Attacks on statues associated with social injustice and militarism: New Zealand as a case study

Nick Wilson^{1*}, Amanda C Jones¹, Andrea Teng¹, George Thomson¹

¹ Department of Public Health, University of Otago Wellington, Wellington, New Zealand

* Corresponding author: Prof Nick Wilson, Department of Public Health, University of Otago, Wellington, Mein St, Newtown, Wellington 6021, New Zealand. Phone +61 021 2045 523; Email: nick.wilson@otago.ac.nz

Abstract

Objectives

We aimed to explore the potential relationship between social injustice and militarism and attacks on statues in one case study country: New Zealand.

Methods

We performed Internet searches for the existence of the statues and historical attacks in New Zealand (NZ), combined with field visits to all identified statues to examine for injuries and repairs.

Results

Of the 123 statues identified, nearly a quarter (n=28, 23%) had been attacked at least once (total of 45 separate attack events), with the number of attacks increasing from the 1990s. Attacks involved paint/graffiti (14% of all statues at least once), nose removal/damage (7%), decapitation (5%), and total destruction (3%). The risk of attack was relatively higher for statues of royalty (50%), military personnel (33%), explorers (29%), and politicians (25%), compared to other reasons for fame (eg, 0% for sports players). Statue subjects involved in colonialism and harm to Māori, had 6.61 (95%CI: 2.30 to 19.9) greater odds (adjusted odds ratio, aOR) of being attacked than other subjects. Similar results were found for statue subjects having any involvement with the military (aOR= 4.17; 95%CI: 1.65 to 11.3). Most of the statue subjects were of men (87%) and Europeans (93%). Other ethnicities were 6% Māori (NZ's Indigenous population comprising 15% of the population) and 1% each for Asian and Pacific peoples, who comprise 12% and 7% of the population respectively.

Conclusions

There is evidence that attacks on these statues may reflect the role of statue subjects in past social injustices and militarism. Furthermore, the demography of the statue subjects in this country represent historical and current social power relationships – with under-representation of women and non-European ethnic groups.

Background

Around the world statues are being attacked, critiqued or removed from prominent public settings. In particular, statues commemorating Confederate leaders and soldiers of the American Civil War are now regularly attacked or removed [1]. Statues of Indigenous peoples that are portrayed in a racist way are also being retired [2], along with those considered sexist (eg, the “Civic Virtue” statue in New York City), and a statue of a famous doctor who committed experiments on slaves (J Marion Sims) [3]. Historical political grievances have resulted in a Ukrainian Parliament law requiring the removal of statues to Lenin, Marx and Engels [4]. This has resulted in the removal of an estimated 5500 statues of Lenin, though two remain in the Chernobyl Exclusion Zone. Attacks on statues can occur over a long period, with one of William III (of Orange) being damaged or destroyed a number of times during the period 1710 to 1928 [5].

Disputes over statues have soured both domestic and international relations. For example, statues of “comfort women” that have strained relationships between Japan and South Korea [6], and also between Japan and the USA [7]. A statue of Alexander the Great has contributed to tension between North Macedonia and Greece – albeit with recent signs of resolution [8]. More dramatically, the removal of a Red Army Soldier statue in Estonia appears to have triggered two nights of riots and a major cyberattack on the country [9]. A giant statue in India that cost \$US 430 million has triggered debate over the misuse of resources [10], and has been criticised for being threatening to non-Hindu citizens [11].

Given this background we aimed to explore the potential relationships between social injustice and militarism and statue attacks in one case study country: New Zealand. Another aim was to describe the sex/ethnic distribution of the statue subjects to determine their representativeness relative to the current population demographics. New Zealand is a country with a history of colonial oppression and wars against Māori (the Indigenous people of New Zealand) and persisting injustices borne by Māori [12]. Other population groups in New Zealand who have traditionally been relatively disempowered include: Pacific peoples, Asian peoples and woman in general (eg, the latter with persisting under-representation in Parliament and unequal pay) [13]. New Zealand also has a diverse ethnic composition: Māori (14.9% of the population), Asian peoples (11.8%), and Pacific peoples (7.4%) [14].

Finally statues in New Zealand can involve substantial investments of community resources. For example, repairing limb fractures to the statue of the British explorer Robert Falcon Scott in Christchurch cost around NZ\$ 560,000 (US\$ 381,000), and this statue has since been insured for NZ\$ 900,000 [15]. Nevertheless, some statues are also neglected for long periods, such as the Earl Jellicoe statue in the City of Invercargill that was missing a nose for a decade.

Methods

For the purposes of this study we included statues, busts and full-body bas reliefs of named people that had been erected in outdoor public settings in New Zealand and which were approximately life-sized or larger. We aimed to focus on modern-era subjects of statues (from

the time of the explorer Abel Tasman's first visit in NZ in 1642). We excluded statues of subjects who were: unnamed generic figures (eg, mainly soldiers on war memorials); foundational religious figures (eg, Jesus, Madonna and various saints); pre-European ancestors of Māori; fictional characters from literature and mythological figures. We restricted the sample to public settings, as this is where the prominence of the person represented by the statue is most clearly endorsed, in contrast to statues in places such as cemeteries where it may particularly represent a family's respect for the person. Additional details on our search strategy for identifying statues, field data collection, data coding and analysis are reported in the Supporting Information, along with a list of types of excluded statues in Table S1.

Search strategy

Briefly, we compiled a list of existing statues by reviewing books and websites on New Zealand sculptures, memorials, monuments and statues. To supplement this list, we also performed searches in Google Images, Google Scholar and a national repository of all New Zealand newspaper issues ("Papers Past") by combining variations of statue terminology (eg, statue, bust), geographic locations (eg, Zealand, Auckland) or other identifiers (eg, 'Māori', names of famous New Zealanders [16]). Subsequent to the original searches, we incidentally located six additional statues as a result of both further internet searches (n=3), and field work (n=3) up to the last inclusion date (13 April 2019 when the statue of Alex Lithgow was unveiled). This indicated an upper estimate of the sensitivity of our initial strategy at 94%.

Identifying a statue as per the above search strategies frequently revealed historical information about intentional and unintentional injuries to the statue. We performed additional searches in Google Images, Google Scholar and Papers Past with attack-related search terms (eg, statue and vandalism, statue decapitation). For all statues with any history of damage, we made further searches for information about the possible motives for such damage.

Field data

Site visits to all the statues that were still outdoors were conducted between September 2018 and August 2019. For each statue, photographs were taken of the setting, all sides of the statue, and any associated plaques or information boards. In particular, the statues were closely examined for evidence of past and current injuries (including attacks with paint).

Data coding and analysis

Data from internet searches and field visits were collated in an Excel file and analysed. The denominator used was for all statues unveiled at any time up to the last inclusion date (13 April 2019). This included all statues that were destroyed (n=3), stolen (n=1), or moved from outdoors and into interior settings (n=14). If a stolen statue was replaced (n=1), the replacement statue was counted as a new statue in the denominator. Each statue was coded for the following characteristics: time (eg, unveiling year), setting (eg, city), the statue subject's general characteristics (eg, sex), the subject's primary reason for fame (eg, politician), and the features of the statue (eg, statue material).

We defined a statue attack as being where there was documentation of an attack or from our field observations of obvious repairs, missing body parts (eg, noses), paint remnants, or graffiti.

Attack documentation consisted of reports in Papers Past (a collection of New Zealand and Pacific text items) or in online media reports.

We developed four *a priori* potentially controversial characteristics that may have made these statues controversial, at least to some of the public. We reviewed all of the identified statues to determine if the subject of the statue met any of these definitions; the characteristic categories were not mutually exclusive:

- **New Zealand colonialism or harm to Māori:** The statue subject was involved in colonialism in New Zealand or involved in specific harm to Māori. This was based on the grounds that such injustice may contribute to grievances that could contribute to subsequent statue attacks, based on international patterns of statue attack.
- **Military decision-maker:** The statue subject was a military decision-maker with any officer rank (for commissioned officers) or a political or other leader (ie, king or queen) playing a role in a war effort. This was based on the grounds that such leaders may be blamed for militarism in general or specific military events where relatives or friends were killed or injured, or particular injustices were done (eg, harming civilians).
- **Other military involvement:** The statue subject had any relationship to the military (ie, as per the point directly above), but including all military ranks. This was based on the potential for statues may be a focus of pacifist, anti-military and other objections to war, and the focus of activity by those impacted by military actions or thinking.
- **Militaristic element shown on the statue:** The actual statue had a militaristic feature built into it, such as a military uniform, firearm or sword etc.

The list of those statue subjects that fitted in these categories is detailed in the Supporting Information (Table S3, and Table S2 for the militaristic elements).

Statistical analyses were conducted using EpiInfo and OpenEpi. For the logistic and linear regression relating to risk factors for statue attack, we used R (version 3.4.3; 2017-11-30).

