33. Barrick, M. R., Shaffer, J. A., & DeGrassi, S. W. (2009). What you see may not be what you get: Relationships among self-presentation tactics and ratings of interview and job performance. *Journal of Applied Psychology, 94,* 1394–1411. Examination of various impression management (IM) tactics has revealed significant effects for some verbal tactics (e.g., the use of positive self-descriptive terms and the telling of personal success stories) but not for nonverbal tactics (e.g., frequent eye contact and smiling; see Gilmore, D. C., & Ferris, G. R. [1989]. The effects of applicant impression management tactics on interviewer judgments. *Journal of Management, 15,* 557–564; Stevens, C. K., & Kristof, A. L. [1995]. Making the right impression: A field study of applicant impression management during job interviews. *Journal of Applied Psychology, 80,* 587–606). However, these effects are attenuated or disappear as interviews become longer (see Tsai, W. C., Chen, C. C., & Chiu, S. F. [2005]. Exploring boundaries of the effects of applicant impression management tactics in job interviews. *Journal of Management, 31,* 108–125), are more structured or standardized (see Barrick, M. R., Shaffer, J. A., & DeGrassi, S. W. [2009]. What you see may not be what you get: Relationships among self-presentation tactics and ratings of interview and job performance. *Journal of Applied Psychology, 94,* 1394–1411), and involve more highly trained interviewers (see Howard, J. L., & Ferris, G. R. [1996]. The employment interview context: Social and situational influences on interviewer decisions. *Journal of Applied Social Psychology, 26,* 112–136). Many other variables moderate the extent to which IM tactics lead to positive versus negative hiring decisions, such as the gender of both candidate and interviewer (see Baron, R. A. [1986]. Self-presentation in job interviews: When there can be "too much of a good thing." *Journal of Applied Social Psychology, 16,* 16–28; Rudman, L. A. [1998]. Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology, 74,* 629–645; Von Baeyer, C. L., Sherk, D. L., & Zanna, M. P. [1981]. Impression management in the job interview when the female applicant meets the male (chauvinist) interviewer. *Personality and Social Psychology Bulletin, 7,* 45–51), the valence of the interviewer's affective state (see Baron, R. A. [1987]. Interviewer's moods and reactions to job applicants: The influence of affective states on applied social judgments. *Journal of Applied Social Psychology, 17,* 911–926), and the perceived similarity of the candidate to the interviewer (see Judge, T. A., Cable, D. M., & Higgins, C. A. [2001]. The employment interview: A review of recent research and recommendations for future research. *Human Resource Management Review, 10,* 383–406). And, perhaps most important, as candidates increase their use of nonverbal IM tactics, interviewers begin to perceive them as inauthentic and manipulative, leading to negative evaluations and hiring decisions (see Baron, Self-presentation in job interviews).

34. Semnani-Azad, Z., & Adair, W. L. (2011). The display of "dominant" nonverbal cues in negotiation: The role of culture and gender. *International Negotiation, 16,* 451–479.

35. American International Group, Haka: History.

Chapter 7 Surfing, Smiling, and Singing Ourselves to Happiness

1. Fairbanks, E. (2015, February 25). How surfing taught me to make choices. The *Washington Post.* Retrieved from http://www.washingtonpost.com/posteverything/wp/2015/02/25/how-surfing-taught-me-to-make-choices/.

2. As cited in Brower, V. (2006). Mind-body research moves towards the mainstream. *EMBO Reports, 7,* 358–361.

3. James, W. (1884). What is an emotion? *Mind, 9,* 188–205, 194.

4. Note, however, that around the same time, Danish physician Carl Georg Lange was independently developing a similar theory that emotions are responses to physical sensations. As a result, the idea that nonverbal expressions are causes, not outcomes, of emotions, is often referred to as the James-Lange theory.

5. James, What is an emotion?, 190.

6. Critchley, H. D., Mathias, C. J., & Dolan, R. J. (2001). Neuroanatomical basis for first- and second-order representations of bodily states. *Nature Neuroscience, 4,* 207–212; Critchley, H. D., Mathias, C. J., & Dolan, R. J. (2002). Fear conditioning in humans: The influence of awareness and autonomic arousal on functional neuroanatomy, *Neuron, 33,* 653–663.

7. Laird, J. D. (1974). Self-attribution of emotion: The effects of expressive behavior on the quality of emotional experience. *Journal of Personality and Social Psychology, 29,* 475–486.

