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Supplementary Information for

Race and Ethnic Variation in College Students' Allostatic Regulation of Racism-Related Stress

Jacob E. Cheadle[a,1], Bridget J. Goosby[a], Joseph C. Jochman[b], Cara Tomoso[c], Chelsea Kozikowski[c], and Timothy Nelson[c]

[a] Department of Sociology, University of Texas at Austin, Austin TX 798712;
[b] Department of Sociology, University of Nebraska-Lincoln, Lincoln NE 68588;
[c] Department of Psychology, University of Nebraska-Lincoln, Lincoln NE 68588

[1] **Email:** j.e.cheadle@utexas.edu

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Data & Methods Notes

E4 Sensor Data Processing

Electrodermal activity (EDA; 4Hz), collected using an Empatica E4 wristband, comprises the key outcome variable in this study. Notably, the signal quality of the E4 EDA wrist placement and low sampling rate attenuates the signal relative to laboratory equipment with finger electrode placement (1), though this wrist placement was shown to provide better stress detection on the wrist than laboratory equipment on the fingers in one study (2). In the field, the E4 has been used to assess tourists' emotions over time and space (3), to detect stress during real life driving exams (4), stimuli in short films (5), for assessing emotional experience for people with sight loss navigating unfamiliar outdoor environments (6), to enable robot perception of autistic children during therapy (7), and students' stress during public speaking training (8). Prior studies also demonstrated acceptable usability (9).

The data was processed in a series of steps. The raw EDA signal was first extracted and then median filtered over a 5-sample window. The timeseries was then trimmed and aligned to 5-minute intervals from the top of the hour. We chose 5-minute intervals to balance temporal precision with the relatively low sampling rate. This window provided 4*60*5=1200 data points (Hz*seconds*minutes) for the GLM model used in the processing routine, described below. Any interval that did not comprise a complete 5-minute interval incremented from the top of the hour were trimmed. This process resulted in a time series composed of complete 5-minute clock-aligned intervals of 0-5 minutes, 5-10 minutes, etc., on the hour. The result was an extended time series over the study period. The timeseries is discontinuous because participants were not able to wear the sensors continuously over the study period for different reasons. For example, the device had to be removed to charge it and upload data, participants removed the device when they showered or engaged in strenuous competitive exercise, and so on.

The complete 5-minute intervals were processed using the Matlab implemented PSPM (v3.02) dynamical causal model of spontaneous skin conductance fluctuations estimator (10, 11). The DCM estimator is a variational Bayesian model inversion algorithm that infers sudomotor neuron activity (SNA) from spontaneous skin fluctuations (SF). SFs are voltage fluctuations that arise from sudomotor neuron innervation of the skin and subsequent sweating. SNA is therefore thought to represent the underlying autonomic states that drive this process (12). In this ecological study, EDA activity was not event based as there was no time-locked controlled manipulation (the skin conductance response or SCR), but rather relied upon spontaneous SF as participants went about their lives (the non-specific SCR or NS-SCR). Traditionally, EDA analyses have relied upon visual or simple mathematical representations of SF to estimate stress or anxiety (13). The approach employed here follows modelling advancements in dynamic causal modeling from neuroimaging (14, 15). The goal is to create a mapping from underlying causes to empirical observation, using an inversion to estimate SNA from measured SF. As stated by Bach et al. (12), "in our case, the inversion of SF $\longmapsto$ SNA describes the (most likely) generative sudomotor nerve activity, given observed skin conductance."

A *forward neural model* component specifies a Gaussian SNA shape with a standard deviation of .3 s and a maximum frequency of 30 bursts per minute. The model therefore assumes that SNA bursts differ in amplitude but have a fixed temporal profile as a linear time invariant system (16). A second DCM component, the *forward response model*, follows prior work (17) in assuming a biphasic SF decay function following the pore valve model of Edelberg (18). The relationship between SNA and SF is a linear time-invariant convolution modeled with a third-order differential equation, rather than the direct modeling of the SF impulse response

function as in Benedek and Kaernbach (19, 20). The DCM is therefore comprised of the assumed Gaussian SNA bursts and the ordinary differential equation biphasic exponential decaying convolution kernel. Because the biphasic SF decay builds up in a linear fashion (19) determined by peripheral factors in addition to SNA, the model is structured to return to 0 in the absence of SNA.

The DCM therefore differs from traditional EDA SF analytic approaches that commonly rely upon subjective evaluation of the SF time series. Traditional subjective methods were not feasible for this study given (a) that stimuli were experienced naturally and were not controlled, leading to SF wave summation (19), (b) the considerable length of the time series generated by our study design, and (c) the ecological uncontrolled nature of our design. If we were to focus only on the EDA data points used in this study, well over 100,000,000 data points would need to be inspected. In addition, Benedek and Kaernbach (19, 20) and collaborators have proposed additional promising deconvolution models that perform better than traditional methods, but at the same time not quite as well as the DCM used here (21, 22). In our own preliminary work, we found the DCM approach to be more most sensitive than traditional mathematical summaries used in experimental research and Benedeck's deconvolution model, perhaps because their approach places fewer constraints and may be more susceptible to measurement noise than the DCM (21). Bach and collaborators have also developed a matching pursuit algorithm to approximate the DCM (23), but is better suited for the laboratory with relatively moderate to low SF rates < 10/min. In natural settings, humans may experience much greater levels of emotional arousal than are typically obtained in the lab.

Our 5-minute aligned median filtered intervals were therefore processed using the DCM estimator. The model assumed that SNA bursts had a standard deviation of .3 s with a maximum frequency of 30 per minute. The SNA threshold was set at $.5\mu s$. The procedure therefore reduced each moment of 1200 SF data points into a single SNA activity summary estimate over the interval. This provided 4 estimates for each 15-minute moment, as shown in Fig. S1, which we characterized as (a) average EDA-SNA activity, (b) the maximum 5-minute EDA-SNA activity in the 15 minute moment, (c) the minimum, and (d) the difference between maximum and minimum 5-minute EDA-SNA activity. We use these multiple operationalizations of EDA-SNA because each summarizes different aspects of arousal. Average EDA-SNA captures a scaled summation of total activity throughout the moment, and may therefore indicate prolonged short-term shifts in arousal, particularly when combined with information about the minimum. The maximum and minimum 5- reflect the highs and lows of specific 5-minute windows within each moment, with an elevated minimum capturing baseline shifts over the moment. The max-min difference therefore captures short-term aggregate (i.e. per 5-minutes) spiking within the moment, possibly indicating a more acute response when the maximum rises and the minimum does not.

No SNA activity was detected in 61% of the Average, Maximum, and Difference moments. This finding indicates that the majority of moments are not high emotional intensity and the distribution of arousal is not normal in shape. In addition, it is important that statistical models recognize the need to either model the nonnormality of these distributions directly or properly adjust the standard errors for heteroskedasticity.

Analysis Approach: EDA Models

Parameters for the EDA measures for the most rigorous models were estimated using a fixed-effects estimator with heteroscedasticity-consistent robust standard errors (24). One concern since we are using a dynamic panel fixed effects estimator is Nickell Bias (25). When the time

dimension is small and the sample size is large, the demeaning process creates a correlation between the regression and error in the fixed effects model. The result is a biased coefficient in the lagged dependent variables which is not fixed by increasing the sample size (note that this parameter is not of substantive interest in this application). Notably, the inconsistency of this parameter as $N \to \infty$ is of the order $1/T$ for small T and $-(1+\rho)/(T-1)$ for the limit of $(\hat{\rho}-\rho)\ N \to \infty$ for large values of $T(25)$. When $T = 300$ (the $\sim T$ for this study) and for an unreasonably large correlation of $\rho = .99$, the bias would only be -.007. Therefore, Nickell bias is not a significant issue in the present application.

Fall vs Spring Protocol

During the Fall 2016 semester participants were enrolled for a 2-week period, and for a 1-week period during the Spring 2017 semester. For the Fall semester students wore a wristband on each wrist so that lateralization could be assessed. The Fall data collection sought to maximize within-participant variation at the cost of sample size as two devices were allocated for each participant. For the Spring protocol the E4 device was placed on the non-dominant ventral wrist (31) and the participation period was reduced to 1-week to balance within- and between-participant variation by allowing a larger number of students to be assessed over a shorter study participation duration when each student was provided only a single device. Study protocols were virtually identical in the Fall and Spring, with the only difference being the inclusion of a second wristband worn on the dominant ventral wrist in the Fall.

Because the protocol was reduced from 2-weeks in the fall to 1-week in the spring, we also assessed whether or not this change was associated with EDA differences. We would certainly anticipate that motivation would be higher in week 1 and that there could be more error in week 2 if interest wanes. At the same time, participants may get better over time, producing more accurate measures with less error. We therefore re-estimated the final EDA-SNA model for the full sample including an interaction for week 2 versus week 1 with each of the racism-related measures. These results, shown in SI Table S25, indicate that there are no statistically significant differences introduced by the protocol change. Given the small sample size in the fall, it is important to note that the estimated effect sizes differences were not large.

Negative Emotion Models

Because the analyses of negative emotion presented in our main narrative reflected the EDA-SNA sample, we also re-analyzed negative emotion under two conditions. First, for the full available EDA-SNA sample without trimming to maintain sample comparability across analyses. Second, for the fully available sample without consideration of the EDA-SNA data. These results, which are presented in SI Tables S7 are consistent with the results reported in the main narrative analysis.

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Supplementary Figures & Tables

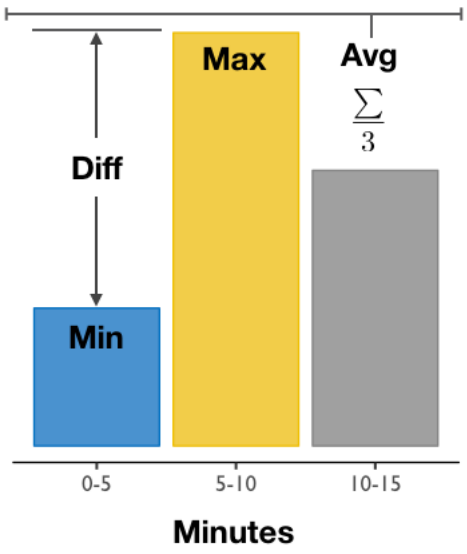

Fig. S1. Graphical depiction of the momentary EDA-SNA operationalizations used in the pair.

