Supplementary Information file C

Robustness checks

Table C1. Media attention by candidate profile and campaign strategies (minimum 10 experts per

candidate)

	M1			_	M2			M3		
	Coef	Se	sig		Coef	Se	sig	Coef	Se	sig
Incumbent	29.66	(2.84)	***		30.35	(2.76)	***	16.52	(2.51)	***
Left-right position	1.25	(0.65)	t		0.46	(0.66)		-0.29	(0.55)	
Extremism	-2.34	(1.49)			-4.82	(1.57)	**	-3.19	(1.24)	**
Female	1.90	(2.73)			1.83	(2.67)		2.15	(2.26)	
Year born	0.15	(0.09)	Ť		0.18	(0.09)	*	0.08	(0.08)	
Election competitiveness	2.28	(1.23)	t		2.27	(1.25)	÷	1.11	(1.18)	
Electoral system: PR	1.02	(2.62)	'		1.95	(2.66)		2.66	(2.49)	
Effective N of candidates	-0.33	(0.58)			-0.28	(0.60)		-0.19	(0.57)	
Presidential election	-0.26	(2.57)			1.88	(2.64)		0.82	(2.42)	
Media infotainment index	13.04	(13.43)			3.96	(13.74)		4.16	(12.66)	
Region: MENA ^a	-1.32	(4.11)			-5.05	(4.25)		-8.73	(3.97)	*
Region: Sub-Sahr Africa	-4.13	(4.98)			-4.48	(5.03)		-9.82	(4.68)	*
Region: Lat Am & Caribb	4.24	(4.11)			1.59	(4.19)		-9.37	(3.98)	*
Region: Ctrl and Sth Asia	-1.24	(6.47)			-2.64	(6.48)		-2.72	(5.90)	
Region: East & SE Asia	-1.10	(4.34)			-2.36	(4.40)		-12.34	(4.18)	**
Region: Eastern Europe	-0.64	(3.25)			-3.08	(3.35)		-5.13	(3.14)	
Region: Sth Europe	3.05	(3.55)			-0.73	(3.69)		-5.67	(3.43)	Ť
Negative tone					4.58	(1.04)	***			
Emotional campaign index						· /		14.97	(1.13)	***
Constant	-264.80	(179.52)			-326.47	(175.95)	Ť	-173.25	(149.20)	
N(candidates)	402				402			402		
N(cloations)	402				402			402		
D2	0.265				0 200			00		
N Madal Chi ²	0.203				164			0.485		
WIGGET CITI	130.2				104			574.4		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 10 experts or more. Dependent variables vary between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand). East & SE Asia includes Melanesia, Micronesia and Polynesia.

	M1			<u>M2</u>			M3		
	Coef	Se	sig	Coef	Se	sig	Coef	Se	sig
Incumbent	15.95	(2.60)	***	15.27	(2.53)	***	15.39	(2.56)	***
Left-right position	-0.18	(0.56)		-0.48	(0.55)		-0.48	(0.57)	
Extremism	-2.71	(1.36)	*	-3.08	(1.33)	*	-3.24	(1.35)	*
Female	2.13	(2.26)		1.49	(2.21)		1.65	(2.22)	
Year born	0.08	(0.08)		0.08	(0.07)		0.08	(0.08)	
Election competitiveness	1.10	(1.18)		1.43	(1.19)		1.31	(1.19)	
Electoral system: PR	2.62	(2.50)		2.24	(2.53)		2.91	(2.51)	
Effective N of candidates	-0.22	(0.57)		-0.26	(0.57)		-0.27	(0.57)	
Presidential election	0.52	(2.45)		0.35	(2.47)		0.72	(2.46)	
Media infotainment index	5.59	(12.78)		1.64	(12.83)		2.84	(12.80)	
Region: MENA ^a	-8.62	(3.98)	*	-9.19	(4.11)	*	-9.93	(4.09)	*
Region: Sub-Sahr Africa	-10.04	(4.69)	*	-9.76	(4.72)	*	-10.21	(4.71)	*
Region: Lat Am & Caribb	-9.42	(3.99)	*	-8.53	(4.06)	*	-9.37	(4.04)	*
Region: Ctrl and Sth Asia	-2.94	(5.91)		-3.73	(5.97)		-3.82	(6.00)	
Region: East & SE Asia	-12.42	(4.18)	**	-11.13	(4.22)	**	-11.95	(4.19)	**
Region: Eastern Europe	-4.89	(3.15)		-4.12	(3.21)		-4.96	(3.18)	
Region: Sth Europe	-5.60	(3.43)		-6.16	(3.58)	Ť	-7.35	(3.54)	*
Negative tone				-1.25	(2.52)		8.80	(2.44)	***
Fear appeals	7.31	(0.61)	***	0.63	(1.73)		5.39	(0.87)	***
Enthusiasm appeals	7.89	(0.74)	***	8.79	(0.79)	***	12.54	(1.89)	***
Negative tone * fear				1.13	(0.35)	**	0.01	(0, 42)	*
Negative tone · entitusiasin							-0.91	(0.43)	
Constant	-163.61	(149.66)		-154.03	(146.80)		-200.99	(147.68)	
N(candidates)	402			402			402		
N(elections)	80			80			80		
\mathbf{R}^2	0 484			0 508			0 500		
Model Chi ²	375			415.6			402.5		

Table C2. Media attention by candidate profile and tone * emotions (minimum 10 experts per candidate)

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 10 experts or more. Dependent variables vary between 0 "very low media coverage" and 100 "very high media coverage". a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand). East & SE Asia includes Melanesia, Micronesia and Polynesia.

Table C3. Media attention by candidate profile and campaign style * media infotainment index

(minimum 10 experts per candidate)

	M1			M2		
	Coef	Se	sig	Coef	Se	sig
Incumbent	29.80	(2.77)	***	16.62	(2.51)	***
Left-right position	0.41	(0.66)		-0.26	(0.55)	
Extremism	-4.51	(1.57)	**	-3.14	(1.24)	*
Female	1.45	(2.67)		2.05	(2.26)	
Year born	0.19	(0.09)	*	0.09	(0.08)	
Election competitiveness	2.30	(1.26)	t	1.20	(1.19)	
Electoral system: PR	1.82	(2.68)		2.86	(2.50)	
Effective N of candidates	-0.25	(0.60)		-0.14	(0.57)	
Presidential election	1.49	(2.67)		0.90	(2.42)	
Media infotainment index	-62.67	(41.56)		-49.28	(52.37)	
Region: MENA ^a	-4.83	(4.29)		-8.35	(3.99)	*
Region: Sub-Sahr Africa	-3.25	(5.10)		-8.94	(4.76)	Ť
Region: Lat Am & Caribb	2.06	(4.22)		-9.31	(3.99)	*
Region: Ctrl and Sth Asia	-2.39	(6.51)		-2.07	(5.94)	
Region: East & SE Asia	-1.69	(4.44)		-11.88	(4.20)	**
Region: Eastern Europe	-2.58	(3.38)		-5.02	(3.14)	
Region: Sth Europe	-0.62	(3.72)		-5.46	(3.44)	
Negative tone	-8.10	(7.54)				
Emotional campaign index				6.22	(8.41)	
Infotainment index * negative tone	16.96	(9.97)	Ť			
Infotainment index * emotional campaign index				11.62	(11.05)	
Constant	-288.07	(176.94)		-144.33	(151.64)	
N(candidates)	402			402		
N(elections)	80			80		
\mathbf{R}^2	0 304			0 485		
Model Chi ²	167.9			375.8		
WIOUCI CIII	107.9			575.0		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 10 experts or more. The Dependent variable varies between 0 "very low media coverage" and 100 "very high media coverage". a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New

Zealand).

Table C4. Media attention by candidate profile and campaign strategies (controlling for composition of expert sample)

	M1			M2			M3		
	Coef	Se	sig	Coef	Se	sig	Coef	Se	sig
Incumbent	27.55	(2.43)	***	28.14	(2.42)	***	16.96	(2.13)	***
Left-right position	1.04	(0.60)	t	0.60	(0.62)		-0.29	(0.51)	
Extremism	-2.36	(1.38)	t	-3.68	(1.45)	*	-3.44	(1.15)	**
Female	0.88	(2.58)		0.90	(2.56)		1.44	(2.15)	
Year born	0.10	(0.08)		0.11	(0.08)		0.05	(0.07)	
Election competitiveness	2.07	(1.12)	†	1.80	(1.12)		1.02	(1.07)	
Electoral system: PR	1.80	(2.33)		2.28	(2.32)		3.55	(2.20)	
Effective N of candidates	0.63	(0.60)		0.68	(0.60)		0.00	(0.58)	
Presidential election	2.59	(2.29)		3.95	(2.33)	Ť	2.18	(2.16)	
Media infotainment index	13.74	(9.63)		10.18	(9.66)		3.41	(8.99)	
Region: MENA ^a	-0.52	(3.87)		-2.14	(3.89)		-5.26	(3.74)	
Region: Sub-Sahr Africa	3.34	(4.46)		3.74	(4.44)		-4.42	(4.22)	
Region: Lat Am & Caribb	1.38	(4.17)		0.23	(4.16)		-9.59	(4.00)	*
Region: Ctrl and Sth Asia	3.64	(5.80)		3.13	(5.76)		3.80	(5.31)	
Region: East & SE Asia	1.46	(3.90)		1.46	(3.87)		-9.50	(3.75)	*
Region: Eastern Europe	0.88	(3.86)		-0.02	(3.85)		-2.37	(3.72)	
Region: Sth Europe	4.60	(3.37)		3.28	(3.38)		-2.82	(3.25)	
Negative tone				2.44	(0.90)	**			
Emotional campaign index							14.36	(1.00)	***
Average expert familiarity ^b	0.18	(1.51)		0.50	(1.50)		0.63	(1.43)	
Average survey simplicity ^c	2.49	(1.06)	*	2.26	(1.06)	*	-0.61	(1.05)	
Average expert left-right d	-0.36	(1.26)		-0.42	(1.25)		-1.14	(1.20)	
Percentage female experts	-3.59	(5.99)		-3.40	(5.95)		-0.62	(5.67)	
Percentage domestic experts	9.27	(5.09)	Ť	10.95	(5.09)	*	5.43	(4.82)	
Constant	-182.87	(165.15)		-206.54	(164.31)		-118.32	(138.06)	
N(candidates)	507			507			507		
N(elections)	107			107			107		
R^2	0.268			0.279			0.474		
Model Chi ²	176.9			186.6			453.2		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. Dependent variables vary between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand). East & SE Asia includes Melanesia, Micronesia and Polynesia.

