

## Curriculum Vitae

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**Bruce H. Friedman (Scarpa-Friedman)**

**Address:** Department of Psychology (0436), Virginia Polytechnic Institute and State University, Blacksburg VA 24061-0436

**Phone:** (540) 231-9611      **FAX:** (540) 231-3652      **E-Mail:** [bhfriedm@vt.edu](mailto:bhfriedm@vt.edu)

**Web sites:** <http://www.psyc.vt.edu/users/bhfriedm>; <http://mindbodylab.wix.com/mind-body-lab>

### Education:

The Pennsylvania State University, University Park, PA

Ph.D. in Experimental Psychology, 1992. Dissertation: *Autonomic characteristics of panic and blood phobia*. Advisor: Julian F. Thayer

Minor in Health Psychology

M.S. in Experimental Psychology, 1989

Case Western Reserve University, Cleveland, OH

B.A. in Psychology with Honors, cum laude, 1985 (Minor in English)

### Academic Employment:

Virginia Tech, Blacksburg, VA:

Associate Professor, Department of Psychology, 2003-present

Assistant Professor, Department of Psychology, 1997-2003

Visiting Assistant Professor, Department of Psychology, 1996-1997

Director and Founder, Mind-Body Lab, Department of Psychology, 1997-present

Washington University, St. Louis, MO

Research Associate and Lecturer, Department of Psychology, 1994-1996

Postdoctoral Research Fellow, Foundation for Idiodynamics and the Creative Process, 1994-96

Mentor: Saul Rosenzweig

University of Pittsburgh, Pittsburgh, PA

Postdoctoral Training Fellow, Western Psychiatric Institute and Clinic, 1992-1994.

Mentor: Michael T. Allen

The Pennsylvania State University, University Park, PA:

Research Associate, Stress and Anxiety Disorders Institute, Department of Psychology, 1991-1992

Graduate Instructor, Department of Psychology, 1992 (Research Methods)

Graduate Instructor, Department of Continuing Education, 1986-1992 (Introductory Psychology)

**Research Interests:** The psychophysiology of anxiety, autism, emotion, stress, and personality; the mind-body relationship in health and disease; heart rate variability analysis and autonomic nervous system activity; idiodynamics and the empirical study of individuals

**Publications:**

Peer-reviewed journal articles

Nackley, B.B., Valenza, G., Barbieri, R., & **Friedman, B.H.** (2025). Capturing “fight or flight”: Time series analysis of a new sympathetic activity index and cardiac pre-ejection period. *Biological Psychology*, 197, 109021. <https://doi.org/10.1016/j.biopsycho.2025.109021>

Thayer, J.F., & **Friedman, B.H.** (2025). Arousal: Reports of its demise may be premature. *Emotion Review*, 17, 23-25. <https://doi.org/10.1177/17540739241309477>

Seah, L., & **Friedman, B.H.** (2024). Psychophysiological distinctions in emotional responding: Sensitivity to perceiving loss of connection. *Frontiers in Human Neuroscience*, 18, 1-15. <https://doi.org/10.3389/fnhum.2024.1363546>

Schiller, D., Yu, A. N. C., Alia-Klein, N., Becker, S., Cromwell, H. C., Dolcos, F., ... **Friedman, B.H.**, ... Lowe, L. (2024). The Human Affectome. *Neuroscience and Biobehavioral Reviews* 105450. <https://doi.org/10.1016/j.neubiorev.2023.105450> (order of authorship was listed alphabetically)

Grant, S., Kim, K., & **Friedman, B.H.** (2023). How long is long enough? Controlling for acute caffeine intake in cardiovascular research. *Brain Sciences*, 13, 1-22, 224. <https://doi.org/10.3390/brainsci13020224>

Kissel, H.A., & **Friedman, B.H.** (2023). Participant diversity in psychophysiology. *Psychophysiology*, 60, e14369. <https://doi.org/10.1111/psyp.14369> (one of the top 10 most-cited papers published in *Psychophysiology* in 2023)

Yang, X., Nackley, B., & **Friedman, B.H.** (2023). Comparison between the effects acute of physical and psychosocial stress on a feedback-based learning task. *Brain Sciences*, 13, 1127. <https://doi.org/10.3390/brainsci13081127>

Yang, X., Spangler, D.P., Jennings, J.R., & **Friedman, B.H.** (2023). Cardiac timing and threatening stimuli influence ex-Gaussian parameters of reaction time and response inhibition in a Go/No-go Task. *Psychophysiology*, 60, e14260. <https://doi.org/10.1111/psyp.14260>

Huskey, A., Taylor, D., & **Friedman, B.H.** (2022). ‘Generalized unsafety’ as fear inhibition to safety signals in adults with and without childhood trauma. *Developmental Psychobiology*, 64, e22242. <https://doi.org/10.1002/dev.22242>

Lewis, M. W., **Friedman, B. H.**, & Jones, R. T. (2021). Increases and decreases in fear potentiated startle during fear acquisition: A latent class growth analysis. *Psychology & Neuroscience*, 14(4), 396–412. <https://doi.org/10.1037/pne0000266>

Nackley, B.N., & **Friedman, B.H.** (2021). Only time will tell: Acute stress response patterns with time series analysis. *International Journal of Psychophysiology*, 166, 160-165. <https://doi.org/10.1016/j.ijpsycho.2021.05.006>

- Nguyen, T., Condy, E.E., Park, S., **Friedman, B.H.**, & Gandjbakhche, A. (2021). Comparison of functional connectivity in the prefrontal cortex during a simple and an emotional Go/No-Go task in female versus male groups: an fNIRS study. *Brain Sciences*, *11*, 1-11, 909. <https://doi.org/10.3390/brainsci11070909>
- Spangler, D.P., Cox, K.R., Thayer, J.F., Brooks, J.R., & **Friedman, B.H.** (2021). Interplay between state anxiety, heart rate variability, and cognition: An ex-Gaussian analysis of response times. *International Journal of Psychophysiology*, *159*, 60-70. <https://doi.org/10.1016/j.ijpsycho.2020.08.018>
- Yang, X., Spangler, D.P., Thayer, J.F., & **Friedman, B.H.** (2021) Resting heart rate variability modulates the effects of concurrent working memory load on affective startle modification. *Psychophysiology*. 00:e13833. <https://doi.org/10.1111/psyp.13833>
- Condy, E.E., **Friedman, B.H.**, & Gandjbakhche, A. (2020). Probing neurovisceral integration via fNIRS and heart rate variability. *Frontiers in Neuroscience*, November, *14*, Article 575589. <https://doi.org/10.3389/fnins.2020.575589>
- Condy, E.E., Scarpa, A., & **Friedman, B.H.** (2019). Restricted repetitive behaviors in autism spectrum disorder: A systematic review from the neurovisceral integration perspective. *Biological Psychology*, *148*, 107739. <https://doi.org/10.1016/j.biopsycho.2019.107739>
- Friedman, B.H.** (2019). For distinguished contributions to psychophysiology: Julian F. Thayer. *Psychophysiology*, 2019;00:e13475. <https://doi.org/10.1111/psyp.13475>
- Friedman, B.H.**, Scarpa, A., & Patriquin, M.A. (2019). The biopsychology of Autism Spectrum Disorder: Theory, methods, and evidence. *Biological Psychology*, *148*, 1-2. <https://doi.org/10.1016/j.biopsycho.2019.107770>
- Pace-Schott, E.F., Amole, M., Aue, T., Balconi, M., Bylsma, L.M., Critchley, H., Demaree, H.A., **Friedman, B.H.**, Gooding, A.E.K., Gosseries, O., Jovanovic, T., Kirby, L.A.J., Kozłowska, K., Laureys, S., Lowe, L., Magee, K., Marin, M-F., Merner, A., Robinson J.L., Smith, R.C., Spangler, D., Van Overveld, M., VanElzakker, M.B. (2019). Physiological feelings. *Neuroscience & Biobehavioral Reviews*, *103*, 267-304. <https://doi.org/doi:10.1016/j.neubiorev.2019.05.002> (co-author listing based on alphabetical order).
- Patriquin, M.A., Hartwig, E.M., **Friedman, B.H.**, & Porges, S.W., & Scarpa, A. (2019). Autonomic response in autism spectrum disorder: Relationship to social and cognitive functioning. *Biological Psychology*. *145*, 185-197. <https://doi.org/10.1016/j.biopsycho.2019.05.004>
- Grant, S.S., Magruder, K.P., & **Friedman, B.H.** (2018). Controlling for caffeine in cardiovascular research: A critical review. *International Journal of Psychophysiology*, *133*, 193-201. doi:10.1016/j.ijpsycho.2018.07.001
- Condy, E.E., Scarpa, A., & **Friedman, B.H.** (2017). Respiratory sinus arrhythmia predicts restricted repetitive behavior severity. *Journal of Autism and Developmental Disorders*, *47*, 2795–2804. doi:10.1007/s10803-017-3193-2

- McGinley, J.J., & **Friedman, B.H.** (2017). Autonomic specificity in emotion: The induction method matters. *International Journal of Psychophysiology*, 18, 48–57. doi: 10.1016/j.ijpsycho.2017.06.002
- Spangler, D.P., & **Friedman, B.H.** (2017). A little goes a long way: Low working memory load is associated with optimal distractor inhibition and increased vagal control under anxiety. *Frontiers in Human Neuroscience*, 11, 1-15.
- Yang, X., & **Friedman, B.H.** (2017). Individual differences in behavioral activation and cardiac vagal control influence affective startle modification. *Physiology & Behavior*, 172, 3-11.
- Yang, X., Jennings, J.R., & **Friedman, B.H.** (2017) Exteroceptive stimuli override interoceptive state in reaction time control. *Psychophysiology*, 54, 1940-1950. DOI: 10.1111/psyp.12958
- Allen, B., & **Friedman, B.H.** (2016). Threatening the heart and mind of gender stereotypes: can imagined contact influence the physiology of stereotype threat? *Psychophysiology*, 53, 105-112. (Featured article at Society for Psychophysiological Research website, October 2017.)
- Thayer, J.F., Sollers III, J.J., **Friedman, B.H.**, & Koenig, J. (2016). Gender differences in the relationship between resting heart rate variability and 24-hour blood pressure variability. *Blood Pressure*, 25, 58-62.
- McGinley, J.J., & **Friedman, B.H.** (2015). Autonomic responses to lateralized cold pressor and facial cooling tasks. *Psychophysiology*, 52, 416-424.
- Spangler, D.P., & **Friedman, B.H.** (2015). Effortful control and resiliency exhibit different patterns of cardiac autonomic control. *International Journal of Psychophysiology*, 96, 95–103.
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- Allen, B., & **Friedman, B.H.** (2012). Positive emotion reduces dyspnea during slow paced breathing. *Psychophysiology*, 49, 690-696.
- Friedman, B.H.** (2010). Feelings and the body: The Jamesian perspective on autonomic specificity of emotion. *Biological Psychology*, 84, 383-393.
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- Stephens, C.L., Christie, I.C., & **Friedman, B.H.** (2010). Autonomic specificity of basic emotions: evidence from pattern classification and cluster analysis. *Biological Psychology*, 84, 463-473.