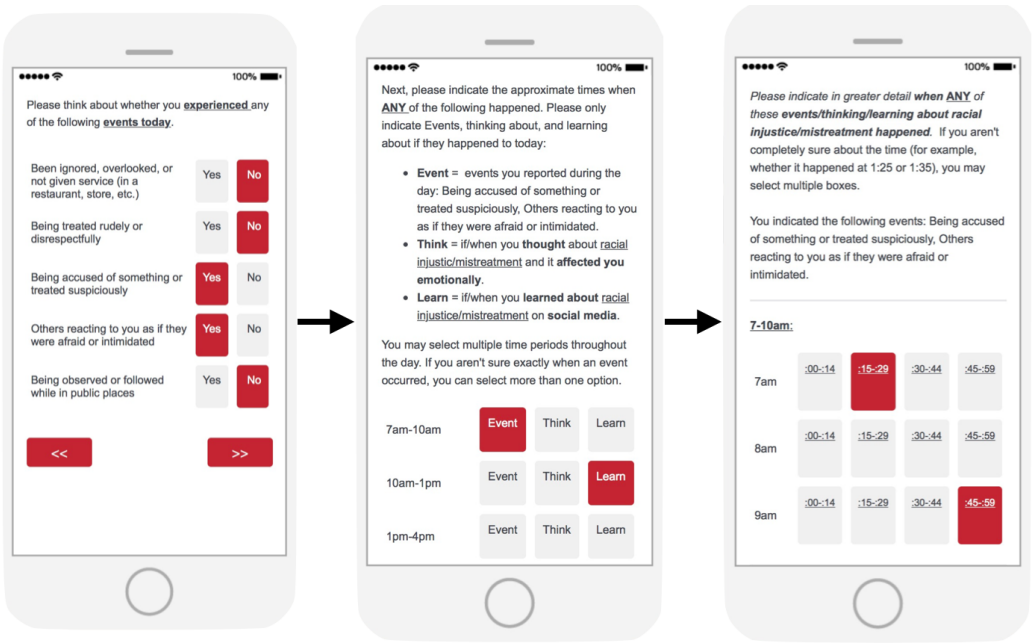

Fig. S2. Survey flow for momentary behavioral response items example.

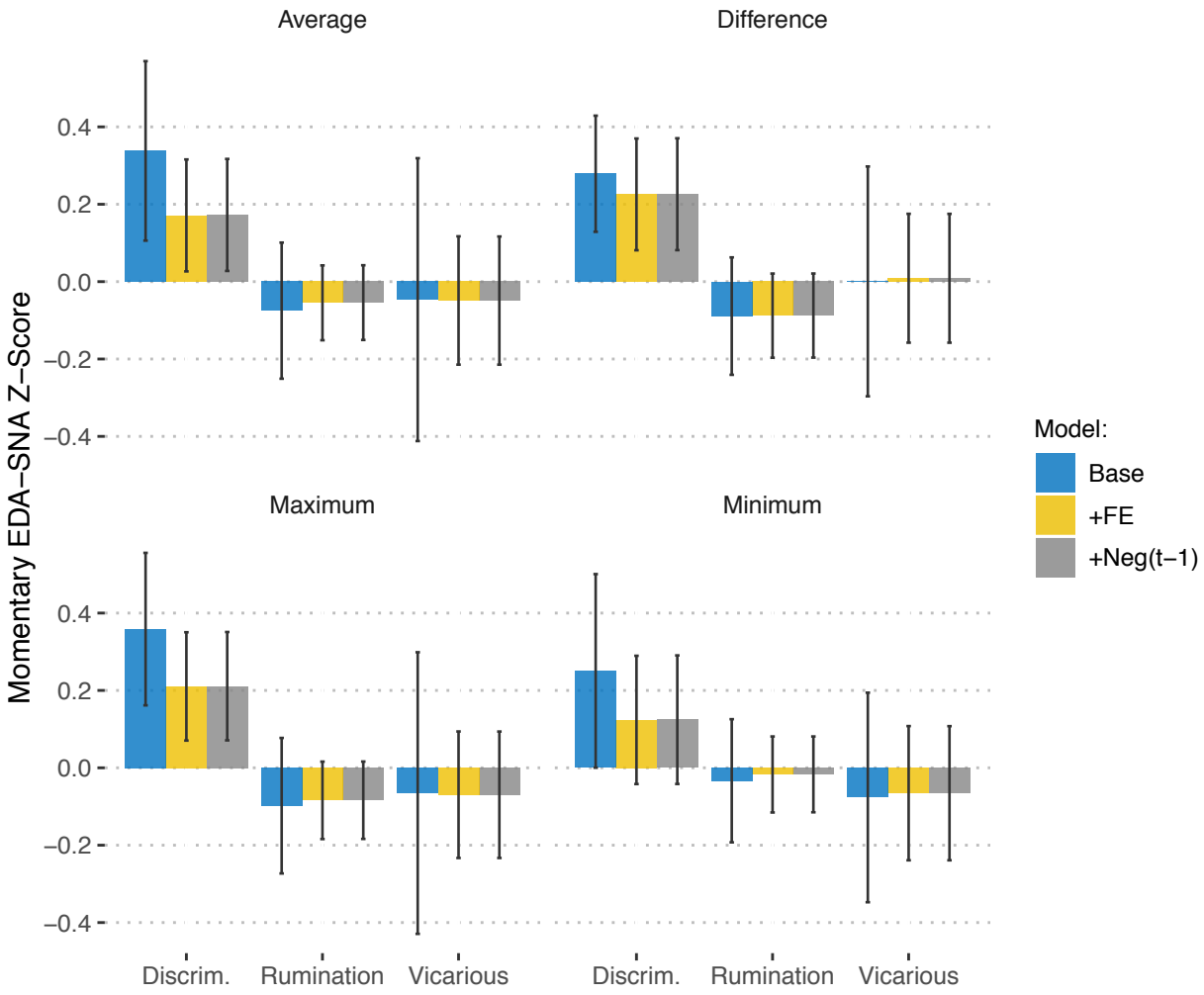

Fig. S3. Full momentary EDA-SNA z-score results across models and by racism-related experiences for African American students.

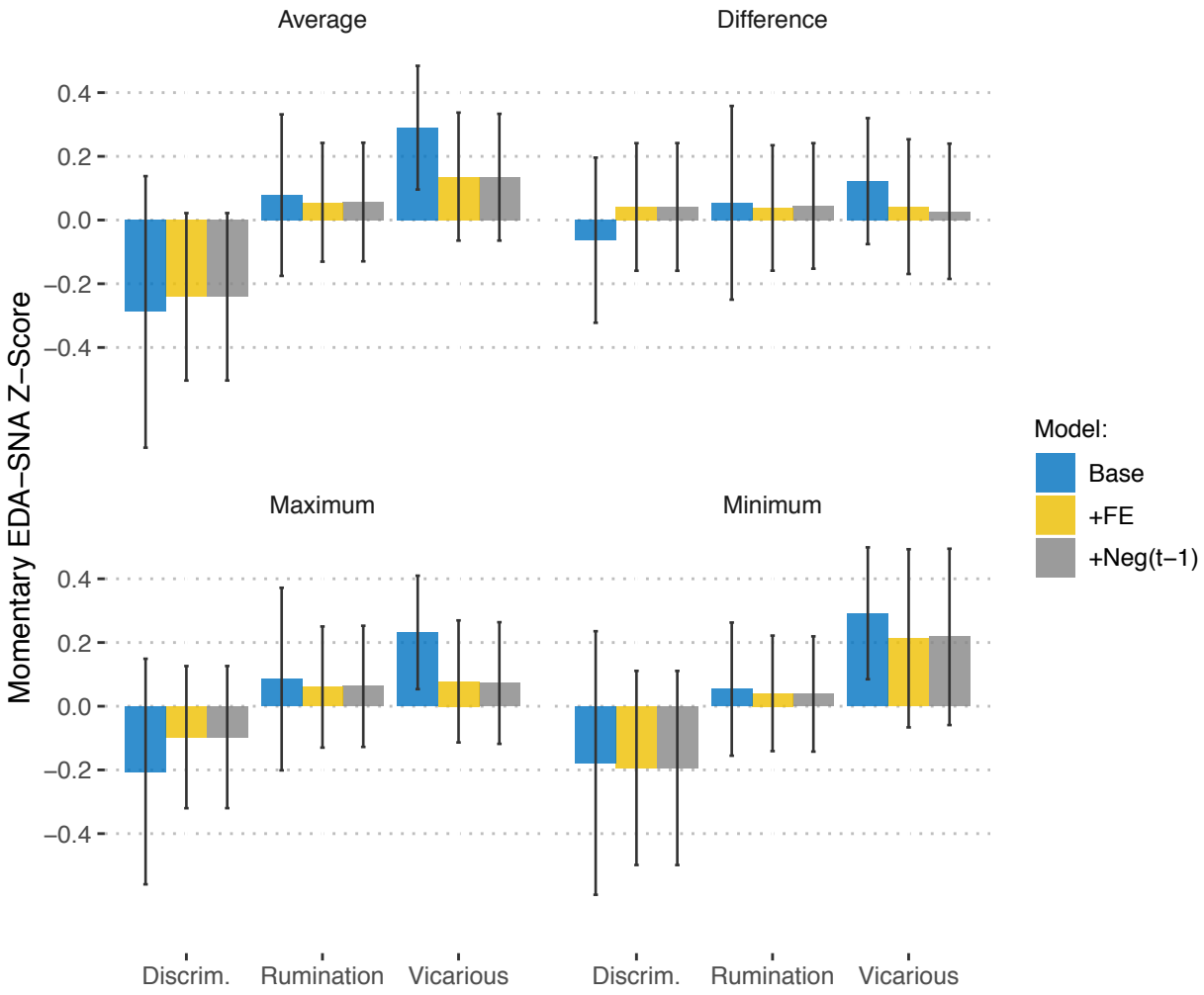

Fig. S4. Full momentary EDA-SNA z-score results across models and by racism-related experiences for 1.5 Gen Black students.

