

ADVANCED MODELS OF INSOMNIA



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A FURTHER WORD ABOUT THE SPIELMAN 3-P MODEL



SLEEP EXTENSION

ADVANCED MODELS OF INSOMNIA



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MORIN MODEL 1993

LUNDH & BROMAN MODEL 2000

HARVEY MODEL 2002

PSYCHOBIOLOGIC INHIBITION MODEL 2002/2006

NEUROCOGNITIVE MODEL 1997

NEUROBIOLOGIC MODEL 2011

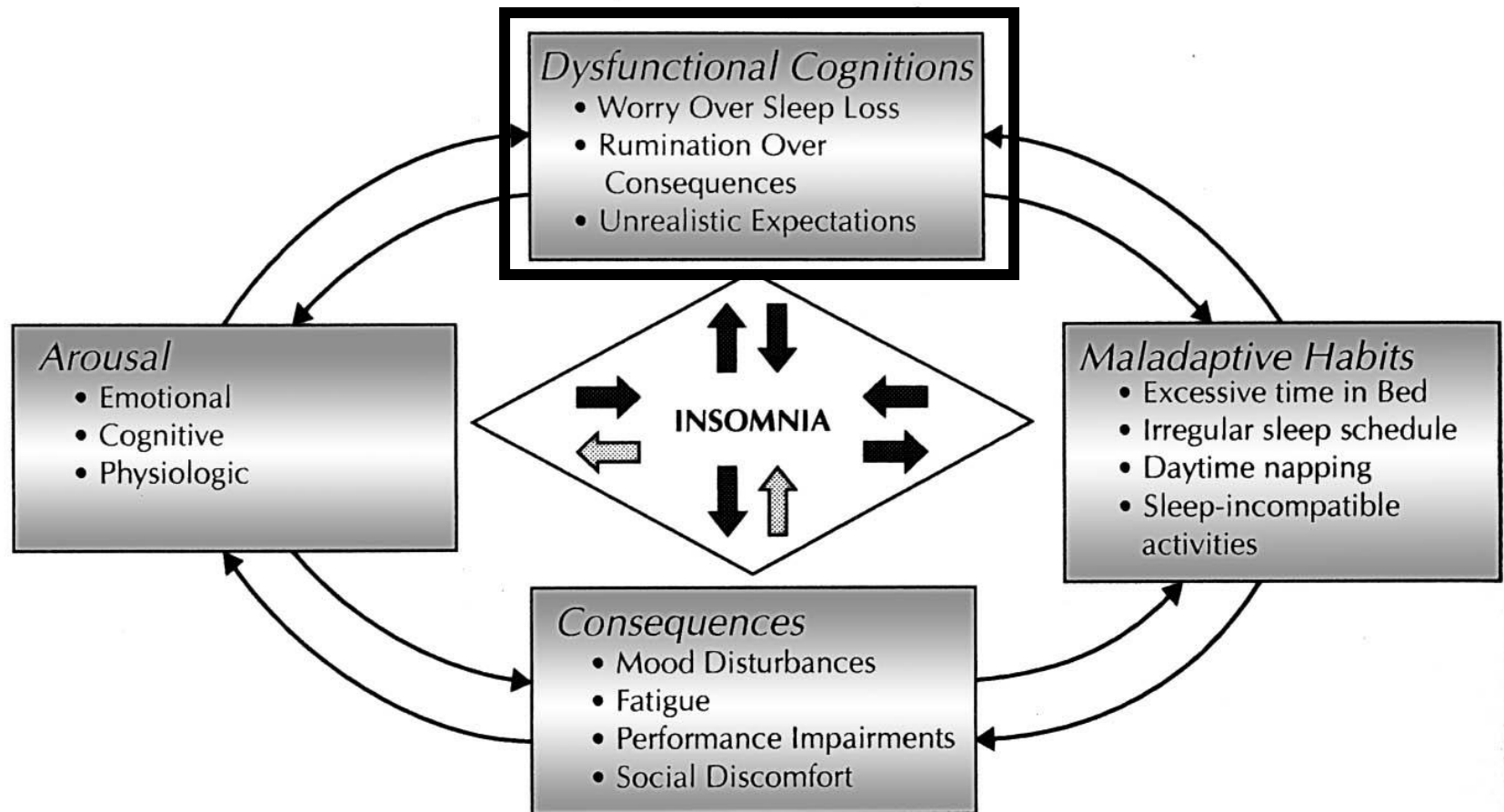
INTEGRATIVE MODEL 2006/2015

MORIN 1993

THE MICROANALYTIC MODEL

**Morin CM. Insomnia: Psychological Assessment and Management.
New York, NY: Guilford Press, 1993.**

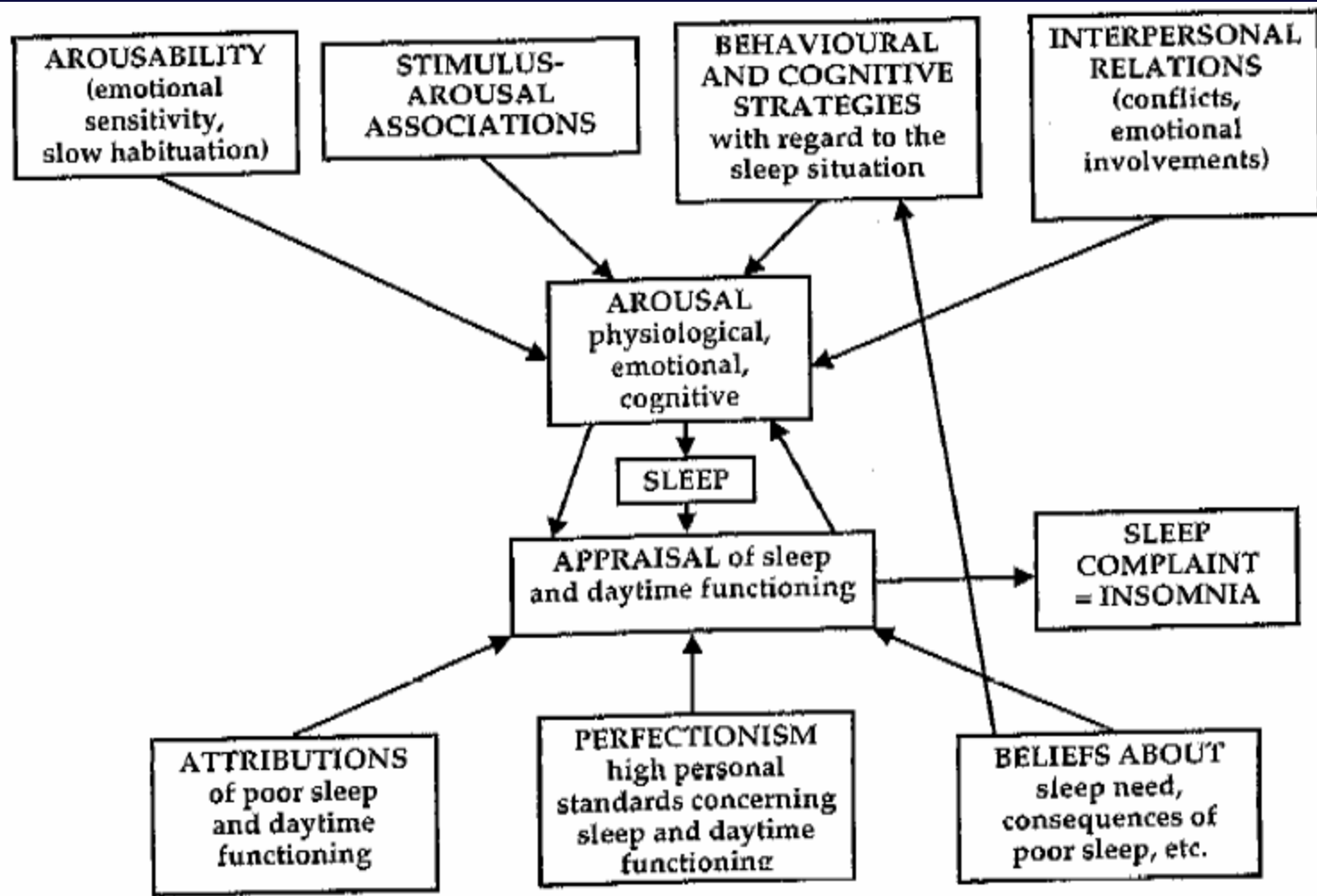
**Morin CM et al. Dysfunctional beliefs & attitudes about sleep
among older adults with and without insomnia complaints.
Psychology & Aging. Vol 8(3) Sep 1993, 463-467.**

