

## ABSTRACT

An interdisciplinary investigation of infant sleep: How we study it, what it means for other areas of development, and where methodological creativity can take us.

by

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The present dissertation is broken into six chapters. Chapters 2 through 5 comprise four research projects that build upon each other and in both theoretical and methodological ways. The bookends – my introduction and conclusion – are written for an interdisciplinary, even lay audience. In its entirety, the text is centered on infant sleep. First, I describe the functional role of sleep and liken it to a barista working in a coffee shop. Then, I lay out researcher choices – of design and measurement – when incorporating sleep as a facet of a research paradigm. After comparing three measurement techniques (parent report, actigraphy, and Nanit videosomnography), I apply one (Nanit) to the study of sleep and motor development. Intensive longitudinal data collections allowed for more precision in documenting when and how sleep is disrupted around motor skill onset. To see if changes in the ultradian cycle were underlying these results, I manually analyze the Nanit video data, state scoring nightly videos for total time spent in REM and NREM around onset. Finally, I offer another methodological adaptation to record infant sleep and state code, using both actigraphy and wireless cardiorespiratory sensors. Future interdisciplinary research on infant sleep and development can benefit from instances of methodological creativity, as I have shown here. Doing so will also resolve some of the barriers that prevent potential participants and researchers from engaging in the field.