Appendix: Tables 2, 3, 4, and 5

Pfuhl, G., & Ekblad, L. (2017). Optimizing the RMET to measure bias not performance differences. *Scandinavian Psychologist*, *4*, e18. https://doi.org/10.15714/scandpsychol.4.e18

Table 2: Results from using the adult (original) RMET test
Answers (in %) of persons indicating being diagnosed with ASD versus participants classified as neurodiverse (ND) or neurotypical (NT) based on the Aspie Quiz score, presented with results from the multinomial analysis (z-value, columns 4 to 7) and chi-square statistics (column 2). z-values with significant *p* in bold. "I don't know" answers were excluded. Note, there is by default no difference in the highest selected mental state descriptor (base), but the frequency for most stimuli is below that reported by Baron-Cohen et al. (2001a) for a student population. Stimuli are shown in supplementary Figure 1.

#	Measures		Mental state descriptor 1 (neurodiverse)	Mental state descriptor 2	Mental state descriptor 3	Mental state descriptor 4 (neurotypical)
1	$X^2{}_3 = 59.33$ $p < .0001$ pseudo $R2 = .0176$		Hate	Jealous	Arrogant	Panicked
		ASD	**5%**	**4%**	9%	82%
		ND	6%	3%	6%	84%
		NT	2%	2%	5%	91%
		Z	**6.6**	**2.8**	2.3	Base
2	$X^2{}_3 = 62.39$ $p < .0001$ pseudo $R2 = .0103$		Bored	Irritated	Comforting	Playful
		ASD	7%	28%	12%	53%
		ND	7%	22%	7%	64%
		NT	3%	16%	7%	75%
		Z	5.8	5.6	1.7	Base
3	$X^2{}_3 = 7.03$ $p = .071$ pseudo $R2 = .0012$		Terrified	Arrogant	Upset	Annoyed
		ASD	**12%**	5%	66%	18%
		ND	8%	4%	71%	17%
		NT	6%	4%	73%	17%
		Z	**2.5**	0.7	base	−0.4
4	$X^2{}_3 = 112.52$ $p < .0001$ pseudo $R2 = .0254$		Convinced	Joking	Flustered	Desire
		ASD	15%	8%	8%	69%
		ND	14%	5%	6%	75%
		NT	7%	2%	3%	88%
		Z	7.6	5.8	5.2	Base
5	$X^2{}_3 = 12.63$ $p = .0055$ pseudo $R2 = .0026$		Joking	Amused	Insisting	Relaxed
		ASD	1%	3%	71%	24%
		ND	2%	5%	74%	18%
		NT	1%	5%	75%	19%
		Z	3.3	0.4	base	−0.8
6	$X^2{}_3 = 31.75$ $p < .0001$ pseudo $R2 = .0073$		Irritated	Friendly	Sarcastic	Worried
		ASD	10%	2%	13%	74%
		ND	11%	1%	9%	79%
		NT	6%	1%	9%	85%
		Z	3.4	2.0	1.8	Base
7	$X^2{}_3 = 43.29$ $p < .0001$ pseudo $R2 = .0094$		Impatient	Alarmed	Aghast	Fantasizing
		ASD	30%	2%	3%	65%
		ND	30%	2%	1%	67%
		NT	20%	1%	1%	78%

		Z	6.2	2.3	0.8	Base
8	$X^2_3 = 23.04$ $p < .0001$ pseudo $R2 = .0036$		Dispirited	Apologetic	Uneasy	Friendly
		ASD	**11%**	5%	63%	21%
		ND	15%	4%	62%	19%
		NT	9%	3%	64%	24%
		Z	**4.0**	1.1	base	−1.6
9	$X^2_3 = 13.46$ $p = .0037$ pseudo $R2 = .0040$		Shy	Relieved	Excited	Despondent
		ASD	12%	9%	1%	78%
		ND	8%	7%	2%	84%
		NT	5%	5%	1%	88%
		Z	2.6	2.5	1.2	Base
10	$X^2_3 = 52.97$ $p < .0001$ pseudo $R2 = .0155$		Annoyed	Hostile	Horrified	Preoccupied
		ASD	9%	6%	5%	**80%**
		ND	11%	5%	2%	82%
		NT	6%	2%	1%	91%
		Z	5.4	3.9	3.2	Base
11	$X^2_3 = 24.76$ $p < .0001$ pseudo $R2 = .0040$		Bored	Insisting	Aghast	Cautious
		ASD	**19%**	18%	4%	59%
		ND	20%	20%	4%	57%
		NT	14%	16%	3%	67%
		Z	**3.8**	2.9	2.8	Base
12	$X^2_3 = 5.98$ $p = .113$ pseudo $R2 = .0113$		Terrified	Flirtatious	Amused	Regretful
		ASD	7%	4%	12%	77%
		ND	5%	4%	12%	79%
		NT	3%	3%	12%	81%
		Z	2.4	0.7	0.3	Base
13	$X^2_3 = 29.46$ $p < .0001$ pseudo $R2 = .0063$		Indifferent	Embarrassed	Dispirited	Skeptical
		ASD	20%	2%	2%	76%
		ND	20%	3%	3%	73%
		NT	14%	2%	2%	82%
		Z	4.9	2.0	1.8	Base
14	$X^2_3 = 41.40$ $p < .0001$ pseudo $R2 = .0088$		Threatening	Decisive	Shy	Anticipating
		ASD	5%	9%	18%	68%
		ND	6%	5%	12%	76%
		NT	2%	4%	12%	82%
		Z	5.9	2.1	1.0	Base
15	$X^2_3 = 24.82$ $p < .0001$ pseudo $R2 = .0056$		Disappointed	Irritated	Depressed	Accusing
		ASD	8%	18%	4%	69%
		ND	6%	15%	2%	78%
		NT	3%	12%	2%	84%
		Z	4.0	3.2	0.6	Base
16	$X^2_3 = 6.37$ $p = .0949$ pseudo $R2 = .0014$		Flustered	Contemplative	Encouraging	Amused
		ASD	6%	77%	8%	10%
		ND	3%	82%	6%	9%
		NT	2%	80%	7%	11%