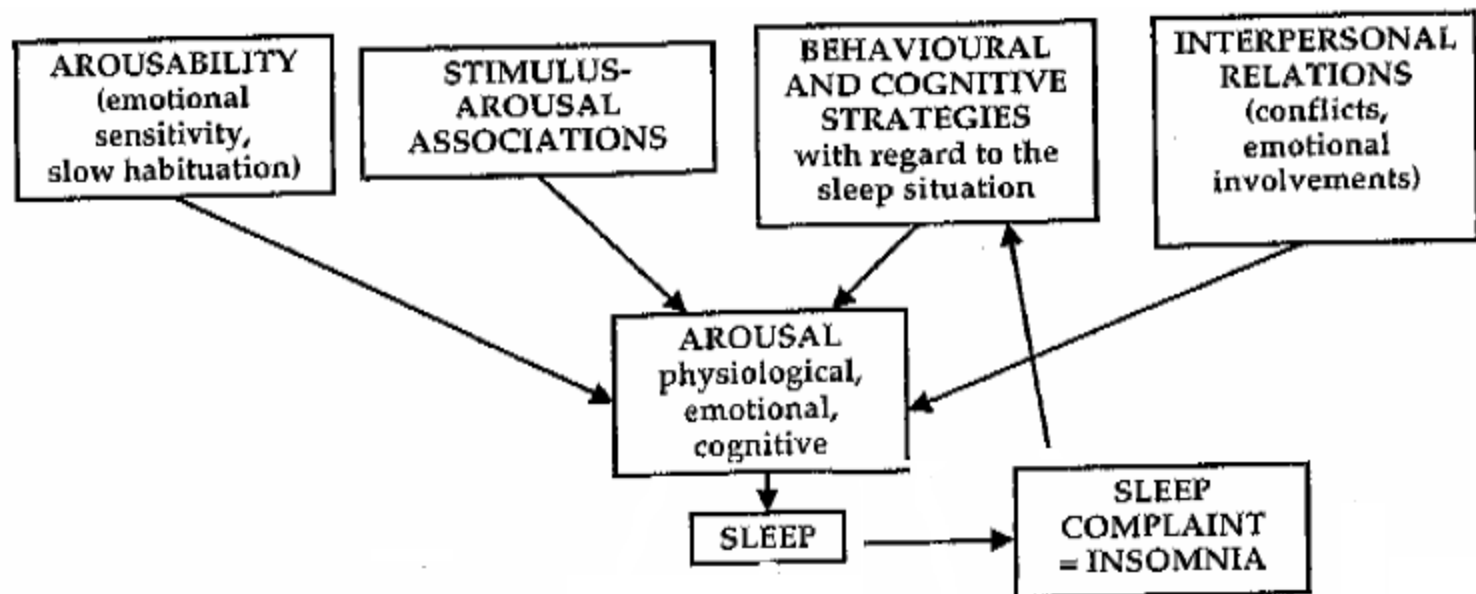


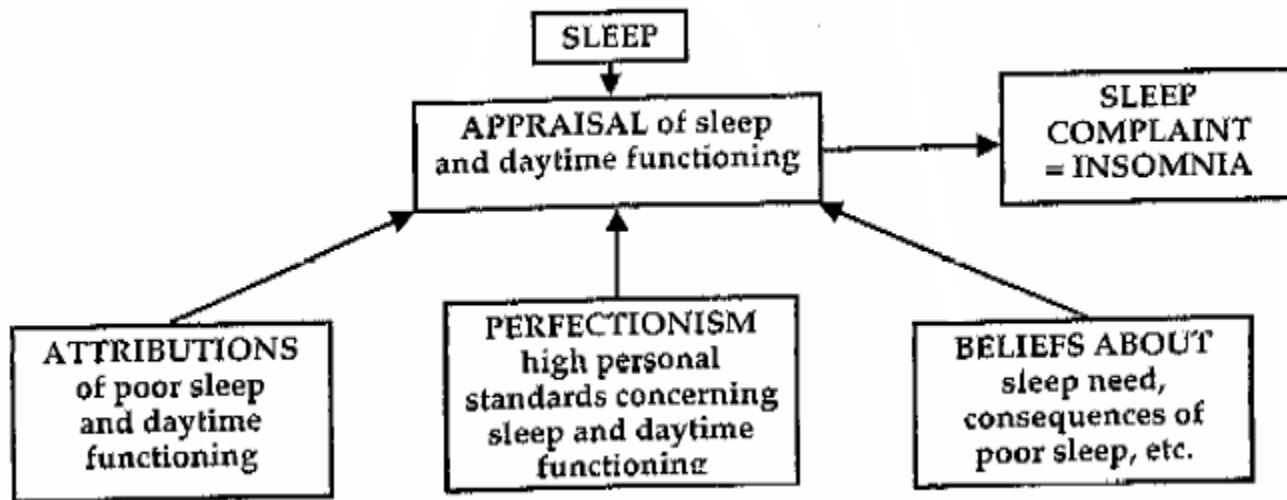
THE LUNDH-BROMAN MODEL 2000

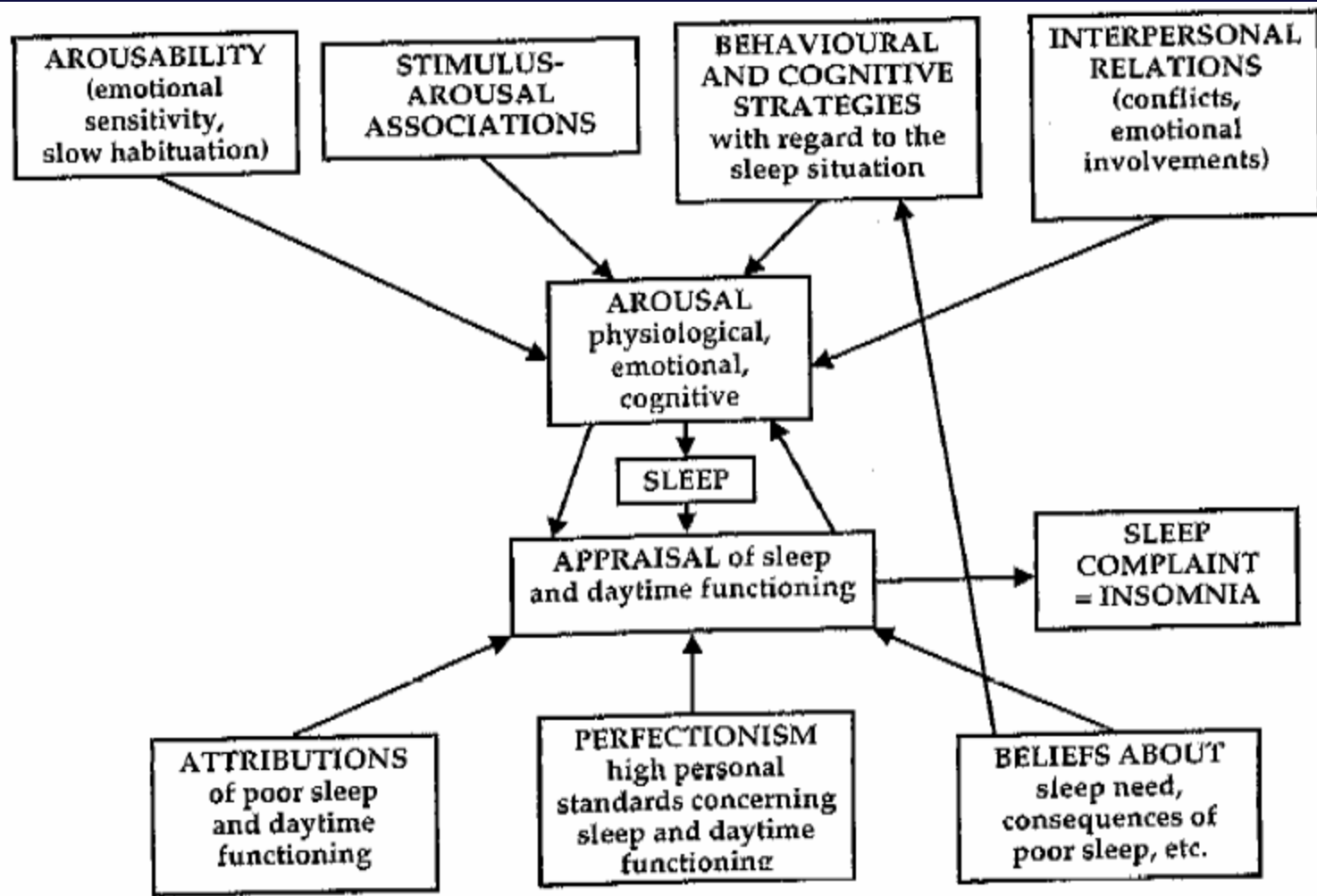
SLEEP-INTERFERING & SLEEP-INTERPRETING PROCESS MODEL

**Lundh LG, Broman JE. Insomnia as an interaction
between sleep-interfering and sleep-interpreting
processes. J Psychosom Res. 2000 Nov;49(5):299-310.**