b: Average score for variable measuring how familiar experts are with elections in the country surveyed (self-assessment); ranges between 0 'very low' and 10 'very high'.

c: Average score for variable measuring how easy or difficult it was for experts to answer questions in the survey (self-assessment); ranges between 0 'very difficult' and 10 'very easy'.

d: Average ideology of experts, based on self-assessed position of left-right scale (0-10). *** = 0.001 ** = 0.01 * = 0.05 + = 0.1

Table C5. Media attention by candidate profile and tone * emotions (controlling for composition of

expert sample)

	M1			M2			M3		
	Coef	Se	sig	Coef	Se	sig	Coef	Se	sig
Incumbent	15.21	(2.22)	***	14.44	(2.18)	***	14.61	(2.21)	***
Left-right position	0.08	(0.52)		-0.23	(0.52)		-0.17	(0.53)	
Extremism	-2.12	(1.24)	t	-2.56	(1.22)	*	-2.67	(1.24)	*
Female	1.42	(2.14)		0.99	(2.11)		1.10	(2.13)	
Year born	0.04	(0.07)		0.03	(0.07)		0.04	(0.07)	
Election competitiveness	1.27	(1.05)		1.38	(1.04)		1.36	(1.04)	
Electoral system: PR	3.21	(2.16)		2.51	(2.15)		2.90	(2.14)	
Effective N of candidates	-0.13	(0.57)		-0.18	(0.57)		-0.11	(0.56)	
Presidential election	1.19	(2.14)		0.68	(2.16)		1.15	(2.15)	
Media infotainment index	5.85	(8.84)		4.91	(8.78)		4.91	(8.77)	
Region: MENA ^a	-4.50	(3.65)		-3.92	(3.67)		-4.34	(3.65)	
Region: Sub-Sahr Africa	-4.95	(4.14)		-3.05	(4.13)		-3.79	(4.11)	
Region: Lat Am & Caribb	-9.77	(3.91)	*	-8.11	(3.94)	*	-8.93	(3.93)	*
Region: Ctrl and Sth Asia	3.41	(5.21)		4.08	(5.19)		3.91	(5.21)	
Region: East & SE Asia	-9.90	(3.68)	**	-8.47	(3.66)	*	-8.80	(3.65)	*
Region: Eastern Europe	-0.95	(3.66)		0.50	(3.66)		0.52	(3.65)	
Region: Sth Europe	-2.79	(3.17)		-2.18	(3.20)		-3.11	(3.17)	
Negative tone				-3.73	(2.03)	÷	6.73	(2.25)	**
Fear appeals	6.62	(0.53)	***	0.45	(1.54)	1	5.52	(0.73)	***
Enthusiasm appeals	8.35	(0.66)	***	8.87	(0.70)	***	12.59	(1.74)	***
Negative tone * fear				1.21	(0.32)	***			
Negative tone * enthusiasm					. ,		-0.92	(0.39)	*
Average expert familiarity ^b	0.47	(1.40)		0.54	(1.39)		0.69	(1.39)	
Average survey simplicity c	-0.62	(1.02)		-0.96	(1.02)		-0.70	(1.01)	
Average expert left-right d	-1.57	(1.18)		-1.68	(1.19)		-2.16	(1.19)	t
Percentage female experts	-2.02	(5.56)		-3.41	(5.55)		-2.24	(5.54)	
Percentage domestic experts	4.56	(4.72)		6.12	(4.71)		6.21	(4.70)	
Constant	-97.71	(137.60)		-54.70	(135.92)		-118.51	(136.84)	
N(candidates)	507			507			507		
N(elections)	107			107			107		
\mathbf{D}_2^2	0.484			0.502			0.402		
K Madal Chi2	0.464			0.303 500 6			0.495		
WIDGEI CIII"	405.1			500.0			460.2		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. Dependent variables vary between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand). East & SE Asia includes Melanesia, Micronesia and Polynesia.

b: Average score for variable measuring how familiar experts are with elections in the country surveyed (self-assessment); ranges between 0 'very low' and 10 'very high'.

c: Average score for variable measuring how easy or difficult it was for experts to answer questions in the survey (self-assessment); ranges between 0 'very difficult' and 10 'very easy'.

d: Average ideology of experts, based on self-assessed position of left-right scale (0-10).

Table C6. Media attention by candidate profile and campaign style * media infotainment index

(controlling for composition of expert sample)

	M1			M2		
	Coef	Se	sig	Coef	Se	sig
Incumbent	27.28	(2.38)	***	16.96	(2.13)	***
Left-right position	0.46	(0.61)		-0.26	(0.51)	
Extremism	-3.41	(1.43)	*	-3.41	(1.15)	**
Female	-0.03	(2.53)		1.31	(2.16)	
Year born	0.13	(0.08)		0.06	(0.07)	
Election competitiveness	1.94	(1.10)	Ť	1.04	(1.06)	
Electoral system: PR	1.79	(2.28)		3.62	(2.18)	Ť
Effective N of candidates	0.69	(0.59)		0.06	(0.58)	
Presidential election	2.79	(2.30)		2.34	(2.13)	
Media infotainment index	-100.25	(26.97)	***	-42.56	(34.75)	
Region: MENA ^a	-2.58	(3.83)		-4.85	(3.69)	
Region: Sub-Sahr Africa	3.83	(4.36)		-3.41	(4.23)	
Region: Lat Am & Caribb	1.07	(4.09)		-9.51	(3.95)	*
Region: Ctrl and Sth Asia	0.69	(5.69)		4.63	(5.29)	
Region: East & SE Asia	0.80	(3.80)		-9.10	(3.72)	*
Region: Eastern Europe	-0.17	(3.78)		-2.03	(3.67)	
Region: Sth Europe	1.76	(3.34)		-2.84	(3.20)	
Negative tone	-17.99	(4.76)	***			
Emotional campaign index				7.11	(5.33)	
Infotainment index * negative tone	28.59	(6.54)	***			
Infotainment index * emotional campaign index				9.99	(7.29)	
Average expert familiarity ^b	0.41	(1.48)		0.65	(1.41)	
Average survey simplicity ^c	2.17	(1.04)	*	-0.49	(1.03)	
Average expert left-right ^d	-0.28	(1.23)		-1.25	(1.19)	
Percentage female experts	-2.22	(5.85)		-0.96	(5.60)	
Percentage domestic experts	8.57	(5.03)	†	5.22	(4.76)	
Constant	-162.80	(161.62)		-94.76	(139.46)	
N(condidates)	507			507		
N(elections)	107			107		
\mathbf{R}^2	0.306			0.475		
Model Chi ²	212.8			454		
Model Chi	212.0			404		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. Dependent variables vary between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand). East & SE Asia includes Melanesia, Micronesia and Polynesia.

b: Average score for variable measuring how familiar experts are with elections in the country surveyed (self-assessment); ranges between 0 'very low' and 10 'very high'.

c: Average score for variable measuring how easy or difficult it was for experts to answer questions in the survey (self-assessment); ranges between 0 'very difficult' and 10 'very easy'.

d: Average ideology of experts, based on self-assessed position of left-right scale (0-10).