		Z	2.3	Base	−0.1	−0.8

17	$X^2_3 = 16.79$ $p = .0008$ pseudo $R2 = .0035$		Irritated	Encouraging	Sympathetic	Thoughtful
		ASD	7%	6%	17%	71%
		ND	**9%**	2%	11%	78%
		NT	5%	2%	12%	81%
		Z	**4.0**	0.8	0.5	Base
18	$X^2_3 = 46.13$ $p < .0001$ pseudo $R2 = .0072$		Aghast	Doubtful	Playful	Affectionate
		ASD	3%	65%	13%	20%
		ND	4%	63%	12%	22%
		NT	1%	55%	11%	32%
		Z	3.1	Base	−0.5	−5.6
19	$X^2_3 = 37.06$ $p < .0001$ pseudo $R2 = .0062$		Bored	Aghast	Amused	Decisive
		ASD	22%	4%	11%	63%
		ND	20%	5%	13%	62%
		NT	15%	3%	10%	72%
		Z	4.1	4.1	3.4	Base
20	$X^2_3 = 47.97$ $p < .0001$ pseudo $R2 = .0073$		Arrogant	Sarcastic	Tentative	Grateful
		ASD	13%	12%	61%	14%
		ND	12%	15%	58%	14%
		NT	6%	11%	65%	18%
		Z	5.9	3.8	Base	−0.1
21	$X^2_3 = 61.31$ $p < .0001$ pseudo $R2 = .0165$		Dominant	Guilty	Horrified	Friendly
		ASD	14%	8%	1%	77%
		ND	11%	7%	1%	81%
		NT	5%	4%	1%	91%
		Z	6.4	4.4	1.6	Base
22	$X^2_3 = 27.34$ $p < .0001$ pseudo $R2 = .0077$		Confused	Embarrassed	Panicked	Fantasizing
		ASD	10%	8%	1%	82%
		ND	8%	10%	1%	81%
		NT	4%	8%	0%	88%
		Z	4.6	2.4	1.4	Base
23	$X^2_3 = 12.27$ $p = .0065$ pseudo $R2 = .0042$		Insisting	Grateful	Imploring	Preoccupied
		ASD	5%	1%	10%	84%
		ND	2%	1%	10%	87%
		NT	1%	1%	8%	90%
		Z	2.4	2.0	1.7	Base
24	$X^2_3 = 6.44$ $p = .0919$ pseudo $R2 = .0010$		Contented	Curious	Defiant	Apologetic
		ASD	7%	32%	51%	10%
		ND	9%	28%	59%	4%
		NT	6%	27%	61%	5%
		Z	2.4	1.2	Base	−0.2
25	$X^2_3 = 79.49$ $p < .0001$ pseudo $R2 = .0149$		Hostile	Irritated	Excited	Pensive
		ASD	12%	18%	2%	68%
		ND	14%	18%	3%	65%

	NT	6%	12%	2%	80%
	Z	7.2	5.8	1.7	Base
26			Panicked	Despondent	Incredulous	Interested
$X^2_3 = 31.55$ $p < .0001$ pseudo $R2 = .0051$	ASD	8%	7%	21%	64%
	ND	7%	10%	19%	63%
	NT	4%	6%	18%	72%
	Z	4.1	4.0	1.9	Base
27			Alarmed	Hostile	Shy	Anxious
$X^2_3 = 20.21$ $p = .0002$ pseudo $R2 = .0041$	ASD	9%	78%	5%	8%
	ND	6%	81%	6%	7%
	NT	3%	78%	8%	10%
	Z	2.9	Base	−1.9	−2.6
28			Arrogant	Reassuring	Joking	Cautious
$X^2_3 = 30.16$ $p < .0001$ pseudo $R2 = .0066$	ASD	18%	11%	2%	69%
	ND	18%	7%	2%	73%
	NT	13%	5%	1%	81%
	Z	3.9	3.6	2.4	Base
29			Contented	Affectionate	Joking	Interested
$X^2_3 = 36.23$ $p < .0001$ pseudo $R2 = .0083$	ASD	11%	11%	4%	74%
	ND	11%	10%	4%	75%
	NT	7%	6%	2%	84%
	Z	4.5	3.8	2.5	Base
30			Aghast	Irritated	Impatient	Reflective
$X^2_3 = 16.32$ $p = .0010$ pseudo $R2 = .0023$	ASD	2%	19%	30%	49%
	ND	2%	25%	21%	52%
	NT	0%	23%	20%	56%
	Z	3.4	1.9	1.5	Base
31			Hostile	Grateful	Disappointed	Flirtatious
$X^2_3 = 42.23$ $p < .0001$ pseudo $R2 = .0115$	ASD	7%	8%	4%	81%
	ND	8%	6%	4%	83%
	NT	4%	3%	3%	90%
	Z	4.5	4.1	2.7	Base
32			Ashamed	Dispirited	Joking	Confident
$X^2_3 = 16.94$ $p = .0007$ pseudo R2 = .0025	ASD	12%	19%	12%	57%
	ND	11%	21%	12%	56%
	NT	8%	17%	10%	65%
	Z	3.5	2.6	1.4	Base
33			Alarmed	Ashamed	Bewildered	Serious
$X^2_3 = 24.23$ $p < .0001$ pseudo $R2 = .0068$	ASD	8%	3%	8%	80%
	ND	6%	3%	7%	84%
	NT	3%	2%	6%	89%
	Z	3.4	3.1	2.1	Base
34			Embarrassed	Guilty	Fantasizing	Concerned
$X^2_3 = 20.51$ $p = .0001$ pseudo $R2 = .0040$	ASD	10%	15%	5%	70%
	ND	7%	18%	4%	72%
	NT	4%	14%	2%	79%
	Z	3.6	2.3	2.2	Base

