publicity on February 14 that the round-numbered achievement took first place, with the task-defined achievement trailing behind in second place. Boris Johnson published a celebratory tweet: ‘Today we have reached a significant milestone in the United Kingdom’s national vaccination programme’. Johnson specified the milestone: ‘This country has achieved an extraordinary feat – administering a total of 15 million jabs into the arms of some of the most vulnerable people in the country’.

In a video published the same day, Johnson read out his tweet and added further comments. One added comment was ‘and in England, I can tell you we have now offered jabs to everyone in the first four priority groups, the people most likely to be severely ill from coronavirus, hitting the first target we set ourselves’. By its placement after the 15 million announcement in the video and by its absence in the tweet announcing the extraordinary achievement, this was the secondary story. Its announcement began with the conjunction ‘and’, indicating that it was being tagged onto something apparently more significant.

The same priority marked two further governmental tweets on that day. The Health Minister tweeted: ‘FANTASTIC NEWS: Over 15 MILLION people have now had their first COVID vaccine’. The content and the distribution of capital letters left no doubt
what was the fantastic news. The tweet from the Vaccinations Minister, Nadhim Zahawi, began ‘15,000,000! Amazing team’.

Like the Prime Minister’s announcement, these two tweets did not specify why 15 million might be a significant milestone. Rhetorically, the round number was working its semi-magic. The accomplishment of the task – offering vaccinations to the four most vulnerable groups – was assumed not to be as attention-grabbing as the round-numbered quantity that was being used to indicate the government’s quality.

We have seen how the UK government uses beneficial round numbers to its rhetorical advantage. However, politicians also have to deal with bad round numbers. On 26 January 2021 the UK’s official death toll from COVID-19 passed 100,000. The Prime Minister was aware that in his press briefing he would not be able to avoid this politically dangerous information. It seems that he and his advisors had determined in advance what he would and would not say, for he kept repeating the same phrases, refusing to be led beyond them by questioners.

Obviously, Johnson recognised the bad, semi-magical number. He called it ‘the grim statistic’ – as if 100,000 was grimmer than past totals and signified a different quality of tragedy. Johnson also used the language of apology, several times saying ‘I’m deeply sorry for every life lost’. This was, in fact, what has been termed a non-apology apology (Eisinger, 2011; Heritage et al., 2019; Lazare, 2004). Johnson was using the verbal form of an apology (‘I am deeply sorry’) but he was not apologising for anything that he or his government had done. Quite the reverse, he repeated unapologetically: ‘We did everything that we could to minimise suffering and minimise loss of life in this country’.

He kept saying, especially in response to questions, that, on this particular day – namely, the day of the tragic round number – it was not appropriate to look for explanations. It was as if the specialness of the day was commanding us to feel, not to understand. When asked what had gone wrong in the UK, he just stated: ‘I think on this day I should just really repeat that I am deeply sorry for every life that has been lost’.

The logic is curious, although the rhetoric has a superficial appearance of plausibility. The day is only special because the rounded number of deaths is considered special. Out of respect for the special day, we should not talk about what had made the day special. Johnson was summoning a sense of taboo to protect himself against the semi-magic of the bad number. The defence against the awkward, relevant question led to Johnson repeating his non-apology apology. In this context, the non-apology apology had become a politically useful non-answer answer.

Modern politicians using round numbers about COVID-19, are, in a broad sense, following in the steps of the 14th century priest who used the figures of 7000 and 62,000 to indicate the frightening quality of the Black Death. Even 100,000 deaths in the United Kingdom are not as immediately terrifying as 62,000 in a single small city. There are important differences between the priest and the politicians. The priest was using the numbers to estimate the magnitude of the plague and demonstrate the helplessness of humans. By contrast, the modern politicians, whose profession encourages constant self-promotion, were using larger round numbers to boast of their own successes over deadly disease. It was also possible for a politician to hint at a semi-magical taboo attached to a semi-magical number in order to pragmatically protect something as non-magical as his own political interests.
Discursive analysts sometimes suppose that social phenomena possess their own distinct discourses. This paper might be thought to have been examining one aspect of ‘the discourse of COVID-19’ and to have concluded that this discourse accords an important place to numbers. However, phrases such as ‘the discourse of this’ or ‘the discourse of that’ tend to exaggerate the unity of so-called discourses. In the case of COVID-19, there are public arguments about quantitative measurements and what they measure; arguments whether particular policies are succeeding; or whether particular numbers have been manipulated to convey success; at the extremes there are arguments whether vaccinations do more harm than good, and even whether the disease actually exists (Nguyen and Catalan-Matamoros, 2020). There is no single way of talking about the disease.