Results

Description of the statues

We identified 123 outdoor statues of modern-era named people in public settings throughout New Zealand (Table 1; additional details in the Supporting Information Table S2). Since the first such statue was unveiled in 1867, there was a U-shaped pattern of statue unveiling, with an initial peak in the 1920s, no unveilings in the 1940s and 1950s, and then with increased unveilings from the 1990s onwards (Fig. 1). These statues were primarily of men (87%) and Europeans (93%). Other ethnicities were 6% Māori and 1% each for Asian and Pacific peoples. The most common primary reason for notability in these statue subjects was being a military personnel (17%), then a politician (16%), and then an explorer or artist/writer (each 11%). There were more sports players (9%) than doctors (2%) or scientists (2%). Particular individuals also dominated: 24% of the statues were of people who had multiple statues ie, Captain Cook led with five; and Queen Victoria and Robbie Burns had four each.

Most statues were made of bronze (68%). Militaristic elements were present in 22% eg, military uniforms, swords, and firearms etc. Three statues had no associated name plaque and use of Māori language (Te Reo) on the plaque or monument was uncommon (6%).

Fig. 1: Number of statues of named individuals unveiled in public outdoor settings in New Zealand and first intentional attacks on each statue by decade

Note: For the last decade, data collection was not quite complete, ie, up to the 13 April 2019 (unveiling of the Lithgow statue)

Statue attacks

Of the 123 statues, 28 (23%) had been intentionally attacked at least once. Recorded statue attacks first began in the 1930s, but the number of attacks has risen since the 1990s (Fig. 1). There were an estimated 45 separate attacks on 28 statues (mean = 0.37 attacks per statue out of all 123 statues, or 7.8 attacks per 1000 statue-years of existence, Table 2). The most common type of attack was a paint attack or graffiti (14% of all statues for any attack), followed by nose removal or damage (7%) (Fig. 2 and the Supporting Information Fig. S1). Decapitation occurred a total of 11 times among six statues, with two statues decapitated multiple times (eg, five times for the statue of King George V at Matakana, Fig. 2). Three statues were destroyed in attacks and another stolen (Admiral Tait in Timaru). An attempt to topple a new bronze statue (of the military hero Charles Upham) with a concrete cutter by an anti-war demonstrator was stopped by nearby people and this statue was fully repaired [17].

Fig. 2: Panel A: Statue of the poet Robbie Burns (Hokitika) showing nose damage and suboptimal hand repair. Panel B: Statue of an explorer Abel Tasman whose expedition killed Māori when arriving in New Zealand. Panel C: Statue of Queen Victoria (Dunedin) with a suboptimal nose repair (all preceding photographs by the 2nd author, 2018/2019). Panel D: Decapitated statue of King George V (Matakana) – based on a screen shot of the Google Street View image in 2013.

A

B

C

D

Risk factors for statue attack

Statue characteristics that were significantly associated with any attack included being an older statue (ie, an earlier unveiling date), and not being made of bronze (eg, being made of marble) (Table 3). Risk of attack was relatively high for: royalty (50%), military personnel (33%), explorers (29%), and politicians (25%); but zero for sports players (0%).

In the logistic regression analysis adjusting for statue age and material (bronze vs other material), the statues of potentially controversial subjects involved in colonialism and harm to Māori (based on our *a priori* classification) were more likely to have been attacked: adjusted odds ratio (aOR) of 6.61 (95%CI: 2.30 to 19.9), compared to all other statues. Similarly for statue subjects having any involvement with the military compared to all other statues (aOR= 4.17; 95%CI: 1.65 to 11.3) (Table 4). The latter relationship with the military was also apparent when just considering statues of high ranked subjects (commissioned officers or political leaders) and if the statue displayed a militaristic element (statistically significant aORs of 2.86 and 2.44 respectively).

All these same four listed potentially controversial characteristics (relating to colonialism/harm to Māori, two types of military involvement and militaristic elements) were also statistically significant in terms of having higher numbers of past attacks when compared to the other statues (Table 5). In particular the statue subjects involved in colonialism or harm to Māori had the most additional attacks on average (ie, 1.0 extra, 95%CI: 0.7 to 1.4)

Additional qualitative analysis also indicated that of the attacked statues, nearly half (46%, 13/28) had some evidence to suggest that attack directly motivated by the statue subject's past colonial or military activity (see the Supporting Information Table S4 for more details on each attacked statue).

Table 1: Characteristics of all the 123 outdoor statues of named people in public settings throughout New Zealand identified in this survey

Characteristic	N	%	Comment
Time			
Unveiling year: median calendar year (interquartile range [IQR])	1993 (1923 to 2009)	–	See Fig. 1 for the time trends by decade. Full range was from 1867 to 2019.
– Mode	2009	–	There were 15 statues unveiled in this year.
Statue age: mean (years)	47.0 (SD = 45.6)	–	From unveiling date to the end of the year 2018 if still standing (otherwise to date of destruction, theft or to being moved indoors).
– median (IQR)	25.5 (7.5 to 96.3)	–	As above.
Statue-years (cumulative)	5780	–	As above.
Setting			
– City	91	74.0%	
– Town	31	25.2%	
– Rural	1	0.8%	
Statue moved from outdoors to an indoor location	14	11.4%	Most of these (n=12) were moved on a temporary basis to facilitate earthquake repairs on an adjacent building in Christchurch.
Statue subject characteristics			
Statues per subject			
– One	93	75.6%	
– Two or more	30	24.4%	The most frequent was for Captain Cook (n=5).
Sex			
– Male	107	87.0%	
– Female	16	13.0%	
Ethnicity			
– European	114	92.7%	Of these, 13% (n=15) were female.
– Māori	7	5.7%	Of these, 14% (n=1) were female.
– Pacific peoples	1	0.8%	This single statue was of Michael Jones, a rugby player (Supporting Information Fig. S2).
– Asian peoples	1	0.8%	This was of Mahatma Gandhi. There were nil statues of Asian people who had lived in NZ.
On a list of 100 most famous New Zealanders[16]	19	15.4%	Includes those with multiple statues erected (eg, George Grey, Edmund Hillary, Peter Snell).
Statue subject – primary reason for fame			
– Military personnel*	21	17.1%	Included 4 Victoria Cross winners.
– Politician	20	16.3%	Prime ministers, members of parliament, mayors.
– Explorer	14	11.4%	Eg, Abel Tasman Fig. 2.

Characteristic	N	%	Comment
– Artist/writer	13	10.6%	
– Sports player	11	8.9%	Eg, Michael Jones, a rugby player (Supporting Information Fig. S2).
– Business leader	10	8.1%	
– Founder (eg, of a town)	8	6.5%	
– Social activist	7	5.7%	
– Royalty	6	4.9%	King George V (n=2) and Queen Victoria (n=4).
– Other	13	10.4%	Religious leader (n=2), doctor (2), Māori leader (2), scientist (2), local character (n=2; “swagger” and legendary sheep rustler), and none of the above (ie, n=3; architect, aviator, engineer/philanthropist).
Statue features			
Statue material			
– Bronze	84	68.3%	
– Other materials	39	31.7%	Included marble, granite, concrete.
No plaque (ie, unnamed statue)	3	2.9%	Rudyard Kipling, John Ruskin, Camille Malfroy. The denominator (n=105) was the number of field observations.
Statue had a militaristic element	27	22.0%	Includes any of: military uniforms, swords, firearms, and spears. There were statues of people related to six different wars that involved NZ: the Musket Wars, the NZ Wars, South African War, First World War, Second World War and the Vietnam War.
Any Māori language text on the plaque or statue structure	7	5.7%	For any text but excluding the Māori name of the statue subject in one case.

* This was for the “primary” reason for fame. For our analysis of potential controversial military personnel (in Tables 4 and 5) we used an expanded definition to all those with a role military decision-maker (which included various people whose primary reason for fame was as a politician or King) (detailed in the Supporting Information, Table S3). Similarly, for any involvement in the military which also included the just mentioned group (some politicians) as well as explorers (eg, who were in the navy etc).

Table 2: Type of injuries from attacks on the outdoor statues in this survey

Type of intentional injury	N	%	Additional details
Any intentional physical damage or paint attack	28	22.8%	Some statues had multiple attacks ie, an estimated 42 separate attack events on these 28 statues (mean = 0.34 attacks per statue out of all 123 statues, or 7.3 attacks per 1000 statue-years of existence). See Fig. 1 for the time trends of first attacks by decade.
– Any paint attack/graffiti	17	13.8%	Some of these attacks were not historically documented but were inferred from paint remnants on the statue from field observations. We included attacks with words painted on the statue and one attack with nugget (shoe polish). For statues that reported “multiple” paint attacks, we used 2 attacks per statue in the analysis. There were a total of 20 known paint attacks used in the analysis.

