

APPENDICES

Appendix A Studies included in meta-analysis

Albrecht, A. K., Walsh, G., & Beatty, S. E. (2017). Perceptions of group versus individual service failures and their effects on customer outcomes: the role of attributions and customer entitlement. *Journal of Service Research, 20*, 188–203.

Allen, C. T., Machleit, K. A., Kleine, S. S., & Notani, A. S. (2005). A place for emotion in attitude models. *Journal of Business Research, 58*, 494–499.

Babin, B. J., & Babin, L. (2001). Seeking something different? A model of schema typicality, consumer affect, purchase intentions and perceived shopping value. *Journal of Business Research, 54*, 89–96.

Babin, B. J., & Darden, W. R. (1996). Good and bad shopping vibes: spending and patronage satisfaction. *Journal of Business Research, 35*, 201–206.

Bogliacino, F., Codagnone, C., Veltri, G. A., Chakravarti, A., Ortoleva, P., Gaskell, G., et al. (2015). Pathos & ethos: emotions and willingness to pay for tobacco products. *PLoS ONE, 10*, 1–25.

Bonifield, C., & Cole, C. A. (2007). Affective responses to service failure: anger, regret, and retaliatory versus conciliatory responses. *Marketing Letters, 18*, 85–99.

Bonifield, C., & Cole, C. A. (2008). Better him than me: social comparison theory and service recovery. *Journal of the Academy of Marketing Science, 36*, 565–577.

Bougie, R., Pieters, R., & Zeelenberg, M. (2003). Angry customers don't come back, they get back: the experience and behavioral implications of anger and dissatisfaction in services. *Journal of the Academy of Marketing Science, 31*, 377–393.

- Burns, D. J., & Neisner, L. (2006). Customer satisfaction in a retail setting. *International Journal of Retail & Distribution Management*, 34, 49–66.
- Cai, S., & Xu, Y., (2006). Effects of outcome, process and shopping enjoyment on online consumer behaviour. *Electronic Commerce Research and Applications*, 5, 272–281.
- Cheng, Y.-H., Chang, C.-J., Chuang, S.-C., & Liao Y.-W. (2015). Guilt no longer a sin: the effect of guilt in the service recovery paradox. *Journal of Service Theory and Practice*, 25, 836–853.
- Childers, T., Carr, C., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, 77, 511–535.
- Chong, Y. S., & Ahmed, P. K. (2017). On happiness, sadness or indifference: investigating the carryover effect of outcome valence in service perceptions. *Journal of Service Theory and Practice*, 27, 69–86.
- Coleman, N. V., Williams, P., Morales, A. C., & White, A. E. (2017). Attention, attitudes, and action: when and why incidental fear increases consumer choice. *Journal of Consumer Research*, 44, 283–312.
- Cornwell, T., Jahn, S., Xie, H., & Suk Suh, W. (2018). Feeling that ingroup feeling at a sponsored sporting event: links to memory and future attendance. *Journal of Sport Management*, 32, 1–12.
- Derbaix, C., & Vanhamme, J. (2003). Inducing word-of-mouth by eliciting surprise – a pilot investigation. *Journal of Economic Psychology*, 24, 99–116.
- Éthier, J., Hadaya, P., Talbot, J., & Cadieux, J. (2008). Interface design and emotions experienced on B2C Web sites: empirical testing of a research model. *Computers in*

Human Behavior, 24, 2771–2791.

Fazal-e-Hasan, S., Lings, I. N., Mortimer, G., & Neale, L. (2017a). How gratitude influences customer word-of-mouth intentions and involvement: the mediating role of affective commitment. *Journal of Marketing Theory and Practice*, 25, 200–211.

Fazal-e-Hasan, S., Lings, I., Neale, L., & Mortimer, G. (2014). The role of customer gratitude in making relationship marketing investments successful. *Journal of Retailing and Consumer Services*, 21, 788–796.

Fazal-e-Hasan, S., Mortimer, G., Lings, I., & Neale, L. (2017b). Examining the antecedents and consequences of gratitude. *Journal of Services Marketing*, 31, 34–47.

Finn, A. (2005). Reassessing the foundations of customer delight. *Journal of Service Research*, 8, 103–116.

Folkes, V. S., Koletsky, S., & Graham, J. L. (1987). A field study of causal inferences and consumer reaction: the view from the airport. *Journal of Consumer Research*, 13, 534–539.

