My Q and A With Roger Ekirch on the Way We Sleep, and How It's Changed Over the Centuries

Arianna Huffington 6/24/15

Roger Ekirch is a professor of history at Virginia Tech and the author of *At Day's Close: Night in Times Past*. He is also a leading scholar on segmented sleep -- the idea that for much of history people slept into two separate chunks separated by a waking period, as opposed to a single span of sleep. In answer to my questions, he shared his insights on "normal" insomnia, how technological advances have changed the way we sleep, and why in many ways we're living in a golden age of sleep.

1) How was the waking time between the two sleeps spent?

In myriad ways, from the spiritual to the profane, in addition to more mundane tasks such as rising to urinate, either in a chamber pot or, on mild evenings, outdoors. Fires needed to be tended or perhaps a tub of ale brewed. Virgil in the *Aeneid* wrote of women servants, after the "first slumber," who "ply the distaff by the winking light, and to their daily labor add the night." The sick were given potions and elixirs; whereas for the poor, the dead of night (midnight to three a.m.) was a prime time for poaching and petty theft so long as the moon, or "tattler," was not full. Orchards were pilfered and firewood filched. Still, most persons never left their beds, preferring instead to ponder dreams from which they awakened. No other period afforded such a secluded interval of darkness in which to absorb fresh visions of solace, spirituality, and self-revelation. There were also prayers to be recited "when you awake in the night." And no time was thought better for sexual intimacy if a couple wished to conceive children. A sixteenth-century French physician ascribed the fecundity of rural peasants to early morning intercourse "after the first sleep" when, he claimed, they "have more enjoyment" and "do it better."

2) How did the Industrial Revolution change how humans sleep?

The Revolution accentuated forces rooted in both technology and culture that transformed segmented sleep. As with other forms of biological change, the transition was lengthy and erratic. Nighttime slumber that had been "segmented," with a provenance as old as humankind, gradually, by the late nineteenth century, became compressed and consolidated throughout much of North America and Europe. Owing to a heightened sensitivity toward time, coupled with the growing importance of efficiency and productivity in daily life, sleep resembled, for many, a necessary evil best confined to a single interval -- "stealing a march, so to speak, on the day and on one's fellow human beings who are enjoying that second sleep," as a London writer advised. Proponents of "early rising," a very popular reform movement, urged parents to encourage children at an early age to arise after "their first sleep."

But even more decisive was the growing prevalence of artificial illumination within homes and businesses as well as on public streets -- first gas, followed in the late 1800s by electric lighting. As scientific research has shown, modern lighting can have a profound physiological effect upon sleep. Just a few hours of exposure can reset the

circadian pacemaker controlling the flow of hormones and changes in body functions that have daily rhythms. Then, too, the dissemination of artificial lighting led to later bedtimes and sleep that was deeper, more compressed, and capable of being taken in a single interval. By the early twentieth century, if not earlier, most people exhibited an unquestioning adherence to seamless slumber.

3) Do you believe we have evolved past a pattern of segmented sleep, or are our bodies struggling against us when we try to sleep in one chunk of time? How do modern sleep disorders relate to all this?

If anything, the changes in technology and cultural attitudes responsible for the decline of segmented sleep have grown more powerful in the wake of the nineteenth century. Short of retreating to an ill-lit cabin in the Yukon, there is no turning back. That said, a significant segment of the population in the United States and abroad yet experience a biphasic pattern of sleep. Over ten per cent of Americans reportedly suffer from "middle-of-the-night" (MOTN) insomnia, the most common variety of sleeplessness whereby they have difficulty, not falling asleep, but waking up at night for up to an hour or more. To both their frustration and that of their physicians, there appears to be no explicable reason for their wakefulness. Many patients, I have been told, regard themselves as abnormal, which only heightens their anxiety, thereby accentuating their inability to sleep. But there is strong historical evidence that many insomniacs may, in fact, be experiencing this older, more natural pattern of segmented slumber.

Notably, middle-of-the-night insomnia was not a problem before the late 1800s. Medical texts as early as the sixteenth century regarded the interval of wakefulness separating first from second sleep as utterly normal and, hence, unworthy of discussion except for affording a preferred time for ingesting medicine, engaging in sex, and shifting from one side of the body to another to aid digestion. Fitful sleep, whether caused by sickness, bugs, or inclement weather, was not confused with wakefulness between first and second sleep. In fact, not until the turn of the nineteenth century and sleep's consolidation did physicians view nocturnal awakening as an illness requiring medication.

What of individuals today who awaken in the middle of the night while the rest of us sleep seamlessly? Some who are prone to nocturnal awakenings may possess circadian rhythms capable of withstanding the impact of artificial lighting, or are otherwise disposed to resist the transition to consolidation. Further, as David Neubauer at Johns Hopkins has speculated, consolidated sleep, as an artificial invention of modern life, may be inherently unstable and, thus, all the more vulnerable to disruption. It also stands to reason that the transition from segmented sleep, dominant in all likelihood since time immemorial, would take longer than just one or even two centuries to run its course.

4) Based on your knowledge of the history of sleep, what steps can people take today to improve their sleep?

Two things. First, despite rising complaints of insomnia, we should delight in the fact that for most of us, the opportunity to enjoy deep, restful sleep has never been better, thanks

to improvements in home construction, heating, and medical care, not least aspirin and other modern analgesics. Notwithstanding nostalgic stereotypes of repose in simpler times, slumber before the Industrial Revolution was frequently disturbed, a consequence in that pre-penicillin age of rampant illness as well as depression and mental anxiety arising from hardships and fears, both real and imaginary. A diary kept by the Connecticut colonist Hannah Heaton recounts numerous nocturnal battles with Satan, resulting in frequent loss of rest. Primitive living conditions magnified such woes, from frigid temperatures, noise, and leaky roofs to bed bugs, lice, and fleas, the unholy trinity of preindustrial entomology.

Why, then, is there a modern epidemic of sleep deprivation? Certainly one explanation for this paradox lies in the mistaken belief that sleep can be shortchanged without having to pay the consequences. By burning the candle at both ends -- rising early for work after retiring around midnight, if not later -- we have come to expect six or seven hours of undisturbed rest. Ironically, the less time allowed for sleep, the more we have come to demand of it, hoping that expensive bedding and sleeping pills will compensate for our high wattage lifestyle. And then to cope with our exhaustion during the day, we look, often in vain, to such popular expedients as power naps and caffeinated beverages -- not just coffee but high energy drinks. In truth, unlike our ancestors, many of us have only ourselves to blame, all the more if we remain on our computers late at night, which like other sources of sensory stimulation, such as video games and television, are detrimental to fostering sleep.

Second, people who suffer from middle-of-the-night insomnia should understand, from an historical perspective, that their sleep may well be utterly normal. Their circadian rhythms may vibrate to an older, more natural tuning fork. That is slight consolation perhaps, but at the very least this knowledge should alleviate their anxiety at night, not to mention the psychological consequences of thinking oneself abnormal or, worse, a "freak."