Table C7. Media attention by candidate profile and campaign strategies (alternative measure of

infotainment; WJS data)

	M1			M2			M3		
	Coef	Se	sig	Coef	Se	sig	Coef	Se	sig
Incumbent	27.47	(3.22)	***	28.26	(3.19)	***	14.82	(2.94)	***
Left-right position	1.39	(0.71)	*	0.75	(0.73)		-0.38	(0.62)	
Extremism	-0.73	(1.63)		-2.68	(1.74)		-3.03	(1.39)	*
Female	-0.59	(2.95)		-0.54	(2.91)		0.33	(2.50)	
Year born	0.15	(0.11)		0.16	(0.10)		0.07	(0.09)	
Election competitiveness	3.38	(1.29)	**	3.21	(1.27)	*	1.48	(1.29)	
Electoral system: PR	1.46	(3.29)		2.20	(3.26)		2.63	(3.21)	
Effective N of candidates	-0.65	(0.69)		-0.55	(0.68)		0.08	(0.70)	
Presidential election	0.15	(3.02)		1.65	(3.03)		1.16	(2.97)	
WJS: economic influences b	2.93	(4.26)		1.56	(4.23)		0.53	(4.22)	
Region: MENA ^a	-6.46	(5.67)		-10.06	(5.73)	÷	-14.89	(5.66)	**
Region: Sub-Sahr Africa	-5.63	(7.65)		-4.22	(7.57)	1	-7.61	(7.50)	
Region: Lat Am & Caribb	0.89	(5.20)		-0.72	(5.17)		-12.05	(5.23)	*
Region: Ctrl and Sth Asia	9.13	(10.92)		7.15	(10.81)		-11.15	(10.16)	
Region: East & SE Asia	-2.27	(5.29)		-3.14	(5.23)		-15.18	(5.34)	**
Region: Eastern Europe	-2.20	(4.10)		-3.45	(4.07)		-5.97	(4.15)	
Region: Sth Europe	-0.03	(4.24)		-2.87	(4.30)		-8.46	(4.29)	*
Negative tone				3.47	(1.20)	**			
Emotional campaign index					()		16.21	(1.53)	***
Constant	-258.54	(205.56)		-274.10	(203.05)		-153.54	(174.37)	
N(candidates)	306			306			306		
N(clastions)	500			60			500		
D2	0.265			00			0.440		
N- Madal Chi2	102.8			114.9			0.449		
Model Clif-	105.8			114.8			255.8		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. The dependent variable varies between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand).

b: Alternative measure of media infotainment. Journalists' mean score of perceived 'economic influences' (profit expectation, advertising considerations) on their work (World of Journalism Study, 2011-2016); varies between 1 'not influential' and 5 'extremely influential'. See Appendix F.

Table C8. Media attention by candidate profile and tone * emotions (alternative measure of infotainment;

 WJS data)

	M1			M2			M3		
	Coef	Se	sig	Coef	Se	sig	Coef	Se	sig
Incumbent	14.09	(3.02)	***	13.99	(2.95)	***	14.09	(2.99)	***
Left-right position	-0.23	(0.64)		-0.57	(0.63)		-0.49	(0.65)	
Extremism	-2.44	(1.55)		-2.88	(1.53)	Ť	-2.77	(1.56)	†
Female	0.31	(2.50)		0.13	(2.44)		0.14	(2.47)	
Year born	0.06	(0.09)		0.04	(0.09)		0.05	(0.09)	
Election competitiveness	1.48	(1.31)		1.80	(1.32)		1.70	(1.34)	
Electoral system: PR	2.42	(3.26)		1.68	(3.29)		2.30	(3.31)	
Effective N of candidates	0.07	(0.71)		0.09	(0.72)		0.09	(0.73)	
Presidential election	0.72	(3.05)		-0.35	(3.10)		0.45	(3.11)	
WJS: economic influences b	0.91	(4.29)		1.95	(4.34)		1.44	(4.38)	
Region: MENA ^a	-14.64	(5.75)	*	-15.06	(5.89)	*	-15.58	(5.95)	**
Region: Sub-Sahr Africa	-8.06	(7.62)		-8.80	(7.68)		-7.75	(7.74)	
Region: Lat Am & Caribb	-12.17	(5.29)	*	-10.64	(5.37)	*	-11.86	(5.39)	*
Region: Ctrl and Sth Asia	-12.16	(10.27)		-13.57	(10.33)		-12.95	(10.48)	
Region: East & SE Asia	-15.67	(5.42)	**	-15.29	(5.48)	**	-15.82	(5.53)	**
Region: Eastern Europe	-5.88	(4.22)		-4.98	(4.30)		-5.70	(4.33)	
Region: Sth Europe	-8.44	(4.35)	Ť	-8.71	(4.50)	Ť	-9.77	(4.52)	*
Negative tone				-3.41	(2.91)		7.25	(2.99)	*
Fear appeals	7.93	(0.81)	***	1.31	(2.05)		6.54	(1.16)	***
Enthusiasm appeals	8.65	(0.95)	***	9.29	(1.01)	***	13.00	(2.32)	***
Negative tone * fear				1.26	(0.41)	**			
Negative tone * enthusiasm							-0.92	(0.54)	Ť
Constant	-140.72	(174.38)		-81.34	(171.31)		-146.38	(172.83)	
N(candidates)	306			306			306		
N(elections)	60			60			60		
R^2	0 4 4 9			0 472			0 459		
Model Chi ²	256.1			282.1			268.9		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. The Dependent variable varies between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand).

b: Alternative measure of media infotainment. Journalists' mean score of perceived 'economic influences' (profit expectation, advertising considerations) on their work (World of Journalism Study, 2011-2016); varies between 1 'not influential' and 5 'extremely influential'. See Appendix F.

Table C9. Media attention by candidate profile and campaign style * media infotainment index

(alternative measure of infotainment; WJS data)

	M1			M2		
	Coef	Se	sig	Coef	Se	sig
Incumbent	28.36	(3.19)	***	14.91	(2.94)	***
Left-right position	0.70	(0.73)		-0.29	(0.62)	
Extremism	-2.74	(1.74)		-3.05	(1.40)	*
Female	-0.55	(2.91)		0.22	(2.51)	
Year born	0.14	(0.10)		0.08	(0.09)	
Election competitiveness	3.29	(1.27)	**	1.50	(1.28)	
Electoral system: PR	1.55	(3.28)		2.04	(3.22)	
Effective N of candidates	-0.46	(0.69)		0.09	(0.69)	
Presidential election	1.90	(3.03)		1.21	(2.94)	
WJS: economic influences ^b	-11.46	(10.14)		-13.42	(15.08)	
Region: MENA ^a	-9.39	(5.74)		-14.18	(5.63)	*
Region: Sub-Sahr Africa	-2.43	(7.66)		-6.69	(7.47)	
Region: Lat Am & Caribb	-0.49	(5.16)		-11.64	(5.18)	*
Region: Ctrl and Sth Asia	4.92	(10.90)		-12.29	(10.19)	
Region: East & SE Asia	-3.88	(5.25)		-15.59	(5.30)	**
Region: Eastern Europe	-3.65	(4.07)		-5.54	(4.11)	
Region: Sth Europe	-2.58	(4.30)		-7.95	(4.27)	†
Negative tone	-5.21	(6.26)				
Emotional campaign index				8.51	(8.06)	
WJS: economic influences * negative tone	3.44	(2.43)				
WJS: economic influences * emotional campaign index				2.89	(3.01)	
Constant	-214.23	(207.07)		-135.14	(176.35)	
N(candidates)	306			306		
N(elections)	60			60		
\mathbf{R}^2	0.291			0.451		
Model Chi ²	117.2			252.8		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. The Dependent variable varies between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand).

b: Alternative measure of media infotainment. Journalists' mean score of perceived 'economic influences' (profit expectation, advertising considerations) on their work (World of Journalism Study, 2011-2016); varies between 1 'not influential' and 5 'extremely influential'. See Appendix F.

	M1			M2				M3		
	Coef	Se	sig	Coef	Se	:	sig	Coef	Se	sig
Incumbent	27.27	(2.45)	***	27.82	(2.4	4)	***	17.02	(2.11)	***
Left-right position	1.14	(0.60)	t	0.74	(0.6)	2)		-0.29	(0.50)	
Extremism	-2.68	(1.38)	÷	-3.94	(1.4	6	**	-3.39	(1.14)	**
Female	0.68	(2.59)	1	0.76	(2.5	7)		1.71	(2.14)	
Year born	0.08	(0.08)		0.09	(0.0)	8)		0.06	(0.07)	
Election competitiveness	2.54	(1.09)	*	2.37	(1.0	9)	*	1.34	(1.03)	
Electoral system: PR	2.26	(2.34)		2.83	(2.3)	3)		3.98	(2.18)	†
Effective N of candidates	-0.10	(0.52)		-0.05	(0.5	1)		0.03	(0.50)	1
Presidential election	1.92	(2.27)		3.04	(2.2	9)		1.81	(2.10)	
WJS: economic influences ^b	13.76	(10.18)		11.17	(10.1	7)		5.05	(9.34)	
Region: MENA ^a	-0.07	(3.59)		-2.11	(3.6	6)		-6.95	(3.43)	*
Region: Sub-Sahr Africa	-0.51	(3.71)		-1.16	(3.7	Ó		-7.65	(3.45)	*
Region: Lat Am & Caribb	2.76	(3.97)		1.16	(4.0	Ó		-10.82	(3.78)	**
Region: Ctrl and Sth Asia	4.78	(5.70)		3.83	(5.6	8)		2.29	(5.13)	
Region: East & SE Asia	0.30	(3.53)		-0.35	(3.5)	2)		-11.15	(3.39)	**
Region: Eastern Europe	0.61	(3.21)		-0.66	(3.2)	3)		-4.63	(3.05)	
Region: Sth Europe	5.72	(3.17)	t	4.05	(3.2	2)		-3.39	(3.04)	
Negative tone				2.29	(0.9	0)	*			
Emotional campaign index					(0.5	-)		14.27	(0.96)	***
Constant	-134.16	(163.67)		-158.6	1 (163.	03)		-132.63	(135.59)	
N(candidates)	507			507				507		
N(elections)	107			107				107		
R^2	0.246			0.256				0 471		
Model Chi ²	150 7			168 1				452 1		
WIGGET CITI	139.1			108.1				452.1		

Table C10. Media attention by candidate profile and campaign strategies (alternative measure of infotainment index, without "media negativity")

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. The dependent variable varies between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand).

b: Alternative measure of media infotainment. Journalists' mean score of perceived 'economic influences' (profit expectation, advertising considerations) on their work (World of Journalism Study, 2011-2016); varies between 1 'not influential' and 5 'extremely influential'. See Appendix F.

