Wired for Peace — Resources Guide

Principle 1: Solutions and Stress Don’t Mix; Always De-escalate First (pp. 1–40)

This resources guide pairs key concepts and claims from Principle 1 of *Wired for Peace* by Jeremy Pollack, Ph.D., with peer-reviewed journal articles and professionally published academic books that support each idea. Citations are formatted in APA 7th edition. For the SAPIEN needs model, readers are directed to the author’s comprehensive resource page at pollackpeacebuilding.com/blog/conflict-6-core-human-needs/.

Quote from Principle 1 (with page number)	Supporting peer-reviewed citation (APA + link)
“Escalated states are produced in brain regions that lead to a narrowing or constraining of one’s psychological and behavioral repertoires…” *p. 2*	Easterbrook, J. A. (1959). The effect of emotion on cue utilization and the organization of behavior. *Psychological Review, 66*(3), 183–201. https://doi.org/10.1037/h0047707 https://doi.org/10.1037/h0047707 *Relevance:* Classic paper introducing the cue-utilization hypothesis: high arousal narrows attention and behavioral repertoire.
“We can theoretically conceive of where arousal levels should be in an optimal range for various activities…” (the inverted-U / optimal arousal model) *pp. 3–4*	Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology, 18*(5), 459–482. https://doi.org/10.1002/cne.920180503 https://doi.org/10.1002/cne.920180503 *Relevance:* Original empirical paper establishing the inverted-U arousal–performance relationship.
“Optimal arousal ranges…” (modern neurobiological reformulation) *pp. 3–4*	Diamond, D. M., Campbell, A. M., Park, C. R., Halonen, J., & Zoladz, P. R. (2007). The temporal dynamics model of emotional memory processing: A synthesis on the neurobiological basis of stress-induced amnesia, flashbulb and traumatic memories, and the Yerkes–Dodson law. *Neural Plasticity, 2007*, 60803. https://doi.org/10.1155/2007/60803 https://doi.org/10.1155/2007/60803 *Relevance:* Modern neurobiological synthesis of the Yerkes–Dodson law, integrating glucocorticoid and memory effects.

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"A distinction is often made between what's been called eustress… and distress…" *p. 4*	Selye, H. (1975). Confusion and controversy in the stress field. *Journal of Human Stress, 1*(2), 37–44. https://doi.org/10.1080/0097840X.1975.9940406 https://doi.org/10.1080/0097840X.1975.9940406 *Relevance:* Selye's articulation of the eustress/distress distinction by the originator of the stress concept.
"If you feel in control of the stressful experience or the experience feels predictable, you likely won't spiral into an anxiety attack." (challenge vs. threat / control) *p. 4*	Blascovich, J., & Mendes, W. B. (2000). Challenge and threat appraisals: The role of affective cues. In J. P. Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition* (pp. 59–82). Cambridge University Press. *Relevance:* Biopsychosocial model distinguishing challenge (manageable) from threat (overwhelming) responses; foundational for the eustress concept.
"During an ASR, various hormones are released into the bloodstream, such as adrenaline, noradrenaline, and cortisol…" *p. 5*	Ulrich-Lai, Y. M., & Herman, J. P. (2009). Neural regulation of endocrine and autonomic stress responses. *Nature Reviews Neuroscience, 10*(6), 397–409. https://doi.org/10.1038/nrn2647 https://doi.org/10.1038/nrn2647 *Relevance:* Authoritative review of neuroendocrine and autonomic stress response pathways (sympathomedullary + HPA axis).
"Chronic stress is associated with dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis… linked with cardiovascular disease, weakened immunity, metabolic disorders, and mood disorders like depression and anxiety." *p. 6*	McEwen, B. S. (1998). Stress, adaptation, and disease: Allostasis and allostatic load. *Annals of the New York Academy of Sciences, 840*(1), 33–44. https://doi.org/10.1111/j.1749-6632.1998.tb09546.x https://doi.org/10.1111/j.1749-6632.1998.tb09546.x *Relevance:* Foundational paper on allostatic load — the wear-and-tear of chronic stress on cardiovascular, immune, metabolic, and neural systems.
"Chronic stress is associated with dysregulation of the HPA axis…" (broader systems review) *p. 6*	Juster, R.-P., McEwen, B. S., & Lupien, S. J. (2010). Allostatic load biomarkers of chronic stress and impact on health and cognition. *Neuroscience & Biobehavioral Reviews, 34*(1), 2–16. https://doi.org/10.1016/j.neubiorev.2009.10.002 https://doi.org/10.1016/j.neubiorev.2009.10.002 *Relevance:* Comprehensive review linking chronic HPA-axis dysregulation to disease across neuroendocrine, immune, metabolic, and cardiovascular systems.