Type of intentional injury	N	%	Additional details
– Any nose removal/damage	8	6.5%	In most cases the nose was removed (eg, Fig. 2, Supporting Information Fig. S1). For 3 attacks on bronzes there was just denting of the nose. For one statue with reported “multiple” nose losses we used “2 attacks” in the analysis. There were a total of 9 attacks used in the analysis.
– Any decapitation	6	4.9%	Included statues: John Ballance (Whanganui) [twice]; John Ballance (Wellington); Robbie Burns (Timaru); King George V (Matakana) [five times, eg, Fig. 2]; George Grey (Auckland); Field Marshal Kitchener (Auckland). Two statues had multiple decapitations so there were 11 decapitations among these six statues.
– Complete destruction or removal	3	2.4%	Included statues: John Ballance (Whanganui), following a period of being headless; the bust of Admiral Tait (Timaru) was stolen; after decapitation, the remains of the Kitchener statue (Auckland) were taken down and the statue was never replaced.
– Any other injuries	8	6.5%	These included the removal of a foot and hands, damage to fingers, denting of parts of the head (other than nose), and damage from an attempt to topple a statue with a concrete cutter.

Table 3: Characteristics of attacked (n=28) and non-attacked (n=95) statues (for any attacks over the “lifetime” of each statue)

Characteristics	Risk of attack in group of interest	Risk of attack in comparison group	P-value*
Statue subject characteristics			
Male (n=107) (vs comparison group: female)	24.3%	12.5%	0.3171
European (n=114) vs other ethnicities	23.7%	11.1%	0.4372
Statue subject – primary reason for fame**			
Royalty (king or queen) (n=6) vs not royalty	50.0%	21.4%	0.1543
Military personnel*** (n=21) vs other	33.3%	20.6%	0.1133
Explorer (n=14) vs other	28.6%	22.0%	0.5823
Politician (n=20) vs other	25.0%	22.3%	0.7798
Sports player (n=11) vs other	0.0%	20.0%	0.0960
Statue features			
Statue mean age (years) in attacked statues (vs not attacked)	62.8 years (SD=43.0)	42.3 years (SD=45.5)	0.0365 (ANOVA)
Not made out of bronze (n=39) (ie, marble, concrete, composite materials) vs bronze	38.5%	15.5%	0.0034

* Mid-P exact test (unless otherwise stated).

** There were no attacks on statues of: social activists (n=7), religious leaders (n=3), doctors (n=2), or scientists (n=2).

*** See explanatory footnote following Table 1.

Table 4: Risk of attack by potentially controversial aspects, including with adjustment for age and statue material (for any attacks over the “lifetime” of each statue)

Potentially controversial aspect	Risk of attack in group of interest	Risk of attack in comparison group	Crude odds ratio (OR)	Adjusted odds ratio (aOR) on logistic regression, (95%CI) and p-value; (adjustment for statue age and material)
Statue subject involved in colonialism in NZ or specific harm to Māori (n=22)	59.1% (13/22)	14.9% (15/101)	8.25 (3.06 to 23.6); p<0.0001	6.61 (2.30 to 19.9); p=0.0005
Statue subject was a military decision-maker (commissioned officer rank or political leader) (n=42)	38.1% (16/42)	14.8% (12/81)	3.54 (1.49 to 8.65); p=0.0046	2.86 (1.16 to 7.19); p=0.0229
Statue subject had any involvement with the military (n=51)	39.2% (20/51)	11.1% (8/72)	5.16 (2.11 to 13.7); p=0.0005	4.17 (1.65 to 11.3); p=0.0034
Statue had a militaristic element (see Table 1) (n=27)	40.7% (11/27)	17.7% (17/96)	3.19 (1.25 to 8.12); p=0.0143	2.44 (0.86 to 6.84); p=0.0890

Table 5: Comparison on frequency of attacks by statue characteristics (linear regression analyses)

Characteristic	Mean number of attacks for group of interest	Mean number of attacks for the comparison group	P-value (Kruskal-Wallis [KW] test for two groups) on crude analysis	Mean difference on adjusted analysis (statue age and material) (95%CI)
Statue characteristics				
Statue unveiled before World War 2 (n=44) vs after this war started	0.66	0.20	0.0051	–
Statue made of bronze (n=84) vs other material (ie, marble, concrete, composite materials)	0.23	0.67	0.0048	–
Potentially controversial aspect				
Statue subject involved in colonialism in NZ or specific harm to Māori (n=22)	1.27	0.17	<0.0001	1.03 (0.68 to 1.37)
Statue subject was a military decision-maker (commissioned officer rank or political leader) (n=42)	0.69	0.20	0.0024	0.40 (0.10 to 0.70)
Statue subject had any involvement with the military (n=51)	0.69	0.14	0.0002	0.46 (0.17 to 0.75)
Statue had a militaristic element (see Table 1) (n=27)	0.78	0.25	0.0082	0.44 (0.08 to 0.81)

Discussion

Main findings and interpretation

This study found that 23% of New Zealand's outdoor public statues had been attacked at least once (a total of 45 attacks), with an increase in the number of attacks in the last three decades. Injuries ranged from paint attacks that can be relatively easy to repair, to decapitation and even complete statue destruction. We found that attacks were significantly more common on statues where the statue subject was involved in colonialism or specific harm to Māori, or was linked with militarism. This is consistent with the international pattern of statue attacks (see *Introduction*). Indeed, attacks have occurred internationally on some of the exact same figures elsewhere eg, Captain Cook in Australia [18], and King George V in South Africa [19].

The quantitative analysis results were also supported by those from the qualitative analysis that indicated that of the attacked statues, nearly half (46%) had some evidence linking the statue subject to colonial or military activity eg, attacks on the statues of former Prime Minister Ballance [20], and George Grey [21] (Supporting Information Table S4). Furthermore, New Zealand's participation in international conflicts might explain attacks on Field Marshal Kitchener (South African War and the First World War) and former Prime Minister Holyoake (Vietnam War). Nevertheless, some of the other attacks might be more in the domain of “pranks” as per the decapitation of the poet Robbie Burns in Timaru and the repeated nose thefts of the philanthropist Atkinson in Auckland.

The disproportionate domination of statue subjects by European males (relative to Māori, Pacific peoples, Asian peoples and women) seems likely to reflect historical and persisting power relations in New Zealand society. Nevertheless, there is a renaissance of Māori art forms that include art works outside traditional European definitions of statues eg, construction of “pou” (involving ancestor representations) as well as statues in private settings such as marae, and in urupā (Māori cemeteries) [22].

Study strengths and limitations

A strength of this study was that it is the first full national survey of statues and statue attacks in any nation (to the best of our knowledge), and included field visits to all the identified outdoor statues. This achievement was facilitated by New Zealand having a relatively small population and having detailed historical documentation with the digitalisation of historic New Zealand newspapers (ie, *Papers Past*). Our field work was also assisted by the low-quality of some statue repair work which allowed for the ready diagnosis of past injuries eg, the crude nose replacements for Queen Victoria and Earl Jellicoe (Fig. 2 and Supporting Information Fig. S1). Similarly for statues being left unrepaired eg, the missing nose on Robbie Burns in the town of Hokitika (Fig. 2).

A possible limitation was that we may still have missed some statues and the historical documentation of their past attacks with our search strategies (eg, as per the upper estimate of the sensitivity of our initial strategy at 94%). It might be that to avoid additional attacks, the police and various local government agencies purposefully avoided media coverage of an attack and that the repairs were conducted discretely. Also, although we used cameras with telephoto capacity, we might have missed some signs of injuries or repairs of statues on tall plinths (eg, as per one example shown in Fig. S3, Supporting Information). Our definitions were also somewhat

conservative in that for physical attacks we did not include damage to: secondary figures which were part of an overall memorial (eg, the statue of a Māori warrior beneath a statue of George V in Rotorua was completely destroyed in a 1936 attack); and damage to non-body parts of the main statue (eg, to walking sticks etc). We also conservatively counted reports of “multiple” past attacks (eg, theft of a nose) as only “two” attacks.

Potential policy responses

No policy-maker is likely to be particularly concerned with attacks of statues in their decisions around social policy interventions or military endeavours. Nevertheless, statue attacks might decline if, for more important social reasons, the New Zealand Government better addresses the ongoing consequences of colonialism and minimises entanglements with foreign wars. An example is the New Zealand Government processes in place for addressing historical injustices against Māori, such as the Waitangi Tribunal process.

More specifically, there is a case for new statues to better represent the current New Zealand population and so new ones of Māori, Pacific peoples, Asian peoples and women could all be considered. But alternatives to statues also exist that may have more public utility, for example naming more parks, playgrounds, buildings and other civil infrastructure after significant people from underrepresented groups.

Existing statues can also be provided with different contexts, or moved. Different contexts could be achieved by the addition of “alternate history” figures, or by explanatory information. If removal was decided upon, controversial statues could be the first to go – potentially with associated public ceremonies to “take the power out” of them [1]. The range of removal options include relocation to statue parks or cemeteries where status can be better contextualised (eg, the statue subject’s violent/imperialist/racist activities detailed in accompanying information boards). But controversial statues could also be completely removed from the public sphere to museum facilities (even to storerooms where they are only available to historical researchers). This may be the appropriate action for a number of New Zealand statues eg, for Captain Hamilton, George Grey and John Ballance (all active in colonial wars); Edward Wakefield (a colonialist who was also imprisoned for child abduction); and Lord Auckland (a colonial figure involved in an invasion of Afghanistan, with his statue being imported to Auckland City when India wanted it removed).

