References

Chapter I

- McBride, J. Some points in the management of the neurasthenic. *JAMA* 1902; 38:855–61.
- Wilson, EO. Biophilia and the conservation ethic. In *The Biophilia Hypothesis*. Edited by SR Kellert and EO Wilson pp 31-41. Washington, DC: Island Press, 1993.
- Thomas, FS. The stress of modern civilization as a factor in the causation of insanity. JAMA 1898;31:1403-4.
- Lohr, V. Benefits of nature: What we are learning about why people respond to nature. *J Physiol Anthropol* 2007; 26:83–85.
- New, J, et al. Category-specific attention for animals reflects ancestral priorities, not expertise. *Proc Natl Acad Sci USA* 2007; 104:16598–603.
- LoBue, V, and J DeLoache. Superior detection of threat-relevant stimuli in infancy. *Dev Sci* 2010; 13:221–28.
- Kaplan, R. The green experience. In *Humanscape: Environments for People.* Edited by S Kaplan and R Kaplan pp 186–93. Ann Arbor, MI: Ulrich's Books, 1982.
- Thoreau, HD. Winter: From the Journal of Henry David Thoreau. Edited by HGO Blake. Cambridge, MA: Houghton Mifflin, 1887.
- Muir, J. Our National Parks. Cambridge, MA: Houghton Mifflin, 1901.
- Olmsted, FL. A Consideration of the Justifying Value of a Public Park. Boston: Tolman and White Printers, 1881.
- Downing, D. The sanitorium treatment of mental and nervous diseases. *N Engl Med Gazette* 1907; 42:510–14.
- Ulrich, R. Visual landscapes and psychological well-being. *Landscape Res* 1979; 4:17–23.
- Younis, A, et al. Case study: Impact of a well-planned landscape in delivering quality of life to city dwellers. *Acta Hortic* 2008; 775:147–54.
- Ulrich, R, et al. Recovery from stress during exposure to everyday outdoor environments. Proceedings of the 17th annual conference of the Environmental Design Research Association. Apr 9–13, 1986, Atlanta, GA.
- Ulrich, R. Natural versus urban scenes—some psychophysiological differences. *Environ Behav* 1981; 13:523–56.
- Ulrich, R, et al. Stress recovery during exposure to natural and urban environments. *J Environ Psychol* 1991; 11:201–30.
- Chang, C, et al. Experiences and stress reduction of viewing natural environmental settings. *Acta Hortic* 2008; 775:139–46.
- Yamane, K, et al. Effects of interior horticultural activities with potted plants on human physiological and emotional status. *Acta Hortic* 2004; 639:37–43.

- Son, K, et al. Effects of visual recognition of green plants on the changes of EEG in patients with schizophrenia. *Acta Hortic* 2004; 639:193–99.
- Chang, C. Psychophysiological responses to different landscape settings and a comparison of cultural differences. *Acta Hortic* 2004; 639:57–65.
- Chang, CY, and JL Perng. Effects of landscape on psychological and physical responses. *J Ther Hort* 1998; 9:73–76.
- Chang, CY, et al. Psychophysiological responses and restrorative values of wilderness environments. USDA Forest Serv Proc 2007;RMRS-P-49:479–84.
- Chang, CY, et al. Psychophysiological responses and restorative values of natural environments in Taiwan. Landscape Plan Urab Plan 2008;85:79–84.
- Rodiek, S. Influence of an outdoor garden on mood and stress in older adults. *J Ther Hort* 2002; 13:13–21.
- Ulrich, R, et al. Effects of environmental simulations and television on blood donor stress. *J Arch Planning Res* 2003; 20:38–47.
- Laumann, K, et al. Selective attention and heart rate responses to natural and urban environments. *J Environ Psychol* 2003; 23:125–34.
- Orsega, E, et al. The interaction of stress and park use on psychophysiological health in older adults. *J Leisure Res* 2004; 36:232–56.
- Staats, H, et al. Where to recover from attentional fatigue: An expectancy-value analysis of environmental preference. *J Environ Psychol* 2003; 23:147–57.
- van den Berg, A, et al. Environmental preference and restoration: How are they related? *J Environ Psychol* 2003; 23:135–46.
- Isen, A, et al. The influence of positive affect on clinical problem solving. *Med Decis Making* 1991; 11:221–27.
- Cohn, M, et al. Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion* 2009; 9:361–68.
- Palomo, T, et al. Affective status in relation to impulsive, motor and motivational symptoms: Personality, development and physical exercise. *Neurotox Res* 2008; 14:151–68.
- Tarrant, M. Attending to past outdoor recreation experiences: Symptom reporting and changes in affect. *J Leisure Res* 1996; 28:1–17.
- Ulrich, R. View through a window may influence recovery from surgery. *Science* 1984; 224:420–21.
- Ulrich, R, et al. Effects of exposure to nature and abstract pictures on patients recovering from open heart surgery. *J Soc Psychophysiol Res* 1993; 30:*S*7.
- Kim, E, and R Mattson. Human stress recovery during exposure to geranium visual stimuli. *HortScience* 1998; 33:505.
- Park, S, et al. Ornamental indoor plants in hospital rooms enhanced health outcomes in patients recovering from surgery. J Altern Complement Med 2009; 15:975–80.
- Park, S, et al. Effects of flowering and foliage plants in hospital rooms on patients recovering from abdominal surgery. *HortTechnology* 2008; 18:563–68.

- Lohr, V, and C Pearson-Mims. Physical discomfort may be reduced in the presence of interior plants. *HortTechnology* 2000; 10:53–57.
- Park, S, et al. Pain tolerance effects of ornamental plants in a simulated hospital patient room. *Acta Hortic* 2004; 639:241–47.
- Vincent, E, et al. The effects of presence and influence in nature images in a simulated hospital patient room. *HERD* 2010 Spring; 3(3):56–69.
- Vincent, E, et al. The effects of nature images on pain in a simulated hospital patient room. *HERD* 2010 Spring; 3(3):42–55.
- Raanaas, R, et al. Health benefits of a view of nature through the window: A quasi-experimental study of patients in a residential rehabilitation center. *Clin Rehabil* 2012;26:21–32.
- Moore, E. A prison environment's effect on health care service demands. *J Environ Syst* 1981–82; 11:17–35.
- Dijkstra, K, et al. Stress-reducing effects of indoor plants in the built healthcare environment: The mediating role of perceived attractiveness. Prev Med 2008; 47:279–83.
- Bringslimark, T, et al. The association between indoor plants, stress, productivity and sick leave in office workers. *Acta Hortic* 2008; 775:117–22.
- Fjeld, T, et al. The effect of indoor foliage plants on health and discomfort symptoms among office workers. *Indoor Built Environ* 1998; 7:204–9.
- Fjeld, T, et al. The effect of plants and artificial daylight on the well-being and health of office workers, school children and health care personnel. Proceedings of *Plants for People* International Symposium *Floriade*. Haarlemmermeer, Netherlands, 2002.
- Burchett, M, et al. Greening the great indoors for human health and well-being. Feb 2010 Report NY06021 to Horticulture Australia, University of Technology, Sydney, Australia.
- Park, S, et al. Effects of interior plantscapes on indoor environments and stress level of high school students. *J Japan Soc Hort Sci* 2008; 77:447–54.
- Hough, FB. Public health interests concerned in the preservation of certain primeval forests and in the cultivation of groves and trees. *Public Health Pap Rep* 1876; 3:176–84.
- Williams, K, and D Harvey. Transcendent experience in forest environments. *J Environ Psychol* 2001; 21:249–60.
- Hull, R. Brief encounters with urban forests produce moods that matter. *J Arboricult* 1992; 18:322–24.
- Hull, R, and A Harvey. Explaining the emotion people experience in suburban parks. *Environ Behav* 1989; 21:323–45.
- Hansmann, R, et al. Restoration and stress relief through physical activities. *Urban Forest Urban Green* 2007; 6:213–25.
- Morita, E, et al. Psychological effects of forest environments on healthy adults: Shinrin-yoku (forest-air bathing, walking) as a possible method of stress reduction. *Public Health* 2007; 121:54–63.

- Ohtsuka, Y, et al. Shinrin-yoku (forest-air bathing and walking) effectively decreases blood glucose levels in diabetic patients. *Int J Biometeorol* 1998; 41:125–27.
- Tsunetsugu, Y, et al. Physiological effects of shinrin-yoku (taking in the atmosphere of the forest) in an old-growth broadleaf forest in Yamagata Prefecture, Japan. *J Physiol Anthropol* 2007; 26:135–42.
- Park, B, et al. The physiological effects of shinrin-yoku (taking in the forest atmosphere or forest bathing): Evidence from field experiments in 24 forests across Japan. *Environ Health Prev Med* 2010; 15:18–26.
- Lee, J, et al. Restorative effects of viewing real forest landscapes, based on a comparison with urban landscapes. *Scand J For Res* 2009; 24:227–34.
- Park, B, et al. Physiological effects of Shinrin-yoku (taking in the atmosphere of the forest)—using salivary cortisol and cerebral activity as indicators. *J Physiol Anthropol* 2007; 26:123–28.
- Morita, E, et al. A before and after comparison of the effects of forest walking on the sleep of a community-based sample of people with sleep complaints. Biopsychosoc Med 2011;5:13.
- Tsunetsugu, Y, et al. Physiological effects in humans induced by the visual stimulation of room interiors with different wood quantities. *J Wood Sci* 2007; 53:11–16.
- Park, B, et al. physiological effects of forest recreation in a young conifer forest in Hinokage Town, Japan. *Silva Fennica* 2009; 43:291–301.
- Morinaga, K, et al. Anticipatory anxiety-induced changes in human lateral prefrontal cortex activity. *Biol Psychol* 2007; 74:34–38.
- Nagamitsu, S, et al. Prefrontal cerebral blood volume patterns while playing video games—near-infrared spectroscopy study. *Brain Dev* 2006; 28:315–21.
- Herzog, T, and K Chernick. Tranquility and danger in urban and natural settings. *J Environ Psychol* 2000; 20:29–39.
- Sijtsma, F, et al. Does 'grey' urban living lead to more 'green' holiday nights? A Netherlands case study. Landscape Urban Plan 2012 Forthcoming
- Brena, J. Influence of forests on the public health. *Public Health Pap Rep* 1899; 25:56–67.
- Biederman, I, and E Vessel. Perceptual pleasure and the brain. Am Sci 2006; 94:247–53.
- Yue, X, et al. The neural basis of scene preferences. *Neuroreport* 2007; 18:525–29.
- Kim, GW, et al. Functional neuroanatomy associated with natural and urban scenic views in human brain: 3.0T functional MR imaging. *Korean J Radiol* 2010; 11:507–13.
- Mathur, V, et al. Neural basis of extraordinary empathy and altruistic motivation. *Neuroimage* 2010; 51:1468–75.
- Kim, TH, et al. Human brain activation in response to visual stimulation and rural urban scenery pictures: A functional magnetic resonance imaging study. *Sci Total Environ* 2010; 408:2600–7.
- Kim, GW, et al. Neuro-anatomical evaluation of human suitability for rural and urban environment by using fMRI. *Korean J Med Phys* 2011; 22:18–27.

- Lederbogen, F, et al. City living and urban upbringing affect neural social stress processing in humans. *Nature* 2011; 474; 498–501.
- Ortigue, S, et al. Neuroimaging of love: fMRI meta-analysis evidence toward new perspectives in sexual medicine. *J Sex Med* 2010; 7:3541–52.
- Keedwell, P, et al. Neural markers of symptomatic improvement during antidepressant therapy in severe depression. *J Psychopharmacol* 2009; 23:775–88.
- Brassen, S, et al. Anterior cingulated activation is related to a positivity bias and emotional stability in successful aging. *Biol Psychiatry* 2011;70:131–7.
- Urry, H, et al. Amygdala and ventromedial prefrontal cortex are inversely coupled during regulation of negative affect and predict the diurnal pattern of cortisol secretion among older adults. *J Neurosci* 2006; 26:4415–25.
- Ressler, K. Amygdala activity, fear, and anxiety: Modulation by stress. *Biol Psychiatry* 2010; 67:1117–19.
- St. Jacques, P, et al. Effects of aging on functional connectivity of the amygdala for subsequent memory of negative pictures: A network analysis of functional magnetic resonance imaging data. *Psychol Sci* 2009; 20:74–84.
- Vemuri, A, et al. A tale of two scales: Evaluating the relationship among life satisfaction, social capital, income, and the natural environment at the individual and neighborhood levels in metropolitan Baltimore. *Environ Behav* 2011; 43:3–25.
- Verheij, R, et al. Urban-rural health differences and the availability of green space. Eur Urban Reg Stud 2008; 15:307–16.
- Maas, J, et al. Morbidity is related to a green living environment. *J Epidemiol Community Health* 2009; 63:967–73.
- Maas, J, et al. Green space, urbanity, and health: How strong is the relation? *J Epidemiol Community Health* 2006; 60:587–92.
- Wells, N, and G Evans. Nearby nature: A buffer of life stress among rural children. *Environ Behav* 2003; 35:311–30.
- Kuo, F, and W Sullivan. Environment and crime in the inner city. Environ Behav 2001; 33:343–67.
- Donovan, G, and J Prestemon. The effects of trees on crime in Portland, Oregon. *Environ Behav* 2012;44:3–30.
- Sugiyama, T, et al. Associations of the neighbourhood greenness with physical and mental health: Do walking, social coherence and local social interaction explain the relationships? *J Epidemiol Community Health* 2008; 62:e9.
- Stigsdotter, U, et al. Health promoting outdoor environments—associations between green space, and health, health-related quality of life and stress based on a Danish national representative survey. *Scand J Public Health* 2010; 38:411–17.
- Li, Q, et al. Relationships between percentage of forest coverage and standardized mortality ratios (SMR) of cancers in all prefectures in Japan. *Open Public Health* J 2008; 1:1–7.

- Takano, T. Age-adjusted mortality and its association to variations in urban conditions in Shanghai. *Health Policy* 2002; 61:239–53.
- Hu, Z, et al. Linking stroke mortality with air pollution, income, and greenness in northwest Florida: An ecological geographical study. Int J Health Geogr 2008; 7:20.
- van den Berg, A, et al. Green space as a buffer between stressful life events and health. Soc Sci Med 2010; 70:1203–10.
- Hartig, T. Green space, psychological restoration, and health inequality. *Lancet* 2008; 372:1614–15.
- Mitchel, R, and F Popham. Effect of exposure to natural environment on health inequalities: An observational population study. *Lancet* 2008; 372:1655–60.
- Donovan, G, et al. Urban trees and the risk of poor birth outcomes. *Health Place* 2011;17:390–93.
- Thompson, C, et al. More green space is linked to less stress in deprived communities: evidence from salivary cortisol patterns. Landscape Urban Plan 2012 Forthcoming.

Leopold, A. A Sand County Almanac. New York: Oxford University Press, 1949.

Time. The cybernated generation. Time, Apr 2, 1965.

Seaborg, G. The cybernetic age. Saturday Review, Jul 15, 1967.

- Bohn, R, and J Short. *How much information? 2009 report on American consumers.* San Diego: Global Information Industry Center, University of California.
- Hemp, P. Death by information overload. *Harvard Business Review* 2009; Sep:83–89.
- Misra, S, and D Stokols. Psychological and health outcomes of perceived information overload. *Environ Behav* 2012 Forthcoming.
- Bromberg-Martin, E, et al. Midbrain dopamine neurons signal preference for advance information about upcoming rewards. *Neuron* 2009; 63:119–26.
- Black, D, et al. Clinical features, psychiatric comorbidity, and health-related quality of life in persons reporting compulsive computer use behavior. *J Clin Psychiatry* 1999 Dec; 60(12):839–44.
- Cohen, S. Environmental overload and the allocation of attention. In *Advances in Environmental Psychology.* Edited by A Baum et al., 1–29. Hillsdale, NJ: Lawrence Erlbaum, 1978.
- Evan, G, and S Cohen. Environmental stress. In *Encyclopedia Applied Psychology*. Vol. 1. Edited by Charles Spielberger, 815–22. Waltham, MA: Academic Press, 2004.
- Cohen, S, et al. Psychological stress and disease. JAMA 2007; 298:1685–57.
- Fredrickson, B, and M Losada. Positive affect and the complex dynamics of human flourishing. *Am Psychol* 2005; 60:678–86.
- Kessler, R, and P Wang. The descriptive epidemiology of commonly occurring mental disorders in the United States. *Annu Rev Public Health* 2008; 29:115–29.

- Twenge, J, et al. Birth cohort increases in psychopathology among young Americans, 1938–2007: A cross-temporal meta-analysis of the MMPI. *Clin Psychol Rev* 2010; 30:145–54.
- Naish, J. Drugs on tap. Ecologist 2009 May:21-25.
- Greenblatt, D, et al. Psychotropic drug prescribing in the United States. *J Clin Psychopharmacol* 2001; 31:1–3.
- United Nations Publications. *Psychotropic Substances 2007.* New York: United Nations Publications, 2008.
- Lee, R. The new pandemic: Superstress. Explore 2010; 6:7-10.
- Romans, S, et al. Rates of depression and anxiety in urban and rural Canada. *Soc Psychiatry Psychiatr Epidemiol* 2011;46:567–75.
- Colla, J, et al. Depression and modernization. Soc Psychiatry Psychiatr Epidemiol 2006; 41:271–79.
- Galea, S, et al. The urban environment and mental disorders. *Epigenetics* 2011; 6:400–4.
- Twenge, J, and J Foster. Birth cohort increases in narcissistic personality traits among American college students, 1982–2009. *Soc Psychol Personal Sci* 2010; 1:99–106.
- Twenge, J. Generational changes and their impact in the classroom. *Med Educ* 2009; 43:398–405.
- Flynn, J. Requiem for nutrition as the cause of IQ gains: Raven's gains in Britain 1938–2008. *Econ Hum Biol* 2009; 7:18–27.
- Teasdale, T, and D Owen. Secular declines in cognitive test scores: A reversal of the Flynn effect. *Intelligence* 2008; 36:121–26.
- Teasdale, T, and D Owen. A long-term rise and recent decline in intelligence test performance: The Flynn effect in reverse. *Pers Individ Dif* 2005; 39:837–43.
- Sage, A. Nintendo brain-trainer "no better than pencil and paper." *Times,* Jan 26, 2009.
- Slegers, K, et al. Effects of computer training and Internet usage on cognitive abilities in older adults: A randomized controlled study. *Aging Clin Exp Res* 2009 Feb; 21(1):43–54.
- Slegers, K, et al. Effects of computer training and Internet usage on the well-being and quality of life of older adults: A randomized, controlled study. *J Gerontol B Psychol Sci Soc Sci* 2008 May; 63(3):P176–84.
- Weis, R, and B Cerankosky. Effects of video-game ownership on young boys' academic and behavioral functioning. *Psychol Sci* 2010; 21:463–70.
- Cohen, S. Aftereffects of stress on human performance and social behavior: A review of research and theory. *Psychol Bull* 1980; 88:82–108.
- Sifferlin, A. Empathy: Is your cell phone making you a jerk? Time February 20, 2012
- Dyrbye, L, et al. Relationship between burnout and professional conduct and attitudes among US medical students. *JAMA* 2010; 304:1173–80.