35			Terrified	Aghast	Baffled	Distrustful
	$X^2_3 = 16.35$ $p = .0010$ pseudo $R2 = .0034$	ASD	8%	3%	17%	72%
		ND	7%	4%	16%	74%
		NT	3%	3%	15%	79%
		Z	3.6	1.8	1.4	Base
36			Puzzled	Insisting	Contemplative	Nervous
	$X^2_3 = 30.76$ $p < .0001$ pseudo $R2 = .0050$	ASD	14%	6%	11%	69%
		ND	16%	8%	10%	66%
		NT	10%	6%	9%	74%
		Z	3.6	1.8	1.4	Base
37			Indecisive	Nervous	Ashamed	Suspicious
	$X^2_3 = 10.78$ $p = .0130$ pseudo $R2 = .0037$	ASD	11%	1%	2%	86%
		ND	8%	1%	3%	88%
		NT	7%	2%	1%	90%
		Z	2.6	1.8	1.2	Base

Table 3: Results for the child (original) RMET
Answers (in %) of persons indicating to be diagnosed with ASD versus persons classified into neurodiverse (ND) and neurotypical (NT), presented with results from the multinomial analysis (z-value, columns 4 to 7) and chi-square statistics (column 2). Z-values with significant p in bold. "I don't know" answers were excluded. Stimuli are shown in supplementary Figure 2.

#	Measures		Mental state descriptor 1 (neurodiverse)	Mental state descriptor 2	Mental state descriptor 3	Mental state descriptor 4 (neurotypical)
1	$\chi^2_3 = 32.72$ $p < .0001$ pseudo $R2 = .0072$		Hate	Surprised	Cross	Kind
		ASD	14%	6%	31%	49%
		ND	17%	3%	29%	51%
		NT	10%	1%	27%	62%
		Z	**4.5**	**3.6**	2.4	Base
2	$\chi^2_3 = 16.41$ $p = .0009$ pseudo $R2 = .0055$		Unkind	Cross	Sad	Surprised
		ASD	12%	9%	78%	1%
		ND	11%	7%	80%	3%
		NT	7%	4%	85%	4%
		Z	3.2	2.4	Base	−0.6
3	$\chi^2_3 = 32.07$ $p < .0001$ pseudo $R2 = .0078$		Worried	Surprised	Sad	Friendly
		ASD	38%	2%	4%	55%
		ND	30%	4%	7%	60%
		NT	22%	2%	6%	70%
		Z	**4.8**	3.0	2.4	Base
4	$\chi^2_3 = 2.28$ $p = .52$ pseudo $R2 = .0013$		Excited	Upset	Relaxed	Surprised
		ASD	2%	87%	9%	3%
		ND	1%	92%	6%	1%
		NT	0%	91%	7%	2%
		Z	0.9	Base	−0.1	−1.2
5	$\chi^2_3 = 1.84$ $p = .61$ pseudo $R2 = .0007$		Feeling sorry	Making sb do sth	Joking	Relaxed
		ASD	6%	79%	3%	11%
		ND	4%	86%	3%	7%
		NT	4%	84%	4%	9%
		Z	0.5	Base	−0.4	−1.2
6	$\chi^2_3 = 18.58$ $p = .0003$ pseudo $R2 = .0063$		Unkind	Bored	Hate	Worried
		ASD	2%	29%	0%	69%
		ND	3%	20%	1%	76%
		NT	1%	17%	0%	82%
		Z	3.4	2.0	1.8	Base
7	$\chi^2_3 = 4.37$ $p = .22$ pseudo $R2 = .0009$		Bored	Feeling sorry	Joking	Interested
		ASD	26%	3%	11%	60%
		ND	26%	6%	10%	58%
		NT	23%	4%	10%	63%
		Z	1.8	1.2	0.5	Base
8	$\chi^2_3 = 15.77$ $p = .0013$		Angry	Friendly	Happy	Remembering
		ASD	17%	0%	3%	80%

	pseudo $R2$ = .0066	ND	18%	1%	1%	81%
		NT	12%	0%	1%	87%
		Z	**3.9**	0.6	0.1	Base

9	χ^2_3 = 12.42 p = .0061 pseudo $R2$ = .0052		Annoyed	Hate	Surprised	Thinking about sth
		ASD	10%	2%	5%	82%
		ND	8%	1%	6%	85%
		NT	6%	0%	5%	89%
		Z	2.4	2.2	1.4	Base