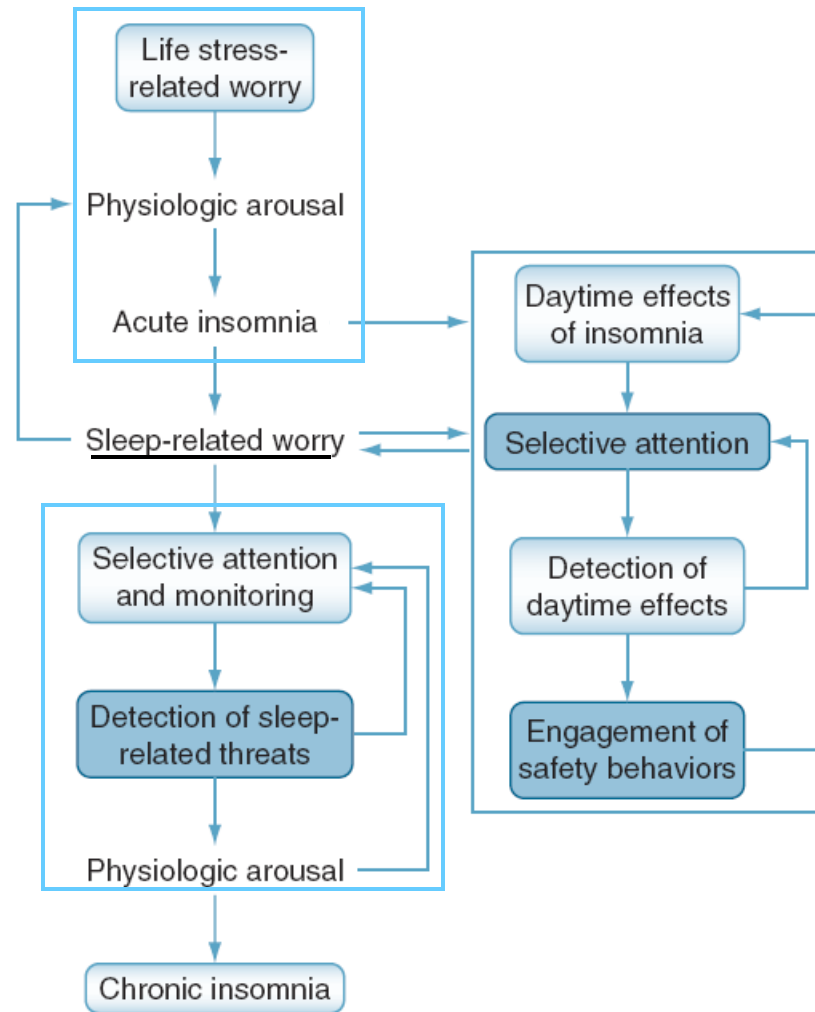




HARVEY 2002

**A cognitive model of insomnia. Behaviour Research & Therapy.
Vol 40(8) Aug 2002, 869-894**

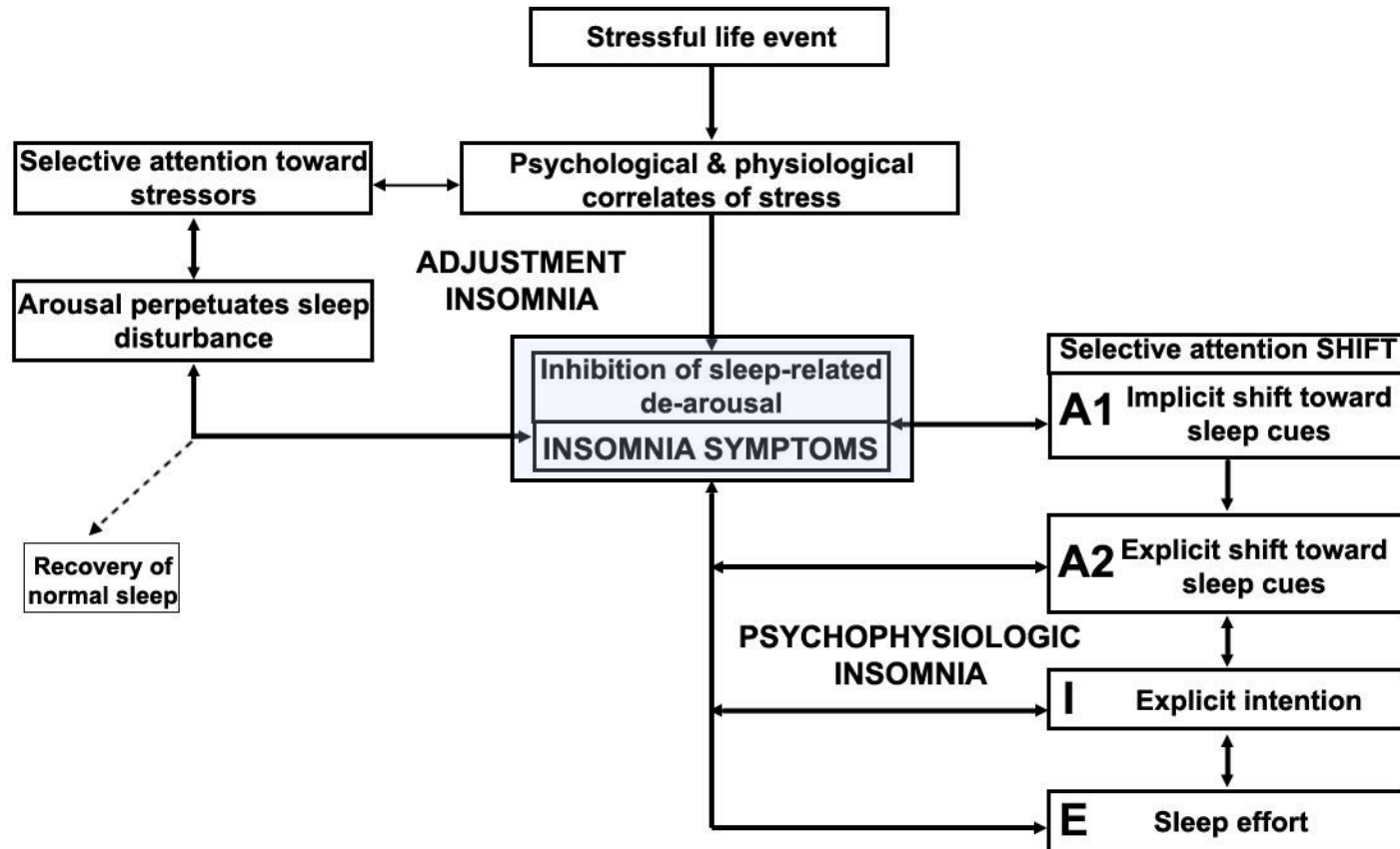
THE COGNITIVE MODEL (HARVEY MODEL)



PSYCHOBIOLOGIC INHIBITION MODEL 2006

Espie CA, Broomfield NM, MacMahon KM, Macphee LM, Taylor LM.
The attention-intention-effort pathway in the development of
psychophysiologic insomnia: a theoretical review.
Sleep Med Rev. 2006 Aug;10(4):215-45.

