

# Online Appendix

## Description of the SMOreg Procedure

SMOreg takes as its starting point the basic linear model.<sup>42</sup> Let  $\mathbf{X}$  be an  $n \times k$  matrix; however, we do not assume  $\mathbf{X}$  has a leading column of ones. Instead, we simply have  $n$  observations and  $k$  covariates for each observation. Further assume  $\mathbf{y}$  is an  $n \times 1$  vector of observations on the dependent variable.<sup>43</sup> Now suppose we want to estimate a linear model of the form

$$\mathbf{y} = \beta_0 + \mathbf{X}\boldsymbol{\beta} \quad (1)$$

where  $\boldsymbol{\beta}$  is a  $k \times 1$  vector of coefficients,  $\beta_0$  is the intercept (or “bias” term),  $\mathbf{y}$  is a  $n \times 1$  vector of the personality traits to be predicted, and  $\mathbf{X}$  is a  $n \times k$  matrix of textual features estimated via LIWC and/or MRCPD. Within the support vector machine framework, the goal is to find as small a  $\boldsymbol{\beta}$  as possible, and one way of doing so is to minimize the sum of squared coefficients  $\sum_{i=1}^k \beta_i^2$ , which can be written more compactly as  $\boldsymbol{\beta}'\boldsymbol{\beta}$  or  $\|\boldsymbol{\beta}\|^2$ . This can be written as an optimization problem where we minimize  $\|\boldsymbol{\beta}\|^2$  subject to the constraint that for each observation  $i$ ,

$$|y_i - \beta_0 - \mathbf{x}'_i\boldsymbol{\beta}| \leq \epsilon \quad (2)$$

where  $\epsilon$  is chosen *a priori*.<sup>44</sup> However, as Smola & Schölkopf (2004) note, this setup assumes that we can write down a function that estimates all observations with at least  $\epsilon$  precision. Depending on the nature of the data, such a function may not exist (or may be intractable),

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<sup>42</sup>See also Hastie, Tibshirani & Friedman (2009) and Shevade et al. (1999).

<sup>43</sup>Standard machine learning parlance uses the terms “traits” and “targets” instead of “covariates” and “dependent variable,” but in the interest of pedagogy our goal here is to mirror the language and notation of OLS.

<sup>44</sup>In the present case,  $\epsilon$  was set to Weka’s default value of 0.001.

and it is therefore often preferable to introduce slack variables  $\xi_i$  and  $\xi_i^*$  and instead minimize

$$\frac{1}{2}\|\boldsymbol{\beta}\|^2 + C \sum_{i=1}^n (\xi_i + \xi_i^*) \quad (3)$$

subject to the constraints

$$y_i - \beta_0 - \mathbf{x}'_i \boldsymbol{\beta} - \xi_i \leq \epsilon \quad (4)$$

$$-(y_i - \beta_0 - \mathbf{x}'_i \boldsymbol{\beta}) - \xi_i^* \leq \epsilon \quad (5)$$

$$\min \{\xi_i, \xi_i^*\} \geq 0. \quad (6)$$

Smola & Schölkopf (2004) note that the complexity parameter  $C$  allows for some flexibility between small  $\boldsymbol{\beta}$  and tolerance for deviations larger than  $\epsilon$ .<sup>45</sup> These conditions combine to create a  $\epsilon$ -insensitive loss function  $|\xi|_\epsilon$  which can be defined by

$$|\xi|_\epsilon = \begin{cases} 0 & \text{if } |\epsilon| \leq \epsilon, \\ |\xi| - \epsilon & \text{otherwise.} \end{cases} \quad (7)$$

That is, if the absolute value of  $\xi_i$  or  $\xi_i^*$  is found to be less than  $\epsilon$ , then the  $\xi_i$  or  $\xi_i^*$  associated with the  $i$ th observation is zero. From this setup, we can construct a Lagrangian function

$$\begin{aligned} L = & \frac{1}{2}\|\boldsymbol{\beta}\|^2 + C \sum_{i=1}^n (\xi_i + \xi_i^*) - \sum_{i=1}^n (\eta_i \xi_i + \eta_i^* \xi_i^*) \\ & - \sum_{i=1}^n \alpha_i (\epsilon + \xi_i - y_i + \mathbf{x}'_i \boldsymbol{\beta} + \beta_0) \\ & - \sum_{i=1}^n \alpha_i^* (\epsilon + \xi_i^* + y_i - \mathbf{x}'_i \boldsymbol{\beta} - \beta_0) \end{aligned} \quad (8)$$

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<sup>45</sup>In the present case,  $C$  was set to Weka's default value of 1.

where  $\eta_i$ ,  $\eta_i^*$ ,  $\alpha_i$ , and  $\alpha_i^*$  are Lagrangian multipliers that have to satisfy the constraints

$$\min \{\eta_i, \eta_i^*, \alpha_i, \alpha_i^*\} \geq 0. \quad (9)$$

Solving this optimization problem with respect to  $\beta$ ,  $\beta_0$ ,  $\eta_i$ , and  $\eta_i^*$  requires taking the following partial derivatives of  $L$

$$\frac{\partial L}{\partial \beta_0} = \sum_{i=1}^n (\alpha_i^* - \alpha_i) \quad (10)$$

$$\frac{\partial L}{\partial \beta} = \beta - \sum_{i=1}^n (\alpha_i^* - \alpha_i) \mathbf{x}'_i \quad (11)$$

$$\frac{\partial L}{\partial \xi_i} = C - \alpha_i - \eta_i \quad (12)$$

$$\frac{\partial L}{\partial \xi_i^*} = C - \alpha_i^* - \eta_i^* \quad (13)$$

and set them equal to zero. Doing so immediately allows us to rewrite  $\eta_i$  and  $\eta_i^*$  in simpler terms:

$$\eta_i = C - \alpha_i \quad (14)$$

$$\eta_i^* = C - \alpha_i^*. \quad (15)$$

After setting the partial derivatives of  $L$  equal to zero and making the requisite substitutions, we can simplify the optimization problem to one where we maximize

$$-\frac{1}{2} \sum_{i=1}^n \sum_{j=1}^n (\alpha_i - \alpha_i^*) (\alpha_j - \alpha_j^*) \mathbf{x}'_i \mathbf{x}_j - \epsilon \sum_{i=1}^n (\alpha_i + \alpha_i^*) + \sum_{i=1}^n y_i (\alpha_i - \alpha_i^*) \quad (16)$$

subject to

$$\sum_{i=1}^n (\alpha_i - \alpha_i^*) = 0 \quad (17)$$

$$\min \{\alpha_i, \alpha_i^*\} \geq 0 \quad (18)$$

$$\max \{\alpha_i, \alpha_i^*\} \leq C. \quad (19)$$

From here, we get the following functional forms for  $\boldsymbol{w}$  and  $y_i$  at the solution:

$$\boldsymbol{\beta} = \sum_{i=1}^n (\alpha_i - \alpha_i^*) \boldsymbol{x}_i \quad (20)$$

$$y_i = \sum_{i=1}^n (\alpha_i - \alpha_i^*) \boldsymbol{x}_i' \boldsymbol{x}_j + \beta_0. \quad (21)$$

Finally, we calculate  $\beta_0$  by leveraging the complementary slackness property of the Karush-Kuhn-Tucker conditions (Karush 1939, Kuhn & Tucker 1951). Doing so, we find that

$$\alpha_i (\epsilon + \xi_i - y_i + \boldsymbol{x}_i' \boldsymbol{\beta} + \beta_0) = 0 \quad (22)$$

$$\alpha_i^* (\epsilon + \xi_i^* + y_i - \boldsymbol{x}_i' \boldsymbol{\beta} - \beta_0) = 0 \quad (23)$$

$$(C - \alpha_i) \xi_i = 0 \quad (24)$$

$$(C - \alpha_i^*) \xi_i^* = 0. \quad (25)$$

Given the  $\epsilon$ -insensitive loss function  $|\xi|_\epsilon$  defined earlier, we know that  $\xi_i$  and  $\xi_i^*$  are only nonzero if they are strictly greater than  $\epsilon$ . Therefore, only observations where either  $\alpha_i = C$  or  $\alpha_i^* = C$  lie outside what Smola & Schölkopf (2004) term the “ $\epsilon$ -insensitive tube.” Moreover, since  $\xi_i$  and  $\xi_i^*$  correspond to errors in different directions, at most one can be nonzero at any given time, due to the structure of the loss function. This implies that  $\alpha_i \alpha_i^* = 0$ . From this, Bishop (2006) notes we can calculate  $\beta_0$  by choosing an observation  $i$

for which  $\alpha_i \in (0, C)$ . Therefore, by Equation 22,

$$\beta_0 = y_i - \epsilon - \xi_i - \mathbf{x}'_i \boldsymbol{\beta}. \quad (26)$$

Similarly, by Equation 23, if we choose an observation  $i$  for which  $\alpha_i^* \in (0, C)$ ,

$$\beta_0 = y_i - \epsilon - \xi_i^* - \mathbf{x}'_i \boldsymbol{\beta}. \quad (27)$$

Bishop (2006) recommends averaging over all estimates of  $\beta_0$ . Finally, Bishop (2006) notes that the only observations that have to be used in the estimation of  $\boldsymbol{\beta}$  and  $\beta_0$  are those for which either  $\alpha_i$  or  $\alpha_i^* = C$ , which can be seen from inspection of Equations 22 and 23; these observations are the so-called *support vectors*. Despite the apparent complexity of the method, it can be implemented in various statistical packages via Weka (Hall et al. 2009).<sup>46</sup>

Importantly, the estimated  $\boldsymbol{\beta}$  and  $\beta_0$  are analogous to regression coefficients in more conventional statistical modeling.<sup>47</sup> Like with regression coefficients, they can be used to generate “out-of-sample” predictions when applied to new data, which is what we do here.

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<sup>46</sup>For example, `RWeka` (Hornik, Buchta & Zeileis 2009) provides an `R` interface to Weka.

<sup>47</sup>In the present case, the estimated  $\boldsymbol{\beta}$  and  $\beta_0$  were subject to 10-fold crossvalidation, and the  $\boldsymbol{\beta}$  and  $\beta_0$  used in the out-of-sample predictions are the average  $\boldsymbol{\beta}$  and  $\beta_0$  over the ten crossvalidation iterations.

## LIWC (2001) Categories

Category	Abbreviation	Examples
<i>Standard Linguistic Dimensions</i>		
Word count	wc	
Words/sentence	wps	
Sentences ending in ?	qmarks	
Unique words	unique	
Dictionary words	dic	
Words>6 letters	sixltr	
Total pronouns	pronoun	I, them, itself
1st pers singular	i	I, me, mine
1st pers plural	we	We, us, our
Total 1st person	self	I, we, me
Total 2nd person	you	You, you'll
Total 3rd person	other	She, their, them
Negations	negate	No, not, never
Assents	assent	Yes, OK, mmhmm
Articles	article	A, an, the
Prepositions	prep	To, with, above
Numbers	number	Second, thousand
<i>Personal Concerns</i>		
Occupation	occup	Work, class, boss
School	school	Class, student, college
Job or work	job	Employ, boss, career
Achievement	achieve	Earn, hero, win
Leisure	leisure	Cook, chat, movie
Home	home	Apartment, kitchen, family
Sports	sports	Football, game, play
Television and movies	tv	TV, sitcom, cinema
Music	music	Tunes, song, cd
Money	money	Cash, taxes, income
Metaphysical issues	metaph	God, heaven, coffin
Religion	relig	Altar, church, mosque
Death and dying	death	Bury, coffin, kill
Physical states and functions	physcal	ache, breast, sleep
Body states, symptoms	body	ache, heart, cough
Sex and sexuality	sexual	lust, penis, sex
Eating, drinking, dieting	eating	eat, swallow, taste
Sleeping, dreaming	sleep	asleep, bed, dreams
Grooming	groom	wash, bath, clean

## LIWC (2001) Categories (Continued)

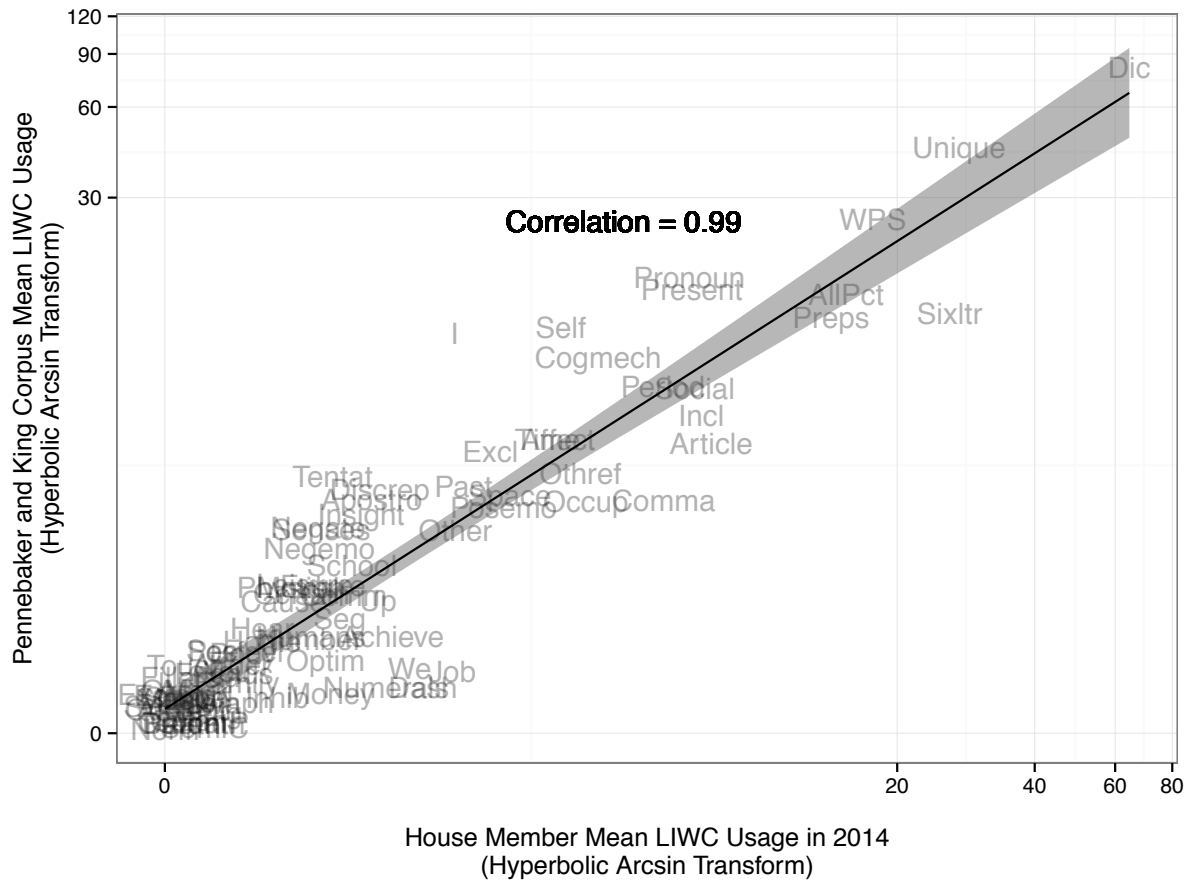
	Category	Abbreviation	Examples
<i>Psychological Processes</i>			
	Affective processes	affect	Happy, cried, abandon
	Positive emotion	posemo	Love, nice, sweet
	Positive feelings	posfeel	Happy, joy, love
	Optimism and energy	optim	Certainty, pride, win
	Negative emotion	negemo	Hurt, ugly, nasty
	Anxiety or fear	anx	Worried, fearful, nervous
	Anger	anger	Hate, kill, annoyed
	Sadness or depression	sad	Crying, grief, sad
	Cognitive processes	cogmech	cause, know, ought
	Causation	cause	because, effect, hence
	Insight	insight	think, know, consider
	Discrepancy	discrep	should, would, could
	Inhibition	inhib	block, constrain, stop
	Tentative	tentat	maybe, perhaps, guess
	Certainty	certain	always, never
	Sensory and perceptual processes	senses	Observing, heard, feeling
	Seeing	see	View, saw, seen
	Hearing	hear	Listen, hearing
	Feeling	feel	Feels, touch
	Social processes	social	Mate, talk, they, child
	Communication	comm	Talk, share, converse
	Other references to people	othref	1st pl, 2nd, 3rd person pronouns
	Family	family	Daughter, husband, aunt
	Friends	friend	Buddy, friend, neighbor
	Humans	human	Adult, baby, boy
<i>Relativity</i>			
	Time	time	Hour, day, o'clock
	Past tense verb	past	Walked, were, had
	Present tense verb	present	Walk, is, be
	Future tense verb	future	Will, might, shall
	Space	space	Around, over, up
	Up	up	Up, above, over
	Down	down	Down, below, under
	Inclusive	incl	And, with, include
	Exclusive	excl	But, without, exclude
	Motion	motion	Arrive, car, go
<i>Experimental Dimensions</i>			
	Swear words	swear	Damn, piss, fuck
	Nonfluencies	nonflu	Er, hm, umm
	Fillers	fillers	Blah, I mean, you know