10	χ^2_3 = 13.02 p = .0046 pseudo $R2$ = .0030		Not believing	Shy	Sad	Kind
		ASD	57%	12%	2%	29%
		ND	67%	7%	4%	23%
		NT	58%	8%	5%	30%
		Z	Base	−1.5	−1.7	**−3.2**

11	χ^2_3 = 38.16 p < .0001 pseudo $R2$ = .0163		Disgusted	Angry	Bossy	Hoping
		ASD	6%	0%	5%	88%
		ND	9%	4%	6%	81%
		NT	3%	1%	4%	92%
		Z	**4.7**	3.0	2.9	Base

12	χ^2_3 = 13.94 p = .0030 pseudo $R2$ = .0113		Confused	Sad	Joking	Serious
		ASD	5%	1%	0%	94%
		ND	4%	1%	2%	93%
		NT	2%	1%	2%	96%
		Z	3.1	1.9	0.6	Base

13	χ^2_3 = 17.50 p = .0006 pseudo $R2$ = .0043		Upset	Excited	Thinking about sth	Happy
		ASD	6%	11%	66%	17%
		ND	5%	5%	70%	20%
		NT	3%	4%	70%	24%
		Z	3.2	0.7	Base	−2.0

14	χ^2_3 = 3.47 p = .3247 pseudo $R2$ = .0012		Excited	Thinking about sth	Kind	Happy
		ASD	5%	74%	13%	8%
		ND	2%	84%	9%	5%
		NT	2%	82%	11%	6%
		Z	0.4	Base	−1.3	−1.4

15	χ^2_3 = 6.45 p = .0915 pseudo $R2$ = .0011		Wanting to play	Not believing	Relaxed	Friendly
		ASD	21%	33%	33%	13%
		ND	22%	43%	26%	9%
		NT	18%	43%	28%	11%
		Z	1.6	Base	−0.7	−1.3

16	χ^2_3 = 6.78 p = .0791 pseudo $R2$ = .0026		Bored	Surprised	Made up her mind	Joking
		ASD	12%	7%	81%	0%
		ND	13%	4%	81%	2%
		NT	9%	3%	85%	2%
		Z	2.5	0.6	Base	−0.2

17	χ^2_3 =34.11		Unkind	Angry	A bit worried	Friendly

	$p < .0001$ pseudo $R2 = .0071$	ASD ND NT Z	16% 15% 7% **4.7**	5% 5% 4% 2.0	51% 52% 55% Base	28% 28% 34% −1.6
18	$\chi^2_3 = 7.00$ $p = .0719$ pseudo $R2 = .0019$		Angry	Friendly	Bossy	Thinking about sth sad
		ASD ND NT Z	3% 5% 2% 2.4	19% 17% 16% 0.9	8% 7% 6% 0.9	69% 72% 76% Base
19	$\chi^2_3 = 5.65$ $p = .13$ pseudo $R2 = .0011$		Daydreaming	Angry	Sad	Interested
		ASD ND NT Z	14% 15% 12% 1.8	18% 16% 14% 1.8	9% 11% 10% 1.0	59% 58% 64% Base
20	$\chi^2_3 = 2.88$ $p = .41$ pseudo $R2 = .0032$		Excited	Not pleased	Surprised	Kind
		ASD ND NT Z	0% 1% 0% 1.4	95% 96% 96% Base	4% 2% 2% -0.2	1% 1% 2% -0.8
21	$\chi^2_3 = 9.47$ $p = .024$ pseudo $R2 = .0035$		Joking	Happy	Relaxed	Interested
		ASD ND NT Z	0% 4% 2% 2.2	1% 4% 2% 1.8	20% 15% 13% 1.4	79% 78% 83% Base
22	$\chi^2_3 = 2.14$ $p = .54$ pseudo $R2 = .0006$		Surprised	Kind	Thinking about sth	Playful
		ASD ND NT Z	5% 2% 1% 1.2	18% 10% 10% 0.7	59% 75% 76% Base	18% 13% 13% -0.3
23	$\chi^2_3 = 8.09$ $p = .0441$ pseudo $R2 = .0024$		Happy	Surprised	Sure about sth	Joking
		ASD ND NT Z	13% 10% 8% 2.0	13% 7% 5% 1.8	72% 75% 79% Base	3% 8% 8% -0.9
24	$\chi^2_3 = 15.01$ $p = .0018$ pseudo $R2 = .0054$		Ashamed	Serious	Confused	Surprised
		ASD ND NT Z	10% 9% 5% 3.4	78% 82% 86% Base	10% 8% 7% −0.2	1% 1% 2% −1.7
25	$\chi^2_3 = 5.92$ $p = .12$ pseudo $R2 = .0012$		Guilty	Daydreaming	Shy	Worried
		ASD ND NT Z	40% 39% 35% 2.2	5% 5% 4% 1.5	15% 9% 10% 0.6	40% 46% 51% Base
26	$\chi^2_3 = 8.13$		Sorry	Relaxed	Joking	Nervous