M1 M2 M3 Coef Coef Coef Se Se Se sig sig sig Incumbent 15.42 (2.19)*** 14.74 (2.16)*** 14.94 (2.19)*** 0.04-0.26 Left-right position (0.52)(0.51)-0.18 (0.52)Extremism -2.06 (1.24)t -2.45 (1.22)* -2.53 (1.24)* Female 1.75 (2.13)1.38 (2.10)1.56 (2.12)Year born 0.05 (0.07) 0.04 (0.07)0.05 (0.07)Election competitiveness 1.50 (1.00)1.63 (0.99) (0.99)t 1.63 t 3.03 Electoral system: PR 3.66 (2.11)3.54 (2.11)t (2.12)† Effective N of candidates -0.07 (0.48)-0.05 (0.48)-0.06 (0.48)1.01 (2.08)(2.08) Presidential election (2.06)0.23 0.84 7.75 (9.07) (9.10)WJS: economic influences b 7.68 (9.17) 8.76 Region: MENA ^a -6.29 (3.34)-6.05 (3.38)-6.61 (3.37) t Region: Sub-Sahr Africa -7.65 (3.36)-6.65 (3.34)-7.40 (3.34)** Region: Lat Am & Caribb -10.78(3.69)-9.48 (3.72)-10.22 (3.73)Region: Ctrl and Sth Asia 1.86 (5.03)2.23 (5.02)1.96 (5.04)-11.19 -10.22 (3.28) ** Region: East & SE Asia (3.30)(3.28)-10.65 Region: Eastern Europe -3.75 (2.98)-2.66 (2.98)-3.39 (2.97)(2.96) -2.78 (2.98) -3.37 (2.97) Region: Sth Europe -3.07 Negative tone -4.22 (2.01)5.89 ** (2.21)Fear appeals 6.55 (0.51)*** 0.57 (1.53)5.68 (0.71)*** *** (0.67) *** (1.71) *** Enthusiasm appeals 8.21 (0.63)8.60 12.07 Negative tone * fear 1.21 (0.31)*** Negative tone * enthusiasm -0.86 (0.39)* Constant -115.80 (135.18)-73.13 (133.73)-139.30 (134.80)507 507 507 N(candidates) N(elections) 107 107 107 \mathbb{R}^2 0.479 0.497 0.486 Model Chi² 462.5 495 473.7

Table C11. Media attention by candidate profile and tone * emotions (alternative measure of

infotainment index, without "media negativity")

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. The Dependent variable varies between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand).

b: Alternative measure of media infotainment. Journalists' mean score of perceived 'economic influences' (profit expectation, advertising considerations) on their work (World of Journalism Study, 2011-2016); varies between 1 'not influential' and 5 'extremely influential'. See Appendix F.

Table C12. Media attention by candidate profile and campaign style * media infotainment index

(alternative measure of infotainment index, without "media negativity")

	M1			M2		
	Coef	Se	sig	Coef	Se	sig
Incumbent	26.94	(2.40)	***	17.09	(2.12)	***
Left-right position	0.59	(0.61)		-0.28	(0.51)	
Extremism	-3.51	(1.44)	*	-3.31	(1.15)	**
Female	-0.04	(2.53)		1.63	(2.15)	
Year born	0.12	(0.08)		0.06	(0.07)	
Election competitiveness	2.48	(1.07)	*	1.41	(1.02)	
Electoral system: PR	2.23	(2.29)		4.08	(2.16)	Ť
Effective N of candidates	-0.01	(0.50)		0.03	(0.49)	
Presidential election	2.03	(2.26)		1.98	(2.08)	
WJS: economic influences ^b	-114.56	(29.28)	***	-35.55	(37.83)	
Region: MENA ^a	-2.30	(3.59)		-6.53	(3.41)	Ť
Region: Sub-Sahr Africa	-0.05	(3.63)		-6.72	(3.52)	Ť
Region: Lat Am & Caribb	2.01	(3.93)		-10.64	(3.75)	**
Region: Ctrl and Sth Asia	1.21	(5.60)		3.04	(5.13)	
Region: East & SE Asia	-0.84	(3.46)		-10.81	(3.37)	**
Region: Eastern Europe	-0.26	(3.17)		-4.42	(3.02)	
Region: Sth Europe	2.82	(3.17)		-3.22	(3.01)	
Negative tone	-21.11	(5.20)	***			
Emotional campaign index				7.87	(5.81)	
WJS: economic influences * negative tone	32.56	(7.13)	***			
WJS: economic influences * emotional campaign index				8.73	(7.87)	
Constant	-117.80	(160.06)		-110.87	(137.36)	
N(candidates)	507			507		
N(elections)	107			107		
R ²	0.287			0.471		
Model Chi ²	195.8			452		
nour on	175.0			102		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within elections. Models run only on candidates evaluated by 3 experts or more. The Dependent variable varies between 0 "very low media coverage" and 100 "very high media coverage".

a: For all regions the reference category is "Western and Northern Europe" (includes the USA, Australia and New Zealand).

b: Alternative measure of media infotainment. Journalists' mean score of perceived 'economic influences' (profit expectation, advertising considerations) on their work (World of Journalism Study, 2011-2016); varies between 1 'not influential' and 5 'extremely influential'. See Appendix F.

Model	Variable	VIF	Tolerance (1 / VIF)
M1	Incumbent	1.10	0.91
	Left-right position	1.08	0.92
	Extremism	1.07	0.93
	Female	1.10	0.91
	Year born	1.23	0.81
	Election competitiveness	1.55	0.64
	Electoral system: PR	1.59	0.63
	Presidential election	1.62	0.62
	Media infotainment index	1.32	0.78
	Region: MENA	1.45	0.69
	Region: Sub-Sahr Africa	1.79	0.56
	Region: Lat Am & Caribb	1.49	0.67
	Region: Ctrl and Sth Asia	1.28	0.78
	Region: East & SE Asia	1.56	0.64
	Region: Eastern Europe	1.57	0.64
	Region: Sth Europe	1.62	0.62
	Average VIF	1.41	
M2	Incumbent	1.10	0.91
	Left-right position	1.16	0.87
	Extremism	1.21	0.83
	Female	1.10	0.91
	Year born	1.23	0.81
	Election competitiveness	1.56	0.64
	Electoral system: PR	1.61	0.62
	Effective N of candidates	1.62	0.62
	Presidential election	1.57	0.64
	Media infotainment index	1.30	0.77
	Region: MENA	1.52	0.66
	Region: Sub-Sahr Africa	1.80	0.56
	Region: Ctrl and Sth Asia	1.32	0.00
	Region: East & SE Asia	1.20	0.78
	Region: Eastern Europe	1.60	0.62
	Region: Sth Europe	1.69	0.59
	Negative tone	1.43	0.70
	Average VIF	1.44	0170
M3	Incumbent	1.22	0.82
	Left-right position	1.12	0.89
	Extremism	1.07	0.93
	Female	1.10	0.91
	Year born	1.23	0.81
	Election competitiveness	1.56	0.64
	Electoral system: PR	1.60	0.63
	Effective N of candidates	1.62	0.62
	Presidential election	1.52	0.66
	Media infotainment index	1.30	0.77
	Region: MENA	1.48	0.68
	Region: Sub-Sahr Africa	1.84	0.54
	Region: Lat Am & Caribb	1.58	0.63
	Region: Ctrl and Sth Asia	1.28	0.78
	Region: East & SE Asia	1.66	0.60
	Region: Eastern Europe	1.59	0.63
	Emotional campaign index	1.70	0.39
		1 43	0.75

Table C13. Multicollinearity checks for Table 2

Collinearity scores calculated for models presented in Table 2 (linear OLS non-multilevel with robust standard errors, to allow for computation of VIF scores).

Model	Variable	VIF	Tolerance (1 / VIF)
M1	Incumbent	1.31	0.76
	Left-right position	1.18	0.85
	Extremism	1.26	0.80
	Female	1.10	0.91
	Year born	1.23	0.81
	Election competitiveness	1.57	0.64
	Electoral system: PR	1.60	0.63
	Effective N of candidates	1.63	0.61
	Presidential election	1.55	0.65
	Media infotainment index	1.31	0.76
	Region: MENA ^a	1.48	0.67
	Region: Sub-Sahr Africa	1.84	0.54
	Region: Lat Am & Caribb	1.58	0.63
	Region: Ctrl and Sth Asia	1.28	0.78
	Region: East & SE Asia	1.66	0.60
	Region: Eastern Europe	1.61	0.62
	Region: Sth Europe	1.70	0.59
	Fear appeals	1.77	0.57
	Enthusiasm appeals	1.84	0.54
	Average VIF	1.50	

 Table C14. Multicollinearity checks for Table 3

Collinearity scores calculated for models presented in Table 3 (linear OLS non-multilevel with robust standard errors, to allow for computation of VIF scores). Only models without interaction effects.