## MRCPD Categories

Category	Abbreviation
Age of Acquisition	AOA
Brown Frequency	BROWN_FREQ
Concreteness	CONC
Familiarity	FAM
Imagability	IMAG
K F Frequency	K_F_FREQ
K F Number of Categories	K_F_NCATS
K F Number of Samples	K_F_NSAMP
Meaningfulness (Colorado)	MEANC
Meaningfulness (Paivo)	MEANP
Number of letters	NLET
Number of phonemes	NPHON
Number of syllables	NSYL
T L Frequency	T_L_FREQ



# LIWC Usage Comparison with Labels



## Feature Analysis

Table A-1: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (1996)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.227***	0.173***	-0.159***	0.189***	-0.082
Concreteness	-0.113**	-0.287***	-0.191***	-0.150***	-0.040
Familiarity	-0.243***	0.051	0.368***	-0.066	0.061
Imagability	-0.169***	-0.368***	-0.159***	-0.227***	-0.073
Meaningfulness (Colorado)	-0.373***	-0.284***	0.160***	-0.306***	-0.080
Meaningfulness (Paivo)	-0.215***	-0.297***	-0.060	-0.236***	0.001
Number of Letters	0.240***	-0.034	-0.386***	0.077	-0.063
Number of Phonemes	0.263***	0.006	-0.352***	0.113**	-0.046
Number of Syllables	0.290***	-0.003	-0.372***	0.123**	-0.056
<b>LIWC Categories</b>					
Word Count	0.239***	0.257***	0.388***	0.142***	0.203***
Words Per Sentence	0.083	0.076	0.036	0.055	0.054
Sentences Ending With ?	-0.119**	0.089*	0.212***	-0.033	0.071
Unique Words	-0.057	-0.225***	-0.328***	-0.083	-0.181***
Dictionary Words	-0.247***	0.082	0.434***	-0.065	0.027
Words > 6 Letters	0.255***	-0.027	-0.404***	0.093*	-0.072
Abbreviations	0.168***	-0.025	-0.212***	-0.020	-0.036
Total Pronouns	-0.261***	-0.038	0.318***	-0.121**	-0.042
First-Person Singular	-0.053	0.001	0.055	0.010	-0.082
First-Person Plural	-0.249***	0.107**	0.409***	-0.091*	-0.076
Total First Person	-0.187***	0.064	0.283***	-0.046	-0.106**
Total Second Person	-0.187***	-0.005	0.171***	-0.076	0.068
Total Third Person	-0.168***	-0.311***	0.060	-0.179***	0.063
Negations	-0.025	0.190***	0.253***	-0.000	-0.004
Assents	0.064	0.079	-0.013	0.141***	-0.000
Articles	0.233***	0.166***	-0.087	0.208***	0.135**
Prepositions	0.169***	0.113**	-0.028	0.184***	0.056
Numbers	0.023	0.053	-0.094*	0.059	0.046
Affective Processes	-0.005	-0.286***	-0.100*	-0.228***	-0.162***
Positive Feelings	0.013	-0.066	0.012	-0.032	-0.056
Optimism and Energy	0.027	-0.253***	-0.172***	-0.120**	-0.069
Anxiety or Fear	-0.007	-0.100*	-0.022	-0.159***	-0.120**
Anger	0.003	-0.143***	0.005	-0.206***	-0.061
Sadness or Depression	-0.086	-0.232***	-0.025	-0.236***	-0.053
Cognitive Processes	-0.061	0.275***	0.264***	0.110**	-0.003
Causation	-0.083	0.070	0.051	-0.007	-0.037
Insight	-0.065	0.159***	0.136**	0.116**	-0.009
Discrepancy	-0.112**	0.126**	0.310***	-0.032	-0.019
Inhibition	0.227***	0.247***	-0.138***	0.262***	0.005
Tentative	0.082	0.294***	0.177***	0.152***	0.070
Certainty	-0.077	0.053	0.214***	-0.041	-0.049
Sensory and Perceptual Processes	-0.165***	0.034	0.238***	-0.101*	0.045

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Seeing	-0.124**	0.040	0.183***	-0.084	0.057
Hearing	-0.153***	0.052	0.228***	-0.069	0.045
Feeling	-0.064	-0.129**	0.017	-0.137***	-0.040
Social Processes	-0.273***	-0.140***	0.289***	-0.162***	0.043
Communication	-0.120**	0.090*	0.145***	0.007	0.036
Other References to People	-0.304***	-0.105**	0.338***	-0.178***	0.009
Humans	-0.090*	-0.048	0.183***	0.002	0.121**
Time	-0.048	-0.050	0.025	-0.056	-0.034
Past Tense Verb	-0.056	-0.070	0.079	-0.069	0.061
Present Tense Verb	-0.270***	0.092*	0.373***	-0.075	-0.010
Future Tense Verb	0.154***	0.306***	0.028	0.257***	-0.014
Space	-0.157***	0.068	0.303***	-0.091*	0.093*
Up	-0.036	0.041	0.142***	-0.070	0.018
Down	0.014	0.084	0.067	0.009	0.018
Inclusive	-0.025	-0.140***	0.016	-0.093*	-0.137***
Exclusive	-0.099*	0.248***	0.363***	0.085	0.104**
Motion	-0.186***	0.112**	0.320***	-0.051	0.087
Achievement	-0.115**	-0.125**	-0.025	-0.057	0.021
Religion	-0.115**	-0.288***	-0.043	-0.118**	0.090*
Sex and Sexuality	-0.124**	-0.106**	0.065	-0.070	0.101*
Swear Words	-0.043	-0.075	-0.036	-0.112**	-0.024
Nonfluencies	0.074	0.047	-0.006	0.024	0.020
Fillers	0.009	0.080	-0.018	0.051	-0.021
Number of Periods	0.066	0.011	-0.138***	0.042	-0.062
Number of Commas	-0.077	-0.092*	0.063	-0.075	0.048
Number of Colons	0.112**	0.064	-0.064	0.083	0.069
Number of Semicolons	0.025	0.010	-0.097*	0.024	-0.031
Number of Question Marks	-0.118**	0.067	0.185***	-0.038	0.059
Number of Exclamations	-0.036	-0.098*	-0.106**	-0.023	0.054
Number of Dashes	0.137***	-0.012	-0.227***	0.021	-0.026
Number of Quotation Marks	-0.020	-0.013	-0.025	-0.007	-0.035
Number of Apostrophes	0.042	-0.147***	-0.187***	-0.113**	-0.056
Number of Pairs of Parentheses	0.141***	0.148***	-0.110**	0.147***	0.016
Number of Other Punctuation	0.125**	0.136**	-0.094*	0.122**	0.013
All Punctuation	0.118**	0.053	-0.167***	0.070	-0.010

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-2: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (1997)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.167***	0.263***	-0.149***	0.158***	-0.110**
Concreteness	-0.064	-0.318***	-0.150***	-0.031	0.052
Familiarity	-0.288***	-0.064	0.294***	-0.145***	0.011
Imagability	-0.129***	-0.418***	-0.114**	-0.139***	0.013
Meaningfulness (Colorado)	-0.349***	-0.349***	0.176***	-0.289***	-0.069
Meaningfulness (Paivo)	-0.033	-0.248***	-0.084*	-0.080*	0.087*
Number of Letters	0.310***	0.035	-0.344***	0.133***	0.000
Number of Phonemes	0.322***	0.080*	-0.319***	0.186***	0.028
Number of Syllables	0.348***	0.053	-0.349***	0.172***	0.022
<b>LIWC Categories</b>					
Word Count	0.143***	0.227***	0.476***	0.037	0.181***
Words Per Sentence	0.006	0.127***	0.135***	-0.001	0.067
Sentences Ending With ?	-0.111**	0.070	0.202***	-0.101**	0.063
Unique Words	0.041	-0.192***	-0.462***	0.098**	-0.076
Dictionary Words	-0.296***	0.023	0.354***	-0.161***	-0.062
Words > 6 Letters	0.314***	0.032	-0.362***	0.145***	-0.012
Abbreviations	0.143***	0.012	-0.254***	0.044	-0.021
Total Pronouns	-0.317***	-0.151***	0.262***	-0.199***	-0.067
First-Person Singular	-0.095**	-0.026	-0.044	0.057	-0.096**
First-Person Plural	-0.301***	-0.002	0.332***	-0.241***	-0.149***
Total First Person	-0.259***	-0.017	0.196***	-0.126***	-0.158***
Total Second Person	-0.203***	-0.064	0.170***	-0.125***	0.077
Total Third Person	-0.128***	-0.330***	0.092*	-0.125***	0.122**
Negations	-0.123**	0.138***	0.265***	-0.145***	-0.097**
Assents	-0.006	0.126***	0.104**	0.038	-0.066
Articles	0.280***	0.221***	-0.146***	0.287***	0.138***
Prepositions	0.253***	0.166***	-0.069	0.251***	0.113**
Numbers	0.005	0.065	-0.121**	0.097**	0.094*
Affective Processes	0.027	-0.258***	-0.072	-0.213***	-0.179***
Positive Feelings	-0.057	-0.075	0.108**	-0.095**	-0.102**
Optimism and Energy	-0.008	-0.228***	-0.123**	-0.092*	-0.068
Anxiety or Fear	0.094*	-0.004	0.005	-0.144***	-0.154***
Anger	0.092*	-0.108**	-0.074	-0.169***	-0.108**
Sadness or Depression	0.037	-0.088*	0.007	-0.120**	-0.057
Cognitive Processes	-0.128***	0.312***	0.251***	-0.021	-0.161***
Causation	-0.096**	0.194***	0.133***	-0.092*	-0.074
Insight	-0.081*	0.215***	0.092*	0.031	-0.159***
Discrepancy	-0.196***	0.165***	0.283***	-0.099**	-0.154***
Inhibition	0.203***	0.249***	-0.121**	0.212***	-0.034
Tentative	-0.012	0.282***	0.250***	0.017	-0.057
Certainty	-0.059	0.029	0.173***	-0.095*	-0.067
Sensory and Perceptual Processes	-0.185***	0.026	0.231***	-0.091*	0.059
Seeing	-0.011	0.054	0.187***	-0.017	0.067
Hearing	-0.228***	0.044	0.218***	-0.088*	0.042
Feeling	-0.004	-0.169***	-0.067	-0.090*	0.012
Social Processes	-0.279***	-0.209***	0.270***	-0.192***	0.022

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.133***	0.085*	0.129***	-0.021	0.033
Other References to People	-0.318***	-0.220***	0.310***	-0.261***	-0.007
Humans	-0.075	-0.007	0.204***	0.044	0.026
Time	-0.034	-0.116**	-0.086*	-0.023	-0.027
Past Tense Verb	-0.134***	-0.190***	0.108**	-0.149***	0.089*
Present Tense Verb	-0.344***	0.064	0.347***	-0.198***	-0.112**
Future Tense Verb	0.139***	0.323***	0.142***	0.157***	-0.059
Space	-0.176***	0.115**	0.190***	-0.068	0.006
Up	-0.056	0.014	-0.005	0.008	0.038
Down	0.092*	0.289***	0.100**	0.103**	0.035
Inclusive	-0.066	-0.163***	-0.002	-0.099**	-0.064
Exclusive	-0.170***	0.272***	0.361***	-0.032	-0.046
Motion	-0.281***	-0.027	0.329***	-0.176***	0.046
Achievement	-0.115**	-0.216***	-0.063	-0.060	-0.052
Religion	-0.087*	-0.291***	-0.083*	-0.104**	0.121**
Sex and Sexuality	-0.055	-0.113**	-0.010	0.008	0.089*
Swear Words	-0.006	0.022	-0.008	0.008	-0.025
Nonfluencies	0.024	0.010	0.087*	-0.021	0.038
Fillers	-0.004	0.077	-0.047	0.005	-0.026
Number of Periods	0.064	-0.085*	-0.213***	0.055	-0.068
Number of Commas	-0.056	-0.149***	0.022	0.009	0.210***
Number of Colons	0.100**	0.032	0.058	0.005	0.055
Number of Semicolons	0.046	0.027	0.006	0.059	0.111**
Number of Question Marks	-0.103**	0.060	0.169***	-0.090*	0.043
Number of Exclamations	-0.002	-0.105**	-0.081*	-0.042	-0.009
Number of Dashes	0.179***	0.018	-0.078	-0.002	-0.012
Number of Quotation Marks	-0.043	0.031	0.047	-0.037	-0.016
Number of Apostrophes	0.103**	-0.181***	-0.222***	-0.015	0.090*
Number of Pairs of Parentheses	0.103**	0.175***	-0.011	0.151***	0.019
Number of Other Punctuation	0.082*	0.149***	-0.023	0.136***	0.063
All Punctuation	0.110**	-0.000	-0.122**	0.110**	0.096**

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-3: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (1998)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.202***	0.281***	-0.154***	0.219***	-0.049
Concreteness	-0.083*	-0.381***	-0.264***	-0.119**	-0.019
Familiarity	-0.259***	-0.022	0.335***	-0.110**	0.007
Imagability	-0.141***	-0.454***	-0.227***	-0.183***	-0.041
Meaningfulness (Colorado)	-0.361***	-0.395***	0.112**	-0.295***	-0.097**
Meaningfulness (Paivo)	-0.134***	-0.230***	0.011	-0.118**	0.066
Number of Letters	0.255***	-0.030	-0.327***	0.070	0.071
Number of Phonemes	0.282***	0.017	-0.328***	0.136***	0.075
Number of Syllables	0.294***	-0.002	-0.350***	0.122**	0.057
<b>LIWC Categories</b>					
Word Count	0.261***	0.293***	0.497***	0.140***	0.231***
Words Per Sentence	-0.005	0.087*	0.249***	-0.008	0.116**
Sentences Ending With ?	-0.135***	0.168***	0.305***	-0.024	0.051
Unique Words	-0.088*	-0.286***	-0.484***	-0.039	-0.206***
Dictionary Words	-0.286***	0.054	0.408***	-0.063	-0.034
Words > 6 Letters	0.261***	-0.031	-0.364***	0.083*	0.047
Abbreviations	0.200***	0.035	-0.279***	0.086*	-0.031
Total Pronouns	-0.288***	-0.122**	0.264***	-0.156***	-0.119**
First-Person Singular	-0.015	0.002	-0.066	0.016	-0.203***
First-Person Plural	-0.255***	0.036	0.368***	-0.137***	-0.143***
Total First Person	-0.180***	0.025	0.203***	-0.081*	-0.227***
Total Second Person	-0.276***	-0.128***	0.192***	-0.168***	-0.005
Total Third Person	-0.160***	-0.375***	0.039	-0.135***	0.146***
Negations	-0.098**	0.229***	0.275***	0.002	-0.059
Assents	0.109**	0.085*	-0.125***	0.115**	-0.071
Articles	0.197***	0.266***	-0.101**	0.283***	0.127***
Prepositions	0.182***	0.137***	-0.036	0.205***	0.029
Numbers	-0.000	0.007	-0.117**	0.092*	0.054
Affective Processes	-0.060	-0.312***	-0.087*	-0.232***	-0.151***
Positive Feelings	-0.024	-0.147***	0.026	-0.096**	-0.081*
Optimism and Energy	-0.109**	-0.236***	-0.040	-0.125***	-0.002
Anxiety or Fear	0.104**	-0.011	0.026	-0.114**	-0.082*
Anger	0.041	-0.081*	0.065	-0.189***	-0.081*
Sadness or Depression	0.066	-0.082*	-0.073	-0.058	-0.059
Cognitive Processes	-0.068	0.324***	0.307***	0.072	-0.053
Causation	-0.135***	0.133***	0.207***	-0.063	0.022
Insight	-0.057	0.199***	0.111**	0.084*	-0.069
Discrepancy	-0.149***	0.184***	0.349***	-0.032	-0.046
Inhibition	0.289***	0.374***	-0.074	0.248***	-0.048
Tentative	0.047	0.336***	0.265***	0.130***	0.031
Certainty	0.006	0.124***	0.155***	0.013	-0.037
Sensory and Perceptual Processes	-0.198***	0.069	0.303***	-0.068	0.042
Seeing	-0.145***	-0.007	0.249***	-0.101**	0.050
Hearing	-0.170***	0.122**	0.296***	-0.030	0.038
Feeling	-0.104**	-0.135***	-0.052	-0.065	-0.027
Social Processes	-0.312***	-0.250***	0.289***	-0.177***	0.011