Friman, M. (2004). The structure of affective reactions to critical incidents. *Journal of Economic Psychology*, 25, 331–353.

Garry, T. (2007). Consumer sophistication and the role of emotion on satisfaction judgments within credence services. *Journal of Consumer Behaviour*, 6, 383–397.

Garry, T. (2008). Affect and the role of corporate customer expertise within legal services. *Journal of Services Marketing*, 22, 292–302.

Gelbrich, K. (2009). Beyond just being dissatisfied: how angry and helpless customers react

- to failures when using self-service technologies. *Schmalenbach Business Review*, 61, 40–59.
- Gelbrich, K. (2010). Anger, frustration, and helplessness after service failure: coping strategies and effective informational support. *Journal of the Academy of Marketing Science*, 38, 567–585.
- Goldsmith, K., Cho, E. K., & Dhar, R. (2012). When guilt begets pleasure: the positive effect of a negative emotion. *Journal of Marketing Research*, 49, 872–881.
- Gountas, J., & Gountas, S. (2006). Personality orientations, emotional states, customer satisfaction, and intention to repurchase. *Journal of Business Research*, 60, 72–75.
- Grappi, S., Romani, S., & Bagozzi, R. P. (2013). The effects of company offshoring strategies on consumer responses. *Journal of the Academy of Marketing Science*, 41, 683–704.
- Grappi, S., Romani, S., & Bagozzi, R. P. (2015). Consumer stakeholder responses to reshoring strategies. *Journal of the Academy of Marketing Science*, 43, 453–471.
- Han, H., Back, K. J., & Barrett, B. (2009). Influencing factors on restaurant customers' revisit intention: the roles of emotions and switching barriers. *International Journal of Hospitality Management*, 28, 563–572.
- Hassanein, K., & Head, M. (2007). Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping. *International Journal of Human Computer Studies*, 65, 689–708.
- Hille, P., Walsh, G., & Cleveland, M. (2015). Consumer fear of online identity theft: scale development and validation. *Journal of Interactive Marketing*, 30, 1–19.

- Hou, M., Wu, X., & Hu, Z. (2013). Personnel service, consumption emotion, and patronage intention in department stores. *International Business Research*, *6*, 6–22.
- Huang, C.-C. (2017). The impacts of brand experiences on brand loyalty: mediators of brand love and trust. *Management Decision*, *55*, 915–934.
- Hui, M., & Bateson, J. E. G. (1991). Perceived crowding on control and and consumer the effects choice of the experience. *Journal of Consumer Research*, *18*, 174–184.
- Hwang, Y., & Kim, D. J. (2007). Customer self-service systems: the effects of perceived Web quality with service contents on enjoyment, anxiety, and e-trust. *Decision Support Systems*, *43*, 746–760.
- Jiang, Y., & Lu Wang, C. (2006). The impact of affect on service quality and satisfaction: the moderation of service contexts. *Journal of Services Marketing*, *20*, 211–218.
- Johnson, M. D., Lervik, L., Tor, O., Andreassen, W., Olsen, L. L., & Andreassen, T. W. (2009). Joy and disappointment in the hotel experience: managing relationship segments. *Managing Service Quality: An International Journal*, *19*, 4–30.
- Johnson, M., Zinkhan, G. M., & Ayala, G. S. (1998). The impact of outcome, competency and affect on service referral. *Journal of Services Marketing*, *12*, 397–415.
- Joireman, J., Smith, D., Liu, R. L., & Arthurs, J. (2015). It's all good: corporate social responsibility reduces negative and promotes positive responses to service failures among value-aligned customers. *Journal of Public Policy & Marketing*, *34*, 32–49.
- Kalamas, M., Laroche, M., & Makdessian, L. (2008). Reaching the boiling point: consumers' negative affective reactions to firm-attributed service failures. *Journal of Business Research*, *61*, 813–824.