- Anderson, C, et al. Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries. *Psychol Bull* 2010; 136:151–73.
- Bushman, B, and C Anderson. Comfortably numb: Desensitizing effects of violent media on helping others. *Psychol Sci* 2009; 20:273–77.
- Konrath, S, et al. Changes in dispositional empathy in American college students over time: A meta-analysis. *Pers Soc Psychol Rev* 2011; 15:180–98.
- Dewall, N, et al. Tuning in to psychological change: Linguistic markers of psychological traits and emotions over time in popular US song lyrics. *Psychol Aesthetics Creativity Arts* 2011;5:200–7.
- Fox, A, et al. Distractions, distraction: Does instant messaging affect college students' performance on a current reading comprehension task? *Cyberpsychol Behav* 2009; 12:51–53.
- De Rijk, A, et al. What is behind "I'm so tired"? Fatigue experiences and their relations to the quality and quantity of external stimulation. *J Psychosom Res* 1999; 47:509–23.
- Thomee, S, et al. Prevalence of perceived stress, symptoms of depression and sleep disturbances in relation to information and communication technology (ICT) use among young adults—an explorative prospective study. *Comput Hum Behav* 2007; 23:1300–21.
- Kahneman, D, and A Deaton. High income improves evaluation of life but not emotional well-being. *Proc Natl Acad Sci USA* 2010; 107:16489–93.
- Smith, T, et al. Effects of cell-phone and text-message distractions on true and false recognition. *Cyberpsychol Behav Soc Netw* 2011;14:351–8.
- De Wit, L, et al. Are sedentary television watching and computer use behaviors associated with anxiety and depressive disorders? *Psychiatry Res* 2011 Apr 30; 186(2-3):239-43.
- Hojat, M, et al. Physicians empathy and clinical outcomes in diabetic patients. Acad Med 2011; 86:1–6.
- Oswald, A, and S Wu. Objective confirmation of subjective measures of human well-being: Evidence from the USA. *Science* 2010; 327:576–79.
- Gabriel, S, et al. Compensating differentials and evolution in the quality-of-life among US states. *Reg Sci Urban Econ* 2003; 33:619–49.
- Goldman-Mellor, S, et al. Psychological distress and circulating inflammatory markers in healthy adults. *Psychol Med* 2010; 40:2079–87.
- Dragos, D, and M Tanasescu. The effect of stress on the defense systems. J Med Life 2010; 3:10–8.
- Berset, M, et al. Does stress at work make you gain weight? A two-year longitudinal study. Scand J Work Environ Health 2011; 37:45–53.
- Erlandsson, L. Stability in women's experiences of hassles and uplifts: A five-year follow-up survey. *Scand J Occup Ther* 2008; 15:95–104.
- American Psychological Association. Stress in America. 2010, www.stressinamerica.org.

- O'Connor, D, et al. Effects of daily hassles and eating style on eating behavior. Health Psychol 2008; 27 (Suppl 1):S20–31.
- Jacobs, N, et al. Genes making one feel blue in the flow of daily life: A momentary assessment study of gene-stress interaction. *Psychosom Med* 2006; 68:201–6.
- Pettit, J, et al. Developmental relations between depressive symptoms, minor hassles, and major events from adolescence through age 30 years. *J Abnormal Psychol* 2010; 119:811–24.
- Berna, C, et al. Induction of depressed mood disrupts emotion regulation neurocircuitry and enhances pain unpleasantness. *Biol Psychiatry* 2010; 67:1083–90.
- Puustinen, P, et al. Psychological distress predicts the development of the metabolic syndrome: A prospective population-based study. *Psychosom Med* 2010; 73:158–65.
- Jain, S, et al. Effects of perceived stress and uplifts on inflammation and coagulability. *Psychophysiology* 2007; 44:154–60.
- Steptoe, A, et al. Positive affect and psychobiological processes relevant to health. *J Pers* 2009; 77:1747–75.
- Huppert, F, et al. Evidence for the independence of positive and negative well-being: Implications for quality of life assessment. *Br J Health Psychol* 2003; 8:107–22.
- Sisson, S, et al. TVs in the bedrooms of children: Does it impact health and behavior? *Prev Med* 2011; 52:104–8.
- Buffardi, L, and W Campbell. Narcissism and social networking websites. *Pers Soc Psychol Bull* 2008; 34:1303–14.
- Mehdizadeh, S. Self-presentation 2.0: Narcissism and self-esteem on Facebook. *Cyberpsychol Behav Soc Netw* 2010; 13:357–64.
- Ryan, T, and S Xenos. Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage. *Comput Hum Behav* 2011;27:1658–64.
- O'Keefe, G, and K Clarke-Pearson. Clinical report—the impact of social media on children, adolescents, and families. *Pediatrics* 2011; 127:800–4.
- Angster, A, et al. An exploratory study of students' use of cell phones, texting, and social networking sites. *Psychol Rep* 2010; 107:402–4.
- Pollet, T, et al. Use of social network sites and instant messaging does not lead to increased offline social network size, or the emotionally closer relationships with offline network members. *Cyberpsychol Behav Soc Netw* 2011 Apr; 14(4):253–58.
- Campbell, W, et al. Psychological entitlement: Interpersonal consequences and validation of a self-report measure. *J Pers Assess* 2004; 83:29–45.
- Twenge, J, and J Foster. Birth cohort increases in narcissistic personality traits among American college students 1982–2009. *Soc Psychol Personal Sci* 2010; 1:99–106.
- Vandewater, E, et al. Time well spent? Relating television use to children's free-time activities. *Pediatrics* 2006; 117:e181–91.

- Thomee, S, et al. Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults—a prospective cohort study. *BMC Public Health* 2011; 11:66.
- Thomee, S, et al. Perceived connections between information and communication technology use and mental symptoms among young adults—a qualitative study. BMC Public Health 2010 Feb 12; 10:66.
- Huesmann, LR. Nailing the coffin shut on doubts that violent video games stimulate aggression. *Psychol Bull* 2010; 136:179–81.
- Riddick, C, et al. The effects of videogame play on the emotional states and affiliative behavior of nursing home residents. *Act Adapt Aging* 1986; 8:95–107.
- Janssen, I, et al. Screen time and physical violence in 10 to 16-year-old Canadian youth. *Int J Public Health* 2012 Forthcoming.
- Carson, V, et al. Screen time and risk behaviors in 10- to 16-year-old Canadian youth. *Prev Med* 2011; 52:99–103.
- Augner, C, and G Hacker. Associations between problematic mobile phone use and psychological parameters in young adults. *Int J Public Health* 2012 Forthcoming.
- Jacobsen, W, and R Forste. The wired generation: Academic and social outcomes of electronic media use among university students. *Cyberpsychol Behav Soc Netw* 2011 May; 14(5):275–80.
- Hammond, D, et al. Growing minds: The relationship between parental attitudes toward their child's outdoor recreation and their child's health. *HortTechnology* 2011; 21:217–24.
- Belanger, R, et al. A U-shaped association between intensity of Internet use and adolescent health. *Pediatrics* 2011;127:e330–35.
- Gentile, D, et al. Pathological video game use among youths: A two-year longitudinal study. *Pediatrics* 2011; 127:e319–29.
- Weaver, J, et al. Health-risk correlates of video-game playing among adults. *Am J Prev Med* 2009; 37:299–305.
- Bartholow, B, et al. Correlates and consequences of exposure to video game violence: Hostile personality, empathy, and aggressive behavior. *Pers Soc Psychol Bull* 2005 Nov; 31(II):1573–86.
- Ji, E, and MH Jang. Aggression and related behaviors in elementary school students. *J Korean Acad Nurs* 2010; 40:642–49.
- He, J, et al. Deficits in early-stage face perception in excessive Internet users. *Cyberpsychol Behav Soc Netw* 2011; 14:303–8.
- Engelberg, E, and L Sjoberg. Internet use, social skills, and adjustment. Cyberpsychol Behav 2004; 7:41–47.
- Chesley, N. Blurring boundaries? Linking technology use, spillover, individual distress, and family satisfaction. *J Marriage Fam* 2005; 67:1237–48.
- Ban, DJ, and TJ Lee. Sleep duration, subjective sleep disturbances and associated factors among university students in Korea. *J Kor Med Sci* 2001; 16:475–80.

- Katon, W, et al. Depressive symptoms in adolescence: The association with multiple health risk behaviors. *Gen Hosp Psychiatry* 2010; 32:233–39.
- Thomee, S, et al. Prevalence of perceived stress, symptoms of depression and sleep disturbances in relation to information and communication technology (ICT) use among young adults. *Comput Hum Behav* 2007; 23:1300–21.
- Punamaki, RL, et al. Use of information and communication technology (ICT) and perceived health in adolescence: The role of sleeping habits and waking-time tiredness. *J Adolesc* 2007; 30:569–85.
- Morrison, C, and H Gore. The relationship between excessive Internet use and depression: A questionnaire-based study of 1,319 young people and adults. *Psychopathology* 2010; 43(2):121–26.
- Nakazawa, T, et al. Association between duration of daily VDT use and subjective symptoms. *Am J Ind Med* 2002; 42:421–26.
- Primack, B, et al. Association between media use in adolescence and depression in young adulthood. *Arch Gen Psychiatry* 2009; 66:181–88.
- Van den Eijnden, R, et al. Online communication, compulsive Internet use, and psychological well-being among adolescents: A longitudinal study. *Dev Psychol* 2008; 44:655–65.
- Schiffrin, H, et al. The associations among computer-mediated communication, relationships, and well-being. *Cyberpsychol Behav Soc Netw* 2010 Jun; 13(3):299–306.
- Page, A, et al. Children's screen viewing is related to psychological difficulties irrespective of physical activity. *Pediatrics* 2010; 126:e1011–17.
- Funk, J, et al. Violence exposure in real-life, video games, television, movies, and the Internet: Is there desensitization? *J Adolesc* 2004; 27:23–39.
- Kareiva, P. Ominous trends in nature recreation. *Proc Natl Acad Sci U S A* 2008; 105:2757–58.
- Balmford, A, et al. Why conservationists should heed Pokémon. *Science* 2002; 295:2367.
- Kang, HT, et al. Association between screen time and metabolic syndrome in children and adolescents in Korea: The 2005 Korean National Health and Nutrition Examination Survey. *Diabetes Res Clin Pract* 2010; 89:72–78.
- Swing, E, et al. Television and video game exposure and the development of attention problems. *Pediatrics* 2010; 126:214–21.
- Stamatakis, E, et al. Screen-based entertainment time, all-cause mortality, and cardiovascular events: Population-based study with ongoing mortality and hospital events follow-up. *J Am Coll Cardiol* 2011 Jan 18; 57(3):292–99.
- Veerman, JL, et al. Television viewing time and reduced life expectancy: A life table analysis. *Br J Sports Med* 2012 Forthcoming.
- Kalish, M, et al. Outdoor play: A survey of parent's perceptions of their child's safety. J Trauma 2010; 69:S218–22.

- Pergams, O, and P Zaradic. Evidence for a fundamental and pervasive shift away from nature-based recreation. *Proc Natl Acad Sci U S A* 2008 Feb 19; 105(7):2295–300.
- Pergams, O, and P Zaradic. Is love of nature in the US becoming love of electronic media? 16-year downtrend in national park visits explained by watching movies, playing video games, Internet use, and oil prices. *J Environ Manage* 2006 Sep; 80(4):387–93.
- Minnesota Department of Natural Resources. *Generational shift in participation* 1996–2006. www.dnr.state.mn.us.
- Siikamaki, J. Contributions of the US state park system to nature recreation. *Proc Natl Acad Sci U S A* 2011; 108:14031–36.
- Williams, J, et al. The human-environment dialog in award-winning children's picture books. Sociol Inquiry 2012;82:145–59.
- Lin, CH, et al. The effect of parental monitoring and leisure boredom on adolescents Internet addiction. *Adolescence* 2009; 44:993–1004.
- Frey, B, et al. Does watching TV make us happy? J Econ Psychol 2007; 28:283-313.
- Weinstein, N, et al. Can nature make us more caring? Effects of immersion in nature on intrinsic aspirations and generosity. *Pers Soc Psychol Bull* 2009; 35:1315–29.

- Mitchell, WW. Mental stimulants. Massachusetts Teacher 1852; 5:257-61.
- Small, G, et al. Your brain on Google: Patterns of cerebral activation during Internet searching. *Am J Geriatr Psychiatry* 2009; 17:116–26.
- Du, W, et al. Functional magnetic resonance imaging of brain of college students with Internet addiction. *Zhong Nan Da Xue Bao Yi Xue Ban* 2011; 36:744–49.
- Wang, JYL, et al. Leisure activity and risk of cognitive impairment: The Chongqing Aging Study. *Neurology* 2006; 66:911–13.
- Basak, C, et al. Can training in a real-time strategy video game attenuate cognitive decline in older adults? *Psychol Aging* 2008; 23; 765–77.
- Jaeggi, S, et al. Training attentional processes. Trends Cogn Sci 2009; 13:191-92.
- James, W. The Principles of Psychology. New York: Henry Holt, 1890.
- James, W. Talks to teachers on psychology. Atlantic Monthly 1899; 83:510-17.
- Goldmark, J. Fatigue and Efficiency. New York: Russell Sage Foundation, 1912.
- Thorndike, E. *The Elements of Psychology.* Syracuse, NY: Mason Press, 1905.
- Witte, M. Psycho-physiological reasons for manual labor in the treatment of the insane. *Bull Iowa Inst* 1899; 1:115–16.
- Witte, M. Public enterprises in horticultural work. *Trans Iowa State Hort Soc* 1903; 37:497–99.
- Kaplan, S. Tranquility and challenge in the natural environment. USDA Forest Service Tech Rep NE-30 1977:181–85.

- Kaplan, S. The restorative benefits of nature: Toward an integrative framework. *J Environ Psychol* 1995; 15:169–82.
- Herzog, T, et al. Reflection and attentional recovery as distinctive benefits of restorative environments. *J Environ Psychol* 1997:17:165–70.
- Kaplan, S, and R Kaplan. Health, supportive environments, and the reasonable person model. *Am J Public Health* 2003; 93:1484–89.
- Hartig, T, et al. Restorative effects of natural environment experiences. *Environ Behav* 1991; 23:3–26.
- Hartig, T, and H Staats. The need for psychological restoration as a determinant of environmental preferences. *J Environ Psychol* 2006; 26:215–26.
- Herzog, T, et al. Assessing the restorative components of environments. *J Environ Psychol* 2003; 23:159–70.
- Ottossan, J, and P Grahn. A comparison of leisure time spent in a garden with leisure time spent indoors: On measures of restoration in residents of geriatric care. *Landscape Res* 2005; 30:23–55.
- Hung, CC, and CY Chang. A study of the restorative effects of urban and natural recreational settings. *Acta Hortic* 2004; 639:235–39.
- Felsten, G. Where to take a study break on the college campus: An attention restoration theory perspective. *J Environ Psychol* 2009; 29:160–69.
- Tennessen, C, and B Cimprich. Views to nature: Effects on attention. *J Environ Psychol* 1995; 15:77–85.
- Hartig, T, et al. Tracking restoration in natural and urban field settings. *J Environ Psychol* 2003; 23:109–23.
- Berto, R. Assessing the restorative value of the environment: A study on the elderly in comparison with young adults and adolescents. *Int J Psychol* 2007; 42:331–41.
- Berto, R. Do eye movements measured across high and low fascination photographs differ? Addressing Kaplan's fascination hypothesis. *J Environ Psychol* 2008; 28:185–91.
- Berto, R. Exposure to restorative environments helps restore attentional capacity. *J Environ Psychol* 2005; 25:249–59.
- Kaplan, S, and M Berman. Directed attention as a common resource for executive functioning and self-regulation. *Perspect Psychol Sci* 2010; 5:43–57.
- Roe, J, and P Aspinall. The restorative benefits of walking in urban and rural settings in adults with good and poor mental health. *Health Place* (in press).
- Berto, R, et al. An exploratory study of the effect of high and low fascination environments on attention fatigue. *J Environ Psychol* 2010; 30:494–500.
- Berman, M, et al. The cognitive benefits of interacting with nature. *Psychol Sci* 2008; 19:1207–12.
- Shin, WS, et al. The influence of interaction with forest on cognitive function. *Scand J For Res* 2011;26:595–98.

- Boksem, M, and M Tops. Mental fatigue: Costs and benefits. *Brain Res Rev* 2008; 59:125–39.
- van der Linden, D, and P Eling. Mental fatigue disturbs local processing more than global processing. *Psychol Res* 2006; 70:395–402.
- Boksem, M, et al. Effects of mental fatigue on attention: An ERP study. *Brain Res Cogn Brain Res* 2005; 25:107–16.
- Marcora, S, et al. Mental fatigue impairs physical performance in humans. *J Appl Physiol* 2009; 106:857–64.
- Gualtieri, C, and D Morgan. The frequency of cognitive impairment in patients with anxiety, depression, and bipolar disorder: An unaccounted source of variance in clinical trials. *J Clin Psychiatry* 2008; 69:1122–30.
- Smit, A, et al. Mental effort causes vigilance decrease due to resource depletion. *Acta Psychol* 2004; 115:35–42.
- Newcomer, J, et al. Decreased memory performance in healthy adults induced by stress-level cortisol treatment. *Arch Gen Psychiatry* 1999; 56:527–33.
- Reichenberg, A, et al. Cytokine-associated emotional and cognitive disturbances in humans. *Arch Gen Psychiatry* 2001; 58:445–52.
- Boot, W, et al. The effects of video game playing on attention, memory, and executive control. *Acta Psychol* 2008; 129:387–98.
- Kiernan, M, et al. 24 hours on-call and acute fatigue no longer worsen resident mood under the 80-hour work-week regulations. *Curr Surg* 2006; 63:237–41.
- Bryan, T, et al. The impact of positive mood on learning. *Learn Disabil Quart* 1996; 19:153–62.
- Lyubomirsky, S, et al. The benefits of frequent positive affect: Does happiness lead to success? *Psychol Bull* 2005; 131:803–55.
- Isen, A, et al. Positive affect facilitates creative problem solving. *J Pers Soc Psychol* 1987; 52:1122–31.
- Isen, A, et al. The influence of positive affect on clinical problem solving. *Med Decis Making* 1991; 11:221–27.
- Marin, MF, et al. Chronic stress, cognitive functioning and mental health. *Neurobiol Learn Mem* 2011 Nov;96:583–95.
- Wells, N. At home with nature: Effects of "greenness" on children's cognitive functioning. *Environ Behav* 2000; 32:775–95.
- Tanner, C. Effects of school design on student outcomes. *J Educational Admin* 2009; 47:381–99.
- Kuo, F, and A Taylor. A potential natural treatment for attention-deficit/hyperactivity disorder: Evidence from a national study. *Am J Public Health* 2004; 94:1580–86.
- Taylor, A, et al. Coping with ADHD: The surprising connection to green play settings. *Environ Behav* 2001; 33:54–77.
- Taylor, A, et al. Views of nature and self-discipline: Evidence from inner city children. *J Environ Psychol* 2002; 22:49–63.