- Vella, E.J., & **Friedman, B.H.** (2009). Hostility and anger-in: Cardiovascular reactivity and recovery to mental arithmetic stress. *International Journal of Psychophysiology*, 72, 253-259.
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- Knepp, M.M., & **Friedman, B.H.** (2008). Cardiovascular activity during laboratory tasks in women with high and low worry. *Biological Psychology*, 79, 287-293.
- Wan, L., **Friedman, B.H.**, Boutros, N.N., & Crawford, H.J. (2008). P50 sensory gating and attentional performance. *International Journal of Psychophysiology*, 67, 91-100.
- Wan, L., **Friedman, B.H.**, Boutros, N.N., & Crawford, H.J. (2008). Smoking status affects men and women differently on schizotypal traits and cognitive failures. *Personality and Individual Differences*, 44, 425-435.
- Friedman, B.H.** (2007). An autonomic flexibility-neurovisceral integration model of anxiety and cardiac vagal tone. *Biological Psychology*, 74, 185-199.
- Vella, E.J., & **Friedman, B.H.** (2007). Autonomic characteristics of defensive hostility: Reactivity and recovery to active and passive stressors. *International Journal of Psychophysiology*, 66, 95-101.
- Christie, I.C., & **Friedman, B.H.** (2004) Autonomic specificity of discrete emotion and dimensions of affective space: A multivariate approach. *International Journal of Psychophysiology*, 51, 143-153.
- Friedman, B.H.**, Christie, I.C., Sargent, S.L., & Weaver, J.B. (2004). Self-reported sensitivity to continuous non-invasive blood pressure monitoring via the radial artery. *Journal of Psychosomatic Research*, 57, 119-121.
- Friedman, B.H.** (2003). Idiodynamics vis-a-vis psychophysiology: An idiodynamic portrayal of cardiovascular activity. *Journal of Applied Psychoanalytic Studies*, 5, 425-441.
- Friedman, B.H.**, & Santucci, A.K. (2003). Idiodynamic profiles of cardiovascular activity: A p-technique approach. *Integrative Physiological and Behavioral Science*, 38, 295-315.
- Friedman, B.H.**, Allen, M.T., Christie, I.C., & Santucci, A.K. (2002). Validity concerns of common heart-rate variability indices: Addressing quantification issues in time- and frequency-domain measures of HRV. *IEEE Engineering in Medicine and Biology*, 21(4), 35-40.
- Thayer, J.F., & **Friedman, B.H.** (2002). Stop that! Inhibition, sensitization, and their neurovisceral concomitants. *Scandinavian Journal of Psychology*, 43, 123-130.
- Friedman, B.H.**, Thayer, J.F., & Borkovec, T.D. (2000). Explicit memory bias for threat words in generalized anxiety disorder. *Behavior Therapy*, 31, 745-756.

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- Friedman, B.H.**, & Thayer, J.F. (1998). Anxiety and autonomic flexibility: A cardiovascular approach. *Biological Psychology*, 49, 303-323.
- Friedman, B.H.**, & Thayer, J.F. (1998). Autonomic balance revisited: Heart rate variability and panic anxiety. *Journal of Psychosomatic Research*, 44, 133-151.
- Muth, E.R., Thayer, J.F., Stern, R.M., **Friedman, B.H.**, & Drake, C. (1998). The effect of autonomic nervous system activity on gastric myoelectric activity: Does the spectral reserve hypothesis hold for the stomach? *Biological Psychology*, 47, 265-278.
- Thayer, J.F., Smith, M., Rossy, L.A., Sollers, J.L., & **Friedman, B.H.** (1998). Heart period variability and depression: gender differences. *Biological Psychiatry*, 304-306.
- Friedman, B.H.**, Thayer, J.F., & Tyrrell, R.A. (1996). Spectral characteristics of heart period variability during cold face stress and shock avoidance in normal subjects. *Clinical Autonomic Research*, 6, 147-152.
- Thayer, J.F., **Friedman, B.H.**, & Borkovec, T.D. (1996). Autonomic characteristics of generalized anxiety disorder and worry. *Biological Psychiatry*, 39, 255-266.
- Tyrrell, R.A., Thayer, J.F., **Friedman, B.H.**, Leibowitz, H.W., & Francis, E.L. (1995). A behavioral link between the oculomotor and cardiovascular system. *Integrative Physiological and Behavioral Science*, 30, 46-67.
- Friedman, B.H.**, Thayer, J.F., & Borkovec, T.D., Tyrrell, R.A., Johnsen, B.H., & Colombo, R. (1993). Autonomic characteristics of nonclinical panic and blood phobia. *Biological Psychiatry*, 34, 298-310.
- Friedman, B.H.**, & Thayer, J.F. (1991). Facial muscle activity and EEG recordings: Redundancy analysis. *Electroencephalography and Clinical Neurophysiology*, 79, 358-360.

### Book

Stephens, C., Allen, B., & Thompson, N. (2009). *Psychophysiology/Cognitive Neuroscience Lab Manual* (B. Friedman, Contributing Editor). Dubuque, IA: Kendall Hunt Publishing.

### Book Chapters and Conference Proceedings

**Friedman, B.H.**, & Thayer, J.F. (2024). Is emotion physiology more compatible with discrete, dimensional, or appraisal accounts? In A. Scarantino (Ed.), *Emotion theory: The Routledge comprehensive guide* (Vol. 1, pp. 488-510). Routledge, Taylor & Francis.

Valenza, G., Nackley, B., **Friedman B.H.**, & Barbieri, R. (2022). Validation of sympathetic activity index from heartbeat series: a preliminary study on pre-ejection periods. 2022

- 12th Conference of the European Study Group on Cardiovascular Oscillations (ESGCO)*, 2022, pp. 1-2, doi: 10.1109/ESGCO55423.2022.9931355.
- Huskey, A., Swain, D., & **Friedman, B.H.** (2022). The physiology of relaxation. In H. Hazlett-Stevens and D.A. Bernstein (Eds.), *Progressive relaxation training: A guide for practitioners, students, and researchers* (3<sup>rd</sup> ed., pp. 15-25). ABC-CLIO.
- Grant, S. S., Huskey, A., Faunce, J. A., & **Friedman, B.H.** (2020). Negative memory biases in health and psychiatric disorders. In T. Aue & H. Okon-Singer (Eds.), *Cognitive biases in health and psychiatric disorders; Neurophysiological foundations* (pp. 173-191). Elsevier.
- Patriquin, M.A., Scarpa, A., & **Friedman, B.H.** (2013). Physiological assessment. In B.D. McLeod, A. Jensen-Doss, & T.H. Ollendick (Eds.), *Diagnostic and behavioral assessment in children and adolescents* (pp. 219-239). New York, NY: Guilford Press.
- Wilhelm, F.H., Schneider, S. & **Friedman, B.H.** (2006). Psychophysiological assessment. In M. Hersen (Ed.), *Clinician's handbook of child behavioral assessment* (pp. 201- 231). Burlington, MA: Elsevier
- Thayer, J.F., & **Friedman, B.H.** (2004). A neurovisceral integration model of health disparities in aging. In N.B. Anderson, R.A. Bulatao, & B. Cohen (Eds.), *Critical perspectives on racial and ethnic differences in health in late life* (pp. 567-603). National Academy Press, Washington, D.C.
- Thayer, J.F., & **Friedman, B.H.** (2000). The design and analysis of experiments in engineering psychophysiology. In R.W. Backs & W. Boucsein (Eds.), *Engineering psychophysiology: Issues and applications* (pp. 59-78). Mahwah, NJ: Lawrence Erlbaum & Associates, Inc.
- Thayer, J.F., & **Friedman, B.H.** (1997). The heart of anxiety: A dynamical systems approach. In A. Vingerhoets, F. van Bussel, & J. Boelhouwer (Eds.), *The (non) expression of emotions in health and disease* (pp. 39-49). Tilburg, The Netherlands: Tilburg University Press.
- Thayer, J.F., & **Friedman, B.H.** (1993). Assessment of anxiety using heart rate nonlinear dynamics. In W. Ditto (Ed.), *Chaos in Biology and Medicine: Proceedings of the International Society for Optical Engineering*, 2036, 42-48.

#### Manuscripts under review

- Courtney, R.E., Schadegg, M.J., Brice, P., Friedman, B., Fanning, J. *Determining the interconnection between personality and physical activity on perceived stress in a diverse sample.*

#### Manuscripts in revision

- Faunce, J.A., & Friedman, B.H. *The impact of low frequency sound on affect, cognition, and psychophysiology: a review.*
- Kissel, H.A., & Friedman, B.H. *Physiological linkage predicts successful communication of emotion via touch.*

### Manuscripts in preparation

Faunce, J.A., & Friedman, B.H. *Sensory entrainment, paying attention, and keeping beat: General effects and individual differences.*

Grant, S.S., & Friedman, B.H. Multidimensional cardioception & trait anxiety: Potential clues from baroreflex sensitivity”

Kissel, H.A., & Friedman, B.H. *I can see what you are feeling, but can I feel it? Physiological linkage while viewing communication of emotion via touch.*

Nackley, B., & Friedman, B.H. *Putting the body back together: a functional autonomic model of interoception.*

Nackley., B., & Friedman, B.H. *Threat assessment as mechanism in exposure therapy.*

Seah, L., & Friedman, B.H. *Emotion in a self-organizing system: A Chinese perspective.*

### Abstracts

Fok, M., Friedman, B.H., & Scarpa, A. (2024). Emotion regulation changes the objective and subjective experience of negative stimuli in autistic and non-autistic adults. *Psychophysiology* 61(S1), S140.

McClafferty, S.R., & Friedman, B.H. (2024). A model for predicting emotional dimensions within the individual: Analysis of the POPANE dataset. *Psychophysiology* 61(S1), S250.

Faunce, J.A., & Friedman, B.H. (2023). ADHD symptoms, but not sensory entrainment, predict better beat-keeping performance. *Psychophysiology* 60(S1), S148.

Kissel, H.A., & Friedman, B.H. (2023). Participant diversity from 2010-2020 in *Psychophysiology*. *Psychophysiology* 60(S1), S122.