Here we have looked at the way the rhetoric of round numbers discursively exists alongside, and at times takes precedence over, precise statistics. These do not amount to two distinctly different discourses of number. We have something that Gramsci noted almost a hundred years ago: common-sense is a jumbled mixture of older and newer beliefs. In his *Prison notebooks*, Gramsci described the common beliefs of his time as comprising ‘Stone Age elements and principles of more advanced science, prejudices from all past phases of history. . .and intuitions of a future philosophy’ (Gramsci, 1971: 324).

Modern discourse about COVID-19 includes statistically precise numbers, which are not necessarily accurate and round numbers functioning as semi-magical markers of qualities. In talk about these numbers we might catch echoes from history – the old medieval history of the plague and the 19th century statisticians seeking to understand epidemics with precise numbers. Whatever the historical echoes, in our time of deadly pandemic we can hear present political voices, citing and manipulating numbers in pursuit of paltry political advantage.

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**Notes**

1. For WHO figures see: https://covid19.who.int/
2. For Worldometer figures: https://www.worldometers.info/coronavirus/
3. Milan et al. (2021) discuss how impoverished countries face difficulties in gathering information about their populations and in acting on the information that they manage to collect.
4. This is not peculiar to COVID-19 or to disease statistics. There are different ways of calculating most major social phenomena whether related to economics, crime or health (Hudson and Ishizu, 2017).
5. Heyligen’s use of round numbers was not unusual at the time. McCulloch (1837/1854), the 19th century statistician, discusses a Black Death chronicler in England reporting that two thousand dead bodies were carried to the cemetery at St Edmonds ‘about the Feast of St Trinity’ and that fifteen thousand ‘perished in London alone’ (p. 599)
6. Because of the lack of statistical information, modern historians also use broad, round numbers when estimating the number of plague victims. For instance, Dobson (2015: 17) estimates that ‘between 25 and 50 million people died’ in the years 1347–1353.

7. The government posts its official figures relating to COVID-19 on its official website (https://coronavirus.data.gov.uk) and delivers most of the figures at regular Downing Street press conferences, most of which can be found on Youtube.

8. As we go back further in time, round numbered divisions of time play less of a significant role. Conventionally we will divide ages in other ways: the Middle Ages, the ancient world, the Bronze Age, Stone Age, etc.

9. WHO and Worldometer present the frequencies of COVID-19 cases per million of the population. Farr (1840: 94) presented the figures for smallpox, typhus and cholera cases per thousand. In comparing male and female cases of diseases of ‘the nervous system’ (e.g. apoplexy, paralysis) he used per cents (72).

10. Billig and Marinho (2014) argue that critical analysts should retain manipulation as an analytic concept (see also van Dijk, 2006; Fairclough, 1998); Billig and Marinho distinguish between manipulating information and manipulating people directly. The examples discussed here are examples of manipulating information.

11. The tables and their publishers might be said to be taking for granted the existence of the world of nation-states and this is a key part of what has been called ‘banal nationalism’ (Billig, 1995; Duchesne, 2018).

12. See https://www.bbc.co.uk/news/uk-52122761 for a report of the briefing; and https://www.youtube.com/watch?v=VSdQaeEykk for a video recording of the briefing.

13. In February 2021, the UK Department of Health and Social Care published the results of a study that modelled the relative contributions of testing, tracing and social isolation in combating COVID-19. It reported that testing by itself only had small effect (Department of Health and Social Care, 2021).

14. See the website: https://boris-johnson-lies.com/about for a detailed tracking of Johnson’s dishonesty throughout his career.