- Matsuoka, R. Student performance and high school landscapes: Examining the links. *Landsc Urban Plan* 2010; 97:273–82.
- Martensson, F, et al. Outdoor environmental assessment of attention promoting settings for preschool children. *Health Place* 2009; 15:1149–57.
- Kuo, F. Coping with poverty: Impacts of environment and attention in the inner city. *Environ Behav* 2001; 33:5–34.
- Taylor, A, and F Kuo. Children with attention deficits concentrate better after walk in the park. *J Atten Disord* 2009; 12:402–9.
- van den Berg, A, and C van den Berg. A comparison of children with ADHD in a natural and built setting. *Child Care Health Dev* 2011; 37:430–9.
- Churchill, S, and D Jessop. Too impulsive for implementation intentions? Evidence that impulsivity moderates the effectiveness of an implementation intention intervention. *Psychol Health* 2011; 26:517–30.
- Cacioppo, J, and L Hawkley. Perceived social isolation and cognition. *Trends Cogn Sci* 2009; 13:447–54.
- Dalley, J, et al. Impulsivity, compulsivity, and top-down cognitive control. *Neuron* 2011; 69:680–94.
- Brown, S, et al. Neural basis of individual differences in impulsivity: Contributions of corticolimbic circuits for behavioral arousal and impulsivity. *Emotion* 2006; 6:239–45.
- Anderson, C, and C Platten. Sleep deprivation lowers inhibition and enhances impulsivity to negative stimuli. *Behav Brain Res* 2011; 217:463–66.
- Sansone, R, and L Sansone. Road Rage: What's driving it? *Psychiatry* 2010; 7(7):14–8.
- Honeyman, M. Vegetation and stress: A comparison study of varying amounts of vegetation in countryside and urban scenes. In *The Role of Horticulture in Human Well-Being and Social Development*. Edited by D Relf pp 143–45. Portland: Timber Press, 1992.
- Parsons, R, et al. The view from the road: Implications for stress recovery and immunization. *J Environ Psychol* 1998; 18:113–39.
- Yang, F, et al. An assessment of psychological noise reduction by landscape plants. *Int J Environ Res Public Health* 2011; 8:1032–48.
- Cackowski, J, and J Nasar. The restorative effects of roadside vegetation: Implications for automobile driver anger and frustration. *Environ Behav* 2003; 35:736–51.
- Kondo, M, and T Toriyama. Experimental research on the effectiveness of using green in reducing of visual fatigue caused by VDT operation. *J Jpn Inst Landscape Archit* 1989; 52:139–44.
- Asaumi, H, et al. Effect of ornamental foliage plants on visual fatigue caused by visual display terminal operation. J Japanese Soc High Technol Agric 1995; 7:138–43.
- Randall, K, et al. Effects of plantscapes in an office environment on worker satisfaction. In *The Role of Horticulture in Human Well-Being and Social Development*. Edited by D Relf pp 106–109. Portland: Timber Press, 1992.

- Lohr, V, et al. Interior plants may improve worker productivity and reduce stress in a windowless environment. *J Environ Hortic* 1996; 14:97–100.
- Shibata, S, and N Suzuki. Effects of an indoor plant on creative task performance and mood. *Scand J Psychol* 2004; 45:373–81.
- Larsen, L, et al. Plants in the workplace: The effects of plant density on productivity, attitudes, and perceptions. *Environ Behav* 1998; 30:261–81.
- Raanaas, R, et al. Benefits of indoor plants on attention capacity in an office setting. *J Environ Psychol* 2011; 31:99–105.
- Klasky, B, and P Wasley. Outdoors—the new place to learn. *Seattle Post-Intelligencer*, Apr 25, 2007.
- Basile, C, et al. Environmental education as a catalyst for transfer of learning in young children. *J Environ Educ* 2000; 32:21–27.
- Doxey, J, et al. The impact of interior plants in university classrooms on student course performance and on student perceptions of the course and instructor. *HortSci* 2009; 44:384–91.
- Han, KT. Influence of limitedly visible leafy indoor plants on the psychology, behavior, and health of students at a junior high school in Taiwan. *Environ Behav* 2009; 41:658–92.
- Daly, J, et al. Plants in the classroom can improve student performance. Australasian Interior Plantscape Conference, Oct 2010, Queensland, Australia.
- Ansari, T, and N Derakshan. The neural correlates of impaired inhibitory control in anxiety. *Neuropsychologia* 2011; 49:1146–53.
- Santucci, D, et al. Prolonged prenatal exposure to low-level ozone affects aggressive behaviour as well as NGF and BDNF levels in the central nervous system of CD-1 mice. *Behav Brain Res* 2006; 166:124–30.
- Schmidt, H, and R Duman. Peripheral BDNF produces antidepressant-like effects in cellular and behavioral models. *Neuropsychopharmacology* 2010; 35:2378–91.
- Li, G, et al. Cerebrospinal fluid concentration of brain-derived neurotrophic factor and cognitive function in non-demented subjects. *PLoS ONE* 2009; 4:e5424.
- Li, Q, et al. Acute effects of walking in forest environments on cardiovascular and metabolic parameters. *Eur J Appl Physiol* 2011; 111:2845–53.
- Yamada, S, et al. Effects of dehydroepiandrosterone supplementation on cognitive function and activities of daily living in older women with mild to moderate cognitive impairment. *Geriatr Gerontol Int* 2010; 10:280–87.
- Sorwell, K, and H Urbanski. Dehydroepiandrosterone and age-related cognitive decline. *Age* 2010; 32:61–67.
- Sanchez-Rodriguez, M, et al. Relationship between oxidative stress and cognitive impairment in the elderly of rural vs. urban communities. *Life Sci* 2006; 78:1682–87.

- El-Gammal, S. Aromatherapy throughout history. Handard Med 1990; 33:41-61.
- Tonelli, L, and T Postolache. Airborne inflammatory factors: From the nose to the brain. *Front Biosci* 2010; 2:135–52.
- Henkin, R. Intranasal insulin: From nose to brain. Nutrition 2010; 26:624-33.
- Lee, YK, et al. A systematic review on the anxiolytic effects of aromatherapy in people with anxiety symptoms. *J Altern Complement Med* 2011; 17:101–8.
- Yim, VWC, et al. A review on the effects of aromatherapy for patients with depressive symptoms. *J Altern Complement Med* 2009; 15:187–95.
- Koo, BS, et al. Inhibitory effects of the fragrance inhalation of the essential oil from Acorus gramineus on central nervous system. Biol Pharm Bull 2003; 26:978–82.
- Koo, BS, et al. Inhibitory effects of the essential oil from SuHeXiang Wan on the central nervous system after inhalation. *Biol Pharm Bull* 2004; 27:515–19.
- Atsumi, T, and K Tonosaki. Smelling lavender and rosemary increases free radical scavenging activity and decreases cortisol level in saliva. *Psychiatry Res* 2007; 150:89–96.
- Komiya, M, et al. Lemon oil vapor causes an anti-stress effect via modulating the 5-HT and DA activities in mice. *Behav Brain Res* 2006; 172:240–49.
- Kikuchi, A, et al. Effect of odors on cardiac response patters in a reaction time task. *Chem Senses* 1991; 16:183.
- Grabenhorst, F, et al. A hedonically complex odor mixture produces an attentional capture effect in the brain. *Neuroimage* 2011; 55:832–43.
- Knasko, S. Ambient odor's effect on creativity, mood, and perceived health. *Chem Senses* 1992; 17:27–35.
- Li, Q, et al. Phytoncides (wood essential oils) induce human natural killer cell activity. *Immunopharmacol Immunotoxicol* 2006; 28:319–33.
- Li, Q, et al. Visiting a forest, but not a city, increases human natural killer cell activity and expression of anti-cancer proteins. *Int J Immunopathol Pharmacol* 2008; 21:117–27.
- Li, Q, et al. A forest bathing trip increases human natural killer activity and expression of anti-cancer proteins in female subjects. J Biol Regul Homeost Agents 2008; 22:45–55.
- Li, Q, et al. A day trip to a forest park increases human natural killer activity and the expression of anti-cancer proteins in male subjects. J Biol Regul Homeost Agents 2010; 24:157–65.
- Cheng, WW, et al. Neuropharmacological activities of phytoncide released from Crytomeria japonica. *J Wood Sci* 2009; 55:27–31.
- Nomura, M. Phytoncide—its properties and applications in practical use. In *Gas Biology Research in Clinical Practice*. Edited by Toshikazu Yoshikawa and Yuji Naito, 133–43. Basel: Karger, 2011.

- Li, Q, et al. Effect of phytoncide from trees on human natural killer cell function. *Int J Immunopathol Pharmacol* 2009; 22:951–59.
- Li, Q, and T Kawada. Effect of forest environments on human natural killer (NK) activity. *Int J Immunopathol Pharmacol* 2011; 24(1 Suppl):39S-44S.
- Lee, J, et al. Effect of forest bathing on physiological and psychological responses in young Japanese male subjects. *Public Health* 2011; 125:93–100.
- Linck, V, et al. Effects of inhaled linalool in anxiety, social interaction and aggressive behavior in mice. *Phytomedicine* 2010; 17:679–83.
- Nakamura, A, et al. Stress repression in restrained rats by (R)-(-)-linalool inhalation and gene expression profiling of their whole blood cells. J Agric Food Chem 2009; 57:5480–85.
- Stringer, J, and G Donald. Aromasticks in cancer care: An innovation not to be sniffed at. *Complement Ther Clin Pract* 2011; 17:116–21.
- Moussaieff, A, and R Mechoulam. Boswellia resin: From religious ceremonies to medical uses; a review of in-vitro, in-vivo and clinical trials. *J Pharm Pharmacol* 2009; 61:1281–93.
- Barker, S, et al. Improved performance on clerical tasks associated with administration of peppermint odor. *Percept Motor Skills* 2003; 97:1007–10.
- Raudenbush, B, et al. Enhancing athletic performance through the administration of peppermint odor. *J Sport Exerc Psychol* 2001; 23:156–60.
- Raudenbush, B. The effects of peppermint on enhancing mental performance and cognitive functioning, pain threshold and tolerance, digestion and digestive processes, and athletic performance. White Paper. New York: Sense of Smell Institute, 2004.
- Berr, C, et al. Occupational exposure to solvents and cognitive performance in the GAZEL Cohort: Preliminary results. *Dement Geriatr Cogn Disord* 2010; 30:12–19.
- Chebat, JC, and R Michon. Impact of ambient odors on mall shoppers' emotions, cognition, and spending. *J Bus Res* 2003; 56:529–39.
- Rotton, J. Affective and cognitive consequences of malodorous pollution. *Basic Appl Soc Psych* 1983; 4:171–91.
- Anderson, A. Environmental factors and aggressive behavior. *J Clin Psychiatry* 1982; 43:280–83.
- Lundberg, A. Psychiatric aspects of air pollution. *Otolaryngol Head Neck Surg* 1996; 114:227–31.
- Edwards, S, et al. Prenatal exposure to airborne polycyclic aromatic hydrocarbons and children's intelligence at 5 years of age in a prospective cohort study in Poland. *Environ Health Perspect* 2010; 118:1326–31.
- Morales, E, et al. Association of early-life exposure to household gas appliances and indoor nitrogen dioxide with cognition and attention behavior in preschoolers. *Am J Epidemiol* 2009; 169:1327–36.

- Sun, Q, et al. Ambient air pollution exaggerates adipose inflammation and insulin resistance in a mouse model of diet-induced obesity. *Circulation* 2009; 119:538–46.
- Bako-Biro, Z, et al. Effects of pollution from personal computers on perceived air quality, SBS symptoms and productivity in offices. *Indoor Air* 2004; 14:178–87.
- Wargocki, P, et al. Perceived air quality, sick building syndrome (SBS) symptoms and productivity in an office with two different pollution loads. *Indoor Air* 1999; 9:165–79.
- Larsson, M, et al. Associations between indoor environmental factors and parental-reported autistic spectrum disorders in children 6–8 years of age. *Neurotoxicology* 2009; 30:822–31.
- Bell, I, et al. Illness from low levels of environmental chemicals: Relevance to chronic fatigue syndrome and fibromyalgia. *Am J Med* 1998; 105:74S–82S.
- Bruinen de Bruin, Y, et al. Characterization of urban inhalation exposures to benzene, formaldehyde and acetaldehyde in the European Union: Comparison of measured and modelled exposure data. *Environ Sci Pollut Res Int* 2008; 15:417–30.
- Sun, F, et al. Concentrations of heavy metals and polycyclic aromatic hydrocarbons in needles of Masson pine (Pinus massoniana L.) growing nearby different industrial sources. *J Environ Sci* 2010; 22:1006–13.
- Nowak, D, et al. Air pollution removal by urban trees and shrubs in the United States. *Urban Forest Urban Green* 2006; 4:115–23.
- Waggoner, P. Plants and polluted air. Bioscience 1971; 21:455-59.
- Tarran, J, et al. Use of living pot-plants to cleanse indoor air. Proceedings of the Sixth International Conference on Indoor Air, Oct 28–31, 2007, Sendai, Japan.
- Lim, YW, et al. Improvement of indoor air quality by houseplants in new-built apartment buildings. *J Japan Soc Hort Sci* 2009; 78:456–62.
- Tani, A, et al. Uptake of aldehydes and ketones at typical indoor concentrations by houseplants. *Environ Sci Technol* 2009; 43:8338–43.
- Song, JE, et al. The impact of plants on the reduction of volatile organic compounds in a small space. *J Physiol Anthropol* 2007; 26:599–603.
- Dassonville, C, et al. Assessment and predictor determination of indoor aldehyde levels in Paris newborn babies' homes. *Indoor Air* 2009; 19:314–23.
- Jo, WK, and JD Kim. Personal exposure of graduate students attending the College of Natural Sciences or Social Sciences to volatile organic compounds on campus. *Chemosphere* 2010; 81:1272–79.
- Farrow, A, et al. Symptoms of mothers and infants related to total volatile organic compounds in household products. *Arch Environ Health* 2003; 58:633–41.
- Jinno, H, et al. Impact of air fresheners and deodorizers on the indoor total volatile organic compounds. *Kokuritsu Iyakuhin Shokuhin Eisei Kenkyusho Hokoku* 2007; (125):72–78.
- Rosati, M, et al. Plasma cortisol concentrations and lifestyle in a population of outdoor workers. *Int J Environ Health Res* 2011; 21:62–71.

- Tan, D, et al. Significance and application of melatonin in the regulation of brown adipose tissue metabolism: Relation to human obesity. *Obes Res* 2011; 12:167–88.
- Lambert, G, et al. Effect of sunlight and season on serotonin turnover in the brain. *Lancet* 2002; 360:1840–42.
- Wetterberg, L. Melatonin and affective disorders. Ciba Found Symp 1985; 117:253-65.
- Kloog, I, et al. Does the modern urbanized sleeping habit pose a breast cancer risk? Chronobiol Int 2011; 28:76–80.
- Longcore, T. Sensory ecology. Curr Biol 2010; 20:R893-95.
- Shuboni, D, and L Yan. Nighttime dim light exposure alters the responses of the circadian rhythm. *Neuroscience* 2010; 170:1172–78.
- Harada, T. Effects of evening light conditions on salivary melatonin of Japanese junior high school students. *J Circadian Rhythms* 2004; 2:4.
- Partonen, T, and J Lonnqvist. Bright light improves vitality and alleviates distress in healthy people. *J Affect Disord* 2000; 57:55–61.
- Cormac, HD. Light therapy in mental hospitals. Proc Roy Soc Med 1929; 22:455-68.
- Bateman, N. How school-houses should be constructed. *J Education Ont* 1869; 22:97–98.
- Iyilikci, O, et al. Blue but not red light stimulation in the dark has antidepressant effect in behavioral despair. *Behav Brain Res* 2009; 203:65–68.
- Lieverse, R, et al. Bright light treatment in elderly patients with non-seasonal major depressive disorder. *Arch Gen Psychiatry* 2011; 68:61–70.
- Oren, D, et al. Treatment of seasonal affective disorder with green light and red light. *Am J Psychiatry* 1991; 148:509–11.
- Strong, R, et al. Narrow-band blue-light treatment of seasonal affective disorder in adults and the influence of additional nonseasonal symptoms. *Depress Anxiety* 2009; 26:273–78.
- Blue light may prevent suicide—unusual illumination already thought useful in anticrime efforts. *Yomiuri Shimbun*, Dec 11, 2008.
- Phipps-Nelson, J, et al. Blue light exposure reduces objective measures of sleepiness during prolonged nighttime performance testing. *Chronobiol Int* 2009; 26:891–912.
- Vandewalle, G, et al. Brain responses to violet, blue, and green monochromatic light exposures in humans: Prominent role of blue light and the brainstem. *PLoS ONE* 2007; 2:E1247.
- Yoto, A, et al. Effects of object color stimuli on human brain activities in perception and attention referred to EEG alpha band response. *J Physiol Anthropol* 2007; 26:373–79.
- Vandewalle, G, et al. Daytime light exposure dynamically enhances brain responses. Curr Biol 2006; 16:1616–21.
- Vandewalle, G, et al. Spectral quality of light modulates emotional brain responses in humans. *Proc Natl Acad Sci U S A* 2010; 107:19549–54.

- Cleaves, M. Light Energy: Its Physics, Physiological Action and Therapeutic Applications. New York: Rebman, 1904.
- Youngstedt, S, and D Kripke. Does bright light have an anxiolytic effect? An open trial. *BMC Psychiatry* 2007; 7:62.
- Viola, A, et al. Blue-enriched white light in the workplace improves self-reported lateness, performance and sleep quality. Scand J Work Environ Health 2008; 34:297–306.
- Dumont, M, and C Beaulieu. Light exposure in the natural environment: Relevance to mood and sleep disorders. *Sleep Med* 2007; 8:557–65.
- Hahn, I, et al. Does outdoor work during the winter season protect against depression and mood difficulties? *Scand J Work Environ Health* 2011;37:446–9.
- Vandewalle, G, et al. Light as a modulator of cognitive brain function. *Trends Cogn Sci* 2009; 13:429–38.
- Riemersma-van der Lek, R, et al. Effect of bright light and melatonin on cognitive and noncognitive function in elderly residents of group care facilities. *JAMA* 2008; 299:2642–55.
- Phipps-Nelson, J, et al. Blue light exposure reduces objective measures of sleepiness during prolonged nighttime performance testing. *Chronobiol Int* 2009; 26:891–912.
- Kohsaka, M, et al. Effects of moderately bright light on subjective evaluations in healthy elderly women. *Psychiatry Clin Neurosci* 1999; 53:239–41.
- Daansen, P, and J Haffmans. Reducing symptoms in women with chronic anorexia nervosa: A pilot study on the effects of bright light therapy. *Neuro Endocrinol Lett* 2010; 31:290–96.
- Thorne, H. Daily and seasonal variation in the spectral composition of light exposure in humans. *Chronobiol Int* 2009; 26:854–66.
- Yang, A, et al. Do seasons have an influence on the incidence of depression? The use of an Internet search engine query data as a proxy of human affect. *PLoS ONE* 2010; 5:e13728.
- Anderswon, J, et al. Lux vs. wavelength in light treatment of seasonal affective disorder. Acta Psychiatr Scand 2009; 120:203–12.
- Holzman, D. What's in a color? The unique human health effect of blue light. *Environ Health Perspect* 2010; 118:A22–27.
- Carruthers, H, et al. The Manchester Color Wheel: Development of a novel way of identifying color choice and its validation in healthy, anxious and depressed individuals. *BMC Med Res Methodol* 2010; 10:12.
- Bubl, E, et al. Seeing gray when feeling blue? Depression can be measured in the eye of the diseased. *Biol Psychiatry* 2010; 68:205–8.
- Ghanizadeh, A. The predictors of parent reported behaviors related to olfactory information processing in children with ADHD. *Psychiatry Investig* 2010; 7:116–21.