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.083*	0.170***	0.219***	0.025	0.044
Other References to People	-0.343***	-0.232***	0.328***	-0.214***	-0.006
Humans	-0.074	-0.066	0.105**	0.063	0.013
Time	-0.072	-0.179***	-0.083*	-0.054	-0.043
Past Tense Verb	-0.099**	-0.155***	0.067	-0.094*	0.118**
Present Tense Verb	-0.309***	0.096**	0.398***	-0.099**	-0.072
Future Tense Verb	0.112**	0.331***	0.079	0.222***	-0.067
Space	-0.142***	0.180***	0.265***	0.021	0.041
Up	-0.013	0.143***	0.063	0.110**	-0.010
Down	-0.010	0.236***	0.062	0.131***	0.060
Inclusive	-0.007	-0.203***	0.025	-0.130***	-0.029
Exclusive	-0.102**	0.320***	0.420***	0.064	0.050
Motion	-0.170***	0.084*	0.310***	-0.019	0.068
Achievement	-0.137***	-0.278***	-0.122**	-0.098**	-0.007
Religion	-0.041	-0.184***	-0.008	-0.014	0.111**
Sex and Sexuality	-0.075	-0.085*	-0.063	0.006	0.020
Swear Words	0.036	0.029	0.023	-0.035	-0.020
Nonfluencies	0.110**	0.099**	0.188***	0.006	0.063
Fillers	0.006	-0.055	-0.015	-0.020	0.033
Number of Periods	0.098**	-0.038	-0.327***	0.076	-0.112**
Number of Commas	-0.013	-0.109**	-0.036	0.001	0.097**
Number of Colons	-0.002	-0.010	-0.035	0.021	0.012
Number of Semicolons	0.046	0.015	-0.033	0.018	-0.020
Number of Question Marks	-0.129***	0.155***	0.263***	-0.022	0.027
Number of Exclamations	-0.057	-0.130***	-0.076	-0.095**	-0.008
Number of Dashes	0.154***	-0.020	-0.188***	0.021	-0.104**
Number of Quotation Marks	-0.095**	0.089*	0.155***	0.006	0.023
Number of Apostrophes	0.088*	-0.174***	-0.230***	-0.073	0.049
Number of Pairs of Parentheses	0.163***	0.227***	-0.107**	0.219***	0.017
Number of Other Punctuation	0.100**	0.140***	-0.104**	0.171***	0.085*
All Punctuation	0.135***	0.005	-0.250***	0.112**	0.013

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-4: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (1999)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.266***	0.342***	-0.135***	0.250***	-0.047
Concreteness	-0.135***	-0.383***	-0.248***	-0.032	0.096**
Familiarity	-0.245***	-0.014	0.319***	-0.099**	0.014
Imagability	-0.215***	-0.480***	-0.228***	-0.135***	0.035
Meaningfulness (Colorado)	-0.428***	-0.412***	0.084*	-0.283***	-0.088*
Meaningfulness (Paivo)	-0.184***	-0.363***	-0.028	-0.135***	0.147***
Number of Letters	0.313***	-0.002	-0.329***	0.109**	0.002
Number of Phonemes	0.333***	0.055	-0.328***	0.179***	0.037
Number of Syllables	0.361***	0.056	-0.328***	0.177***	0.033
<b>LIWC Categories</b>					
Word Count	0.272***	0.291***	0.501***	0.105**	0.250***
Words Per Sentence	0.087*	0.117**	0.198***	-0.014	0.059
Sentences Ending With ?	-0.101**	0.171***	0.349***	-0.058	0.130***
Unique Words	-0.078	-0.290***	-0.489***	0.025	-0.132***
Dictionary Words	-0.305***	0.059	0.402***	-0.131***	-0.061
Words > 6 Letters	0.317***	-0.015	-0.368***	0.130***	0.004
Abbreviations	0.162***	0.055	-0.279***	0.098**	-0.025
Total Pronouns	-0.369***	-0.119**	0.247***	-0.165***	-0.094*
First-Person Singular	-0.147***	-0.050	-0.022	0.003	-0.125***
First-Person Plural	-0.298***	0.014	0.299***	-0.189***	-0.192***
Total First Person	-0.297***	-0.020	0.196***	-0.131***	-0.210***
Total Second Person	-0.202***	-0.047	0.211***	-0.025	0.160***
Total Third Person	-0.240***	-0.346***	0.063	-0.163***	0.108**
Negations	-0.046	0.262***	0.281***	-0.033	-0.067
Assents	0.073	0.103**	-0.125***	0.154***	0.011
Articles	0.389***	0.355***	-0.020	0.335***	0.184***
Prepositions	0.263***	0.167***	-0.079	0.252***	0.104**
Numbers	-0.080*	-0.005	-0.119**	0.003	0.023
Affective Processes	-0.095**	-0.276***	0.004	-0.263***	-0.199***
Positive Feelings	-0.035	-0.133***	0.032	-0.094*	-0.049
Optimism and Energy	-0.178***	-0.174***	-0.031	-0.160***	-0.116**
Anxiety or Fear	0.129***	-0.020	0.046	-0.129***	-0.048
Anger	0.072	-0.066	0.115**	-0.155***	0.005
Sadness or Depression	-0.011	-0.165***	-0.024	-0.175***	-0.125***
Cognitive Processes	-0.024	0.358***	0.358***	0.006	-0.085*
Causation	-0.017	0.181***	0.153***	-0.009	0.010
Insight	0.005	0.225***	0.216***	0.041	-0.013
Discrepancy	-0.178***	0.178***	0.359***	-0.110**	-0.098**
Inhibition	0.251***	0.323***	-0.051	0.179***	-0.057
Tentative	0.079	0.345***	0.236***	0.088*	0.038
Certainty	-0.026	0.085*	0.145***	-0.053	-0.096**
Sensory and Perceptual Processes	-0.197***	0.065	0.338***	-0.091*	0.049
Seeing	-0.191***	-0.060	0.304***	-0.159***	0.012
Hearing	-0.159***	0.135***	0.288***	-0.020	0.076
Feeling	-0.037	-0.108**	0.030	-0.120**	-0.097**
Social Processes	-0.362***	-0.230***	0.281***	-0.216***	-0.018

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.067	0.190***	0.257***	0.028	0.066
Other References to People	-0.385***	-0.187***	0.292***	-0.232***	-0.050
Humans	-0.134***	-0.152***	0.157***	-0.075	0.001
Time	-0.073	-0.141***	-0.021	-0.097**	-0.043
Past Tense Verb	-0.047	-0.129***	0.097**	-0.033	0.246***
Present Tense Verb	-0.345***	0.047	0.376***	-0.189***	-0.134***
Future Tense Verb	0.139***	0.349***	0.053	0.103**	-0.136***
Space	-0.141***	0.102**	0.173***	-0.028	0.053
Up	-0.061	0.113**	0.001	0.028	-0.018
Down	-0.075	0.121**	0.096**	-0.025	0.010
Inclusive	-0.040	-0.194***	-0.045	-0.034	-0.036
Exclusive	-0.106**	0.308***	0.419***	-0.008	0.005
Motion	-0.125***	0.147***	0.294***	-0.034	0.090*
Achievement	-0.141***	-0.280***	-0.168***	-0.062	-0.092*
Religion	-0.005	-0.154***	0.012	0.010	0.123**
Sex and Sexuality	-0.080	-0.115**	0.033	0.047	0.168***
Swear Words	-0.016	-0.083*	0.079	-0.081*	0.090*
Nonfluencies	0.192***	0.114**	0.154***	0.022	0.091*
Fillers	-0.001	-0.026	0.023	-0.062	-0.050
Number of Periods	-0.061	-0.012	-0.201***	0.022	-0.115**
Number of Commas	-0.032	-0.030	0.042	0.046	0.144***
Number of Colons	0.029	0.040	0.041	0.001	0.019
Number of Semicolons	-0.034	0.016	0.047	-0.007	0.047
Number of Question Marks	-0.112**	0.159***	0.313***	-0.054	0.108**
Number of Exclamations	-0.021	-0.142***	-0.087*	-0.071	0.050
Number of Dashes	0.169***	-0.026	-0.205***	0.020	-0.071
Number of Quotation Marks	0.019	0.019	0.094*	-0.001	0.136***
Number of Apostrophes	0.066	-0.231***	-0.216***	0.016	0.158***
Number of Pairs of Parentheses	0.140***	0.200***	-0.038	0.138***	0.030
Number of Other Punctuation	0.096**	0.115**	-0.058	0.114**	0.097**
All Punctuation	0.054	0.027	-0.170***	0.098**	0.056

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-5: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2000)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.257***	0.315***	-0.151***	0.261***	-0.026
Concreteness	-0.125***	-0.381***	-0.319***	-0.081*	0.061
Familiarity	-0.169***	0.030	0.363***	-0.069	-0.018
Imagability	-0.219***	-0.500***	-0.287***	-0.207***	-0.019
Meaningfulness (Colorado)	-0.442***	-0.445***	0.055	-0.335***	-0.124***
Meaningfulness (Paivo)	-0.201***	-0.296***	0.019	-0.192***	0.030
Number of Letters	0.271***	-0.025	-0.273***	0.079	0.021
Number of Phonemes	0.293***	0.024	-0.296***	0.164***	0.053
Number of Syllables	0.303***	0.000	-0.288***	0.127***	0.026
<b>LIWC Categories</b>					
Word Count	0.245***	0.288***	0.528***	0.132***	0.237***
Words Per Sentence	0.052	0.100**	0.221***	0.016	0.102**
Sentences Ending With ?	-0.049	0.179***	0.334***	-0.053	0.064
Unique Words	-0.076	-0.356***	-0.554***	-0.065	-0.171***
Dictionary Words	-0.259***	0.092*	0.425***	-0.086*	-0.051
Words > 6 Letters	0.272***	-0.034	-0.335***	0.101**	0.008
Abbreviations	0.162***	0.008	-0.284***	0.064	-0.036
Total Pronouns	-0.360***	-0.115**	0.283***	-0.188***	-0.140***
First-Person Singular	-0.042	-0.014	-0.169***	0.065	-0.159***
First-Person Plural	-0.290***	0.046	0.370***	-0.210***	-0.223***
Total First Person	-0.236***	0.024	0.162***	-0.112**	-0.261***
Total Second Person	-0.165***	-0.004	0.264***	-0.027	0.116**
Total Third Person	-0.275***	-0.401***	0.099**	-0.185***	0.114**
Negations	-0.099**	0.166***	0.229***	-0.082*	-0.096**
Assents	0.109**	0.045	-0.267***	0.090*	-0.141***
Articles	0.398***	0.368***	-0.037	0.369***	0.202***
Prepositions	0.278***	0.100**	-0.091*	0.233***	0.152***
Numbers	-0.014	-0.010	-0.250***	0.040	0.009
Affective Processes	-0.010	-0.261***	-0.084*	-0.249***	-0.234***
Positive Feelings	-0.073	-0.066	0.020	-0.074	-0.089*
Optimism and Energy	-0.066	-0.204***	-0.125***	-0.140***	-0.152***
Anxiety or Fear	0.154***	-0.024	0.004	-0.132***	-0.111**
Anger	0.129***	-0.067	0.051	-0.194***	-0.078
Sadness or Depression	-0.072	-0.142***	-0.021	-0.150***	-0.024
Cognitive Processes	0.003	0.406***	0.389***	0.098**	-0.027
Causation	-0.041	0.252***	0.286***	0.009	0.028
Insight	-0.037	0.279***	0.242***	0.121**	0.041
Discrepancy	-0.122**	0.203***	0.363***	-0.062	-0.087*
Inhibition	0.360***	0.387***	-0.054	0.254***	-0.001
Tentative	0.000	0.304***	0.336***	0.055	0.082*
Certainty	0.014	0.147***	0.175***	-0.009	-0.098**
Sensory and Perceptual Processes	-0.135***	0.112**	0.360***	-0.039	0.125***
Seeing	-0.114**	0.018	0.213***	-0.053	0.076
Hearing	-0.104**	0.153***	0.331***	-0.000	0.125***
Feeling	-0.077	-0.095**	0.112**	-0.123**	-0.011
Social Processes	-0.353***	-0.262***	0.315***	-0.205***	0.030

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.003	0.206***	0.294***	0.065	0.147***
Other References to People	-0.397***	-0.212***	0.361***	-0.260***	-0.063
Humans	-0.071	-0.130***	0.105**	0.061	0.125***
Time	-0.045	-0.164***	-0.170***	-0.069	-0.018
Past Tense Verb	-0.096**	-0.148***	0.020	-0.086*	0.129***
Present Tense Verb	-0.301***	0.116**	0.436***	-0.134***	-0.105**
Future Tense Verb	0.197***	0.383***	0.064	0.218***	-0.011
Space	-0.159***	0.119**	0.175***	-0.062	-0.022
Up	-0.092*	0.012	-0.130***	0.016	-0.033
Down	-0.052	0.208***	0.119**	-0.005	-0.033
Inclusive	-0.066	-0.253***	-0.015	-0.094*	-0.053
Exclusive	-0.057	0.340***	0.456***	0.055	0.054
Motion	-0.152***	0.123**	0.309***	-0.082*	-0.011
Achievement	-0.144***	-0.272***	-0.217***	-0.038	-0.062
Religion	-0.060	-0.302***	-0.051	-0.102**	0.174***
Sex and Sexuality	-0.080*	-0.076	-0.046	0.028	0.131***
Swear Words	-0.034	-0.047	0.026	-0.053	-0.006
Nonfluencies	0.183***	0.160***	0.117**	0.092*	0.089*
Fillers	NA	NA	NA	NA	NA
Number of Periods	0.044	-0.031	-0.274***	0.025	-0.121**
Number of Commas	-0.091*	-0.069	-0.031	0.019	0.094*
Number of Colons	0.039	0.016	-0.069	-0.014	-0.033
Number of Semicolons	0.033	-0.016	-0.042	0.056	0.013
Number of Question Marks	-0.047	0.156***	0.293***	-0.055	0.044
Number of Exclamations	-0.061	-0.107**	-0.056	-0.106**	-0.088*
Number of Dashes	0.130***	-0.064	-0.212***	-0.041	-0.050
Number of Quotation Marks	0.026	-0.062	-0.004	0.023	0.063
Number of Apostrophes	0.058	-0.282***	-0.330***	-0.061	0.031
Number of Pairs of Parentheses	0.150***	0.167***	-0.131***	0.176***	0.059
Number of Other Punctuation	0.116**	0.089*	-0.199***	0.136***	0.052
All Punctuation	0.097**	-0.017	-0.304***	0.081*	-0.006