15. In parliament on 20 May 2020, Johnson declared that by the start of June England would have in place a ‘world-beating’ track and trace system. See: https://www.bbc.co.uk/news/uk-52741331

16. The concept of ‘ideology’ has many different meanings, including the socially created meanings that members of a particular culture take for granted as being natural (Eagleton, 2007; van Dijk, 1998, 2011). What is ideological, in this sense, is what is rarely argued about directly within a particular culture (Billig, 1996; Billig et al., 1988). Round numbers and their potential for being ‘naturally’ suitable objects for celebration are, in this regard, a sign of ideological meaning in present western cultures.

17. See BBC ‘Factcheck’ for 17 July 2020: https://www.bbc.co.uk/news/53443161. Denmark, for example, had conducted more tests per head of population than the United Kingdom.

18. For an excellent guide on what sort of claims about COVID-19 and its statistics should be trusted, see Spiegelhalter (2020).

19. See for example the methodology note of June 2 2020: https://www.gov.uk/government/publications/coronavirus-covid-19-testing-data-methodology/covid-19-testing-data-methodology-note The same methodology was still being used on July 13 2020: https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public#number-of-tests

20. For details of Starmer’s objections, see: Hansard 29 April https://hansard.parliament.uk/Commons/2020-04-29/debates/B5B3028B-C411-4CC0-A6EE-B7ED9B7955FB/Engagements; and Hansard May 6, Vol. 675 https://hansard.parliament.uk/Commons/2020-05-06/debates/4D4A836F-EBB7-4255-B84C-1537BDE1DCC4/Engagements. For Allin-Khan’s remarks and Hancock’s irritation, see Hansard, May 5, https://hansard.parliament.uk/
21. The webpages of the UK Statistics Authority report the correspondence between Norgrove and Hancock: https://www.statisticsauthority.gov.uk/correspondence/sir-david-norgrove-response-to-matt-hancock-regarding-the-governments-covid-19-testing-data/

22. See https://www.gov.uk/government/publications/coronavirus-covid-19-testing-data-methodology/covid-19-testing-data-methodology-note.

23. See https://twitter.com/BorisJohnson/status/1360962200714764290. For the video of the tweet, see https://www.bbc.co.uk/news/uk-56062976

24. See: https://www.theguardian.com/politics/live/2021/jan/26/uk-covid-live-vaccine-supply-eu-export-threat-boris-johnson-coronavirus-latest-updates

References

Aragão R and Linsi L (2020) Many shades of wrong: What governments do when they manipulate statistics. Review of International Political Economy, published online 25 May 2020.

Arendt H (1977) Between Past and Future. Harmondsworth: Penguin.

Best J (2001) Damned Lies and Statistics. Berkeley, CA: University of California Press.

Best J (2021) How to lie with coronavirus statistics: Campbell’s law and measuring the effects of COVID-19. Numeracy 14(1), Article 6.

Billig M (1995). Banal Nationalism. London: Sage.

Billig M (1996) Arguing and Thinking. Cambridge: Cambridge University Press.

Billig M (2019) More Examples, Less Theory. Cambridge: Cambridge University Press.

Billig M and Marinho C (2014) Manipulating information and manipulating people: examples from the 2004 Portuguese parliamentary celebration of the April Revolution. Critical Discourse Studies 11(2): 158–174.

Billig M and Marinho C (2017) The Politics and Rhetoric of Commemoration. London: Bloomsbury.

Billig M and Marinho C (in press) Using examples to misrepresent the world. In: Harris R and Fahnestock J (eds.) Routledge Handbook of Persuasive Language. New York, NY: Routledge.

Blauw S (2020) The Number Bias. London: Sceptre.

Campbell DT (1979) Assessing the impact of planned social change. Evaluation and Program Planning 2(1): 67–90.

Corneille O, Klein O, Lambert S, et al. (2002) On the role of familiarity with units of measurement in categorical accentuation: Tajfel and Wilkes (1963) revisited and replicated. Psychological Science 13(4): 380–383.

Department of Health and Social Care (2021) The Rùm Model Technical Annex: Assessing the Impact of Test, Trace and Isolate Parameters on COVID-19 Transmission in an Octoberlike Environment. London: Department of Health and Social Care.

Dobson M (2015) Murderous Contagion. London: Quercus.

Duchesne S (2018) Who’s afraid of banal nationalism? Nations and Nationalism 24(4): 841–856.