- Hanson, G, and L Thorne. A partial pollution solution: Plant trees! *Lasca Leaves* 1970; 20:35–36.
- Stewart, S, and D Wilken. A report on the effect of shade trees on smog. *Lasca Leaves* 1966; 16:84–85.
- Walch, J, et al. The effect of sunlight on postoperative analgesic medication use: A prospective study of patients undergoing spinal surgery. *Psychosom Med* 2005; 67:156–63.
- Wilson, L. Intensive care delirium. Arch Intern Med 1972; 130:225–56.
- Parker, D, and J Hodge. Delirium in a coronary care unit. JAMA 1967; 201:132-33.
- Keep, P, et al. Windows in the intensive therapy unit. Anaesthesia 1980; 35:257-62.
- Beauchemin, K, and P Hays. Dying in the dark: Sunshine, gender and outcomes in myocardial infarction. *J R Soc Med* 1998; 91:352–54.
- Benedetti, F, et al. Morning sunlight reduces length of hospitalization in bipolar depression. *J Affect Disord* 2001; 62:221–23.
- Beauchemin, K, and P Hays. Sunny hospital rooms expedite recovery from severe and refractory depressions. *J Affect Disord* 1996; 40:49–51.
- Nightingale, F. Notes on Nursing. London: Harrison Books, 1861.
- Editorial. A new form of torture for Siberian prisoners. Medical Age 1903; 21:858.
- Fulton, J, ed. Colored light in the treatment of disease. Canada Lancet 1877; 9:249-50.
- Jollant, F, et al. Impaired decision making in suicide attempters. *Am J Psychiatry* 2005; 162:304–10.
- Vanderwalle, G, et al. Wavelength-dependent modulation of brain responses to a working memory task by daytime light exposure. *Cereb Cortex* 2007; 17:2788–95.
- Bedrosian, T, et al. Dim light at night provokes depression-like behaviors and reduces CA1 dendritic spine density in female hamsters. *Psychoneuroendocrinology* 2011;36:1062–9.
- Aries, M, et al. Windows, view, and office characteristics predict physical and psychological discomfort. *J Environ Psychol* 2010; 30:533–41.
- Hollon, S, et al. Psychological responses to earth sheltered, multilevel, and aboveground structures with and without windows. *Underground Space* 1980; 5:171–78.
- Leather, P, et al. Windows in the workplace: Sunlight, view, and occupational stress. *Environ Behav* 1998; 30:739–62.
- Wotten, B, and B Barlow. An investigation of the effects of windows and lighting in offices. Proceedings of the International Daylighting Conference 1983, Feb 16–18, Phoenix, 405–11.
- Edwards, L, and P Torcellini. A literature review of the effects of natural light on building occupants. US Dept Energy Laboratory 2002 NREL/TP-550-30769.
- Heschong, L. Daylighting and human performance. ASHRAE J 2002; Jun: 65–67.
- Kuller, R, and C Lindsten. Health and behavior of children in classrooms with and without windows. *J Environ Psychol* 1992; 12:305–17.

- Han, MD, et al. Assessment of the charged aerosol value in copy centers. *Ind Health* 2011; 49:107–15.
- Krueger, A, and E Reed. Biological impact of small air ions. *Science* 1976; 193:1209–13.
- Lv, J, et al. Effects of several environmental factors on longevity and health of the human population of Zhongxiang, Hubei, China. *Biol Trace Elem Res* 2011;143:702–16.
- Hao, G, et al. Evaluation of ecosystem services of Chinese pine forests in China. *Sci China Ser C-Life Sci* 2008; 51:662–70.
- Giannini, A, et al. Reversibility of serotonin irritation syndrome with atmospheric ions. *J Clin Psychiatry* 1986; 47:141–43.
- Giannini, A, et al. Treatment of acute mania with ambient air anionization: Variants of climactic heat stress and serotonin syndrome. *Psychol Rep* 2007; 100:157–63.
- Frey, A. Human behavior and atmospheric ions. *Psychol Rev* 1961; 68:225–28.
- Livanova, L, et al. The protective effects of negative air ions in acute stress in rats with different typological behavioral characteristics. *Neurosci Behav Physiol* 1999; 29:393–95.
- Goldstein, N, and T Arshavskaya. Is atmospheric superoxide vitally necessary? Accelerated death of animals in a quasi-neutral electric atmosphere. *Z Natuforsch C* 1997; 52:396–404.
- Suzuki, S, et al. Effects of negative air ions on activity of neural substrates involved in autonomic regulation in rats. *Int J Biometeorol* 2008; 52:481–89.
- Mu, D, and YH Liang. Air negative ion concentration and its relationship with meteorological factors in greenbelts of Jiamusi, Heilongjiang Province. *Ying Yong Sheng Tai Xue Bao* 2009; 20:2038–41.
- de Graaf, R, et al. Seasonal variation in mental disorders in the general population of a country with a maritime climate: Findings from the Netherlands Mental Health Survey and Incidence Study. *Am J Epidemiol* 2005; 162:654–61.
- Rybak, Y, et al. Seasonality and circadian preference in adult attention-deficit/hyperactivity disorder: Clinical and neuropsychological correlates. *Compr Psychiatry* 2007; 48:562–71.
- Bulbena, A, et al. Panic anxiety, under the weather? *Int J Biometeorol* 2005; 49:238–43.
- Bulbena, A, et al. Panic attacks: Weather and season sensitivity. Psychiatry Clin Neurosci 2007; 61:129.
- Buckalwe, L, and A Rizzuto. Subjective response to negative air ion exposure. *Aviat Space Environ Med* 1982; 53:822–23.
- Sovijarvi, A, et al. Effect of air ionization on heart rate and perceived exertion during a bicycle exercise test: A double-blind cross-over study. *Eur J Appl Physiol* 1979; 41:285–91.
- Gilbert, G. Effect of negative air ions upon emotionality and brain serotonin levels in isolated rats. *Int J Biometeorol* 1973; 17:267–75.

- Morton, L, and J Kershner. Negative air ionization improves memory and attention in learning-disabled and mentally retarded children. J Abnorm Child Psychol 1984; 12:353–66.
- Brown, G, and R Kirk. Geophysical variables and behavior: Effects of ionized air on the performance of a vigilance task. *Percept Motor Skills* 1987; 64:951–62.
- Baron, R. Effects of negative ions on cognitive performance. *J Appl Psychol* 1987; 72:131–37.
- Baron, R, et al. Negative ions and behavior: Impact on mood, memory, and aggression among type A and type B persons. *J Pers Soc Psychol* 1985; 48:746–54.
- Nakane, H, et al. Effect of negative air ions on computer operation, anxiety and salivary chromogranin A-like immunoreactivity. Int J Psychophysiol 2002; 46:85–89.
- Iwama, H. Negative air ions created by water shearing improve erythrocyte deformability and aerobic metabolism. *Indoor Air* 2004; 14:293–97.
- Iwama, H, et al. Inspired superoxide anions attenuate blood lactate concentrations in postoperative patients. *Crit Care Med* 2002; 30:1246–49.
- Iwama, H, et al. The relaxing effect of negative air ions on ambulatory surgery patients. *Can J Anaesth* 2004; 51:187–88.
- Cunningham, M. Weather, mood, and helping behavior: Quasi experiments with the sunshine samaritan. *J Pers Soc Psychol* 1979; 37:1947–56.
- Strom-Tejsen, P, et al. The influence of ozone on self-evaluation of symptoms in a simulated aircraft cabin. *J Expo Sci Environ Epidemiol* 2008; 18:272–81.
- Goel, N, and G Etwaroo. Bright light, negative air ions and auditory stimuli produce rapid mood changes in a student population: A placebo-controlled study. *Psychol Med* 2006; 36:1253–63.
- Terman, M, and J Terman. Controlled trial of naturalistic dawn stimulation and negative air ionization for seasonal affective disorder. *Am J Psychiatry* 2006; 163:2126–33.
- Depledge, M, et al. The blue gym: Health and well-being from our coasts. *Marine Poll Bull* 2009; 58:947–48.
- Korpela, K, et al. Favorite green, waterside and urban environments, restorative experiences and perceived health in Finland. *Health Promot Int* 2010; 25:200–9.
- Waite, S. "Memories are made of this": Some reflections on outdoor learning and recall. *Education 3–13* 2007; 35:333–47.
- Cunnane, S, et al. Docosahexaenoic acid and shore-based diets in hominin encephalization. *Am J Hum Biol* 2007; 19:578–81.
- Bood, S, et al. Effects of flotation-restricted environmental stimulation technique on stress-related muscle pain: What makes the difference in therapy—attention-placebo or the relaxation response? *Pain Res Manag* 2005; 10:201–9.
- Bood, S, et al. Treating stress-related pain with the flotation restricted environmental stimulation technique: Are there differences between women and men? *Pain Res Manag* 2009; 14:293–98.

- Harmon, R. Hydrotherapy in state mental hospitals in the mid-twentieth century. *Issues Ment Health Nurs* 2009; 30:491–94.
- Overholser, J. Treatments for depression: Wisdom imparted from treatments discarded. *Int J Psychiatry Med* 2002; 32:317–36.
- Sung, EJ, and Y Tochihara. Effects of bathing and hot footbath on sleep in winter. J Physiol Anthropol 2000; 19:21–27.
- Toda, M, et al. Change in salivary physiological stress markers by spa bathing. *Biomed Res* 2006; 27:11–14.
- Suedfeld, P, et al. Water immersion and flotation: From stress experiment to stress treatment. *J Environ Psychol* 1983; 3:147–55.
- Becker, B, et al. Biophysiologic effects of warm water immersion. *Int J Aquatic Res Educ* 2009; 3:24–37.
- Levine, B. Use of hydrotherapy in reduction of anxiety. Psychol Rep 1984; 55:526.
- Peicheng, HU, and SU Ying. Effects of flotation therapy on relaxation and mental state. *Chin Med J* 2004; 117:1579–81.
- Kamioka, H. Comprehensive health education combining hot spa bathing and lifestyle education in middle-aged and elderly women: One-year follow-up on randomized controlled trial of three- and six-month interventions. *J Epidemiol* 2006; 16:35–44.
- Mizuno, K, et al. Effects of mild-stream bathing on recovery from mental fatigue. *Med Sci Monit* 2010; 16:8–14.
- Behneman, H. The lure of medical history. Cal West Med 1934; 41:35-39.
- Hare, G. Hydrotherapy. Cal State J Med 1903; 1:104-8.
- Moss, G. Water and health: A forgotten connection? *Perspect Public Health* 2010; 130:227–32.
- Saeki, Y. The effect of foot-bath with or without the essential oil of lavender on the autonomic nervous system: A randomized trial. *Complement Ther Med* 2000; 8:2–7.
- Vaile, J, et al. Effect of hydrotherapy on the signs and symptoms of delayed onset muscle soreness. *Eur J Appl Physiol* 2008; 102:447–55.
- Forgays, D, and M Belinson. Is flotation isolation a relaxing environment? *J Environ Psychol* 1986; 6:19–34.
- Pijanowski, B, et al. Soundscape ecology: The science of sound in the landscape. *Bioscience* 2011; 61:203–16.
- Hill, T, et al. Neighborhood disorder, sleep quality, and psychological distress: Testing a model of structural amplification. *Health Place* 2009; 15:1006–13.
- Goines, L, and L Hagler. Noise pollution: A modern plague. *South Med J* 2007; 100:287–94.
- Huss, A, et al. Aircraft noise, air pollution and mortality from myocardial infarction. *Epidemiology* 2010; 21:829–36.

- Niemann, H, et al. Noise-induced annoyance and morbidity results from the pan-European LARES study. *Noise Health* 2006; 8:63–79.
- Prasher, D. Is there evidence that environmental noise is immunotoxic? *Noise Health* 2009; II:151–55.
- Spreng, M. Noise induced nocturnal cortisol secretion and tolerable overhead flights. *Noise Health* 2004; 6:35–47.
- Stansfeld, S, and M Matheson. Noise pollution: Non-auditory effects on health. *Br Med Bull* 2003; 68:243–57.
- Seidman, M, and R Standring. Noise and quality of life. *Int J Environ Res Public Health* 2010; 7:3730–38.
- Pilcher, E, et al. Understanding and managing experiential aspects of soundscapes at Muir Woods National Monument. *Environ Manage* 2009; 43:425–35.
- Anderson, L, et al. Effects of sounds on preferences for outdoor settings. *Environ Behav* 1983; 15:539–66.
- Mace, B, et al. Aesthetic, affective, and cognitive effects of noise on natural landscape assessment. *Soc Nat Resour* 1999; 12:225–42.
- Mace, B, et al. Visibility and natural quiet in national parks and wilderness areas. *Environ Behav* 2004; 36:5–31.
- De Counsel, B, et al. Effects of natural sounds on the perception of road traffic noise. *J Acoust Soc Am* 2011; 129:148–53.
- Young, H, and G Berry. The impact of environment on the productivity attitudes of intellectually challenged office workers. *Human Factors* 1979; 21:399–407.
- Kaiser, J. Magnetic oscillatory responses to lateralization changes of natural and artificial sounds in humans. *Eur J Neurosci* 2002; 15:345–54.
- Suied, C, et al. Why are natural sounds detected faster than pips? *J Acoust Soc Am* 2010; 127:105–10.
- Jeon, JY, et al. Perceptual assessment of quality of urban soundscapes with combined noise sources and water sounds. *J Acoust Soc Am* 2010; 127:1357–66.
- Lechtzin, N, et al. A randomized trial of nature scenery and sounds versus urban scenery and sounds to reduce pain in adults undergoing bone marrow aspirate and biopsy. *J Altern Complement Med* 2010; 16:965–72.
- Arai, YC, et al. Intra-operative natural sound decreases salivary amaylase activity of patients undergoing inguinal hernia repair under epidural anesthesia. *Acta Anaesthesiol Scand* 2008; 52:987–90.
- Diette, G, et al. Distraction therapy with nature sights and sounds reduces pain during flexible bronchoscopy. *Chest* 2003; 123:941–48.
- Williamson, J. The effects of ocean sounds on sleep after coronary artery bypass graft surgery. *Am J Crit Care* 1992; 1:91–97.
- Alvarsson, J, et al. Stress recovery during exposure to nature sound and environmental noise. *Int J Environ Res Public Health* 2010; 7:1036–46.

- Fuller, R, et al. Daytime noise predicts nocturnal singing in urban robins. *Biol Lett* 2007; 3:368–70.
- Sharp, D. Silencing cities. J Urban Health 2002; 79:162-63.
- Dwyer, J, et al. Assessing the benefits and costs of the urban forest. *J Aboricult* 1992; 18:227–34.

- Burroughs, J. Pepacton. Cambridge, MA: Riverside Press, 1881.
- MacAuley, D. A history of physical activity, health and medicine. *J R Soc Med* 1994; 87:32–35.
- Meylan, G. A revival of the forgotten art of walking. Suburban Life 1907; 4:203.
- Davies, C, and H Drysdale. Does exercise promote health? *Lancet* 1963; 2:930–32.
- Abbott, R, et al. Walking and dementia in physically capable elderly men. *JAMA* 2004 22; 292:1447–53.
- Warburton, D, et al. Health benefits of physical activity: The evidence. *CMAJ* 2006; 174:801–9.
- Voss, M, et al. Exercise, brain, and cognition across the lifespan. J Appl Physiol 2012 Forthcoming.
- Niederer, I, et al. Relationship of aerobic fitness and motor skills with memory and attention in preschoolers: A cross-sectional and longitudinal study. *BMC Pediatr* 2011; 11:34.
- Tomkinson, G, and T Olds. Secular changes in pediatric aerobic fitness test performance: The global picture. *Med Sport Sci* 2007; 50:46–66.
- Aberg, M, et al. Cardiovascular fitness is associated with cognition in young adulthood. *Proc Natl Acad Sci USA* 2009; 106:20906–11.
- Tseng, CN, et al. The effectiveness of exercise on improving cognitive function in older people: A systematic review. *J Nurs Res* 2011; 19:119–30.
- O'Leary, K, et al. The effects of single bouts of aerobic exercise, exergaming, and videogame play on cognitive control. *Clin Neuropsychol* 2011;122:1518–25.
- Prakash, RS, et al. Cardiorespiratory fitness and attentional control in the aging brain. Front Hum Neurosci 2011; 4:229.
- Smith, T, et al. Effect of walking distance on 8-year incident depressive symptoms in elderly men with and without chronic disease: The Honolulu-Asia Aging Study. *J Am Geriatr Soc* 2010 Aug; 58(8):1447–52.
- Weuve, J, et al. Physical activity, including walking, and cognitive function in older women. *JAMA* 2004; 292:1454–61.
- Cramer, S, et al. The effects of moderate exercise training on psychological well-being and mood state in women. *J Psychosom Res* 1991; 35:437–49.
- Martinsen, E, et al. Physical activity in the prevention and treatment of anxiety and depression. *Nord J Psychiatry* 2008; 62 Suppl 47:25–29.

- Blumenthal, J, et al. Exercise and pharmacotherapy in the treatment of major depressive disorder. *Psychosom Med* 2007; 69:587–96.
- Nutt, D, et al. International consensus statement on major depressive disorder. *J Clin Psychiatry* 2010; 71(Suppl E1):e08.
- Franz, S, and G Hamilton. The effects of exercise upon the retardation in conditions of depression. *Am J Insanity* 1906; 62:239–56.
- Callaghan, P. Exercise: A neglected intervention in mental health care. *J Psychiatr Ment Health Nurs* 2004; 11:476–83.
- Roshanaei-Moghaddam, B, et al. The longitudinal effects of depression on physical activity. *Gen Hosp Psychiatry* 2009; 31:306–15.
- Freburger, J, et al. Exercise prescription for chronic back or neck pain: Who prescribes it? Who gets it? What is prescribed? *Arthritis Rheum* 2009; 61:192–200.
- Gill, A, et al. Does exercise alleviate symptoms of depression? *J Fam Pract* 2010; 59:530–31.
- Cureton, T. Improvement of psychological states by means of exercise-fitness programs. *J Assoc Phys Mental Rehabil* 1963; 17:14–17, 25.
- Sanchez-Villegas, A, et al. Physical activity, sedentary index, and mental health disorders in the SUN cohort study. *Med Sci Sports Exerc* 2008; 40:827–34.
- Puterman, E, et al. The power of exercise: Buffering the effect of chronic stress on telomere length. *PLoS ONE* 2010; 5:e10837.
- Smits, J, et al. Reducing anxiety sensitivity with exercise. *Depress Anxiety* 2008; 25:689–99.
- Deslandes, A, et al. Exercise and mental health: Many reasons to move. *Neuropsy-chobiology* 2009; 59:191–98.
- Rethorst, C, et al. Efficacy of exercise in reducing depressive symptoms across 5-HTTLPR genotypes. *Med Sci Sports Exerc* 2010; 42:2141–47.
- Wipfli, B, et al. An examination of serotonin and psychological variables in the relationship between exercise and mental health. *Scand J Med Sci Sports* 2011; 21:474–81.
- Gomez-Cabrera, MC, et al. Moderate exercise is an antioxidant: Upregulation of antioxidant genes by training. *Free Radic Biol Med* 2008; 44:126–31.
- Radak, Z, et al. Systemic adaptation to oxidative challenge induced by regular exercise. *Free Radic Biol Med* 2008; 44:153–59.
- Lund, A, et al. Markers of chronic inflammation with short-term changes in physical activity. *Med Sci Sports Exerc* 2011; 43:578–83.
- Beavers, K, et al. Effect of exercise training on chronic inflammation. *Clin Chim Acta* 2010; 411:785–93.
- Berlin, A, et al. Depressive mood symptoms and fatigue after exercise withdrawal: The potential role of decreased fitness. *Psychosom Med* 2006; 68:224–30.
- Glass, J, et al. The effect of brief exercise cessation on pain, fatigue, and mood symptom development in healthy, fit individuals. *J Psychosom Res* 2004; 57:391–98.