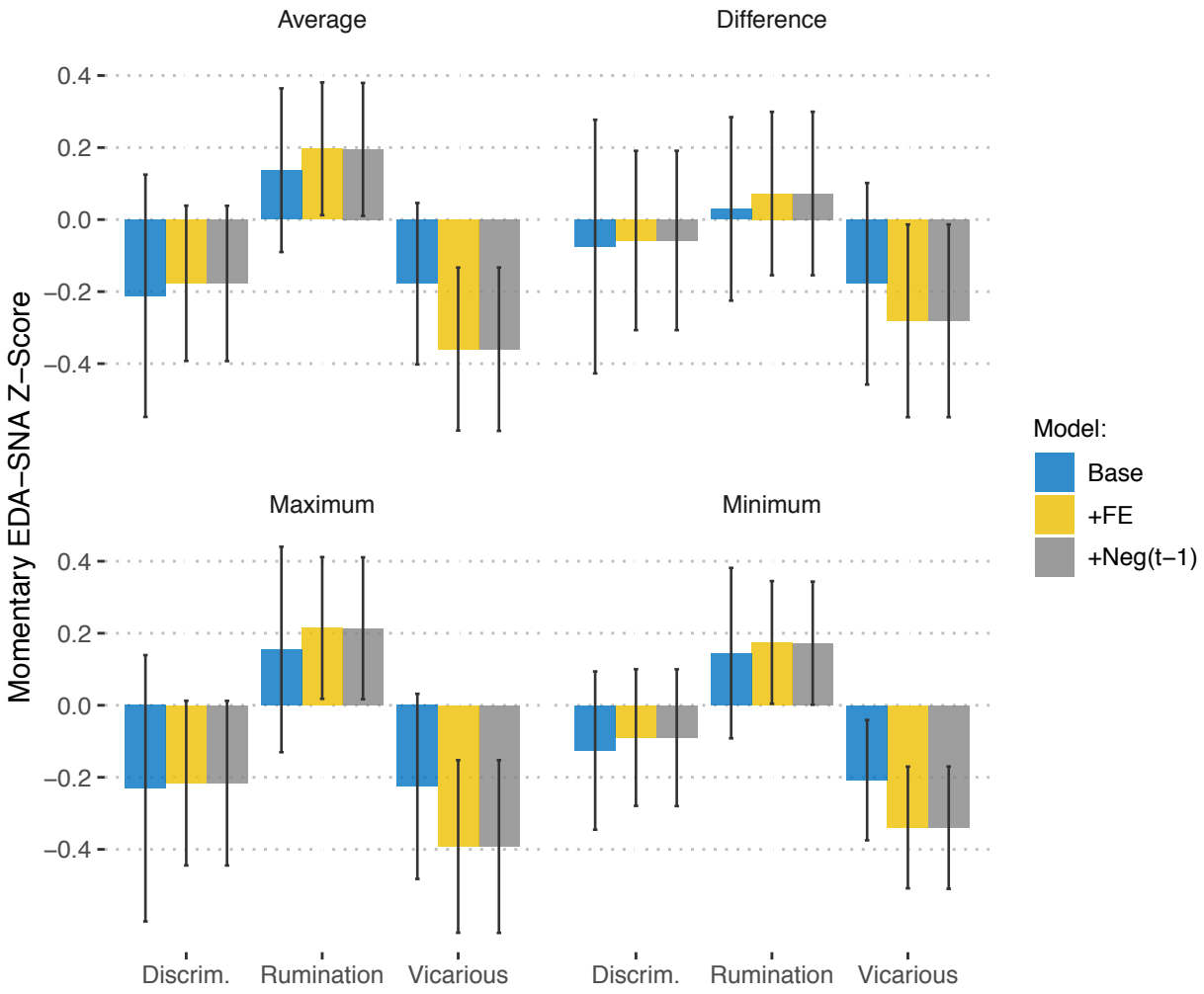

Fig. S5. Full momentary EDA-SNA z-score results across models and by racism-related experiences for African students.

Table S1: Descriptive statistics for the sample (N=36,362).

	Freq.	%/Mean	SD	Min	Max
African American	31	31			
Black, 1st Gen	30	30			
Continental African	15	15			
Latinx	24	24			
Female		61.00		0	1
Age		20.42	2.06	18	31
Year in School		14.04	1.25	13	18
Fall Study Participant		21.00		0	1
Days in Study		7.56	2.80	1	14

Table S2: Descriptive statistics by race.

	Afr Amer	1.5g Black	African	Latinx	Full Sample
Female	0.710	0.533	0.533	0.652	0.616
	(0.461)	(0.507)	(0.516)	(0.487)	(0.489)
Age	19.97	20.97	20.93	19.91	20.40
	(1.402)	(2.710)	(2.463)	(1.276)	(2.065)
Year in School	14.55	13.47	13.60	14.39	14.04
	(1.287)	(1.106)	(1.121)	(1.118)	(1.253)
Fall Study Participant	0.290	0.0667	0.0667	0.348	0.202
	(0.461)	(0.254)	(0.258)	(0.487)	(0.404)
Days in Study	7.645	6.833	6.867	8.565	7.495
	(3.322)	(1.555)	(1.407)	(3.422)	(2.734)

Table S3: Descriptive EDA statistics (mean, SD, min, max) as well as the percentage where EDA bursts > 0 and mean/SD when EDA bursts > 0.

	%>0	Avg	SD	Avg>0	sd>0	Min	Max
Average							
African American	24.32	41.78	0.38	63.63	45.45	0.00	149.00
1.5 Gen Black	18.93	34.17	0.38	49.94	39.15	0.00	146.67
African	17.58	35.25	0.32	55.40	42.67	0.00	148.33
Latinx	26.71	41.95	0.45	59.63	44.34	0.00	149.00
Total	22.82	39.42	0.39	58.13	43.66	0.00	149.00
Max							
African American	35.26	53.23	0.38	92.25	46.43	0.00	150.00
1.5 Gen Black	31.06	49.02	0.38	81.96	46.58	0.00	150.00
African	27.12	47.85	0.32	85.45	47.24	0.00	150.00
Latinx	39.93	54.36	0.45	89.16	46.99	0.00	150.00
Total	34.55	52.07	0.39	88.02	46.90	0.00	150.00
Min							
African American	14.63	35.24	0.20	72.68	44.19	0.00	149.00
1.5 Gen Black	8.85	25.91	0.16	56.83	39.82	0.00	144.00
African	9.53	28.06	0.14	66.63	41.23	0.00	145.00
Latinx	15.21	35.36	0.22	69.97	43.82	0.00	149.00
Total	12.71	32.44	0.19	67.88	43.30	0.00	149.00
Difference							
African American	20.63	35.64	0.38	54.72	38.79	0.00	150.00
1.5 Gen Black	22.21	37.81	0.37	59.56	40.11	0.00	150.00
African	17.59	34.15	0.31	56.20	39.45	0.00	150.00
Latinx	24.72	38.36	0.44	56.01	39.76	0.00	150.00
Total	21.84	36.90	0.39	56.47	39.55	0.00	150.00

Table S4: Discrimination, rumination, vicarious racism, and negative emotion by race. Table contains the number of events, the percentage of 15-minute moments, as well as the daily mean and median number of events per participant.

	Total.Count	Total.%	Daily.Mean	Daily.Median
Discrimination				
African American	232	1.91	0.96	0.54
1.5 Gen Black	98	1.06	0.49	0.14
African	99	1.99	0.86	0.43
Latinx	234	2.07	1.12	0.79
Total	663	1.76	0.88	0.54
Rumination				
African American	458	3.77	2.00	1.14
1.5 Gen Black	103	1.11	0.55	0.00
African	179	3.61	1.74	0.43
Latinx	457	4.05	2.27	1.86
Total	1197	3.18	1.69	0.86
Vicarious Racism				
African American	200	1.65	0.88	0.36
1.5 Gen Black	66	0.71	0.39	0.00
African	74	1.49	0.80	0.00
Latinx	182	1.61	0.86	0.46
Total	522	1.39	0.74	0.14
Negative Emotion				
African American	741	6.10	3.22	1.86
1.5 Gen Black	219	2.36	1.21	0.43
African	173	3.49	1.77	0.71
Latinx	916	8.12	4.36	3.36
Total	2049	5.44	2.88	1.71

Table S5: Mean number of moments within days.

	AA	Blk, 1st	Cont. Afr	Latinx	Full S.
Breakfast	0.78	0.64	0.75	0.81	0.75
Lunch	1.39	1.72	1.53	1.56	1.54
Dinner	1.26	1.69	1.94	1.51	1.53
Nap	1.25	2.07	1.30	1.93	1.66
Class	4.73	5.02	4.22	5.10	4.84
Studying	4.14	3.80	2.16	5.58	4.23
At Work	4.10	0.64	0.99	2.29	2.30
Exercising	0.77	0.21	0.87	0.48	0.56

Table S6: Random intercept logistic regression coefficients and standard errors for momentary negative emotion reports.

	All		AA		Latinx		1.5 Gen		African	
1.5 Gen Black	-0.707	**								
	(0.266)									
African	-0.390									
	(0.314)									
Latinx	0.209									
	(0.252)									
Interpersonal Discrimination	1.845	***	1.669	***	1.779	***	0.446		4.635	***
	(0.202)		(0.325)		(0.338)		(0.800)		(0.815)	
Rumination	0.854	***	0.655	*	0.907	**	1.870	**	0.786	
	(0.193)		(0.312)		(0.298)		(0.684)		(0.749)	
Vicarious Racism	0.504		0.177		0.395		1.319		2.550	**
	(0.258)		(0.475)		(0.405)		(0.747)		(0.921)	
Neg(t-1)	6.085	***	5.731	***	6.228	***	6.548	***	6.561	***
	(0.099)		(0.163)		(0.161)		(0.309)		(0.439)	
Eating Breakfast	-0.014		-0.324		0.452		0.343		-1.130	
	(0.362)		(0.641)		(0.583)		(0.936)		(1.151)	
Eating Lunch	-0.009		-1.101	*	0.553		0.666		0.603	
	(0.262)		(0.461)		(0.418)		(0.588)		(0.800)	
Eating Dinner	0.108		0.386		-0.036		0.920		NA	
	(0.268)		(0.408)		(0.497)		(0.659)			
Napping	-0.183		0.233		0.042		NA		0.430	
	(0.281)		(0.457)		(0.417)				(1.130)	
In Class	0.074		0.315		0.152		-0.464		-1.239	
	(0.152)		(0.258)		(0.251)		(0.400)		(0.687)	
Studying	0.451	**	0.346		0.770	***	0.422		0.169	
	(0.146)		(0.270)		(0.217)		(0.399)		(0.687)	
At Work	0.045		0.103		0.026		1.336		-3.354	**
	(0.194)		(0.243)		(0.408)		(0.786)		(1.020)	
Exercise	0.336		1.021	*	-0.901		NA		-2.573	
	(0.416)		(0.467)		(1.482)				(1.610)	
Days in Study	-0.090	***	-0.085	**	-0.076	**	-0.099		-0.324	*
	(0.018)		(0.030)		(0.024)		(0.079)		(0.137)	
Day & Time	Yes		Yes		Yes		Yes		Yes	
L2 SD	0.766		1.099		0.592		0.608		1.179	
ICC	0.151		0.268		0.096		0.101		0.297	
Obs	36059		11650		10822		7959		4431	

Standard errors in parentheses

* p<0.05, ** p<.01, *** p<.001

Table S7: Random intercept logistic regression coefficients and standard errors for momentary negative emotion reports for (M1) complete case analysis in the joined EDA sample, and (M2) complete case analysis from diary data alone.