Dunton J (2017) Sir David Norgrove interview: new chair of UK Statistics Authority on elections, the misuse of numbers and working for Margaret Thatcher. Civil Service World, June 17.

Eagleton T (2007) Ideology. London: Verso.

Eisinger RM (2011) The political non-apology. Society 48(2): 136–141.

Espeland WN and Stevens ML (1998) Commensuration as a social process. Annual Review of Sociology 24: 313–343.

Espeland WN and Stevens ML (2008) A sociology of quantification. European Journal of Sociology 49(3): 401–436.
Fairclough N (1998) Manipulation. In: Mey JK (ed.) Concise Encyclopedia of Pragmatics. Oxford: Elsevier.
Farr W (1840). Annual Report of the Registrar-General of the Births, Deaths, and Marriages in England, 1838–1839. London: Her Majesty’s Stationary Office.
Goodman S and Kirkwood S (2019) Political and media discourses about integrating refugees in the UK. European Journal of Social Psychology 49(7): 1456–1470.
Gramsci A (1971). Selections from ‘Prison Notebooks’. London: Lawrence and Wishart.
Hacking I (1982) Biopower and the avalanche of printed numbers. Humanities in Society 5: 279–295.
Heritage J, Raymond CW and Drew P (2019) Constructing apologies: Reflexive relationships between apologies and offences. Journal of Pragmatics 142: 185–200.
Horrox R (1994) The Black Death. Manchester: Manchester University Press.
Hudson P and Ishizu M (2017) History by Numbers. London: Bloomsbury.
Iacobucci G (2020). Covid-19: Government shelves plans to invest £100bn in mass testing. British Medical Journal 371: m4112.
Lazare A (2004) On Apology. New York, NY: Oxford University Press.
Mau S (2019) The Metric Society. Cambridge: Polity.
McCulloch JR (1837/1854) A Descriptive Statistical Account of the British Empire. London: Longman, Brown, Green and Longman.
Milan S, Treré E and Masiero S (eds.) (2021) Covid-19 from the Margins. Amsterdam: Institute of Network Cultures.
Muller JZ (2018) The Tyranny of Metrics. Princeton, NJ: Princeton University Press.
Murray AJ and Durrheim K (2019) Qualitative Studies of Silence. Cambridge: Cambridge University Press.
Nguyen A and Catalan-Matamoros D (2020). Digital mis/disinformation and public engagement with health and science controversies: Fresh perspectives from Covid-19. Media and Communication 8(2): 323–328.
Oborne P (2021) The Assault on Truth: Boris Johnson, Donald Trump and the Emergence of a New Moral Barbarism. London: Simon and Schuster.
Pérez-Paredes P, Jiménez PA and Hernández PS (2017) Constructing immigrants in UK legislation and Administration in-formative texts: A corpus-driven study (2007–2011). Discourse & Society 28(1): 81–103.
Porter T (2020) Trust in Numbers. Princeton, NJ: Princeton University Press.
Prewitt K (2010) What is political interference in federal statistics? Annals of American Political and Social Science 631: 225–238.
Scott S (2018) A sociology of nothing: understanding the unmarked. Sociology 52(1): 3–19.
Scott S (2019) The Social Life of Nothing. London: Routledge.
Smet JJ (1856) Recueil des Chroniques de Flandre, Volume III. Brussels: La Commission Royale de l’Histoire.
Spiegelhalter D (2020) Those who tell us what to do during the pandemic must earn our trust. Guardian, 26 November.
Tajfel H (1981) Human Groups and Social Categories. Cambridge: Cambridge University Press.
Tajfel H and Wilkes AL (1963) Classication and quantitative judgment. British Journal of Psychology 54(2): 101–114.
von Dijk TA (1993). Elite Discourse and Racism. London: Sage.
von Dijk TA (1998) Ideology. London: Sage.
von Dijk TA (2006) Discourse and manipulation. Discourse & Society 17(3): 359–383.
von Dijk TA (2011) Discourse and ideology. In: von Dijk TA (ed.) Discourse Studies. London: Sage.
van Dijk TA (2019) Discourse and migration. In: Zapata-Barrero R and Evren Y (eds.) *Qualitative Research in European Migration Studies*. Cham: Springer.
Zerubavel E (2006) *The Elephant in the Room*. Oxford: Oxford University Press.

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