	$p = .0434$ pseudo $R2 = .0016$	ASD ND NT Z	7% 10% 7% 2.8	21% 22% 22% 0.6	16% 17% 17% 0.2	57% 51% 54% Base
27	$\chi^2_3 = 9.62$ $p = .0221$ pseudo $R2 = .0023$		Ashamed	Excited	Not believing	Pleased
		ASD ND NT Z	6% 5% 4% 1.0	7% 6% 5% 0.8	67% 67% 64% Base	19% 22% 27% −2.5
28	$\chi^2_3 = 12.67$ $p = .0054$ pseudo $R2 = .0037$		Bored	Disgust	Hate	Happy
		ASD ND NT Z	15% 19% 16% 2.5	15% 7% 4% 2.4	0% 2% 1% 1.6	71% 72% 78% Base

Table 4: Results from RMET with six alternatives. Answers of persons diagnosed, classified as ND or NT, presented with results from the multinomial analysis (z-value significance, X^2 indicates group difference.) Significant z-values ($p < 0.05 / 28 = 0.0018$, in bold). "I don't know" answers were excluded.

#	Measures		Mental state descriptor 1 (neurodiverse)	Mental state descriptor 2	Mental state descriptor 3	Mental state descriptor 4	Mental state descriptor 5	Mental state descriptor 6 (neurotypical)
1	$X^2_5 = 38.89$ $p < .0001$ pseudo $R2 = .0072$		Staring	Indifferent	Dreamy	Kind	Naughty	In love
		ASD	14%	10%	22%	10%	28%	16%
		ND	16%	14%	18%	8%	25%	16%
		NT	7%	9%	20%	8%	30%	21%
		Z	**5.0**	**3.4**	0.4	0.3	Base	0.0
2	$X^2_5 = 29.43$ $p < .0001$ pseudo $R2 = .0054$		Staring	Scared	Disappointed	Indifferent	Anxious	Sad
		ASD	15%	6%	14%	22%	24%	20%
		ND	17%	6%	16%	21%	17%	17%
		NT	12%	4%	12%	21%	21%	25%
		Z	**3.4**	1.9	1.8	Base	–0.2	–1.5
3	$X^2_5 = 56.75$ $p < .0001$ pseudo $R2 = .0106$		Staring	Unkind	In love	Friendly	Concentrated	Playful
		ASD	18%	9%	13%	15%	28%	17%
		ND	18%	7%	11%	21%	17%	20%
		NT	10%	2%	10%	22%	19%	33%
		Z	**5.6**	**5.4**	3.0	2.0	1.7	Base
4	$X^2_5 = 23.08$ $p = .0003$ pseudo $R2 = .0043$		Unsure	Depressed	Uncomfort-able	Worried	Upset	Distressed
		ASD	9%	21%	11%	21%	20%	18%
		ND	8%	17%	9%	18%	22%	20%
		NT	3%	15%	9%	20%	25%	23%
		Z	**4.1**	1.7	1.6	0.1	Base	0.0
5	$X^2_5 = 44.69$ $p < .0001$ pseudo $R2 = .0090$		Rude	Hate	Angry	Concentrated	Evil	Determined
		ASD	11%	6%	30%	26%	5%	23%
		ND	8%	8%	17%	30%	7%	25%
		NT	3%	4%	15%	32%	6%	35%
		Z	**5.4**	**3.9**	**3.3**	2.0	1.5	Base
6	$X^2_5 = 22.94$ $p = .0003$ pseudo $R2 = .0044$		Staring	Scared	Suspicious	Remembering	Distressed	Worried
		ASD	3%	20%	3%	23%	14%	25%
		ND	5%	15%	11%	21%	14%	28%
		NT	2%	14%	10%	21%	15%	34%
		Z	**4.2**	2.1	2.1	1.5	1.0	Base
7	$X^2_5 = 33.75$ $p < .0001$ pseudo $R2 = .0062$		Staring	Plotting	Smirking	Amused	Interested	Mischievous
		ASD	17%	23%	15%	9%	19%	17%
		ND	13%	24%	14%	8%	22%	14%
		NT	6%	20%	16%	10%	23%	18%
		Z	**3.5**	Base	–1.3	–1.7	–1.5	–2.5
8	$X^2_5 = 36.22$ $p < .0001$ pseudo $R2 = .0070$		Ill	Remember-ing	Unhappy	Stressed	Worried	Crushed
		ASD	7%	24%	13%	24%	25%	7%
		ND	7%	25%	8%	19%	26%	9%