In addition to the removal of controversial statues, there could also be retirement of some of those statues of European men who are of little historical relevance (eg, small town mayors). Some of these statues already show signs of neglect given the level of surface erosion and lichen encrustation (see Fig. S4 in Supporting Information). Indeed, there could be cost savings for society if such statues are removed and don’t require expensive repairs (eg, see the *Introduction* for an example repair cost).

Conclusions

There is quantitative and qualitative evidence that attacks on some of these statues in New Zealand may reflect the role of statue subjects in past and ongoing social injustices and in

militarism. Furthermore, the demography of the statue subjects in this country represent historical and current social power relationships – with under-representation of women and non-European ethnic groups.

Acknowledgements: We thank Ashley Wilson and Catherine Ferguson for assistance with data collection.

Funding: There was no funding source for this study.

Competing interests: None declared.

References

1. Mervosh S. What should happen to Confederate statues? A city auctions one for \$1.4 million. *New York Times* 2019;(22 June). <https://www.nytimes.com/2019/06/22/us/confederate-statues-dallas-nashville.html>.
2. Associated Press. San Francisco to remove statue deemed racist and demeaning to indigenous groups. *TV1 News* (14 September). 2018. <https://www.tvnz.co.nz/one-news/world/san-francisco-remove-statue-deemed-racist-and-demeaning-indigenous-groups>.
3. Bellafante G. Statue of doctor who did slave experiments is exiled. Its ideas are not. *New York Times* 2018;(18 April). <https://www.nytimes.com/2018/04/18/nyregion/sims-sculpture-green-wood-cemetery.html>.
4. Kelly K. Decapitating Lenin statues is the hottest new trend in Ukraine. *Vice* (26 May 2017). https://www.vice.com/en_nz/article/nejpwx/decapitating-lenin-statues-is-the-hottest-new-trend-in-ukraine.
5. Dublin City Council. Statue of King William III. Dublin, February 2019. <https://www.dublincity.ie/story/statue-king-william-iii>
6. Taylor A. The statue of a wartime sex slave outside Japan's embassy in South Korea could be a problem. *The Washington Post* 2015 (29 December). <https://www.washingtonpost.com/news/worldviews/wp/2015/12/29/the-statue-of-a-wartime-sex-slave-outside-japans-embassy-in-south-korea-could-be-a-problem/>.
7. BBC World News. Osaka cuts San Francisco ties over 'comfort women' statue. *BBC World News* 2018;(4 October). <https://www.bbc.com/news/world-us-canada-45747803>.
8. Marusic S-J. Macedonia to rename divisive statues that irked Greece. *BalkanInsight* 2018(15 June). <https://balkaninsight.com/2018/06/15/divisive-skopje-2014-landmarks-find-new-purpose-06-14-2018/>.
9. Wikipedia. Bronze Soldier of Tallinn. [Version last edited on 6 May 2019]. https://en.wikipedia.org/wiki/Bronze_Soldier_of_Tallinn.
10. BBC News. Indian farmers fume at \$430m cost of Gujarat statue. *BBC News* 2018;(28 October) <https://www.bbc.com/news/world-asia-india-45978120>.
11. Prasad I. Why giant statues of Hindu gods and leaders are making Muslims in India nervous. *The Conversation* (11 April 2019). <http://theconversation.com/why-giant-statues-of-hindu-gods-and-leaders-are-making-muslims-in-india-nervous-112818>.
12. Ward A. *An Unsettled History: Treaty Claims in New Zealand Today*. Wellington: Bridget Williams Books, 1999.

13. Brookes B. A history of New Zealand women. Wellington: Bridget Williams Books, 2016.
14. Statistics New Zealand. 2013 Census QuickStats about culture and identity. Statistics New Zealand, 2014. <http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-culture-identity.aspx>.
15. Harvie W. Christchurch's Robert Falcon Scott statue gets base isolation. Stuff 2017;(6 October). <https://i.stuff.co.nz/the-press/business/the-rebuild/97546869/christchurchs-robert-falcon-scott-statue-gets-base-isolation>.
16. Wikipedia. New Zealand's Top 100 History Makers. https://en.m.wikipedia.org/wiki/New_Zealand%27s_Top_100_History_Makers (accessed 21 September 2018).
17. Henzell J. Religious eccentric wins right of appeal. The Press. 6 June, 2007.
18. Hinchliffe J. Pink paint poured on Captain Cook's statue on eve of Australia Day. The Age 2018;(25 January). <https://www.theage.com.au/national/victoria/pink-paint-poured-on-captain-cook-s-statue-on-eve-of-australia-day-20180125-p4yyvg.html>.
19. Manda S. George V statue vandalised again. Independent Online 2015;(30 March). <https://www.iol.co.za/news/south-africa/kwazulu-natal/george-v-statue-vandalised-again-1838807>.
20. Schrader B. Public protest - Sit-ins and occupations. Te Ara - the Encyclopedia of New Zealand, <http://www.TeAra.govt.nz/en/photograph/35094/ballance-beheaded> (accessed 2 September 2017).
21. Stocker M. "Director of the Canoe": The Auckland Statue of Sir George Grey. Melbourne Art Journal. 2009;11-12:57-8.
22. Hawke's Bay Tourism. Nga Pou o Heretaunga. <https://www.hawkesbaynz.com/visit/us/nga-pou-o-heretaunga> [Accessed 9 November 2019].

Supporting Information

Additional methods details

Search strategy for statues and information on them: No detailed list of existing statues in New Zealand could be identified, so we used the following sources to help identify them: books on New Zealand sculpture [1] [2], and memorials [3]; a list of memorials and monuments in a New Zealand Encyclopaedia [4]; a city-specific sculpture websites [5] [6], and an international statue website [7].

To identify additional statues we conducted searches in Google Images using the following search terms (all conducted in September 2018):

- “Statue and Zealand and [city name]” for all New Zealand cities (ie, urban centres with a population of 50,000+ [~100 images each]): Auckland, Wellington, Christchurch, Hamilton, Tauranga, Napier-Hastings, Dunedin, Palmerston North, Nelson, Rotorua, Whangarei, New Plymouth, and Invercargill.
- “Statue and Zealand and [name]” for a list of 100 famous New Zealanders ranked out of 430 notable people by a panel on a television series on famous New Zealanders [8].
- “Statue and Zealand” (for all 100+ images returned)
- “Bust and Zealand” (for all 100+ images returned)
- “Bas relief” and Zealand (for all images returned)
- “Zealand statue unveiled ” (for all images returned)

After the above, further searches were made using “Papers Past” [9], which has a national repository for all New Zealand newspaper issues published from 1/1/1839 to 31/12/1949. Search terms included the exact phrase of “statue unveiled” and “statue unveiling” (and similarly for “bust”). But also to identify less well documented statues of Māori, we also searched using “Maori and statue”. Google Image searches and the Papers Past searches were terminated when yielding under one new statue for 30 minutes of search time with each respective search engine. For additional context on the statues, we searched Google Scholar for scholarly literature relating to statues in New Zealand (eg, [3] [10-14]).

Evaluating search strategy sensitivity: We evaluated our search strategy by conducting additional searching for all the statues in New Zealand’s largest city: Auckland. This involved searches by a different co-author (the last named author) from the original searches detailed above (by the first author). The searches involved some of the same, but also additional elements to the above searches:

- Google Images, using all of: ‘Auckland’ ‘Zealand’ ‘statue OR bust’
- The largest newspaper based in Auckland (the NZ Herald), using: ‘statue’ ‘Zealand’ (first 15 pages); and ‘statue’ ‘Auckland’ (all 20 pages)
- The Factiva Database for “NZ publications” and “all dates” with the terms:
 - ‘statue and Auckland and unveiling’ (all 69 returns)
 - ‘statue and Zealand and unveiling’ (all 100 returns)
- “Papers Past”, using: ‘Auckland’ and ‘statue’

This extra strategy identified no new statues (out of the 16 statues in Auckland), giving us some confidence that the original strategy was fairly sensitive. Furthermore, *Papers Past* appeared to typically have multiple newspaper items that documented the same statue unveiling – suggesting that this was a relatively sensitive mechanism for statue identification. Nevertheless, subsequent to the original searches, we did incidentally locate six additional statues as a result of both further internet searches (n=3), and field work (n=3) up to the last inclusion date (13 April 2019 when the statue of Lithgow was unveiled). This suggested our initial search strategy was no more than 94% sensitive (116/123).

Statue attack data: Identifying a statue as per the above search strategies frequently revealed historical information about attacks on the statue. But we also performed additional searches in *Papers Past* and with search terms including the words: statue and vandalism; statue and paint and damage; statue decapitation. Similarly for Google searches: Zealand and statue and decapitation/graffiti/stolen/broken.

