Outcome-Wide Perfectionism

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Abstract

Perfectly counterfactual

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Introduction

Who are the NFDs anyway?(Sibley 2012)

Method

Questions related to religion are as follows

Belief in God

Using one item from Eurobarometer (2005), we asked participants "Do you believe in a God" (1 = Yes, 0 = No) (Eurobarometer 2005).

Belief in Sprituality

Using one item from Eurobarometer (2005), we asked participants "Do you believe in some form of spirit or lifeforce? (1 = Yes, 0 = No) (Eurobarometer 2005).

Religion Affiliation

Participants were asked to indicate their religion identification ("Do you identify with a religion and/or spiritual group?") on a binary response (1 = Yes, 0 = No). We then asked "What religion or spiritual group?" These questions are used in the New Zealand Census.

Religious Identification

If participants answered *yes* to "Do you identify with a religion and/or spiritual group? we asked"How important is your religion to how you see yourself?" (1 = Not important, 7 = Very important). Those participants who were not religious were imputed a score of "1".

Frequency of Church Attendence

If participants answered *yes* to "Do you identify with a religion and/or spiritual group?" we measured their frequency of church attendance using one item from Sibley (2012): "how many times did you attend a church or place of worship in the last month?". Those participants who were not religious were imputed a score of "0".

Spiritual Identification

Spiritual identification was measured using one item ("I identify as a spiritual person.") from Postmes, Haslam, and Jans (2013). Participants indicated their agreement with this item (1 = Strongly Disagree to 7 = Strongly Agree).

Frequency of Prayer

If participants answered *yes* to "Do you identify with a religion and/or spiritual group?" we measured their frequency of prayer by asking "how many times did you pray in the last week?" Those participants who were not religious were imputed a score of "0" (S. Bulbulia J. A. 2015) .

Frequency of Scripture Reading

If participants answered *yes* to "Do you identify with a religion and/or spiritual group?" we measured their frequency of scripture reading by asking "how many times did you read religious scripture in the last week?" Those participants who were not religious were imputed a score of "0" (J. Bulbulia et al. 2016).

Perceived Discrimination – Religion

"I feel that I am often discriminated against because of my religious/spiritual beliefs." (1 = Strongly Disagree to 7 = Strongly Agree). (Developed for the NZAVS, Time 7 - time 14)

Descriptive statistics

Analytic approach

We next leveraged longitudinal data to investigate whether changing from transiting from a Christian denomination to a Christian NFD affiliation affect people's religious behaviors. That is, we used the longitudinal features of NZAVS data collection to evalutate the causal question of whether becoming a Christian NFD makes somebody less religious.(Eurobarometer 2005)

Selection criteria.

1. We selected people who participated in both the NZAVS 2016 and 2017 waves.
2. Christian at baseline, not NFD.
3. Christian at baseline + 1, either NFD or not NFD.
4. Outcomes are all the variables in the NZAVS that measure religion and spirituality.
5. Missing data multiply imputed (to adjust for sampling bias).
6. Control for baseline confounders
7. Estimation by Inverse probability weighting and G-computation.
8. Recover the **Average Treatment Effect in the Treated**.

Sample

Table 1: Sample Statistics (baseline = 2018)

	Time 10 (baseline)
	(N=10787)
Male	
Male	4003 (37 %)
Not_male	6784 (63 %)
Cohort	
Gen_Silent: born< 1946	714 (7 %)
Gen Boomers: born >= 1946 & b.< 1965	5229 (48 %)
GenX: born >=1961 & b.< 1981	3311 (31 %)
GenY: born >=1981 & b.< 1996	1421 (13 %)

	Time 10 (baseline)
GenZ: born >= 1996	112 (1 %)
NZ-European	
No	2018 (19 %)
Yes	8730 (81 %)
Missing	39 (0.4%)
Education	
Mean (SD)	5.63 (± 2.66)
Missing	37 (0.3%)
Employed	
No	2714 (25 %)
Yes	8064 (75 %)
Missing	9 (0.1%)
NZDep2018	
Mean (SD)	4.70 (± 2.73)
Missing	117 (1.1%)
NZSEI13	
Mean (SD)	54.9 (± 16.0)
Missing	56 (0.5%)
Rural_GCH2018	
1	6632 (61 %)
2	2092 (19 %)
3	1254 (12 %)
4	567 (5 %)
5	126 (1 %)
Missing	116 (1.1%)
Born NZ	
Mean (SD)	0.800 (± 0.400)
Missing	18 (0.2%)
Parent	
No	2574 (24 %)
Yes	8212 (76 %)
Missing	1 (0.0%)
Partner	
No	2576 (24 %)
Yes	7903 (73 %)
Missing	308 (2.9%)
Politically_Liberal	
Mean (SD)	3.57 (± 1.38)
Missing	497 (4.6%)
Left_Wing	
Mean (SD)	3.71 (± 1.31)
Missing	537 (5.0%)
Religious_Identification	
Mean (SD)	1.72 (± 2.58)
Missing	68 (0.6%)

Description of Changes in Attitudes in Sample Pre-Post Attacks (one year)

The sample consists of 10,878 participants who responded the NZAVS 2016/17 Time 8 survey and who again responded to the NZAVS 2018/19 Time 10 survey.