Proposed evolution of Psychophysiological Insomnia from Adjustment Insomnia following the A-I-E pathway



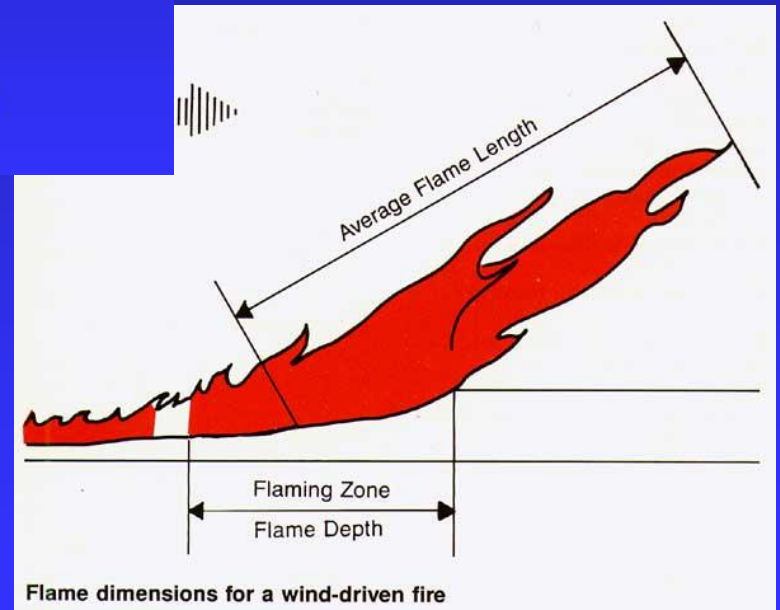
A NOTE ABOUT COGNITIVE MODELS

IN THE CASE OF CHRONIC INSOMNIA

IS IT THE CASE THAT WORRY KEEPS
ONE AWAKE

OR

THAT ONE WORRIES
BECAUSE ONE IS AWAKE ?



THE NEUROCOGNITIVE MODEL

Perlis ML, et al. Subjective - objective discrepancies in psychophysiologic insomnia: A neurocognitive perspective. J Sleep Research 1997; 6:179-188.

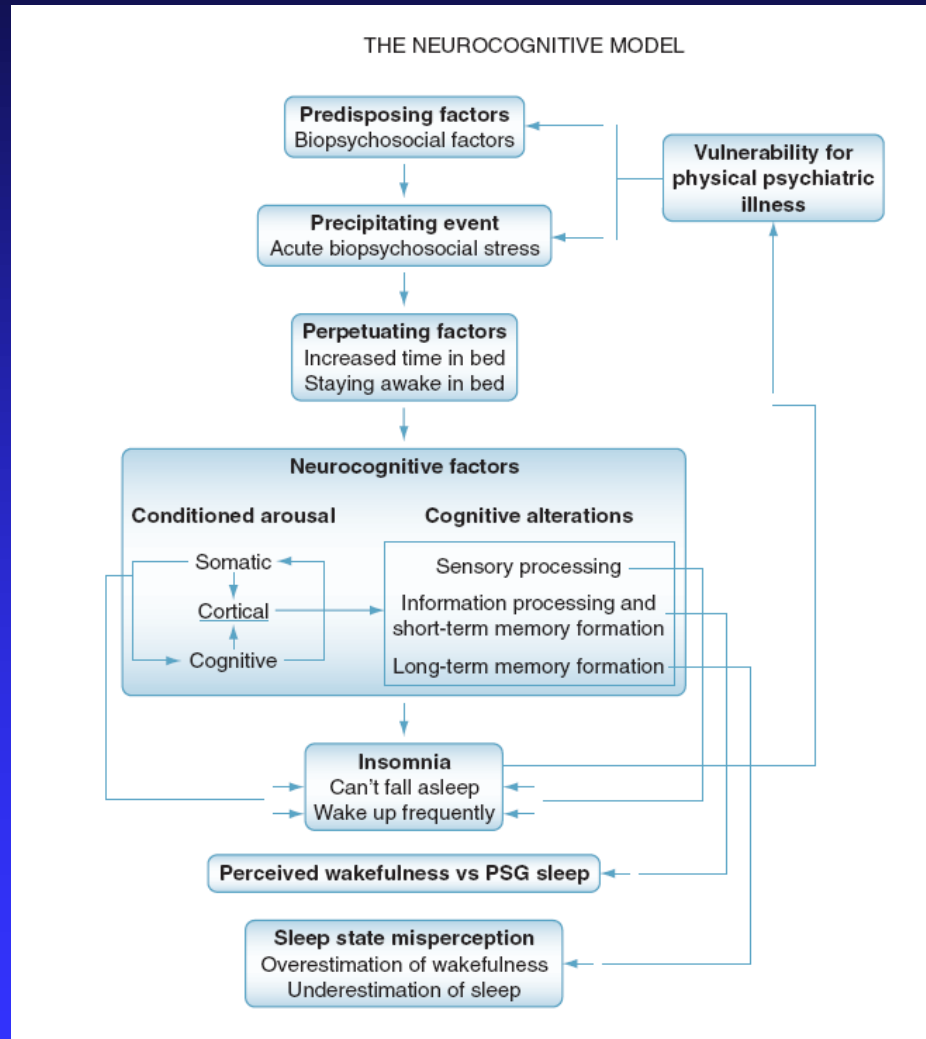
SIMPLY RENDERED



SIMPLY RENDERED

(Images Not available)