- Kim, W. G., & Moon, Y. J. (2009). Customers' cognitive, emotional, and actionable response to the servicescape: a test of the moderating effect of the restaurant type. *International Journal of Hospitality Management*, 28, 144–156.
- Kourouthanassis, P. E., Pappas, I. O., Bardaki, C., & Giannakos, M. N. (2016). A matter of trust and emotions: a complexity theory approach to explain the adoption of e-government services. *Twenty-Fourth European Conference on Information Systems (ECIS)*, 1–15.
- Krampf, R., Ueltschy, L., & D'Amico, M. (2003). The contribution of emotion to consumer satisfaction in the service setting. *Marketing Management Journal*, 13, 32–52.
- Kuo, Y. F., & Wu, C. M. (2012). Satisfaction and post-purchase intentions with service recovery of online shopping websites: perspectives on perceived justice and emotions. *International Journal of Information Management*, 32, 127–138.
- Ladhari, R., Brun, I., & Morales, M. (2008). Determinants of dining satisfaction and post-dining behavioral intentions. *International Journal of Hospitality Management*, 27, 563–573.
- Lastner, M. M., Folse, J. A. G., Mangus, S. M., & Fennell, P. (2016). The road to recovery: overcoming service failures through positive emotions. *Journal of Business Research*, 69, 4278–4286.
- Li, H., Sarathy, R., & Xu, H. (2011). The role of affect and cognition on online consumers' decision to disclose personal information to unfamiliar online vendors. *Decision Support Systems*, 51, 434–445.
- Liljander, V., & Strandvik, T. (1997). Emotions in service satisfaction. *International Journal*

of Service Industry Management, 8, 148–169.

Loureiro, S. M. C., & Roschk, H. (2014). Differential effects of atmospheric cues on emotions and loyalty intention with respect to age under online/offline environment. *Journal of Retailing and Consumer Services*, 21, 211–219.

Louro, M. J., Pieters, R., & Zeelenberg, M. (2005). Negative returns on positive emotions: the influence of pride and self-regulatory goals on repurchase decisions. *Journal of Consumer Research*, 31, 833–840.

Ludwig, N. L., Heidenreich, S., Kraemer, T., & Gouthier, M. (2017). Customer delight: universal remedy or a double-edged sword? *Journal of Service Theory and Practice*, 27, 22–45.

Machleit, K. A., & Eroglu, S. A. (2000). Describing and measuring emotional response to shopping experience. *Journal of Business Research*, 49, 101–111.

Mano, H. (1999). The influence of pre-existing negative affect on store purchase intentions. *Journal of Retailing*, 75, 149–172.

Mattila, A. S., & Ro, H. (2008). Discrete negative emotions and customer dissatisfaction responses in a casual restaurant setting. *Journal of Hospitality and Tourism Research*, 32, 89–107.

Menon, K., & Dubé, L. (2004). Service provider responses to anxious and angry customers: different challenges, different payoffs. *Journal of Retailing*, 80, 229–237.

Menon, S., & Kahn, B. (2002). Cross category effects of induced arousal and pleasure on the internet shopping experience. *Journal of Retailing*, 78, 31–40.

- Nyer, P. U. (1997a). Modeling the cognitive antecedents of post-consumption emotions. *Journal of Consumer Satisfaction Dissatisfaction and Complaining Behavior*, 10, 80–90.
- Nyer, P. U. (1997b). A study of the relationships between cognitive appraisals and consumption emotions. *Journal of the Academy of Marketing Science*, 25, 296–304.
- Oliver, R. L. (1993). Cognitive, affective and attribute bases of the satisfaction response. *Journal of Consumer Research*, 20, 418–430.
- Ou, Y. C., & Verhoef, P. C. (2017). The impact of positive and negative emotions on loyalty intentions and their interactions with customer equity drivers. *Journal of Business Research*, 80, 106–115.
- Palmatier, R. W., Jarvis, C. B., Bechhoff, J. R., & Kardes, F. R. (2009). The role of customer gratitude in relationship marketing. *Journal of Marketing*, 73, 1–18.
- Pappas, I., Kourouthanassis, P., & Papavlasopoulou, S. (2014a). Towards emotional satisfaction in social network services use. *Mediterranean Conference on Information Systems (MCIS)*, 1–10.
- Pappas, I. O., Giannakos, M. N., Kourouthanassis, P. E., & Chrissikopoulos, V. (2013). Assessing emotions related to privacy and trust in personalized services. *IFIP Advances in Information and Communication Technology*, 399, 38–49.
- Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N., & Chrissikopoulos, V. (2014b). Shiny happy people buying: the role of emotions on personalized e-shopping. *Electronic Markets*, 24, 193–206.
- Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N., & Chrissikopoulos, V. (2016). Explaining online shopping behavior with fsQCA: the role of cognitive and affective