8. Strack, F., Martin, L. L., & Stepper, S. (1988). Inhibiting and facilitating conditions of the human smile: A nonobtrusive test of the facial feedback hypothesis. *Journal of Personality and Social Psychology, 54,* 768–777. This study in fact closely resembles a cartoon-rating experiment in Laird's 1974 paper.

9. Dzokoto, V., Wallace, D. S., Peters, L., & Bentsi-Enchill, E. (2014). Attention to emotion and non-western faces: Revisiting the facial feedback hypothesis. *The Journal of General Psychology, 141,* 151–168; Mori, K., & Mori, H. (2009). Another test of the passive facial feedback hypothesis: When your face smiles, you feel happy. *Perceptual and Motor Skills, 109,* 76–78.

10. Ito, T. A., Chiao, K. W., Devine, P. G., Lorig, T. S., & Cacioppo, J. T. (2006). The influence of facial feedback on race bias. *Psychological Science, 17*, 256–261.

11. Mori, H., & Mori, K. (2007). A test of the passive facial feedback hypothesis: We feel sorry because we cry. *Perceptual and Motor Skills, 105*, 1242–1244.

12. Mori, K., & Mori, H. (2010). Examination of the passive facial feedback hypothesis using an implicit measure: With a furrowed brow, neutral objects with pleasant primes look less appealing. *Perceptual and Motor Skills, 111*, 785–789; Larsen, R. J., Kasimatis, M., & Frey, K. (1992). Facilitating the furrowed brow: An unobtrusive test of the facial feedback hypothesis applied to unpleasant affect. *Cognition & Emotion, 6*, 321–338; Duclos, S. E., & Laird, J. D. (2001). The deliberate control of emotional experience through control of expressions. *Cognition & Emotion, 15*, 27–56.

13. Lewis, M. B., & Bowler, P. J. (2009). Botulinum toxin cosmetic therapy correlates with a more positive mood. *Journal of Cosmetic Dermatology, 8*, 24–26.

14. Wollmer, M. A., de Boer, C., Kalak, N., Beck, J., Götz, T., Schmidt, T., . . . & Kruger, T. H. (2012). Facing depression with botulinum toxin: A randomized controlled trial. *Journal of Psychiatric Research, 46*, 574–581.

15. Neal, D. T., & Chartrand, T. L. (2011). Embodied emotion perception amplifying and dampening facial feedback modulates emotion perception accuracy. *Social Psychological and Personality Science, 2*, 673–678.

16. Dimberg, U., Thunberg, M., & Elmehed, K. (2000). Unconscious facial reactions to emotional facial expressions. *Psychological Science, 11*, 86–89.

17. North-Hager, E. (2011, April 22). Botox impairs ability to understand emotions of others. Retrieved from https://pressroom.usc.edu/botox-impairs-ability-to-understand-emotions-of-others/.

18. Ibid.

19. Laird, J. D., & Lacasse, K. (2014). Bodily influences on emotional feelings: Accumulating evidence and extensions of William James's theory of emotion. *Emotion Review, 6*, 27–34, 31–32. For a more complete review of the research on facial feedback, see Laird, J. D. (2006). *Feelings: The perception of self*. Oxford: Oxford University Press.

20. Some people advocate dropping the *D* from PTS to remove the stigma of the word *disorder*. See Thompson, M. (2011, June 5). *The disappearing "disorder": Why PTS is becoming PTS*. Retrieved from http://nation.time.com/2011/06/05/the-disappearing-disorder-why-PTS-is-becoming-pts/.

21. Van der Kolk, B. A. (2014). *The body keeps the score*. New York: Viking, 213.

22. Interlandi, J. (2014, May 22). A revolutionary approach to treating PTS. The *New York Times Magazine*. Retrieved from http://www.nytimes.com/2014/05/25/magazine/a-revolutionary-approach-to-treating-PTS.html.

23. Seppälä, E. M., Nitschke, J. B., Tudorascu, D. L., Hayes, A., Goldstein, M. R., Nguyen, D. T. H., Perlman, D., & Davidson, R. J. (2014). Breathing-based meditation decreases posttraumatic stress disorder symptoms in U.S. military veterans: A randomized controlled longitudinal study. *Journal of Traumatic Stress, 27*, 397–405.

24. As cited in ibid.

25. McGonigal, K. (2009). *Yoga for pain relief: Simple practices to calm your mind and heal your chronic pain*. Oakland, CA: New Harbinger Publications.