Supplementary Information file D

Media coverage check

We were able to independently assess the media coverage in terms of presence in the main news media for a subsample of 69 candidates in 12 election; for these candidates, we retrieved the number of times they were mentioned in the media in the national language (e.g., news in Italian for the Italian election) during the week prior to the election. We retrieved the data via Nexis Uni (advance.lexis.com) on August 7, 2019.

Based on this data we computed the ratio of their news coverage as a function of the coverage of all candidates in each election, in a way that the candidate with the highest mentions has a ratio of 100.0 (a ratio of 50.0 means that the candidate received half the mentions than the candidate with the highest ratio). This standardized measure was then compared with the media coverage as assessed independently by the experts (our main dependent variable), also standardized as a ratio comparing all candidates in a given election. See Table D1 and Figure D1.

				Media	coverage	
Country	Election code	Candidate	Experts ^a	Experts (ratio) ^b	News items ^c	News items (ratio) ^d
Brazil	BRA_P_20181007	João Amoêdo	27.89	30.58	145	7.30
Brazil	BRA_P_20181007	Marina Silva	51.09	56.00	442	22.26
Brazil	BRA_P_20181007	Ciro Gomes	60.41	66.22	640	32.23
Brazil	BRA_P_20181007	Geraldo Alckmin	60.23	66.02	641	32.28
Brazil	BRA_P_20181007	Fernando Haddad	76.27	83.61	1,395	70.24
Brazil	BRA_P_20181007	Jair Bolsonaro	91.23	100.00	1,986	100.00
Germany	DEU_L_20170924	Simone Peter	18.65	22.73	30	0.92
Germany	DEU_L_20170924	Katja Kipping	30.73	37.46	51	1.57
Germany	DEU_L_20170924	Alexander Gauland	67.68	82.52	372	11.43
Germany	DEU_L_20170924	Christian Lindner	61.00	74.37	796	24.46
Germany	DEU_L_20170924	Martin Schulz	75.11	91.56	1,919	58.97
Germany	DEU_L_20170924	Angela Merkel	82.03	100.00	3,254	100.00
Denmark	DNK_L_20190605	Uffe Elbæk	31.75	37.99	205	14.33
Denmark	DNK_L_20190605	Pia Olsen Dyhr	45.92	54.94	241	16.84
Denmark	DNK_L_20190605	Søren Pape Poulsen	41.00	49.05	261	18.24
Denmark	DNK_L_20190605	Pernille Skipper	44.92	53.74	262	18.31
Denmark	DNK_L_20190605	Morten Østergaard	51.58	61.71	339	23.69
Denmark	DNK_L_20190605	Kristian Thulesen Dahl	62.25	74.48	433	30.26
Denmark	DNK_L_20190605	Lars Løkke Rasmussen	83.58	100.00	1,231	86.02
Denmark	DNK_L_20190605	Mette Frederiksen	83.08	99.40	1,431	100.00
Spain	ESP_L_20160626	Albert Rivera	78.85	88.51	934	60.89
Spain	ESP_L_20160626	Pedro Sánchez	82.31	92.40	1,363	88.85
Spain	ESP_L_20160626	Pablo Iglesias	82.85	93.01	1,468	95.70
Spain	ESP_L_20160626	Mariano Rajoy	89.08	100.00	1,534	100.00
Spain	ESP_L_20190428	Santiago Abascal	72.15	86.27	775	30.32
Spain	ESP L 20190428	Pablo Iglesias	62.67	74.93	1,308	51.17

Table D1. Media coverage: Expert ratings vs. News items (Nexis Uni)

				Media o	coverage	
Country	Election code	Candidate	Experts ^a	Experts (ratio) ^b	News items ^c	News items (ratio) ^d
Spain	ESP_L_20190428	Albert Rivera	78.94	94.38	1,577	61.70
Spain	ESP_L_20190428	Pablo Casado	80.06	95.72	1,668	65.26
Spain	ESP_L_20190428	Pedro Sánchez	83.64	100.00	2,556	100.00
France	FRA_L_20170611	Bernard Cazeneuve	47.73	50.68	241	4.86
France	FRA_L_20170611	François Baroin	62.64	66.51	249	5.02
France	FRA_L_20170611	Marine Le Pen	74.45	79.05	1,255	25.32
France	FRA_L_20170611	Jean-Luc Mélenchon	71.20	75.60	1,402	28.28
France	FRA_L_20170611	Emmanuel Macron	94.18	100.00	4,957	100.00
France	FRA_P_20170423	Benoît Hamon	46.85	54.90	2,283	60.32
France	FRA_P_20170423	Jean-Luc Mélenchon	68.59	80.38	3,199	84.52
France	FRA_P_20170423	François Fillon	80.04	93.79	3,676	97.12
France	FRA_P_20170423	Marine Le Pen	84.52	99.05	3,685	97.36
France	FRA_P_20170423	Emmanuel Macron	85.33	100.00	3,785	100.00
Gabon	GAB_P_20160827	Dieudonné M. Mintogo	20.50	22.04	1	0.79
Gabon	GAB_P_20160827	Raymond Ndong Sima	41.50	44.62	5	3.94
Gabon	GAB_P_20160827	Bruno Ben Moubamba	30.00	32.26	5	3.94
Gabon	GAB_P_20160827	Pierre-Claver M. Moussavou	33.00	35.48	8	6.30
Gabon	GAB_P_20160827	Jean Ping	61.33	65.95	109	85.83
Gabon	GAB_P_20160827	Ali Bongo Ondimba	93.00	100.00	127	100.00
Italy	ITA_L_20180304	Pietro Grasso	40.96	47.32	253	27.12
Italy	ITA_L_20180304	Giorgia Meloni	48.75	56.31	289	30.98
Italy	ITA_L_20180304	Matteo Salvini	86.57	100.00	578	61.95
Italy	ITA_L_20180304	Luigi Di Maio	81.39	94.02	818	87.67
Italy	ITA_L_20180304	Silvio Berlusconi	83.04	95.92	929	99.57
Italy	ITA_L_20180304	Matteo Renzi	83.36	96.29	933	100.00
The Netherlands	NLD_L_20170315	Marianne Thieme	31.93	39.45	143	12.35
The Netherlands	NLD_L_20170315	Gert-Jan Segers	32.31	39.92	169	14.59
The Netherlands	NLD_L_20170315	Emile Roemer	45.69	56.46	337	29.10
The Netherlands	NLD_L_20170315	Alexander Pechtold	60.10	74.27	386	33.33
The Netherlands	NLD_L_20170315	Sybrand van Haersma Buma	63.07	77.93	493	42.57
The Netherlands	NLD_L_20170315	Lodewijk Asscher	56.97	70.39	584	50.43
The Netherlands	NLD_L_20170315	Jesse Klaver	75.38	93.14	725	62.61
The Netherlands	NLD_L_20170315	Geert Wilders	78.66	97.19	1,091	94.21
The Netherlands	NLD_L_20170315	Mark Rutte	80.93	100.00	1,158	100.00
Russia	RUS_L_20160918	Vladimir Zhirinovsky	49.30	57.13	20	5.13
Russia	RUS_L_20160918	Gennady Zyuganov	40.35	46.75	22	5.64
Russia	RUS_L_20160918	Sergey Mironov	27.78	32.19	25	6.41
Russia	RUS_L_20160918	Dmitry Medvedev	86.30	100.00	390	100.00
Russia	RUS P 20180318	Grigory Yavlinsky	23.15	23.77	864	25.91
Russia	RUS_P_20180318	Vladimir Zhirinovsky	44.90	46.10	924	27.71
Russia	RUS_P_20180318	Ksenia Sobchak	50.65	52.00	971	29.12
Russia	RUS_P_20180318	Pavel Grudinin	45.00	46.20	1,254	37.61
Russia	RUS_P_20180318	Vladimir Putin	97.40	100.00	3,334	100.00

a: Media coverage, as assessed by experts. Dependent variable used in our models (0-100).

b: Ratio of media coverage as assessed by experts. The ratio is a standardized score (0-100) computed with regards to the highest value for each specific election. For instance, for the 2018 election in Brazil (BRA_P_20181007) Jair Bolsonaro was assessed by the experts as having the highest media coverage (91.23), which is used as benchmark to assess the ratio for all other candidates: a ratio of 50.00 means that the candidate has a media coverage half as important as the highest rated candidate (100.00).

c: Number of news items mentioning the candidate in the news media in the language of the country during the 7 days prior to the election. Retrieved via Nexis Uni (advance.lexis.com).

d: Ratio of media coverage based on news items retrieved via Nexis Uni. The ratio is a standardized score (0-100) computed with regards to the highest value for each specific election. For instance, for the 2018 election in Brazil

 $(BRA_P_{20181007})$ Jair Bolsonaro was mentioned the most in the news in Portuguese (N=1,986), which is used as benchmark to assess the ratio for all other candidates.