- perceptions. *Journal of Business Research*, 69, 794–803.
- Patterson, P. G., Brady, M. K., & McColl-Kennedy, J. R. (2016). Geysers or bubbling hot springs? A cross-cultural examination of customer rage from eastern and western perspectives. *Journal of Service Research*, 19, 243–259.
- Porat, T., & Tractinsky, N. (2012). It's a pleasure buying here: the effects of web-store design on consumers' emotions and attitudes. *Human-Computer Interaction*, 27, 235–276.
- Pullman, M. E., & Gross, M. A. (2003). Welcome to your experience: where you can check out anytime you'd Like, but you can never leave. *Journal of Business & Management*, 9, 215–232.
- Sánchez-García, I., & Currás-Pérez, R. (2011). Effects of dissatisfaction in tourist services: the role of anger and regret. *Tourism Management*, 32, 1397–1406.
- Selnes, F., & Gønhaug, K. (2000). Effects of supplier reliability and benevolence in business marketing. *Journal of Business Research*, 49, 259–271.
- Shamdasani, P., Mukherjee, A., & Malhotra, N. (2008). Antecedents and consequences of service quality in consumer evaluation of self-service internet technologies. *The Service Industries Journal*, 28, 117–138.
- Söderlund, M., & Rosengren, S. (2008). Revisiting the smiling service worker and customer satisfaction. *International Journal of Service Industry Management*, 19, 552–574.
- Soscia, I. (2007). Gratitude, delight, or guilt: the role of consumers' emotions in predicting postconsumption behaviors. *Psychology and Marketing*, 24, 871–894.
- Tsai, W., & Huang, Y. M. (2002). Mechanisms linking employee affecting delivery and

- customer behavioral intentions. *Journal of Applied Psychology*, 87, 1001–1008.
- Van Dolen, W., Lemmink, J., Mattsson, J., & Rhoen, I. (2001). Affective consumer responses in service encounters: the emotional content in narratives of critical incidents. *Journal of Economic Psychology*, 22, 359–376.
- Venkatesh, V. (2000). Determinants of perceived ease of use: integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information Systems Research*, 11, 342–365.
- Vilnai-Yavetz, I., & Rafaeli, A. (2006). Aesthetics and professionalism of virtual servicescapes. *Journal of Service Research*, 8, 245–259.
- Wong, A. (2004). The role of emotional satisfaction in service encounters. *Managing Service Quality: An International Journal*, 14, 365–376.
- Xie, C., Bagozzi, R. P., & Grønhaug, K. (2015). The role of moral emotions and individual differences in consumer responses to corporate green and non-green actions. *Journal of the Academy of Marketing Science*, 43, 333–356.
- Yim, C. K. (Bennett), Chan, K. W., & Lam, S. S. K. (2012). Do customers and employees enjoy service participation? Synergistic effects of self- and other-efficacy. *Journal of Marketing*, 76, 121–140.
- Yüksel, A. (2007). Tourist shopping habitat: effects on emotions, shopping value and behaviours. *Tourism Management*, 28, 58–69.

Appendix B Coding of emotions and moderators

Coding was done by the first author and two independent coders who were blind to the research question. The initial inter-rater reliability was substantial ($\kappa = .678$) and all disagreements were subsequently discussed and resolved.

Constructs	Coded 1 in the following cases (0 otherwise)	
Emotions	Anger	Anger, rage, irritation, annoyed, enraged, mad, upset, hate, hostile
	Embarrassment	Shame, ashamed, embarrassed, humiliated
	Fear	Fear, scared, afraid, panicky, frightened
	Guilt	Guilt
	Uneasiness	Nervous, jittery, restless, worried, tense, anxious, discontented, unfulfilled, unsatisfied, unhappy, distress
	Sadness	Sadness, depressed, miserable, despairing
	Gratitude	Gratitude, appreciative
	Happiness	Joyful, happy, pleased, enjoyment, pleasure, cheerful, fun, amused
	Love	Loving, affectionate, admiration, warm feeling
	Pride	Pride
Outcome variables	Evaluation	Satisfaction, service quality, company image, confirmation, relationship quality, hedonic shopping value, utilitarian shopping value, attitude toward service worker, attitude toward encounter, perceived quality, attitude toward company
	Purchase behavior	Spending, purchase, repurchase intentions, loyalty, approach/avoidance, frequency of use intention, desire to stay, purchase intention, behavioral intentions
	Sharing behavior	Complaining, negative word-of-mouth, third-party complaining, positive word-of-mouth
Other moderators	Interaction with employees	Interaction with an employee was explicitly described in a vignette or explicitly asked to recall
	Service recovery	Service recovery was explicitly described or asked to recall
	B2B	B2B context was explicitly described or asked to recall
	Product/service type: search	Car, bike, computer, electronics, headphones, mobile phones, skis, software, watch
	Product/service type: experience	Airline, online retailer, retail store, bar, bus service, café, chocolate tasting, cinema, concert, department store, dry cleaner, e-services, energy provider, fitness club, hair dresser, health club, insurance, hotels, karaoke, network provider, online dating, restaurant, social networking site, travel agency, wildlife park
Product/service type: credence	Banking, dentist, financial services, legal services	