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-6: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2001)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.262***	0.330***	-0.052	0.237***	-0.094**
Concreteness	-0.061	-0.382***	-0.275***	-0.115**	0.057
Familiarity	-0.274***	0.014	0.309***	-0.042	0.059
Imagability	-0.136***	-0.505***	-0.278***	-0.239***	-0.033
Meaningfulness (Colorado)	-0.378***	-0.484***	-0.013	-0.385***	-0.137***
Meaningfulness (Paivo)	-0.104**	-0.316***	0.004	-0.192***	0.113**
Number of Letters	0.302***	0.017	-0.284***	0.083*	-0.064
Number of Phonemes	0.334***	0.072	-0.274***	0.180***	-0.011
Number of Syllables	0.339***	0.068	-0.257***	0.149***	-0.030
<b>LIWC Categories</b>					
Word Count	0.227***	0.220***	0.525***	0.108**	0.275***
Words Per Sentence	0.065	0.108**	0.183***	0.023	0.082*
Sentences Ending With ?	-0.016	0.210***	0.256***	0.066	0.154***
Unique Words	-0.068	-0.238***	-0.489***	0.003	-0.184***
Dictionary Words	-0.258***	0.023	0.297***	-0.101**	-0.035
Words > 6 Letters	0.292***	0.027	-0.317***	0.125***	-0.060
Abbreviations	0.177***	0.063	-0.219***	0.136***	-0.015
Total Pronouns	-0.324***	-0.178***	0.188***	-0.226***	-0.130***
First-Person Singular	-0.039	-0.009	-0.117**	0.034	-0.126***
First-Person Plural	-0.292***	-0.047	0.278***	-0.264***	-0.224***
Total First Person	-0.234***	-0.040	0.124***	-0.167***	-0.240***
Total Second Person	-0.177***	-0.061	0.211***	-0.143***	0.027
Total Third Person	-0.202***	-0.403***	-0.044	-0.140***	0.101**
Negations	-0.074	0.174***	0.234***	-0.128***	-0.138***
Assents	-0.004	0.043	-0.149***	0.048	-0.053
Articles	0.270***	0.354***	0.026	0.397***	0.263***
Prepositions	0.246***	0.145***	-0.087*	0.317***	0.164***
Numbers	0.019	0.113**	-0.034	0.053	0.003
Affective Processes	-0.033	-0.304***	-0.115**	-0.303***	-0.292***
Positive Feelings	-0.109**	-0.244***	-0.079*	-0.184***	-0.147***
Optimism and Energy	-0.046	-0.272***	-0.119**	-0.222***	-0.181***
Anxiety or Fear	0.140***	0.012	-0.033	-0.050	-0.042
Anger	0.157***	-0.019	-0.006	-0.097**	-0.069
Sadness or Depression	-0.070	-0.168***	-0.069	-0.242***	-0.191***
Cognitive Processes	-0.074	0.349***	0.274***	0.065	-0.080*
Causation	-0.090*	0.183***	0.226***	-0.085*	-0.005
Insight	-0.065	0.206***	0.130***	0.091*	-0.012
Discrepancy	-0.169***	0.133***	0.243***	-0.079*	-0.126***
Inhibition	0.274***	0.356***	-0.045	0.208***	-0.100**
Tentative	0.021	0.359***	0.273***	0.102**	0.073
Certainty	-0.163***	-0.024	0.125***	-0.100**	-0.063
Sensory and Perceptual Processes	-0.173***	0.061	0.275***	-0.031	0.140***
Seeing	-0.112**	0.034	0.148***	-0.004	0.059
Hearing	-0.135***	0.108**	0.258***	-0.002	0.145***
Feeling	-0.122**	-0.202***	0.051	-0.160***	0.017
Social Processes	-0.294***	-0.316***	0.133***	-0.219***	-0.032

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	0.024	0.210***	0.166***	0.125***	0.108**
Other References to People	-0.363***	-0.292***	0.209***	-0.296***	-0.084*
Humans	-0.036	-0.072	0.037	0.090*	0.068
Time	-0.034	-0.076	-0.047	-0.043	-0.007
Past Tense Verb	-0.103**	-0.193***	0.042	-0.103**	0.157***
Present Tense Verb	-0.330***	0.051	0.337***	-0.172***	-0.097**
Future Tense Verb	0.082*	0.330***	0.111**	0.173***	-0.038
Space	-0.148***	0.133***	0.177***	-0.042	0.118**
Up	-0.015	0.137***	-0.036	0.107**	0.106**
Down	-0.077	0.110**	0.103**	-0.047	0.009
Inclusive	-0.027	-0.283***	-0.081*	-0.085*	-0.078
Exclusive	-0.097**	0.341***	0.398***	0.045	0.042
Motion	-0.152***	0.037	0.277***	-0.089*	0.112**
Achievement	-0.138***	-0.284***	-0.149***	-0.103**	-0.097**
Religion	-0.041	-0.264***	-0.049	-0.130***	0.059
Sex and Sexuality	-0.107**	-0.156***	-0.005	-0.102**	0.020
Swear Words	0.017	0.017	0.089*	-0.011	0.043
Nonfluencies	0.073	0.033	0.124***	-0.032	0.021
Fillers	-0.002	-0.050	-0.051	-0.085*	-0.092*
Number of Periods	0.030	0.048	-0.194***	0.132***	-0.048
Number of Commas	-0.052	-0.015	0.032	-0.021	0.037
Number of Colons	0.027	0.129***	0.059	0.025	-0.061
Number of Semicolons	-0.028	0.024	0.067	0.039	0.100**
Number of Question Marks	-0.011	0.191***	0.204***	0.078	0.126***
Number of Exclamations	0.027	-0.076	-0.117**	0.002	0.038
Number of Dashes	0.129***	0.017	-0.118**	0.041	-0.020
Number of Quotation Marks	-0.067	-0.050	0.029	0.018	0.134***
Number of Apostrophes	0.068	-0.222***	-0.227***	-0.049	0.008
Number of Pairs of Parentheses	0.108**	0.222***	-0.015	0.195***	0.002
Number of Other Punctuation	0.086*	0.178***	-0.028	0.159***	0.006
All Punctuation	0.065	0.103**	-0.089*	0.130***	0.002

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-7: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2002)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.251***	0.346***	-0.069	0.216***	-0.114**
Concreteness	-0.153***	-0.421***	-0.278***	-0.098**	0.072
Familiarity	-0.220***	-0.001	0.286***	-0.039	0.094*
Imagability	-0.207***	-0.531***	-0.253***	-0.203***	0.004
Meaningfulness (Colorado)	-0.409***	-0.483***	0.026	-0.320***	-0.044
Meaningfulness (Paivo)	-0.080*	-0.235***	0.061	-0.121**	0.156***
Number of Letters	0.310***	0.059	-0.189***	0.050	-0.136***
Number of Phonemes	0.319***	0.085*	-0.206***	0.131***	-0.094**
Number of Syllables	0.312***	0.062	-0.193***	0.085*	-0.123**
<b>LIWC Categories</b>					
Word Count	0.173***	0.269***	0.501***	0.103**	0.197***
Words Per Sentence	0.076	0.164***	0.233***	-0.031	-0.049
Sentences Ending With ?	-0.047	0.170***	0.299***	0.026	0.107**
Unique Words	-0.047	-0.276***	-0.450***	0.021	-0.140***
Dictionary Words	-0.250***	0.063	0.336***	-0.071	0.015
Words > 6 Letters	0.309***	0.049	-0.244***	0.086*	-0.121**
Abbreviations	0.154***	0.016	-0.246***	0.079*	-0.034
Total Pronouns	-0.356***	-0.201***	0.211***	-0.196***	0.009
First-Person Singular	-0.104**	-0.077	-0.159***	0.083*	0.031
First-Person Plural	-0.266***	0.006	0.281***	-0.206***	-0.138***
Total First Person	-0.252***	-0.047	0.090*	-0.088*	-0.075
Total Second Person	-0.220***	-0.056	0.214***	-0.062	0.131***
Total Third Person	-0.225***	-0.430***	0.067	-0.231***	0.095**
Negations	-0.070	0.138***	0.142***	-0.064	-0.035
Assents	-0.015	-0.053	-0.210***	-0.009	-0.065
Articles	0.305***	0.350***	0.021	0.313***	0.139***
Prepositions	0.252***	0.154***	-0.080*	0.246***	0.068
Numbers	-0.041	-0.045	-0.254***	0.016	0.004
Affective Processes	-0.006	-0.258***	0.012	-0.312***	-0.287***
Positive Feelings	-0.106**	-0.218***	-0.011	-0.156***	-0.146***
Optimism and Energy	-0.017	-0.180***	-0.019	-0.170***	-0.235***
Anxiety or Fear	0.141***	0.034	-0.015	-0.117**	-0.162***
Anger	0.133***	0.001	0.049	-0.175***	-0.106**
Sadness or Depression	0.024	-0.178***	-0.082*	-0.203***	-0.089*
Cognitive Processes	-0.014	0.386***	0.236***	0.103**	-0.005
Causation	-0.025	0.226***	0.233***	-0.060	-0.047
Insight	0.018	0.277***	0.111**	0.174***	0.042
Discrepancy	-0.148***	0.168***	0.204***	-0.028	-0.011
Inhibition	0.203***	0.314***	-0.068	0.169***	-0.047
Tentative	0.026	0.358***	0.253***	0.124***	0.085*
Certainty	-0.107**	0.009	0.106**	-0.036	0.003
Sensory and Perceptual Processes	-0.150***	0.023	0.214***	-0.034	0.155***
Seeing	-0.098**	0.020	0.162***	-0.039	0.080*
Hearing	-0.128***	0.060	0.186***	-0.000	0.150***
Feeling	-0.071	-0.140***	0.070	-0.099**	0.050
Social Processes	-0.327***	-0.300***	0.265***	-0.245***	0.052

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.010	0.172***	0.212***	0.111**	0.167***
Other References to People	-0.374***	-0.288***	0.283***	-0.306***	-0.005
Humans	-0.054	-0.063	0.067	0.066	0.071
Time	-0.065	-0.078	-0.075	-0.028	-0.001
Past Tense Verb	-0.105**	-0.183***	0.019	-0.125***	0.144***
Present Tense Verb	-0.292***	0.097**	0.318***	-0.090*	-0.038
Future Tense Verb	0.145***	0.380***	0.006	0.225***	-0.071
Space	-0.171***	0.042	0.018	-0.050	-0.001
Up	-0.139***	-0.083*	-0.172***	-0.028	-0.037
Down	-0.012	0.208***	0.076	-0.021	-0.103**
Inclusive	-0.010	-0.168***	0.079	-0.094**	-0.119**
Exclusive	-0.080*	0.348***	0.364***	0.073	0.072
Motion	-0.080*	0.170***	0.234***	0.022	0.086*
Achievement	-0.051	-0.230***	-0.105**	-0.092*	-0.121**
Religion	-0.046	-0.275***	-0.008	-0.098**	0.089*
Sex and Sexuality	-0.069	-0.164***	-0.029	-0.066	0.084*
Swear Words	-0.097**	-0.104**	0.064	-0.095**	-0.031
Nonfluencies	0.009	-0.041	0.078	-0.151***	-0.067
Fillers	0.049	0.067	0.008	0.020	0.058
Number of Periods	0.006	-0.039	-0.206***	0.074	-0.026
Number of Commas	-0.000	-0.068	-0.130***	0.119**	0.155***
Number of Colons	0.041	0.054	0.049	-0.009	0.012
Number of Semicolons	-0.054	-0.039	-0.029	-0.031	-0.001
Number of Question Marks	-0.041	0.158***	0.247***	0.048	0.102**
Number of Exclamations	-0.002	-0.204***	0.039	-0.192***	-0.045
Number of Dashes	0.088*	-0.001	-0.095**	-0.092*	-0.194***
Number of Quotation Marks	0.023	0.047	0.105**	0.036	0.101**
Number of Apostrophes	0.007	-0.297***	-0.177***	-0.115**	0.039
Number of Pairs of Parentheses	0.125***	0.207***	-0.041	0.135***	-0.075
Number of Other Punctuation	0.078	0.111**	-0.064	0.081*	-0.037
All Punctuation	0.062	0.004	-0.186***	0.079*	-0.025

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-8: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2003)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.281***	0.367***	-0.102**	0.257***	-0.121**
Concreteness	-0.136***	-0.434***	-0.299***	-0.081*	0.093*
Familiarity	-0.262***	-0.005	0.322***	-0.066	0.078
Imagability	-0.186***	-0.519***	-0.251***	-0.201***	0.037
Meaningfulness (Colorado)	-0.412***	-0.459***	0.070	-0.339***	-0.015
Meaningfulness (Paivo)	-0.147***	-0.368***	-0.118**	-0.169***	0.112**
Number of Letters	0.307***	0.008	-0.309***	0.069	-0.093*
Number of Phonemes	0.310***	0.023	-0.347***	0.135***	-0.058
Number of Syllables	0.311***	0.022	-0.320***	0.102**	-0.078
<b>LIWC Categories</b>					
Word Count	0.261***	0.304***	0.509***	0.127***	0.214***
Words Per Sentence	0.154***	0.199***	0.157***	0.152***	0.126***
Sentences Ending With ?	-0.090*	0.179***	0.313***	0.002	0.047
Unique Words	-0.075	-0.300***	-0.467***	0.006	-0.148***
Dictionary Words	-0.161***	0.087*	0.345***	-0.027	0.023
Words > 6 Letters	0.308***	0.010	-0.332***	0.096**	-0.093*
Abbreviations	0.094**	0.025	-0.225***	0.067	-0.002
Total Pronouns	-0.324***	-0.174***	0.269***	-0.213***	-0.015
First-Person Singular	-0.095**	-0.023	-0.098**	0.020	-0.098**
First-Person Plural	-0.235***	0.051	0.386***	-0.237***	-0.149***
Total First Person	-0.223***	0.023	0.222***	-0.160***	-0.163***
Total Second Person	-0.209***	0.014	0.286***	-0.033	0.186***
Total Third Person	-0.210***	-0.474***	0.009	-0.186***	0.148***
Negations	-0.059	0.209***	0.277***	-0.019	-0.046
Assents	0.053	0.190***	-0.029	0.126***	-0.071
Articles	0.356***	0.336***	-0.114**	0.385***	0.119**
Prepositions	0.281***	0.156***	-0.046	0.239***	0.113**
Numbers	-0.177***	-0.025	-0.058	-0.061	-0.049
Affective Processes	0.137***	-0.182***	0.028	-0.260***	-0.236***
Positive Feelings	-0.029	-0.126***	-0.014	-0.027	0.028
Optimism and Energy	0.117**	-0.159***	-0.086*	-0.079	-0.100**
Anxiety or Fear	0.141***	0.012	0.070	-0.195***	-0.227***
Anger	0.147***	-0.028	0.127***	-0.216***	-0.165***
Sadness or Depression	0.017	-0.100**	0.089*	-0.226***	-0.137***
Cognitive Processes	0.011	0.420***	0.299***	0.105**	-0.125***
Causation	-0.065	0.272***	0.172***	0.061	-0.059
Insight	0.008	0.324***	0.150***	0.112**	-0.119**
Discrepancy	-0.097**	0.217***	0.283***	-0.004	-0.057
Inhibition	0.217***	0.264***	-0.030	0.097**	-0.154***
Tentative	0.028	0.339***	0.212***	0.141***	0.038
Certainty	0.030	0.169***	0.230***	-0.005	-0.076
Sensory and Perceptual Processes	-0.148***	0.080*	0.296***	-0.018	0.141***
Seeing	-0.101**	0.079	0.222***	-0.027	0.089*
Hearing	-0.125***	0.112**	0.287***	0.016	0.120**
Feeling	-0.086*	-0.200***	-0.002	-0.151***	0.079
Social Processes	-0.269***	-0.298***	0.266***	-0.208***	0.076

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	0.025	0.202***	0.247***	0.100**	0.077
Other References to People	-0.346***	-0.287***	0.325***	-0.295***	0.036
Humans	-0.051	-0.079*	0.107**	0.048	0.073
Time	-0.179***	-0.189***	-0.073	-0.134***	-0.067
Past Tense Verb	-0.119**	-0.238***	0.048	-0.079*	0.203***
Present Tense Verb	-0.235***	0.178***	0.363***	-0.085*	-0.060
Future Tense Verb	0.088*	0.350***	0.140***	0.187***	-0.048
Space	-0.158***	0.139***	0.160***	-0.018	0.051
Up	-0.111**	0.029	-0.032	-0.000	-0.009
Down	-0.071	0.232***	0.154***	0.073	0.030
Inclusive	0.038	-0.218***	-0.026	-0.061	0.057
Exclusive	-0.030	0.399***	0.403***	0.129***	0.073
Motion	-0.180***	0.118**	0.344***	-0.058	0.162***
Achievement	-0.056	-0.254***	-0.168***	-0.038	-0.047
Religion	0.001	-0.314***	-0.005	-0.068	0.183***
Sex and Sexuality	-0.080*	-0.134***	0.002	-0.062	0.104**
Swear Words	-0.042	-0.002	0.028	-0.068	0.082*
Nonfluencies	0.120**	0.068	0.137***	0.024	0.053
Fillers	0.123**	0.042	-0.070	0.033	-0.010
Number of Periods	-0.102**	-0.089*	-0.205***	-0.040	-0.129***
Number of Commas	-0.153***	-0.099**	0.006	-0.069	0.028
Number of Colons	-0.113**	0.023	0.016	-0.043	-0.094*
Number of Semicolons	-0.038	0.113**	0.073	0.127***	0.102**
Number of Question Marks	-0.114**	0.148***	0.277***	-0.010	0.020
Number of Exclamations	-0.080*	-0.152***	0.024	-0.160***	-0.038
Number of Dashes	0.117**	0.029	-0.125***	0.062	-0.009
Number of Quotation Marks	0.062	0.015	-0.042	0.025	-0.000
Number of Apostrophes	0.079*	-0.137***	-0.199***	-0.028	-0.024
Number of Pairs of Parentheses	0.050	0.173***	-0.041	0.174***	-0.010
Number of Other Punctuation	0.029	0.149***	-0.040	0.133***	-0.008
All Punctuation	-0.032	0.042	-0.104**	0.069	-0.032