Table 2: Average warmth ratings before and one-year after attacks

	Pre Attacks(Time 10)	Post Attacks(Time 11)
	(N=10787)	(N=10787)
Warm Muslims		
Mean (SD)	4.09 (1.46)	4.35 (1.41)
Median [Min, Max]	4.00 [1.00, 7.00]	4.00 [1.00, 7.00]
Missing	286 (2.7%)	1672 (15.5%)
Warm Asians		
Mean (SD)	4.54 (1.27)	4.64 (1.23)
Median [Min, Max]	4.00 [1.00, 7.00]	4.00 [1.00, 7.00]
Missing	265 (2.5%)	1647 (15.3%)
Warm Chinese		
Mean (SD)	4.39 (1.34)	4.47 (1.32)
Median [Min, Max]	4.00 [1.00, 7.00]	4.00 [1.00, 7.00]
Missing	280 (2.6%)	1673 (15.5%)
Warm Immigrants		
Mean (SD)	4.54 (1.23)	4.64 (1.23)
Median [Min, Max]	4.00 [1.00, 7.00]	4.00 [1.00, 7.00]
Missing	282 (2.6%)	1674 (15.5%)
Warm Indians		
Mean (SD)	4.31 (1.36)	4.42 (1.34)
Median [Min, Max]	4.00 [1.00, 7.00]	4.00 [1.00, 7.00]
Missing	277 (2.6%)	1669 (15.5%)
Warm Refugees		
Mean (SD)	4.68 (1.34)	4.80 (1.31)
Median [Min, Max]	5.00 [1.00, 7.00]	5.00 [1.00, 7.00]
Missing	283 (2.6%)	1654 (15.3%)
Warm Pacific		
Mean (SD)	4.78 (1.24)	4.87 (1.20)
Median [Min, Max]	5.00 [1.00, 7.00]	5.00 [1.00, 7.00]
Missing	265 (2.5%)	1654 (15.3%)
Warm Maori		
Mean (SD)	5.00 (1.27)	5.03 (1.26)
Median [Min, Max]	5.00 [1.00, 7.00]	5.00 [1.00, 7.00]
Missing	270 (2.5%)	1660 (15.4%)
Warm NZ Euro		
Mean (SD)	5.57 (1.23)	5.58 (1.24)
Median [Min, Max]	6.00 [1.00, 7.00]	6.00 [1.00, 7.00]
Missing	282 (2.6%)	1659 (15.4%)
Warm Elderly		
Mean (SD)	5.52 (1.16)	5.51 (1.15)
Median [Min, Max]	6.00 [1.00, 7.00]	6.00 [1.00, 7.00]
Missing	258 (2.4%)	1648 (15.3%)
Warm Overweight		
Mean (SD)	4.21 (1.37)	4.22 (1.38)

	Pre Attacks(Time 10)	Post Attacks(Time 11)
Median [Min, Max]	4.00 [1.00, 7.00]	4.00 [1.00, 7.00]
Missing	274 (2.5%)	1660 (15.4%)
Warm Mental-illness		
Mean (SD)	4.60 (1.29)	4.64 (1.28)
Median [Min, Max]	4.00 [1.00, 7.00]	4.00 [1.00, 7.00]
Missing	288 (2.7%)	1671 (15.5%)

Table 3: Personality ratings at baseline. In addition to demographic indicators we also used personality ratings to multiply impute missing values

	Time 10 (baseline)
	(N=10787)
AGREEABLENESS	
Mean (SD)	5.36 (± 0.968)
Missing	36 (0.3%)
CONSCIENTIOUSNESS	
Mean (SD)	5.15 (± 1.01)
Missing	33 (0.3%)
EXTRAVERSION	
Mean (SD)	3.85 (± 1.16)
Missing	33 (0.3%)
HONESTY_HUMILITY	
Mean (SD)	5.51 (± 1.16)
Missing	33 (0.3%)
NEUROTICISM	
Mean (SD)	3.38 (± 1.15)
Missing	36 (0.3%)
OPENNESS	
Mean (SD)	4.95 (± 1.12)
Missing	33 (0.3%)

Selection Bias

Although the timing of the attacks was random with respect to NAVS data collection, non-response and panel attrition may potentially bias inferences. A simple version of this threat is indicated in **?@fig-dag**. .... We used both demographic indicators (see Table **??**) and personality indicators (see Table **??**) when multiply imputing missing responses.

Results

Causal effect estimates on the difference scale are presented in Figure **??**. Contrasts are presented in standardised response units. Again, these causal effect estimates are modelled as a contrast in (1) expected group attitudes for the entire population prior to the attacks (NZAVS Time 10 pre-attacks) with (2) expected group attitudes for the entire population during the following year weighted by 2018 census data to recover post-stratification estimates. Assuming correct model specification and no measurement error, such contrasts would be unbiased estimates for the intention-to-treat effect for random "assignment" to the attack condition. [Note: see supplement X for a discussion