Figure D1. Media coverage: Expert ratings vs. News items (Nexis Uni), scatterplot

Note: Several candidates obtain the score 100.00 (or very close) on both axes, which explains the overlapping labels in the top-right corner. These candidates are: Bolsonaro [BRA], Bongo Ondimba [GAB], Frederiksen [DNK], Le Pen [FRA], Macron [FRA], Medvedev [RUS], Merkel [DEU], Putin [RUS], Rajoy [ESP], Rasmussen [DNK], Rutte [NLD], Salvini [ITA], Sánchez [ESP]

Supplementary Information file E

Campaign negativity checks

We discuss in this Appendix the results of a series of checks performed to investigate the validity of the measure of campaign negativity (tone) as assessed by experts. The checks are *not* run with the dataset used in this article (elections worldwide), but with data from a "parallel" study that replicated the exact same measures of negativity, as assessed by experts, for the 2018 Midterms elections in the USA. In the direct aftermath of the Midterm elections of November 2018 we contacted a sample of scholars with expertise in elections, politics and political communication working for a US university. Depending on the state where they live, they were asked to evaluate the campaigning style of the two competing candidates – always taken as a whole – for the Senate in that state. Only candidates for which at least two scholars provided independent ratings are included in the dataset. We were not able to gather any expert opinions for North Dakota and West Virginia, and only one expert provided ratings for candidates in Hawaii, Nevada and Wyoming. The number of expert ratings collected varies between 2 (for, e.g., Delaware) and 30 (California), with an average of 8.04 experts per candidate. On average, experts in the whole sample lean as expected to the left (M = 3.22/1-10, SD = 1.43); 66% of them identify as a Democrat, 21% as Independent, and only 4% as a Republican (4% also prefer not to say, and two of them declared being a Republican "until Trump"). 27% of them are female. On average, experts rated themselves as very familiar with election campaigns in their state (M = 7.81/0-10, SD = 2.05) and estimated that the questions in the survey were relatively easy to answer (M = 7.52/0-10, SD = 2.39).

In the analyses below, we triangulate our expert ratings (only candidates with two or more ratings) with additional data about the campaign of the 2018 US Senate Midterms from two independent sources: (1) the content of the candidates' tweets leading to the election, which we coded via an automated classifying algorithm, and (2) the content of the candidates' political ads, from the Wesleyan Media Project (as found in Fowler et al., 2020). We present below the results of the two validity checks separately.

Results for these checks show, in a nutshell, that:

- The expert measurement of campaign tone is positively associated with the use of attacks in tweets
- The expert measurement of campaign tone is positively associated with the percentage of negative TV ads.

- Looking at statistical outliers, discrepancies between the experts and TV ads measurement of negativity could be associated with precision in measurement (i.e., for candidates where fewer experts provided ratings and fewer TV ads were coded)
- A unique underlying dimension can be extracted from the three independent measures (experts, tweets, TV ads)

The three sources of measures of negativity discussed in this series of tests - expert scores, TV ads, and Twitter - converge in an expected way: when negativity is higher on Twitter and in TV ads, experts are significantly more likely to assess the candidates' campaign as more negative. This being said, the three measures do not overlap perfectly. There are good theoretical reasons to expect some differences, beyond differences in measurement. First and most importantly, candidates can be expected to campaign differently in different channels; some candidates might prefer negativity on TV ads - especially in the USA, this is after all the classical way of campaigning in elections - whereas other candidates might prefer social media. In contrast, experts in our study were asked to assess the tone of campaigns *on the whole*, beyond specific campaign channels.

Nonetheless, the three measures seem to refer to a general and underlying dimension of "campaign negativity". A factor analysis (PCA) on the three measures of campaign negativity shows indeed the presence of one unique underlying dimension (*Eigenvalue* = 1.63), explaining 54% of the variance.

All in all, our tests suggest that the different measures converge in a way that can be predicted theoretically, and all broadly reflect a broad understanding of "campaign negativity". These results strongly advocate in favor of the idea that expert ratings, with all the caveats associated with this approach, can be a reliable alternative to channel-specific measures. The following subsections present the details of the tests. Table E4, at the end of Appendix E, presents the scores on the different measures of negativity discussed in this series of tests, for each candidate.

1. Expert ratings and candidate campaigns on Twitter

We trained an algorithm to automatically classify the tweets posted by the competing candidates in the 2018 US Senate Midterms in terms of use of attacks against their opponents and overall sentiment of the tweet (positive-negative). To do so, we collected all tweets posted by the competing candidates between September 1 and November 8, 2018 (N = 16,173 tweets). Three candidates did not, to the best of our knowledge, post any tweets in that period (even though they do have a twitter handle): Chele Chiavacci

(R, NY, @CheleNYC), Leah Vukmir (R, WI, @LeahVukmir), and Lawrence Zupan (R, VT, @LawrenceZupan).

The number of tweets per candidate collected varies considerably, from N = 24 for Mitt Romney (R, UT, @MittRomney) to N = 1,028 for Rick Scott (R, FL, @SenRickScott), with an average of 256.7 tweets per candidate. A first initial random sample of 200 tweets was manually coded by team of four research assistants on a series of dimensions (including the use of attacks). Discrepancies among the coders were solved by the authors of this study, and the final coding of the 200 tweets plus selected "good examples" were fed to the developing algorithm via a supervised machine learning approach (Kotsiantis 2007).

Looking at the classified tweets the area under the ROC (receiver operating characteristic) curve, which broadly quantifies the performance of a classification model, is 0.82, with F1 scores of 0.81 for absence of attacks and 0.83 for presence of attacks. In other terms, the final algorithm was able to correctly classify 81% of tweets as not containing an attack and 83% of tweets as containing one, and was subsequently run through the whole dataset to create an automated measure for the presence of attacks (0 "Absent", 1 "Present"); overall, 31.5% of all 16,173 tweets were classified by the algorithm as containing an attack.

	M1 Coef	(Se)	sig
Twitter: negative ^a	3.94	(1.81)	*
Incumbent Republican Female Year born State turnout State tossup	-0.89 2.50 1.04 0.02 -0.01 1.16	(0.62)(0.59)(0.59)(0.02)(0.04)(0.22)	*** † ***
Constant	-40.93	(44.82)	
N(candidates) N(states) R2	52 28 0.65		

Table E1. Senate Midterms 2018. Expert measure of negative campaigning by alternative measures of candidates' campaign on twitter.

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within states. Minimum two experts per candidate. The dependent variable is negative tone and varies between 0 "Very positive" and 10 "Very negative".

a: Measured via supervised machine learning algorithms run on the candidates' tweets between September 1 and November 8, 2019 and varies theoretically between 0 "No negative tweets" and 1 "Only negative tweets". *** p < 0.001, ** p < 0.05, † p < 0.1 Based on this classification, we regressed the "tone" of the candidates' campaign as measured by the experts on the measure of negativity coming from the automated coding of their tweets, plus a series of controls at the candidate and state levels. Results of the multilevel regression are presented in Table E1 and show that as expected our "expert" measure of tone is positively associated with use of attacks in twitter. The effect is substantiated via marginal effects with 95% CIs in Figure E1.

Figure E1. Senate Midterms 2018. Expert measure of negative campaigning by alternative measure of candidates' campaign on twitter; marginal effects





2. Expert ratings and candidate campaigns in political ads

The Wesleyan Media Project (WMP) gathered detailed data about the content of TV ads aired during the 2018 Midterms. The detailed dataset is embargoed until after the 2020 US election; however, aggregated trends at the state level were made available via a recent article by Fowler et al. (2020). Their "Supplementary material 1", available on the publisher's website,¹ includes for each state the *percentage of negative TV ads* supporting the Republican and Democrat candidates (so potentially including also the

 $^{^{1}\} https://www.cambridge.org/core/journals/ps-political-science-and-politics/article/blue-wave-assessing-political-advertising-trends-and-democratic-advantages-in-2018/5545DDBE51267FEBB492E08F24DD4B3E#fndtn-supplementary-materials$

ads not sponsored by the candidates but endorsing them). The variable is based on the coding of ads aired after 9/4/18, on a total of more than 760,000 ads.

Given the nature of the US Senate competition, where one candidate per party compete for a vacant seat at the state level, we were able to associate the percentages in the WMP data with the candidates in our dataset (except for California, where two Democratic candidates competed). The WMP data does furthermore not include the percentage of negative ads supporting Tom Carper (D, DE), Rob Arlett (R, DE), Ron Curtis (R, HI), Elizabeth Warren (D, MA), Tony Campbell (R, MD), Mick Rich (R, NM), Chele Chiavacci (R, NY), and Bernie Sanders (D, VT).

TV ads are undoubtedly the most important campaigning channel in US elections. In this sense, we should expect the percentage of negative TV ads to be positively associated with the tone of the campaign as perceived by the experts in our dataset. Indeed, the two measures correlate rather strongly, r(45) = .58, p < .001. Figure E2 plots this association.

Figure E2. Senate Midterms 2018. Expert measure of negative campaigning by percentage of negative TV ads (WMP data)



Note that the diagonal line in the graph represents the linear association between the two measures, and not the expected association (which would be a diagonal cutting the graph in half from the bottom left to the top right of the figure). With this in mind the figure shows some outliers, especially on the low end of the x-axis. If for several candidates the two measures report very low negativity - for instance, Mitt Romney (R, UT), Amy Klobuchar (D, MN) or Ben Cardin (D, MD) all score 0% of negative TV ads in the WMP data and were rated as running very positive campaigns by our experts - other candidates diverge. These candidates, on the top left quadrant of the figure, ran very positive TV ads according to the WMP data but overall more negative campaigns according to our experts. Looking closely at these candidates suggest that they are outliers because of their particular profile, and not due to measurement errors.