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-9: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2004)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.241***	0.250***	-0.082*	0.147***	-0.128***
Concreteness	-0.150***	-0.385***	-0.207***	-0.091*	0.089*
Familiarity	-0.206***	0.072	0.252***	-0.004	0.063
Imagability	-0.199***	-0.484***	-0.203***	-0.194***	0.024
Meaningfulness (Colorado)	-0.407***	-0.424***	0.088*	-0.303***	-0.018
Meaningfulness (Paivo)	-0.182***	-0.236***	-0.029	-0.098**	0.112**
Number of Letters	0.258***	-0.043	-0.283***	0.026	-0.114**
Number of Phonemes	0.280***	-0.013	-0.286***	0.090*	-0.053
Number of Syllables	0.286***	-0.013	-0.293***	0.087*	-0.064
<b>LIWC Categories</b>					
Word Count	0.202***	0.257***	0.513***	0.096**	0.233***
Words Per Sentence	0.076	0.133***	0.214***	0.052	0.136***
Sentences Ending With ?	0.005	0.250***	0.289***	0.080*	0.153***
Unique Words	-0.045	-0.282***	-0.481***	0.010	-0.156***
Dictionary Words	-0.201***	0.129***	0.345***	-0.017	0.009
Words > 6 Letters	0.248***	-0.058	-0.336***	0.052	-0.122**
Abbreviations	0.183***	0.041	-0.282***	0.058	-0.026
Total Pronouns	-0.299***	-0.097**	0.216***	-0.116**	-0.019
First-Person Singular	-0.084*	0.015	-0.099**	0.065	-0.086*
First-Person Plural	-0.216***	0.064	0.313***	-0.183***	-0.146***
Total First Person	-0.206***	0.054	0.148***	-0.082*	-0.159***
Total Second Person	-0.158***	-0.057	0.117**	0.002	0.152***
Total Third Person	-0.164***	-0.342***	0.036	-0.109**	0.130***
Negations	-0.027	0.226***	0.314***	-0.055	-0.034
Assents	0.048	0.001	-0.091*	0.049	-0.049
Articles	0.268***	0.309***	-0.100**	0.291***	0.103**
Prepositions	0.302***	0.106**	-0.147***	0.261***	0.127***
Numbers	-0.111**	-0.011	-0.070	-0.028	0.031
Affective Processes	0.051	-0.234***	-0.055	-0.240***	-0.309***
Positive Feelings	-0.084*	-0.261***	-0.040	-0.127***	-0.023
Optimism and Energy	-0.006	-0.215***	-0.115**	-0.121**	-0.178***
Anxiety or Fear	0.122**	0.023	0.069	-0.165***	-0.160***
Anger	0.071	-0.036	0.059	-0.205***	-0.186***
Sadness or Depression	0.012	-0.097**	0.052	-0.184***	-0.148***
Cognitive Processes	0.026	0.417***	0.265***	0.108**	-0.082*
Causation	-0.039	0.259***	0.204***	0.026	0.002
Insight	0.043	0.296***	0.127***	0.145***	-0.057
Discrepancy	-0.103**	0.274***	0.318***	-0.000	-0.038
Inhibition	0.209***	0.266***	-0.111**	0.127***	-0.168***
Tentative	0.051	0.342***	0.246***	0.108**	0.067
Certainty	-0.071	0.068	0.107**	-0.040	-0.082*
Sensory and Perceptual Processes	-0.138***	0.119**	0.277***	-0.004	0.151***
Seeing	-0.129***	0.038	0.132***	-0.019	0.088*
Hearing	-0.112**	0.162***	0.298***	0.024	0.145***
Feeling	-0.023	-0.085*	0.029	-0.074	0.056
Social Processes	-0.255***	-0.210***	0.242***	-0.143***	0.055

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	0.006	0.197***	0.236***	0.083*	0.107**
Other References to People	-0.306***	-0.202***	0.275***	-0.195***	0.039
Humans	-0.014	-0.042	0.078	0.037	0.032
Time	-0.080*	-0.128***	0.016	-0.133***	-0.036
Past Tense Verb	-0.095**	-0.108**	0.103**	-0.080*	0.184***
Present Tense Verb	-0.245***	0.153***	0.359***	-0.070	-0.032
Future Tense Verb	0.076	0.296***	0.016	0.161***	-0.075
Space	-0.110**	0.153***	0.129***	-0.007	0.087*
Up	-0.010	0.068	-0.025	0.011	0.017
Down	-0.076	0.233***	0.081*	0.003	-0.027
Inclusive	0.048	-0.243***	-0.074	-0.026	0.024
Exclusive	-0.042	0.393***	0.407***	0.108**	0.090*
Motion	-0.147***	0.131***	0.299***	0.002	0.209***
Achievement	-0.098**	-0.251***	-0.122**	-0.021	-0.080*
Religion	0.002	-0.280***	-0.026	-0.059	0.138***
Sex and Sexuality	-0.090*	-0.113**	-0.051	0.006	0.089*
Swear Words	0.023	-0.048	0.000	-0.005	0.090*
Nonfluencies	0.076	0.035	0.054	0.045	0.036
Fillers	0.022	-0.003	0.059	-0.030	0.032
Number of Periods	-0.024	-0.162***	-0.328***	-0.026	-0.127***
Number of Commas	-0.116**	-0.130***	0.021	-0.052	0.082*
Number of Colons	-0.013	0.084*	0.003	0.055	0.024
Number of Semicolons	-0.007	0.053	0.084*	0.070	0.116**
Number of Question Marks	-0.010	0.232***	0.253***	0.072	0.132***
Number of Exclamations	-0.049	-0.210***	-0.056	-0.133***	0.010
Number of Dashes	0.055	-0.060	-0.057	-0.025	-0.038
Number of Quotation Marks	-0.035	0.013	0.022	0.051	0.108**
Number of Apostrophes	0.084*	-0.206***	-0.181***	-0.061	0.033
Number of Pairs of Parentheses	0.081*	0.103**	-0.096**	0.102**	-0.011
Number of Other Punctuation	0.066	0.062	-0.080*	0.069	0.033
All Punctuation	0.015	-0.082*	-0.158***	0.013	0.018

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-10: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2005)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.259***	0.264***	-0.177***	0.191***	-0.206***
Concreteness	-0.168***	-0.436***	-0.261***	-0.106**	0.115**
Familiarity	-0.181***	0.145***	0.313***	0.087*	0.136***
Imagability	-0.209***	-0.526***	-0.231***	-0.199***	0.052
Meaningfulness (Colorado)	-0.384***	-0.398***	0.068	-0.269***	-0.011
Meaningfulness (Paivo)	-0.218***	-0.337***	-0.013	-0.198***	0.130***
Number of Letters	0.254***	-0.074	-0.325***	-0.044	-0.174***
Number of Phonemes	0.264***	-0.058	-0.328***	0.024	-0.125***
Number of Syllables	0.272***	-0.075	-0.325***	-0.000	-0.138***
<b>LIWC Categories</b>					
Word Count	0.147***	0.243***	0.535***	0.095**	0.299***
Words Per Sentence	0.153***	0.144***	0.169***	0.073	0.030
Sentences Ending With ?	0.025	0.248***	0.320***	0.032	0.130***
Unique Words	-0.026	-0.302***	-0.566***	-0.003	-0.229***
Dictionary Words	-0.137***	0.200***	0.400***	0.050	0.050
Words > 6 Letters	0.242***	-0.095**	-0.364***	-0.032	-0.176***
Abbreviations	0.129***	-0.004	-0.214***	-0.023	-0.084*
Total Pronouns	-0.273***	-0.045	0.259***	-0.058	0.017
First-Person Singular	-0.068	0.032	-0.213***	0.092*	-0.101**
First-Person Plural	-0.214***	0.140***	0.371***	-0.165***	-0.138***
Total First Person	-0.208***	0.128***	0.149***	-0.067	-0.171***
Total Second Person	-0.229***	0.096**	0.331***	-0.026	0.178***
Total Third Person	-0.111**	-0.386***	0.015	-0.016	0.183***
Negations	0.012	0.234***	0.237***	-0.040	-0.110**
Assents	0.012	0.058	-0.125***	0.097**	-0.032
Articles	0.275***	0.221***	-0.049	0.301***	0.183***
Prepositions	0.264***	0.061	-0.122**	0.273***	0.143***
Numbers	-0.044	0.021	-0.136***	0.040	0.010
Affective Processes	0.004	-0.205***	0.027	-0.290***	-0.309***
Positive Feelings	-0.077	-0.104**	0.048	-0.082*	-0.083*
Optimism and Energy	-0.045	-0.199***	-0.076	-0.119**	-0.130***
Anxiety or Fear	0.108**	0.043	0.054	-0.173***	-0.184***
Anger	0.114**	-0.039	0.087*	-0.200***	-0.196***
Sadness or Depression	0.060	-0.041	0.042	-0.189***	-0.215***
Cognitive Processes	0.047	0.442***	0.305***	0.080*	-0.080*
Causation	0.061	0.321***	0.232***	0.062	-0.020
Insight	0.080*	0.343***	0.103**	0.199***	-0.028
Discrepancy	-0.077	0.277***	0.329***	-0.044	-0.082*
Inhibition	0.148***	0.188***	-0.056	0.019	-0.127***
Tentative	0.079	0.358***	0.336***	0.097**	0.078
Certainty	-0.063	0.122**	0.176***	0.021	-0.029
Sensory and Perceptual Processes	-0.087*	0.123**	0.288***	0.033	0.160***
Seeing	-0.023	0.114**	0.160***	0.065	0.157***
Hearing	-0.101**	0.151***	0.285***	0.053	0.139***
Feeling	0.000	-0.166***	0.086*	-0.162***	-0.019
Social Processes	-0.194***	-0.185***	0.290***	-0.075	0.095**

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	0.013	0.188***	0.240***	0.114**	0.103**
Other References to People	-0.273***	-0.162***	0.336***	-0.125***	0.079
Humans	0.081*	-0.006	0.071	0.122**	0.063
Time	-0.115**	-0.173***	0.004	-0.121**	-0.004
Past Tense Verb	-0.041	-0.177***	0.119**	-0.012	0.174***
Present Tense Verb	-0.212***	0.252***	0.361***	-0.032	-0.038
Future Tense Verb	0.088*	0.378***	0.148***	0.128***	-0.013
Space	-0.173***	0.148***	0.188***	0.061	0.195***
Up	-0.110**	0.055	-0.099**	0.114**	0.086*
Down	-0.006	0.154***	0.127***	0.064	0.107**
Inclusive	-0.052	-0.179***	0.013	-0.079*	-0.021
Exclusive	0.018	0.438***	0.403***	0.158***	0.078
Motion	-0.208***	0.117**	0.275***	-0.017	0.169***
Achievement	-0.149***	-0.245***	-0.157***	-0.093*	-0.092*
Religion	-0.006	-0.280***	0.010	-0.031	0.136***
Sex and Sexuality	-0.080*	-0.154***	-0.052	-0.058	0.021
Swear Words	0.035	-0.023	-0.036	0.003	0.073
Nonfluencies	0.004	0.008	-0.016	-0.057	-0.084*
Fillers	-0.027	-0.073	0.045	-0.052	0.000
Number of Periods	0.011	-0.003	-0.195***	0.047	-0.027
Number of Commas	0.038	-0.017	-0.085*	0.079	0.106**
Number of Colons	0.078	0.165***	-0.041	0.103**	-0.033
Number of Semicolons	-0.083*	-0.069	-0.002	-0.066	-0.007
Number of Question Marks	0.020	0.223***	0.276***	0.042	0.116**
Number of Exclamations	-0.023	-0.133***	-0.017	-0.118**	0.024
Number of Dashes	0.078	-0.041	-0.139***	-0.049	-0.090*
Number of Quotation Marks	-0.042	-0.018	0.101**	-0.026	0.142***
Number of Apostrophes	0.014	-0.244***	-0.220***	-0.100**	0.000
Number of Pairs of Parentheses	0.035	0.131***	-0.055	0.105**	0.007
Number of Other Punctuation	0.028	0.100**	-0.089*	0.080*	0.024
All Punctuation	0.039	0.012	-0.182***	0.060	0.017

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-11: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2006)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.226***	0.227***	-0.168***	0.173***	-0.134***
Concreteness	-0.168***	-0.380***	-0.232***	-0.110**	0.078
Familiarity	-0.172***	0.120**	0.347***	0.014	0.109**
Imagability	-0.196***	-0.475***	-0.212***	-0.196***	0.021
Meaningfulness (Colorado)	-0.326***	-0.384***	0.095**	-0.269***	-0.028
Meaningfulness (Paivo)	-0.227***	-0.249***	0.050	-0.179***	0.063
Number of Letters	0.212***	-0.047	-0.296***	0.013	-0.110**
Number of Phonemes	0.214***	-0.063	-0.307***	0.037	-0.070
Number of Syllables	0.213***	-0.064	-0.316***	0.041	-0.074
<b>LIWC Categories</b>					
Word Count	0.138***	0.186***	0.513***	0.125***	0.325***
Words Per Sentence	0.098**	0.070	0.139***	-0.010	0.027
Sentences Ending With ?	-0.051	0.095**	0.277***	-0.060	0.073
Unique Words	0.011	-0.181**	-0.462***	0.033	-0.202***
Dictionary Words	-0.139***	0.158***	0.382***	0.020	0.033
Words > 6 Letters	0.197***	-0.055	-0.333***	0.019	-0.119**
Abbreviations	0.093*	-0.072	-0.227***	-0.038	-0.042
Total Pronouns	-0.229***	-0.028	0.250***	-0.091*	-0.034
First-Person Singular	-0.017	0.073	-0.119**	0.072	-0.092*
First-Person Plural	-0.185***	0.035	0.262***	-0.186***	-0.146***
Total First Person	-0.144***	0.075	0.107**	-0.084*	-0.167***
Total Second Person	-0.130***	0.049	0.229***	0.002	0.087*
Total Third Person	-0.161***	-0.315***	0.085*	-0.087*	0.129***
Negations	0.064	0.226***	0.164***	0.020	-0.086*
Assents	0.077	0.156***	-0.098**	0.094*	-0.022
Articles	0.207***	0.273***	-0.035	0.298***	0.200***
Prepositions	0.153***	0.018	-0.111**	0.217***	0.070
Numbers	-0.085*	-0.074	-0.123**	-0.063	0.027
Affective Processes	0.112**	-0.132***	-0.062	-0.178***	-0.293***
Positive Feelings	-0.007	-0.115**	-0.064	-0.064	-0.096**
Optimism and Energy	0.043	-0.149***	-0.128***	-0.056	-0.131***
Anxiety or Fear	0.179***	0.032	-0.042	-0.079	-0.137***
Anger	0.144***	0.014	-0.044	-0.106**	-0.137***
Sadness or Depression	0.066	-0.012	0.112**	-0.116**	-0.114**
Cognitive Processes	0.058	0.381***	0.254***	0.095**	-0.062
Causation	-0.034	0.176***	0.059	0.027	-0.016
Insight	0.029	0.290***	0.173***	0.169***	0.020
Discrepancy	0.040	0.281***	0.278***	0.045	-0.054
Inhibition	0.173***	0.230***	-0.044	0.040	-0.158***
Tentative	0.034	0.315***	0.300***	0.061	0.061
Certainty	-0.040	0.067	0.133***	-0.030	-0.008
Sensory and Perceptual Processes	-0.147***	0.063	0.291***	-0.032	0.165***
Seeing	-0.160***	0.068	0.232***	-0.031	0.119**
Hearing	-0.108**	0.101**	0.284***	0.004	0.154***
Feeling	-0.045	-0.198***	-0.025	-0.139***	0.017
Social Processes	-0.227***	-0.208***	0.271***	-0.147***	0.053