Field data: Site visits to all the statues that were still outdoors were conducted between September 2018 and August 2019. Photographs were taken of the setting and from all sides of the statues (including of any associated plaques or information boards). In particular, evidence for past and current injuries (including attacks with paint) were closely looked for eg, in nostrils and ear canals – where removal of paint is more difficult.

Data coding and analysis: Data from internet searches and field visits were collated in an Excel file and analysed. The denominator used was for all statues unveiled at any time up to the last inclusion date (13 April 2019). This therefore included all those subsequently destroyed (n=3), stolen (n=1), or moved from outdoors and into interior settings (n=14). When a stolen statue was replaced (n=1) this was included as a new statue in the denominator.

We defined statue attacks as being where there was documentation of a historical attack (eg, in *Papers Past* or in online media reports) or from our field observations of obvious repairs or selected missing body parts (eg, noses), paint remnants, or graffiti. Not included were minor embellishments such as the addition of lipstick to the statues' lips, application of chewing gum, clothing added to the statue or having traffic cones placed on their heads. We also excluded damage that was unintentional eg, the multiple statues damaged by the 2011 Christchurch earthquake and statues destroyed by fungal infection (eg, George Grey in Greytown).

Table S1: Reasons for excluding certain types of statues with examples

Reason for exclusion	Selected example/s
Subject of the statue did not meet the following three criteria: 1. an actual person 2. a non-foundational religious figure 3. part of the modern era (from Tasman's first visit in 1642AD)	<ul style="list-style-type: none"> Generic figures: eg, many generic soldier figures on war memorials around NZ (eg, "Trooper Mackenzie" (Fairlie)); "Art Deco Woman" (Napier); "Barry" (Katikati); Rangatira (Waihi); the statue at the grave of Harry Holland (Wellington) which is a figurative one of a young man. Foundational religious figures: Virgin Mary, Jesus. Pre-European ancestors of Māori: the 18 pou with representations of Māori ancestors: "Ngā Pou O Heretaunga" (Hastings); Kupe (group statue in Wellington), Kupe (Whāingaroa). Fictional characters from books eg, Peter Pan (Dunedin).
Statue was only ever on temporary display outdoors	Various works by the artist Sam Mahon (eg, of Catherine Sintenie, Nick Smith); Dorothy Theomin (bust, Dunedin).
Statue is not in a public setting (eg, in a marae, cemetery or urupā [Māori cemetery], or school). We made this criteria to ensure that the statues were likely to represent a relatively public figure – and not be for a person who was significant just to their family, family group, or iwi (tribe).	<ul style="list-style-type: none"> Statues on marae/urupā (eg, of: Maui Pomare, Tangatahara, King Mahuta, Pouawha Meihana, Henare Pohio). Statues in school grounds: Captain James Cook, James (Jack) Lovelock, St John Baptist De La Salle. Statue in a fenced stadium (ie, not routinely accessible to the public): Arthur Lydiard. Statues on private land: Richard Nixon (Nelson), Tommy Solomon (Chatham Islands), Mark Twain (Matakana), Edwin Mitchelson (Auckland), Edmund Hillary (Mt Cook – within hotel premises). Statues in cemeteries: Harry Holland (Wellington).
The main statue is to something else with the person being secondary	The jockey (Jim Pike) on the statue of the racehorse Phar Lap (which is the primary statue).
Statue has always been located indoors	Kate Sheppard (Wellington); Seddon (bust in Wellington); Tupai (bust in Wellington); Kiri Te Kanawa (Auckland); Te Heuheu Tukino IV (Horonuku) (National Park, Mt Ruapehu).
Statue is clearly miniaturised (ie, half-sized or less in height)	Dick Henderson with wounded soldier on a donkey (Wellington).
The statue has no three dimensionality (in contrast to a bas relief)	Caesar Roose (Hamilton)
Bas relief is not full length; or is only a component of a larger statue	Jean Batten (Rotorua), Austen Deans (Mt Peel)
The work is limited to being a carved head on a building	Various members of Royalty (eg, High Court Building, Auckland)

Table S2: Full list of the 123 outdoor statues in public places identified in New Zealand (ordered by surname), their location and presence of militaristic elements (uniform, firearm, sword etc)

Surname, first name	Location and notes	Militaristic element on statue
Alley, Rewi	Auckland	
Atkinson, Henry	Auckland	
Auckland, Lord (George Eden)	Auckland	
Ballance, John	Wellington	
Ballance, John	Whanganui (outside Council Buildings)	
Ballance, John	Whanganui (statue attacked and destroyed, Moutoa Gardens)	
Batten, Jean	Auckland	
Beavon, Professor Sir Donald Ward	Christchurch	
Bourne, Possum	Auckland (Pukekohe)	
Burns, Robert (Robbie)	Auckland	
Burns, Robert (Robbie)	Dunedin	
Burns, Robert (Robbie)	Hokitika (see Fig. 2, main text)	
Burns, Robert (Robbie)	Timaru	
Byrd, Rear Admiral Richard Evelyn	Dunedin	
Byrd, Rear Admiral Richard Evelyn	Wellington	
Cain, Captain Henry	Timaru	
Campbell, John Logan	Auckland	
Carrington, Frederic	New Plymouth	
Carter, Charles Rooking	Carterton	
Colvin, James	Westport	
Cook, Captain James	Auckland (this was originally outside a brewery but has since been moved indoors)	Yes
Cook, Captain James	Christchurch	Yes
Cook, Captain James	Gisborne (was on Kaiti Hill but was moved to a museum in 2019)	Yes
Cook, Captain James	Gisborne (river mouth location)	Yes
Cook, Captain James	Marton	Yes
Cruickshank, Dr Margaret	Waimate	
Crumen, Barrett ("Russian Jack")	Masterton	
Daldy, Amey	Christchurch (temporarily in storage)	
Dickson, Frank	Christchurch (temporarily in storage)	
Elworthy, Rt Hon Lord (Samuel Charles)	Timaru	
Fantham, A.A.	Hawera (Taranaki)	
Fitzgerald, James Edward	Christchurch	
Fitzsimmons, Bob	Timaru	
Fraser, Peter	Wellington	

Surname, first name	Location and notes	Militaristic element on statue
Freyberg, Lord Bernard	Auckland	Yes
Gallaher, Dave	Auckland	
Gandhi, Mahatma	Wellington	
George V, King	Matakana (town near Warkworth) (see Fig. 2 main text)	Yes
George V, King	Rotorua	Yes
Godley, John Robert	Christchurch	
Grant, John (VC)	Hawera (Taranaki)	Yes
Grey, Sir George	Auckland	
Grey, Sir George	Greytown (was destroyed by fungal infection)	
Grigg, John	Ashburton	
Hadlee, Sir Richard John	Christchurch (temporarily in storage)	
Hamilton, Captain John Fane Charles	Hamilton	Yes
Herd, David	Blenheim	
Hillary, Sir Edmund	Orewa	
Holyoake, Sir Keith	Wellington	
Isaac, Lady Diana	Christchurch (temporarily in storage)	
Jellicoe, Earl John	Invercargill (see Fig. S1)	Yes
Joll, Thomas Langdon	Okaiawa (Taranaki)	
Jones, Michael	Auckland (see Fig. S2)	
Jordan, Canon Charles	Tauranga	Yes
Kipling, Rudyard	Christchurch	
Kitchener, Field Marshal Horatio Herbert	Auckland (destroyed in an attack)	Yes
Kitchener, Field Marshal Horatio Herbert	Invercargill	Yes
Laurent, Henry (VC)	Hawera (Taranaki)	Yes
Lindauer, Gottfried	Woodville	
Lithgow, Alex	Invercargill	
Little, Dr Charles	Waikari (North Canterbury) (see Fig. S4)	
Locke, Elsie	Christchurch (temporarily in storage)	
Luney, Charles	Christchurch (temporarily in storage)	
Macandrew, James	Dunedin	
Mackenzie, James	Fairlie (South Canterbury)	
Mahy, Margaret	Christchurch (temporarily in storage)	
Malfroy, Camille	Rotorua	
Malone, Lieutenant Colonel William	Stratford (Taranaki)	Yes
Mangakāhia, Meri Te Tai	Christchurch (part of suffragette bas-relief)	
Mansfield, Katherine	Wellington	
Masters, Joseph	Masterton	