	Full Sample		AA		Latinx		1.5 Gen		African	
	M1	M2	M1	M2	M1	M2	M1	M2	M1	M2
Black 1/1.5 Gen	-0.68**	-0.61*								
	[0.26]	[0.24]								
Cont. African	-0.36	-0.31								
	[0.31]	[0.30]								
Latinx	0.27	0.19								
	[0.25]	[0.25]								
Interpersonal Discrimination	1.83***	1.83***	1.79***	1.75***	1.75***	1.56***	0.60	1.34*	4.46***	4.13***
	[0.19]	[0.18]	[0.28]	[0.27]	[0.34]	[0.33]	[0.77]	[0.58]	[0.81]	[0.59]
Rumination	0.86***	0.81***	0.73*	0.84***	0.89**	0.87**	1.56*	0.59	1.14	0.49
	[0.18]	[0.16]	[0.28]	[0.24]	[0.30]	[0.28]	[0.65]	[0.63]	[0.67]	[0.56]
Vicarious Racism	0.67**	0.71***	0.69	0.52	0.40	0.71*	1.46*	0.90	2.33**	2.55**
	[0.24]	[0.21]	[0.42]	[0.36]	[0.38]	[0.32]	[0.74]	[0.74]	[0.90]	[0.78]
Neg(t-1)	6.10***	6.30***	5.74***	6.05***	6.27***	6.34***	6.54***	6.70***	6.70***	7.05***
	[0.10]	[0.08]	[0.15]	[0.13]	[0.16]	[0.14]	[0.29]	[0.22]	[0.42]	[0.34]
Eating Breakfast	0.01	-0.11	-0.18	-0.33	0.41	0.18	0.31	0.29	-1.23	-0.86
	[0.34]	[0.29]	[0.58]	[0.46]	[0.54]	[0.47]	[0.91]	[0.73]	[1.15]	[1.01]
Eating Lunch	-0.06	-0.00	-1.18**	-0.64	0.54	0.45	0.62	0.58	0.71	0.51
	[0.26]	[0.23]	[0.46]	[0.37]	[0.42]	[0.36]	[0.58]	[0.53]	[0.78]	[0.72]
Eating Dinner	0.09	0.32	0.29	0.47	-0.03	0.01	0.89	1.02*	NA	-0.85
	[0.27]	[0.22]	[0.40]	[0.34]	[0.50]	[0.41]	[0.65]	[0.50]		[1.10]
Napping	-0.19	-0.07	0.19	0.28	0.06	0.06	NA	-1.77*	0.54	0.48
	[0.28]	[0.23]	[0.45]	[0.39]	[0.42]	[0.32]		[0.90]	[1.12]	[1.06]
In Class	0.09	0.20	0.31	0.43*	0.17	0.38	-0.51	-0.12	-1.03	-0.79
	[0.15]	[0.13]	[0.25]	[0.22]	[0.25]	[0.23]	[0.40]	[0.32]	[0.68]	[0.53]
Studying	0.46**	0.63***	0.39	0.60**	0.74***	0.86***	0.51	0.28	0.14	-0.24
	[0.14]	[0.13]	[0.25]	[0.22]	[0.22]	[0.19]	[0.39]	[0.35]	[0.66]	[0.62]
At Work	0.05	-0.01	0.10	0.14	0.04	-0.25	1.43	0.55	-2.96**	-1.92*
	[0.19]	[0.18]	[0.24]	[0.23]	[0.41]	[0.39]	[0.78]	[0.62]	[1.02]	[0.89]
Exercise	0.32	0.26	1.00*	0.83*	-0.92	-1.05	NA	-0.20	-2.52	-2.67
	[0.41]	[0.33]	[0.46]	[0.39]	[1.50]	[1.22]		[1.08]	[1.65]	[1.58]
Days in Study	-0.09***	-0.09***	-0.08**	-0.05*	-0.08**	-0.10***	-0.10	-0.16**	-0.27*	-0.08
	[0.02]	[0.01]	[0.03]	[0.02]	[0.02]	[0.02]	[0.08]	[0.05]	[0.13]	[0.08]
Day & Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
L2 SD	0.77	0.77	1.03	0.87	0.61	0.13	0.67	0.76	1.11	0.59
ICC	0.15	0.15	0.24	0.19	0.10	0.01	0.12	0.15	0.27	0.10
Obs	38634	59563	12842	19966	11074	15410	8835	15561	4754	7638

Standard errors in parentheses. * p < .05, ** p < .01, *** p<.001

Table S8: African American EDA-SNA Average across models for selected coefficients.

	Momentary					60-Minute (Accumulated Moments)		
	Reg z	Reg Outlier	Reg Bursts	Tobit Bursts	ZINB Bursts	Reg z	Reg Bursts	ZINB Bursts
Model 1								
Interpersonal Discrimination	0.34 **	0.31 **	0.65	10.72 *	1.63	0.10	12.69	41.66 **
	(0.12)	(0.11)	(2.80)	(4.37)	(2.70)	(0.10)	(13.41)	(14.39)
Rumination	-0.07	-0.06	0.24	0.20	0.98	0.01	0.93	24.25 *
	(0.09)	(0.09)	(2.79)	(3.35)	(1.95)	(0.11)	(14.14)	(10.50)
Vicarious Racism	-0.05	-0.07	-8.39 *	-13.98 **	-4.91 *	-0.25	-31.96	-5.67
	(0.19)	(0.18)	(4.18)	(5.12)	(2.44)	(0.17)	(21.70)	(15.92)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Neg	No	No	No	No	No	No	No	No
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RE/FE	RE	RE	RE	RE	RE	RE	RE	RE
Model 2								
Interpersonal Discrimination	0.17 *	0.15 *	2.86	11.05 *	6.38	0.10	13.50	41.66 **
	(0.07)	(0.07)	(2.01)	(4.37)	(3.28)	(0.10)	(12.69)	(14.39)
Rumination	-0.05	-0.04	-0.41	0.06	-0.24	0.00	0.12	24.25 *
	(0.05)	(0.05)	(1.83)	(3.35)	(1.87)	(0.10)	(12.90)	(10.50)
Vicarious Racism	-0.05	-0.07	-7.44 **	-13.76 **	-0.92	-0.24	-30.73	-5.67
	(0.08)	(0.08)	(2.70)	(5.12)	(2.97)	(0.15)	(19.97)	(15.92)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Neg	No	No	No	No	No	No	No	No
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RE/FE	FE	FE	FE	FE	FE	FE	FE	FE
Model 3								
Interpersonal Discrimination	0.17 *	0.15 *	2.87	11.03 *	7.18 *	0.11	13.92	42.02 **
	(0.07)	(0.07)	(2.01)	(4.37)	(3.39)	(0.10)	(12.69)	(14.39)
Rumination	-0.05	-0.04	-0.41	0.03	0.04	0.00	0.38	24.18 *
	(0.05)	(0.05)	(1.83)	(3.35)	(1.91)	(0.10)	(12.83)	(10.49)
Vicarious Racism	-0.05	-0.07	-7.45 **	-13.75 **	-1.15	-0.24	-30.95	-5.78
	(0.08)	(0.08)	(2.70)	(5.12)	(2.90)	(0.15)	(19.91)	(15.90)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Neg	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RE/FE	FE	FE	FE	FE	FE	FE	FE	FE
Obs	12138	12138	12138	12138	12138	3299	3299	3299

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S9: African American EDA-SNA max-min difference across models for selected coefficients.

	Momentary										60-Minute (Accumulated Moments)					
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts		Reg z		Reg Bursts		ZINB Bursts	
Model 1																
Interpersonal Discrimination	0.28	***	0.28	***	3.85		21.41	***	5.49		0.40	***	39.44	***	56.22	***
	(0.08)		(0.08)		(2.76)		(5.53)		(3.08)		(0.11)		(11.25)		(10.84)	
Rumination	-0.09		-0.08		-2.06		-5.75		-0.99		-0.09		-9.35		22.34	**
	(0.08)		(0.08)		(2.39)		(4.30)		(1.81)		(0.11)		(11.00)		(8.01)	
Vicarious Racism	0.00		-0.01		-2.52		-3.66		-4.48		-0.06		-6.00		0.62	
	(0.15)		(0.15)		(4.45)		(6.45)		(2.49)		(0.21)		(20.82)		(11.78)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	No		No		No		No		No		No		No		No	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	RE		RE		RE		RE		RE		RE		RE		RE	
Model 2																
Interpersonal Discrimination	0.23	**	0.23	**	7.19	**	21.78	***	9.47	**	0.41	**	40.77	**	56.22	***
	(0.07)		(0.07)		(2.32)		(5.53)		(3.49)		(0.13)		(13.01)		(10.84)	
Rumination	-0.09		-0.08		-2.74		-5.86		-1.68		-0.11		-10.59		22.34	**
	(0.06)		(0.06)		(1.93)		(4.30)		(1.77)		(0.13)		(12.96)		(8.01)	
Vicarious Racism	0.01		-0.00		-0.91		-3.45		-2.13		-0.03		-2.90		0.62	
	(0.08)		(0.08)		(2.76)		(6.45)		(2.78)		(0.19)		(18.69)		(11.78)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	No		No		No		No		No		No		No		No	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE	
Model 3																
Interpersonal Discrimination	0.23	**	0.23	**	7.19	**	21.78	***	9.47	**	0.41	**	40.77	**	56.22	***
	(0.07)		(0.07)		(2.32)		(5.53)		(3.49)		(0.13)		(13.01)		(10.84)	
Rumination	-0.09		-0.08		-2.74		-5.86		-1.68		-0.11		-10.59		22.34	**
	(0.06)		(0.06)		(1.93)		(4.30)		(1.77)		(0.13)		(12.96)		(8.01)	
Vicarious Racism	0.01		-0.00		-0.91		-3.45		-2.13		-0.03		-2.90		0.62	
	(0.08)		(0.08)		(2.76)		(6.45)		(2.78)		(0.19)		(18.69)		(11.78)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	No		No		No		No		No		No		No		No	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE	
Obs	12138		12138		12138		12138		11401		3299		3299		3299	

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S10: African American EDA-SNA maximum across models for selected coefficients.