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.007	0.138***	0.222***	0.031	0.079
Other References to People	-0.272***	-0.165***	0.307***	-0.182***	0.014
Humans	0.009	-0.132***	0.093*	0.061	0.115**
Time	-0.075	-0.152***	-0.036	-0.124**	-0.041
Past Tense Verb	-0.096**	-0.133***	0.167***	-0.077	0.192***
Present Tense Verb	-0.170***	0.168***	0.311***	-0.038	-0.047
Future Tense Verb	0.150***	0.245***	0.130***	0.112**	0.041
Space	-0.182***	0.080*	0.200***	-0.037	0.126***
Up	-0.113**	-0.010	-0.079	-0.033	-0.022
Down	-0.047	0.139***	0.106**	0.043	0.065
Inclusive	0.013	-0.171***	-0.017	-0.027	-0.022
Exclusive	0.007	0.364***	0.386***	0.104**	0.083*
Motion	-0.048	0.152***	0.283***	0.005	0.114**
Achievement	-0.111**	-0.283***	-0.164***	-0.056	-0.073
Religion	-0.044	-0.186***	0.051	-0.011	0.084*
Sex and Sexuality	-0.113**	-0.211***	-0.064	-0.061	0.167***
Swear Words	-0.029	-0.114**	0.061	-0.046	0.043
Nonfluencies	0.079	0.047	0.012	-0.018	-0.004
Fillers	0.050	0.003	-0.012	-0.018	-0.086*
Number of Periods	-0.059	-0.092*	-0.238***	0.005	-0.040
Number of Commas	-0.106**	-0.097**	-0.003	-0.018	0.050
Number of Colons	0.030	0.017	-0.036	0.048	0.019
Number of Semicolons	-0.021	-0.021	-0.004	-0.030	-0.002
Number of Question Marks	-0.064	0.086*	0.251***	-0.053	0.065
Number of Exclamations	0.021	-0.145***	-0.011	-0.155***	-0.032
Number of Dashes	0.066	-0.096**	-0.214***	-0.058	-0.059
Number of Quotation Marks	-0.135***	-0.059	0.120**	-0.122**	0.042
Number of Apostrophes	0.052	-0.184***	-0.189***	-0.074	-0.001
Number of Pairs of Parentheses	0.006	0.048	-0.059	0.019	0.011
Number of Other Punctuation	0.019	0.035	-0.069	0.006	0.033
All Punctuation	-0.029	-0.089*	-0.165***	-0.029	0.012

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-12: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2007)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.255***	0.328***	-0.174***	0.114**	-0.235***
Concreteness	-0.109**	-0.377***	-0.191***	-0.021	0.081*
Familiarity	-0.278***	0.054	0.280***	-0.003	0.103**
Imagability	-0.143***	-0.462***	-0.172***	-0.080*	0.037
Meaningfulness (Colorado)	-0.370***	-0.385***	0.084*	-0.184***	-0.015
Meaningfulness (Paivo)	-0.184***	-0.342***	0.051	-0.097**	0.158***
Number of Letters	0.293***	-0.046	-0.274***	0.024	-0.103**
Number of Phonemes	0.309***	-0.047	-0.287***	0.063	-0.074
Number of Syllables	0.305***	-0.061	-0.282***	0.044	-0.084*
<b>LIWC Categories</b>					
Word Count	0.180***	0.340***	0.543***	0.207***	0.290***
Words Per Sentence	0.128***	0.122**	0.193***	0.056	0.143***
Sentences Ending With ?	-0.070	0.259***	0.271***	0.082*	0.183***
Unique Words	-0.019	-0.293***	-0.447***	-0.062	-0.199***
Dictionary Words	-0.190***	0.164***	0.337***	0.028	0.033
Words > 6 Letters	0.296***	-0.034	-0.317***	0.046	-0.127***
Abbreviations	0.110**	-0.068	-0.210***	0.030	-0.082*
Total Pronouns	-0.320***	-0.071	0.214***	-0.103**	-0.028
First-Person Singular	-0.074	0.049	-0.145***	0.026	-0.152***
First-Person Plural	-0.225***	0.028	0.297***	-0.258***	-0.188***
Total First Person	-0.217***	0.057	0.101**	-0.163***	-0.250***
Total Second Person	-0.259***	-0.024	0.224***	-0.083*	0.126***
Total Third Person	-0.123**	-0.312***	0.039	0.086*	0.215***
Negations	-0.028	0.179***	0.084*	-0.014	-0.106**
Assents	-0.019	0.065	-0.027	0.004	-0.116**
Articles	0.319***	0.296***	-0.030	0.291***	0.184***
Prepositions	0.237***	0.049	-0.031	0.178***	0.118**
Numbers	-0.071	-0.124***	-0.180***	-0.037	-0.018
Affective Processes	0.026	-0.189***	-0.091*	-0.116**	-0.190***
Positive Feelings	-0.078	-0.099**	0.064	-0.027	-0.070
Optimism and Energy	0.078	-0.198***	-0.160***	0.018	-0.035
Anxiety or Fear	0.118**	0.034	0.024	-0.099**	-0.064
Anger	0.140***	-0.007	0.036	-0.125***	-0.052
Sadness or Depression	0.067	0.010	-0.021	-0.095**	-0.151***
Cognitive Processes	0.011	0.440***	0.237***	0.057	-0.062
Causation	-0.021	0.281***	0.221***	-0.028	-0.010
Insight	0.008	0.344***	0.108**	0.116**	-0.048
Discrepancy	-0.088*	0.303***	0.217***	0.006	-0.037
Inhibition	0.283***	0.283***	-0.043	0.035	-0.188***
Tentative	-0.003	0.351***	0.346***	0.083*	0.115**
Certainty	-0.169***	0.071	0.125***	-0.014	0.046
Sensory and Perceptual Processes	-0.202***	0.046	0.270***	-0.078	0.146***
Seeing	-0.192***	0.026	0.189***	-0.095**	0.108**
Hearing	-0.156***	0.086*	0.264***	-0.049	0.120**
Feeling	-0.102**	-0.176***	0.012	-0.060	0.097**
Social Processes	-0.252***	-0.203***	0.283***	-0.068	0.114**

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.033	0.159***	0.225***	0.030	0.108**
Other References to People	-0.319***	-0.194***	0.305***	-0.138***	0.067
Humans	-0.007	-0.029	0.132***	0.067	0.051
Time	-0.058	-0.110**	0.006	-0.039	0.004
Past Tense Verb	-0.093*	-0.032	0.091*	0.044	0.147***
Present Tense Verb	-0.257***	0.130***	0.301***	-0.139***	-0.082*
Future Tense Verb	0.021	0.306***	0.181***	0.071	-0.041
Space	-0.206***	0.098**	0.148***	-0.034	0.099**
Up	-0.112**	-0.001	-0.060	-0.023	-0.019
Down	0.021	0.225***	0.148***	-0.049	-0.006
Inclusive	-0.005	-0.167***	-0.008	0.010	0.013
Exclusive	-0.031	0.373***	0.382***	0.057	0.054
Motion	-0.165***	0.070	0.291***	-0.078	0.114**
Achievement	-0.099**	-0.256***	-0.229***	-0.001	-0.054
Religion	-0.079*	-0.245***	0.034	-0.020	0.152***
Sex and Sexuality	-0.083*	-0.101**	-0.001	-0.037	0.069
Swear Words	0.025	0.018	0.032	0.041	0.117**
Nonfluencies	0.024	0.068	0.026	-0.003	0.002
Fillers	0.023	-0.038	-0.097**	-0.027	-0.064
Number of Periods	-0.067	-0.121**	-0.234***	-0.047	-0.165***
Number of Commas	-0.068	-0.143***	-0.035	-0.023	0.071
Number of Colons	-0.075	-0.053	-0.025	-0.011	0.004
Number of Semicolons	-0.079*	-0.072	0.016	-0.028	0.012
Number of Question Marks	-0.082*	0.246***	0.240***	0.076	0.160***
Number of Exclamations	0.046	-0.125***	-0.082*	0.065	0.023
Number of Dashes	0.127***	-0.056	-0.178***	0.036	0.002
Number of Quotation Marks	-0.028	0.024	0.034	0.011	0.053
Number of Apostrophes	-0.073	-0.011	0.032	0.006	0.034
Number of Pairs of Parentheses	0.040	0.017	-0.055	-0.009	-0.049
Number of Other Punctuation	0.021	0.034	-0.052	-0.011	-0.056
All Punctuation	-0.045	-0.084*	-0.112**	-0.019	-0.033

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-13: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2008)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.306***	0.171***	-0.157***	0.098**	-0.189***
Concreteness	-0.054	-0.351***	-0.282***	-0.030	0.036
Familiarity	-0.222***	0.147***	0.319***	-0.016	0.093*
Imagability	-0.133***	-0.469***	-0.285***	-0.121**	-0.003
Meaningfulness (Colorado)	-0.399***	-0.329***	0.090*	-0.278***	-0.024
Meaningfulness (Paivo)	-0.059	-0.243***	-0.027	-0.053	0.110**
Number of Letters	0.298***	-0.111**	-0.314***	0.095**	-0.116**
Number of Phonemes	0.314***	-0.114**	-0.311***	0.126***	-0.083*
Number of Syllables	0.277***	-0.140***	-0.310***	0.116**	-0.087*
<b>LIWC Categories</b>					
Word Count	0.194***	0.278***	0.494***	0.175***	0.280***
Words Per Sentence	0.082*	0.071	0.148***	0.115**	0.152***
Sentences Ending With ?	-0.117**	0.205***	0.294***	0.013	0.152***
Unique Words	-0.006	-0.197***	-0.444***	0.113**	-0.177***
Dictionary Words	-0.173***	0.208***	0.381***	-0.055	0.037
Words > 6 Letters	0.295***	-0.106**	-0.333***	0.078	-0.140***
Abbreviations	0.101**	-0.116**	-0.260***	-0.100**	-0.134***
Total Pronouns	-0.329***	0.006	0.265***	-0.127***	-0.006
First-Person Singular	-0.002	0.075	-0.120**	0.006	-0.183***
First-Person Plural	-0.311***	0.100**	0.272***	-0.138***	-0.050
Total First Person	-0.219***	0.123**	0.105**	-0.092*	-0.165***
Total Second Person	-0.260***	0.053	0.313***	-0.032	0.154***
Total Third Person	-0.196***	-0.383***	0.059	-0.115**	0.144***
Negations	-0.038	0.314***	0.184***	-0.009	-0.025
Assents	-0.026	0.075	-0.030	-0.034	-0.156***
Articles	0.155***	0.215***	-0.043	0.168***	0.124***
Prepositions	0.187***	-0.045	-0.068	0.133***	0.089*
Numbers	-0.059	-0.168***	-0.256***	0.053	0.038
Affective Processes	0.028	-0.237***	-0.068	-0.162***	-0.246***
Positive Feelings	-0.025	-0.169***	0.058	-0.187***	-0.149***
Optimism and Energy	0.016	-0.236***	-0.170***	-0.032	-0.107**
Anxiety or Fear	0.187***	0.106**	0.081*	-0.120**	-0.109**
Anger	0.103**	-0.043	0.036	-0.060	-0.019
Sadness or Depression	0.020	-0.002	0.075	-0.125***	-0.080*
Cognitive Processes	0.027	0.450***	0.336***	0.065	0.007
Causation	0.026	0.302***	0.290***	0.112**	0.076
Insight	0.019	0.297***	0.195***	0.091*	-0.025
Discrepancy	-0.086*	0.347***	0.298***	0.006	0.002
Inhibition	0.301***	0.275***	-0.034	0.102**	-0.071
Tentative	0.019	0.373***	0.380***	0.035	0.085*
Certainty	-0.070	0.194***	0.185***	-0.001	-0.006
Sensory and Perceptual Processes	-0.116**	0.172***	0.346***	0.017	0.182***
Seeing	-0.091*	0.065	0.247***	0.043	0.192***
Hearing	-0.094*	0.225***	0.322***	0.038	0.147***
Feeling	-0.111**	-0.123**	0.111**	-0.191***	0.008
Social Processes	-0.340***	-0.174***	0.272***	-0.157***	0.076

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	0.018	0.231***	0.182***	0.116**	0.088*
Other References to People	-0.422***	-0.148***	0.330***	-0.185***	0.094*
Humans	0.019	-0.063	0.081*	-0.013	0.012
Time	-0.171***	-0.126***	-0.013	-0.186***	-0.008
Past Tense Verb	-0.124**	-0.036	0.160***	0.012	0.245***
Present Tense Verb	-0.183***	0.228***	0.365***	-0.142***	-0.077
Future Tense Verb	0.091*	0.331***	0.146***	0.094*	-0.042
Space	-0.223***	0.144***	0.244***	-0.057	0.162***
Up	-0.187***	0.061	-0.033	0.008	0.066
Down	-0.033	0.223***	0.249***	-0.026	0.043
Inclusive	-0.007	-0.205***	0.017	-0.089*	-0.043
Exclusive	-0.026	0.427***	0.456***	0.076	0.151***
Motion	-0.240***	0.053	0.230***	-0.002	0.183***
Achievement	-0.045	-0.251***	-0.201***	0.060	-0.059
Religion	-0.011	-0.247***	0.015	0.013	0.165***
Sex and Sexuality	-0.034	-0.102**	-0.037	-0.018	0.120**
Swear Words	-0.021	0.033	-0.026	0.041	0.055
Nonfluencies	-0.001	-0.060	-0.035	0.000	0.010
Fillers	-0.064	-0.073	-0.026	-0.065	-0.033
Number of Periods	-0.042	-0.089*	-0.245***	-0.112**	-0.184***
Number of Commas	-0.079	-0.112**	-0.092*	0.147***	0.177***
Number of Colons	0.011	-0.052	-0.158***	0.074	-0.004
Number of Semicolons	0.026	-0.027	0.037	0.022	0.046
Number of Question Marks	-0.107**	0.189***	0.219***	0.022	0.113**
Number of Exclamations	-0.024	-0.094*	-0.056	-0.038	-0.023
Number of Dashes	0.132***	-0.053	-0.142***	0.187***	0.025
Number of Quotation Marks	0.055	0.046	0.077	0.028	0.099**
Number of Apostrophes	-0.135***	0.009	0.139***	-0.024	0.096**
Number of Pairs of Parentheses	0.136***	0.004	-0.093*	0.154***	-0.062
Number of Other Punctuation	0.078	-0.037	-0.127***	0.123**	-0.011
All Punctuation	-0.007	-0.082*	-0.155***	0.118**	0.031

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-14: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2009)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.235***	0.196***	-0.085*	0.068	-0.143***
Concreteness	-0.083*	-0.320***	-0.332***	-0.007	-0.033
Familiarity	-0.201***	0.051	0.356***	-0.056	0.146***
Imagability	-0.118**	-0.387***	-0.292***	-0.083*	-0.064
Meaningfulness (Colorado)	-0.369***	-0.320***	0.107**	-0.234***	0.002
Meaningfulness (Paivo)	-0.113**	-0.216***	-0.154***	-0.064	-0.006
Number of Letters	0.190***	-0.066	-0.331***	0.009	-0.193***
Number of Phonemes	0.206***	-0.087*	-0.353***	0.053	-0.130***
Number of Syllables	0.188***	-0.072	-0.328***	0.027	-0.174***
<b>LIWC Categories</b>					
Word Count	0.157***	0.285***	0.491***	0.261***	0.391***
Words Per Sentence	0.062	0.061	0.163***	0.055	0.135***
Sentences Ending With ?	-0.179***	0.229***	0.169***	0.131***	0.295***
Unique Words	-0.087*	-0.194***	-0.421***	-0.029	-0.206***
Dictionary Words	-0.161***	0.104**	0.410***	-0.051	0.131***
Words > 6 Letters	0.194***	-0.078	-0.343***	0.000	-0.234***
Abbreviations	0.103**	-0.109**	-0.292***	-0.052	-0.197***
Total Pronouns	-0.258***	-0.017	0.329***	-0.089*	0.100**
First-Person Singular	-0.076	-0.044	-0.065	-0.060	-0.200***
First-Person Plural	-0.258***	0.103**	0.324***	-0.156***	-0.014
Total First Person	-0.228***	0.041	0.179***	-0.147***	-0.144***
Total Second Person	-0.192***	0.041	0.327***	-0.017	0.268***
Total Third Person	-0.138***	-0.260***	0.133***	-0.018	0.222***
Negations	0.034	0.262***	0.158***	0.012	-0.040
Assents	0.028	0.073	-0.112**	0.024	-0.174***
Articles	0.228***	0.157***	0.014	0.167***	0.078
Prepositions	0.137***	-0.012	0.042	0.037	-0.011
Numbers	0.008	-0.056	-0.283***	0.042	-0.073
Affective Processes	-0.079*	-0.116**	0.102**	-0.266***	-0.314***
Positive Feelings	-0.108**	-0.038	0.207***	-0.150***	-0.092*
Optimism and Energy	-0.075	-0.123**	-0.104**	-0.107**	-0.179***
Anxiety or Fear	0.180***	0.013	0.132***	-0.179***	-0.090*
Anger	0.217***	0.012	0.083*	-0.127***	-0.140***
Sadness or Depression	-0.144***	-0.007	-0.063	-0.052	-0.015
Cognitive Processes	0.038	0.317***	0.205***	0.125***	0.117**
Causation	0.027	0.253***	0.235***	0.035	0.102**
Insight	-0.059	0.167***	0.215***	0.009	-0.011
Discrepancy	0.019	0.249***	0.180***	0.107**	0.119**
Inhibition	0.196***	0.211***	-0.155***	0.179***	0.007
Tentative	0.074	0.283***	0.206***	0.206***	0.290***
Certainty	-0.099**	0.122**	0.332***	-0.071	0.029
Sensory and Perceptual Processes	-0.179***	0.063	0.334***	-0.018	0.284***
Seeing	-0.206***	0.008	0.276***	-0.084*	0.192***
Hearing	-0.128***	0.099**	0.314***	0.024	0.277***
Feeling	-0.130***	-0.089*	0.080*	-0.052	0.123**
Social Processes	-0.264***	-0.116**	0.301***	-0.043	0.242***