- Colley, R, et al. Physical activity of Canadian adults: Accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep* 2011; 7–14.
- Colley, R, et al. Physical activity of Canadian children and youth: Accelerometer results from the 2007 to 2009 Canadian Health Measures Survey. *Health Rep* 2011; 15–23.
- Merchant, A, et al. Seasonal variation in leisure-time physical activity among Canadians. Can J Pub Health 2007;98:203–8.
- Duncan, L, et al. Exercise motivation: A cross-sectional analysis examining its relationships with frequency, intensity, and duration of exercise. *Int J Behav Nutr Phys Act* 2010; 7:7.
- Di Matteo, M. Variations in patients' adherence to medical recommendations. *Med Care* 2004; 42:200–9.
- Sirur, R, et al. The role of theory in increasing adherence to prescribed exercise. *Physiother Can* 2009; 61:68–77.
- Hall, E, et al. The affective beneficence of vigorous exercise revisited. *Br J Health Psychol* 2002; 7:47–66.
- Annesi, J. Relationship between changes in acute exercise-induced feeling states, self-motivation, and adults adherence to moderate aerobic exercise. *Percept Motor Skills* 2002; 94:425–39.
- Kwan, B, and A Bryan. Affective response to exercise as a component of exercise motivation: Attitudes, norms, self-efficacy, and temporal stability of intentions. *Psychol Sport Exerc* 2010; 11:71–79.
- Kwan, B, and A Bryan. In-task and post-task affective response to exercise: Translating exercise intentions into behavior. *Br J Health Psychol* 2010; 15:115–31.
- Bluemke, M, et al. Exercise might be good for me, but I don't feel good about it: Do automatic associations predict exercise behavior? *J Sport Exerc Psychol* 2010; 32:137–53.
- Szabo, A. Acute psychological benefits of exercise performed at self-selected workloads: Implications for theory and practice. *J Sport Sci Med* 2003; 2:77–87.
- Desharnais, R, et al. Aerobic exercise and the placebo effect: A controlled study. *Psychosom Med* 1993; 55:149–54.
- Crum, A, and E Langer. Mind-set matters: Exercise and the placebo effect. *Psychol Sci* 2007; 18:165–71.
- Plante, T. Could the perception of fitness account for many of the mental and physical health benefits of exercise. *Adv Mind Body Med* 1999; 15:291–95.
- Kaplan, G, et al. Perceived health status and morbidity and mortality: Evidence from the Kuopio Ischaemic Heart Disease Risk Factor Study. *Int J Epidemiol* 1996; 25:259–65.
- Trivedi, M, et al. Exercise as an augmentation strategy for treatment of major depression. *J Psychiatr Pract* 2006; 12:205–13.
- Dunn, A, et al. Exercise treatment for depression: Efficacy and dose response. *Am J Prev Med* 2005; 28:1–8.

- Otto, M, et al. Exercise for mood and anxiety disorders. *J Clin Psychiatry* 2007; 68:669–76.
- Cooper, A, et al. Patterns of GPS measured time outdoors after school and objective physical activity in English children: The PEACH project. Int J Behav Nutr Phys Act 2010; 7:31.
- Toftager, M, et al. Distance to green space and physical activity. *J Phys Act Health* 2001; 8:741–49.
- Da Silva, S, et al. Psychological responses to self-paced treadmill and overground exercise. *Med Sci Sports Exerc* 2011; 43:1114–24.
- Pennebaker, J, and J Lightner. Competition of internal and external information in an exercise setting. *J Pers Soc Psychol* 1980; 39:165–74.
- DeWolfe, J, et al. The relationship between levels of greenery and landscaping at track and field sites, anxiety, and sports performance of collegiate and field athletes. *HortTechnology* 2011; 21:329–35.
- Dmitriev, MT, et al. Use of natural stimulants to increase the fitness of athletes. *Soviet Sports Rev* 1985; 20–21:161–64.
- Tsunetsugu, Y, et al. Trends in research related to "shinrin-yoku" (taking in the forest atmosphere or forest bathing) in Japan. *Environ Health Prev Med* 2010; 15:27–37.
- Yamaguchi, M, et al. The effects of exercise in forest and urban environments on sympathetic nervous system activity. *J Int Med Res* 2006; 34:152–59.
- Morita, E, et al. Psychological effects of forest environments on healthy adults: Shinrin-yoku (forest-air bathing, walking) as a possible method of stress reduction. *Public Health* 2007; 121:54–63.
- Li, Q, et al. Acute effects of walking in forest environments on cardiovascular and metabolic parameters. *Eur J Appl Physiol* 2011;111:2845–53.
- Park, BJ, et al. Relationship between psychological responses and physical environments in forest settings. *Landsc Urban Plan* 2011; 102:24–32.
- Park, BJ, et al. The physiological effects of "shinrin-yoku" (taking in the forest atmosphere or forest bathing): Evidence from field experiments in 24 forests across Japan. *Environ Health Prev Med* 2010; 15:18–26.
- Harte, J, and G Eifert. The effects of running, environment, and attentional focus on athletes' catecholamine and cortisol levels. *Psychophysiology* 1995; 32:49–54.
- Park, BJ, et al. Physiological effects of forest recreation in a young conifer forest in Hinokage Town, Japan. *Silva Fennica* 2009; 43:291–301.
- Focht, B. Brief walks in outdoor and laboratory environments: Effects on affective responses, enjoyment, and intentions to walk for exercise. *Res Q Exerc Sport* 2009; 80:611–20.
- Hug, SM, et al. Restorative qualities of indoor and outdoor exercise settings as predictors of exercise frequency. *Health Place* 2009; 15:971–80.
- Ryan, R, et al. Vitalizing effects of being outdoors and in nature. *J Environ Psychol* 2010; 30:159–68.

- Barton, J, et al. The health benefits of walking in greenspace of high natural and heritage value. *J Integr Environ Sci* 2009; 6:261–78.
- Plante, T, et al. Psychological benefits of exercise paired with virtual reality: Outdoor exercise energizes whereas indoor exercise relaxes. *Int J Stress Manag* 2006; 13:108–17.
- Roe, J, and P Aspinall. The restorative benefits of walking in urban and rural settings in adults with good and poor mental health. *Health Place* 2011; 17:103–13.
- Coon, J, et al. Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental wellbeing than physical activity indoors? *Environ Sci Technol* 2011; 45:1761–72.
- O'Donovan, G, et al. The ABC of physical activity for health: A consensus statement from the British Association of Sport and Exercise Sciences. *J Sport Sci* 2010; 28:573–91.
- Weinstein, A, et al. The role of depression in short-term mood and fatigue responses to acute exercise. *Int J Behav Med* 2010; 17:51–57.
- Huang, CJ, et al. Psychological stress during exercise: Immunoendocrine and oxidative responses. *Exp Biol Med* 2010; 235:1498–504.
- Martinez-Gomez, D, et al. Active commuting to school and cognitive performance in adolescents. *Arch Pediatr Adolesc Med* 2011; 165:300–5.
- Hillman, C, et al. The effect of acute treadmill walking on cognitive control and academic achievement in preadolescent children. *Neuroscience* 2009; 159:1044–54.
- Lambiase, M, et al. Effect of simulated active commute to school on cardiovascular stress reactivity. *Med Sci Sports Exerc* 2010; 42:1609–16.
- Pretty, J, et al. The mental and physical health outcomes of green exercise. *Int J Environ Health Res* 2005; 15:319–337.
- Gathright, J, et al. Comparison of the physiological and psychological benefits of tree and tower climbing. *Urban Forest Urban Green* 2006; 5:141–49.
- Gathright, J, et al. Recreational tree-climbing programs in a rural Japanese community forest: Social impacts and "fun factors." *Urban Forest Urban Green* 2007; 6:169–79.
- Gathright, J, et al. Tree-assisted therapy: Therapeutic and societal benefits from purpose-specific technical recreational tree-climbing programs. *Aboricult Urban Forest* 2008; 34:222–29.
- Li, F, et al. Health benefits of cobblestone-mat walking: Preliminary findings. *J Aging Phys Act* 2003; 11:487–501.
- Li, F, et al. Improving physical function and blood pressure in older adults through cobblestone mat walking: A randomized trial. J Am Geriatr Soc 2005; 53:1305–12.
- Madison, H, and A Ruggles. Nature therapy at Butler Hospital. *Recreation* 1943; 36:678–80, 699.

- Duvall, J. Enhancing the benefits of outdoor walking with cognitive engagement strategies. *J Environ Psychol* 2011; 31:27–35.
- Isaacs, A, et al. Exercise evaluation randomized trial (EXPERT): A randomized trial comparing GP referral for leisure centre-based exercise, community-based walking and advice only. *Health Technol Assess* 2007; 11:1–165.
- Burton, N, and G Turrell. Occupation, hours worked, and leisure-time physical activity. *Prev Med* 2000; 31:673–81.
- Plante, T, et al. Exercise with an iPod, friend, or neither: Which is better for psychological benefits? *Am J Health Behav* 2011; 35:199–208.
- Priest, P. The healing balm effect: Using a walking group to feel better. *J Health Psychol* 2007; 12:36–52.
- Depledge, M, et al. The blue gym: Health and well-being from our coasts. *Marine Poll Bull* 2009; 58:947–48.
- Barton, J, and J Pretty. What is the best dose of nature and green exercise for improving mental health? *Environ Sci Technol* 2010; 44:3947–55.
- Stamatakis, E, et al. Sedentary behavior: Redefining its meaning and links to chronic disease. *Br J Hosp Med* 2011; 72:192–95.
- Hawkins, J, et al. Allotment Gardening and Other Leisure Activities for Stress Reduction and Healthy Aging. *HortTechnology* 2011; 21:577–85.

- Leonard, J, et al. Ancient DNA evidence for Old World origin of New World dogs. Science 2002; 298:1613–16.
- Pennisi, E. A shaggy dog history. Science 2002; 298:1540-42.
- Tuke, S. A Description of the Retreat, and Institution near York, for Insane Persons of the Society of Friends. London: W Alexander Publishing, 1813.
- Barrus, C. Nursing the Insane. New York: Macmillan, 1908.
- Lendrem, D. Properties of pets. New Scientist 1984; 101:36.
- Dogs for airmen. Newsweek, May 14, 1945:91-92.
- Hughes, C. Paradise at Pawling. Coronet 1945; 18:47-50.
- Levinson, BM. Man, animal, nature. Mod Vet Pract 1972; 53:35-37, 39, 41.
- Coakley, A, and E Mahoney. Creating a therapeutic and healing environment with a pet therapy program. *Complement Ther Clin Pract* 2009; 15:141–46.
- Barker, S, et al. Effects of animal-assisted therapy on patients' anxiety, fear, and depression before ECT. *J ECT* 2003; 19:38–44.
- Kotrschal, K, and B Ortbauer. Behavioral effects of the presence of a dog in the classroom. *Anthrozoos* 2003; 16:147–59.
- Hergovich, A, et al. The effects of the presence of a dog in the classroom. *Anthrozoos* 2002; 15:37–50.

- Wisdom, J, et al. Another breed of service animals: STARS study findings about pet ownership and recovery from serious mental illness. *Am J Orthopsychiatry* 2009; 79:430–36.
- Vidovic, V, et al. Pet ownership, type of pet and socio-emotional development of school children. *Anthrozoos* 1999; 12:211–17.
- McConnell, A, et al. Friends with benefits: On the positive consequences of pet ownership. *J Pers Soc Psychol* 2011; 101:1239–52.
- Veterinary Record. Pets promote happiness, finds PFMA. Vet Rec 2011; 168:341.
- Drury, B. The dogs of war. Men's Health 2011; 26:168-75.
- Walsh, F. Human-animal bonds I: The relational significance of companion animals. Fam Process 2009; 48:462–80.
- Allen, K, et al. Pet ownership, but not ACE inhibitor therapy, blunts home blood pressure responses to mental stress. *Hypertension* 2001; 38:815–20.
- Barker, S, et al. Exploratory study of stress-buffering response patterns from interaction with a therapy dog. *Anthrozoos* 2010; 23:79–91.
- Friedmann, E, et al. Physiological response of people to petting their pets. *Am Zool* 1979; 19:915.
- Friedmann, E, et al. Animal companions and one-year survival of patients after discharge from a coronary care unit. *Public Health Rep* 1980; 95:307–12.
- Friedmann, E, et al. Pet ownership, social support, and one-year survival after acute myocardial infarction in the cardiac arrhythmia suppression trial (CAST). *Am J Cardiol* 1995; 76:1213–17.
- Friedmann, E, and H Son. The human-companion animal bond: How humans benefit. *Vet Clin North Am Small Anim Pract* 2009; 39:293–326.
- Serpell, J. Beneficial effects of pet ownership on some aspects of human health and behavior. *J R Soc Med* 1991; 84:717–20.
- Barker, S, et al. Measuring stress and immune response in healthcare professionals following interaction with a therapy dog. *Psychol Rep* 2005; 96:713–29.
- Charnetski, C, et al. Effect of petting a dog on immune system function. *Psychol Rep* 2004; 95:1087–91.
- Allen, K, et al. Presence of human friends and pet dogs as moderators of autonomic responses to stress in women. *J Pers Soc Psychol* 1991; 61:582–89.
- Bornstein, M, et al. Young infants' eye movements over natural scenes and experimental scenes. *Infant Behav Dev* 2011; 34:206–10.
- New, J, et al. Category-specific attention for animals reflects ancestral priorities, not expertise. *Proc Natl Acad Sci U S A* 2007; 104:16598–603.
- Drewes, J, et al. Parallel visual search and rapid animal detection in natural scenes. *J Vis* 2011; 11:1–21.
- Ricard, M, and L Allard. The reaction of 9- to 10-month-old infants to an unfamiliar animal. *J Genet Psychol* 1993; 154:5–16.

- Hurley, K, et al. The influence of pets on infants' processing of cat and dog images. *Infant Behav Dev* 2010; 33:619–28.
- Falk, H, and H Wijk. Natural activity: An explorative study of the interplay between cage-birds and older people in a Swedish hospital setting. *Int J Older People Nurs* 2008; 3:22–28.
- Hodge, C. Nature Study and Life. Boston: Ginn, 1902.
- Gee, N, et al. Preschool children require fewer instructional prompts to perform a memory task in the presence of a dog. *Anthrozoos* 2010; 23:173–84.
- Gee, N, et al. Preschoolers make fewer errors on an object categorization task in the presence of a dog. *Anthrozoos* 2010; 23:223–30.
- Gee, N, et al. Preschoolers' adherence to instructions as a function of presence of a dog and motor skills task. *Anthrozoos* 2009; 22:267–76.
- Gee, N, et al. The role of therapy dogs in speed and accuracy to complete motor skills tasks for preschool children. *Anthrozoos* 2007; 20:375–86.
- Nagasawa, M, et al. Dog's gaze at its owner increases owner's urinary oxytocin during social interaction. *Horm Behav* 2009; 55:434–41.
- Miller, S, et al. An examination of changes in oxytocin levels in men and women before and after interaction with a bonded dog. *Anthrozoos* 2009; 22:31–42.
- Mitsui, S, et al. Urinary oxytocin as a noninvasive biomarker of positive emotion in dogs. *Horm Behav* 2011; 60:239–43.
- Domes, G, et al. Oxytocin improves "mind-reading" in humans. *Biol Psychiatry* 2007; 61:731–33.
- Ditzen, B, et al. Intranasal oxytocin increases positive communication and reduces cortisol levels during couple conflict. *Biol Psychiatry* 2009; 65:728–31.
- Olff, M, et al. A psychobiological rationale for oxytocin in the treatment of post-traumatic stress disorder. *CNS Spectr* 2010; 15:522–30.
- Walsh, F. Human-animal bonds II: The role of pets in family systems and family therapy. *Fam Process* 2009; 48:481–99.
- Paul, E. Empathy with animals and with humans: Are they linked? *Anthrozoos* 2000; 13:194–202.
- Vizek-Vidovic, V, et al. Pet ownership in childhood and socio-emotional characteristics, work values and professional choices in early adulthood. *Anthrozoos* 2001; 14:224–31.
- Daly, B, and L Morton. Empathic differences in adults as a function of childhood and adult pet ownership and pet type. *Anthrozoos* 2009; 22:371–82.
- Thompson, K, and E Gullone. Prosocial and antisocial behaviors in adolescents: An investigation into associations with attachment and empathy. *Anthrozoos* 2008; 21:123–37.
- Thompson, K, and E Gullone. Promotion of empathy and prosocial behavior in children through humane education. *Aust Psychol* 2003; 38:175–82.

- Westbury, HR, and D Neumann. Empathy-related responses to moving film stimuli depicting human and non-human animal targets in negative circumstances. *Biol Psychol* 2008; 78:66–74.
- Silva, K, and L de Sousa. "Canis empathicus"? A proposal on dogs' capacity to empathize with humans. *Biol Lett* 2011; 7:489–92.
- Joly-Mascheroni, R, et al. Dogs catch human yawns. *Biol Lett* 2008; 4:446–48.
- Fraser, O, and T Bugnyar. Do ravens show consolation? Responses to distressed others. *PLoS ONE* 2009; 5:e10605.
- Grenier, F, and A Luthi. Mouse brains wired for empathy? *Nat Neurosci* 2010; 13:406–8.
- Kielland, C, et al. Dairy farmer attitudes and empathy toward animals are associated with animal welfare indicators. *J Dairy Sci* 2010; 93:2998–3006.
- Inagaki, K, and G Hatano. Young Children's Naïve Thinking about the Biological World. New York: Psychology Press, 2002.
- Lyvers, M, et al. Beer goggles: Blood alcohol concentration in relation to attractiveness ratings for unfamiliar opposite sex faces in naturalistic settings. *Soc Psychol* 2011; 151:105–12.
- Lockwood, R. The influence of animals on social perception. In *New Perspectives on Our Lives with Companion Animals*. Edited by A Katcher and A Beck, 64–71. Philadelphia: University of Pennsylvania Press, 1983.
- Messant, P. Social facilitation of contact with other people by pet dogs. In *New Perspectives on Our Lives with Companion Animals*. Edited by A Katcher and A Beck, 37–46. Philadelphia: University of Pennsylvania Press, 1983.
- Bossard, J. Parent and Child. Philadelphia: University of Pennsylvania Press, 1953.
- Lorenz, K. King Solomon's Ring: New Light on Animal Ways. New York: Thomas Crowell, 1952.
- Hughes, W. *Principles and Management of the Marine Aquarium*. London: John Van Voorst, 1875.
- Hibberd, S. The Book of the Aquarium. London: Groomsbridge and Sons, 1860.
- Levinson, BM. The aquarium as a therapeutic aid. *Psychol Rep* 1979; 45:577–78.
- Katcher, A, et al. Comparison of contemplation and hypnosis for the reduction of anxiety and discomfort during dental surgery. *Am J Clin Hypn* 1984; 27:14–21.
- DeSchriver, M, and C Riddick. Effects of watching aquariums on elders' stress. *Anthrozoos* 1990; 4:44–48.
- Bataille-Benguigui, M. Man-fish relations in the therapy of conflict. In *Science and the Human-Animal Relationship*. Edited by E Hicks pp 209–17. Amsterdam: SISWO Publications, 1992.
- Docx, E. Flash fish. Prospect, Mar 23, 2011.
- Coleman, K, et al. Physical activity, weight status, and neighborhood characteristics of dog walkers. *Prev Med* 2008; 47:309–12.