Seah, L., & Friedman, B.H. (2023). Emotional responding to loss: distinctions between European Americans and Chinese Americans. *Psychophysiology* 60(S1), S134.

Seah, L., Carman, T., Eldrid, E. & Friedman, B.H. (2023). What connection affords? Increased heart rate variance with parasympathetic control on perceiving loss can feel hurtful. *Psychophysiology* 60(S1), S172.

Angus, B., Faunce, J.A., & Friedman, B.H. (2022). Entrainment echo post-stimulation benefits attentional performance. *Psychophysiology*, 59(S1), S181.

Angus, B., Faunce, J.A., & Friedman, B.H. (2022). The relationship among musical training, physical activity, and sensory entrainment. *Psychophysiology*, 59(S1), S182.

Deapera, A.L., Faunce, J.A., & Friedman, B.H. (2022). The impact of neural entrainment metric on the relationship between sensory entrainment and attention performance. *Psychophysiology*. 59(S1), S183.

Huff, J., Faunce, J.A., & Friedman, B.H. (2022). Cognitive load leads to poorer sensory entrainment. *Psychophysiology*, 59(S1), S181.

Kissel, H.A, Tsui, A.L., Bolden, M.W, Driver, D., & Friedman, B.H. (2022). Physiological linkage predicts successful emotion detection while viewing videos of emotions



- communicated via touch. *Psychophysiology*, 59(S1), S181.
- Nackley, B., & Friedman, B.H. (2022). It gets old quick: EDA driven by novelty-habituation response. *Psychophysiology*, 59(S1), S134.
- Seah, L., Cho, Y., Nackley, B., Du, P., & Friedman, B.H. (2022). Autonomic control under threat in a 2-dimensional space. *Psychophysiology*, 59(S1), S135.
- Warrior, S., Faunce, J.A., & Friedman, B.H. (2022). Sensory entrainment not affected by attention deficit or stimulant use. *Psychophysiology*, 59(S1), S132.
- Huskey, A., Hodes, G., & Friedman, B.H. (2022). PTSS covaries with changes in cortisol: a hierarchical linear modeling approach. *Psychosomatic Medicine*, 84, A-81.
- Faunce, J. A., Kissel, H.A., & Friedman, B.H. (2021). Comparing model fit and optimal parameters of physiological linkage models during dyadic emotion communication. *Psychophysiology*, 58 (S1), S80.
- Faunce, J. A., Kissel, H.A., & Friedman, B.H. (2021). Physiological linkage during emotion communication varies by emotion type. *Psychophysiology*, 58 (S1), S80.
- Fok, M., Scarpa, A., Friedman, B.H., Bell, M. (2021). Infant parasympathetic activity predicts childhood emotion dysregulation. *Psychophysiology*, 58 (S1), S39.
- Huskey, A., Taylor, D.J., & Friedman, B.H. (2021, June). Higher resting HRV enhances protective effects of self-reported resilience against the impact of poor sleep quality on PTSS. *Sleep*, 44(Supplement 2), A26-A27.
- Nackley, B., Valenza, G., Barbieri, R., & Friedman, B.H. (2021). Capturing “fight or flight”: Dynamic measures of cardiac sympathetic activation. *Psychophysiology*, 58 (S1), S44.
- Seah, L., Nackley, B., & Friedman, B.H. (2021). Feeling distressed under threat reflects autonomic coactivation. *Psychophysiology*, 58 (S1), S77.
- Dike, J., Faunce, J.A., Huskey, A., Friedman, B.H., & Jones, R.T. (2020). The predictive value of reported complex PTSD and stress symptoms on resting hfHRV. *Psychophysiology*, 57 (S1), S29.
- Nackley, B., & Friedman, B.H. (2020). Only time will tell: Defensive physiology as a time series. *Psychophysiology*, 57 (S1), S43.
- Yang, X., Spangler, D.P., Jennings, J.R., & Friedman, B.H. (2020). Cardiac timing modulates the effect of threatening stimuli on response inhibition. *Psychophysiology*, 57 (S1), S30.
- Condy, E., Friedman, B.H., & Gandjbakhche, A. (2019). RSA reactivity relates to performance on a Go/No-Go behavior inhibition task. *Psychophysiology*, 56 (Suppl. 1), S75.
- Budzyn, G., Huskey, A., Van Orden, C., & Friedman, B.H. (2019). Resting heart rate variability predicts executive attention in college students. *Psychophysiology*, 56 (Suppl. 1), S124.
- Dike, J., Faunce, J.A., Lewis, M.L., Friedman, B.H., & Jones, R.T. (2019). Complex PTSD

- symptom effects and cardiac response to startle stimuli during fear conditioning. *Psychophysiology*, 56 (Suppl. 1), S86.
- Faunce, J. A., Lewis, M.W., Friedman, B.H., & Jones, R. T. (2019). Phobic fear does not predict sensitization to acoustic startle stimuli during habituation. *Psychophysiology*, 56 (Suppl. 1), S51.
- Greenway, A., Faunce, A., Huskey, A., & Friedman, B.H. (2019). Worry your heart out: worry affects cardiac safety learning. *Psychophysiology*, 56 (Suppl. 1), S51.
- Huskey, A., & Friedman, B.H. (2019). Fear inhibition as a learning measure of generalized unsafety. *Psychophysiology*, 56 (Suppl. 1), S58.
- Kissel, H.A., Faunce, J.A., Friedman, B.H. (2019). The heart can be unpredictable: examining EMG and cardiac startle responses during fear conditioning. *Psychophysiology*, 56 (Suppl. 1), S113.
- Nackley, B., Lewis, M.W., Faunce, J.A., Huskey, A., & Friedman, B.H. (2019). What's blood got to do with it? Cardiac response to startle and fear conditioning in blood phobia. *Psychophysiology*, 56 (Suppl. 1), S119.
- Yang, X, Jennings, J.R., & Friedman, B.H. (2019). Electromyographic activity mediates accessory stimulus effect but not cardiac timing effect. *Psychophysiology*, 120 (Suppl. 1), S120.
- Grant, S.S., Van Orden, C.S., Derosier, N.K., Brewer, N.K., Rosazza, C.A., & Friedman, B.H. (2018). Dimensions of cardioception in relation to heart rate, high-frequency heart rate variability, and trait anxiety. *Psychophysiology*, 55 (Suppl. 1), S58.
- Huskey, A., Van Orden, C., Lewis, M., Mohnsen, M., Johannsen, P., & Friedman, B.H. (2018). Affect dysregulation predicts blunted startle response. *Psychophysiology*, 55 (Suppl. 1), S100.
- Kissel, H.A., Huskey, A., Friedman, B.H., & Lewis, M. (2018). Worry, cumulative trauma, and very low frequency HRV predict somatic symptoms: Support for the GUTS model. *Psychophysiology*, 55 (Suppl. 1), S98.
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### **Invited Addresses**

- Friedman, B.H. (2018, October). Presenter, Distinguished Career Award to Julian Thayer, annual meeting of the Society for Psychophysiological Research, Quebec City, Quebec, Canada.
- Friedman, B.H. (2014, September). *Adaptability and autonomic flexibility: A neurovisceral integration approach*. Keynote address, Adaptability Research Symposium, Center for Chiropractic Progress, Chicago, IL.
- Friedman, B.H. (2000, May). *Idiodynamic profiles of cardiovascular activity*. Rosenzweig Jubilee: A symposium to honor Saul Rosenzweig. Department of Psychology, Washington University, St. Louis, MO.

### **Conference Presentations**

- Friedman, B.H., & McGinley, J.J. (2024, October). Co-Chair. *Measure for measure: Comparative utility of heart rate variability indices of cardiac vagal control*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Prague, Czech Republic.
- Friedman, B.H. (2023, September). Discussant. In *One size does not fit all: the critical role of sex differences in psychophysiological research* (C. Ottaviani, Chair). Symposium presented at the annual meeting of the Society for Psychophysiological Research, New Orleans, LA.
- Faunce, J.A., & Friedman, B.H. (2023, September). *ADHD symptoms diminish the impact of sensory entrainment on attention performance*. Paper presented in the Open Topic Symposium at the annual meeting of the Society for Psychophysiological Research, New Orleans, LA.

- Seah, L., Eldrid, E., & Friedman, B.H. (2023, March). *Being disconnected feels bad, even when interacting with computer players*. Paper presented at the 39th Annual GPSS Research Symposium and Exposition, Virginia Tech, Blacksburg VA.
- Spangler, D.P., McGinley, J.J., Friedman, B.H., & Thayer, J.F. (2022, September). *Unraveling the cognitive correlates of heart rate variability with the ex-Gaussian and drift diffusion models*. Paper presented at the annual meeting of the Society for Psychophysiological Research, Vancouver, Canada.
- Dike, J., Huskey, A., Friedman, B.H., & Jones, R.T. (2021, November). *The predictive value of complex PTSD symptoms on resting high-frequency heart rate variability*. Poster presented at the virtual annual meeting of the International Society for Traumatic Stress Studies.
- Kissel, H.A., Bolden, M.W., Thapar, P., Tsui, A.L., & Friedman, B.H. (2021, October). *Magnitude and length, but not pattern, of physiological linkage predict communication of emotion via touch* [Paper presentation]. Society for Psychophysiological Research Virtual Annual Meeting.
- Kissel, H.A., Tsui, A., Bolden, M., Thapar, & Friedman, B.H. (2021, May). *Self-reported race/ethnicity of dyad members impacts communication of emotion via touch*. Poster presented at the virtual annual meeting of the Association for Psychological Science.
- Lewis, M.W., Huskey, A., Friedman, B.H., & Jones, R.T. (2019, November). *Trauma exposure is associated with physiological startle, but not self-report startle in a sample of undergraduates*. Poster presented at the annual meeting of the International Society for Traumatic Stress Studies, Boston, MA.
- Friedman, B.H. (2019, September). Discussant. In *Beyond observation: Transcutaneous vagus nerve stimulation in psychophysiological research* (J. Koenig, Chair). Symposium presented at the annual meeting of the Society for Psychophysiological Research, Washington, DC.
- Nackley, B., & Friedman, B.H. (2019, August). *Defensive behavior: An evolutionary perspective on behavioral neuroscience*. Poster presented at the Advancing Neuroscience Research at Virginia Tech Symposium, Blacksburg, VA.
- Van Orden, C., Huskey, A., & Friedman, B.H. (2019, August). *Trait worry moderates the impact of stressor expectancy on electrodermal activity*. Poster presented at the Advancing Neuroscience Research at Virginia Tech Symposium, Blacksburg, VA.
- Lewis, M., Jones, R.T., Huskey, A., Reyes, M., Van Orden, C., & Friedman, B.H. (2018, November). *Heterogeneity in fear acquisition: A latent class growth analysis*. Poster presented at the annual meeting of the International Society for Traumatic Stress Studies, Washington, D.C.
- Courtney, R., Brice, P., & Friedman, B.H. (2018, October). *Personality and exercise as predictors of perceived stress*. Poster presented at the Annual Conference of the Association for Applied Sport Psychology, Toronto, Canada.

