Title: Main results models and tables appendix for "Happiness and surprise are associated with worse truth discernment of COVID-19 headlines among social media users in Nigeria" Authors: Leah R. Rosenzweig (1), Bence Bago (2), Adam J. Berinsky, (3) David G. Rand (4) Date: August 10<sup>th</sup>, 2021 Note: The material contained herein is supplementary to the article named in the title and published in the Harvard Kennedy School (HKS) Misinformation Review.

## Appendix B: Main results models and tables

## B.1 Mixed-effects model

For the analysis, we use mixed-effect models with random intercepts for respondents and headlines and a random slope for headlines.<sup>1</sup> This mixed-effects model accounts for the interdependence between observations because participants rate several headlines, and all headlines are assessed by all participants. The model we use in all of our main specifications is:<sup>2</sup>

$$y = \beta_0 + \beta_1 true + \beta_2 emo + \beta_3 true * emo + u_0 + v_0 + v_1 emo + \epsilon \tag{1}$$

Here *emo* represents the emotion rating by respondents, which varies within headlines and between respondents, and *true* is the veracity of the headline (true/false), which varies within respondent and between headlines. The  $\beta$ 's estimate the fixed effects,  $u_0$  estimates the by-respondent random intercept, and  $v_0$  and  $v_1$  estimate the by-headline random effects (intercept and slope, respectively). We use linear regression models for all of the main analyses presented in the following tables for each of our outcomes of interest (y), *belief*, *click*, and *share*.

	Dependent variable:		
	belief	click	share
neutral	$-0.17^{***}$	$-0.21^{***}$	-0.22***
	(0.03)	(0.02)	(0.02)
true	0.26***	0.07	$0.15^{*}$
	(0.09)	(0.07)	(0.08)
neutral:true	0.11*	-0.03	0.03
	(0.06)	(0.04)	(0.04)
Constant	0.70***	0.72***	0.58***
	(0.05)	(0.03)	(0.04)
Observations	13,410	13,409	13,409
Note:	*p<0.1	; **p<0.05;	***p<0.01

Table B1. Association between neutral (no emotion) and belief, click, and share.

<sup>&</sup>lt;sup>1</sup> We planned to include random slopes for both respondents and headlines but ran into singularity issues. As described in our preanalysis plan, we excluded a random slope from the model, following Brauer and Curtin (2018), so the models would converge. <sup>2</sup> For the "surprise," emotion we only include random intercepts due to singularity.

	Dependent variable:		
	belief	click	share
happy	0.16***	0.11***	0.16***
	(0.03)	(0.02)	(0.03)
true	0.19***	0.08	$0.11^{*}$
	(0.06)	(0.05)	(0.06)
happy:true	$-0.20^{***}$	$-0.09^{*}$	$-0.19^{***}$
	(0.06)	(0.05)	(0.05)
Constant	0.80***	0.83***	0.70***
	(0.03)	(0.02)	(0.03)
Observations	13,410	13,409	$13,\!409$
Note:	*p<0.1;	**p<0.05;	***p<0.01

 Table B2.
 Association between happy and belief, click, and share.

	Dependent variable:		
	belief	click	share
surprise	0.02**	0.09***	0.06***
	(0.01)	(0.01)	(0.01)
true	0.21***	0.10	0.14*
	(0.08)	(0.07)	(0.09)
surprise:true	$-0.05^{***}$	-0.02	$-0.04^{**}$
	(0.02)	(0.01)	(0.02)
Constant	$0.77^{***}$	0.82***	0.68***
	(0.04)	(0.03)	(0.04)
Observations	13,410	$13,\!409$	13,409
Note:	*p<0.1; *	**p<0.05; *	****p<0.01

 Table B3.
 Association between surprise and belief, click, and share.

	Dependent variable:		
	belief	click	share
anger	$-0.12^{***}$	$-0.10^{***}$	$-0.14^{***}$
	(0.05)	(0.04)	(0.04)
true	0.27***	0.13**	0.18**
	(0.08)	(0.06)	(0.07)
anger:true	0.11	0.09	0.09
	(0.09)	(0.07)	(0.08)
Constant	0.71***	0.76***	0.61***
	(0.04)	(0.03)	(0.04)
Observations	13,410	13,409	13,409
Note:	*p<0.1; **p<0.05; ***p<0.01		

 Table B4.
 Association between anger and belief, click, and share.

 Table B5.
 Association between fear and belief, click, and share.

	Dependent variable:		
	belief	click	share
fear	0.07**	0.08***	0.10***
	(0.03)	(0.02)	(0.03)
true	0.23***	0.09*	0.16***
	(0.06)	(0.05)	(0.06)
fear:true	0.02	0.02	0.08
	(0.06)	(0.04)	(0.07)
Constant	0.79***	0.83***	0.70***
	(0.03)	(0.02)	(0.03)
Observations	13,410	13,409	13,409
Note:	*p<0.1;	**p<0.05;	***p<0.0

	Dependent variable:		
	belief	click	share
sad	0.02	0.02	0.002
	(0.02)	(0.03)	(0.03)
true	$0.23^{***}$	$0.10^{*}$	$0.17^{**}$
	(0.07)	(0.06)	(0.07)
sad:true	0.04	0.06	0.09
	(0.05)	(0.05)	(0.06)
Constant	0.77***	0.80***	0.66***
	(0.04)	(0.03)	(0.04)
Observations	13,410	13,409	13,409
Note:	*p<0.1;	**p<0.05;	***p<0.01

Table B6. Association between sad and belief, click, and share.

 Table B7. Association between disgust and belief, click, and share.

	Dependent variable:		
	belief	click	share
disgust	$-0.14^{***}$	$-0.15^{***}$	$-0.17^{***}$
	(0.04)	(0.03)	(0.04)
true	$0.25^{***}$	0.13**	0.18**
	(0.08)	(0.06)	(0.08)
disgust:true	0.08	0.11	0.09
	(0.08)	(0.07)	(0.08)
Constant	$0.71^{***}$	0.74***	0.60***
	(0.04)	(0.03)	(0.04)
Observations	13,410	13,409	$13,\!409$
Note:	*p<0.1	l; **p<0.05;	***p<0.01