		NT Z	2% **5.4**	22% 2.1	7% 1.8	22% 0.9	32% Base	11% 0.0
9	$X^2_5 = 30.95$ $p < .0001$ pseudo $R2 =$ .0055		Staring	Uncomfortable	Bored	Indifferent	Shy	Interested
		ASD ND NT Z	15% 16% 11% 2.1	26% 19% 17% 0.6	16% 17% 13% 0.5	16% 20% 18% Base	11% 10% 12% −1.1	15% 12% 22% **−3.3**
10	$X^2_5 = 24.27$ $p = .0002$ pseudo $R2 =$ .0046		Evil	Joking	Suspicious	Skeptical	Relaxed	Bemused
		ASD ND NT Z	10% 5% 2% **3.7**	8% 12% 11% 0.3	15% 23% 22% 0.3	31% 24% 24% Base	19% 10% 11% −0.4	16% 19% 25% −2.0
11	$X^2_5 = 29.54$ $p < .0001$ pseudo $R2 =$ .0056		Indifferent	Sad	Innocent	Joking	Amused	Hopeful
		ASD ND NT Z	12% 10% 5% **4.2**	16% 19% 16% 2.4	10% 9% 6% 2.1	10% 11% 12% 0.2	35% 23% 28% Base	17% 22% 28% −0.3
12	$X^2_5 = 63.34$ $p < .0001$ pseudo $R2 =$ .0116		Unkind	Staring	Serious	Determined	Interested	Concentrated
		ASD ND NT Z	16% 11% 4% 1.9	27% 28% 18% Base	16% 21% 22% −3.0	22% 14% 21% **−4.5**	8% 6% 11% **−4.9**	11% 14% 20% **−5.0**
13	$X^2_5 = 33.19$ $p < .0001$ pseudo $R2 =$ .0080		Unsure	Bored	Fake	Remembering	Daydreaming	In love
		ASD ND NT Z	7% 6% 3% **3.3**	1% 4% 2% **3.2**	5% 4% 2% **3.2**	23% 21% 23% 0.4	52% 48% 52% Base	13% 12% 14% −0.5
14	$X^2_5 = 43.51$ $p < .0001$ pseudo $R2 =$ .0080		Staring	Unsure	Bored	Uncomfortable	Interested	Relaxed
		ASD ND NT Z	17% 18% 10% **5.6**	25% 16% 13% **3.7**	20% 16% 13% **3.6**	8% 6% 4% **3.1**	14% 15% 20% 1.4	16% 23% 35% Base
15	$X^2_5 = 24.91$ $p = .0001$ pseudo $R2 =$ .0047		Bemused	Staring	Nervous	Sexual	Friendly	Kind
		ASD ND NT Z	13% 13% 10% 0.0	33% 48% 35% Base	14% 12% 12% −1.5	15% 15% 16% −2.0	10% 8% 12% **−3.3**	16% 10% 16% **−4.0**
16	$X^2_5 = 50.69$ $p < .0001$ pseudo $R2 =$ .0101		Unsure	Evil	Indifferent	Interested	Determined	Sexual
		ASD ND NT Z	8% 8% 2% **5.2**	10% 11% 6% **4.6**	10% 11% 9% 2.6	13% 11% 12% 1.1	24% 23% 29% 0.5	35% 31% 37% Base
17	$X^2_5 = 40.09$ $p < .0001$		Staring	Fake	Bored	Serious	Worried	Innocent
		ASD ND	28% 28%	6% 8%	7% 9%	16% 15%	14% 12%	30% 23%

#	Stats	Group						
	pseudo $R2$ = .0075	NT	18%	6%	6%	16%	14%	35%
		Z	**5.7**	**3.5**	**3.2**	2.4	1.5	Base
18	X^2_5 = 42.59 p < .0001 pseudo $R2$ = .0077		Staring	Depressed	Surprised	Nervous	Interested	Hopeful
		ASD	11%	16%	8%	31%	15%	19%
		ND	18%	15%	8%	23%	14%	16%
		NT	9%	9%	9%	27%	20%	22%
		Z	**4.8**	**3.2**	0.1	Base	–0.4	–0.4
19	X^2_5 = 65.55 p < .0001 pseudo $R2$ = .0118		Staring	Displeased	Shy	Indifferent	Interested	Friendly
		ASD	16%	14%	19%	9%	24%	18%
		ND	20%	16%	11%	11%	21%	16%
		NT	7%	13%	12%	10%	28%	24%
		Z	**6.7**	**3.2**	1.6	1.5	Base	–0.7
20	X^2_5 = 32.14 p < .0001 pseudo R2 = .0059		Evil	Staring	Suspicious	Annoyed	Displeased	Serious
		ASD	15%	6%	28%	19%	19%	13%
		ND	22%	8%	18%	16%	22%	10%
		NT	12%	5%	21%	19%	27%	12%
		Z	**4.7**	2.6	0.8	0.5	Base	–0.1
21	X^2_5 = 21.21 p = .0007 pseudo $R2$ = .0042		Staring	Angry	Suspicious	Indifferent	Serious	Interested
		ASD	16%	9%	45%	6%	11%	13%
		ND	14%	7%	37%	6%	12%	19%
		NT	9%	7%	32%	4%	12%	29%
		Z	1.9	0.2	Base	0.0	–1.2	**–3.3**
22	X^2_5 = 40.73 p < .0001 pseudo R2 = .0092		Indecisive	Unsure	Awkward	Fake	Relieved	Dreamy
		ASD	21%	15%	7%	16%	8%	33%
		ND	12%	17%	5%	13%	6%	43%
		NT	7%	14%	2%	9%	4%	58%
		Z	**4.3**	**3.6**	**3.4**	2.9	2.9	Base
23	X^2_5 = 33.31 p < .0001 pseudo $R2$ = .0066		Staring	Unhappy	Serious	Mischievous	Sexual	Interested
		ASD	15%	7%	10%	20%	32%	16%
		ND	11%	7%	12%	17%	36%	12%
		NT	4%	5%	12%	18%	42%	13%
		Z	**5.2**	2.2	1.2	0.5	Base	–0.1
24	X^2_5 = 35.22 p < .0001 pseudo $R2$ = .0063		Evil	Staring	Disgruntled	Irritated	Determined	Serious
		ASD	25%	9%	13%	21%	10%	22%
		ND	25%	13%	16%	14%	10%	16%
		NT	15%	11%	15%	17%	14%	24%
		Z	**5.4**	**3.3**	2.2	2.2	0.8	Base
25	X^2_5 = 52.32 p < .0001 pseudo $R2$ = .0095		Staring	Angry	Plotting	Worried	Skeptical	Serious
		ASD	15%	6%	13%	17%	33%	17%
		ND	15%	10%	12%	15%	24%	18%
		NT	6%	7%	12%	17%	28%	25%
		Z	**5.5**	**3.3**	1.3	0.5	Base	–1.1
26	X^2_5 = 39.20 p < .0001 pseudo $R2$ = .0080		Annoyed	Staring	Indifferent	Plotting	Nervous	Playful
		ASD	8%	14%	8%	19%	18%	33%
		ND	9%	12%	7%	18%	12%	36%
		NT	5%	8%	4%	15%	14%	47%