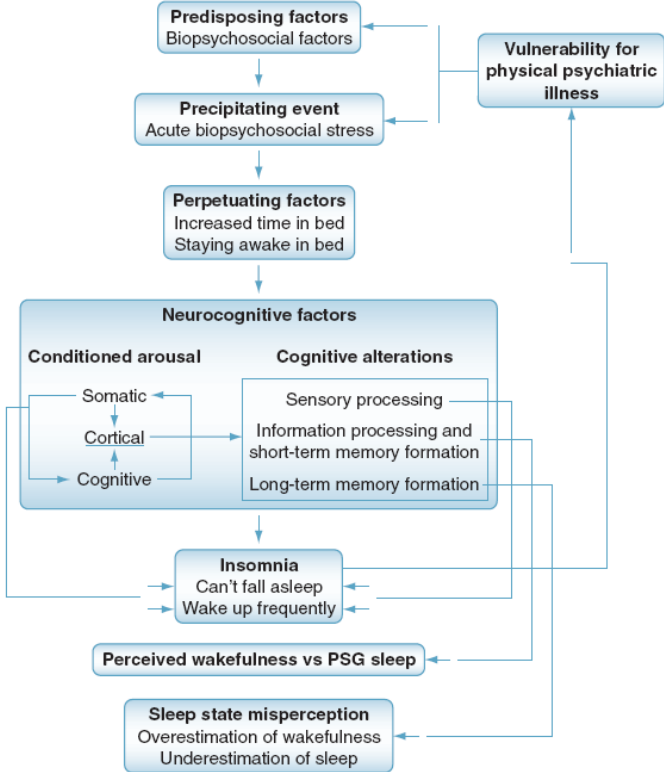
LESS SIMPLY RENDERED



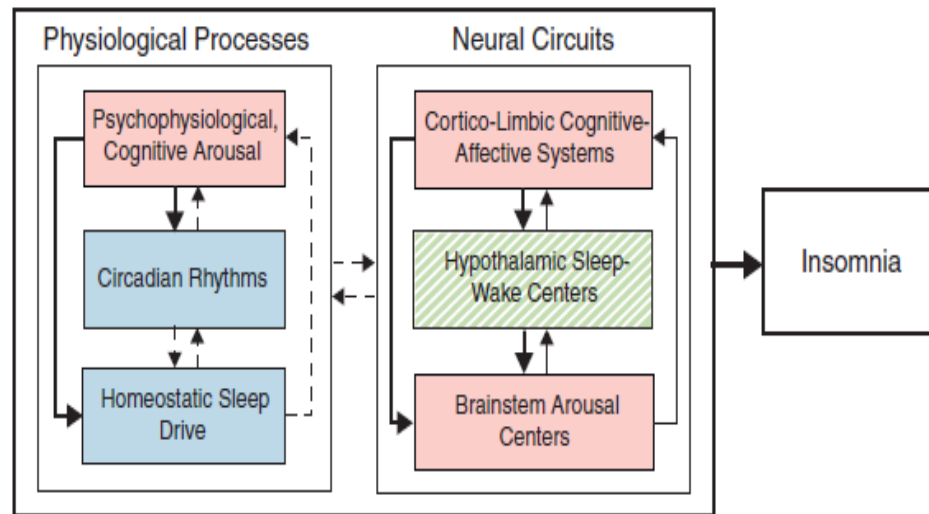
NEUROBIOLOGIC MODEL 2011

Buyse DJ, Germain A, Hall M, Monk TH, Nofzinger EA A
Neurobiological Model of Insomnia.
Drug Discov Today Dis Models.2011;8(4):129-137.