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"Most animals have the extraordinary ability to employ a last-ditch effort at survival: the feign or faint response… [in humans] their nervous systems may shut down the mind and body so that the individual mentally dissociates and physically goes numb." *p. 6*	Kozlowska, K., Walker, P., McLean, L., & Carrive, P. (2015). Fear and the defense cascade: Clinical implications and management. *Harvard Review of Psychiatry, 23*(4), 263–287. https://doi.org/10.1097/HRP.0000000000000065 https://doi.org/10.1097/HRP.0000000000000065 *Relevance:* Comprehensive clinical synthesis of the defense cascade: arousal, flight/fight, freeze, tonic immobility, collapsed immobility (faint).
"When individuals, especially children, undergo ongoing fear or perceived danger throughout their lives—what psychologists call complex trauma—their nervous systems may fall into chronic hypoarousal…" *pp. 6–7*	Schauer, M., & Elbert, T. (2010). Dissociation following traumatic stress: Etiology and treatment. *Zeitschrift für Psychologie / Journal of Psychology, 218*(2), 109–127. https://doi.org/10.1027/0044-3409/a000018 https://doi.org/10.1027/0044-3409/a000018 *Relevance:* Six-stage shutdown model (freeze→flight→fight→fright→flag→faint) explaining dissociation in repeated/inescapable threat.
"This cascade increases arousal and prepares the individual for rapid defensive responses but simultaneously impairs the prefrontal cortex (PFC)—the region largely responsible for emotion regulation, moral reasoning, and perspective taking." *p. 8*	Arnsten, A. F. T. (2009). Stress signalling pathways that impair prefrontal cortex structure and function. *Nature Reviews Neuroscience, 10*(6), 410–422. https://doi.org/10.1038/nrn2648 https://doi.org/10.1038/nrn2648 *Relevance:* Definitive review of how acute and chronic stress impair PFC function via catecholamine signaling — the key mechanism behind "PFC offline."
"Under stress, however, cortisol can impair hippocampal function, which may distort contextual memory and bias perception even further toward threat detection and self-protection." *p. 8*	Lupien, S. J., McEwen, B. S., Gunnar, M. R., & Heim, C. (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. *Nature Reviews Neuroscience, 10*(6), 434–445. https://doi.org/10.1038/nrn2639 https://doi.org/10.1038/nrn2639 *Relevance:* Major review of how glucocorticoids/cortisol affect hippocampal function and memory across the lifespan.
"During a stress response, including the activation of the HPA axis and downregulation of the PFC, our capacity for open-mindedness and curiosity become severely impaired."	Kashdan, T. B., & Steger, M. F. (2007). Curiosity and pathways to well-being and meaning in life: Traits, states, and everyday behaviors. *Motivation and Emotion, 31*(3), 159–173. https://doi.org/10.1007/s11031-007-9068-7 https://doi.org/10.1007/s11031-007-9068-7