	Momentary										60-Minute (Accumulated Moments)						
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts		Reg z		Reg Bursts		ZINB Bursts		
Model 1																	
Interpersonal Discrimination	0.36	***	0.35	***	4.34		22.13	***	5.81		0.23	*	38.49	*	81.60	***	
	(0.10)		(0.10)		(3.70)		(6.38)		(3.83)		(0.10)		(16.90)		(18.64)		
Rumination	-0.10		-0.09		-1.90		-3.68		-0.36		-0.04		-6.37		37.15	**	
	(0.09)		(0.09)		(3.35)		(4.93)		(2.52)		(0.10)		(15.84)		(13.68)		
Vicarious Racism	-0.07		-0.09		-9.98		-16.55	*	-8.06	*	-0.22		-36.21		-14.78		
	(0.19)		(0.18)		(6.37)		(7.49)		(3.25)		(0.18)		(30.07)		(20.55)		
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Lag Neg	No		No		No		No		No		No		No		No		
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
RE/FE	RE		RE		RE		RE		RE		RE		RE		RE		
Model 2																	
Interpersonal Discrimination	0.21	**	0.21	**	7.94	**	22.60	***	11.45	**	0.24	*	39.64	*	81.60	***	
	(0.07)		(0.07)		(2.92)		(6.38)		(4.40)		(0.11)		(17.92)		(18.64)		
Rumination	-0.08		-0.08		-2.89		-3.87		-2.03		-0.05		-7.73		37.15	**	
	(0.05)		(0.05)		(2.50)		(4.93)		(2.43)		(0.11)		(17.40)		(13.68)		
Vicarious Racism	-0.07		-0.09		-8.18	*	-16.21	*	-3.18		-0.20		-33.56		-14.78		
	(0.08)		(0.08)		(3.72)		(7.48)		(3.79)		(0.16)		(25.97)		(20.55)		
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Lag Neg	No		No		No		No		No		No		No		No		
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE		
Model 3																	
Interpersonal Discrimination	0.21	**	0.21	**	7.94	**	22.55	***	11.85	**	0.24	*	40.24	*	81.83	***	
	(0.07)		(0.07)		(2.93)		(6.38)		(4.48)		(0.11)		(17.87)		(18.63)		
Rumination	-0.08		-0.08		-2.89		-3.95		-2.24		-0.04		-7.37		37.17	**	
	(0.05)		(0.05)		(2.50)		(4.93)		(2.44)		(0.10)		(17.32)		(13.68)		
Vicarious Racism	-0.07		-0.09		-8.18	*	-16.20	*	-3.18		-0.20		-33.87		-14.80		
	(0.08)		(0.08)		(3.72)		(7.48)		(3.74)		(0.16)		(25.87)		(20.53)		
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Lag Neg	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE		
Obs	12138		12138		12138		12138		12138		3299		3299		3299		

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S11: African American EDA-SNA minimum across models for selected coefficients.

	Momentary					60-Minute (Accumulated Moments)			
	Reg z	Reg Outlier	Reg Bursts	Tobit Bursts	ZINB Bursts	Reg z	Reg Bursts	ZINB Bursts	
Model 1									
Interpersonal Discrimination	0.25 *	0.19	-2.28	11.22	-2.50	-0.04	-4.27	-1.54	
	(0.13)	(0.11)	(2.49)	(7.85)	(1.89)	(0.11)	(10.74)	(11.58)	
Rumination	-0.03	-0.01	1.56	4.01	1.00	0.04	4.32	18.47	*
	(0.08)	(0.08)	(3.02)	(5.69)	(1.71)	(0.15)	(14.99)	(8.65)	
Vicarious Racism	-0.08	-0.11	-6.81 *	-17.48 *	-3.02	-0.29	-29.78	-7.40	
	(0.14)	(0.13)	(2.86)	(8.75)	(2.11)	(0.17)	(17.61)	(12.74)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	No	No	No	No	No	No	No	No	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	RE	RE	RE	RE	RE	RE	RE	RE	
Model 2									
Interpersonal Discrimination	0.12	0.07	-0.23	12.51	0.92	-0.03	-2.80	-1.54	
	(0.08)	(0.07)	(1.65)	(7.86)	(2.51)	(0.10)	(10.51)	(11.58)	
Rumination	-0.02	0.00	0.95	3.71	-0.45	0.04	3.74	18.47	*
	(0.05)	(0.05)	(1.61)	(5.69)	(1.57)	(0.11)	(11.37)	(8.65)	
Vicarious Racism	-0.07	-0.10	-6.22 **	-17.18 *	-1.17	-0.29	-29.57	-7.40	
	(0.09)	(0.08)	(2.25)	(8.73)	(2.47)	(0.18)	(17.98)	(12.74)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	No	No	No	No	No	No	No	No	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	FE	FE	FE	FE	FE	FE	FE	FE	
Model 3									
Interpersonal Discrimination	0.12	0.07	-0.23	12.48	1.52	-0.02	-2.52	-1.65	
	(0.08)	(0.07)	(1.66)	(7.87)	(2.67)	(0.10)	(10.54)	(11.59)	
Rumination	-0.02	0.01	0.95	3.66	-0.23	0.04	3.92	18.32	*
	(0.05)	(0.05)	(1.61)	(5.69)	(1.62)	(0.11)	(11.33)	(8.65)	
Vicarious Racism	-0.07	-0.10	-6.22 **	-17.19 *	-1.32	-0.29	-29.72	-7.52	
	(0.09)	(0.08)	(2.25)	(8.74)	(2.36)	(0.18)	(17.96)	(12.76)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	FE	FE	FE	FE	FE	FE	FE	FE	
Obs	12138	12138	12138	12138	12138	3299	3299	3299	

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S12: Latinx EDA-SNA average across models for selected coefficients.

	Momentary										60-Minute (Accumulated Moments)				
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts		Reg z		Reg Bursts		ZINB Bursts
Model 1															
Interpersonal Discrimination	0.15		0.13		5.72		10.06	**	8.00	*	0.10		12.35		49.12
	(0.13)		(0.13)		(3.40)		(3.87)		(3.26)		(0.17)		(21.91)		(14.07)
Rumination	0.14	*	0.14	*	4.34		8.72	**	5.04	*	0.24	*	30.50	*	46.95
	(0.06)		(0.06)		(2.61)		(2.94)		(2.31)		(0.10)		(13.07)		(11.15)
Vicarious Racism	-0.29	*	-0.28	*	-10.57	*	-21.94	***	-8.97	***	-0.36	*	-46.62	*	-42.70
	(0.12)		(0.12)		(4.71)		(4.75)		(2.28)		(0.16)		(20.86)		(17.81)
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Lag Neg	No		No		No		No		No		No		No		No
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
RE/FE	RE		RE		RE		RE		RE		RE		RE		RE
Model 2															
Interpersonal Discrimination	0.18	*	0.16	*	5.42	*	10.14	**	8.07	*	0.09		12.04		49.12
	(0.07)		(0.07)		(2.33)		(3.87)		(3.22)		(0.14)		(17.75)		(14.07)
Rumination	0.12	*	0.12	*	4.24	**	8.73	**	5.92	*	0.23	**	30.03	**	46.95
	(0.05)		(0.05)		(1.61)		(2.94)		(2.38)		(0.08)		(10.11)		(11.15)
Vicarious Racism	-0.28	***	-0.28	***	-10.24	***	-21.92	***	-9.77	***	-0.34	*	-44.46	*	-42.70
	(0.07)		(0.07)		(2.58)		(4.76)		(2.20)		(0.14)		(17.43)		(17.81)
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Lag Neg	No		No		No		No		No		No		No		No
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE
Model 3															
Interpersonal Discrimination	0.18	*	0.16	*	5.31	*	10.05	**	7.77	*	0.10		12.32		49.13
	(0.07)		(0.07)		(2.34)		(3.88)		(3.18)		(0.14)		(17.83)		(14.10)
Rumination	0.12	*	0.12	*	4.23	**	8.72	**	5.57	*	0.23	**	30.09	**	46.88
	(0.05)		(0.05)		(1.61)		(2.94)		(2.34)		(0.08)		(10.11)		(11.22)
Vicarious Racism	-0.28	***	-0.28	***	-10.34	***	-22.00	***	-9.80	***	-0.34	*	-44.14	*	-42.58
	(0.07)		(0.07)		(2.58)		(4.76)		(2.19)		(0.13)		(17.35)		(17.85)
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Lag Neg	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE
Obs	11286		11286		11286		11286		11286		3064		3064		3064

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S13: Latinx EDA-SNA max-min difference across models for selected coefficients.

	Momentary										60-Minute (Accumulated Moments)					
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts		Reg z		Reg Bursts		ZINB Bursts	
Model 1																
Interpersonal Discrimination	0.19		0.15		6.50	*	13.76	**	7.41	*	0.28		28.28		66.94	***
	(0.13)		(0.12)		(3.13)		(5.08)		(3.33)		(0.23)		(22.82)		(12.64)	
Rumination	0.07		0.06		1.10		2.49		1.28		-0.01		-0.91		22.89	*
	(0.05)		(0.04)		(1.79)		(3.87)		(2.17)		(0.11)		(10.86)		(10.02)	
Vicarious Racism	-0.31	***	-0.30	**	-9.43	**	-22.47	***	-8.34	***	-0.29	*	-29.25	*	-0.78	
	(0.09)		(0.09)		(3.19)		(6.15)		(2.42)		(0.14)		(13.93)		(15.37)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	No		No		No		No		No		No		No		No	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	RE		RE		RE		RE		RE		RE		RE		RE	
Model 2																
Interpersonal Discrimination	0.22	*	0.18	*	5.66	*	13.83	**	8.08	*	0.30		29.51		66.94	***
	(0.09)		(0.07)		(2.64)		(5.08)		(3.36)		(0.18)		(17.89)		(12.64)	
Rumination	0.06		0.05		1.67		2.55		1.92		-0.00		-0.45		22.89	*
	(0.06)		(0.05)		(1.89)		(3.86)		(2.22)		(0.12)		(12.46)		(10.02)	
Vicarious Racism	-0.32	***	-0.31	***	-11.11	***	-22.56	***	-9.47	***	-0.33		-33.36		-0.78	
	(0.08)		(0.08)		(2.86)		(6.15)		(2.27)		(0.17)		(17.03)		(15.37)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	No		No		No		No		No		No		No		No	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE	
Model 3																
Interpersonal Discrimination	0.22	*	0.18	*	5.70	*	13.74	**	7.82	*	0.29		29.17		65.63	***
	(0.09)		(0.07)		(2.64)		(5.08)		(3.33)		(0.18)		(17.98)		(12.63)	
Rumination	0.06		0.05		1.68		2.54		1.97		-0.01		-0.52		21.27	*
	(0.06)		(0.05)		(1.89)		(3.86)		(2.22)		(0.12)		(12.41)		(10.07)	
Vicarious Racism	-0.32	***	-0.31	***	-11.07	***	-22.66	***	-9.57	***	-0.34	*	-33.73	*	-2.88	
	(0.08)		(0.08)		(2.86)		(6.16)		(2.25)		(0.17)		(17.06)		(15.43)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE	
Obs	11286		11286		11286		11286		11286		3064		3064		3064	

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S14: Latinx EDA-SNA maximum across models for selected coefficients.