THE NEUROCOGNITIVE MODEL



Sleep-Wake Function in Insomnia

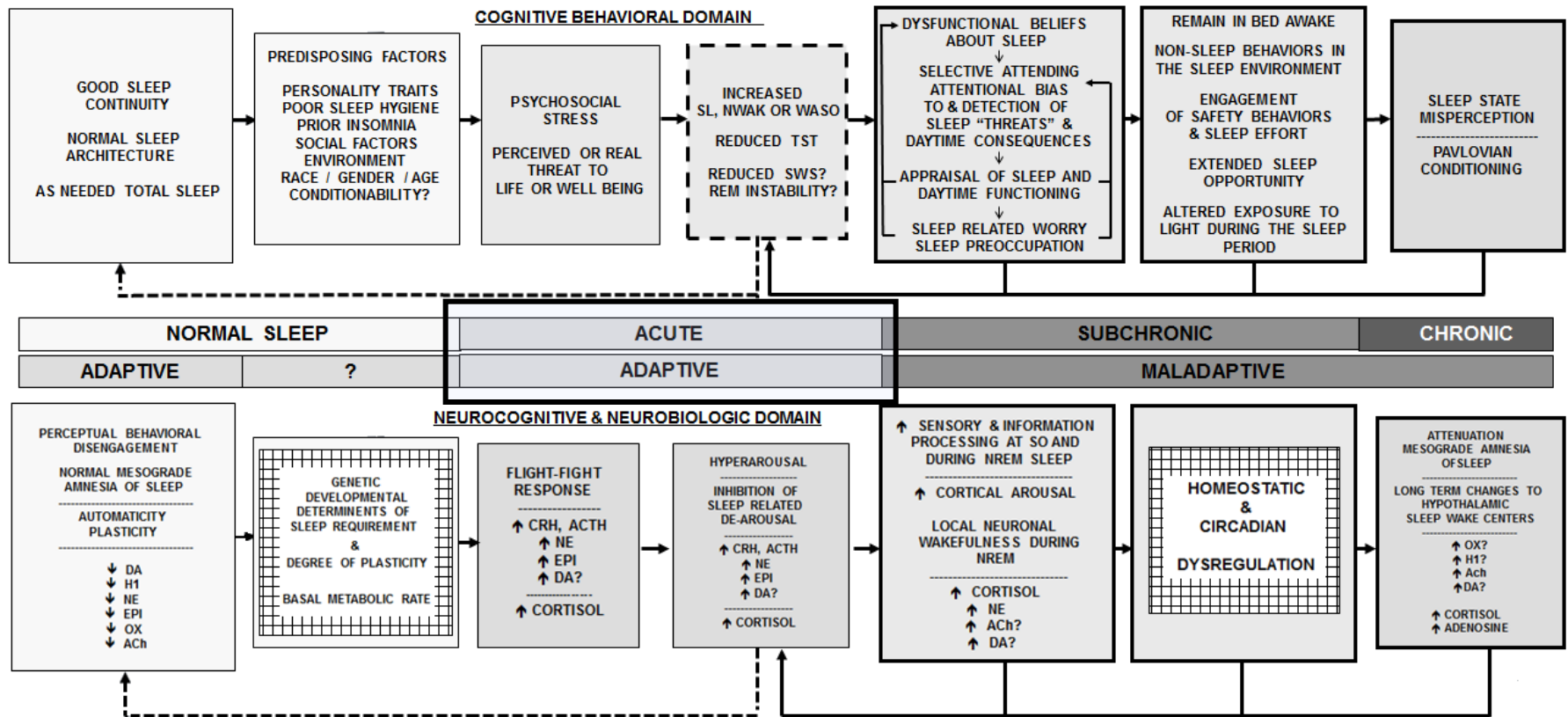


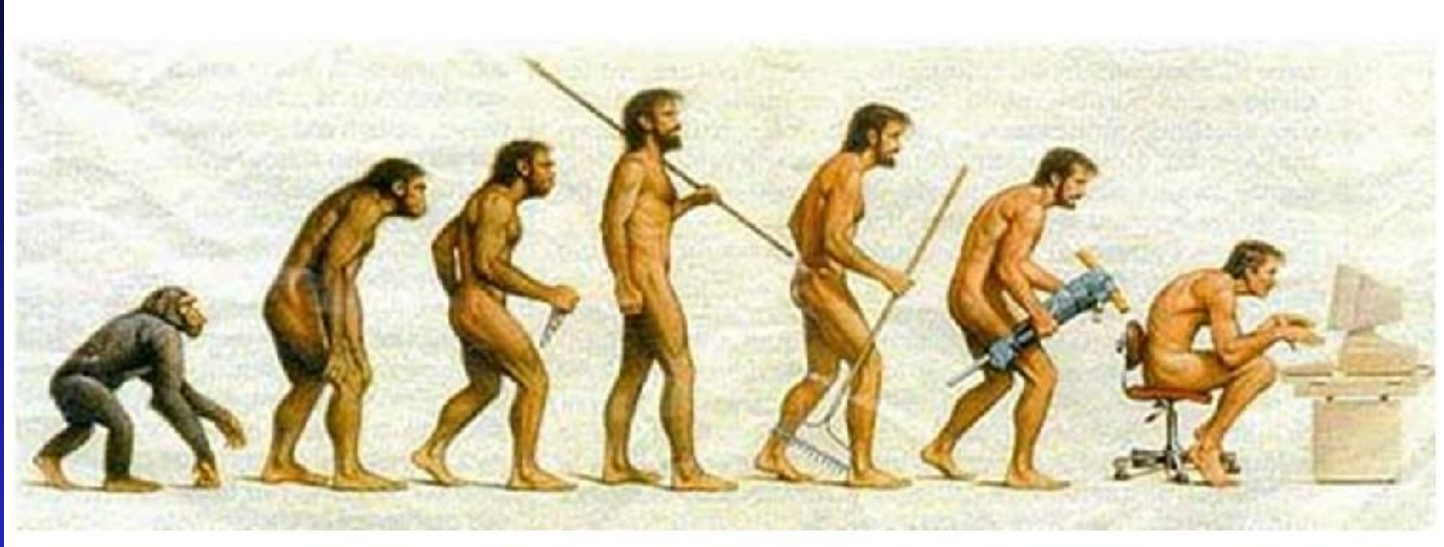
INTEGRATIVE MODEL PARALLEL PROCESS MODEL

**Perlis M, Pigeon W, and Drummond S.
The Neurobiology of Insomnia. in Neurobiology of Disease
ed. Sid Gilman Elsevier 2006.**

**Perlis M, Kloss J, and Ellis J.
The Principles and Practice of Sleep Medicine, 6th edition
Elsevier 2015**

ETIOLOGY OF INSOMNIA - PARALLEL PROCESSES





**“We live with insomnia today because,
at some point in our evolutionary history,
insomnia allowed us to live”.**

DEAN HANDLEY
SEPRACOR
CIRCA 2005
DINNER