Quote from Principle 1 (with page number)	Supporting peer-reviewed citation (APA + link)
p. 9	*Relevance:* Empirical work linking curiosity to exploration, openness, and well-being — functions impaired by stress.
"Stress also narrows attentional focus, a phenomenon known as cognitive narrowing…" *p. 9*	Mather, M., & Sutherland, M. R. (2011). Arousal-biased competition in perception and memory. *Perspectives on Psychological Science, 6*(2), 114–133. https://doi.org/10.1177/1745691611400234 https://doi.org/10.1177/1745691611400234 *Relevance:* Influential framework explaining how arousal narrows perception and memory toward salient/threatening cues at the expense of others.
"Creativity also involves dynamic interaction between the default mode network and the executive control network… Distress disrupts this balance by reducing connectivity between these networks, leading to a narrowed focus and inhibition of divergent thinking." *p. 12*	Beaty, R. E., Benedek, M., Silvia, P. J., & Schacter, D. L. (2016). Creative cognition and brain network dynamics. *Trends in Cognitive Sciences, 20*(2), 87–95. https://doi.org/10.1016/j.tics.2015.10.004 https://doi.org/10.1016/j.tics.2015.10.004 *Relevance:* Authoritative review of dynamic coupling between default-mode and executive control networks during creative cognition.
"Elevated cortisol levels negatively affect the hippocampus, impairing memory recall and associative thinking…" *p. 12*	Sapolsky, R. M. (1996). Why stress is bad for your brain. *Science, 273*(5276), 749–750. https://doi.org/10.1126/science.273.5276.749 https://doi.org/10.1126/science.273.5276.749 *Relevance:* Classic article on glucocorticoid neurotoxicity and hippocampal vulnerability — the basis for stress-induced memory impairment.
"A foundational model of human motivation is a set of theories generally referred to as human needs theories… these needs are universal, cross-cultural, and central to the human animal." (SAPIEN needs model) *p. 13*	Pollack, J. (2024). *The SAPIEN needs model: A guide to universal psychological needs*. Pollack Peacebuilding Systems. https://pollackpeacebuilding.com/blog/conflict-6-core-human-needs/ https://pollackpeacebuilding.com/blog/conflict-6-core-human-needs/ *Relevance:* Comprehensive author resource on the SAPIEN needs model, including supporting literature and applications. (Per author direction, all SAPIEN-needs claims point to this single resource.)

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"During deep non-REM and REM sleep, the brain reduces activity in the amygdala… enhances connectivity between the prefrontal cortex and limbic system… Sleep also reduces baseline levels of cortisol…" *p. 20*	Goldstein, A. N., & Walker, M. P. (2014). The role of sleep in emotional brain function. *Annual Review of Clinical Psychology, 10*, 679–708. https://doi.org/10.1146/annurev-clinpsy-032813-153716 https://doi.org/10.1146/annurev-clinpsy-032813-153716 *Relevance:* Comprehensive review of how sleep restores prefrontal-amygdala connectivity and downregulates emotional reactivity.
"A healthy, balanced diet supports nervous system regulation and stress resilience… a healthy gut microbiome… communicates bidirectionally with the brain via the gut-brain axis, influencing mood, inflammation, and stress hormone regulation." *p. 21*	Cryan, J. F., O'Riordan, K. J., Cowan, C. S. M., Sandhu, K. V., Bastiaanssen, T. F. S., Boehme, M., Codagnone, M. G., Cussotto, S., Fulling, C., Golubeva, A. V., Guzzetta, K. E., Jaggar, M., Long-Smith, C. M., Lyte, J. M., Martin, J. A., Molinero-Perez, A., Moloney, G., Morelli, E., Morillas, E., … Dinan, T. G. (2019). The microbiota-gut-brain axis. *Physiological Reviews, 99*(4), 1877–2013. https://doi.org/10.1152/physrev.00018.2018 https://doi.org/10.1152/physrev.00018.2018 *Relevance:* Authoritative comprehensive review of the gut-brain axis and its bidirectional effects on stress, mood, and inflammation.
"Exercise also modulates the HPA axis… Neurochemically, exercise boosts the production of endorphins, dopamine, serotonin, and brain-derived neurotrophic factor…" *p. 22*	Cotman, C. W., & Berchtold, N. C. (2002). Exercise: A behavioral intervention to enhance brain health and plasticity. *Trends in Neurosciences, 25*(6), 295–301. https://doi.org/10.1016/S0166-2236(02)02143-4 https://doi.org/10.1016/S0166-2236(02)02143-4 *Relevance:* Foundational review of how exercise increases BDNF and supports neuroplasticity and brain health.
"Regular mindfulness practice reduces amygdala activity, strengthens prefrontal cortex regulation, and improves emotional awareness and resilience to stressors." *p. 26*	Hölzel, B. K., Carmody, J., Vangel, M., Congleton, C., Yerramsetti, S. M., Gard, T., & Lazar, S. W. (2011). Mindfulness practice leads to increases in regional brain gray matter density. *Psychiatry Research: Neuroimaging, 191*(1), 36–43. https://doi.org/10.1016/j.pscychresns.2010.08.006 https://doi.org/10.1016/j.pscychresns.2010.08.006 *Relevance:* Landmark longitudinal MRI study showing structural brain changes after 8 weeks of MBSR; reductions in amygdala density correlated with stress reduction.