The most extreme case is Corey Stewart (R, VA). According to the independent WMP data Stewart ran only positive ads in the 2018 Midterms; yet, our experts qualified his campaign as very negative, with more than 9 points out of a maximum of 10. Knowing the profile and reputation of Mr. Steward, this does not seem to be outlandish. As described in a recent article published in *The New Yorker* (Nwanevu, 2018),

Stewart is known for his "Trumpian" style, affiliations to ultranationalists, and frequent harsh critiques against the more moderate wings of his party.

A similar but slightly less extreme case is Eric Brakey (R, ME), who also scored 0% of negative ads but was qualified as running a rather negative campaign by our experts. It is possible that this discrepancy is due to Mr. Brakey's harsh performances during televised debates leading to the election; for instance, in a particularly heated TV debate in late October 2018, Mr. Brakey accused his main opponent - Independent candidate Angus King - of "flip-flopping" on votes too often, "not being honest" with the Maine voters and, by means of name calling, qualified his opponent as "a phony and a fraud" (WGME, 2018).

Slightly down the vertical line on the very left of Figure E2 we find Lawrence Zupan (R, VT) who, if apparently aired no negative ads according to the WMP data, was found to be the single most "negative" candidate on social media (Bajak & Wu, 2019). Corey Stewart (R, VA), which we discussed above, comes second in their list. Both candidates score quite high in negativity according to our experts.

All in all, for all of these more extreme outliers we can easily find evidence that, if they decided not to go negative in their TV ads, their campaigns were nonetheless "negative" elsewhere - be it on social media, in TV debates, or more in general.

As before for the tweets, we regressed the "tone" of the candidates' campaign as measured by the experts on the percentage of negative ads from the WMP, plus a series of controls at the candidate and state levels. Results of the multilevel regression are presented in Table E2 and show that as expected our "expert" measure of tone is positively and rather strongly associated with the percentage of negative TV ads. The effect is substantiated via marginal effects with 95% CIs in Figure E3.

Table E2. Senate Midterms 2018. Expert measure of negative campaigning by percentage of negative TV ads (WMP data)

	M1 Coef	(Se)	sig
Percentage negative ads ^a	3.41	(1.16)	**
Incumbent Republican Female Year born State turnout State tossup Constant	-0.52 2.56 0.59 0.04 -0.03 0.57 -65.70	(0.65)(0.63)(0.59)(0.02)(0.03)(0.29)(48.45)	***
N(candidates) N(states) R2	47 26 0.69		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within states. Minimum two experts per candidate. The dependent variable is negative tone and varies between 0 "Very positive" and 10 "Very negative".

a: Data from the Wesleyan Media Project (WMP; Fowler et al., 2020). *** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Figure E3. Senate Midterms 2018. Expert measure of negative campaigning by percentage of negative

TV ads (WMP data); marginal effects



Note: Marginal effects with 95% CIs, computed from coefficients in Table E2.

The two measures do not overlap perfectly, as also shown in Figure E2. If this could theoretically be expected, given that one measures the campaign globally (expert rating) whereas the other is channel-specific (TV ads), it is worth investigating the relationship between the two measures also in terms of their discrepancies, to identify potential patterns. A diagnostic of the regression residuals (Figure E4) shows first that the results are relatively well-fitted, as no particular pattern of the residuals appears when plotted against the fitted values.

Figure E4. Senate Midterms 2018. Expert measure of negative campaigning by percentage of negative TV ads (WMP data); residuals versus fitted values



Figure E5 then plots the datapoints' leverage (that is, how far away the value of an observation is from the other observations) against their (normalized) residuals squared. In the figure, the horizontal line represents the average value of leverage, whereas the vertical line represents the average normalized residual (squared); observations above the horizontal line are characterized by higher-than-average leverage, and observations to the right of the vertical line are characterized by larger-than-average residuals. Looking at Figure E5, we see that in general all observations are relatively clustered around mean values of leverage and (squared) normalized residuals, and no observations have simultaneously an extremely high leverage and score high in terms of standardized residuals.

Figure E5. Senate Midterms 2018. Expert measure of negative campaigning by percentage of negative TV ads (WMP data); leverage-versus-residual-squared plot



Yet, four observations *do* stand out; all score particularly high on Cook's D (a simple combination of leverage and residual): Josh Hawley (R, MO; *Cook's* D = 0.11), Susan Hutchison (R, WA; *Cook's* D = 0.14), Jon Tester (D, MT, *Cook's* D = 0.15), and Mitt Romney (R, UT; *Cook's* D = 0.24). These four candidates do not share a similar profile at a first glance: three males and one female, three Republicans and one Democrat, and all from different states. The reason why they stand out on the RL plot could however be due to measurement-related issues: for Romney and Hutchison the WMP scores were calculated on a comparatively much smaller number of TV ads (respectively, 694 and 712 ads, whereas the average number of TV ads coded per candidate by the WMP was approximately 12,000), which could potentially signal a less precise measurement of the percentage of negative ads. Similarly, the expert scores for Hutchison, Romney and Tester are computed on a comparatively smaller number of expert ratings (respectively, 3, 4 and 2, whereas the average across all candidates is 7.6), which could equally imply less precise measurements.

All in all, even if the two measures do not overall perfectly, the discrepancies between them do not seem to be driven by exogenous unmeasured phenomena; at the very least, there does not seem to be strong

reasons to suspect that the divergences between the two measures are driven by biases in the data. To be sure, we do find evidence suggesting that the discrepancy between the two measures is especially higher for observation with less precise measures (more specifically, measures that are based on fewer data points - either fewer experts or fewer TV ads coded). This, however, does not point in our opinion to specific problems in the measures *per se*, while it advocates for greater precision in measurement to achieve more robust results; with this in mind, all results in our main analyses have been replicated with a more restrictive measure of campaign tine, based on judgments by at least 10 experts (see Tables C1 to C3, in Appendix C).

Interestingly, the two alternative measures - negativity on Twitter and in TV ads - are not as strongly associated. As shown in Table E3, the percentage of negative ads is not significantly associated with greater or lower negativity in the candidates' tweets.

The fact that negativity in our expert ratings is positively associated with negativity in Twitter and in TV ads, and that these last two measures seem less associated, provides in our opinion an additional confirmation of the validity of our expert measure. Evidence exists that candidates' campaign differently in different channels (e.g., Walter and Vliegenthart 2010), but experts seem to be able to pick up negativity across these channels, thus providing - as we claim - a broader rating of the candidates' campaign, beyond the specific channels used.

Table E3. Sena	te Midterms 2018	. Negative	campaigning	in candidates'	tweets by	y percentage	of negative
TV ads (WMP o	data)						

	M1 Coef	(Se)	sig
Percentage negative ads ^a	0.12	(0.09)	
Incumbent Republican Female Year born State turnout State tossup Constant	0.02 -0.01 -0.09 0.00 -0.00 -0.03 -4.83	(0.05)(0.04)(0.05)(0.00)(0.00)(0.02)(3.75)	t
N(candidates) N(states) R2	45 25 0.20		

Note: All models are random-effect hierarchical linear regressions (HLM) where candidates are nested within states. Minimum two experts per candidate. The dependent variable is the percentage of tweets that have been coded as negative.

a: Data from the Wesleyan Media Project (WMP; Fowler et al. 2020).

Name	Party	State	N experts	Tone (experts) ^a	N tweets	Tweets: attacks ^b	Percentage negative TV ads ^c
Rob Arlett	R	DE	2	7.50	154	0.57	
Tammy Baldwin	D	WI	9	4.70	167	0.32	0.27
David Baria	D	MS	6	2.15	674	0.26	0.00
Lou Barletta	R	PA	18	7.15	82	0.29	0.11
Marsha Blackburn	R	TN	4	8.90	42	0.24	0.43
Eric Brakey	R	ME	5	7.65	360	0.46	0.00
Mike Braun	R	IN	7	9.05	258	0.48	0.57
Phil Bredesen	D	TN	4	3.75	673	0.22	0.52
Sherrod Brown	D	OH	9	6.15	520	0.30	0.56
Tony Campbell	R	MD	8		43	0.26	
Maria Cantwell	D	WA	3	1.25	318	0.24	0.00
Ben Cardin	D	MD	8	0.60	186	0.47	0.00
Tom Carper	D	DE	2	2.00	150	0.42	
Bob Casey Jr.	D	PA	18	4.50	82	0.44	0.33
Chele Chiavacci	R	NY	12	4.80			
Matthew Corey	R	СТ	8	4.25	186	0.34	0.00
Ted Cruz	R	TX	13	7.40	363	0.29	0.43
Kevin de Leon	D	CA	30	4.95	218	0.29	
Geoff Diehl	R	MA	17	7.30	87	0.25	0.00
Joe Donnelly	D	IN	7	6.00	210	0.13	0.59
Dianne Feinstein	D	CA	30	2.85	349	0.59	
Deb Fischer	R	NE	2	5.25	104	0.04	0.00
Robert Flanders	R	RI	3	7.50	111	0.27	0.00
Kirsten Gillibrand	D	NY	12	2.60	403	0.30	0.00
Josh Hawley	R	MO	7	7.10	339	0.53	0.66
Martin Heinrich	D	NM	3	1.85	90	0.43	0.00
Bob Hugin	R	NJ	6	8.60	184	0.57	0.48
Susan Hutchison	R	WA	3	7.00	202	0.33	0.95
John James	R	MI	9	4.80	496	0.17	0.09
Tim Kaine	D	VA	8	2.90	107	0.36	0.20
Angus King	D	ME	5	0.60	57	0.23	0.00
Amy Klobuchar	D	MN	8	1.10	324	0.24	0.03
Claire McCaskill	D	MO	7	8.30	249	0.36	0.52
Martha McSally	R	AZ	2	9.00	71	0.11	0.58
Bob Menendez	D	NJ	6	6.35	445	0.46	0.56
Chris Murphy	D	CT	8	1.75	625	0.32	0.00
Bill Nelson	D	FL	6	3.85	118	0.15	0.58
Jim Newberger	R	MN	8	6.80	68	0.31	0.24
Beto O'Rourke	D	TX	13	2.85	687	0.17	0.05
Jane Raybould	D	NE	2	5.25	164	0.28	0.51
Jim Renacci	R	ОН	9	8.30	274	0.26	1.00
Mick Rich	R	NM	3	6.00	103	0.40	