Surname, first name	Location and notes	Militaristic element on statue
McKinnon, Quintin	Te Anau	
Meads, Sir Colin	Te Kuiti	
Meryon, Charles	Akaroa	
Monro, Charles	Palmerston North	
Moore-Jones, Horace	Hamilton	Yes
Moorhouse, William Sefton	Christchurch	
Morison, Harriet	Christchurch (part of suffragette bas-relief)	
Munro, Burt	Invercargill	
Nelson, William	Hastings	
Nicholas, Henry James (VC)	Christchurch	Yes
Nicol, Helen	Christchurch (part of suffragette bas-relief)	
O'Regan, Sir Tipene	Christchurch (temporarily in storage)	
Plimmer, John	Wellington	
Rees, William Gilbert	Queenstown	
Robinson, Sir Dove-Myer	Auckland	
Rolleston, William	Christchurch	
Ruskin, John	Christchurch	
Russell, Sir Andrew	Hastings	Yes
Rutherford, Ernest	Brightwater (Nelson)	
Scott, Sir Robert Falcon	Christchurch	
Seddon, Richard (Dick)	Hokitika	
Seddon, Richard (Dick)	Wellington	
Sheppard, Kate	Christchurch (part of suffragette bas-relief)	
Snell, Sir Peter	Opunake (Taranaki)	
Snell, Sir Peter	Whanganui	
Stewart, Sir Robertson	Christchurch (temporarily in storage)	
Stuart, Rev Dr Donald	Dunedin	
Sutton, Bill	Christchurch (temporarily in storage)	
Tait, Admiral Sir Gordon	Timaru (stolen)	
Tait, Admiral Sir Gordon	Timaru (replacement of stolen one)	
Tait, Sir Angus	Christchurch (temporarily in storage)	
Tasman, Abel	Nelson (see Fig. 2, main text)	Yes
Te Awe Awe, Te Peeti	Palmerston North	Yes
Te Keepa Te Rangihwinui	Whanganui	Yes
Te Rauparaha	Otaki	
Te Wainohu, Henare Wepiha	Wairoa	Yes
Thomson, John Turnbull	Ranfurly (Otago)	
Upham, Charles (VC)	Amberley (North Canterbury)	Yes

Surname, first name	Location and notes	Militaristic element on statue
Victoria, Queen	Auckland	
Victoria, Queen	Christchurch	
Victoria, Queen	Dunedin (see Fig. 2, main text)	Yes
Victoria, Queen	Wellington	
Wakefield, Edward Gibbon	Wellington	
Walker, Sir John	Auckland	
Ward, Sir Joseph	Bluff (Southland)	
Warren, Sir Miles	Christchurch (temporarily in storage)	
Wellington, Duke of	Wellington	
Wells, Ada	Christchurch (part of suffragette bas-relief)	
Whakarua, Herewini	Whanganui (see Fig. S3)	Yes
Worsley, Frank	Akaroa	
Wylie, Fred W.	Rotorua	Yes
Young, Nicholas ("Young Nick")	Gisborne	

Table S3. A priori classification of statue subjects in terms of colonialism/harm to Māori, being important military decision-makers, and having any association with the military

Name of the statue subject	Reason for fame	Involved in colonialism in NZ or specific harm to Māori	Military decision-maker (Commissioned Officer rank* or political leader)	Any involvement with the military	Notes
Auckland, Lord	Auckland City named after him; Colonial Administrator & politician	No	Yes	Yes	He was a decision-maker involved in an invasion of Afghanistan by British military forces (the First Anglo-Afghan War, 1838–1842). We acknowledge that this was an event distant in time and place from NZ – but it was still a major military action.
Ballance, John	Prime Minister of NZ	Yes	No	Yes	He was involved in the NZ Wars [12], which were land wars between colonial forces and Māori. While he “saw some limited action with the Wanganui Cavalry Volunteers” [15], his military rank is assumed to have been low. Although he became Minister of Defence and Prime Minister, these were after the time of the NZ Wars.
Byrd, Rear Admiral	Explorer	No	Yes	Yes	He was involved in the First (WW1) and Second (WW2) World Wars and was then as an explorer as a US naval officer. He achieved the rank of Rear Admiral. However, his main fame was for exploration.
Cook, James [Captain]	Explorer	Yes	Yes	Yes	He was the expedition leader when some local Māori were killed by his crew at the time of his visit to Gisborne in 1769. This European contact also symbolises the start of the loss of Māori land to Europeans in the subsequent century and longer. After being a Captain in the Royal Navy, his rank rose to that of a Commander and then a “Post-captain”.
Elworthy, Rt Hon Lord (Samuel Charles)	Military leader in WW2	No	Yes	Yes	He was a Commander in the Air Force in WW2, and subsequently became Chief of the Defence Staff [16].
Fraser, Peter	Prime Minister of NZ	No	Yes	Yes	He was the key political figure in NZ’s contribution to WW2 ie, from 1939 “Fraser assumed the direction of the New Zealand war effort” [17]. His government also imposed harsh penalties on war objectors during and after WW2 [18]. However, he was jailed for anti-conscription activity in WW1 [18].
Freyberg, Lord Bernard	Military leader/Governor General	No	Yes	Yes	He was a professional soldier for most of his working life. He participated in WW1 and WW2 and in the latter was a Lieutenant General [16].
Gallaher, Dave	Top rugby player	No	No	Yes	He was involved in the South African War and WW1. He achieved the rank of sergeant [16]. But his main fame was as a rugby player.

Name of the statue subject	Reason for fame	Involved in colonialism in NZ or specific harm to Māori	Military decision-maker (Commissioned Officer rank* or political leader)	Any involvement with the military	Notes
George V [King]	King of the UK and the British Dominions (including NZ)	Yes	Yes	Yes	He was King from 1910 to 1936, a time when the British Crown substantially ignored its Treaty of Waitangi obligations. His deficient role is given emphasis as he (as the Crown) was the direct Treaty partner with Māori in NZ. Indeed, during his reign in 1914 and 1924 deputations of Māori travelled to England to take petitions based on the Treaty to the British monarch and the British Government [19]. He had a powerful figurehead role during WW1 and he was very active in visiting the troops. In terms of military ranks for NZ, the highest ranks are taken by royalty eg, the admiral of the fleet (navy) and field marshal (army).
Grant, John	VC winner in WW1	No	Yes	Yes	He was a soldier in WW1 and reached the rank of 2nd Lieutenant [16].
Grey, George [Sir]	Governor of NZ; Premier of NZ	Yes	Yes	Yes	He was involved in the NZ Wars where Māori land was taken [10]. His position as Governor of New Zealand, although a mainly political one, can be regarded as equivalent to a high ranking military one during the time of the NZ Wars.
Hamilton, John [Captain]	Military leader/ City of Hamilton named after him	Yes	Yes	Yes	He was involved in the Battle of Gate Pā (NZ Wars) where Māori were killed. His highest rank was as a Commander in the navy.
Holyoake, Keith	Prime Minister	No	Yes	Yes	He was Prime Minister of NZ when the Government sent military personnel to the Vietnam war in the 1960s [20].
Jellicoe, John Rushworth [Earl]	Military leader and Governor General of NZ	No	Yes	Yes	He was an Admiral of the Fleet in WW1 (British Navy).
Kitchener, Horatio Herbert [Field Marshal]	Military leader in WW1	No	Yes	Yes	He was a Field Marshal in WW1 (British Army). He was a key figure in setting up concentration camps in the South African War.
Laurent, Henry	VC winner in WW1	No	Yes	Yes	He was a soldier in WW1. He reached the rank of Lieutenant Colonel in WW2 [16].
Malone, William	Military leader/ war hero	No	Yes	Yes	He was an officer in WW1. He reached the rank of Lieutenant Colonel [16].
Moore-Jones, Horace	Soldier artist	No	No	Yes	He was involved in the South African War and WW1. He achieved the rank of sapper [16].

Name of the statue subject	Reason for fame	Involved in colonialism in NZ or specific harm to Māori	Military decision-maker (Commissioned Officer rank* or political leader)	Any involvement with the military	Notes
Nicholas, Henry James	VC winner in WW1	No	No	Yes	He was an soldier in WW1 and he reached the rank of Sergeant [16].
Russell, Sir Andrew	Military leader	No	Yes	Yes	He was an officer in WW1 and he reached the rank of Major General [16].
Scott, Sir Robert Falcon	Explorer	No	Yes	Yes	He achieved the high military ranking of "Naval Assistant to the Second Sea Lord". However, his main fame has been as an explorer.
Seddon, Richard	Prime Minister	No	Yes	Yes	He was the Prime Minister throughout the period of the South African War. Indeed, "he also attracted much publicity for his outspokenness about the South African war: he visited South Africa in 1902 at General Kitchener's invitation. He was increasingly ready to arouse and exploit popular nationalism" [21].
Tait, Gordon [Admiral Sir]	Military leader	No	Yes	Yes	He was an Admiral in WW2 (British Navy).
Tasman, Abel	Explorer and navigator	Yes	Yes	Yes	He was the leader when Māori were killed in an encounter with his ships. His highest rank was a Commander.
Te Awe Awe, Te Peeti	Māori Chief involved in the NZ Wars and also land disputes	Yes	Yes	Yes	He was part of an alliance with the Crown in the Taranaki Campaign in the NZ Wars [22]. His military rank status was not identified in our literature search, but we consider it likely to be at least officer level equivalency given his status as a chief. He was also involved in land disputes with other Māori tribes [22].
Te Keepa Te Rangihīwinui	Māori Chief involved in the NZ Wars	Yes	Yes	Yes	He was a military leader in alliances with the Crown in the NZ Wars [23]. His highest rank was Major.
Te Rauparaha	Māori Chief/military leader	Yes	Yes	Yes	He was involved in the "Musket Wars". He can be considered to have been of a high military rank given his military leadership of his tribe, Ngāti Toa [24].
Te Wainohu, Rev Henare Wepiha	Chaplain for Pioneer Battalion (WW1)	No	Yes	Yes	He was involved in WW1 as a high ranking army chaplain (attained the rank of Chaplain Class III (Major)) [16]. He was part of the first Māori unit to serve in WW1.
Upham, Charles	Military hero (two Victoria Crosses)	No	Yes	Yes	He was a soldier in WW2, and he achieved the rank of Captain [16].