		Z	**4.1**	**3.8**	**3.5**	**3.3**	0.7	Base

27	$X^2_5 = 25.48$ $p = .0001$ pseudo *R2* = .0047		Evil	Hate	Disgust	Skeptical	Irritated	Joking
		ASD	14%	11%	17%	30%	13%	15%
		ND	13%	11%	12%	27%	16%	17%
		NT	7%	9%	10%	29%	16%	24%
		Z	**3.8**	1.8	1.3	Base	0.0	−1.2
28	$X^2_5 = 53.35$ $p < .0001$ pseudo *R2* = .0103		Staring	Playful	Friendly	Satisfied	Kind	Happy
		ASD	13%	6%	25%	14%	18%	25%
		ND	13%	4%	20%	11%	28%	18%
		NT	4%	2%	20%	12%	32%	24%
		Z	**6.0**	2.1	1.1	0.0	Base	−1.0

Table 5. Results from optimized RMET with four alternatives. Answers (in %) of people diagnosed, classified into ND or NT, presented with results from the multinomial analysis (z-value). Significant x^2 indicates group difference. Significant z-values ($p < 0.05 / 28 = 0.0018$, in bold). "I don't know" answers were excluded.

#	Measures		Mental state descriptor 1 (neurodiverse)	Mental state descriptor 2	Mental state descriptor 3	Mental state descriptor 4 (neurotypical)
1	$\chi^2_3 = 79.77$ $p < .0001$ pseudo $R2 = .0120$		Staring	Indifferent	Naughty	In love
		ASD	19%	15%	43%	23%
		ND	21%	18%	35%	25%
		NT	11%	14%	40%	35%
		Z	**6.3**	2.7	Base	−3.0
2	$\chi^2_3 = 19.92$ $p = .0002$ pseudo $R2 = .0029$		Staring	Anxious	Disappointed	Sad
		ASD	22%	27%	24%	27%
		ND	23%	24%	23%	30%
		NT	17%	23%	25%	35%
		Z	**4.4**	1.2	1.0	Base
3	$\chi^2_3 = 96.74$ $p < .0001$ pseudo $R2 = .0141$		Staring	In love	Friendly	Playful
		ASD	39%	11%	28%	23%
		ND	37%	14%	22%	27%
		NT	20%	16%	27%	37%
		Z	**8.9**	1.4	1.3	Base
4	$\chi^2_3 = 15.49$ $p = .0014$ pseudo $R2 = .0027$		Unsure	Concentrated	Distressed	Upset
		ASD	16%	7%	47%	30%
		ND	12%	4%	46%	37%
		NT	9%	4%	44%	42%
		Z	2.6	0.4	Base	−2.0
5	$\chi^2_3 = 44.20$ $p < .0001$ pseudo $R2 = .0077$		Rude	Hate	Angry	Determined
		ASD	10%	13%	30%	47%
		ND	13%	14%	24%	49%
		NT	7%	9%	23%	61%
		Z	**5.2**	**4.6**	2.7	Base
6	$\chi^2_3 = 19.07$ $p = .0003$ pseudo $R2 = .0031$		Staring	Scared	Worried	Remembering
		ASD	6%	24%	42%	27%
		ND	5%	24%	39%	32%
		NT	3%	22%	41%	34%
		Z	**4.0**	0.4	Base	−0.6
7	$\chi^2_3 = 37.12$ $p < .0001$ pseudo $R2 = .0055$		Staring	Plotting	Mischievous	Interested
		ASD	14%	36%	25%	25%
		ND	16%	32%	22%	30%
		NT	9%	32%	23%	35%
		Z	**4.7**	Base	−0.2	−1.7
8	$\chi^2_3 = 36.95$ $p < .0001$ pseudo $R2 = .0061$		Ill	Crushed	Worried	Remembering
		ASD	6%	22%	43%	29%
		ND	9%	18%	45%	28%
		NT	4%	16%	46%	34%
		Z	**5.0**	1.1	Base	−1.8
9	$\chi^2_3 = 18.26$		Staring	Bored	Indifferent	Interested