26. Van der Kolk, *The body keeps the score*, 214.

27. Ibid., 208. In this book I'm focusing on only breathing and movement, but rhythm and chanting can also be helpful in achieving presence. For more, see van der Kolk's book.

28. Van der Kolk, B. A., Stone, L., West, J., Rhodes, A., Emerson, D., Suvak, M., & Spinazzola, J. (2014). Yoga as an adjunctive treatment for posttraumatic stress disorder: A randomized controlled trial. *The Journal of Clinical Psychiatry, 75*, 559–565.

29. Melville, G. W., Chang, D., Colagiuri, B., Marshall, P. W., & Cheema, B. S. (2012). Fifteen minutes of chair-based yoga postures or guided meditation performed in the office can elicit a relaxation response. *Evidence-Based Complementary and Alternative Medicine, 2012*.

30. For a recent overview, see Muhtadie, L., Koslov, K., Akinola, M., & Mendes, W. B. (2015). Vagal flexibility: A physiological predictor of social sensitivity. *Journal of Personality and Social Psychology, 109*, 106–120.

31. Van der Kolk, *The body keeps the score*, 201.

32. Seppälä et al., Breathing-based meditation; Bhasin, M. K., Dusek, J. A., Chang, B. H., Joseph, M. G., Denninger, J. W., Fricchione, G. L., Benson, H., & Libermann, T. A. (2013). Relaxation response induces temporal transcriptome changes in energy metabolism, insulin secretion and inflammatory pathways. *PLoS ONE, 8*, e62817–e62825; Peters, R. K., Benson, H., & Porter, D. (1977). Daily relaxation response breaks in a working population: I. Effects on self-reported measures of health, performance, and well-being. *American Journal of Public Health, 67*, 946–953; Benson, H., Wilcher, M., Greenberg, B., Huggins, E., Ennis, M., Zuttermeister, P. C., Myers, P., & Friedman, R. (2000). Academic performance among middle school students after exposure to a relaxation response curriculum. *Journal of Research and Development in Education, 33*, 156–165; Tyson, P. D. (1998). Physiological arousal, reactive

aggression, and the induction of an incompatible relaxation response. *Aggression and Violent Behavior*, 3, 143–158; Marchand, W. R. (2013). Mindfulness meditation practices as adjunctive treatments for psychiatric disorders. *Psychiatric Clinics of North America*, 36, 141–152; Marchand, W. R. (2012). Mindfulness-based stress reduction, mindfulness-based cognitive therapy, and Zen meditation for depression, anxiety, pain, and psychological distress. *Journal of Psychiatric Practice*, 18, 233–252.

33. Philippot, P., Chapelle, G., & Blairy, S. (2002). Respiratory feedback in the generation of emotion. *Cognition & Emotion*, 16, 605–627.

34. Terathongkum, S., & Pickler, R. H. (2004). Relationships among heart rate variability, hypertension, and relaxation techniques. *Journal of Vascular Nursing*, 22, 78–82; Bhasin et al., Relaxation response induces temporal transcriptome changes; West, J., Otte, C., Geher, K., Johnson, J., & Mohr, D. C. (2004). Effects of Hatha yoga and African dance on perceived stress, affect, and salivary cortisol. *Annals of Behavioral Medicine*, 28, 114–118; Kim, S. H., Schneider, S. M., Bevans, M., Kravitz, L., Mermier, C., Qualls, C., & Burge, M. R. (2013). PTSD symptom reduction with mindfulness-based stretching and deep breathing exercise: Randomized controlled clinical trial of efficacy. *The Journal of Clinical Endocrinology & Metabolism*, 98, 2984–2992; Nater, U. M., & Rohleder, N. (2009). Salivary alpha-amylase as a noninvasive biomarker for the sympathetic nervous system: Current state of research. *Psychoneuroendocrinology*, 34, 486–496.

35. Fairbanks, How surfing taught me to make choices.

Chapter 8 The Body Shapes the Mind (So Starfish Up!)

1. Until I was in kindergarten and we moved back to Pennsylvania, where my parents were born and raised, my dad was a park ranger in Washington State. The park I describe here is called Ginkgo Petrified Forest State Park in Vantage, Washington. By the year 2000, the population of Vantage had dropped to seventy, but the tiny stone house still sits there, right in the middle of the park.