	Momentary										60-Minute (Accumulated Moments)					
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts		Reg z		Reg Bursts		ZINB Bursts	
Model 1																
Interpersonal Discrimination	0.20		0.17		9.86	*	17.37	**	11.61	**	0.19		30.91		84.55	***
	(0.14)		(0.14)		(4.46)		(5.70)		(4.37)		(0.17)		(28.84)		(19.92)	
Rumination	0.11		0.11		4.23		9.62	*	4.99		0.17		28.47		59.58	***
	(0.06)		(0.06)		(3.30)		(4.34)		(2.95)		(0.10)		(16.45)		(15.91)	
Vicarious Racism	-0.31	**	-0.30	**	-14.08	**	-29.19	***	-11.49	***	-0.35	**	-57.62	**	-29.65	
	(0.11)		(0.11)		(5.09)		(6.96)		(3.47)		(0.13)		(21.51)		(24.45)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	No		No		No		No		No		No		No		No	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	RE		RE		RE		RE		RE		RE		RE		RE	
Model 2																
Interpersonal Discrimination	0.23	**	0.21	**	9.33	**	17.48	**	12.81	**	0.19		31.32		84.55	***
	(0.08)		(0.07)		(3.14)		(5.70)		(4.41)		(0.14)		(23.08)		(19.92)	
Rumination	0.09		0.09		4.23		9.64	*	5.68		0.17		27.83		59.58	***
	(0.05)		(0.05)		(2.25)		(4.34)		(3.02)		(0.09)		(14.78)		(15.91)	
Vicarious Racism	-0.31	***	-0.30	***	-14.48	***	-29.21	***	-12.69	***	-0.35	*	-57.19	*	-29.65	
	(0.07)		(0.07)		(3.72)		(6.96)		(3.36)		(0.14)		(23.65)		(24.45)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	No		No		No		No		No		No		No		No	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE	
Model 3																
Interpersonal Discrimination	0.23	**	0.20	**	9.18	**	17.30	**	12.09	**	0.19		31.35		83.85	***
	(0.08)		(0.07)		(3.15)		(5.71)		(4.35)		(0.14)		(23.21)		(19.94)	
Rumination	0.09		0.09		4.22		9.64	*	5.49		0.17		27.84		58.41	***
	(0.05)		(0.05)		(2.25)		(4.34)		(2.99)		(0.09)		(14.75)		(16.01)	
Vicarious Racism	-0.31	***	-0.30	***	-14.61	***	-29.40	***	-12.96	***	-0.35	*	-57.16	*	-30.77	
	(0.07)		(0.07)		(3.72)		(6.97)		(3.32)		(0.14)		(23.66)		(24.52)	
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Lag Neg	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE	
Obs	11286		11286		11286		11286		11286		3064		3064		3064	

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S15: Latinx EDA-SNA minimum across models for selected coefficients.

	Momentary									60-Minute (Accumulated Moments)					
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts	Reg z		Reg Bursts		ZINB Bursts	
Model 1															
Interpersonal Discrimination	0.07		0.08		3.96		21.76	**	3.68	0.04		3.75		28.93	**
	(0.08)		(0.09)		(3.37)		(6.69)		(2.32)	(0.18)		(18.03)		(10.63)	
Rumination	0.11	*	0.12	*	3.22		13.37	*	2.43	0.29	**	30.05	**	30.17	***
	(0.04)		(0.05)		(2.00)		(5.32)		(1.86)	(0.11)		(10.78)		(8.52)	
Vicarious Racism	-0.14		-0.15		-5.85		-32.21	***	-3.97	-0.29		-29.73		-25.98	
	(0.12)		(0.13)		(4.37)		(8.91)		(2.19)	(0.20)		(20.10)		(16.50)	
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Lag Neg	No		No		No		No		No	No		No		No	
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
RE/FE	RE		RE		RE		RE		RE	RE		RE		RE	
Model 2															
Interpersonal Discrimination	0.08		0.10		3.55		21.76	**	3.05	0.02		2.21		28.93	**
	(0.06)		(0.07)		(2.11)		(6.70)		(2.25)	(0.15)		(15.50)		(10.63)	
Rumination	0.09	*	0.10	*	3.19	*	13.40	*	3.07	0.29	***	29.86	***	30.17	***
	(0.04)		(0.05)		(1.39)		(5.32)		(1.93)	(0.08)		(8.14)		(8.52)	
Vicarious Racism	-0.13	*	-0.14		-5.18	*	-32.23	***	-3.14	-0.26		-26.50		-25.98	
	(0.07)		(0.07)		(2.20)		(8.92)		(2.38)	(0.14)		(14.20)		(16.50)	
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Lag Neg	No		No		No		No		No	No		No		No	
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE	FE		FE		FE	
Model 3															
Interpersonal Discrimination	0.08		0.09		3.42		21.62	**	2.54	0.03		2.67		28.90	**
	(0.06)		(0.07)		(2.11)		(6.71)		(2.19)	(0.15)		(15.51)		(10.62)	
Rumination	0.09	*	0.10	*	3.17	*	13.38	*	2.72	0.29	***	29.97	***	29.95	***
	(0.04)		(0.05)		(1.39)		(5.32)		(1.89)	(0.08)		(8.15)		(8.52)	
Vicarious Racism	-0.14	*	-0.15	*	-5.29	*	-32.35	***	-2.81	-0.25		-25.98		-25.59	
	(0.07)		(0.07)		(2.20)		(8.92)		(2.45)	(0.14)		(14.09)		(16.73)	
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Lag Neg	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE	FE		FE		FE	
Obs	11286		11286		11286		11286		11286	3064		3064		3064	

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S16: 1.5 Gen Black EDA-SNA average across models for selected coefficients.

	Momentary									60-Minute (Accumulated Moments)				
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts	Reg z		Reg Bursts		ZINB Bursts
Model 1														
Interpersonal Discrimination	-0.29		-0.29		-10.80		-22.76	***	-1.69	-0.78	***	-100.38	***	-20.54
	(0.22)		(0.23)		(5.66)		(6.17)		(3.05)	(0.19)		(24.13)		(17.28)
Rumination	0.08		0.07		1.98		1.27		1.49	0.22		28.88		25.71
	(0.13)		(0.14)		(5.72)		(6.26)		(3.72)	(0.19)		(23.90)		(17.73)
Vicarious Racism	0.29	**	0.25	*	-1.44		8.56		-4.04	-0.03		-4.03		-16.02
	(0.10)		(0.10)		(2.12)		(8.34)		(3.60)	(0.09)		(11.31)		(23.98)
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
Lag Neg	No		No		No		No		No	No		No		No
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
RE/FE	RE		RE		RE		RE		RE	RE		RE		RE
Model 2														
Interpersonal Discrimination	-0.24		-0.25		-10.53	*	-23.07	***	-3.16	-0.76	**	-98.44	**	-20.54
	(0.13)		(0.14)		(4.55)		(6.17)		(2.81)	(0.28)		(35.99)		(17.28)
Rumination	0.06		0.05		2.12		1.31		1.57	0.23		29.04		25.71
	(0.10)		(0.09)		(2.93)		(6.26)		(3.74)	(0.15)		(19.65)		(17.73)
Vicarious Racism	0.14		0.11		1.87		9.42		0.76	-0.01		-1.36		-16.02
	(0.10)		(0.08)		(2.19)		(8.36)		(4.73)	(0.08)		(10.61)		(23.98)
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
Lag Neg	No		No		No		No		No	No		No		No
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
RE/FE	FE		FE		FE		FE		FE	FE		FE		FE
Model 3														
Interpersonal Discrimination	-0.24		-0.25		-10.53	*	-22.90	***	-3.25	-0.76	**	-98.51	**	-20.53
	(0.13)		(0.14)		(4.55)		(6.17)		(2.79)	(0.28)		(36.00)		(17.29)
Rumination	0.06		0.05		2.13		1.61		1.49	0.22		28.93		25.71
	(0.10)		(0.09)		(2.94)		(6.27)		(3.72)	(0.15)		(19.70)		(17.73)
Vicarious Racism	0.13		0.11		1.85		8.26		1.58	-0.01		-0.91		-16.10
	(0.10)		(0.08)		(2.19)		(8.43)		(5.01)	(0.08)		(10.72)		(24.22)
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
Lag Neg	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes
RE/FE	FE		FE		FE		FE		FE	FE		FE		FE
Obs	9267		9267		9267		9267		9267	2559		2559		2559

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S17: 1.5 Gen Black EDA-SNA max-min difference across models for selected coefficients.

	Momentary					60-Minute (Accumulated Moments)			
	Reg z	Reg Outlier	Reg Bursts	Tobit Bursts	ZINB Bursts	Reg z	Reg Bursts	ZINB Bursts	
Model 1									
Interpersonal Discrimination	-0.06	-0.06	6.00	1.34	5.57	0.33	33.09	41.88	*
	(0.13)	(0.14)	(3.50)	(8.74)	(4.82)	(0.21)	(20.78)	(17.29)	
Rumination	0.05	0.06	0.64	1.91	2.15	0.17	17.29	47.40	*
	(0.16)	(0.16)	(7.30)	(9.00)	(4.58)	(0.32)	(31.68)	(19.33)	
Vicarious Racism	0.12	0.13	-2.65	11.00	-3.49	0.02	2.10	9.69	
	(0.10)	(0.10)	(5.35)	(11.98)	(4.85)	(0.17)	(16.96)	(24.28)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	No	No	No	No	No	No	No	No	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	RE	RE	RE	RE	RE	RE	RE	RE	
Model 2									
Interpersonal Discrimination	0.04	0.04	-2.94	0.51	0.20	0.24	24.07	41.88	*
	(0.10)	(0.11)	(4.31)	(8.73)	(3.99)	(0.23)	(23.09)	(17.29)	
Rumination	0.04	0.04	1.51	1.92	1.65	0.18	18.24	47.40	*
	(0.10)	(0.10)	(3.61)	(8.99)	(4.55)	(0.24)	(24.11)	(19.33)	
Vicarious Racism	0.04	0.07	4.02	12.14	3.45	0.08	7.69	9.69	
	(0.11)	(0.11)	(3.92)	(11.99)	(6.22)	(0.22)	(21.95)	(24.28)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	No	No	No	No	No	No	No	No	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	FE	FE	FE	FE	FE	FE	FE	FE	
Model 3									
Interpersonal Discrimination	0.04	0.04	-2.93	0.81	0.23	0.24	24.25	42.10	*
	(0.10)	(0.11)	(4.31)	(8.73)	(3.99)	(0.23)	(23.06)	(17.30)	
Rumination	0.04	0.05	1.75	2.58	1.86	0.19	18.65	47.45	*
	(0.10)	(0.10)	(3.62)	(9.00)	(4.58)	(0.24)	(24.11)	(19.33)	
Vicarious Racism	0.03	0.05	3.49	9.67	3.02	0.06	6.09	8.87	
	(0.11)	(0.11)	(3.93)	(12.10)	(6.22)	(0.22)	(22.24)	(24.35)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	FE	FE	FE	FE	FE	FE	FE	FE	
Obs	9267	9267	9267	9267	9267	2559	2559	2559	

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S18: 1.5 Gen Black EDA-SNA maximum across models for selected coefficients.