Name of the statue subject	Reason for fame	Involved in colonialism in NZ or specific harm to Māori	Military decision-maker (Commissioned Officer rank* or political leader)	Any involvement with the military	Notes
Victoria, Queen	Queen of the UK and the British Dominions (including NZ)	Yes	Yes	Yes	She was Queen and was symbolic of the British colonial empire. In particular, she was Queen during the NZ Wars and during a period when the Treaty of Waitangi was dishonoured by the Crown [25]. Her deficient role is given emphasis as she (as the Crown) was the direct Treaty partner with Māori in NZ. Indeed, during her reign in 1882 and 1884 deputations of Māori travelled to England to take petitions based on the Treaty to the British monarch and the British Government [19]. See under George V as per the military status of Royalty.
Wakefield, Edward Gibbon	A founder of the European colonisation of NZ	Yes	No	No	He was a strong promoter of colonisation of NZ and in general, with an actual "colonisation theory" [26]. Another aspect of his history was that he was imprisoned (in England) for abducting 15-year-old schoolgirl [26].
Ward, Joseph	Prime Minister of NZ	No	Yes	Yes	He was a key political figure in NZ's contribution to WW1 as co-leader of the wartime coalition government between 1915 and 1919 [27].
Wellington, [Duke of]	Military leader and a NZ city named after him	No	Yes	Yes	He was involved as a leader in European warfare (Battle of Waterloo in 1815). We acknowledge that this was an event distant in time and place from NZ – but it was still a major military action.
Whakarua, Herewini (Whanganui)	Representative of Māori soldiers from a community	No	No	Yes	He was a soldier in WW1 who attained the rank of Sergeant-Major (ie, not a Commissioned Officer) [16].
Worsley, Frank	Explorer	No	Yes	Yes	He was involved in WW1 and WW2 and he achieved the rank of Lieutenant Commander (navy) [16]. He has been known principally as an expert sailor and as an explorer.
Wylie, Fred W	Bravery in military action (South Africa)	No	No	Yes	He was a NZ soldier in the South African War. His highest rank was sergeant (ie, not a Commissioned Officer) [16].
Young, Nick	First person on Cook's ship to sight NZ	Yes	No	Yes	He was part of Captain Cook's crew (part of the Royal Navy) when some local Māori were killed by this crew at the time of Cook's visit to Gisborne. This European contact also symbolises the start of the loss of Māori land to Europeans in the subsequent century and longer.

* NZ Army ranks for Commissioned Officers (descending order): Field Marshal, Lieutenant General, Major General, Brigadier, Colonel, Lieutenant Colonel, Major, Captain, Lieutenant, Second Lieutenant, Officer Cadet.

Table S4: Specific details on the 28 statues with intentional attacks (physical damage, paint or theft)

Name of the memorialised person (locality)	Reason for fame	Classified as controversial	Nature of injuries/damage (dates)	Possible reason/s for damage	Outcomes
Atkinson, Henry (Auckland)	Engineer/ philanthropist	No	Repeated thefts of his nose (unknown dates)	Unknown – possibly pranks	Repaired and moved from a hilltop location to a more urban location
Ballance, John (Wellington)	Prime Minister of NZ	Yes	Decapitation and the words “Pākaitore is Māori land” spray painted on it (in 1995) [12]	Probably related to loss of Māori land and his involvement in the NZ Wars against Māori [12] (see Table S3)	Head replaced and paint removed
Ballance, John (Moutoa Gardens, Whanganui)	Prime Minister of NZ	Yes	Decapitation in both 1994 and 1995 [12]. Then after a further period the torso disappeared (1995)	See above	Statue never replaced at this site but a bronze one was subsequently unveiled elsewhere in the city (see below)
Ballance, John (Whanganui – Council Buildings)	Prime Minister of NZ	Yes	Foot stolen	See above	Foot replaced. “When the statue was sent back to the sculptor for repairs, it was discovered it had not been cast properly and needed to be completely rebuilt” [28].
Burns, Robert (Timaru)	Scottish poet	No	Decapitation (2012)	Unknown – possibly a prank	Head replaced
Burns, Robert (Hokitika)	Scottish poet	No	Missing nose and signs of previous repair (Fig. 2, main text); Repairs to hand and foot evident.	Unknown – possibly a prank	Nose still missing with wires visible in nasal area; poor quality repair to hand.
Cook, James [Captain] (Kaiti Hill, Gisborne)	Explorer (with his expedition first landing in NZ in the Gisborne area)	Yes	Multiple paint attacks (eg, red paint on face, white bikini in past decade)	Probably associated with local Māori killed at the time of Cook’s visit; possibly also symbolising the start of the loss of Māori land to	Cleaned – but in 2019 the relevant City Council moved the statue to a local museum

Name of the memorialised person (locality)	Reason for fame	Classified as controversial	Nature of injuries/ damage (dates)	Possible reason/s for damage	Outcomes
				Europeans (see Table S3)	
Cook, James [Captain] (foreshore, Gisborne)	Explorer (with his expedition first landing in NZ in the Gisborne area)	Yes	Multiple attacks of red paint to face and mid-section (last decade, eg, 2016)	See above	Paint removed
Cook, James (Christchurch)	Explorer	Yes	Graffiti (field observation) – possibly tagging	See above	Unknown
Crumen, Barrett (“Russian Jack”) (Masterton)	Local character/ itinerant labourer (swagger)	No	Likely paint attack given remains of paint on the face (bronze statue) found in field observations	Unknown	Paint appears to have been largely removed
George V [King] (Matakana)	King of the UK and the British Dominions (including NZ)	Yes	Decapitated a total of 5 times (eg, Fig. 2 from 2013, main text)	Unknown – possibly pranks but conceivably related to this statue being on a war memorial and George V being a military leader (see Table S3)	Head replaced each time (combined with other restoration work)
Grey, George [Sir] (Auckland)	Governor of NZ; Premier of NZ	Yes	Paint attack (1952), subsequent theft of hands in subsequent decade or so; Decapitation (1987)	Involvement in the NZ Wars where Māori land was taken [10] (see Table S3)	Repairs conducted; Head never recovered and so a new one produced
Hamilton, John [Captain] (Hamilton)	Military leader/ City of Hamilton named after him	Yes	Paint attack plus blows from a hammer which appear to have caused indentations on the nose (2018). Other signs of graffiti on face and back	Involved in the Battle of Gate Pā (NZ Wars) where Māori were killed (as reported by the perpetrator in the media) (see also Table S3)	Paint largely removed. Indentations and graffiti (black marker pen) visible in December 2018 (field visit)
Holyoake, Keith (Wellington)	Prime Minister	Yes	Paint attack (red paint on both hands) in 1998 [29]	Reported to be “an apparent protest against Vietnam War commemorations occurring at the time” (Holyoake was involved in sending NZ troops to Vietnam, see Table S3)	Paint removed

Name of the memorialised person (locality)	Reason for fame	Classified as controversial	Nature of injuries/ damage (dates)	Possible reason/s for damage	Outcomes
Jellicoe, John Rushworth [Earl] (Invercargill)	Military leader and Governor General of NZ	Yes	Missing a nose (see Fig. S1), probably due to vandalism (2008)	Unknown – possibly a prank; possibly an anti-war statement as he was a military leader (see Table S3)	After having no nose for 10 years, it was replaced in 2018 – albeit with suboptimal alignment (field observations)
Kipling, Rudyard (Christchurch)	Writer	No	Blue paint marks on field observations	Unknown – possibly a prank	Unknown
Kitchener, Horatio Herbert [Field Marshal] (Auckland)	Military leader in World War One (WW1)	Yes	Decapitation – probably with an axe (1931)	Unknown - but possibly related to First World War grievances (see Table S3)	The rest of the statue was taken down and never replaced
Kitchener, Horatio Herbert [Field Marshal] (Invercargill)	Military leader in World War One (WW1)	Yes	Nugget (shoe polish) smeared over face and other parts (1932)	See above	Cleaned
Plimmer, John (Wellington)	Business leader	No	Paint attack – looking like tagging marks (2011) and possibly related to an All Blacks Parade in the city a few hours later	Unknown – possibly a prank	Paint removed
Ruskin, John (Christchurch)	Art critic, writer, artist, social activist	No	Missing nose at time of field observations	Unknown – possibly a prank	Unknown
Tait, Gordon [Admiral Sir] (Timaru)	Military leader	Yes	Stolen and never recovered	Unknown – possibly for the scrap metal	A new bust was made and more securely fastened than previously
Te Awe Awe, Te Peeti (Palmerston North)	Māori Chief involved in the NZ Wars and also land sales (while also opposing the colonial government)	Yes	Red paint attack (2018) with message painted on the surrounding ground: “Kawana land stolen”	Probably inter-tribal issues around Māori land loss (ie, “Kawana land stolen”) (see also Table S3)	Paint removed
Upham, Charles	Military hero (two Victoria Crosses)	Yes	Attempt at cutting it down at the base with a concrete cutter (1998)	Anti-military action by a perpetrator who had a long history of anti-military protests in	Fully repaired. Perpetrator fined \$600