Table E4. Senate Midterms 2018. Comparison of three measures of negativity

Name	Party	State	N experts	Tone (experts) ^a	N tweets	Tweets: attacks ^b	Percentage negative TV ads ^c
Mitt Romney	R	UT	4	1.00	24	0.29	0.00
Matt Rosendale	R	MT	2	9.50	439	0.34	0.66
Bernie Sanders	D	VT	2	3.75	261	0.61	
Rick Scott	R	FL	6	8.10	1028	0.02	0.49
Kyrsten Sinema	D	AZ	2	8.00	131	0.15	0.46
Debbie Stabenow	D	MI	9	2.20	72	0.19	0.00
Corey Stewart	R	VA	8	9.25	958	0.57	0.00
Jon Tester	D	MT	2	8.50	101	0.29	0.64
Leah Vukmir	R	WI	9	7.50			0.47
Elizabeth Warren	D	MA	17	4.60	445	0.35	
Sheldon Whitehouse	D	RI	3	3.50	412	0.50	0.00
Roger Wicker	R	MS	6	3.85	173	0.17	0.01
Jenny Wilson	D	UT	4	5.35	471	0.15	0.00
Lawrence Zupan	R	VT	2	6.75			0.00

Note: Angus King (Maine) and Bernie Sanders (Vermont) formally ran as independents.

^a Expert ratings; varies between 0 "Very positive" and 10 "Very negative".

^b Measured via supervised machine learning algorithms run on the candidates' tweets between September 1 and November 8, 2019 and varies theoretically between 0 "No attacks" and 1 "High attacks".

^c Percentage of negative ads supporting the candidate (Wesleyan Media Project data; Fowler et al., 2020).

References for Supplementary Information file E

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Supplementary Information file F

Media infotainment check

We discuss below results of a validity check for the measure of "media sensationalism" as assessed by experts. For a subset of our data set, we compare our "Media Sensationalism Index" with independent data from the World of Journalism Study (WJS; Hanitzsch et al. 2019; see also https://worldsofjournalism.org). The WJS gathers data about the perceptions, ethos, practices, routines and opinions of journalists across the world since 2011. Recently the WJS released aggregated data covering the 2011-2016 period, in which journalists were asked, among many other things, to what extent they believe that the "pressure toward sensational news" in their country, which we believe is a good proxy for the incidence of infotainment logics within the country, has increased in the past 5 years. This score is positively and significantly correlated with the "infotainment index" as assessed by the experts, r(55) = .27, p < .044. To be sure, changes over time are conceptually not necessarily measuring the same thing as the incidence of infotainment today - for instance, some countries could experience a sharp recent increase but still have a relatively low level comparatively. The WJS includes a second set of indicators that does not have this problem; journalists were asked to asses the extent to which "advertising considerations" and "profit expectations" influence their work; these two indicators are broadly associated with commercial and economic pressures, that have been shown to be a major driver of infotainment (see, e.g., Arbaoui et al. 2020). Comparing these two indicators (in an additive index of "economic considerations") with the infotainment score assessed by our experts shows that the two measures are, again, positively and significantly correlated, r(58) = .32, p < .014.

Taking stock, these checks suggest that expert assessments of "media infotainment" in our database are in line with the perceptions of journalists across the world; they positively and significatively correlate with the perception of journalists that there is an increasing pressure towards sensational news, as well as with their perception that economic and commercial consideration have a strong impact on their work. Table F1 reports the scores on the three measures across all countries.

Country	Election code	Experts (Media infotainment index) ^a	Journalists (WJS, pressure towards sensationalism) ^b	Journalists (WJS, index of economic pressures) ^c
Albania	ALB L 20170625	0.82	0.76	2.79
Argentina	ARG L 20171022	0.84	0.60	2.49
Australia	AUS L 20160702	0.79	0.54	2.50
Australia	AUS L 20190518	0.80	0.54	2.50
Austria	AUT P 20161204	0.82	0.58	2.22
Austria	AUT L 20171015	0.85	0.58	2.22
Bangladesh	BGD L 20181230	0.73	0.39	2.90
Brazil	BRA P 20181007	0.81	0.64	2.78
Bulgaria	BGR L 20170326	0.77		3.12
Bulgaria	BGR P 20161106	0.80		3.12
Chile	CHL P 20171119	0.71	0.38	2.71
Colombia	COL P 20180527	0.78	0.59	3.09
Croatia	CRO L 20160911	0.87	0.90	2.75
Cyprus	CYP P 20180128	0.70	0.53	2.57
Czech Republic	CZE L 20171020	0.75	0.69	2.48
Czech Republic	CZE P 20180112	0.78	0.69	2.48
Denmark	DNK L 20190605	0.64	,	2.22
Ecuador	ECU P 20170219	0.74	0.39	2.99
Estonia	EST L 20190303	0.67	0.58	2.53
Finland	FIN P 20180128	0.55	0.72	2.27
Finland	FIN L 20190414	0.61	0.72	2.27
France	FRA L 20170611	0.79	0.79	2.17
France	FRA P 20170423	0.81	0.79	2.17
Germany	DELL I 20170924	0.69	0.60	2.58
Greece	GRC I 20190707	0.76	0.55	2.50
Hong Kong	HKG I 20160904	0.70	0.55	2.05
Hungary	HUN I 20180408	0.83	0.79	3.11
Iceland	ICF I 20171028	0.85	0.75	1.75
Iceland	ICE I 20161029	0.63	0.26	1.75
Iceland	ICE P 20160625	0.03	0.26	1.75
India	IND I 20190519	0.72	0.68	3 38
Indonesia	IDN P 20190417	0.78	0.64	3.01
Israel	ISR I 20190417	0.78	0.71	2.38
Italy	ITA I 20180304	0.82	0.68	2.38
Ianan	LAP L 20160710	0.56	0.36	2.54
Japan	IAP L 20171022	0.50	0.36	2.60
Vanyo	KEN D 20170808	0.00	0.30	2.00
Kosovo	XKX I 20170611	0.68	0.72	2.50
Latvia	LVA L 20181006	0.65	0.73	2.50
Latvia Malaysia	MVS I 20180509	0.05	0.72	2.40
Maviao	MEX D 20180701	0.83	0.51	2.00
Meldeve	MDV P 20161020	0.60	0.51	2.90
Moldova	MDV I 20190224	0.09	0.66	2.90
Now Zeeland	NZL L 20170022	0.74	0.00	2.90
Norway	NOR I 20170911	0.62	0.61	2.52
Philippines	DHI I 20100512	0.72	0.02	2.02
r muppines Pomonio	POLL 1 20161211	0.85	0.02	2.90
Russia	RUS I 20160010	0.73	0.44	2.00
Russia	RUS_L_20100918	0.45	0.59	2.00
Russia Sorbio	RUS_F_20160318	0.03	0.39	2.08
South Africa	SKD_F_201/0402	0.80	0.81	2.95
South Korea	KOR P 20170500	0.07	0.72	2.71
South Korea	KOK_1_201/0309	0.03	0.30	5.20

Table F1. Infotainment: Expert ratings vs. World of Journalism Study (WJS) scores

Country	Election code	Experts (Media infotainment index) ^a	Journalists (WJS, pressure towards sensationalism) ^b	Journalists (WJS, index of economic pressures) ^c
Spain	ESP_L_20160626	0.68	0.69	2.85
Spain	ESP_L_20190428	0.79	0.69	2.85
Sweden	SWE_L_20180909	0.69	0.60	2.34
Thailand	THA_L_20190324	0.71	0.77	3.76
The Netherlands	NLD_L_20170315	0.63	0.60	2.41
Turkey	TUR_P_20180624	0.77	0.57	2.42
UK	GBR_L_20170608	0.76	0.52	2.72
USA	USA P 20161108	0.91	0.34	2.23

a: Media infotainment index, as assessed by experts. Additive index of three separate components (sensationalism, negativity, personalization in country national media). Varies between 0 'Very low' and 1 'Very high'.
b: Percentage of journalists that believe that the 'pressure toward sensational news' in their country has 'strengthened a lot' or "somewhat strengthened' in the past 5 years (World of Journalism Study, 2011-2016).
c: Journalists' mean score of perceived 'economic influences' (profit expectation, advertising considerations) on their work (World of Journalism Study, 2011-2016); varies between 1 'not influential' and 5 'extremely influential'.

References for Supplementary Information file F

Arbaoui, B., K. De Swert, K., and W. van der Brug, W. 2020. "Sensationalism in news coverage: A comparative study in 14 television systems." *Communication Research* 47 (2): 299-320.

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