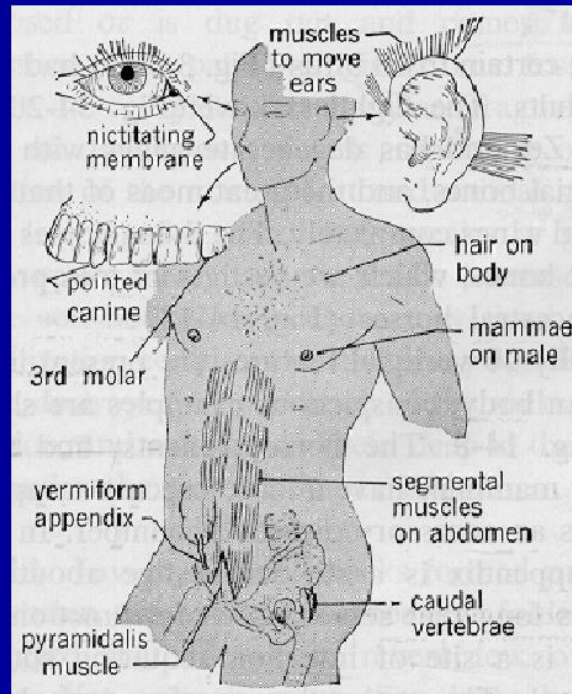
**“No matter how important sleep may be,
it was adaptively deferred when the
mountain lion entered the cave.”**

SPIELMAN ET AL. 1991

IS INSOMNIA VESTIGIAL ?

AN EVOLUTIONARY REMNANT ?

Some vestigial structures in the human body



MAYBE NOT



**“WITH SIGNIFICANT LIFE STRESS AND THE
FEARFUL SENSATION THAT THERE JUST
ISN’T ENOUGH TIME –**

**WHAT IS INSOMNIA
BUT THE GIFT OF MORE
TIME” ?**

MLP
SEPRACOR
CIRCA 2005
SAME DINNER



The University of Pennsylvania



Michael Perlis PhD

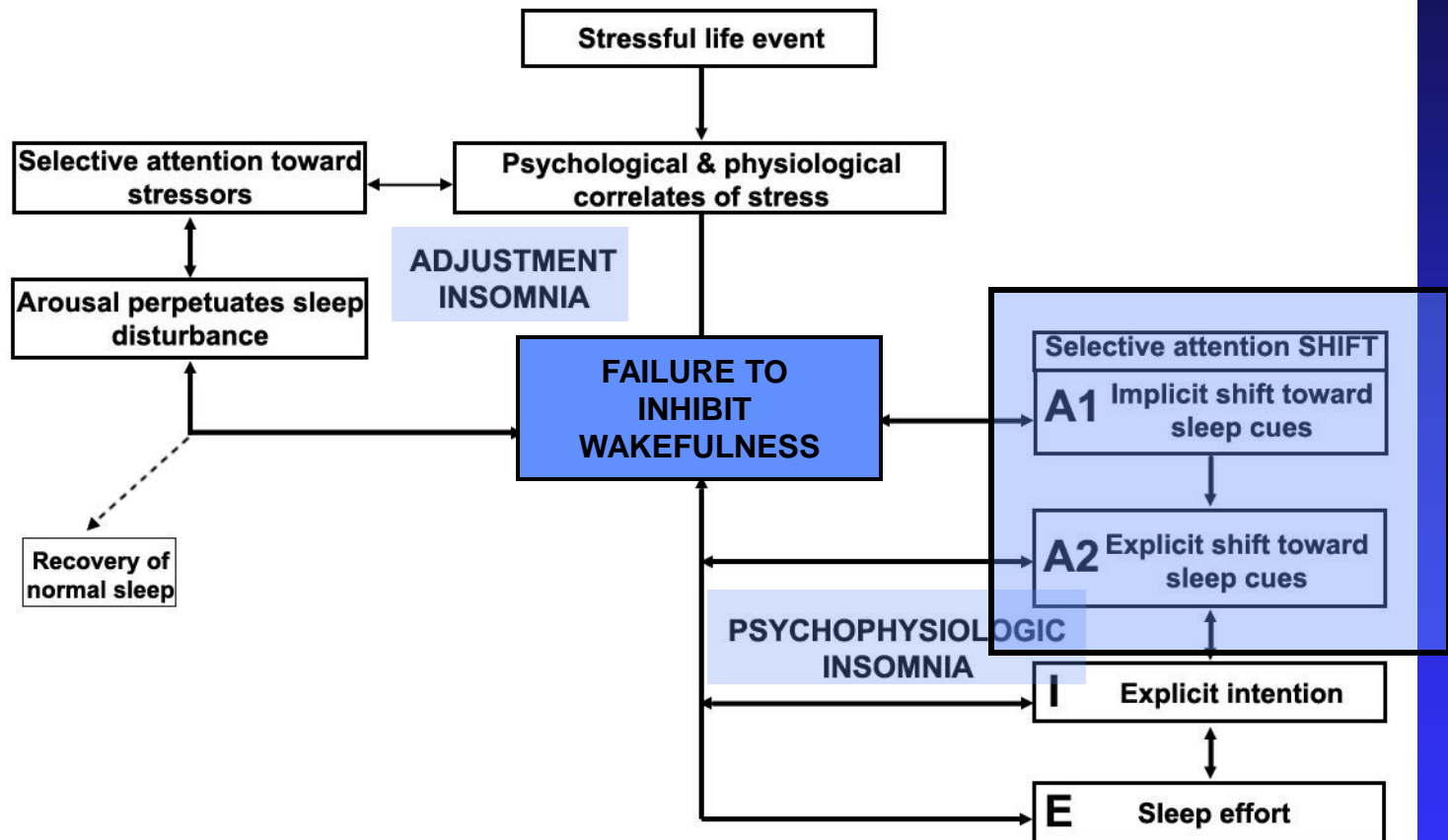
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BREAK