Name of the memorialised person (locality)	Reason for fame	Classified as controversial	Nature of injuries/damage (dates)	Possible reason/s for damage	Outcomes
				NZ (see also Table S3)	
Victoria, [Queen] (Auckland)	Queen of the UK and the British Dominions (including NZ)	No	Paint attack in 1952 in conjunction with one on the nearby statue of Grey	Probably a political component with the words “Ravager of the Māoris” written on the nearby statue of Grey in the simultaneous attack [12] (see also Table S3)	Repaired
Victoria, [Queen] (Dunedin)	Queen of the UK and the British Dominions (including NZ)	No	Nose smashed and black paint attack (mid-1990s); damage to fingers (unknown date)	Unknown – some might be pranks to place traffic cones on her head (but see also the row above and Table S3)	Repairs to nose (Fig. 2, main text) and fingers although there is residual poor alignment of the nose repair; Paint removed
Wakefield, Edward Gibbon (Wellington)	A founder of the European colonisation of NZ	Yes	Indentations to nose, cheeks, brow, and an eyebrow (unknown date)	Unknown – possibly relating to his role of a promoter of colonisation (see Table S3), (with this more likely than his imprisonment for child abduction)	Remains unrepaired
Wellington, [Duke of] (Wellington)	Military leader and a NZ city named after him	Yes	Indentations to nose, cheek, brow, eyebrow and chin (unknown date). Signs of gold paint on the face and in ear (unknown date)	Unknown – but was a military leader (see Table S3)	Remains unrepaired except for likely removal of paint
Young, Nicholas	First of Captain James Cook’s crew to see New Zealand	No	Paint attack in 2016	Probably related to the attacks on the two statues of Captain Cook around this time which are also in Gisborne (see above and Table S3)	Paint removed

Fig. S1: Marble statue of the military leader Earl Jellicoe (Invercargill City) showing a replacement nose that was preceded by 10 years of having no nose (photo: by 1st author 2019)

Fig. S2: Marble statue of the Māori soldier Herewini Whakarua (Whanganui) on a high plinth which made close examination of the statue more difficult in this study (photo: 1st author 2018)

Fig. S3: Statue of the rugby hero Michael Jones (Auckland), the only statue of a person with Pacific peoples ethnicity identified in the survey (photo: 1st author 2019).

Fig. S4: Statue of a local doctor (Dr Charles Little, Waikari) with evidence of lichen growth (photo: 2nd author 2019)

References

1. Dunn M. New Zealand sculpture: A history. Auckland: Auckland University Press; 2002.
2. Harper J, Lister A, Connew B. Wellington, A City for Sculpture. Wellington: Victoria University Press; 2007.
3. Maclean C, Phillips J. The sorrow and the pride: New Zealand war memorials. Wellington, Historical Branch with GP Books, 1990.
4. Phillips J. 'Memorials and monuments', Te Ara - the Encyclopedia of New Zealand. (Published 20 June 2012, updated 26 March 2015).
<http://www.TeAra.govt.nz/en/memorials-and-monuments> (accessed 20 September 2018).
5. Wellington City Council. Sculptures & Memorials.
<https://wellington.govt.nz/services/community-and-culture/arts/outdoor-public-art/sculptures-and-memorials> (accessed 20 September).
6. Christchurch City Libraries. Christchurch statues.
<https://my.christchurchcitylibraries.com/statues/> (accessed 21 September 2018).
7. van der Krogt R, Peter van der Krogt P. Statues - Hither & Thither: New Zealand (last update 24 September 2018).
<http://vanderkrogt.net/statues/land.php?land=NZ&webpage=ST&page=1>.
8. Wikipedia. New Zealand's Top 100 History Makers.
https://en.m.wikipedia.org/wiki/New_Zealand%27s_Top_100_History_Makers (accessed 21 September 2018).
9. National Library of New Zealand. Papers Past: Newspapers.
<https://paperspast.natlib.govt.nz/newspapers> (accessed 30 September 2018).
10. Stocker M. "Director of the Canoe": The Auckland Statue of Sir George Grey. Melbourne Art Journal. 2009;11-12:57-8.
11. Buchanan R. Why Gandhi doesn't belong at Wellington Railway Station. Journal of Social History. 2011;44(4):1077-93.
12. Morris E. Men alone, in bronze and stone: A tale of two statues. Journal of New Zealand Studies. 2012;NS13:62-76.
13. Stocker M. 'A token of their love': Queen Victoria Memorials in New Zealand. 19: Interdisciplinary Studies in the Long Nineteenth Century, 2016(22). DOI:
<http://doi.org/10.16995/ntn.724>.
14. Wilson N, Ferguson C, Rice G, Baker MG, Schrader B, Clement C, et al. Remembering the 1918 influenza pandemic: national survey of memorials and scope for enhancing educational value around pandemic preparedness. N Z Med J. 2017;130(1465):53-70. Epub 2017/11/10. PubMed PMID: 29121624.
15. McIvor T. 'Ballance, John', Dictionary of New Zealand Biography, first published in 1993. Te Ara - the Encyclopedia of New Zealand,
<https://teara.govt.nz/en/biographies/2b5/ballance-john> (accessed 22 October 2019).
16. Auckland War Memorial Museum. Cenotaph database.
<http://muse.aucklandmuseum.com/databases/Cenotaph/locations.aspx>.
17. Beaglehole T. 'Fraser, Peter', Dictionary of New Zealand Biography, first published in 1998. Te Ara - the Encyclopedia of New Zealand,
<https://teara.govt.nz/en/biographies/4f22/fraser-peter> (accessed 29 October 2019).

18. McAloon J. Fraser and the First World War (20 December 2016).
<https://ww100.govt.nz/fraser-and-the-first-world-war>.
19. Orange C. 'Treaty of Waitangi - Māori responses to the treaty – 1880 to 1900', Te Ara - the Encyclopedia of New Zealand, <http://www.TeAra.govt.nz/en/treaty-of-waitangi/page-5> (accessed 22 October 2019).
20. McGibbon I. 'Asian conflicts - Vietnam War', Te Ara - the Encyclopedia of New Zealand, <http://www.TeAra.govt.nz/en/asian-conflicts/page-5> (accessed 22 October 2019).
21. Hamer D. 'Seddon, Richard John', Dictionary of New Zealand Biography, first published in 1993. Te Ara - the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/2s11/seddon-richard-john> (accessed 2 November 2019).
22. Durie M. 'Te Aweawe, Te Peeti', Dictionary of New Zealand Biography, first published in 1990. Te Ara - the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1t27/te-aweawe-te-peeti> (accessed 22 October 2019).
23. Dreaver A. 'Te Rangihwinui, Te Keepa', Dictionary of New Zealand Biography, first published in 1990. Te Ara - the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1t64/te-rangihwinui-te-keepa> (accessed 22 October 2019).
24. Oliver S. 'Te Rauparaha', Dictionary of New Zealand Biography, first published in 1990. Te Ara - the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1t74/te-rauparaha> (accessed 22 October 2019).
25. Orange C. 'Treaty of Waitangi - Dishonouring the treaty – 1860 to 1880', Te Ara - the Encyclopedia of New Zealand, <http://www.TeAra.govt.nz/en/treaty-of-waitangi/page-4> (accessed 22 October 2019).
26. Fairburn M. 'Wakefield, Edward Gibbon', Dictionary of New Zealand Biography, first published in 1990. Te Ara - the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1w4/wakefield-edward-gibbon> (accessed 22 October 2019).
27. McLean G. 'Premiers and prime ministers - Party leadership', Te Ara - the Encyclopedia of New Zealand, <http://www.TeAra.govt.nz/en/premiers-and-prime-ministers/page-3> (accessed 29 October 2019).
28. Emerson A-M. Ballance takes up old spot again Wanganui Chronicle 2011;(1 December) https://www.nzherald.co.nz/wanganui-chronicle/news/articlecfm?c_id=1503426&objectid=11047799.
29. Head J. Statue of former Prime Minister Keith Holyoake with hands painted red, Molesworth Street, Thorndon, Wellington - Photograph taken by Jo Head, [ca 6 May 1998]. Collections of the Alexander Turnbull Library. Reference Number: EP/1998/1321/19-F. <http://mp.natlib.govt.nz/detail/?id=41308&l=en>.