- Sirard, J, et al. Dog ownership and adolescent physical activity. *Am J Prev Med* 2011; 40:334–37.
- Lail, P, et al. Does dog ownership influence seasonal patterns of neighbourhood-based walking among adults? A longitudinal study. *BMC Public Health* 2011; 11:148.
- Mullersdorf, M, et al. Aspects of health, physical/leisure activities, work and sociodemographics associated with pet ownership in Sweden. *Scand J Public Health* 2010; 38:53–63.
- Rossbach, K, and J Wilson. Does a dog's presence make a person more likeable? *Anthrozoos* 1992; 5:40–51.
- Geries-Johnson, B, and J Kennedy. Influence of animals on perceived likeability of people. *Percept Motor Skills* 1995; 80:432–34.
- Wells, M, and R Perrine. Pets go to college: The influence of pets on students' perceptions of faculty and their offices. *Anthrozoos* 2001; 14:161–68.
- Schneider, M, and LP Harley. How dogs influence the evaluation of psychotherapists. *Anthrozoos* 2006; 19:128–42.
- Budge, RC, et al. The influence of companion animals on owner perception: Gender and species effects. *Anthrozoos* 1996; 9:10–18.
- Rattner, B. History of wildlife toxicology. Ecotoxicology 2009; 18:773-83.
- Logan, H. Light and the human environment. Fields within Fields 1974; 5:58-64.
- Browning, NL. Odd pets "doctor" ailing air heroes. Sci Dig 1946; 19:64-66.
- Nittby, H, et al. Increased blood-brain barrier permeability in mammalian brain 7 days after exposure to the radiation from a GSM-900 mobile phone. *Pathophysiology* 2009; 16:103–12.
- Sahib, S. Impact of mobile phones on the density of honeybees. *J Horticult Forestry* 2011; 3:131–33.
- Favre, D. Mobile phone-induced honeybee worker piping. *Apidologie* 2011 42:270–79.
- Gernsback, H. Lethal radio waves: We must reappraise the new effects of radio waves. *Radio-Electronics* 1959; 30:29.
- Jaski, T. Radio waves and life. Radio-Electronics 1960; 31:43-45.
- Irwin, W, and K Lohmann. Disruption of magnetic orientation in hatchling loggerhead sea turtles by pulsed magnetic fields. J Comp Physiol A 2005; 191:475–80.
- Wajnberg, E, et al. Magnetoreception in eusocial insects: An update. J R Soc Interface 2010; 7:S207–25.
- Sharma, VP, et al. Mobile phone radiation inhibits Vigna radiate (mung bean) root growth by inducing oxidative stress. *Sci Total Environ* 2009; 407:5543–47.
- Tkalec, M, et al. Effects of radiofrequency electromagnetic fields on seed germination and root meristematic cells of Allium cepa L. Mutat Res 2009; 672:76–81.
- Singh, HP, et al. Cell phone electromagnetic field radiations affect rhizogenesis through impairment of biochemical processes. *Environ Monit Assess* 2012 Forthcoming.

- Mullin, C, et al. High levels of miticides and agrochemicals in North American aparies: Implications for honeybee health. *PLoS ONE* 2010; 5:e9754.
- Cameron, S, et al. Patterns of widespread decline in North American bumble bees. *Proc Natl Acad Sci U S A* 2011; 108:662–67.
- Harmon, J, et al. The decline of native coccinellids (Coleoptera: Coccinellidae) in the United States and Canada. *J Insect Conserv* 2007; 11:85–94.
- Puechmaille, S, et al. Pan-European distribution of white-nose syndrome fungus not associated with mass mortality. *PLoS ONE* 2011; 6:e19167.
- Balmori, A. Mobile phone mast effects on common frog (Rana temporaria) tadpoles: The city turned into a laboratory. *Electromagn Biol Med* 2010; 29:31–35.
- Balmori, A. Electromagnetic pollution from phone masts: Effects on wildlife. Pathophysiology 2009; 16:191–99.
- Balmori, A, and O Hallberg. The urban decline of the house sparrow (Passer domesticus): A possible link with electromagnetic radiation. *Electromagn Biol Med* 2007; 26:141–51.
- Panagopoulos, D, and L Margaritis. The effect of exposure duration on the biological activity of mobile telephony radiation. *Mutat Res* 2010; 699:17–22.
- Chavdoula, E, et al. Comparison of biological effects between continuous and intermittent exposure to GSM-900-MHz mobile phone radiation: Detection of apoptotic cell-death features. *Mutat Res* 2010; 700:51–61.
- Cammaerts, M, et al. GSM 900 MHz radiation inhibitis ants' association between food sites and encountered cues. Electromagn Biol Med 2012 Forthcoming.
- De Silva, S, and G Turchini. Towards understanding the impacts of the pet food industry on world fish and seafood supplies. *J Agric Environ Ethics* 2008; 21:459–67.
- Silva-Rodriguez, E, and K Sieving. Influence of care of domestic carnivores on their predation on vertebrates. *Conserv Biol* 2011;25:808-15.
- Reaser, J, et al. All creatures great and minute: A public policy primer for companion animal zoonoses. *Zoonoses Public Health* 2008; 55:385–401.
- Levinson, BM. Forecast for the year 2000. In *Pet Animals and Society.* Edited by R Anderson pp 155-59. London: Bailliere Tindall, 1974.

Chapter 7

- Editorial. Horticulture and health. Sci Am 1897; 43 Suppl:17637-38.
- Dimock, H, and C Hendry. *Camping and Character*. New York: Association Press, 1929.
- Sutherland, A. Bringing nature back to our great cities. *Technical World* 1910; 14:320–26.
- Kirkbride, T. On the Construction, Organization and General Arrangements of Hospitals for the Insane. Philadelphia: Lindsay and Blakiston, 1954.

Report of the Board of Managers of the Kentucky Eastern Lunatic Asylum. Legislative document 1859; document 6:15.

Pennsylvania Hospital for the Insane. Boston Med Surg J 1843; 27–28:122–23.

Gardening for pleasure and health. Currie's Monthly 1888; 4:10.

Hall, B. Gardening as a cure for mental breakdowns. World's Work 1910; 20:13084–86.

Jones, A. Farm treatment for the insane. *Technical World* 1913; 14:580–83.

Hall, B. Gardening in institutions. The Survey 1910; 23:939-46.

Henderson, P. Gardening in public institutions. Am Agriculturist 1880; 39:234-35.

Berolzheim, J, et al. Garden therapy a success. *Hosp Management* 1921; 12:42.

Shell-shocked men cured. Curr History 1921; 14:578.

Gardens about hospitals. Texas Med J 1918; 34:73-74.

Kerr, S. When flowers mean more than medicines: The service of flowers among the soldiers of our hospitals. *Garden Magazine* 1918; 28:129–32.

Hull, S. Garden service unlimited: A war pattern for garden club activities. *Home Garden* 1944; 3:23–25.

United States Civil Service Exams. N Engl J Med 1929; 200:311.

Kaplan, R. Some psychological benefits of gardening. *Environ Behav* 1973; 5:145–62.

Kaplan, R, and S Kaplan. *The Experience of Nature*. New York: Cambridge University Press, 1989.

Kidd, J, et al. Benefits of gardening: An exploratory study of mid-aged women in New Zealand. *J Ther Hort* 2000; 11:4–19.

Talbott, J, et al. Flowering plants as a therapeutic/environmental agent in a psychiatric hospital. *HortScience* 1976; 11:365–66.

Flournoy, R. Gardening as therapy: Treatment activities for psychiatric patients. *Hosp Community Psychiatry* 1975; 26:75–76.

Szofran, J, and S Myer. Horticultural therapy in a mental health day program. *J Ther Hort* 2004; 15:32–35.

Fetherman, D, et al. An exploration of the meaning and effects of horticultural therapy on human health and well-being. *J Ther Hort* 2005; 16:6–18.

Jackson, S. The potential on the doorstep: The importance of gardening in the psychological well-being of older people. *J Ther Hort* 2005; 16:28–37.

Cinq Mars, L. Healing grief through horticultural therapy. J Ther Hort 1999; 10:4–9.

Bortz, L, and M Gal. Gardening as a treatment modality in an acute psychiatric center. *J Ther Hort* 2002; 13:30–35.

Hewson, M. Horticultural therapy and post traumatic stress recovery. *J Ther Hort* 2001; 12:44–47.

McGinnis, M. Gardening as therapy for children with behavioral disorders. *J Child Adolesc Psychiatr Ment Health Nurs* 1989; 2:87–91.

- Catanzaro, C, and E Ekanem. Home gardeners value stress reduction and interaction with nature. *Acta Hortic* 2004; 639:269–75.
- Chung, SH, and WK Sim. Effects of interior plants on social behaviors and psychological disorders of psychiatric patients in a hospital ward. *J Ther Hort* 1998; 9:77–80.
- Lee, YH, et al. Effects of horticultural activities on anxiety reduction of female high school students. *Acta Hortic* 2004; 639:249–51.
- Son, KC, et al. Effect of horticultural therapy on the changes of self-esteem and sociality of individuals with chronic schizophrenia. *Acta Hortic* 2004; 639:185–91.
- Midden, K, and T Barnicle. Evaluating the effects of horticulture program on psychological well-being of older persons in a long-term care facility. *Acta Hortic* 2004; 639:167–70.
- Lee, Y, and S Kim. Effects of indoor gardening on sleep, agitation, and cognition in dementia patients. *Int J Geriatr Psychiatry* 2008; 485–89.
- Gonzalez, MT, et al. Therapeutic horticulture in clinical depression: A prospective study. *Res Theory Nurs Pract* 2009; 23:312–28.
- Gonzalez, MT, et al. Therapeutic horticulture in clinical depression: A prospective study of active components. *J Adv Nurs* 2010; 66:2002–13.
- Wu, SH, et al. The beneficial effects of horticultural activities on patients' community skill and motivation in a public psychiatric center. *Acta Hortic* 2008; 775:55–70.
- Gonzalez, MT, et al. A prospective study of existential issues in therapeutic horticulture for clinical depression. *Issues Ment Health Nurs* 2011; 32:73–81.
- Unruh, A, and S Hutchinson. Embedded spirituality: Gardening in daily life and stressful life experiences. *Scand J Caring Sci* 2011; 25:567–74.
- van den Berg, A, and M Custers. Gardening promotes neuroendocrine and affective restoration from stress. *J Health Psychol* 2011; 16:3–11.
- Park, SA, et al. Can older gardeners meet the physical activity recommendation through gardening? *HortTechnology* 2008; 18:639–43.
- Park, SA, et al. Physical and psychological health conditions of older adults classified as gardeners or nongardeners. *HortScience* 2009; 44:206–10.
- Park, SA, et al. How to measure exercise intensity of gardening tasks as a physical activity for older adults using metabolic equivalents. *Acta Hortic* 2008; 775:37–40.
- Kweon, H, et al. Exercise intensity of horticulture as physical activity. *Acta Hortic* 2004; 639:277–80.
- Kanning, M, and W Schlicht. Be active and become happy: An ecological momentary assessment of physical activity and mood. *J Sport Exerc Psychol* 2010; 32:253–61.
- Knapp, L, ed. The child's dearest playmate. Ladies' Home Journal 1898; 15:14.
- Wright, R, ed. Why do people garden? House and Garden 1918; 33:24.

- Heinemann, P, and M Hefferan. A study of Bacillus bulgaricus. *J Infect Dis* 1909; 6:304–18.
- Norman, HJ. Lactic acid bacteria in the treatment of melancholia. *Br Med J* 1909; 1:1234–35.
- Phillips, JGP. The treatment of melancholia by the lactic acid bacillus. *J Ment Sci* 1910; 56:422–31.
- Saunders, AM. The bacillus acidophilus treatment. *Institution Q* 1924; 15:85–88.
- Logan, A, and M Katzman. Major depressive disorder: Probiotics may be an adjuvant therapy. *Med Hypotheses* 2005; 64:533–38.
- Logan, A, et al. Chronic fatigue syndrome: Lactic acid bacteria may be of therapeutic value. *Med Hypotheses* 2003; 60:915–23.
- Bowe, W, and A Logan. Acne vulgaris, probiotics and the gut-brain-skin axis: Back to the future. *Gut Pathog* 2011; 3:1.
- Shen, Q, et al. In vitro and in vivo antioxidant activity of Bifidobacterium animalis or isolated from centenarians. *Curr Microbiol* 2011; 62:1097–103.
- Desbonnet, L, et al. Effects of the probiotic Bifidobacterium infantis in the maternal separation model of depression. *Neuroscience* 2010; 170:1179–88.
- Teixeira, L, et al. Bacterial diversity in rhizosphere soil from Antarctic vascular plants of Admiralty Bay, maritime Antarctica. *ISME J* 2010; 4:989–1001.
- Benton, D, et al. Impact of consuming a milk drink containing a probiotic on mood and cognition. *Eur J Clin Nutr* 2007; 61:355–61.
- Rao, AV, et al. A randomized, double-blind, placebo-controlled pilot study of a probiotic in emotional symptoms of chronic fatigue syndrome. *Gut Path*og 2009; 19; I(1):6.
- Messaoudi, M, et al. Assessment of psychotropic-like properties of a probiotic formulation (Lactobacillus helveticus Roo52 and Bifidobacterium longum Ro175) in rats and human subjects. *Br J Nutr* 2011; 105:755–64.
- Silk, D, et al. Clinical trial: The effects of a trans-galactooligosaccharide prebiotic on faecal microbiota and symptoms in irritable bowel syndrome. *Aliment Pharmacol Ther* 2009; 29:508–18.
- O'Brien, M, et al. SRL172 (killed Mycobacterium vaccae) in addition to standard chemotherapy improves quality of life without affecting survival, in patients with advanced non-small-cell lung cancer: Phase III results. *Ann Oncol* 2004; 15:906–14.
- Place, RM. Gardening for health. Hygeia 1948; 26:398-99, 446-47.
- Kidd, J, and W Brascamp. Benefits of gardening to the well-being of New Zealand gardeners. *Acta Hortic* 2004; 639:103–12.
- Hemenway, H. School gardening. Municipal J Engineer 1906; 21:127.
- Lane, WD. School gardens. The Survey 1920; 43:811.
- Blair, D. The child in the garden: An evaluative review of the benefits of school gardening. *J Environ Educ* 2009; 40:15–38.

- California Department of Education. A healthy nutrition environment: Linking education, activity, and food through school gardens; Program overview. March 2007.
- Subramaniam, A. Garden-based learning in basic education: A historical review. Monograph Summer 2002:1–11.
- Robinson, C, and J Zajicek. Growing minds: The effects of a one-year school garden program on six constructs of life skills of elementary school children. *HortTechnology* 2005; 15:453–57.
- Klemmer, C, et al. Growing minds: The effects of a school gardening program on the science achievement of elementary students. *HortTechnology* 2005; 15:448–52.
- Smith, L, and C Motsenbocker. Impact of hands-on science through school gardening in Louisiana public elementary schools. *HortTechnology* 2005; 15:439–43.
- Jackson, J, and G Stuteville. A comparison of achievement on test of gardening practices between students who have had summer gardens, those who have had none, as well as between students who have had only the classroom preparation but not the summer follow-up. *Sci Educ* 1968; 52:410–14.
- Randall, J. A garden in everybody's back yard. *Mississippi Valley Magazine* 1920; 1:22,38.
- Tukey, H. Horticulture in science and society. J Am Soc Hortic Sci 1948; 51:685–94.
- Fabrigoule, C, et al. Social and leisure activities and risk of dementia: A prospective longitudinal study. *J Am Geriatr Soc* 1995; 43:485–90.
- Singh-Manoux, A, et al. Leisure activities and cognitive function in middle age: Evidence from the Whitehall II study. *J Epidemiol Community Health* 2003; 57:907–13.
- Norling, J, et al. Perceived restorativeness for activities scale (PRAS): Development and validation. *J Phys Act Health* 2008; 5:184–95.
- Larner, A. Gardening and dementia. *Int J Geriatr Psychiatry* 2005; 20:796–97.
- Hebert, S, et al. Physiological stress response to video-game playing: The contribution of built-in music. *Life Sci* 2005; 76:2371–80.
- D'Andrea, S, et al. Effect of horticultural therapy on preventing the decline of mental abilities in patients with Alzheimer's type dementia. *J Therapeutic Horticulture* 2007; 18:9–17.
- Fleming, L, et al. Botanical gardens: Fertile soil for the practice of horticultural therapy. *J Ther Hort* 2010; 20:54–65.
- Wakefield, S, et al. Growing urban health: Community gardening in south-east Toronto. *Health Promot Int* 2007; 22:92–101.
- Twiss, J, et al. Community gardens: Lessons learned from California Healthy Cities and Communities. *Am J Public Health* 2003; 93:1435–38.
- Heim, S, et al. Can a community-based intervention improve the home food environment? Parental perspectives of the influence of the delicious and nutritious garden. *J Nutr Educ Behav* 2011; 43:130–34.

- Koch, S, et al. The effect of a summer garden program on the nutritional knowledge, attitudes, and behaviors of children. *HortTechnology* 2006; 16:620–25.
- Ratcliff, M, et al. The effects of school garden experiences on middle school-aged students' knowledge, attitudes, and behaviors associated with vegetable consumption. *Health Promot Pract* 2011; 12:36–43.
- Wright, W, and L Rowell. Examining the effect of gardening on vegetable consumption among youth in kindergarten through fifth grade. WMJ 2010; 109:125–29.
- Morgan, P, et al. The impact of nutrition education with and without a school garden on knowledge, vegetable intake and preferences and quality of school life among primary-school students. *Public Health Nutr* 2010; 13:1931–40.
- Heim, S, et al. A garden pilot project enhances fruit and vegetable consumption among children. *J Am Diet Assoc* 2009; 109:1220–26.
- Sommerfeld, A, et al. Growing minds: Evaluating the relationship between gardening and fruit and vegetable consumption in older adults. *HortTechnology* 2010; 20:711–17.
- Hale, J, et al. Connecting food environments and health through the relational nature of aesthetics: Gaining insight through the community gardening experience. *Soc Sci Med* 2011; 72:1853–63.
- Mitchell, R, and F Popham. Effect of exposure to natural environment on health inequalities: An observational population study. *Lancet* 2008; 372:1655–60.
- Dadvand, P, et al. Green space, health inequality and pregnancy. *Environ Int* 2012 Apr;40:110-5.
- Skelly, S, and J Zajicek. The effect of an interdisciplinary garden program on the environmental attitudes of elementary school students. *HortTechnology* 1998; 8:579–83.
- Lohr, V, and C Pearson-Mims. Children's active and passive interactions with plants influence their attitudes and actions toward trees and gardening as adults. *Hort-Technology* 2005; 15:472–76.
- Taniguchi, T, and R Akamatsu. The relationship between farming experiences and attitudes toward locally grown foods among Japanese children. *HortTechnology* 2011; 21:355–58.
- Okvat, H, and A Zautra. Community gardening: A parsimonious path to individual, community and environmental resilience. Am J Community Psychol 2011; 47:374–87.
- Mitchell, SW. Camp cure. Lippincott's 1874; 14:192-200.
- Mitchell, SW. Doctor and Patient. London: JB Lippincott, 1888.
- Stevens, A. The Practice of Medicine. Philadelphia: WB Saunders, 1922.
- McFarland, FW, et al. Staff attitudes and patient behavior change on camping trip. *Hosp Community Psychiatry* 1967; 18:296–98.
- Neffinger, G, et al. The wilderness challenge: An adjunctive treatment. *New Dir Ment Health Serv* 1984; 21:99–102.
- Stich, T, and N Senior. Adventure therapy: An innovative treatment for psychiatric patients. *New Dir Ment Health Serv* 1984; 21:103–13.