	Momentary					60-Minute (Accumulated Moments)				
	Reg z	Reg Outlier	Reg Bursts	Tobit Bursts	ZINB Bursts	Reg z		Reg Bursts		ZINB Bursts
Model 1										
Interpersonal Discrimination	-0.21	-0.21	-4.99	-17.27	-0.63	-0.47	***	-78.28	***	-21.12
	(0.18)	(0.19)	(5.89)	(9.67)	(4.96)	(0.12)		(20.21)		(25.01)
Rumination	0.09	0.08	2.58	2.75	3.30	0.21		34.94		31.24
	(0.15)	(0.15)	(9.25)	(9.94)	(5.72)	(0.22)		(35.90)		(27.14)
Vicarious Racism	0.23 *	0.22 *	-2.57	12.29	-5.32	0.00		0.49		-2.01
	(0.09)	(0.10)	(4.52)	(13.24)	(5.77)	(0.12)		(19.40)		(35.20)
Controls	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Lag Neg	No	No	No	No	No	No		No		No
Time	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
RE/FE	RE	RE	RE	RE	RE	RE		RE		RE
Model 2										
Interpersonal Discrimination	-0.10	-0.10	-8.35	-17.94	-3.80	-0.48	*	-79.43	*	-21.12
	(0.11)	(0.12)	(5.64)	(9.66)	(4.53)	(0.22)		(37.14)		(25.01)
Rumination	0.06	0.06	3.06	2.78	2.83	0.21		35.29		31.24
	(0.10)	(0.10)	(4.37)	(9.93)	(5.71)	(0.17)		(28.53)		(27.14)
Vicarious Racism	0.08	0.09	3.78	13.69	2.30	0.03		5.04		-2.01
	(0.10)	(0.09)	(3.79)	(13.26)	(7.30)	(0.10)		(16.19)		(35.20)
Controls	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Lag Neg	No	No	No	No	No	No		No		No
Time	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
RE/FE	FE	FE	FE	FE	FE	FE		FE		FE
Model 3										
Interpersonal Discrimination	-0.10	-0.10	-8.34	-17.66	-3.84	-0.48	*	-79.42	*	-20.93
	(0.11)	(0.12)	(5.64)	(9.65)	(4.52)	(0.22)		(37.15)		(25.03)
Rumination	0.06	0.06	3.16	3.28	2.84	0.21		35.32		31.15
	(0.10)	(0.10)	(4.37)	(9.94)	(5.71)	(0.17)		(28.57)		(27.14)
Vicarious Racism	0.07	0.08	3.56	11.77	2.89	0.03		4.93		-2.52
	(0.10)	(0.09)	(3.79)	(13.36)	(7.56)	(0.10)		(16.38)		(35.38)
Controls	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Lag Neg	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
Time	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes
RE/FE	FE	FE	FE	FE	FE	FE		FE		FE
Obs	9267	9267	9267	9267	9267	2559		2559		2559

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S19: 1.5 Gen Black EDA-SNA minimum across models for selected coefficients.

	Momentary					60-Minute (Accumulated Moments)					
	Reg z	Reg Outlier	Reg Bursts	Tobit Bursts	ZINB Bursts	Reg z		Reg Bursts		ZINB Bursts	
Model 1											
Interpersonal Discrimination	-0.18	-0.18	-10.19	-12.34	-3.10	-1.02	***	-104.20	***	-22.60	**
	(0.21)	(0.22)	(5.35)	(11.42)	(1.69)	(0.26)		(26.71)		(7.35)	
Rumination	0.05	0.07	0.77	5.79	1.12	0.17		16.93		8.23	
	(0.11)	(0.11)	(3.54)	(11.74)	(2.66)	(0.18)		(18.37)		(4.23)	
Vicarious Racism	0.29	** 0.22	-0.09	13.66	-1.67	-0.04		-3.58		-24.12	***
	(0.11)	(0.12)	(1.69)	(16.44)	(2.93)	(0.06)		(6.22)		(7.06)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
Lag Neg	No	No	No	No	No	No		No		No	
Time	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
RE/FE	RE	RE	RE	RE	RE	RE		RE		RE	
Model 2											
Interpersonal Discrimination	-0.19	-0.20	-8.06	* -12.26	-1.32	-0.98	**	-99.65	**	-22.60	**
	(0.16)	(0.16)	(4.10)	(11.41)	(2.14)	(0.36)		(36.56)		(7.35)	
Rumination	0.04	0.06	0.78	5.71	0.73	0.17		16.95		8.23	
	(0.09)	(0.10)	(2.20)	(11.74)	(2.59)	(0.15)		(15.72)		(4.23)	
Vicarious Racism	0.21	0.16	1.97	15.70	3.93	-0.02		-1.79		-24.12	***
	(0.14)	(0.11)	(2.35)	(16.45)	(5.08)	(0.13)		(13.11)		(7.06)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
Lag Neg	No	No	No	No	No	No		No		No	
Time	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
RE/FE	FE	FE	FE	FE	FE	FE		FE		FE	
Model 3											
Interpersonal Discrimination	-0.19	-0.20	-8.07	* -12.34	-1.38	-0.98	**	-99.84	**	-23.41	**
	(0.16)	(0.16)	(4.10)	(11.41)	(2.13)	(0.36)		(36.57)		(7.35)	
Rumination	0.04	0.06	0.72	5.54	0.63	0.16		16.64		7.67	
	(0.09)	(0.10)	(2.21)	(11.74)	(2.57)	(0.15)		(15.78)		(4.23)	
Vicarious Racism	0.22	0.17	2.11	16.34	4.58	-0.01		-0.55		-19.95	**
	(0.14)	(0.11)	(2.36)	(16.51)	(5.38)	(0.13)		(13.25)		(7.08)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
Lag Neg	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
Time	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Yes	
RE/FE	FE	FE	FE	FE	FE	FE		FE		FE	
Obs	9267	9267	9267	9267	9267	2559		2559		2559	

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S20: African EDA-SNA average across models for selected coefficients.

	Momentary					60-Minute (Accumulated Moments)		
	Reg z	Reg Outlier	Reg Bursts	Tobit Bursts	ZINB Bursts	Reg z	Reg Bursts	ZINB Bursts
Model 1								
Interpersonal Discrimination	-0.21	-0.25	-11.48 *	-14.16	-6.82 **	-0.39 *	-50.84 *	8.53
	(0.17)	(0.17)	(4.56)	(7.55)	(2.52)	(0.18)	(23.49)	(18.95)
Rumination	0.14	0.17	14.02 (10.25)	19.15 **	6.26	0.38	48.98	56.34 **
	(0.12)	(0.13)		(5.87)	(4.15)	(0.24)	(31.52)	(17.60)
Vicarious Racism	-0.18	-0.21	-18.32 *	-54.86 ***	-0.19	-0.39	-49.70	60.36
	(0.11)	(0.12)	(8.39)	(13.70)	(10.46)	(0.24)	(31.14)	(49.22)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Neg	No	No	No	No	No	No	No	No
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RE/FE	RE	RE	RE	RE	RE	RE	RE	RE
Model 2								
Interpersonal Discrimination	-0.18	-0.21 *	-12.03 ***	-14.27	-0.41	-52.29	8.53	
	(0.11)	(0.10)	(3.48)	(7.57)	(0.21)	(27.52)	(18.95)	
Rumination	0.20 *	0.23 *	12.18 ***	18.88 **	0.34	43.71	56.34 **	
	(0.09)	(0.09)	(3.39)	(5.87)	(0.20)	(26.14)	(17.60)	
Vicarious Racism	-0.36 **	-0.38 **	-14.39 ***	-54.43 ***	-0.33	-42.95	60.36	
	(0.12)	(0.12)	(3.72)	(13.68)	(0.22)	(28.80)	(49.22)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	No	No	No	No	No	No	No	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	FE	FE	FE	FE	FE	FE	FE	
Model 3								
Interpersonal Discrimination	-0.18	-0.21 *	-12.03 ***	-14.30	-5.51	-0.40	-52.12	8.38
	(0.11)	(0.10)	(3.48)	(7.57)	(2.88)	(0.21)	(27.61)	(18.87)
Rumination	0.19 *	0.22 *	12.17 ***	18.87 **	10.77 *	0.34	43.71	56.77 **
	(0.09)	(0.09)	(3.39)	(5.87)	(4.65)	(0.20)	(26.14)	(17.64)
Vicarious Racism	-0.36 **	-0.38 **	-14.39 ***	-54.50 ***	-1.04	-0.33	-42.70	60.79
	(0.12)	(0.12)	(3.72)	(13.68)	(10.18)	(0.22)	(28.67)	(49.53)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Neg	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RE/FE	FE	FE	FE	FE	FE	FE	FE	FE
Obs	4963	4963	4963	4963	4963	1350	1350	1350

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S21: African EDA-SNA max-min difference across models for selected coefficients.

	Momentary					60-Minute (Accumulated Moments)		
	Reg z	Reg Outlier	Reg Bursts	Tobit Bursts	ZINB Bursts	Reg z	Reg Bursts	ZINB Bursts
Model 1								
Interpersonal Discrimination	-0.07	-0.14	-7.36 *	-9.55	-0.74 *	-74.24 *	-10.30	
	(0.18)	(0.14)	(3.72)	(10.05)	(0.31)	(31.06)	(17.32)	
Rumination	0.03	0.01	3.55	9.69	0.10	9.77	34.54 *	
	(0.13)	(0.12)	(5.83)	(7.99)	(0.27)	(27.40)	(16.02)	
Vicarious Racism	-0.18	-0.17	-12.27 *	-63.76 ***	-0.15	-14.50	51.63	
	(0.14)	(0.14)	(5.31)	(18.37)	(0.27)	(26.88)	(49.07)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	No	No	No	No	No	No	No	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	RE	RE	RE	RE	RE	RE	RE	
Model 2								
Interpersonal Discrimination	-0.06	-0.12	-5.41	-9.50	-0.71 *	-70.69 *	-10.30	
	(0.13)	(0.11)	(3.50)	(10.08)	(0.33)	(32.87)	(17.32)	
Rumination	0.07	0.05	1.25	9.31	0.05	4.75	34.54 *	
	(0.12)	(0.10)	(3.54)	(7.98)	(0.21)	(21.33)	(16.02)	
Vicarious Racism	-0.28 *	-0.27 *	-8.90 *	-63.16 ***	-0.13	-12.63	51.63	
	(0.14)	(0.13)	(4.29)	(18.35)	(0.32)	(31.98)	(49.07)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Lag Neg	No	No	No	No	No	No	No	
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RE/FE	FE	FE	FE	FE	FE	FE	FE	
Model 3								
Interpersonal Discrimination	-0.06	-0.12	-5.41	-9.41	-3.99	-0.71 *	-70.36 *	-9.78
	(0.13)	(0.11)	(3.50)	(10.08)	(3.41)	(0.33)	(32.95)	(17.33)
Rumination	0.07	0.05	1.30	9.31	2.88	0.05	4.75	34.73 *
	(0.12)	(0.10)	(3.54)	(7.99)	(3.55)	(0.21)	(21.31)	(16.03)
Vicarious Racism	-0.28 *	-0.27 *	-8.90 *	-63.09 ***	-8.46	-0.12	-12.15	54.15
	(0.14)	(0.13)	(4.29)	(18.36)	(6.51)	(0.32)	(31.99)	(49.71)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Y	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lag Neg	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RE/FE	FE	FE	FE	FE	FE	FE	FE	FE
Obs	4963	4963	4963	4963	4963	1350	1350	1350

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S22: African EDA-SNA maximum across models for selected coefficients.