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.018	0.104**	0.009	0.121**	0.157***
Other References to People	-0.294***	-0.081*	0.378***	-0.107**	0.212***
Humans	0.052	0.003	-0.063	0.158***	0.136***
Time	-0.073	-0.077	-0.007	-0.009	0.034
Past Tense Verb	-0.070	-0.076	0.228***	-0.004	0.243***
Present Tense Verb	-0.199***	0.159***	0.393***	-0.107**	0.029
Future Tense Verb	0.086*	0.219***	-0.004	0.176***	0.109**
Space	-0.196***	0.100**	0.146***	-0.047	0.128***
Up	-0.131***	-0.097**	-0.051	-0.110**	-0.040
Down	-0.084*	0.299***	0.127***	0.077	0.094*
Inclusive	-0.026	-0.180***	0.188***	-0.180***	-0.109**
Exclusive	-0.058	0.336***	0.410***	0.107**	0.242***
Motion	-0.172***	0.001	0.249***	-0.085*	0.230***
Achievement	-0.197***	-0.239***	0.014	-0.208***	-0.178***
Religion	-0.012	-0.151***	-0.018	0.063	0.122**
Sex and Sexuality	-0.053	-0.146***	0.080*	-0.067	0.034
Swear Words	-0.022	-0.050	0.016	-0.028	0.011
Nonfluencies	0.081*	0.073	0.023	0.057	0.018
Fillers	-0.035	0.004	-0.014	0.034	-0.004
Number of Periods	0.001	-0.046	-0.243***	-0.010	-0.172***
Number of Commas	-0.022	-0.065	-0.141***	0.191***	0.122**
Number of Colons	0.036	-0.007	-0.207***	0.090*	-0.017
Number of Semicolons	-0.027	-0.070	0.022	0.024	0.034
Number of Question Marks	-0.178***	0.223***	0.155***	0.124***	0.271***
Number of Exclamations	-0.030	-0.108**	0.012	-0.117**	0.032
Number of Dashes	-0.094*	0.033	-0.164***	0.096**	0.083*
Number of Quotation Marks	-0.029	0.010	-0.056	-0.022	-0.074
Number of Apostrophes	-0.157***	-0.017	0.197***	-0.075	0.166***
Number of Pairs of Parentheses	0.125***	0.061	-0.252***	0.199***	0.045
Number of Other Punctuation	0.069	-0.014	-0.315***	0.127***	0.014
All Punctuation	-0.024	-0.031	-0.301***	0.157***	0.045

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-15: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2010)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.195***	0.163***	-0.236***	0.090*	-0.194***
Concreteness	-0.150***	-0.373***	-0.232***	-0.060	0.040
Familiarity	-0.129***	0.123**	0.292***	0.057	0.207***
Imagability	-0.162***	-0.427***	-0.207***	-0.119**	-0.015
Meaningfulness (Colorado)	-0.420***	-0.273***	-0.000	-0.133***	0.055
Meaningfulness (Paivo)	-0.097**	-0.242***	-0.025	-0.146***	0.014
Number of Letters	0.208***	-0.105**	-0.236***	-0.072	-0.248***
Number of Phonemes	0.184***	-0.127***	-0.263***	-0.032	-0.176***
Number of Syllables	0.203***	-0.116**	-0.240***	-0.048	-0.210***
<b>LIWC Categories</b>					
Word Count	0.143***	0.235***	0.463***	0.259***	0.394***
Words Per Sentence	0.061	0.087*	0.108**	0.040	0.079
Sentences Ending With ?	-0.143***	0.202***	0.238***	0.091*	0.264***
Unique Words	0.042	-0.183***	-0.269***	-0.116**	-0.301***
Dictionary Words	-0.199***	0.179***	0.281***	0.051	0.143***
Words > 6 Letters	0.226***	-0.089*	-0.253***	-0.056	-0.281***
Abbreviations	0.026	-0.070	-0.221***	-0.049	-0.136***
Total Pronouns	-0.321***	0.008	0.207***	-0.024	0.092*
First-Person Singular	-0.065	0.031	-0.132***	0.031	-0.168***
First-Person Plural	-0.195***	0.162***	0.283***	-0.111**	-0.058
Total First Person	-0.172***	0.127***	0.095**	-0.052	-0.152***
Total Second Person	-0.228***	0.089*	0.234***	0.081*	0.286***
Total Third Person	-0.227***	-0.359***	0.039	-0.075	0.164***
Negations	-0.032	0.305***	0.020	0.106**	0.025
Assents	-0.017	0.116**	-0.143***	0.068	-0.103**
Articles	0.287***	0.139***	0.006	0.163***	0.156***
Prepositions	0.296***	0.030	0.049	0.066	-0.020
Numbers	0.004	-0.112**	-0.181***	-0.004	0.021
Affective Processes	-0.081*	-0.171***	-0.047	-0.232***	-0.333***
Positive Feelings	-0.064	-0.001	-0.029	-0.007	-0.080*
Optimism and Energy	-0.042	-0.232***	-0.129***	-0.170***	-0.194***
Anxiety or Fear	0.123**	0.064	0.027	-0.081*	-0.104**
Anger	0.116**	0.012	0.043	-0.123**	-0.140***
Sadness or Depression	-0.139***	0.003	0.065	-0.102**	-0.073
Cognitive Processes	-0.058	0.381***	0.176***	0.124***	0.092*
Causation	-0.086*	0.288***	0.182***	0.064	0.107**
Insight	0.062	0.192***	0.161***	0.091*	0.048
Discrepancy	-0.087*	0.326***	0.179***	0.101**	0.115**
Inhibition	0.120**	0.235***	-0.123**	0.064	-0.134***
Tentative	0.074	0.321***	0.304***	0.103**	0.162***
Certainty	-0.106**	0.143***	0.151***	0.036	0.020
Sensory and Perceptual Processes	-0.183***	0.157***	0.215***	0.094*	0.294***
Seeing	-0.194***	0.097**	0.189***	0.039	0.205***
Hearing	-0.151***	0.182***	0.194***	0.113**	0.272***
Feeling	-0.033	-0.096**	0.030	-0.034	0.141***
Social Processes	-0.275***	-0.137***	0.271***	-0.049	0.199***

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.001	0.243***	0.177***	0.148***	0.230***
Other References to People	-0.355***	-0.114**	0.285***	-0.093*	0.172***
Humans	0.124**	-0.030	0.203***	0.082*	0.154***
Time	0.040	-0.093*	-0.048	-0.070	-0.014
Past Tense Verb	-0.144***	-0.074	0.084*	0.070	0.366***
Present Tense Verb	-0.160***	0.228***	0.280***	-0.001	0.030
Future Tense Verb	0.181***	0.270***	0.200***	0.016	-0.087*
Space	-0.005	0.083*	0.216***	-0.025	0.061
Up	0.025	-0.015	-0.036	-0.023	-0.040
Down	0.294***	0.150***	0.319***	-0.005	0.056
Inclusive	-0.140***	-0.161***	-0.084*	-0.059	-0.049
Exclusive	-0.040	0.393***	0.324***	0.187***	0.235***
Motion	-0.225***	0.048	0.207***	-0.009	0.255***
Achievement	-0.168***	-0.210***	-0.117**	-0.091*	-0.119**
Religion	0.024	-0.211***	-0.038	0.026	0.136***
Sex and Sexuality	-0.097**	-0.162***	0.010	-0.020	0.077
Swear Words	0.006	-0.001	0.035	0.028	0.146***
Nonfluencies	-0.018	-0.024	0.002	0.022	0.072
Fillers	NA	NA	NA	NA	NA
Number of Periods	-0.069	-0.086*	-0.164***	-0.040	-0.087*
Number of Commas	-0.063	-0.099**	-0.099**	0.085*	0.147***
Number of Colons	-0.020	0.028	-0.078	0.040	0.003
Number of Semicolons	0.005	0.069	-0.005	0.100**	0.045
Number of Question Marks	-0.155***	0.185***	0.221***	0.083*	0.247***
Number of Exclamations	-0.023	-0.095**	-0.083*	-0.004	0.058
Number of Dashes	-0.002	0.033	-0.009	0.044	0.043
Number of Quotation Marks	-0.096**	-0.070	0.005	0.000	0.060
Number of Apostrophes	-0.121**	0.074	0.001	0.084*	0.185***
Number of Pairs of Parentheses	0.137***	0.038	-0.007	0.008	-0.092*
Number of Other Punctuation	0.037	0.038	-0.170***	0.039	-0.041
All Punctuation	-0.054	-0.008	-0.136***	0.067	0.058

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-16: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2011)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.142***	0.195***	-0.253***	0.116**	-0.205***
Concreteness	0.011	-0.355***	-0.166***	-0.042	0.040
Familiarity	-0.229***	0.077	0.289***	-0.057	0.183***
Imagability	-0.009	-0.424***	-0.121**	-0.099**	0.011
Meaningfulness (Colorado)	-0.272***	-0.324***	0.188***	-0.282***	0.049
Meaningfulness (Paivo)	-0.066	-0.239***	0.017	-0.136***	0.104**
Number of Letters	0.294***	-0.082*	-0.317***	0.058	-0.248***
Number of Phonemes	0.259***	-0.112**	-0.311***	0.052	-0.157***
Number of Syllables	0.280***	-0.104**	-0.321***	0.063	-0.197***
<b>LIWC Categories</b>					
Word Count	0.129***	0.237***	0.528***	0.155***	0.352***
Words Per Sentence	0.125***	0.065	0.133***	0.086*	0.054
Sentences Ending With ?	-0.038	0.245***	0.297***	0.029	0.174***
Unique Words	0.071	-0.153***	-0.419***	0.053	-0.293***
Dictionary Words	-0.279***	0.100**	0.327***	-0.186***	0.103**
Words > 6 Letters	0.277***	-0.078	-0.338***	0.065	-0.255***
Abbreviations	0.152***	-0.018	-0.188***	0.023	-0.125***
Total Pronouns	-0.275***	0.025	0.269***	-0.086*	0.077
First-Person Singular	-0.098**	0.041	-0.122**	-0.023	-0.178***
First-Person Plural	-0.219***	0.131***	0.268***	-0.150***	-0.074
Total First Person	-0.215***	0.118**	0.127***	-0.122**	-0.153***
Total Second Person	-0.171***	0.143***	0.269***	0.062	0.255***
Total Third Person	-0.066	-0.284***	0.090*	-0.023	0.177***
Negations	-0.032	0.181***	0.102**	-0.065	-0.063
Assents	0.053	0.098**	-0.142***	0.078	-0.122**
Articles	0.036	0.129***	-0.107**	0.068	0.149***
Prepositions	-0.046	-0.042	0.024	-0.119**	0.046
Numbers	-0.137***	-0.164***	-0.138***	-0.123**	0.032
Affective Processes	0.086*	-0.150***	0.036	-0.205***	-0.308***
Positive Feelings	-0.011	-0.025	0.061	-0.068	-0.167***
Optimism and Energy	0.087*	-0.147***	-0.073	-0.085*	-0.179***
Anxiety or Fear	0.104**	0.030	-0.025	-0.092*	-0.129***
Anger	0.157***	0.045	0.060	-0.136***	-0.152***
Sadness or Depression	-0.071	-0.078	0.065	-0.143***	-0.082*
Cognitive Processes	-0.154***	0.283***	0.190***	-0.026	-0.006
Causation	-0.186***	0.199***	0.165***	-0.058	0.061
Insight	-0.215***	0.113**	0.146***	-0.028	0.054
Discrepancy	-0.137***	0.231***	0.239***	-0.009	0.034
Inhibition	0.093*	0.202***	-0.113**	-0.014	-0.234***
Tentative	-0.035	0.263***	0.215***	0.079	0.169***
Certainty	-0.092*	0.137***	0.184***	-0.059	0.046
Sensory and Perceptual Processes	-0.187***	0.095**	0.237***	-0.020	0.238***
Seeing	-0.120**	0.080*	0.245***	-0.024	0.228***
Hearing	-0.192***	0.115**	0.185***	-0.010	0.192***
Feeling	0.007	-0.119**	0.081*	-0.035	0.095**
Social Processes	-0.186***	-0.111**	0.298***	-0.086*	0.155***

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.098**	0.144***	0.136***	0.040	0.150***
Other References to People	-0.261***	-0.069	0.344***	-0.109**	0.153***
Humans	0.115**	0.026	0.082*	0.107**	0.037
Time	-0.138***	-0.192***	0.011	-0.184***	0.039
Past Tense Verb	-0.101**	-0.164***	0.109**	-0.019	0.340***
Present Tense Verb	-0.229***	0.181***	0.258***	-0.088*	0.001
Future Tense Verb	-0.041	0.245***	0.089*	-0.031	-0.147***
Space	-0.246***	0.044	0.181***	-0.157***	0.112**
Up	-0.185***	-0.076	-0.059	-0.189***	-0.054
Down	-0.107**	0.169***	0.174***	-0.012	0.122**
Inclusive	-0.032	-0.198***	0.045	-0.148***	0.060
Exclusive	-0.101**	0.360***	0.314***	0.085*	0.170***
Motion	-0.168***	0.102**	0.254***	-0.054	0.241***
Achievement	-0.037	-0.173***	-0.037	-0.079	-0.152***
Religion	0.078	-0.232***	0.041	-0.029	0.132***
Sex and Sexuality	-0.066	-0.150***	0.033	-0.039	0.107**
Swear Words	0.000	-0.027	0.004	0.053	0.155***
Nonfluencies	-0.012	-0.115**	-0.046	-0.084*	0.011
Fillers	-0.047	-0.041	-0.052	-0.038	-0.003
Number of Periods	-0.088*	-0.126***	-0.234***	-0.087*	-0.107**
Number of Commas	0.204***	0.023	-0.135***	0.374***	0.068
Number of Colons	-0.081*	-0.042	-0.002	-0.047	-0.015
Number of Semicolons	-0.004	0.018	-0.034	-0.004	-0.004
Number of Question Marks	-0.058	0.223***	0.251***	0.017	0.142***
Number of Exclamations	-0.016	-0.159***	-0.029	-0.108**	-0.008
Number of Dashes	0.062	0.037	0.037	0.008	-0.017
Number of Quotation Marks	0.014	-0.015	-0.043	0.035	0.061
Number of Apostrophes	-0.214***	-0.008	0.178***	-0.098**	0.214***
Number of Pairs of Parentheses	-0.035	0.052	-0.126***	-0.004	-0.080*
Number of Other Punctuation	-0.059	-0.051	-0.161***	-0.080*	-0.010
All Punctuation	0.052	-0.015	-0.164***	0.202***	0.065