- Voruganti, LNP, et al. Going beyond: An adventure and recreation-based group intervention promotes well-being and weight loss in schizophrenia. *Can J Psychiatry* 2006; 51:575–80.
- Van Norden, O. Shall we commercialize our parks? J NY Forest Assoc 1916; 3; 15–18.
- Shin, WS, et al. Forest experience and psychological health benefits: The state of the art and future prospect in Korea. *Environ Health Prev Med* 2010; 15:38–47.
- Shin, WS, and SK Kim. The influence of forest experience on alcoholics' depression levels. *J Kor Forest Soc* 2007; 96:203–7.
- Shin, WS, and HK Oh. The influence of the forest programme on depression level. *J Kor Forest Soc* 1996; 85:586–95.
- Shanahan, L, et al. Wilderness adventure therapy and cognitive rehabilitation: Joining forces for youth with TBI. *Brain Inj* 2009; 23:1054–64.
- Werhan, P. Research update: The wilderness therapy trail. Parks and Recreation 2005; 40:24–29.
- Hattie, J, et al. Adventure education and outward bound: Out-of-class experiences that make a lasting experience. *Rev Educ Res* 1997; 67:43–87.
- Garg, R, et al. Perceived psychosocial benefits associated with perceived restorative potential of wilderness river-rafting trips. *Psychol Rep* 2010; 107:213–26.
- The Service of Solitude. Curr Literature 1895; 14:547-48.
- Rossman, B, and ZJ Ulehla. Psychological reward values associated with wilderness use. *Environ Behav* 1977; 9:41–66.
- Hammitt, W. Cognitive dimensions of wilderness solitude. *Environ Behav* 1982; 14:478–93.
- Meyers, L. Dangerous discipline. *Monitor Psychol* 2007; 38:16–17.
- Welch, T, et al. Wilderness first aid: Is there an "industry standard"? Wilderness Environ Med 2009; 20:113–17.
- Ewert, A, et al. Outdoor programs and environmental beliefs: Investigating the stability of outcomes and levels of salience. In Watson, A, et al., Science and stewardship to protect and sustain wilderness values: Eighth World Wilderness Congress symposium, 416–21. Sep 30–Oct 6, 2005, Anchorage. Proceedings RMRS-P-49. Fort Collins, CO: Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Kuru, J, and I Palmberg. Outdoor activities as a basis for environmental responsibility. *J Environ Educ* 2000; 31:32–36.
- Arnould, E, and L Price. River magic: Extraordinary experience and the extended service encounter. *J Consumer Res* 1993; 20:24–45.
- Gillett, D, et al. The effects of wilderness camping and hiking on the self-concept and the environmental attitudes and knowledge of twelfth graders. *J Environ Educ* 1991; 21:33–44.
- White, D, and J Hendee. Primal hypotheses: The relationship between naturalness, solitude, and the wilderness experience. *USDA Forest Serv Proc* 2000; 3:223–27.

Chapter 8

Talcott, S. The relations of nutrition to mental health and mental disease. *Trans Am Inst Hom* 1888; 41:574–83.

Smith, E. Foods. New York: D Appleton, 1873.

Rutherford, F. Nuts and fruits for brain workers. Woman's Med J 1897; 6:115.

The Editors. What an editor should eat. Sci Am 1871; 35:41.

Lawrence, JJ. Meat eating. Medical Brief, 1902; 30:1188–89.

Lady Paget's plea for vegetarianism. J Hort Cottage Garden 1893; 27:128.

Hill, L. Stuffy rooms: Opening address of the British Association at Dundee. *Nature* 1912; 90:146–55.

Mendez, M, and B Popkin. Globalization, urbanization and nutritional change in the developing world. *eJADE* 2004; 1:220–41.

Asfaw, A. Does consumption of processed foods explain disparities in the body weight of individuals? The case of Guatemala. *Health Econ* 2011; 20:184–95.

The Editors. The editor's note book. Med Standard 1922; 45:20

Vendors dispense brain food: Candy and soft drinks get scientific rating by AAAS. *Billboard*, Sep 30, 1944, 68–69.

The benefits of the soda fountain. Am Drug 1924; 72:14.

Soda fountain optimism. Am Med 1924; 30:139–40.

American Dietetic Association. *Nutrition Fact Sheet: Straight Facts about Beverage Choices.* Chicago: American Dietetic Association, 2001.

Simopoulos, A. The importance of the omega-6/omega-3 fatty acid ratio in cardiovascular disease and other chronic diseases. *Exp Biol Med* 2008; 233:674–88.

Simopoulos, A. Evolutionary aspects of diet: The omega-6/omega-3 ratio. *Mol Neurobiol* 2011;44:203–15.

Welsh, J, et al. Caloric sweetener consumption and dyslipidemia among US adults. *JAMA* 2010; 303:1490–97.

Tomiyama, A, et al. Comfort food is comforting to those most stressed: evidence of the chronic stress response network in high stress women. Psychoneuroendocrinol 2011;36:1513–19.

Hirth, J, et al. The association of posttraumatic stress disorder and fast food and soda consumption and unhealthy weight loss behaviors among young women. J Women's Health 2011;20:1141–49.

McNamara, R. Long-chain omega-3 fatty acid deficiency in mood disorders: Rationale for treatment and prevention. *Curr Drug Discov Technol* 2012 Forthcoming.

Perica, M, and I Delas. Essential fatty acids and psychiatric disorders. *Nutr Clin Pract* 2011; 26:409–25.

Kiecolt-Glaser, JK, et al. Omega-3 supplementation lowers inflammation and anxiety in medical students: A randomized controlled trial. *Brain Behav Immun* 2011;25:1725–34.

- Lucas, M, et al. Ethyl-eicosapentaenoic acid for the treatment of psychological distress and depressive symptoms in middle-aged women: A double-blind, placebo-controlled, randomized clinical trial. *Am J Clin Nutr* 2009; 89: 641–51.
- Blasbalg, T, et al. Changes in consumption of omega-3 and omega-6 fatty acids in the United States during the 20th century. *Am J Clin Nutr* 2011; 93:950–62.
- Vollert, C, et al. Exercise prevents sleep deprivation-associated anxiety-like behavior in rats: Potential role of oxidative stress mechanisms. *Behav Brain Res* 2011; 224:233–40.
- Salim, S, et al. Potential contributions of oxidative stress and inflammation to anxiety and hypertension. *Brain Res* 2011; 1404:63–71.
- Maes, M, et al. Neuroinflammation and neuroprogression as new pathways and drug targets in depression: From antioxidants to kinase inhibitors. *Prog Neuropsycho-pharmacol Biol Psychiatry* 2011; 35:659–63.
- Park, Y, et al. N-3 polyunsaturated fatty acid consumption produces neurological effects associated with prevention of depression in rats after forced swimming test. *J Nutr Biochem* 2012 Forthcoming.
- Wang, Y, et al. LPS inhibits the effects of fluoxetine on depression-like behavior and hippocampal neurogenesis in rats. *Prog Neuropsychopharmacol Biol Psychiatry* 2011;35:1831–5.
- Tanabe, K, et al. Midazolam suppresses interleukin-1β-induced interleukin-6 release from rat glial cells. *J Neuroinflammation* 2011;8:68.
- Zafir, A, and N Banu. Antioxidant potential of fluoxetine in comparison to Curcuma longa in restrain-stressed rats. *Eur J Pharmacol* 2007; 572:23–31.
- Xu, Y, et al. Antidepressant-like effect of trans-resveratrol: Involvement of serotonin and noradrenaline system. *Eur Neuropsychopharmacol* 2010; 20:405–13.
- Dreiseitel, A, et al. Berry anthocyanins and their aglycons inhibit monoamine oxidases A and B. *Pharmacol Res* 2009; 59:306–11.
- Parrott, M, and C Greenwood. Dietary influences on cognitive function with aging: From high-fat diets to healthful eating. *Ann NY Acad Sci* 2007; 1114:389–97.
- Iriti, M, et al. Neuroprotective herbs and foods from different traditional medicines and diets. *Molecules* 2010; 15:3517–55.
- Pascoe, M, et al. What you eat is what you are—a role for polyunsaturated fatty acids in neuroinflammation induced depression? *Clin Nutr* 2011; 30:407–15.
- Kang, A, et al. Peripheral anti-inflammatory effects explain the ginsenosides paradox between poor brain distribution and anti-depression efficacy. J Neuroinflammation 2011; 8:100.
- Warnberg, J, et al. Nutrition, inflammation, and cognitive function. *Ann NY Acad Sci* 2009; 1153:164–75.
- Centritto, F, et al. Dietary patterns, cardiovascular risk factors and C-reactive protein in a healthy Italian population. *Nutr Metab Cardiovasc Dis* 2009; 19:697–706.

- van Dijk, S, et al. A saturated fatty acid-rich diet induces an obesity-linked proinflammatory gene expression profile in adipose tissue of subjects at risk of metabolic syndrome. *Am J Clin Nutr* 2009; 90:1656–64.
- Fothergill, JM. A Manual of Dietetics. New York: William Wood, 1886.
- Kellogg, TH. Dietetics in mental diseases. J Reconstruct Diet Aliment 1887; 2:8–10.
- Cordain, L, et al. Origins and evolution of the Western diet: Health implications for the 21st century. *Am J Clin Nutr* 2005; 81:341–54.
- Simopoulos, A, et al. Workshop on the essentiality of and recommended dietary intakes for omega-6 and omega-3 fatty acids. *J Am Coll Nutr* 1999; 18:487–89.
- Aeberli, A, et al. Low to moderate sugar-sweetened beverage consumption impairs glucose and lipid metabolism and promotes inflammation in healthy young men: A randomized controlled trial. *Am J Clin Nutr* 2011; 94:479–85.
- Krebs-Smith, S, et al. Healthfulness of the US food supply: Limited improvement despite decades of dietary guidance. *Am J Prev Med* 2010; 38:472–77.
- Kantor, LS. Many Americans are not meeting food guide pyramid dietary recommendations. *Food Rev* 1996; Jan–Apr:7–15.
- Valente, T, et al. A diet enriched in polyphenols and polyunsaturated fats, LMN diet, induces neurogenesis in the subventricular zone and hippocampus of adult mouse brain. J Alzheimers Dis 2009; 18:849–65.
- Sampey, B, et al. Cafeteria diet is a robust model of human metabolic syndrome with liver and adipose inflammation: Comparison to high-fat diet. *Obesity* 2011; 19:1109–17.
- Stranahan, A, et al. Diet-induced insulin resistance impairs hippocampal synaptic plasticity and cognition in middle-aged rats. *Hippocampus* 2008; 18:1085–88.
- Vinson, J, et al. Cranberries and cranberry products: Powerful in vitro, ex vivo, and in vivo sources of antioxidants. *J Agric Food Chem* 2008; 56:5884–91.
- Jew, S, et al. Evolution of the human diet: Linking our ancestral diet to modern functional foods as a means of chronic disease prevention. J Med Food 2009; 12:925–34.
- Johnson, P, and P Kenny. Dopamine D2 receptors in addiction-like reward dysfunction and compulsive eating in obese rats. *Nat Neurosci* 2010; 13:635–41.
- Epstein, D, and Y Shaham. Cheesecake-eating rats and the question of food addiction. *Nat Neurosci* 2010; 13:529–31.
- Souza, C, et al. Highly palatable diet consumption increases protein oxidation in rat frontal cortex and anxiety-like behavior. *Life Sci* 2007; 81:198–203.
- Jacka, F, et al. The association between habitual diet quality and the common mental disorders in community-dwelling adults: The Hordaland Health Study. *Psychosom Med* 2011; 73:483–90.
- McMillan, L, et al. Behavioral effects of a 10-day Mediterranean diet: Results from a pilot study evaluating mood and cognitive performance. *Appetite* 2011; 56:143–47.

- Chrysohoou, C, et al. Mediterranean diet mediates the adverse effect of depressive symptomatology on short-term outcome in elderly survivors from an acute coronary event. *Cardiol Res Pract* 2011;2011:429487.
- Milaneschi, Y, et al. Depressive symptoms and inflammation increase in a prospective study of older adults: A protective effect of a healthy Mediterranean-style diet. *Mol Psychiatry* 2011; 16:589–90.
- Jacka, F, et al. Association of Western and traditional diets with depression and anxiety in women. *Am J Psychiatry* 2010; 167:1–7.
- Crawford, G, et al. Depressive symptoms and self-reported fast-food intake in midlife women. *Prev Med* 2011;52:254–7.
- Rohrer, J, et al. Does moderate fruit and vegetable intake protect against frequent mental distress in adult primary care patients? *J Altern Complement Med* 2009; 15:953–55.
- Sanchez-Villegas, A, et al. Fast-food and commercial baked goods consumption and the risk of depression. *Public Health Nutr* 2012;15:424–32.
- Chatzi, L, et al. Dietary patterns during pregnancy and the risk of postpartum depression: The mother-child "Rhea" cohort in Crete, Greece. *Public Health Nutr* 2011; 14:1663–70.
- Henriquez-Sanchez, P, et al. Adherence to the Mediterranean diet and quality of life in the SUN Project. *Eur J Clin Nutr* 2012 Forthcoming.
- Tobin, K. fast-food consumption and educational test scores in the USA. Child Care Health Dev 2012 Forthcoming.
- Tangney, C, et al. Adherence to a Mediterranean-type dietary pattern and cognitive decline in a community population. *Am J Clin Nutr* 2011; 93:601–7.
- Frisardi, V, et al. Nutraceutical properties of Mediterranean diet and cognitive decline: Possible underlying mechanisms. *J Alzheimers Dis* 2010; 22:715–40.
- Karlsson, H, et al. Association between erythrocyte sedimentation rate and IQ in Swedish males aged 18–20. *Brain Behav Immun* 2010; 24:868–73.
- Westover, A, and L Marangell. A cross-national relationship between sugar consumption and major depression? *Depress Anxiety* 2002; 16:118–20.
- Peet, M. International variations in the outcome of schizophrenia and the prevalence of depression in relation to national dietary practices. *Br J Psychiatry* 2004; 184:404–8.
- Shi, Z, et al. Soft drink consumption and mental health problems among adults in Australia. *Public Health Nutr* 2010; 13:1073–79.
- Northstone, K, et al. Are dietary patterns in childhood associated with IQ at 8 years of age? A population-based cohort study. *J Epidemiol Community Health* 2012 Forthcoming.
- Ye, X, et al. Habitual sugar intake and cognitive function among middle-aged and older Puerto Ricans without diabetes. *Br J Nutr* 2011;106:1423–32.
- Egger, G, and J Dixon. Inflammatory effects of nutritional stimuli: Further support for the need for a big picture approach to tackling obesity and chronic disease. *Obes Rev* 2010; II:137–49.

- Cervinka, R, et al. Are nature lovers happy? On various indicators of well-being and connectedness with nature. *J Health Psychol* 2012 Forthcoming.
- Kavouras, S, et al. Physical activity and adherence to Mediterranean diet increase total antioxidant capacity: The ATTICA study. *Cardiol Res Pract* 2010;2011:248626.
- Bedard, A. Effects of a dietary intervention promoting the adoption of a Mediterranean food pattern on fast-food consumption among healthy French-Canadian women. *Br J Nutr* 2010; 104:1662–65.
- Panunzio, M, et al. Randomized, controlled nutrition education trial promotes a Mediterranean diet and improves anthropometric, dietary, and metabolic parameters in adults. *Ann Ig* 2011; 23:13–25.
- Yubero-Serrano, E, et al. Postprandial effects of the Mediterranean diet on oxidant and antioxidant status in elderly men and women. *J Am Geriatr Soc* 2011; 59:938–40.
- Estruch, R. Anti-inflammatory effects of the Mediterranean diet: The experience of the PREDIMED study. *Proc Nutr Soc* 2010; 69:333–40.
- Lindeberg, S. Paleolithic diets as a model for prevention and treatment of Western disease. Am J Hum Biol 2012;24:110-5.
- Remondino, P. Pure olive oil as a food and as a medicine. Western Druggist 1892; 14:53–54.
- Pitozzi, V, et al. Effects of dietary extra-virgin olive oil on behavior and brain biochemical parameters in ageing rats. *Br J Nutr* 2010; 103:1674–83.
- Cheatham, C, et al. Fish oil supplementation during lactation: Effects on cognition and behavior at 7 years of age. *Lipids* 2011; 46:637–45.
- Gesch, B, et al. Influence of supplementary vitamins, minerals and essential fatty acids on the antisocial behaviour of young adult prisoners: Randomised, placebocontrolled trial. *Br J Psychiatry* 2002; 181:22–28.
- Zaalberg, A, et al. Effects of nutritional supplements on aggression, rule-breaking, and psychopathology among young adult prisoners. *Aggress Behav* 2010; 36:117–26.
- Hibbeln, J. From homicide to happiness—a commentary on omega-3 fatty acids in human society. *Nutr Health* 2007; 19:9–19.
- De Vriese, S, et al. In humans, the seasonal variation in polyunsaturated fatty acids is related to the seasonal variation in violent suicide and serotonergic markers of violent suicide. *Prostaglandins Leukot Essent Fatty Acids* 2004; 71:13–18.
- Iribarren, C, et al. Dietary intake of n-3, n-6 fatty acids and fish: Relationship with hostility in young adults—the CARDIA study. Eur J Clin Nutr 2004; 58:24–31.
- Jankowiak, J. Too much sugar may cause "brain decay." Neurology 2004; 63:e9-10.
- Freeman, MP. Nutrition and psychiatry. Am J Psychiatry 2010; 167:244-47.
- Moore, *S*, et al. Confectionery consumption in childhood and adult violence. *Br J Psychiatry* 2009; 195:366–67.
- Dickinson, A, et al. Use of dietary supplements by cardiologists, dermatologists and orthopedists: Report of a survey. *Nutr J* 2011; 10:20.