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“Regular mindfulness practice reduces amygdala activity, strengthens prefrontal cortex regulation…” (mechanisms review) *p. 26*	Tang, Y.-Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. *Nature Reviews Neuroscience, 16*(4), 213–225. https://doi.org/10.1038/nrn3916 https://doi.org/10.1038/nrn3916 *Relevance:* Authoritative review of neural mechanisms by which mindfulness modulates attention, emotion regulation, and self-awareness.
“Safe, supportive relationships activate the social engagement system and buffer the physiological impact of stress through co-regulation.” *p. 26*	Porges, S. W. (2007). The polyvagal perspective. *Biological Psychology, 74*(2), 116–143. https://doi.org/10.1016/j.biopsycho.2006.06.009 https://doi.org/10.1016/j.biopsycho.2006.06.009 *Relevance:* Polyvagal theory: how the vagal social-engagement system supports safety, co-regulation, and physiological calm.
“Exposure to natural environments (e.g., forests, oceans, nature paths) lowers cortisol levels and increases parasympathetic activation.” *p. 26*	Hunter, M. R., Gillespie, B. W., & Chen, S. Y.-P. (2019). Urban nature experiences reduce stress in the context of daily life based on salivary biomarkers. *Frontiers in Psychology, 10*, 722. https://doi.org/10.3389/fpsyg.2019.00722 https://doi.org/10.3389/fpsyg.2019.00722 *Relevance:* Empirical study quantifying cortisol reduction from 20–30 minutes of nature exposure (“nature pill”).
“Exposure to natural environments… lowers cortisol levels…” (meta-analytic evidence) *p. 26*	Antonelli, M., Barbieri, G., & Donelli, D. (2019). Effects of forest bathing (shinrin-yoku) on levels of cortisol as a stress biomarker: A systematic review and meta-analysis. *International Journal of Biometeorology, 63*(8), 1117–1134. https://doi.org/10.1007/s00484-019-01717-x https://doi.org/10.1007/s00484-019-01717-x *Relevance:* Meta-analysis confirming that forest/nature exposure significantly reduces salivary cortisol.
“Modalities like yoga, tai chi, Feldenkrais, or somatic experiencing help reconnect body and brain, release stored tension, and enhance self-awareness and self-regulation.”	Pascoe, M. C., Thompson, D. R., & Ski, C. F. (2017). Yoga, mindfulness-based stress reduction and stress-related physiological measures: A meta-analysis. *Psychoneuroendocrinology, 86*, 152–168. https://doi.org/10.1016/j.psyneuen.2017.08.008

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p. 27	https://doi.org/10.1016/j.psyneuen.2017.08.008 *Relevance:* Meta-analysis of yoga and mindfulness effects on cortisol, blood pressure, heart rate, and HRV — confirming somatic-practice benefits.
"Practices like cognitive-behavioral therapy, eye movement desensitization and reprocessing, and other trauma-informed therapies help both address unresolved stress patterns and enhance resilience." *p. 27*	Hofmann, S. G., Asnaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy and Research, 36*(5), 427–440. https://doi.org/10.1007/s10608-012-9476-1 https://doi.org/10.1007/s10608-012-9476-1 *Relevance:* Authoritative review-of-reviews confirming CBT efficacy across anxiety, mood, and stress disorders.
"The key to downregulating a stress response is lengthening your exhale, which increases vagal activity and tends to slow your heart rate. This phenomenon is called respiratory sinus arrhythmia (RSA)…" *p. 28*	Zaccaro, A., Piarulli, A., Laurino, M., Garbella, E., Menicucci, D., Neri, B., & Gemignani, A. (2018). How breath-control can change your life: A systematic review on psycho-physiological correlates of slow breathing. *Frontiers in Human Neuroscience, 12*, 353. https://doi.org/10.3389/fnhum.2018.00353 https://doi.org/10.3389/fnhum.2018.00353 *Relevance:* Systematic review documenting how slow breathing (especially extended exhalation) increases vagal tone, RSA, and parasympathetic dominance.
"RSA is considered a marker of vagal tone and overall autonomic flexibility, both of which are associated with emotional regulation and resilience to stress." *p. 28*	Thayer, J. F., Åhs, F., Fredrikson, M., Sollers, J. J., III, & Wager, T. D. (2012). A meta-analysis of heart rate variability and neuroimaging studies: Implications for heart rate variability as a marker of stress and health. *Neuroscience & Biobehavioral Reviews, 36*(2), 747–756. https://doi.org/10.1016/j.neubiorev.2011.11.009 https://doi.org/10.1016/j.neubiorev.2011.11.009 *Relevance:* Meta-analysis establishing HRV/vagal tone as a biomarker linking autonomic function to prefrontal regulation, emotion regulation, and health.
"Mindfulness—the practice of being present and just noticing—reminds our brains and bodies that we are safe, right here, right now." *p. 29*	Goyal, M., Singh, S., Sibinga, E. M. S., Gould, N. F., Rowland-Seymour, A., Sharma, R., Berger, Z., Sleicher, D., Maron, D. D., Shihab, H. M., Ranasinghe, P. D., Linn, S., Saha, S., Bass, E. B., & Haythornthwaite, J. A. (2014). Meditation programs for psychological stress and well-being: A systematic review and meta-analysis. *JAMA Internal Medicine, 174*(3), 357–368. https://doi.org/10.1001/jamainternmed.2013.13018