- Friedman, B.H. (2018, October). Chair, *The heart of emotion regulation: implications of cardiac measures in emotion regulation research*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Quebec City, Canada.
- Spangler, D.P., Yang, X., & Friedman, B.H. (2018, October). Cardiac vagal control is associated with cognitive mechanisms of emotion regulation. In B.H. Friedman (Chair), *The heart of emotion regulation: implications of cardiac measures in emotion regulation research*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Quebec City, Canada.
- Yang, X., Spangler, D.P., & Friedman B.H. (2018, April). Individual differences in reappraisal influence effects of affective images on working memory performance. In I. Yaroslavsky (Chair), *From the benchside to the bedside: Connecting biological and behavioral pathways for depression risk across laboratory and daily life setting*. Symposium presented at the annual meeting of the Midwestern Psychological Association, Chicago IL.
- Grant, S., Friedman, B., Huskey, A., White, J., & Kim, K. (2016, May). *How long is long enough? Heart rate variability, heart rate, and blood pressure responses following a 6-hour abstention*. Poster presented at the Mid-Atlantic PREP/IMSD Research Symposium, Virginia Commonwealth University, Richmond, VA.
- Condy, E.E., & Friedman, B.H. (2016, May). *Baseline respiratory sinus arrhythmia predicts restricted repetitive behavior severity*. Poster presented at the International Meeting for Autism Research, Baltimore, MD.
- Yang, X., Spangler, D.P., McGinley, J.J., Grant, S., Condy, E.E., Fleming, L., & Friedman, B.H. (2015, May). *Activation control influences acoustic startle habituation*. Poster presented at the annual meeting of the Association for Psychological Science, New York, NY.
- Condy, E.E., Patriquin, M.A., Scarpa, A., & Friedman, B.H. (2015, May). *Respiratory sinus arrhythmia: A moderator of emotion regulation and social motivation deficits in ASD*. Poster presented at the International Meeting for Autism Research, Salt Lake City, UT.
- Fleming, L.L., & Friedman, B.H. (2014, November). *Heart song: The autonomic specificity of musically-induced emotions*. Poster presented at the Annual Biomedical Research Conference for Minority Students, San Antonio, TX.
- Lee, E.A, Friedman, B.H. (2014, April). *Implicit race bias and intergroup social anxiety effects on cardiovascular reactivity*. Poster presented at the Virginia Tech Undergraduate Research Conference, Blacksburg, VA.
- McGinley, J.J., Baldner, C., Tallman, C. W., & Friedman, B.H. (2014, May). *Comparative analyses of cognitive and affective scales of empathy questionnaires*. Poster presented at the annual meeting of the Association for Psychological Science, San Francisco, CA.
- Yang, X., Lee, E., Grant, S., Condy, E., Tallman, C., Fleming, L., & Friedman, B.H. (2014, May). *Better control, less startled: Individual differences in motivation and attention influence startle modification*. Poster presented at the Mid-Atlantic PREP/IMSD Research Symposium, UNC-Chapel Hill, NC.

- Yang, X., Lee, E., Grant, S., Condy, E., Tallman, C., Fleming, L., & Friedman, B.H. (2014, May). *Individual differences in motivation and attention influence startle modification*. Poster presented at the annual meeting of the Association for Psychological Science, San Francisco, CA.
- McGinley, J.J., Cauley, N.S., & Friedman, B.H. (2013, May). *Comparison and predictive validity of two self-report generalized anxiety disorder questionnaires*. Poster presented at the annual meeting of the Association for Psychological Science, Washington D.C.
- Spangler, D.P., Cauley, N.S., & Friedman, B.H. (2013, May). *Effortful control predicts individual differences in cardiac vagal regulation*. Poster presented at the annual meeting of the Association for Psychological Science, Washington, D.C.
- Spangler, D.P., Cauley, N., & Friedman, B.H. (March, 2013). *Effortful control predicts individual differences in cardiac vagal regulation*. Poster presented at the Central Virginia Chapter of the Society for Neuroscience Symposium, Virginia Tech Carilion Research Institute, Roanoke, VA.
- Friedman, B.H. (2012, September). Chair, *New developments in the psychophysiology of autism spectrum disorders*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, New Orleans, LA.
- Patriquin, M.A., Scarpa, A., Friedman, B.H. & Porges, S.W. (2012, June). Correlates of respiratory sinus arrhythmia in autism spectrum disorders: Impact on social development changes. In A.V. Van Hecke (Chair), *Cardiovascular regulation and social behavior in typically developing and at-risk infants and children*. Symposium presented at the International Conference on Infant Studies. Minneapolis, MN.
- Patriquin, M.A., Scarpa, A., Friedman, B.H., & Porges, S.W. (2012, May). *Respiratory sinus arrhythmia in children with ASD: A biomarker for positive functioning*. Paper presented at the International Meeting for Autism Research. Toronto, Canada.
- McGinley, J.J., Magruder, K., Morrill, A., Worthen, J., Yang, X., Klineburger, P. & Friedman, B.H. (2012, May). *Bilateral electrodermal responses to lateralized stimuli presentations*. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- McGinley, J.J., Powles, R., Allen, B., Friedman, B.F., & Spangler, D. (2011, May). *The warm water conundrum: an examination of cardiovascular responses*. Poster presented at the annual meeting of the Association for Psychological Science, Washington, D.C.
- Patriquin, M.A., Scarpa, A., Friedman, B.H., & Porges, S.W. (2011, May). *Respiratory sinus arrhythmia: A marker of positive functioning in children with autism spectrum disorders*. Poster presented at the annual International Meeting for Autism Research, San Diego, CA.
- Knepp, M.M., Friedman, B.H., & Mooney, M.K. (2010, May). *Blood pressure differences related to body positioning in low and high worriers*. Poster presented at the annual meeting of the Association for Psychological Science, Boston, MA.

- McGinley, J.J. Knepp, M.M., & Friedman, B.H., (2010, May). *Heart rate variability differences between female alcohol users and non-drinkers*. Poster presented at the annual meeting of the Association for Psychological Science, Boston, MA.
- Allen, B., Pardikes, T.J., Friedman, B.H., & Stephens, C.L. (2008, May). *Impulsivity and sympathetic nervous system activity*. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- Friedman, B.H. (2008, October). Chair, *The psychophysiology of anxiety and worry: A symposium in honor of the contributions of Thomas D. Borkovec*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Austin, TX.
- Friedman, B.H., & Knepp, M.M. (2008, March). *Autonomic reactivity in high and low trait worry*. Poster presented at the annual meeting of the American Psychosomatic Society, Baltimore, MD.
- Knepp, M.M., & Friedman, B.H., (2008, October). Cardiac reactivity in high and low trait worry women. In B.H. Friedman (Chair), *The psychophysiology of anxiety and worry: A symposium in honor of the contributions of Thomas D. Borkovec*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Austin, TX.
- Pardikes, T.J., Allen, B., Friedman, B.H., & Stephens, C.L. (2008, May). *Exploring involuntary and voluntary autonomic actions*. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- Pardikes, T.J., Allen, B., Stephens, C.L., & Friedman, B.H. (2008, March). Stress and sympathetic reactivity. *Psychosomatic Medicine*. Poster presented at the annual meeting of the American Psychosomatic Society, Baltimore, MD.
- Stephens, C.L., Allen, B., Friedman, B.H., & Ramsey, R.E. (2008, May). *Autonomic differentiation of emotions via multivariate statistics*. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- Christie, I.C., Stephens, C.L., & Friedman, B.H. (2007, October). Shrinking the elephant: The utility of multivariate statistical tools and the impact of methodology on the generation of and integrated affect model. In S. Kreibig (Chair), *William James' legacy: The present state of autonomic response specificity of emotion*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Savannah, GA.
- Friedman, B.H. (2007, October). Feelings and the body: William James and autonomic specificity of emotion. In S. Kreibig (Chair), *William James' legacy: The present state of autonomic response specificity of emotion*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Savannah, GA.
- Knepp, M.M., Stephens, C.L., & Friedman, B.H. (2007, May). *Daily habits, physical wellbeing and mental health and relationships with trait worry*. Poster presented at the annual meeting of the Association for Psychological Science, Washington D.C.
- Patriquin, M.A., Knepp, M. M., Wells, A.O., Scarpa, A., & Friedman, B. H. (2007, May). *The effect of internet use on autonomic responses in undergraduates*. Poster presented at the annual meeting of the Association for Psychological Science, Washington D.C.

- Stephens, C.L., Knepp, M.M., & Friedman, B.H. (2007, May). *Empirical validation of music excerpts for investigations of emotion and emotion elicitation*. Poster presented at the annual meeting of the Association for Psychological Science, Washington D.C.
- Friedman, B.H., Lozier, L.M., Stephens, C.L., Knepp, M.M., Pardikes, T.J., & Vella, E.J. (2006, May). *Gender and hemispheric differences in cardiovascular responses to lateralized hand cold pressor*. Poster presented at the annual meeting of the Association for Psychological Science, New York, NY.
- Vella, E.J., & Friedman, B.H. (2006, May). *Hostility, anger, and harassment: cardiovascular reactivity and recovery to mental arithmetic stress*. Poster presented at the annual meeting of the Association for Psychological Science, New York, NY.
- Friedman, B.H. (2005, December). *Feelings and the Body: The Impact of William James' Theory of Emotion*. Paper presented at the interdisciplinary symposium, The Mind Project: Intersections of Philosophy, Humanities, and Human Science, 1876-1920, Virginia Tech.
- Davis, T.E. III, Friedman, B.H., Ollendick, T.H., Sirbu, C., Chelf, M., & Öst, L.-G. (2005, November). *Cognitive-behavioral therapy for specific phobia in children: physiological outcomes and mediators*. Poster presented at the annual meeting of the American Academy for Behavior Therapy, Washington, D.C.
- Christie, I.C., Stephens, C.L., & Friedman, B.H. (2005, May). *Behavioral inhibition/activation and heart period variability response to challenge: Implications of task selection*. Poster presented at the annual meeting of the American Psychological Society, Los Angeles, CA.
- Santucci, A.K., & Friedman, B.H. (2004, May). *Adult temperament and emotional responses to stressor tasks*. Poster presented at the annual meeting of the American Psychological Society, Chicago IL.
- Christie, I.C., & Friedman, B.H. (2003, June). *Discrete emotions in a dimensional landscape: Further support for a valence-activation circumplex*. Poster presented at the annual meeting of the American Psychological Society, Atlanta, GA.
- Vella, E.J., Friedman, B.H., Lozier, L., & Laskey, G. (2003, June). *Defensive hostility differentially predicts cardiovascular reactivity and recovery to active and passive stressors in male subjects*. Poster presented at the annual meeting of the American Psychological Society, Atlanta, GA.
- Vella, E.J., & Friedman, B.H. (2003, March). *The autonomic characteristics of defensive hostility*. Poster presented at the annual meeting of the American Psychosomatic Society, Phoenix, AZ.
- Friedman, B.H. (2002, October). Chair, *The psychophysiology of anxiety: Basic findings and clinical applications*. Symposium conducted at the annual meeting of the Society for Psychophysiological Research, Washington, D.C.
- Friedman, B.H., & Pumphrey, B.G. (2002, July). *Autonomic nervous system correlates of the Rosenzweig Picture-Frustration Study*. Paper presented at the meeting of the International Society for Research on Aggression, Montreal, Canada.