2. Carney, D., Cuddy, A. J. C., & Yap, A. (2010). Power posing: Brief nonverbal displays affect neuroendocrine levels and risk tolerance. *Psychological Science*, 21, 1363–1368. Note that both experiments are reported in the article. However, in response to editorial feedback, we had to omit most of the methodological details about the first experiment. If you search for it in the original paper, go to the "General Discussion," where you'll find it summarized in a single paragraph. I'm providing more details here in the book.

3. Minvaleev, R. S., Nozdrachev, A. D., Kir'yanova, V. V., & Ivanov, A. I. (2004). Postural influences on the hormone level in healthy subjects: I. The cobra posture and steroid hormones. *Human Physiology*, 30, 452–456.

4. They also looked at dehydroepiandrosterone (DHEA) and aldosterone (which plays a central role in the regulation of blood pressure), but results were mixed, with some subjects experiencing changes and others not.

5. Even in the simplest yoga disciplines, most postures are fairly complex. There are numerous moving parts, all of which must be properly aligned. The postures must be held for a certain amount of time, and there are breathing and mindfulness components as well. And as a practical strategy for quick results, yoga may not be the easiest option for most of us in most situations.

6. Hormone levels are typically measured in blood or saliva samples. Although the former may allow for a more conservative test, social psychologists very rarely collect blood samples, so saliva samples are standard. To accurately measure changes in salivary levels of testosterone and cortisol in response to a stimulus, such as power posing, (1) the study should be conducted and samples collected in the afternoon (because of normal diurnal changes in these hormone levels), (2) the experimenter should wait at least ten minutes after the subjects have arrived at the lab before taking the first saliva sample, thereby allowing hormones to return to baseline levels, and (3) the experimenter should wait fifteen to twenty minutes after the onset of the stimulus to take the second saliva sample.

7. Riskind, J. H., & Gotay, C. C. (1982). Physical posture: Could it have regulatory or feedback effects on motivation and emotion? *Motivation and Emotion*, 6, 273–298; Riskind, J. H. (1984). They stoop to conquer: Guiding and self-regulatory functions of physical posture after success and failure. *Journal of Personality and Social Psychology*, 47, 479–493.

8. Stepper, S., & Strack, F. (1993). Proprioceptive determinants of emotional and nonemotional feelings. *Journal of Personality and Social Psychology*, 64, 211–220.

9. The concept of "idea stickiness" is quite interesting, especially in the context of marketing. To learn more about the research into why some ideas stick and others don't, read Heath, C., & Heath, D. (2007). *Made to stick*. New York: Random House.

10. For a brief summary of these many studies, see Carney, D. R., Cuddy, A. J., & Yap, A. J. (2015). Review and summary of research on the embodied effects of expansive (vs. contractive) nonverbal displays. *Psychological Science*, 26, 657–663.

11. Huang, L., Galinsky, A. D., Gruenfeld, D. H., & Guillory, L. E. (2011). Powerful postures versus powerful roles: Which is the proximate correlate of thought and behavior? *Psychological Science*, 22, 95–102.

12. Thein, S. M. (2013). *Embodied foundations of the self: Food, grooming, and cultural pathways of human development in Burma-Myanmar and the*

United States. UCLA: psychology dissertation 0780). Retrieved from https://escholarship.org/uc/item/6n09v64m.

13. Riskind, They stoop to conquer.

14. Nair, S., Sagar, M., Sollers III, J., Consedine, N., & Broadbent, E. (2015). Do slumped and upright postures affect stress responses? A randomized trial. *Health Psychology*, 34, 632–641.

15. Kacewicz, E., Pennebaker, J. W., Davis, M., Jeon, M., & Graesser, A. C. (2014). Pronoun use reflects standings in social hierarchies. *Journal of Language and Social Psychology*, 33(2), 125–143; Bernstein, E. (2013, October 7). A tiny pronoun says a lot about you: How often you say "I" says a lot more than you realize. *Wall Street Journal*. Retrieved from http://www.wsj.com/articles/SB10001424052702304626104579121371885556170.

16. Michalak, J., Mischnat, J., & Teismann, T. (2014). Sitting posture makes a difference — Embodiment effects on depressive memory bias. *Clinical Psychology & Psychotherapy*, 21, 519–524.

17. Michalak, J., Rohde, K., & Troje, N. F. (2015). How we walk affects what we remember: Gait modifications through biofeedback change negative affective memory bias. *Journal of Behavior Therapy and Experimental Psychiatry*, 46, 121–125.