Appendix C

Omnibus tests of moderation per core affect and appraisal manifestation (absolute effect sizes)

Appraisal manifestation	Interaction		Service recovery		B2B		Product/service type	
	Q (df)	p value	Q (df)	p value	Q (df)	p value	Q (df)	p value
Valence pos	0.017 (1)	0.897	0.346 (1)	0.556	0.507 (1)	0.477	1.692 (2)	0.429
Valence neg	0.969 (1)	0.325	1.792 (1)	0.191	2.013 (1)	0.156	0.516 (2)	0.773
Control 1	0.002 (1)	0.966	0.240 (1)	0.624	1.702 (1)	0.192	3.670 (1)	0.160
Control 0	0.578 (1)	0.447	n/a	n/a	0.343 (1)	0.558	0.944 (2)	0.624
Responsibility 1	1.710 (1)	0.191	0.420 (1)	0.517	0.331 (1)	0.565	0.449 (1)	0.799
Responsibility 0	0.000 (1)	0.983	0.182 (1)	0.670	2.020 (1)	0.155	3.593 (2)	0.166
Certainty 1	0.003 (1)	0.960	0.045 (1)	0.831	0.160 (1)	0.689	1.792 (2)	0.408
Certainty 0	1.897 (1)	0.168	0.545 (1)	0.461	2.316 (1)	0.128	1.537 (2)	0.464
Legitimacy 1	0.001 (1)	0.980	0.040 (1)	0.841	0.437 (1)	0.509	0.955 (2)	0.620
Legitimacy 0	2.872 (1)	0.090 ¹	0.004 (1)	0.950	0.426 (1)	0.514	0.036 (1)	0.849
Arousal -1	1.537 (1)	0.215	0.065 (1)	0.799	0.311 (1)	0.577	0.338 (1)	0.844
Arousal 0	0.009 (1)	0.926	0.108 (1)	0.742	0.002 (1)	0.961	2.418 (2)	0.298
Arousal 1	0.136 (1)	0.712	0.487 (1)	0.485	0.312 (1)	0.577	2.001 (2)	0.368

n/a: not applicable due to lack of effect sizes; **bold**: (marginally) significant moderation effects;

¹ Emotions that are characterized by a person's moral wrongdoing (legitimacy = 0) have significantly stronger effects on outcome variables for interactions with employees (0.410; 95% CI: 0.173; 0.602) as compared to other interactions (0.169; 95% CI: -0.005; 0.334).

Appendix D

Omnibus tests of moderation (methodological variables)

Emotion	Vignette study		Field study		Manipulation emotion		Experimental study		Student sample	
	Q (df)	P value	Q (df)	P value	Q (df)	P value	Q (df)	P value	Q (df)	P value
Gratitude	0.506 (1)	0.477	0.521 (1)	0.470	n/a	n/a	0.680 (1)	0.410	1.380 (1)	0.240
Love	0.217 (1)	0.641	0.245 (1)	0.620	n/a	n/a	0.217 (1)	0.641	0.398 (1)	0.528
Happiness	0.136 (1)	0.712	1.472 (1)	0.225	0.518 (1)	0.472	0.007 (1)	0.932	0.148 (1)	0.700
Pride	1.456 (1)	0.228	1.194 (1)	0.275	7.838 (1)	0.005	1.456 (1)	0.228	0.968 (1)	0.325
Guilt	1.412 (1)	0.235	n/a	n/a	0.002 (1)	0.962	2.615 (1)	0.106	0.009 (1)	0.924
Fear	0.035 (1)	0.852	0.000 (1)	0.987	2.144 (1)	0.143	0.112 (1)	0.738	0.314 (1)	0.575
Embarrassment	0.151 (1)	0.698	0.215 (1)	0.643	n/a	n/a	0.355 (1)	0.552	0.003 (1)	0.956
Uneasiness	2.056 (1)	0.152	2.261 (1)	0.133	0.843 (1)	0.359	2.758 (1)	0.097	3.074 (1)	0.080
Sadness	0.745 (1)	0.388	0.009 (1)	0.924	2.181 (1)	0.140	0.145 (1)	0.703	0.016 (1)	0.899
Anger	0.097 (1)	0.755	2.740 (1)	0.098	0.001 (1)	0.979	0.026 (1)	0.872	0.162 (1)	0.687