	Momentary										60-Minute (Accumulated Moments)								
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts		Reg z		Reg Bursts		ZINB Bursts	
Model 1																			
Interpersonal Discrimination	-0.23		-0.28		-16.99	**	-23.56	*	-11.31	***	-0.56	*	-92.46	*	2.96				
	(0.19)		(0.18)		(6.18)		(11.46)		(3.31)		(0.23)		(37.75)		(28.04)				
Rumination	0.15		0.16		16.46		22.68	*	6.11		0.36		59.21		79.48	**			
	(0.15)		(0.16)		(13.92)		(8.97)		(5.33)		(0.27)		(45.34)		(26.66)				
Vicarious Racism	-0.23		-0.23		-24.82	*	-77.92	***	-7.89		-0.39		-63.86		85.22				
	(0.13)		(0.14)		(11.36)		(20.74)		(11.22)		(0.26)		(43.01)		(75.73)				
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes				
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes				
Lag Neg	No		No		No		No		No		No		No		No				
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes				
RE/FE	RE		RE		RE		RE		RE		RE		RE		RE				
Model 2																			
Interpersonal Discrimination	-0.22		-0.27	*	-16.55	***	-23.65	*	-0.56	*	-92.95	*	2.96						
	(0.12)		(0.11)		(4.88)		(11.49)		(0.26)		(43.26)		(28.04)						
Rumination	0.21	*	0.21	*	13.53	**	22.24	*	0.30		50.40		79.48	**					
	(0.10)		(0.09)		(4.46)		(8.96)		(0.17)		(28.49)		(26.66)						
Vicarious Racism	-0.39	**	-0.40	***	-19.50	***	-77.27	***	-0.33		-55.33		85.22						
	(0.12)		(0.12)		(5.27)		(20.70)		(0.25)		(40.94)		(75.73)						
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes						
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes						
Lag Neg	No		No		No		No		No		No		No						
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes						
RE/FE	FE		FE		FE		FE		FE		FE		FE						
Model 3																			
Interpersonal Discrimination	-0.22		-0.27	*	-16.55	***	-23.63	*	-9.35	*	-0.56	*	-92.56	*	3.65				
	(0.12)		(0.11)		(4.88)		(11.50)		(3.82)		(0.26)		(43.38)		(28.04)				
Rumination	0.21	*	0.21	*	13.54	**	22.24	*	14.56	*	0.30		50.40		79.63	**			
	(0.10)		(0.09)		(4.46)		(8.96)		(6.19)		(0.17)		(28.47)		(26.65)				
Vicarious Racism	-0.39	**	-0.40	***	-19.50	***	-77.24	***	-8.13		-0.33		-54.74		88.97				
	(0.12)		(0.12)		(5.27)		(20.71)		(11.19)		(0.25)		(40.89)		(76.69)				
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes				
Lag Y	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes				
Lag Neg	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes				
Time	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes				
RE/FE	FE		FE		FE		FE		FE		FE		FE		FE				
Obs	4963		4963		4963		4963		4963		1350		1350		1350				

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S23: African EDA-SNA minimum across models for selected coefficients.

	Momentary									60-Minute (Accumulated Moments)				
	Reg z		Reg Outlier		Reg Bursts		Tobit Bursts		ZINB Bursts	Reg z		Reg Bursts		ZINB Bursts
Model 1														
Interpersonal Discrimination	-0.13		-0.16		-4.19		-8.59		-0.07	-7.51		12.75		
	(0.11)		(0.11)		(3.96)		(15.57)		(0.19)	(19.90)		(14.59)		
Rumination	0.14		0.21		14.51		41.02	***	0.48	49.30		43.51	** *	
	(0.12)		(0.14)		(8.83)		(10.40)		(0.27)	(27.12)		(10.97)		
Vicarious Racism	-0.21	*	-0.27	**	-17.87	*	-94.25	**	-0.53	* -54.43	*	-66.18	*	
	(0.09)		(0.10)		(7.57)		(31.03)		(0.25)	(25.85)		(29.00)		
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		
Lag Neg	No		No		No		No		No	No		No		
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		
RE/FE	RE		RE		RE		RE		RE	RE		RE		
Model 2														
Interpersonal Discrimination	-0.09		-0.12		-5.80	*	-8.38		-0.11	-11.24		12.75		
	(0.10)		(0.09)		(2.57)		(15.67)		(0.19)	(19.28)		(14.59)		
Rumination	0.17	*	0.24	**	12.78	***	40.09	***	0.42	43.24		43.51	** *	
	(0.09)		(0.09)		(3.15)		(10.41)		(0.25)	(25.59)		(10.97)		
Vicarious Racism	-0.34	***	-0.39	***	-13.45	***	-92.71	**	-0.44	* -45.40	*	-66.18	*	
	(0.09)		(0.09)		(2.88)		(30.96)		(0.21)	(21.14)		(29.00)		
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		
Lag Neg	No		No		No		No		No	No		No		
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		
RE/FE	FE		FE		FE		FE		FE	FE		FE		
Model 3														
Interpersonal Discrimination	-0.09		-0.12		-5.80	*	-8.27		-1.48	-0.11		-11.11		12.93	
	(0.10)		(0.09)		(2.57)		(15.63)		(3.57)	(0.19)		(19.34)		(14.57)	
Rumination	0.17	*	0.24	**	12.76	***	40.10	***	10.41	* 0.42		43.24		43.83	***
	(0.09)		(0.09)		(3.15)		(10.39)		(4.31)	(0.25)		(25.59)		(10.97)	
Vicarious Racism	-0.34	***	-0.39	***	-13.46	***	-94.15	**	-9.31	*** -0.44	*	-45.19	*	-65.75	*
	(0.09)		(0.09)		(2.88)		(31.04)		(0.68)	(0.20)		(20.88)		(29.08)	
Controls	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Lag Neg	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
Time	Yes		Yes		Yes		Yes		Yes	Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE		FE	FE		FE		FE	
Obs	4963		4963		4963		4963		4963	1350		1350		1350	

* p < .05, ** p < .01, *** p<.001. Standard errors in parentheses.
z-scores are standardized within person. Bursts refers to the EDA-bursts over 5 minutes. ZINB refers to zero-inflated negative binomial regression. 60-minute windows were calculated by accumulating over 15-minute windows in the hour.

Table S24: Probability of 0-moment from zero-inflated negative binomial regression model.

	AA		1.5 Gen		Cont. Afr.		Latinx	
EDA Average								
Interpersonal Discrimination	-0.08	**	0.14	***	0.03		-0.08	*
	(0.03)		(0.03)		(0.04)		(0.03)	
Rumination	0.02		0.00		-0.02		-0.04	
	(0.02)		(0.04)		(0.04)		(0.02)	
Vicarious Racism	0.05		-0.08		0.16	***	0.15	***
	(0.03)		(0.07)		(0.04)		(0.03)	
EDA Difference								
Interpersonal Discrimination	-0.12	***	-0.00		0.05		-0.09	**
	(0.03)		(0.04)		(0.04)		(0.03)	
Rumination	0.03		-0.00		-0.07		-0.00	
	(0.02)		(0.04)		(0.04)		(0.02)	
Vicarious Racism	0.04		-0.11		0.22	***	0.12	***
	(0.03)		(0.07)		(0.04)		(0.03)	
EDA Maximum								
Interpersonal Discrimination	-0.10	***	0.09	**	0.05		-0.08	**
	(0.03)		(0.04)		(0.04)		(0.03)	
Rumination	0.02		-0.01		-0.02		-0.03	
	(0.02)		(0.04)		(0.04)		(0.02)	
Vicarious Racism	0.05		-0.09		0.17	***	0.14	***
	(0.03)		(0.07)		(0.05)		(0.03)	
EDA Minimum								
Interpersonal Discrimination	-0.04		0.06	**	0.03		-0.12	***
	(0.03)		(0.02)		(0.03)		(0.03)	
Rumination	-0.01		-0.03		-0.11	**	-0.04	*
	(0.02)		(0.03)		(0.04)		(0.02)	
Vicarious Racism	0.04		-0.04		0.11	***	0.10	***
	(0.02)		(0.05)		(0.02)		(0.02)	
Model Information								
Controls	Yes		Yes		Yes		Yes	
Lag Y	Yes		Yes		Yes		Yes	
Lag Neg	Yes		Yes		Yes		Yes	
Time	Yes		Yes		Yes		Yes	
RE/FE	FE		FE		FE		FE	
Obs	12138		8686		4503		10717	

Standard errors in parentheses. * p < .05, ** p < .01, *** p<.001

Table S25: Fixed effects EDA-SNA regression results comparing first vs second week of participation to check Fall vs Spring design changes for the full sample. Coefficients indicate the difference in the week 2 vs week 1 coefficient estimate with standard errors in brackets.

	Average	Max	Min	Diff
Discrimination	0.074	0.024	0.149	-0.032
	[0.102]	[0.120]	[0.098]	[0.132]
Rumination	0.024	0.069	-0.012	-0.054
	[0.074]	[0.078]	[0.074]	[0.087]
Vicarious Racism	-0.124	-0.055	-0.058	-0.029
	[0.143]	[0.173]	[0.136]	[0.187]
N	37654	37654	37654	37654

Standard errors in parentheses. * p < .05, ** p < .01, *** p<.001

Table S26: Negative emotions results comparing first vs second week of participation to check Fall vs Spring design changes for the full sample. Random intercept logistic regression coefficients capturing the difference in the week 2 vs week 1 logit coefficient estimate.

	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Discrimination	0.338	0.527	0.640	0.521	-0.695	1.370
Rumination	-0.126	0.456	-0.280	0.783	-1.019	0.768
Vicarious Racism	-0.007	0.815	-0.010	0.993	-1.604	1.591