- Christie, I.C., Friedman, B.H., Sargent, S.L., & Weaver, J.B. (2001, June). *Velten mood induction does not appear to elicit affect-specific autonomic changes*. Poster presented at the annual meeting of the American Psychological Society, Toronto, ON, Canada.
- Santucci, A.K., Friedman, B.H., & Kyrgos, E.C. (2001, June). *Autonomic and cognitive characteristics of anxiety, depression, and co-morbid anxiety-depression*. Poster presented at the annual meeting of the American Psychological Society, Toronto, ON, Canada.
- Friedman, B.H. (2000, October). Chair, *Psychophysiology and neuroscience: Crossroads and convergences*. Symposium conducted at the annual meeting of the Society for Psychophysiological Research, San Diego, CA.
- Friedman, B.H. (1999, October). Discussant, *Worry, rumination, and health* (J.F. Brosschot & J.F. Thayer, chairs). Symposium conducted at the annual meeting of the Society for Psychophysiological Research, Granada, Spain.
- Friedman, B.H., Takayama, E., Long, D.L., & Thayer, J.F. (1997, May). *Affective and cardiac reactions to quiet rest, shock avoidance, facial cooling, and combined shock*. Poster presented at the annual meeting of the American Psychological Society, Washington, D.C.
- Friedman, B.H. (1996, January). *Idiodynamics and the boundaries of the self*. Paper presented at the meeting of the International Association of Spiritual Psychiatry/ Foundation for Religious Resources in Psychotherapy, St. Louis, MO.
- Thayer, J.F., Borkovec, T.D., & Friedman, B.H. (1995, July). Phasic heart rate reactions to cued threat and non-threat stimuli in generalized anxiety disorder. In J.F. Thayer (Chair), *Attentional regulation and psychological dysfunction*. Symposium conducted at the annual meeting of the World Congress of Behavioral Cognitive Therapy, Copenhagen, Denmark.
- Friedman, B.H. (1995, May). *Reactivity reconceptualized: Cardiovascular idiodynamics*. Paper presented the annual meeting of the Midwestern Psychological Association, Chicago IL.
- Thayer, J.F., Collins, D.J., & Friedman, B.H. (1994, July). *Individual differences in the structural stability of heart rate regulation*. Paper presented at the annual meeting of the International Congress of Behavioral Medicine, Amsterdam, The Netherlands.
- Friedman, B.H., Thayer, J.F., Borkovec, T.D., & Lyonfield, J.D. (1993, April). *Psychophysiological assessment of generalized anxiety disorder*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Friedman, B.H., Thayer, J.F., & Borkovec, T.D. (1992, April). *Autonomic components of panic and blood phobia*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Thayer, J.F., Friedman, B.H., & Colombo, R.C. (1992, September). *Inter- and intra-individual differences in heart rate nonlinear dynamics*. Paper presented at the annual meeting of the International Organization of Psychophysiology, Berlin, Germany.

- Friedman, B.H., & Thayer, J.F. (1991, June). *Redundancy analysis of multisite-multiband EEG data*. Poster presented at the annual meeting of the American Psychological Society, Washington, D.C.
- Miller, M.L., Thayer, J.F., & Friedman, B.H. (1991, April). *The multidimensionality of social competence*. Paper presented at the Annual Meeting of the Western Psychological Association, San Francisco, CA.
- Friedman, B.H. (1989, May). Pattern classification of electrocortical responses to induced affective states. In J. S. Tanaka (Chair), *Contextual factors in the experience of negative affect*. Symposium conducted at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Thayer, J.F., Friedman, B.H., & Tait, E. (1988, April). *Differences among depressives and schizophrenics in response to affective visual and auditory stimuli*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

### **Awards & Grants**

- 2024: F30: “Mapping the neural and physiologic response to tonic pain with low intensity focused ultrasound: a bridge towards therapeutic applications”. Consultant. (Andrew Strohman, Trainee; Wynn Legon, Sponsor).
- 2024: Virginia Tech College of Science Research Assignment Leave (Spring semester).
- 2020, 2024: Virginia Tech Open Access Subvention Fund: \$1500 (each year)
- 2019: Virginia Tech ICAT Student SEAD Grant; “Wireless Psychophysiological Recording in the Augmented Reality Environment” (Faculty advisor to student PI Brittany Nackley) Total Costs: \$2210.
- 2018: Virginia Tech College of Science Dean’s Discovery Fund “Long-Term Neurobehavioral and Psychosocial Impacts of the Virginia Tech Shootings.” *Role: Principal Investigator* (Co-PI: Russell Jones, Ph.D). Total Costs: \$20,000.
- 2017: Virginia Tech Adaptive Brain and Behavior Destination Area “Long-Term Neurobehavioral and Psychosocial Adaptations Following the Virginia Tech Shootings: A Ten-year Follow-up.” *Role: Co-Principal Investigator* (Co-PIs: Russell Jones, Ph.D., Michael Hughes, Ph.D., Tina Savla, Ph.D., Andrew Smith, Ph.D., Kye Kim, M.D.). Total Costs: \$10,000.
- 2017: Virginia Tech International Travel Supplemental Grant (\$1500).
- 2016: Virginia Tech College of Science Research Assignment Leave (Spring semester).
- 2015: VT Center for Autism Student Research Award “Heartbeat interoception in autism spectrum disorder.” *Role: Faculty Sponsor* (Emma Condry, M.S., recipient; \$1000).
- 2014: VT Center for Autism Student Research Award “Autonomic arousal in autism.” *Role: Faculty Sponsor* (Emma Condry, M.S., recipient; \$925).
- 2014: Carilion Clinic Research Acceleration Program “The confound of caffeine: controlling caffeine in cardiovascular reactivity research.” *Role: Principal Investigator* (Co-PIs: Kye Kim, M.D., Justin White, M.D.) Total Costs: \$14,050.



2011: Virginia Tech Institute for Society, Culture and Environment (ISCE), Virginia Tech: Summer Scholars Program (NIMH R21) “Neurophysiological underpinnings of social and behavioral challenges in autism spectrum disorders.” *Role: Research Team Member.*

2008: Virginia Tech College of Science Research Assignment Leave (Spring semester).

2007, June: Virginia Tech Scholar of the Week

2007: Virginia Tech Grant Writing Institute (Summer salary stipend).

2001 - 2006: NIMH RO1 "One session treatment of phobias in Children." *Role: Co-Investigator* (PIs: Thomas Ollendick, Ph.D., Lars Goran-Ost, Ph.D.) Total Costs: \$1.6 million.

2000: Virginia Tech College of Arts & Sciences "Millennium Grant". *Role: Principal Investigator.* Total Costs: \$6000.

2000: Virginia Tech ASPIRES "Laboratory for the Study of Human Thought & Action." *Role: Co-Investigator* (PIs: James B. Weaver III, Ph.D., Catherine Eckel, Ph.D.). Total Costs: \$40,000.

1999: Virginia Tech International Travel Supplemental Grant (\$700).

1998: Virginia Tech Center for Excellence in Undergraduate Teaching/University Office of International Programs International Faculty Fellow "Internationalizing the Psychology Curriculum: The Culture of Emotion." *Role: Principal Investigator* (Co-PI: Angela Scarpa, Ph.D.). Total Costs: \$10,000

1997-1999: Virginia Tech College of Arts and Sciences Small Projects Grant "Idiodynamic profiles of cardiovascular activity." *Role: Principal Investigator.* Total Costs: \$3000.

1988-1989: The Pennsylvania State University College of Liberal Arts Research Fellowship.

1985: Case Western Reserve University Steven J. Bednarik Memorial Award for Achievement in Psychology

1984: Case Western Reserve University Mather Alumnae Award for Excellence in Psychology

### **Professional Activities**

#### Professional Societies: Current Membership

Sigma Xi, The Scientific Research Honor Society

Society for Psychophysiological Research

#### Professional Societies: Past Membership

Association for Psychological Science

American Psychosomatic Society

Society for Behavioral Medicine

#### Professional Service Committees

Program Committee, Society for Psychophysiological Research, 2023 - 2024

Advisory Board, The Human Affectome Project, 2015 – present

Board of Directors, Society for Psychophysiological Research, 2015 – 2018

Chair, Education and Training Committee, Society for Psychophysiological Research, 2014 - 2015

Education and Training Committee, Society for Psychophysiological Research, 2008 - 2017

Student/Trainee Poster Award Committee, annual meeting of the Society for Psychophysiological Research, 2007, 2010, 2012, 2015, 2021, 2024

Colloquia, Invited Talks, Lectures, Seminars, Symposia:

*The science of biopsychology.* Pathways Psychology Major course (PSYC 1024), Department of Psychology, Virginia Tech, October 2024.

*Exploring the mind-body relationship via the autonomic nervous system: The research program of the Mind-Body Lab.* Department of Bioengineering, University of Pisa, Italy, April 2024.

*Emotion, autonomic activity, and participant diversity in psychophysiology.* B.H. Friedman & H.A. Kissel, Seminar in Kinesiology and Applied Physiology, Rutgers U., September 2023.

*The Mind-Body Lab and the mind-body connection.* The Power of the Mind Club, Virginia Tech, November 2022.

*Physiology of Stress and Trauma Project: How stress changes the way you learn.* 2019 Transdisciplinary Communities Research Symposium, Virginia Tech, April 2019.

*How long is long enough? Controlling for caffeine in cardiovascular research.* Virginia Tech Carilion School of Medicine Psychiatry Grand Rounds, Roanoke, VA, April 2018.