18. Guillory, L. E., & Gruenfeld, D. H. (2010). Fake it till you make it: How acting powerful leads to feeling empowered. Manuscript in preparation.

19. Kwon, J., & Kim, S. Y. (2015). The effect of posture on stress and self-esteem: Comparing contractive and neutral postures. Unpublished manuscript.

20. Wilson, V. E., & Peper, E. (2004). The effects of upright and slumped postures on the recall of positive and negative thoughts. *Applied Psychophysiology and Biofeedback*, 29, 189–195.

21. Briñol, P., Petty, R. E., & Wagner, B. (2009). Body posture effects on self-evaluation: A self-validation approach. *European Journal of Social Psychology*, 39, 1053–1064.

22. Arnette, S. L., & Pettijohn II, T. F. (2012). The effects of posture on self-perceived leadership. *International Journal of Business and Social Science*, 3, 8–13.

23. Noda, W., & Tanaka-Matsumi, J. (2009). Effect of a classroom-based behavioral intervention package on the improvement of children's sitting posture in Japan. *Behavior Modification*, 33, 263–273.

24. Peper, E., & Lin, I. M. (2012). Increase or decrease depression: How body postures influence your energy level. *Biofeedback*, 40, 125–130.

25. Allen, J., Gervais, S. J., & Smith, J. (2013). Sit big to eat big: The interaction of body posture and body concern on restrained eating. *Psychology of Women Quarterly*, 37, 325–336.

26. Park, L. E., Streamer, L., Huang, L., & Galinsky, A. D. (2013). Stand tall, but don't put your feet up: Universal and culturally-specific effects of expansive postures on power. *Journal of Experimental Social Psychology*, 49, 965–971.

27. Lee, E. H., & Schnall, S. (2014). The influence of social power on weight perception. *Journal of Experimental Psychology: General*, 143, 1719–1725.

28. Jordet, G., & Hartman, E. (2008). Avoidance motivation and choking under pressure in soccer penalty shootouts. *Journal of Sport and Exercise Psychology*, 30(4), 450–457.

29. Bohns, V. K., & Wiltermuth, S. S. (2012). It hurts when I do this (or you do that): Posture and pain tolerance. *Journal of Experimental Social Psychology*, 48, 341–345.

30. Cuddy, A. C., Wilmuth, C. A., Yap, A. J., & Carney, D. R. (2015). Preparatory power posing affects nonverbal presence and job interview performance. *Journal of Applied Psychology*, 100, 1286–1295.

31. For more information on this, see Fejer, R., Kyvik, K. O., & Hartvigsen, J. (2006). The prevalence of neck pain in the world population: A systematic critical review of the literature. *European Spine Journal*, 15, 834–848.

32. S. August, personal communication.

33. In an e-mail to me, Steve August continues:

> Very briefly, here's what happens:
>
> 1. Hunch-over heaps. Eventually the upper-back hinges, which allow this movement, will freeze up in that flexed position, and the tough collagen around the spine will shorten up around the immobile joints. When this gets tight enough, no one can straighten the hinges themselves — you have to use sufficient external force. It's a matter of leverage.
> 2. The muscles down the back of the neck work several times harder to hold the head up, just to look ahead or at a small screen. So these strain, then scar (adhesive fibrosis, as part of the repair of that strain, then shorten because of the scarring.
> 3. The muscles around the front of the neck work less and weaken, so the chin pokes out.
> 4. This hunched, poked-chin posture compresses every joint in the neck, and sooner or later some will lock acutely, causing neck pain, referred pain, and headache. . . .
>
> According to conservative estimates, right now, as you read this, around one adult in six in the computer-using world has acute pain in

the upper back or neck or headaches arising from the neck. That means sixty million Europeans, forty-five million Americans, and 3.3 million Aussies. Those figures are probably already out of date. A good single overview is found in a paper by René Fejer, Kirsten Ohm Kyvik, and Jan Hartvigsen called "The prevalence of neck pain in the world population: A systematic critical review of the literature," published in the *European Spine Journal* of June 2006 (15(6), pages 834–848).

34. Bos, M. W., & Cuddy, A. J. (2013). iPosture: The size of electronic consumer devices affects our behavior. Harvard Business School working paper. In a separate study with 100 participants we showed that the smaller the device, the more contractive our posture — hands are closer together, shoulders are more slumped, and we're generally less expansive.