n/a: not applicable due to lack of effect sizes; **bold**: (marginally) significant moderation effects.

Emotion	Emotions bipolar vs. unipolar		Emotions frequency vs. intensity		High impact journals	
	Q (df)	P value	Q (df)	P value	Q (df)	P value
Gratitude	n/a	n/a	n/a	n/a	6.409 (1)	0.011
Love	n/a	n/a	n/a	n/a	0.262 (1)	0.609
Happiness	0.188 (1)	0.665	0.116 (1)	0.734	0.942 (1)	0.332
Pride	n/a	n/a	n/a	n/a	1.858 (1)	0.173
Guilt	n/a	n/a	0.926 (1)	0.336	0.323 (1)	0.570
Fear	n/a	n/a	0.454 (1)	0.500	0.006 (1)	0.936
Embarrassment	n/a	n/a	0.020 (1)	0.888	0.013 (1)	0.908
Uneasiness	0.446 (1)	0.504	0.036 (1)	0.850	0.232 (1)	0.630
Sadness	1.204 (1)	0.272	0.191 (1)	0.662	0.026 (1)	0.871
Anger	0.171 (1)	0.679	0.115 (1)	0.735	0.093 (1)	0.761

Appendix E

Influence of methodological moderators on discrete emotions' effects on all outcome variables (subgroup analyses of moderators separately)

Emotion	Vignette study						Field study					
	k	Estimate vignette	p value	k	Estimate other	p value	k	Estimate field	p value	k	Estimate other	p value
Gratitude	10			31			4			37		
Love	4			37			2			39		
Happiness	36			248			66			218		
Pride	19			16			11			24		
Guilt	17			21			9			29		
Fear	15			47			21			41		
Embarrassment	24			26			16			34		
Uneasiness	65			90			70			85		
Sadness	43			80			45			78		
Anger	75			131			61	-0.437	<.001	145	-0.236	0.020

Emotion	Manipulation emotion						Experimental study					
	k	Estimate manipulated	p value	k	Estimate other	p value	k	Estimate experiment	p value	k	Estimate other	p value
Gratitude	0			41			11			30		
Love	0			41			4			37		
Happiness	4			280			45			239		
Pride	12	-0.024	0.755	23	0.249	<.001	19			16		
Guilt	15			23			24			14		
Fear	5			57			20			42		
Embarrassment	0			50			24			26		
Uneasiness	1			154			75	0.037	0.810	80	-0.242	<.001
Sadness	3			120			57			66		
Anger	27			179			90			116		

Emotion	Student sample						Emotions measured bipolar versus unipolar					
	k	Estimate student	p value	k	Estimate other	p value	k	Estimate bipolar	p value	k	Estimate unipolar	p value
Gratitude	9			32			0			41		
Love	6			35			0			41		
Happiness	69			215			21			263		
Pride	21			14			0			35		
Guilt	18			20			0			38		
Fear	22			40			0			62		
Embarrassment	30			20			0			50		
Uneasiness	76	0.088	0.356	79	-0.171	0.130	52			103		
Sadness	62			61			35			88		
Anger	77			129			11			195		

Emotion	Emotion frequency versus intensity measure						High impact journals (impact factor ≥ 4 ; mean split)					
	k	Estimate frequency	p value	k	Estimate intensity	p value	k	Estimate high impact	p value	k	Estimate low impact	p value
Gratitude	0			41			36	0.582	0.016	5	0.919	<.001
Love	0			41			34			7		
Happiness	28			256			184			100		
Pride	0			35			18			17		
Guilt	4			34			16			22		
Fear	2			60			36			26		
Embarrassment	2			48			9			41		
Uneasiness	8			147			68			87		
Sadness	12			111			55			78		
Anger	10			196			144			62		