*Exploring grading philosophies.* Teaching Brown Bag Seminar series, Department of Psychology, Virginia Tech, November 2016.

*Feelings and the Body: The enduring influence of the James-Lange theory of emotion.* Fundamentals of Brain and Cognitive Science (TBMH 5014), Virginia Tech Carilion Research Institute, March 2015.

*The psychophysiology of defensive responding: implications for psychopathology and health.* Department of Human Nutrition, Foods and Exercise, Virginia Tech, April 2013.

*Anxiety, heart rate variability, and autism spectrum disorders.* Center for Autism Research conference, Virginia Tech, Blacksburg, VA August 2012

*The psychophysiology of defensive responding in anxiety and autism spectrum disorders.* Neurocognitive seminar series, Salem VA Medical Center, Salem, VA May 2012.

*Feelings and the body: The Jamesian perspective on autonomic specificity of emotion.* Department of Psychology, Clemson University, Clemson, SC, April 2012.

*An autonomic flexibility-neurovisceral integration model of defensiveness in anxiety and autism.* Virginia Tech Carilion School of Medicine Psychiatry Grand Rounds, Roanoke, VA, March 2012.

- Autonomic flexibility-neurovisceral integration meets Polyvagal theory: Anxiety, autism, & functional psychopathology.* ICSE Summer Scholars meeting, Virginia Tech, Blacksburg, VA, May, 2011
- Biopsychology, neuroscience, and the Mind-Body Lab.* Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, September, 2010.
- Psychophysiological measures of stress.* Education and Curriculum Instruction graduate seminar, “Mind-Body Practices for Health and Wellness”, Virginia Polytechnic Institute and State University, Blacksburg, VA, April 2009.
- The psychophysiology of anxiety & worry.* Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, September, 2008.
- Stress, trauma & community Health.* Undergraduate Honors Seminar, “A Digital Library Related to 4/16/07 at Virginia Tech”, Virginia Polytechnic Institute and State University, Blacksburg, VA, April 2008.
- William James' legacy: Autonomic specificity of emotion & the Mind-Body Lab.* Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, February, 2008.
- An autonomic flexibility-neurovisceral integration model of anxiety and cardiac vagal tone.* Department of Psychology, University of Virginia, Charlottesville, VA, March, 2007.
- Gender differences in cardiovascular responses to lateralized hand cold pressor.* Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, November, 2006.
- Psychophysiology and neuroscience: Distinct paradigms.* Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, October 2000.
- Idiodynamic profiles of cardiovascular activity.* Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, May, 2000.
- Internationalizing the psychology curriculum: The culture of emotion.* International Symposium for Summer Faculty fellows, University Office of International Programs, Virginia Polytechnic Institute and State University, Blacksburg, VA, November 1998.
- The responsibility of the graduate program to the student.* Symposium participant, 2<sup>nd</sup> annual Virginia Collegiate Psychology Conference, Virginia Polytechnic Institute and State University, Blacksburg, VA, April 1998.
- Subjects vs. participants in psychological research.* Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, January 1997.
- Anxiety and autonomic flexibility: A cardiovascular approach.* Department of Psychology, California State University at Fresno, Fresno, CA, March 1996.
- Freud, Reich, and the social implications of libido theory.* Foundation for Idiodynamics and the Creative Process, St. Louis, MO, March 1996.
- Anxiety and autonomic flexibility.* Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, March 1996.

- Anxiety, spirituality, and the body.* Care and Counseling, St. Louis, MO, January 1996.
- Experiential, cognitive, physiological and situational components of emotion.* Department of Behavioral Science and Leadership, United States Air Force Academy, Colorado Springs, CO, January 1996.
- Wilhelm Reich's psychosomatic model of personality and psychopathology.* Department of Psychology, Lindenwood College, St. Charles, MO, November 1994.
- Autonomic characteristics of anxiety: Worry, panic, and fainting.* Center for Health Behavior Research, Washington University, St. Louis, MO, November 1994.
- Reactivity reconsidered: an idiodynamic approach to the cardiovascular system.* Foundation for Idiodynamics and the Creative Process, St. Louis, MO, October 1994.
- Anxiety and autonomic nervous system flexibility.* University of Oklahoma Health Sciences Center, Oklahoma City, OK, June 1994.
- Emotion, somatic patterning, and health.* Department of Psychology, Indiana University Northwest, Gary, IN, March 1994.
- Anxiety and autonomic flexibility: Parallels of mind and body.* Department of Psychology, University of New Orleans, New Orleans, LA, February 1994.
- Heart rate variability measures in anxiety research.* Department of Psychology, University of Wuppertal, Wuppertal, Germany, October 1993.
- Autonomic balance and cardiac control: Anxiety and the rhythms of the heart.* Western Psychiatric Institute and Clinic, University of Pittsburgh, Pittsburgh, PA, January 1993.
- Anxiety and heart rate variability: Panic and blood phobia.* Department of Psychology, Southern Methodist University, Dallas, TX, February 1992.
- Anxiety and autonomic cardiac control.* Department of Psychology, The Pennsylvania State University, University Park, PA, February 1992.
- Systems relationships in models of emotions: Pattern classification of physiological and experiential indices of affect.* Department of Psychology, Central Michigan University, Mt. Pleasant, MI, May 1990.

#### Editorial Board:

Associate Editor, *Biological Psychology*, 2009 - 2021

Managing Guest Editor, *Biological Psychology*, Special Issue: "The Biology-Behavior Link in Autism Spectrum Disorder: Theory, Methods, and Evidence (2019).

<https://www.sciencedirect.com/journal/biological-psychology/special-issue/103BV4QR861>

Managing Guest Editor, *Biological Psychology*, Special Issue (2010, Vo. 84, Issue 3): "The Biopsychology of Emotion: Current Theoretical and Empirical Perspectives"

#### Research Center Membership

Affiliate, Virginia Tech Center for Autism Research, 2012-present

#### Ad hoc Grant Reviews:

Society for Psychophysiological Research Training Award, 2010, 2012, 2015 - 2017

National Science Foundation, 2004

Social Sciences and Humanities Research Council of Canada, 1997, 2000, 2003.

Other activities/appointments:

External reviewer, Promotion and Tenure Committee, Department of Cognitive and Behavioral Science, Washington & Lee University, 2023

Affiliate Faculty, VT Alliance for Neurodevelopmental Research, 2022 – present.

Presentation Judge, Mid-Atlantic Undergraduate Research Conference (MAURC), 2021

Affiliate Faculty, School of Neuroscience, Virginia Tech, 2015-present

External reviewer, Promotion and Tenure Committee, Department of Behavioral Health and Nutrition, University of Delaware, 2019

Affiliate Member, Department of Psychology, Faculty of Graduate Studies, University of Victoria, British Columbia, Canada, 2019 - 2024

Dissertation Committee Member, Kristen Silveira, Department of Psychology, University of Victoria, British Columbia, Canada, 2019 - 2022

External reviewer, Dissertation of Melanie Cochrane, Department of Psychology, University of Victoria, British Columbia, Canada, 2018

Membership endorser, National Institutes of Health (NIH) Mechanisms of Emotion, Stress, and Health (MESH) Panel, 2017

Ad hoc Journal Reviews:

*Acta Psychiatrica Scandinavica*

*American Journal of Psychiatry*

*Anxiety, Stress, & Coping*

*Archives of General Psychiatry*

*Behaviour Research & Therapy*

*Behavior Therapy*

*Biological Psychiatry*

*Biological Psychology*

*BMC Women's Health*

*Brain and Cognition*

*Cognition & Emotion*

*Cognitive Brain Research*

*Depression & Anxiety*

*Emotion*

*European Journal of Neuroscience*

*Frontiers in Human Neuroscience*

*Health Psychology*

*International Journal of Psychology*

*International Journal of Psychophysiology*

*Journal of Abnormal Psychology*

*Journal of Applied Psychoanalytic Studies*

*Journal of Behavior Therapy and Experimental Psychiatry*

*Journal of Child Psychology and Psychiatry*

*Journal of Clinical Child and Adolescent Psychology*

*Journal of Personality*

*Journal of Psychiatric Research*

*Journal of Psychosomatic Research*

*Journal of Psychophysiology* (Consulting Editor)

*Motivation & Emotion*

*Non-Linearity in Biology, Toxicology and Medicine*

*Patient Education and Counseling*

*Physiology & Behavior*

*PLOS ONE*

*Psychological Science*

*Psychiatry Research*

*Psychophysiology* (Consulting Editor)

*Psychosomatic Medicine*

*Psychosomatics*

*Social Biology*

*Social Cognitive and Affective Neuroscience*

*Social Neuroscience*

*Stress*

Book Reviewer:

R.W. Backs & W. Boucsein (Eds.) (2000). Engineering psychophysiology: Issues and applications. Mahwah, NJ: Lawrence Erlbaum.

Kalat, J. (2001). Biological Psychology (7<sup>th</sup> ed.). Pacific Grove, CA: Brooks/Cole.

### Academic Service

Psychology Departmental Alternate Faculty Senate Representative, Fall 2023 - present

Psychology Departmental Liaison to the Core Lab Planning Team, Virginia Tech, June 2020 – 2021

Panelist, “Writing and publishing”, College of Science Faculty Academy, Virginia Tech, February 2020

Director, Biological Psychology area, Department of Psychology, Virginia Tech, 2013 - 2022

Director, Developmental & Biological Psychology area, Department of Psychology, Virginia Tech, 2009 - 2013

Interim Director, Developmental & Biological Psychology area, Department of Psychology, Virginia Tech, Fall 2008

Evaluator, Virginia Tech Carilion School of Medicine 4<sup>th</sup>-year med student research presentations, Fall 2013

### Service Committees

College of Science Promotion and Tenure Committee, Virginia Tech, 2022-2023

Colloquium Committee, Department of Psychology, Virginia Tech: Chair, 2021-present; Member, 2015 – present.

Human Subjects Committee, Department of Psychology, Virginia Tech, 2021- 2022

Adaptive Brain and Behavior Destination Area Faculty Design Team, Virginia Tech, 2016-2017

Search Committee, faculty position in Neuroscience, Department of Psychology, Virginia Tech, 2013-2015

Search Committee, faculty position in Cardiovascular/Cerebrovascular science, Virginia Tech Carilion Research Institute, 2011

Directors of Areas Committee, Department of Psychology, Virginia Tech, 2008-2022.