35. Sharma, N., & Baron, J. C. (2013). Does motor imagery share neural networks with executed movement: A multivariate fMRI analysis. *Frontiers in Human Neuroscience*, 7, 564; Nyberg, L., Eriksson, J., Larsson, A., & Marklund, P. (2006). Learning by doing versus learning by thinking: An fMRI study of motor and mental training. *Neuropsychologia*, 44, 711–717; Jeannerod, M., & Frak, V. (1999). Mental imaging of motor activity in humans. *Current Opinion in Neurobiology*, 9, 735–739.

36. Boly, M., Coleman, M. R., Davis, M. H., Hampshire, A., Bor, D., Moonen, G., Maquet, P. A., Pickard, J. D., Laureys, S., & Owen, A. M. (2007). When thoughts become action: An fMRI paradigm to study volitional brain activity in non-communicative brain injured patients. *NeuroImage*, 36, 979–992.

37. Cyranoski, D. (2012, June 13). Neuroscience: The mind reader. *Nature*. Retrieved from http://www.nature.com/news/neuroscience-the-mind-reader-1.10816.

38. Aflalo, T., Kellis, S., Klaes, C., Lee, B., Shi, Y., Pejsa, K., Shanfield, K., Hayes-Jackson, S., Aisen, M. Heck, C., Liu, C., & Andersen, R. A. (2015). Decoding motor imagery from the posterior parietal cortex of a tetraplegic human. *Science*, 348, 906–910.

39. Cuddy, A. J. C., & Thornley, N. The body in the brain: Imagining oneself in a powerful posture increases confidence and decreases social threat. Working manuscript.

40. Lanier, J. (2001). Virtually there. *Scientific American*, 284, 66–75; Slater, M., Spanlang, B., Sanchez-Vives, M. V., Blanke, O. (2010). First person experience of body transfer in virtual reality. *PLoS ONE*, 5, e10564; Kilteni, K., Normand, J.-M., Sanchez-Vives, M. V., Slater, M. (2012). Extending body space in immersive virtual reality: A very long arm illusion. *PLoS ONE* 7, e40867.

41. Yee, N., & Bailenson, J. (2007). The Proteus effect: The effect of transformed self-representation on behavior. *Human Communication Research*, 33, 271–290.

42. Rosenberg, R. S., Baughman, S. L., & Bailenson, J. N. (2013). Virtual superheroes: Using superpowers in virtual reality to encourage prosocial behavior. *PLoS ONE*, 8, e55003.

43. Yap, A. J., Wazlawek, A. S., Lucas, B. J., Cuddy, A. C., & Carney, D. R. (2013). The ergonomics of dishonesty: The effect of incidental posture on stealing, cheating, and traffic violations. *Psychological Science*, 24, 2281–2289.

44. As with any psychological phenomenon, there are variables that amplify or dampen the effects of expansive postures. Most important, context matters. For example, one study showed that adopting expansive postures did not increase risk tolerance when people were asked to imagine that they were being frisked by a police officer. Engaging in social tasks — such as looking at photos of faces — while holding poses seems to increase the strength of the effects, perhaps because power is so often considered a social construct. Another factor that needs further examination is the duration of time one holds a pose. Because I discussed our first study, in which people held the two poses for a total of two minutes, in my TED talk, "two minutes" took on some kind of magical quality as news of the talk and research spread throughout popular culture. Yes, two minutes worked in that study, but across the fifty or more studies on the effects of adopting expansive postures, subjects have held postures anywhere from thirty seconds to more than five minutes. And in yoga classes, people are moving through a series of poses for an hour or more. Two minutes isn't a rigid prescription. In fact, it seems that holding a single pose for more than a minute or two (outside of a yoga studio) becomes uncomfortable and awkward, making people too self-aware and perhaps diluting some of the effects of power posing. In some pilot studies we've done with children, holding a pose for more than twenty seconds becomes awkward. If you'd like to read more about some of the possible moderators, see Carney, D. R., Cuddy, A. J., & Yap, A. J. (2015). Review and summary of research on the embodied effects of expansive (vs. contractive) nonverbal displays. *Psychological Science*, 26(5), 657–663.

Chapter 9 How to Pose for Presence

1. Finkel, E. J., & Eastwick, P. W. (2009). Arbitrary social norms influence sex differences in romantic selectivity. *Psychological Science*, 20, 1290–1295.

2. For more great advice about effective body language during presentations, read Neffinger, J., & Kohut, M. (2014). *Compelling People*. New York: Plume.