	$p = .0004$ pseudo $R2 = .0027$	ASD ND NT Z	19% 20% 16% 3.4	28% 22% 20% 1.5	27% 35% 36% Base	26% 24% 27% −0.9
10	$\chi^2_3 = 27.26,$ $p <.0001$ pseudo $R2 = .0044$	 ASD ND NT Z	Evil 4% 5% 2% **4.0**	Suspicious 23% 31% 29% 0.4	Bemused 44% 34% 33% Base	Skeptical 29% 30% 36% −2.0
11	$\chi^2_3 = 25.24$ $p < .0001$ pseudo $R2 = .0033$	 ASD ND NT Z	Indifferent 14% 13% 8% **4.3**	Sad 23% 22% 19% 1.8	Amused 36% 33% 39% Base	Hopeful 28% 32% 34% −0.3
12	$\chi^2_3 = 56.06$ $p < .0001$ pseudo $R2 = .0085$	 ASD ND NT Z	Staring 32% 36% 24% **5.9**	Unkind 5% 11% 7% **4.1**	Serious 41% 32% 41% Base	Determined 22% 21% 28% −0.3
13	$\chi^2_3 = 96.72$ $p < .0001$ pseudo $R2 = .0209$	 ASD ND NT Z	Bored 9% 8% 2% **6.8**	Unsure 9% 10% 4% **6.1**	Daydreaming 56% 66% 72% Base	In love 26% 16% 22% −1.6
14	$\chi^2_3 = 45.36,$ $p <.0001$ pseudo $R2 = .0066$	 ASD ND NT Z	Staring 25% 25% 16% **6.2**	Bored 24% 20% 18% 3.4	Interested 19% 20% 22% 0.5	Relaxed 31% 35% 44% Base
15	$\chi^2_3 = 49.78$ $p < .0001$ pseudo $R2 = .0075$	 ASD ND NT Z	Staring 42% 48% 35% Base	Sexual 20% 17% 20% **−4.4**	Bemused 18% 18% 20% **−4.7**	Kind 20% 18% 24% **−6.1**
16	$\chi^2_3 = 78.10$ $p < .0001$ pseudo $R2 = .0129$	 ASD ND NT Z	Unsure 13% 14% 7% **6.4**	Evil 12% 12% 5% **6.3**	Determined 36% 35% 40% 0.7	Sexual 39% 38% 47% Base
17	$\chi^2_3 = 51.69$ $p < .0001$ pseudo $R2 = .0079$	 ASD ND NT Z	Staring 30% 38% 26% **6.9**	Bored 15% 12% 11% **3.8**	Worried 24% 16% 16% 2.9	Innocent 30% 33% 46% Base
18	$\chi^2_3 = 49.64$ $p < .0001$ pseudo $R2 = .0073$	 ASD ND NT Z	Staring 24% 25% 13% **6.0**	Depressed 14% 16% 17% 1.2	Nervous 37% 35% 39% Base	Hopeful 24% 25% 31% −1.0
19	$\chi^2_3 = 108.34$		Staring	Displeased	Interested	Friendly

	$p < .0001$ pseudo $R2 = .0157$	ASD ND NT Z	24% 27% 12% **8.6**	23% 24% 20% **3.8**	36% 30% 40% Base	17% 20% 28% −1.5
20	$\chi^2_3 = 24.86$ $p < .0001$ pseudo $R2 = .0036$		Evil	Suspicious	Annoyed	Displeased
		ASD ND NT Z	21% 25% 17% **4.5**	31% 27% 28% 0.8	22% 20% 23% 0.1	26% 28% 32% Base
21	$\chi^2_3 = 75.36$ $p < .0001$ pseudo $R2 = .0122$		Staring	Indifferent	Suspicious	Interested
		ASD ND NT Z	18% 20% 10% **6.0**	7% 9% 8% 1.2	54% 48% 47% Base	21% 23% 35% **−3.9**
22	$\chi^2_3 = 58.58$ $p < .0001$ pseudo $R2 = .0103$		Fake	Unsure	Indecisive	Dreamy
		ASD ND NT Z	20% 21% 14% **6.0**	18% 17% 12% **5.4**	7% 11% 8% **3.5**	56% 51% 66% Base
23	$\chi^2_3 = 63.84$ $p < .0001$ pseudo $R2 = .0100$		Staring	Mischievous	Interested	Sexual
		ASD ND NT Z	17% 17% 7% **7.5**	26% 22% 21% 1.0	21% 17% 20% 0.1	36% 44% 52% Base
24	$\chi^2_3 = 25.35$ $p < .0001$ pseudo $R2 = .0038$		Staring	Evil	Determined	Serious
		ASD ND NT Z	19% 18% 14% **4.0**	27% 33% 26% **3.8**	15% 17% 20% 0.5	39% 32% 40% Base
25	$\chi^2_3 = 75.61$ $p < .0001$ pseudo $R2 = .0115$		Staring	Angry	Skeptical	Serious
		ASD ND NT Z	18% 18% 9% **8.2**	12% 16% 13% **3.9**	43% 32% 34% 2.3	27% 34% 45% Base
26	$\chi^2_3 = 56.26$ $p < .0001$ pseudo $R2 = .0092$		Plotting	Annoyed	Nervous	Playful
		ASD ND NT Z	21% 31% 21% **6.6**	12% 10% 7% **4.2**	19% 18% 15% **4.1**	47% 41% 56% Base
27	$\chi^2_3 = 36.09$ $p < .0001$ pseudo $R2 = .0054$		Evil	Hate	Skeptical	Joking
		ASD ND NT Z	22% 18% 12% **4.6**	25% 23% 20% 2.8	29% 38% 41% Base	23% 22% 28% −1.3
28	$\chi^2_3 = 115.13$ $p < .0001$ pseudo $R2 = .0173$		Staring	Kind	Happy	Friendly
		ASD ND NT Z	20% 17% 5% **9.4**	32% 38% 42% Base	25% 20% 25% −0.2	23% 25% 28% −0.6