Undergraduate Curriculum Committee, Department of Psychology, Virginia Tech, 2008-2021

Reviewer, Graduate Research Development Project, Graduate Student Assembly, Virginia Tech, 2006

Clinical Health Psychology search committee, Department of Psychology, Virginia Tech, 2006-2007

*Mind and Body* interdisciplinary undergraduate core course series, Virginia Tech, 2005-2006

Reviewer, Graduate Research Development Project, Graduate Student Assembly, Virginia Tech, 2005

Reviewer, College of Science Scholarship Committee, Virginia Tech, 2005

Departmental Committee for the Institute for Biomedical and Public Health Sciences, Virginia Tech, 2003-present

Research and Scholarship Committee, Department of Psychology, Virginia Tech, 2001-2002

Interdisciplinary Graduate Neurosciences Initiative, Virginia Tech, 1996-2004

Undergraduate Activities Committee (Faculty Advisor to Psi Chi/Psychology Club), Department of Psychology, Virginia Tech, 1997-present

Liaison Committee with the Office of Occupational Health and Safety, Department of Psychology, Virginia Tech, 1996-97

Academic Integrity Committee, Department of Psychology, The Pennsylvania State University, 1986-1990

Graduate Student Advisory Committees: Department of Psychology, Virginia Tech (except where otherwise noted)

Spring 2025:

Dissertation: Jasmine Lewis (proposal)

Fall 2024:

Dissertation: Jasmine Lewis (proposal); Lily Seah (Chair, proposal): “Personality and the two ways of regulating emotion”; Andrew Strohmman (proposal; TBMH program)

Master’s Thesis: Shane McClafferty (Chair, proposal): “Psychological monitoring: Using PPG to detect emotional changes”

Spring 2024:

Dissertation: Megan Fok (defense)

Doctoral preliminary examination: Jasmine Lewis (defense); Lily Seah (Chair, proposal/defense)

Fall 2023:

Doctoral preliminary examination: Jasmine Lewis (proposal); Andrew Strohmman (defense; TBMH program)

Spring 2023:

Dissertation: Janie Dike: (Co-Chair, defense): “Experiences of Stress, Trauma, and “Coping among Black Communities in Southwest Virginia”; Alex Faunce (Chair, defense): “Sensory Entrainment, Paying Attention, and Keeping Beat: General Effects and Individual Differences”; Megan Fok (proposal); Ya-Yun Chen (proposal)

Doctoral preliminary examination: Ya-Yun Chen (defense)

Master’s Thesis: Alex Faunce (defense: Data Analytics and Applied Statistics); Lily Seah (Chair, defense): “Psychophysiological Distinctions in Emotional Responding: Sensitivity to Perceiving Loss of Connection”

Fall 2022:

Dissertation: Janey Dike (co-Chair, proposal)

Doctoral preliminary examination: Ya-Yun Chen (proposal); Megan Fok (defense)

Master’s Thesis: Jasmine Lewis (defense); Inuk Song (defense)



Spring 2022:

Dissertation: Alex Faunce (Chair, proposal); Heather Kissel (Chair, defense): “I Can See What You Are Feeling, but Can I Feel It? Physiological Linkage While Viewing Communication of Emotion via Touch”; Brittany Nackley (Chair, defense): “Putting the Body Back Together: A Functional Autonomic Model of Interoception”; Kristen Silveira (defense; University of Victoria, British Columbia, Canada)

Doctoral preliminary examination: Megan Fok (proposal)

Master’s Thesis: Lily Seah (Chair, proposal); Inuk Song (proposal)

Fall 2021:

Dissertation: Brittany Nackley (Chair, proposal)

Master’s Thesis: Jasmine Lewis (proposal)

Spring 2021:

Dissertation: Heather Kissel (Chair, proposal); Derek Burns (proposal)

Doctoral preliminary examination: Heather Kissel (Chair, defense); Brittany Nackley (Chair, defense)

Master’s Thesis: Megan Fok (defense)

Fall 2020:

Doctoral preliminary examination: Heather Kissel (Chair, proposal); Brittany Nackley (Chair, proposal):

Master’s Thesis: Janey Dike (defense); Heather Kissel (Chair, defense): “Physiological Linkage and Communication of Emotion via Touch”; Brittany Nackley (Chair, defense): “Temporal Dynamics of the Defense Cascade”

Spring 2020:

Dissertation: Alisa Huskey (Chair, defense): “Computational and Human Learning Models of Generalized Unsafety”; Michael Lewis (defense); Ashley Muskett (defense)

Master’s Thesis: Megan Fok (proposal)

Fall 2019:

Doctoral preliminary examination: Alex Faunce (Chair, defense)

Master’s Thesis: Janey Dike (proposal)

Spring 2019:

Dissertation: Alleyne Broomell (defense); Alisa Huskey (Chair, proposal); Ashley Muskett (proposal)

Doctoral preliminary examination: Derek Burns (proposal & defense); Alex Faunce (Chair, proposal); Michael Lewis (defense)

Master’s Thesis: Heather Kissel (Chair, proposal); Brittany Nackley (Chair, proposal)

Fall 2018:

Doctoral preliminary examination: Ashley Muskett (defense); Michael Lewis (proposal)

Spring 2018:

Dissertation: Alleyne Broomell (proposal); Emma Condry (Chair, defense): “Examining the neurovisceral integration model through fNIRS”; Shara Grant (Chair, defense): “Multidimensional cardioception & trait anxiety: Potential clues from baroreflex sensitivity”

Doctoral preliminary examination: Ashley Muskett (proposal)

Master’s Thesis: Derek Burns (defense); Michael Lewis (defense)

Fall 2017:

Dissertation: Emma Condry (Chair, proposal); Shara Grant (Chair, proposal)

Doctoral preliminary examination: Alisa Huskey (Chair; defense)

Master’s Thesis: Jessica Gladfelter (defense); Ashley Muskett (defense)

Spring 2017:

Dissertation: Xiao Yang (Chair, defense): “Differentiation between the effects of physical and psychosocial stress on a feedback-based learning task”

Doctoral preliminary examination: Alleyne Broomell (proposal & defense); Alisa Huskey (Chair; proposal); Deanna Swain (defense); Bryce Torian (proposal)

Master’s Thesis: Jessica Gladfelter (proposal); Michael Lewis (proposal); Ashley Muskett (proposal)

Fall 2016:

Doctoral preliminary examination: Emma Condry (Chair, proposal & defense); Shara Grant (Chair, proposal & defense); Deanna Swain (proposal)

Spring 2016:

Dissertation: Derek Spangler (Chair; defense): “Working memory load under anxiety: Quadratic relations to cardiac vagal control and Inhibition of distractor interference”; Jonathon Waldron (defense); Xiao Yang (Chair; proposal)

Master's Thesis: Derek Burns (proposal); Emma Condry (Chair, defense: “Respiratory sinus arrhythmia and restricted repetitive behaviors in autism spectrum disorder”); Shara Grant (Chair, defense): “Controlling for acute caffeine in cardiovascular reactivity research”

Spring 2015:

Dissertation: Jared McGinley (Chair, defense): “Autonomic Patterns of Emotion across Multiple Contexts”

Fall 2014:

Dissertation: Derek Spangler (Chair; proposal)

Doctoral preliminary examination: Xiao Yang (Chair; proposal & defense)

Master's Thesis: Emma Condry (Chair, proposal)

#### Spring 2014:

Dissertation: Bryan Higgs (Department of Transportation Infrastructure and Systems Engineering; defense); Jared McGinley (Chair; proposal); Jonathon Waldron (proposal)

Master's Thesis: Shara Grant (Chair, proposal)

#### Fall 2013

Dissertation: Bryan Higgs (Department of Transportation Infrastructure and Systems Engineering; proposal); Joy Wu (defense)

Doctoral preliminary examination: Derek Spangler (Chair; proposal & defense)

Master's Thesis: Xiao Yang (Chair, defense): "The Influence of Behavioral Inhibition and Approach on Affective Modification of the Startle Response"

#### Spring 2013:

Dissertation: Lauren Golden (defense); Michelle Patriquin (defense) ; Zhe Wang (defense)

Doctoral preliminary examination: Bryan Higgs (Department of Transportation Infrastructure and Systems Engineering; proposal and defense); Jared McGinley (Chair; defense); Jonathon Waldron (proposal & defense)

Master's Thesis: Derek Spangler (Chair, defense): "Resiliency and Autonomic Control of Cardiac Responses to Stress"; Xiao Yang (Chair; proposal)

#### Fall 2012

Dissertation: Zhe Wang (proposal); Joy Wu (proposal)

Doctoral preliminary examination: Jared McGinley: Chair (proposal)

#### Spring 2012

Dissertation: Ben Allen (Chair, defense): "Threatening the Heart and Mind of Stereotypes with Imagination: Can Imagined Contact Change Threatening Physiology During Stereotype Threat?"

Doctoral preliminary examination: Zhe Wang (defense); Joy Wu (defense)

Master's Thesis: Sabrina Hu (defense); Jared McGinley (Chair, defense): "Lateralized Induction of Cardiovascular Responses: Exploring Asymmetric Autonomic Regulation"; Derek Spangler (Chair; proposal)

#### Fall 2011

Dissertation: Ben Allen: (Chair proposal); Joe Carmona (defense); Lauren Golden (proposal)

Doctoral preliminary examination: Zhe Wang (proposal); Joy Wu (proposal)

Spring 2011

Dissertation: Michelle Patriquin (proposal)

Doctoral preliminary examination: Ben Allen (Chair; defense); Lauren Golden (proposal & defense)

Master's Thesis: Jared McGinley (Chair; proposal); Joy Wu (defense)

Fall 2010

Doctoral preliminary examination: Ben Allen: (Chair; proposal); Michelle Patriquin (proposal & defense)

Spring 2010

Dissertation: Michael Knepp (Chair, defense): “Cardiovascular activity during laboratory tasks in individuals with high and low worry”; Thomas Pardikes (Chair, defense): “Voluntary inhibition of reflex: Effects of consistent meditative practice”

Master's Thesis: Ben Allen (Chair, defense): “What Resonates with you? Methods of Induced Cardiovascular Resonance”; Michelle Patriquin (defense)

Fall 2009

Master's Thesis: Joy Wu (proposal)

Spring 2009

Dissertation: Thomas Pardikes (Chair; proposal); Robert Walters (defense)

Master's Thesis: Ben Allen (Chair; proposal); Michelle Patriquin (proposal)

Fall, 2008

Dissertation: Michael Knepp (Chair; proposal)

Doctoral preliminary examination: Thomas Pardikes (Chair; proposal & defense); Chad Stephens (Chair; proposal & defense)

Spring 2008

Master's Thesis: Thomas Pardikes (Chair, defense); “Measuring the relationship between reflexive and intentional ANS response”

Fall, 2007

Doctoral preliminary examination: Michael Knepp (Chair; proposal & defense)