Quote from Principle 1 (with page number)	Supporting peer-reviewed citation (APA + link)
	https://doi.org/10.1001/jamainternmed.2013.13018 *Relevance:* JAMA Internal Medicine meta-analysis showing mindfulness meditation programs significantly reduce anxiety, depression, and pain.
"Interoception is the focus on and perception of internal bodily states and sensations. Exteroception is the focus on and perception of the world outside of our bodies… threat perception is ultimately an interoceptive state…" *pp. 29–30*	Khalsa, S. S., Adolphs, R., Cameron, O. G., Critchley, H. D., Davenport, P. W., Feinstein, J. S., Feusner, J. D., Garfinkel, S. N., Lane, R. D., Mehling, W. E., Meuret, A. E., Nemeroff, C. B., Oppenheimer, S., Petzschner, F. H., Pollatos, O., Rhudy, J. L., Schramm, L. P., Simmons, W. K., Stein, M. B., … Zucker, N. (2018). Interoception and mental health: A roadmap. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 3*(6), 501–513. https://doi.org/10.1016/j.bpsc.2017.12.004 https://doi.org/10.1016/j.bpsc.2017.12.004 *Relevance:* Consensus roadmap on interoception, defining its mechanisms and role in anxiety, threat perception, and self-regulation.
"When we do this to effectively help someone calm down, it is called co-regulation. We are literally regulating each other's nervous systems." *p. 34*	Butler, E. A., & Randall, A. K. (2013). Emotional coregulation in close relationships. *Emotion Review, 5*(2), 202–210. https://doi.org/10.1177/1754073912451630 https://doi.org/10.1177/1754073912451630 *Relevance:* Theoretical and empirical review of emotional and physiological co-regulation between people in close relationships.
"The way we behave and communicate absolutely affects others' nervous systems…" (physiological linkage) *p. 34*	Feldman, R. (2007). Parent–infant synchrony and the construction of shared timing: Physiological precursors, developmental outcomes, and risk conditions. *Journal of Child Psychology and Psychiatry, 48*(3–4), 329–354. https://doi.org/10.1111/j.1469-7610.2006.01701.x https://doi.org/10.1111/j.1469-7610.2006.01701.x *Relevance:* Foundational research on biobehavioral synchrony — how nervous systems literally couple through interaction (heart rate, hormones, behavior).
"escalated person is experiencing pain just as intensely, in the same brain regions as physical pain…" *p. 39*	Eisenberger, N. I., Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science, 302*(5643), 290–292. https://doi.org/10.1126/science.1089134 https://doi.org/10.1126/science.1089134

Quote from Principle 1 (with page number)	Supporting peer-reviewed citation (APA + link)
	Relevance: Landmark fMRI study (Cyberball) showing social rejection activates the same dorsal anterior cingulate cortex regions as physical pain.
"escalated person is experiencing pain just as intensely…" (extended evidence base) *p. 39*	Eisenberger, N. I. (2012). The pain of social disconnection: Examining the shared neural underpinnings of physical and social pain. *Nature Reviews Neuroscience, 13*(6), 421–434. https://doi.org/10.1038/nrn3231 https://doi.org/10.1038/nrn3231 *Relevance:* Comprehensive review of shared neural circuitry between physical and social pain, including evidence that acetaminophen reduces social pain.