- Jazayeri, S, et al. Comparison of therapeutic effects of omega-3 fatty acid eicosapentaenoic acid and fluoxetine, separately and in combination, in major depressive disorder. *Aust N Z J Psychiatry* 2008; 42:192–98.
- Cope, E, and C Levenson. Role of zinc in the development and treatment of mood disorders. *Curr Opin Clin Nutr Metab Care* 2010; 13:685–89.
- Coppen, A, and C Bolander-Gouaille. Treatment of depression: Time to consider folic acid and vitamin B12. *J Psychopharmacol* 2005; 19:59–65.
- Bertone-Johnson, E, et al. Vitamin D intake from foods and supplements and depressive symptoms in a diverse population of older women. *Am J Clin Nutr* 2011;94:1104-12.
- Davidson, J, et al. Effectiveness of chromium in atypical depression: A placebocontrolled trial. *Biol Psychiatry* 2003 Feb; 53:261–64.
- Docherty, J, et al. A double-blind, placebo-controlled, exploratory trial of chromium picolinate in atypical depression: Effect on carbohydrate craving. *J Psychiatr Pract* 2005; 11:302–14.
- Benton, D. Selenium intake, mood and other aspects of psychological functioning. *Nutr Neurosci* 2002; 5:363–74.
- Benton, D. The influence of dietary status on the cognitive performance of children. *Mol Nutr Food Res* 2010; 54:457–70.
- Kennedy, D, et al. Vitamins and psychological functioning: A mobile phone assessment of the effects of a B vitamin complex, vitamin C and minerals on cognitive performance and subjective mood and energy. *Hum Psychopharmacol* 2012 Forthcoming.
- Kennedy, D, et al. Effects of high-dose B vitamin complex with vitamin C and minerals on subjective mood and performance in healthy males. *Psychopharmacology* 2010; 211:55–68.
- Haskell, C, et al. Effects of a multi-vitamin/mineral supplement on cognitive function and fatigue during extended multi-tasking. Hum Psychopharmacol 2010; 25:448–61.
- Krikorian, R, et al. Concord grape juice supplementation improves memory function in older adults with mild cognitive impairment. *Br J Nutr* 2010; 103:730–34.
- Remington, R, et al. Apple juice improved behavioral but not cognitive symptoms in moderate-to-late stage Alzheimer's disease in an open-label pilot study. *Am J Alzheimers Dis Other Demen* 2010; 25:367–71.
- Field, D, et al. Consumption of cocoa flavanols results in acute improvement in visual and cognitive functions. *Physiol Behav* 2011; 103:255–60.
- Scholey, A, et al. Consumption of cocoa flavanols results in acute improvements in mood and cognitive performance during sustained mental effort. *J Psychopharmacol* 2010; 24:1505–14.
- Kuriyama, S, et al. Green tea consumption and cognitive function: A cross-sectional study from the Tsurugaya Project 1. *Am J Clin Nutr* 2006; 83:355–61.
- Niu, K, et al. Green tea consumption is associated with depressive symptoms in the elderly. *Am J Clin Nutr* 2009; 90:1615–22.

- Brown, A, et al. Effects of dietary supplementation with the green tea polyphenol epigallocatechin-3-gallate on insulin resistance and associated metabolic risk factors: Randomized controlled trial. *Br J Nutr* 2009; 101; 886–94.
- Boon, H, et al. Effects of greens+: A randomized, controlled trial. *Can J Diet Pract Res* 2004; 65:66–71.
- Milesi, M, et al. Effect of an oral supplementation with a proprietary melon juice concentrate (Extramel) on stress and fatigue in healthy people: A pilot, double-blind, placebo-controlled clinical trial. *Nutr J* 2009; 8:40.
- Joseph, J, et al. Grape juice, berries, and walnuts affect brain aging and behavior. *J Nutr* 2009; 139:1813S–17S.
- American Association of School Administrators. *Conservation Education in American Schools*. Washington, DC: American Association of School Administrators, 1951.
- Joiner, T. Contagious depression: Existence, specificity to depressed symptoms, and the role of reassurance seeking. *J Pers Soc Psychol* 1994; 67:287–96.
- Bilbo, S, and V Tsang. Enduring consequences of maternal obesity for brain inflammation and behavior of offspring. *FASEB J* 2010; 2104–15.
- Cooke, L, and A Fildes. The impact of flavor exposure in utero and during milk feeding on food acceptance at weaning and beyond. *Appetite* 2011;57:808–11.
- Sanchez-Villegas, A, et al. Dietary fat intake and the risk of depression: The SUN Project. *PLoS ONE* 2011; 6:e16268.
- Stevens, L, et al. Dietary sensitivities and ADHD symptoms: Thirty-five years of research. *Clin Pediatr* 2011; 50(4):279–93.
- Bouchard, M, et al. Attention-deficit/hyperactivity disorder and urinary metabolites of organophosphate pesticides. *Pediatrics* 2010; 125(6):e1270–77.
- Duchin, F. Sustainable consumption of food. J Indust Ecol 2005; 9:99–114.
- Hamerschlag, K. A Meat Eater's Guide to Climate Change + Health: What You Eat Matters. Washington, DC: Environmental Working Group 2011, 1–25.
- Bouchard, M, et al. Prenatal exposure to organophosphate pesticides and IQ in 7-year-old children. *Environ Health Perspect* 2011; 119:1189–95.
- Day, P, and J Pearce. Obesity-promoting food environments and the spatial clustering of food outlets around schools. *Am J Prev Med* 2011; 40:113–21.
- Townsend, M, et al. Less-energy-dense diets of low-income women in California are associated with higher energy-adjusted diet costs. Am J Clin Nutr 2009; 89:1220–26.
- Drewnowski, A. Obesity and the food environment: Dietary energy density and diet costs. *Am J Prev Med* 2004; 27:154–62.
- Chiang, PH, et al. Fast-food outlets and walkability in school neighbourhoods predict fatness in boys and height in girls: A Taiwanese population study. *Public Health Nutr* 2011; 14:1601–9.
- Rey-Lopez, J, et al. Food and drink intake during television viewing in adolescents: The Healthy Lifestyle in Europe by Nutrition in Adolescence (HELENA) study. *Public Health Nutr* 2011; 14:1563–69.

- Lemaire, J, et al. Food for thought: An exploratory study of how physicians experience poor workplace nutrition. *Nutr J* 2011; 10:18.
- Lockie, S, et al. Choosing organics: A path analysis of factors underlying the selection of organic food among Australian consumers. *Appetite* 2004; 43:135–46.
- Carter, D. Recognizing the role of positive emotions in fostering environmentally responsible behaviors. *Ecopsychology* 2011; 3:65–69.
- Chaput, JP, et al. Video game playing increases food intake in adolescents: A randomized crossover study. *Am J Clin Nutr* 2011; 93:1196–203.
- Skatrud-Mickelson, M, et al. Tween sex differences in snacking preferences during television viewing. *J Am Diet Assoc* 2011; 111:1385–90.
- Brunner, T, et al. Convenience food products: Drivers for consumption. *Appetite* 2010; 55:498–506.
- Tobler, C, et al. Eating green: Consumers willingness to adopt ecological food consumption behaviors. *Appetite* 2011;57:674–82.
- Knauper, B, et al. Replacing craving imagery with alternative pleasant imagery reduces craving intensity. *Appetite* 2011; 57:173–78.
- Barlett, P. Campus sustainable food projects: Critique and engagement. *Am Anthropol* 2011; 113:101–15.
- Mikkola, M. Shaping professional identity for sustainability: Evidence in Finnish public catering. *Appetite* 2009; 53:56–65.
- Simopoulos, A, et al. Action plan for a healthy agriculture, healthy nutrition, healthy people. *J Nutrigenet Nutrigenomics* 2011; 4:65–68.
- Nestle, M. Food company sponsorship of nutrition research and professional activities: A conflict of interest? *Public Health Nutr* 2001; 4:1015–22.
- Oshaug, A. What is the food and drink industry doing in nutrition conferences? *Public Health Nutr* 2009; 12:1019–20.
- Bourne, P. Role of government. World Rev Nutr Diet 2011; 102:263–66.
- Freedhoff, Y, and P Hebert. Partnerships between health organizations and the food industry risk derailing public health nutrition. *CMAJ* 2011; 183:291–92.

Chapter 9

- Thomson, JA. The popular lecture: Vis medicatrix naturae. BMJ 1914; 2:277-79.
- Ferris, AW. State ownership of the springs of Saratoga and state control in developing and utilizing their facilities. *Proc Am Medico-Psycholigical Assoc* 1915; 22:213–18.
- Pyle, RM. Nature matrix: Reconnecting people and nature. Oryx 2003; 37:206–14.
- Hough, F. Public health interests concerned in the preservation of certain primeval forests and in the cultivation of groves and trees. *Public Health Rep* 1875; 3:176–84.
- Aide, L. Can education prepare folks to use wisely the ever-widening margin of leisure? *Penn Public Instruction* 1937; 5:20.
- Gordon, JB. The psychiatric values of wilderness. Welfare Rep 1952; 6:3-4,15-16.

- Menninger, K, et al. The Vital Balance. New York: Viking Press, 1963.
- Menninger, K. Human needs in urban society. Architect Rec 1959; 126:197–200.
- Gibson, W. Wilderness—a psychiatric necessity. In *Wilderness in a Changing World*. Edited by B Kilgore, 228–32. Binghamton, NY: Vail-Ballou Press, 1966.
- Thorndike, E. Sentimentality in science-teaching. *Educ Rev* 1899; 17:57–64.
- Thorndike, E. Review of *Dawn of Reason*. Science 1899; 9:450.
- Stam, H, and T Kalmanovitch. E.L. Thorndike and the origins of animal psychology. Am Psychol 1998; 53:1135–44.
- Esser, A. ASMER/APA Database for Ecopsychiatry Workshop Detroit. *Man-Environ Systems* 1974; 4:35–36.
- Kaminski, G. Environmental psychology. *German J Psychol* 1978; 2:225–36.
- Goldenson, R. Longman Dictionary of Psychology and Psychiatry. New York: Longman, 1984.
- Kruse, L, and C Graumann. Environmental psychology in Germany. In *Handbook of Environmental Psychology*. Vol. 2. Edited by D Stokols and I Altman, 1195–225. New York: John Wiley and Sons, 1987.
- Egger, G, and J Dixon. Non-nutrient causes of low-grade, systemic inflammation: Support for a "canary in the mineshaft" view of obesity in chronic disease. *Obes Rev* 2011; 12:339–45.
- Esser, A. Environment and mental health. Sci Med Man 1974; 1:181-93.
- Levy, MM. Outdoor group therapy with preadolescent boys. *Psychiatry* 1950; 13:333–47.
- Walsh, B. Eco-therapy for environmental depression. Time, Jul 28, 2009.
- Kim, W, et al. The effect of cognitive behavior therapy-based psychotherapy applied in a forest environment on psychological changes and remission of major depression. *Psychiatry Investig* 2009; 6:245–54.
- Kohlleppel, T, et al. A walk through the garden: Can a visit to a botanic garden reduce stress? *HortTechnology* 2002; 12:489–92.
- Corazon, S, et al. Development of the nature-based therapy concept for patients with stress-related illness at the Danish healing forest garden Nacadia. *J Ther Hort* 2010; 20:34–51.
- Chisolm, M. Prescribing psychotherapy. *Perspect Biol Med* 2011; 54:168–75.
- Ellis, C, et al. Retail land use, neighborhood satisfaction and the urban forest: An investigation into the moderating and mediating effects of trees and shrubs. *Landse Urban Plan* 2006; 74:70–78.
- Saarloos, D, et al. The built environment and depression in later life: The Health in Men Study. *Am J Geriatr Psychiatry* 2011; 19:461–70.
- Maxwell, S, and A Kover. Negative affect: The dark side of retailing. *J Bus Res* 2003; 56:553–59.
- Buber, R, et al. Evolutionary store design: How plants, animals and sight protection affect consumer behavior. Proceedings of the ANZMAC Conference, Dec 3–5, 2007, University of Otago, New Zealand.

- Wood, L, et al. Sense of community and its relationship with walking and neighborhood design. *Soc Sci Med* 2010; 70:1381–90.
- Zhong, CB, and SE DeVoe. You are how you eat: Fast food and impatience. *Psychol Sci* 2010; 21:619–22.
- Krieger, M, et al. What's wrong with plastic trees? *Science* 1973; 179:446–55.
- Iltis, H. Can one love a plastic tree? *Bull Ecol Soc Am* 1973; 54:5–7.
- Thoreau, HD. The Maine Woods. Boston: Ticknor and Fields, 1864.
- Ballouard, JM, et al. Children prioritize virtual exotic biodiversity over local biodiversity. *PLoS ONE* 2011; 6:e23152.
- Fehske, A, et al. The global footprint of mobile communications: The ecological and economic perspective. *IEEE Comm* 2011; 49:55–62.
- Keller, G. Gadgets alert over environment impact. *The Independent*, May 13, 2009.
- Kahn, P, et al. The human relation with nature and technological nature. *Curr Dir Psychol Sci* 2009; 18:37–42.
- Kahn, P, et al. A plasma display window? The shifting baseline problem in a technologically mediated natural world. *J Environ Psychol* 2008; 28:192–99.
- Valtchanov, D, et al. Restorative effects of virtual nature settings. *Cyberpsychol Behav* Soc Netw 2010; 13:503–12.
- Kjellgren, A, and H Buhrkall. A comparison of the restorative effect of a natural environment with that of a simulated natural environment. *J Environ Psychol* 2010; 30:464–72.
- Levi, D, and S Kocher. Virtual nature: The future effects of information technology on our relationship to nature. *Environ Behav* 1999; 31:203–26.
- Asah, S, et al. The influence of childhood: Operational pathways to adulthood participation in nature-based activities. *Environ Behav* 2012 Forthcoming.
- Plante, T, et al. Psychological benefits of exercise paired with virtual reality: Outdoor exercise energizes whereas indoor virtual exercise relaxes. *Int J Stress Manag* 2006; 13:108–17.
- Mayer, FS, et al. Why is nature beneficial? The role of connectedness to nature. *Environ Behav* 2009; 4I:607–43.
- Depledge, M, et al. Can natural and virtual environments be used to promote improved human health and well-being? *Environ Sci* 2011; 45:4660–65.
- Korpela, K, et al. Favorite green, waterside and urban environments, restorative experiences and perceived health in Finland. *Health Promot Int* 2010; 25:200–9.
- Korpela, K, et al. Effectiveness of favorite-place prescriptions: A field experiment. Am J Prev Med 2009; 36:435–38.
- Ferris, AW. First impressions. *Mod Hosp* 1916; 6:201–3.
- Fuller, R, et al. Psychological benefits of greenspace increase with biodiversity. *Biol Lett* 2007; 3:390–94.
- Luck, G, et al. Relations between urban bird and plant communities and human well-being and connection to nature. *Conserv Biol* 2011; 25:816–26.

- Martin, AR. Self-alienation and the loss of leisure. Am J Psychoanal 1961; 21:156-65.
- Pressman, S, et al. Association of enjoyable leisure activities with psychological and physical well-being. *Psychosom Med* 2009; 71:725–32.
- Alberts, H, and R Thewissen. The effect of a brief mindfulness intervention on memory for positively and negatively valenced stimuli. *Mindfulness* 2011; 2:73–77.
- Hamer, M, et al. Psychological distress, television viewing, and physical activity in children aged 4 to 12 years. *Pediatrics* 2009; 123:1263–68.
- Hamer, M, et al. Television and screen-based activity and mental well-being in adults. *Am J Prev Med* 2010; 38:375–80.
- Johnson, C, et al. It's who I am and what we eat: Mothers' food-related identities in family food choice. *Appetite* 2011; 57:220–28.
- Cervinka, R, et al. Are nature lovers happy? On various indicators of well-being and connectedness to nature. *J Health Psychol* 2012 Forthcoming.
- Howell, A, et al. Nature connectedness: Associations with well-being and mindfulness. *Pers Individ Dif* 2011; 51:166–71.
- Nisbet, E, et al. Happiness is in our nature: Exploring nature relatedness as a contributor to subjective well-being. *J Happiness Stud* 2011; 12:303–22.
- Nisbet, E, et al. Underestimating nearby nature: Affective forecasting errors obscure the happy path to sustainability. *Psychol Sci* 2011; 22:1101–6.
- Hinds, J, and P Sparks. Engaging with the natural environment: The role of affective connection and identity. *J Environ Psychol* 2008; 28:109–20.
- Mayer, F, and C Frantz. The connectedness to nature scale: A measure of individuals' feeling in community with nature. *J Environ Psychol* 2004; 24:503–15.
- Nisbet, E, et al. The nature relatedness scale. Environ Behav 2009; 41:715-40.
- Dutcher, D, et al. Connectivity with nature as a measure of environmental values. *Environ Behav* 2007; 39:474–93.
- Mitchell, R, and F Popham. Effect of exposure to natural environmental on health inequalities: An observational population study. *Lancet* 2008; 372:1655–60.
- Prince, M, et al. No health without mental health. Lancet 2007; 370:859-77.
- Thomson, W. Lifting the shroud on depression and premature mortality: A 49-year follow-up study. *J Affect Disord* 2011; 130:60–65.
- Pillemer, K, et al. Environmental volunteering and health outcomes over a 20-year period. *Gerontologist* 2010; 50:594–602.
- O'Brien, L, et al. Volunteering in nature as a way of enabling people to reintegrate into society. *Perspect Public Health* 2011; 131:71–81.
- Ryan, R, et al. Vitalizing effects of being outdoors in nature. *J Environ Psychol* 2010; 30:159–68.
- Editorial. Better, greener, smarter cities: We have seen a brighter future, and it is urban. *Sci Am* 2011; 305:38–89.

- Schuetz, S, et al. What? The earth is sick? Undergraduate student awareness of environmental problems: a qualitative study. Ecopsychol 2011;3:269–76.
- Day, P, and J Pearce. Obesity-promoting food environments and the spatial clustering of food outlets around schools. *Am J Prev Med* 2011; 40:113–21.
- Stainbrook, E. Human needs and the natural environment. Man and Nature in the City symposium. US Museum of History and Technology, Washington, DC, Oct 21–22, 1968.
- Borgmann, A. Holding on to Reality: The Nature of Information at the Turn of the Millennium. Chicago: University of Chicago Press, 1999.
- DeFries, R, et al. Deforestation driven by urban population growth and agricultural trade in the twenty-first century. *Nat Geosci* 2010; 3:178–81.
- Wolkowitz, O, et al. Depression gets old fast: Do stress and depression accelerate cell aging? *Depress Anxiety* 2010; 27:327–38.
- Roberts, K, and S Danoff-Burg. Mindfulness and health behaviors: Is paying attention good for you? *J Am Coll Health* 2010; 59:165–73.
- Berenguer, J. The effect of empathy in proenvironmental attitudes and behaviors. *Environ Behav* 2007; 39:269–83.
- Scannell, L, and R Gifford. The relations between natural and civic place attachment and pro-environmental behavior. *J Environ Psychol* 2010; 30:289–97.
- Davis, J. Building a model of commitment to the natural environment to predict ecological behavior and willingness to sacrifice. *J Environ Psychol* 2011;31:257-65.
- Zaradic, P, et al. The impact of nature experience on willingness to support conservation. *PLoS ONE* 2009; 4:e7367.
- Lohr, V, et al. Children's active and passive interactions with plants influence their attitudes and actions toward trees and gardening as adults. *HortTechnology* 2005; 15:472–76.
- Thompson, C, et al. It gets you away from everyday life: Local woodlands and community use—what makes a difference? *Landscape Res* 2005; 30:109–46.
- Schultz, P. New Environmental Theories: Empathizing with nature; The effects of perspective taking on concern for environmental issues. *J Soc Issues* 2000; 56:391–406.
- Kals, E, et al. Emotional affinity toward nature as a motivational basis to protect nature. *Environ Behav* 1999; 31:178–202.
- Frantz, C, et al. There is no "I" in nature: The influence of self-awareness on connectedness to nature. *J Environ Psychol* 2005; 25:427–36.
- Nisbet, E, et al. Happiness is in our nature: Exploring nature relatedness as a contributor to subjective well-being. *J Happiness Stud* 2011; 12:303–22.
- Cheng, J, and M Monroe. Connection to nature: Children's affective attitude toward nature. *Environ Behav* 2012 Forthcoming.