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-17: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2012)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.119**	0.094*	-0.153***	0.076	-0.173***
Concreteness	-0.095*	-0.303***	-0.249***	-0.059	0.005
Familiarity	-0.155***	0.052	0.302***	-0.017	0.176***
Imagability	-0.109**	-0.371***	-0.221***	-0.111**	0.003
Meaningfulness (Colorado)	-0.308***	-0.315***	0.064	-0.168***	0.052
Meaningfulness (Paivo)	-0.073	-0.179***	-0.043	-0.088*	0.029
Number of Letters	0.209***	-0.080	-0.316***	-0.016	-0.220***
Number of Phonemes	0.189***	-0.107**	-0.295***	0.008	-0.116**
Number of Syllables	0.197***	-0.093*	-0.285***	0.001	-0.153***
<b>LIWC Categories</b>					
Word Count	0.130***	0.109**	0.457***	0.142***	0.364***
Words Per Sentence	0.080	0.037	0.101**	0.008	0.052
Sentences Ending With ?	0.002	0.223***	0.321***	0.084*	0.207***
Unique Words	-0.013	-0.032	-0.384***	-0.007	-0.307***
Dictionary Words	-0.141***	0.077	0.315***	-0.043	0.102**
Words > 6 Letters	0.206***	-0.088*	-0.328***	-0.005	-0.230***
Abbreviations	0.130***	0.114**	-0.106**	0.040	-0.136***
Total Pronouns	-0.248***	-0.055	0.238***	-0.047	0.095*
First-Person Singular	-0.084*	-0.017	-0.121**	-0.089*	-0.191***
First-Person Plural	-0.185***	0.128***	0.280***	-0.108**	-0.025
Total First Person	-0.189***	0.078	0.112**	-0.138***	-0.151***
Total Second Person	-0.171***	0.109**	0.268***	0.100**	0.245***
Total Third Person	-0.065	-0.322***	0.010	0.031	0.188***
Negations	0.003	0.196***	0.210***	-0.008	-0.001
Assents	-0.019	0.041	-0.023	-0.027	-0.094*
Articles	0.191***	0.157***	0.024	0.145***	0.158***
Prepositions	0.090*	-0.074	-0.020	-0.025	0.035
Numbers	-0.102**	-0.106**	-0.148***	-0.032	0.057
Affective Processes	0.017	-0.130***	-0.037	-0.208***	-0.293***
Positive Feelings	0.057	-0.036	0.029	0.002	-0.104**
Optimism and Energy	0.017	-0.160***	-0.106**	-0.111**	-0.145***
Anxiety or Fear	0.140***	-0.005	0.128***	-0.088*	-0.057
Anger	0.156***	0.071	0.063	-0.109**	-0.116**
Sadness or Depression	-0.081*	-0.059	0.021	-0.127***	-0.093*
Cognitive Processes	-0.015	0.311***	0.277***	0.022	-0.030
Causation	-0.057	0.233***	0.234***	0.050	0.117**
Insight	-0.054	0.171***	0.191***	0.034	0.014
Discrepancy	-0.039	0.236***	0.265***	-0.017	-0.033
Inhibition	0.140***	0.214***	-0.069	0.012	-0.218***
Tentative	0.000	0.301***	0.277***	0.081*	0.082*
Certainty	-0.049	0.134***	0.211***	-0.020	0.024
Sensory and Perceptual Processes	-0.140***	0.073	0.279***	0.017	0.221***
Seeing	-0.127***	0.077	0.247***	-0.026	0.170***
Hearing	-0.151***	0.103**	0.254***	0.064	0.223***
Feeling	0.039	-0.105**	0.047	-0.081*	0.016
Social Processes	-0.164***	-0.186***	0.236***	-0.006	0.207***

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.055	0.109**	0.234***	0.109**	0.191***
Other References to People	-0.230***	-0.141***	0.284***	-0.018	0.211***
Humans	0.036	-0.056	0.090*	0.002	0.043
Time	-0.042	-0.131***	-0.020	-0.050	0.021
Past Tense Verb	0.011	-0.137***	0.079	0.073	0.293***
Present Tense Verb	-0.170***	0.202***	0.284***	-0.053	-0.030
Future Tense Verb	0.005	0.309***	0.211***	0.032	-0.083*
Space	-0.206***	0.109**	0.123**	-0.018	0.121**
Up	-0.128***	-0.084*	-0.102**	-0.045	0.032
Down	-0.075	0.281***	0.154***	0.034	0.035
Inclusive	0.025	-0.132***	-0.088*	0.016	0.018
Exclusive	-0.054	0.351***	0.360***	0.090*	0.131***
Motion	-0.147***	0.075	0.237***	-0.007	0.224***
Achievement	-0.102**	-0.244***	-0.168***	-0.073	-0.071
Religion	-0.025	-0.264***	0.014	-0.079	0.168***
Sex and Sexuality	-0.060	-0.103**	-0.022	-0.108**	0.020
Swear Words	0.038	0.033	0.139***	0.014	0.101**
Nonfluencies	-0.003	-0.021	0.082*	0.017	0.144***
Fillers	0.095*	0.155***	-0.068	0.166***	0.017
Number of Periods	-0.008	-0.010	-0.136***	0.008	-0.103**
Number of Commas	-0.099**	-0.135***	-0.078	-0.002	0.078
Number of Colons	-0.051	-0.027	0.025	-0.092*	-0.044
Number of Semicolons	0.009	-0.007	-0.055	0.070	0.019
Number of Question Marks	-0.014	0.211***	0.289***	0.080	0.189***
Number of Exclamations	-0.098**	-0.142***	-0.039	-0.128***	-0.001
Number of Dashes	0.015	0.056	0.048	0.047	0.055
Number of Quotation Marks	-0.087*	-0.072	0.023	-0.042	0.022
Number of Apostrophes	-0.111**	0.049	0.107**	0.035	0.142***
Number of Pairs of Parentheses	-0.033	0.027	-0.115**	0.011	-0.046
Number of Other Punctuation	-0.023	-0.036	-0.169***	-0.019	-0.007
All Punctuation	-0.079	-0.043	-0.099**	0.025	0.039

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-18: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2013)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.126***	0.179***	-0.155***	0.109**	-0.107**
Concreteness	-0.012	-0.260***	-0.232***	-0.063	0.004
Familiarity	-0.165***	0.075	0.248***	0.030	0.118**
Imagability	-0.024	-0.357***	-0.222***	-0.118**	-0.038
Meaningfulness (Colorado)	-0.182***	-0.269***	0.066	-0.147***	-0.036
Meaningfulness (Paivo)	-0.145***	-0.204***	-0.090*	-0.147***	-0.012
Number of Letters	0.154***	-0.062	-0.223***	0.003	-0.164***
Number of Phonemes	0.146***	-0.050	-0.242***	0.061	-0.077
Number of Syllables	0.141***	-0.063	-0.238***	0.024	-0.114**
<b>LIWC Categories</b>					
Word Count	0.098**	0.146***	0.478***	0.159***	0.310***
Words Per Sentence	0.104**	0.059	0.165***	0.089*	0.105**
Sentences Ending With ?	0.062	0.199***	0.297***	0.031	0.162***
Unique Words	0.052	-0.099**	-0.348***	-0.000	-0.112**
Dictionary Words	-0.138***	0.120**	0.304***	0.009	0.093*
Words > 6 Letters	0.151***	-0.065	-0.247***	0.003	-0.199***
Abbreviations	0.125**	0.044	-0.148***	-0.018	-0.079
Total Pronouns	-0.204***	-0.018	0.192***	-0.042	0.061
First-Person Singular	0.035	0.059	-0.118**	0.048	-0.077
First-Person Plural	-0.196***	-0.003	0.263***	-0.136***	-0.004
Total First Person	-0.105**	0.040	0.090*	-0.056	-0.058
Total Second Person	-0.154***	0.087*	0.190***	0.080	0.228***
Total Third Person	-0.071	-0.223***	-0.013	-0.001	0.088*
Negations	0.022	0.083*	0.076	-0.071	-0.053
Assents	0.050	0.108**	0.033	-0.018	-0.022
Articles	0.169***	0.225***	-0.048	0.183***	0.150***
Prepositions	0.160***	0.016	-0.121**	0.117**	0.034
Numbers	-0.111**	-0.186***	-0.251***	-0.044	0.022
Affective Processes	0.092*	-0.124**	-0.043	-0.087*	-0.284***
Positive Feelings	0.017	-0.036	0.019	0.035	-0.081*
Optimism and Energy	0.055	-0.113**	-0.032	-0.065	-0.178***
Anxiety or Fear	0.096*	-0.002	0.002	-0.071	-0.076
Anger	0.095*	-0.020	0.057	-0.123**	-0.168***
Sadness or Depression	0.040	-0.017	0.045	-0.061	-0.064
Cognitive Processes	-0.064	0.305***	0.256***	0.042	0.010
Causation	-0.159***	0.113**	0.182***	0.064	0.098**
Insight	-0.094*	0.132***	0.168***	0.041	0.011
Discrepancy	-0.060	0.219***	0.215***	0.020	0.023
Inhibition	0.106**	0.218***	-0.077	0.017	-0.195***
Tentative	0.019	0.306***	0.261***	0.108**	0.121**
Certainty	-0.059	0.130***	0.169***	0.015	0.004
Sensory and Perceptual Processes	-0.151***	0.101**	0.249***	-0.058	0.161***
Seeing	-0.167***	0.044	0.224***	-0.040	0.171***
Hearing	-0.127***	0.120**	0.207***	-0.034	0.121**
Feeling	0.076	-0.010	0.028	-0.072	0.003
Social Processes	-0.161***	-0.121**	0.218***	-0.057	0.092*

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	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.048	0.132***	0.169***	-0.006	0.101**
Other References to People	-0.241***	-0.128***	0.249***	-0.081*	0.126***
Humans	0.116**	0.048	0.068	0.087*	0.016
Time	0.001	-0.103**	-0.058	-0.116**	-0.071
Past Tense Verb	0.013	-0.063	0.033	0.019	0.202***
Present Tense Verb	-0.174***	0.176***	0.323***	-0.072	-0.016
Future Tense Verb	0.028	0.153***	0.073	0.079	0.002
Space	-0.051	0.060	0.153***	-0.029	0.100**
Up	-0.091*	-0.040	-0.062	-0.055	0.014
Down	-0.027	0.198***	0.154***	0.061	0.069
Inclusive	0.038	-0.160***	-0.007	0.013	0.035
Exclusive	-0.102**	0.278***	0.364***	0.068	0.151***
Motion	-0.067	0.081*	0.258***	-0.022	0.126**
Achievement	-0.082*	-0.146***	-0.049	-0.086*	-0.137***
Religion	0.065	-0.183***	-0.021	0.025	0.165***
Sex and Sexuality	-0.140***	-0.116**	0.002	-0.077	0.012
Swear Words	-0.069	-0.011	0.044	0.018	0.005
Nonfluencies	-0.014	0.018	0.013	0.029	-0.014
Fillers	NA	NA	NA	NA	NA
Number of Periods	-0.024	-0.052	-0.227***	-0.069	-0.101**
Number of Commas	-0.031	-0.129***	-0.017	-0.013	0.090*
Number of Colons	-0.006	-0.040	-0.012	-0.103**	-0.065
Number of Semicolons	0.041	0.006	-0.076	0.041	-0.018
Number of Question Marks	0.061	0.183***	0.247***	0.022	0.126***
Number of Exclamations	0.037	0.044	0.023	0.112**	0.076
Number of Dashes	0.049	0.055	0.079	0.005	0.053
Number of Quotation Marks	0.002	-0.057	-0.064	-0.003	0.038
Number of Apostrophes	-0.128***	-0.043	0.100**	-0.114**	0.098**
Number of Pairs of Parentheses	0.149***	0.186***	-0.109**	0.132***	-0.069
Number of Other Punctuation	0.026	-0.053	-0.173***	-0.029	-0.008
All Punctuation	-0.025	-0.066	-0.102**	-0.062	0.029

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

Table A-19: Correlations Between LIWC/MRC Features and Jackknifed Big Five Traits (2014)

	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>MRCPD Categories</b>					
Age of Acquisition	0.095*	0.192***	-0.102**	0.100**	-0.124**
Concreteness	-0.119**	-0.300***	-0.220***	-0.128**	-0.054
Familiarity	-0.153***	0.080	0.237***	0.098*	0.211***
Imagability	-0.150***	-0.377***	-0.198***	-0.225***	-0.109**
Meaningfulness (Colorado)	-0.320***	-0.347***	0.007	-0.233***	-0.033
Meaningfulness (Paivo)	-0.092*	-0.232***	-0.082	-0.089*	0.091*
Number of Letters	0.167***	-0.099*	-0.249***	-0.120**	-0.257***
Number of Phonemes	0.144***	-0.130***	-0.299***	-0.096*	-0.210***
Number of Syllables	0.169***	-0.107**	-0.256***	-0.089*	-0.214***
<b>LIWC Categories</b>					
Word Count	0.165***	0.207***	0.383***	0.196***	0.361***
Words Per Sentence	0.133***	0.050	0.094*	0.063	0.115**
Sentences Ending With ?	0.074	0.219***	0.330***	0.180***	0.212***
Unique Words	-0.041	-0.144***	-0.247***	-0.111**	-0.314***
Dictionary Words	-0.113**	0.130***	0.317***	0.101**	0.139***
Words > 6 Letters	0.184***	-0.088*	-0.268***	-0.127**	-0.290***
Abbreviations	0.079	-0.006	-0.159***	-0.084*	-0.111**
Total Pronouns	-0.296***	-0.046	0.194***	-0.023	0.088*
First-Person Singular	-0.098*	0.076	-0.083*	0.045	-0.118**
First-Person Plural	-0.157***	-0.036	0.217***	-0.118**	-0.023
Total First Person	-0.173***	0.040	0.064	-0.035	-0.108**
Total Second Person	-0.155***	0.061	0.225***	0.096*	0.262***
Total Third Person	-0.166***	-0.252***	0.015	-0.083	0.105**
Negations	0.042	0.154***	0.091*	0.024	-0.082
Assents	-0.061	0.053	-0.003	-0.009	-0.035
Articles	0.224***	0.179***	-0.020	0.217***	0.167***
Prepositions	0.121**	-0.068	-0.036	-0.007	0.014
Numbers	-0.046	-0.038	-0.112**	0.046	0.044
Affective Processes	0.092*	-0.080	0.015	-0.186***	-0.239***
Positive Feelings	-0.075	-0.077	0.104**	-0.150***	-0.043
Optimism and Energy	0.013	-0.139***	-0.086*	-0.174***	-0.172***
Anxiety or Fear	0.082	0.005	0.078	-0.108**	-0.147***
Anger	0.142***	-0.009	0.047	-0.125**	-0.134***
Sadness or Depression	0.066	0.006	-0.053	-0.031	-0.121**
Cognitive Processes	0.007	0.310***	0.229***	0.177***	0.084*
Causation	0.120**	0.241***	0.211***	0.212***	0.125**
Insight	0.040	0.134***	0.176***	0.135***	0.074
Discrepancy	-0.082	0.210***	0.181***	0.070	0.025
Inhibition	0.078	0.171***	-0.050	0.054	-0.098*
Tentative	0.081	0.309***	0.249***	0.214***	0.173***
Certainty	-0.011	0.111**	0.105**	0.074	0.065
Sensory and Perceptual Processes	-0.161***	0.028	0.199***	0.097*	0.313***
Seeing	-0.004	0.123**	0.217***	0.148***	0.252***
Hearing	-0.210***	0.010	0.145***	0.054	0.260***
Feeling	0.008	-0.088*	0.036	-0.002	0.068
Social Processes	-0.224***	-0.202***	0.191***	-0.106**	0.102**

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Continued from previous page					
	Openness	Conscientiousness	Extraversion	Agreeableness	Emotional Stability
<b>LIWC Categories (continued)</b>					
Communication	-0.142***	0.017	0.097*	0.072	0.228***
Other References to People	-0.278***	-0.189***	0.228***	-0.111**	0.143***
Humans	0.047	0.003	0.173***	0.038	-0.011
Time	0.021	-0.088*	0.006	-0.067	-0.071
Past Tense Verb	-0.129**	-0.064	0.034	0.066	0.204***
Present Tense Verb	-0.120**	0.204***	0.297***	0.099**	0.109**
Future Tense Verb	0.111**	0.230***	0.066	0.065	-0.035
Space	-0.087*	0.048	0.105**	0.058	0.147***
Up	-0.084*	-0.043	-0.076	-0.006	-0.024
Down	0.017	0.190***	0.067	0.072	0.041
Inclusive	-0.043	-0.263***	-0.076	-0.147***	-0.009
Exclusive	0.020	0.325***	0.351***	0.209***	0.238***
Motion	0.014	0.102**	0.152***	0.075	0.129**
Achievement	-0.021	-0.107**	-0.073	-0.053	-0.155***
Religion	0.002	-0.261***	-0.024	-0.093*	0.039
Sex and Sexuality	-0.156***	-0.161***	0.015	-0.129**	0.069
Swear Words	0.060	0.013	-0.001	-0.015	0.019
Nonfluencies	0.036	0.001	0.093*	-0.017	0.122**
Fillers	0.059	-0.018	-0.024	-0.040	-0.010
Number of Periods	-0.068	0.013	-0.128**	0.027	-0.041
Number of Commas	-0.100**	-0.060	-0.069	0.015	0.073
Number of Colons	-0.045	-0.062	0.041	-0.074	0.005
Number of Semicolons	-0.003	-0.033	-0.024	-0.051	-0.058
Number of Question Marks	0.042	0.192***	0.292***	0.157***	0.190***
Number of Exclamations	0.007	-0.057	-0.030	-0.012	0.020
Number of Dashes	0.072	0.059	0.058	0.036	0.082
Number of Quotation Marks	-0.050	-0.108**	-0.089*	-0.035	-0.009
Number of Apostrophes	-0.073	-0.115**	-0.070	-0.112**	-0.031
Number of Pairs of Parentheses	0.061	0.084*	-0.116**	0.052	-0.045
Number of Other Punctuation	-0.020	0.016	-0.110**	0.019	-0.002
All Punctuation	-0.067	-0.009	-0.114**	0.013	0.009

Note: Pearson correlation coefficients presented. Two-tailed tests: \*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$