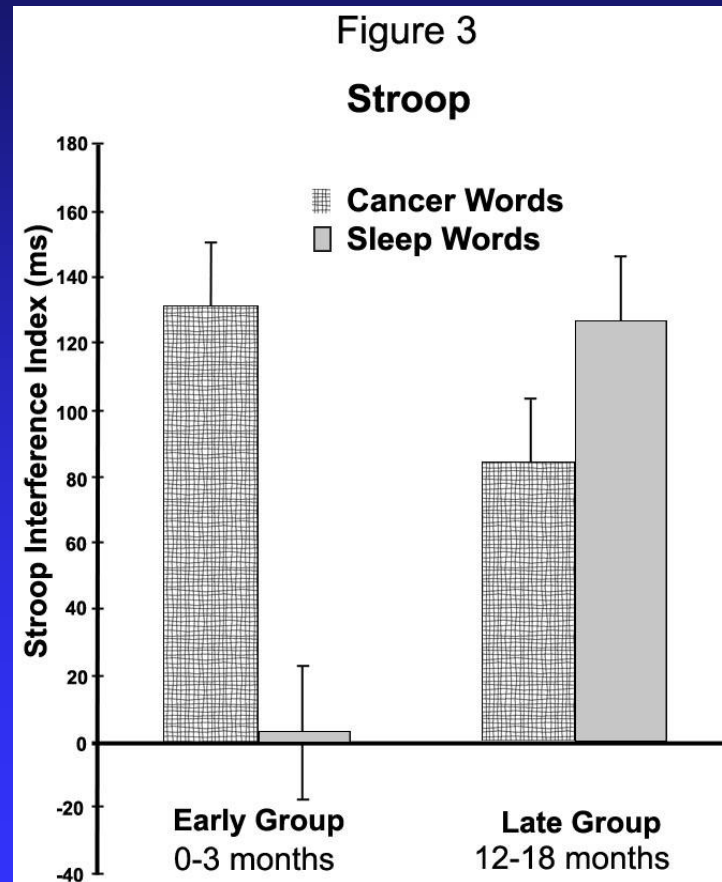
Figure 2

Proposed evolution of Psychophysiological Insomnia from Adjustment Insomnia following the A-I-E pathway



PERFORMANCE ASSESSED

ATTENTION BIAS



PERFORMANCE ASSESSED

ATTENTION BIAS

Figure 5
ICB first

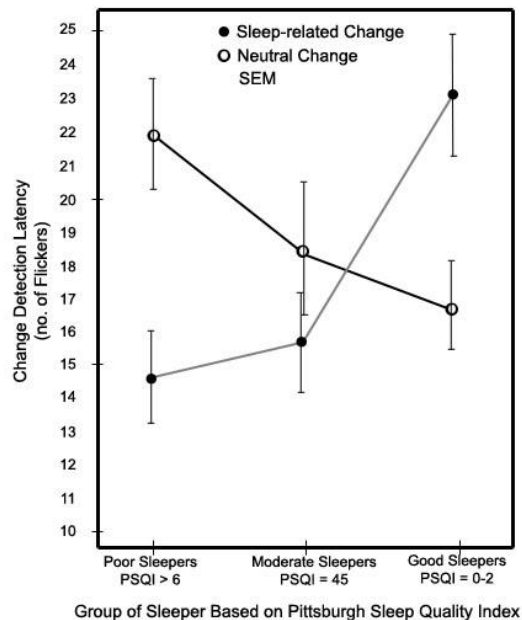
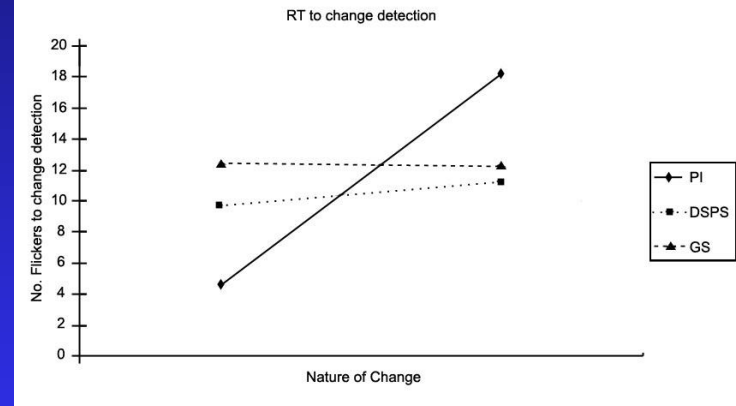


Figure 6
ICB second



PERFORMANCE ASSESSED

ATTENTION BIAS