Master's Thesis: Chad Stephens (Chair): “Autonomic differentiation of emotions: A cluster analysis approach” (defense)

Spring, 2007

Dissertation: Kate Holland (proposal); Robert Walters (proposal)

Doctoral preliminary examination: Sara Valentino (proposal)

Master's Thesis: Michael Knepp (Chair): “Cardiovascular activity during laboratory tasks in individuals with high and low worry” (defense); Thomas Pardikes (Chair; proposal)

Fall, 2006

Dissertation: David Cox (proposal)

Doctoral preliminary examination: Robert Walters (defense)

Master's Thesis: Michael Knepp (Chair; proposal); Joe Carmona (defense)

Spring, 2006

Dissertation: Li Wan (Chair): "Further hypotheses and analysis of the Teenage Smokers Project: Monamine Oxidase levels" (proposal and defense); Joe McArdle (defense); Gina Mollet (defense)

Doctoral preliminary examination: David Cox (defense); Kate Holland (proposal and defense); Robert Walters (proposal)

Master's Thesis: Chad Stephens (Chair; proposal); Akiho Tanaka (defense); Maria Whitmore (defense)

Fall, 2005

Doctoral preliminary examination: Li Wan: (Chair; defense); David Cox (proposal)

Master's Thesis: Akiho Tanaka (proposal)

Spring, 2005

Dissertation: Israel Christie (Chair, defense): "Behavioral inhibition/activation and autonomic control of the heart: Extending the autonomic flexibility model"; Thompson Davis (defense); Gina Mollet (proposal); Elizabeth Vella (Chair, defense): "Anger management style & hostility: Cardiovascular reactivity and recovery to mental stress with harassment"

Doctoral preliminary examination: Gina Mollet (defense); Li Wan (Chair; proposal)

Master's Thesis: Joe Carmona (proposal); Robert Walters (defense)

Fall, 2004

Dissertation: Elizabeth Vella (Chair; proposal)

Doctoral preliminary examination: Gina Mollet (proposal)

Spring, 2004

Dissertation: Israel Christie (Chair; proposal); Sara Haden (proposal); Paul Foster (defense); Liz Van Voorhees (defense)

Master's Thesis: Gina Mollet (defense), Maria Whitmore (proposal)

Fall, 2003

Dissertation: Thompson Davis (proposal), Joe McArdle (proposal)

Doctoral preliminary examination: Elizabeth Vella: Chair (proposal/defense); Sara Haden (defense)

Master's Thesis: Gina Mollet (proposal)

Spring, 2003

Dissertation: Aimee Santucci (Chair, defense): “Individual differences in adult self-report of negative affect and effortful control: Consequences for physiology, emotion, and behavior during regulatory tasks”

Doctoral preliminary examination: Thompson Davis (proposal/defense); Christie Wolf (defense); Sara Haden (proposal)

Master's Thesis: Elizabeth Vella (Chair, defense): “Autonomic characteristics of defensive hostility: Reactivity and recovery to active and passive stressors”; Megan McIlreavy (defense)

Fall, 2002

Dissertation: Aimee Santucci (Chair; proposal)

Doctoral preliminary examination: Israel Christie (Chair; defense); Alexandria Park (defense)

Spring 2002

Dissertation: Keryl Cosenzo (defense), Liz Van Voorhees (proposal)

Master's Thesis: Israel Christie (Chair, defense): “Multivariate discrimination of emotion-specific autonomic nervous system activity”

Fall 2001

Dissertation: Tim Butcher (defense); Paul Foster (proposal)

Doctoral preliminary examination: Aimee Santucci (Chair; defense); Paul Foster (defense); Liz Van Voorhees (defense)

Master's Thesis: Elizabeth Vella: (Chair; proposal); Megan McIlreavy (proposal)

Spring 2001

Dissertation: Jonathon Roberts (defense)

Doctoral preliminary examination: Joe McArdle (defense)

Master's Thesis: Aimee Santucci (Chair, defense): “Cognitive biases and autonomic responding in anxiety and depression”

Fall 2000

Doctoral preliminary examination: Keryl Cosenzo (defense)

Spring 2000

Doctoral preliminary examination: Jonathon Roberts (defense); Teresa Edwards (Department of Near Environments/defense)

Fall 1999

Dissertation: Eric Laws (defense)

Master's Thesis: Keryl Cosenzo (defense)

Spring 1999

Dissertation: Joe Shevlin (defense)

Doctoral preliminary examination: Jamie Cooper (defense)

Fall 1998

Dissertation: Rebecca Columbus (defense)

Master's Thesis: Jamie Cooper (defense)

Spring 1998

Dissertation: Trina Doran (defense); Jennifer Vendemia (defense)

Fall 1997

Doctoral preliminary examination: Jason McCartney (defense)

Spring 1997

Doctoral preliminary examination: Rebecca Columbus (defense); Jason McCartney (defense)

Undergraduate research

Honors thesis supervisor:

Leah Lozier: "Lateralized autonomic control of cardiovascular activity and the cold pressor task" (2004-2005)

Ezra Wegbreit: "Caffeine and selective attention in college students: A behavioral study" (2004-2005)

Benjamin Pumphrey: "Theories of frustration-aggression and the Rosenzweig Picture-Frustration study" (2000-2001)

Erin Curtis: "Physiological patterning and emotion" (2000-2001)

Honors theses committee member:

Kate Magruder: "Examining the Association Between Using Marijuana for Coping Motives and Experiencing More Marijuana-Related Problems" (2012)

Michelle Patriquin: "The effect of internet use on frustration sensitivity in undergraduate college students" (2006-2007)

Independent study project supervisor:

Kate Magruder: "The effects of caffeine on cardiovascular reactivity: A review" (2012)

Ralph Emerson: "Audio-Visual entrainment harmonics with heart rate variability" (2006-2007)

Kristina Blough: "Neuroticism and heart rate variability in response to emotion elicitation" (2005-2006)

Mamata Khatri: "The role of physiological patterns in theories of emotion" (1999)

## Diversity promotion

### Research Mentor:

Jasmine Lewis: graduate scholar, VT-IMSD (2020-2021)

Shara Grant: graduate scholar, VT-IMSD (2013-2018)

Leland Fleming: post-baccalaureate scholar, VT-PREP (2013-2014)

Erica Lee: undergraduate scholar, VT Initiative to Maximize Student Development (VT-IMSD) (2012-2014)

## **Professional Development**

CITI Social & Behavioral Research Refresher Course, Virginia Tech, June 2024

Elements Faculty Activity System: Overview Workshop and Drop-In Q&A, TLOS, Virginia Tech, February 2023

Autism Research (ARCH) Seminar Series: “Parasympathetic cardio-regulation in autistic children: a neurovisceral perspective”, January 2023

CITI Social & Behavioral Research Basic Course, Virginia Tech, March 2021

CITI Research Conflict of Interest (COI) Training for Investigators, Virginia Tech, March 2021

Course Design Clinic - Resources and Community of Practice, Center for Excellence in Teaching and Learning/Technology-enhanced Learning and Online Strategies TLOS), Virginia Tech, August 2020

Coronavirus Awareness course, Environmental Health and Safety, Virginia Tech, July 2020

Family Educational Rights and Privacy Act (FERPA) training, Office of the University Registrar, Virginia Tech, July 2020; February, 2023; February, 2025

Fall Lab Planning Workshop, VT Professional Development, Virginia Tech, June 2020

Adaptive Brain and Behavior Workshop, Virginia Tech, April 2018

Title IX and Retaliation workshop: Department of Human Resources, Virginia Tech, January 2015

Conflicts of Interest Training: Office of the Vice President for Research, Virginia Tech, October 2014

Roundtable Discussion on Heart Rate Variability Assessment: Annual meeting of the Society for Psychophysiological Research, Atlanta, GA, September 2014

Search Committee Charge Meeting: Department of Human Resources, Office of Equity and Access, Virginia Tech, October 2013 & October 2015



Roundtable Discussion on Blood Pressure Assessment: Annual meeting of the Society for Psychophysiological Research, Boston, MA, September 2011

Harassment Prevention and Complaint Handling training workshop: VT Office for Equity and Access, April 2011

VT Faculty Development Institute (FDI) & Networked Learning Initiatives (NLI) workshops:

“Security Awareness Training” May 2015

“Strategies for Mindful Teaching & Learning” May 2015

“Building Scholar Courses” Spring 2011

“The Art of the Question” Spring 2008

“Furthering Your Research Agenda,” Spring 2005

“Building the NIH Grant Proposal,” February 2003

“Basic Web Course Development” June 2001

“Teaching and Learning with Computers” June 1997

Center for Excellence in Undergraduate Teaching workshop: "Student evaluations of faculty teaching", February 2001

### **Courses Taught**

Graduate: Psychophysiology; Biological, Clinical, and Developmental Perspectives on Emotion Regulation; Biological, Clinical, and Developmental Perspectives on Stress & Trauma; Biopsychology of Emotion; Biopsychology of Stress & Trauma; Emotion, Stress, & Health; Polyvagal Theory

Undergraduate: History and Systems in Psychology, Introduction to Neuroscience of Behavior, Nervous Systems and Behavior, Physiological Psychology, Psychology of Personality, Developmental Psychology

### **Outreach and Media Relations**

Member, Jewish Faculty/Staff caucus, Hillel, Virginia Tech

Interviewed for article, “The Vagus Nerve: How to harness it for your mental health”. Women’s Mental and Neurological Health Newsletter (wmnHealth.org), November 2023.

<https://wmnhealth.org/blog/the-vagus-nerve-what-it-is-and-how-to-harness-it-for-your-mental-health/>

Quoted in USA Today article, “How can airlines curb bad behavior? Start by providing better service.” July 21, 2023. <https://www.usatoday.com/story/travel/columnist/2023/07/21/flight-delay-rage-what-to-do/70431377007/>

Participant, Parent Discussion Panel, VT Center for Autism Research Biennial Spring Conference, April 2023

Participant, Family Discussion Panel, “I’m Determined” Regional Youth and Parent Summit Echo Event, Radford University, October 22, 2022

Family Leader, “I’m Determined” Youth & Family Summit (2022 & 2023, June). James Madison University, Harrisonburg VA. Sponsors: Virginia Department of Education and the Partnership for People with Disabilities.

“Lighten up the winter blues.” Interview in the *Collegiate Times*, January 30, 2014.

“The Mind-Body Lab: Yesterday, Today, and Tomorrow”. Presentation at the Blacksburg Lions Club (June 4, 2008)

Radio interview with Mark Elfstrand, host of WMBI’s (Chicago) Morning Program, regarding VT’s response to the campus shootings of 4-16-07 (April 18, 2007)