

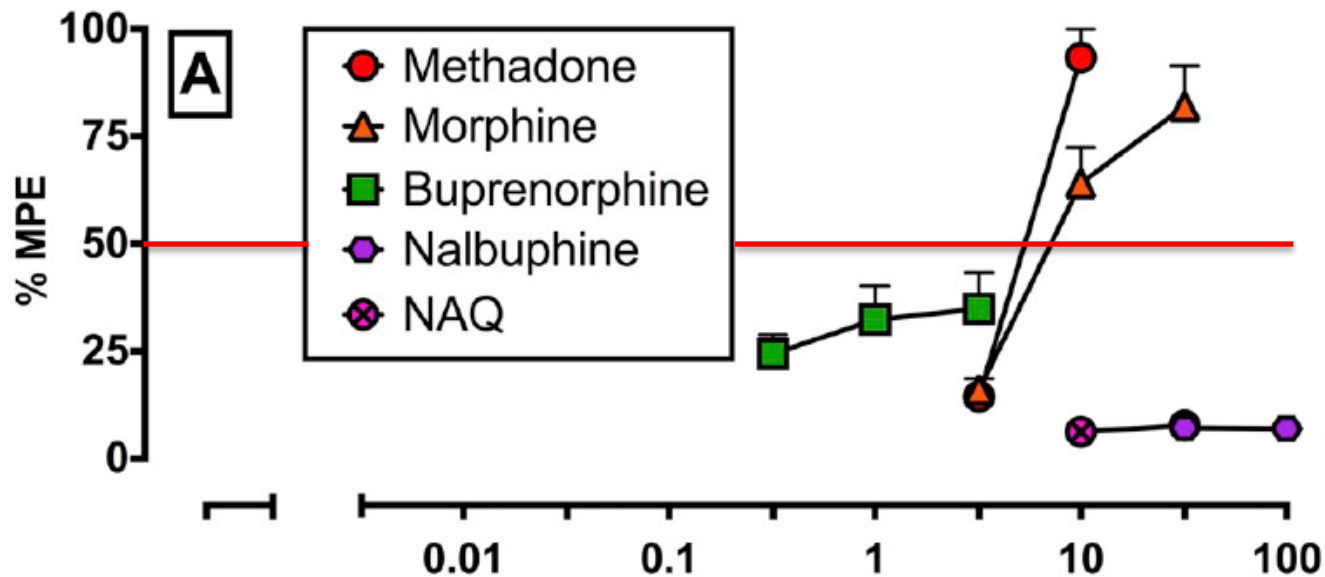
OPIOID POTENCY:
Pharmacological and Non-pharmacological Factors

Sandra D Comer, PhD

Professor of Neurobiology
Department of Psychiatry
Columbia University Irving Medical Center
New York State Psychiatric Institute

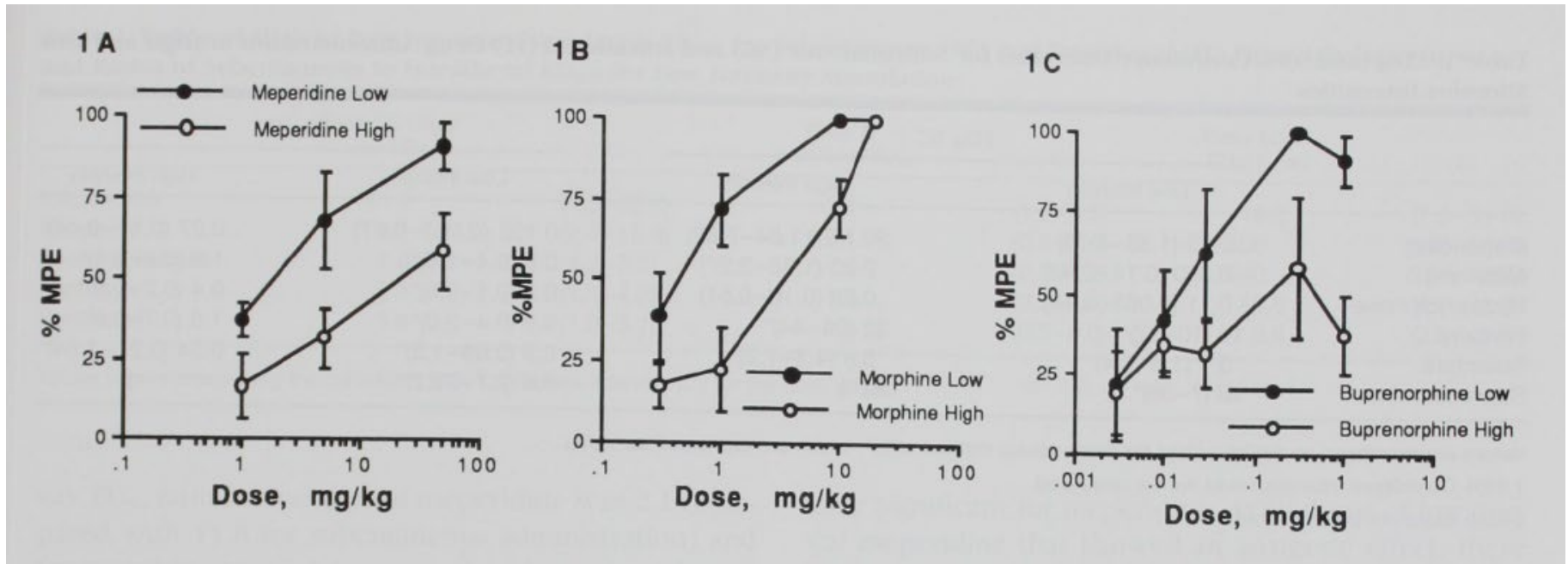
Pharmacology of the Drug

MOR-selective agonists can vary substantially in analgesic efficacy



Intensity of the Pain

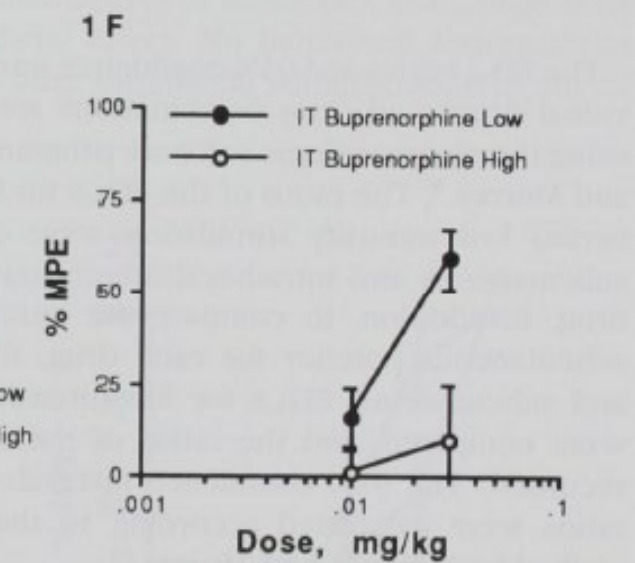
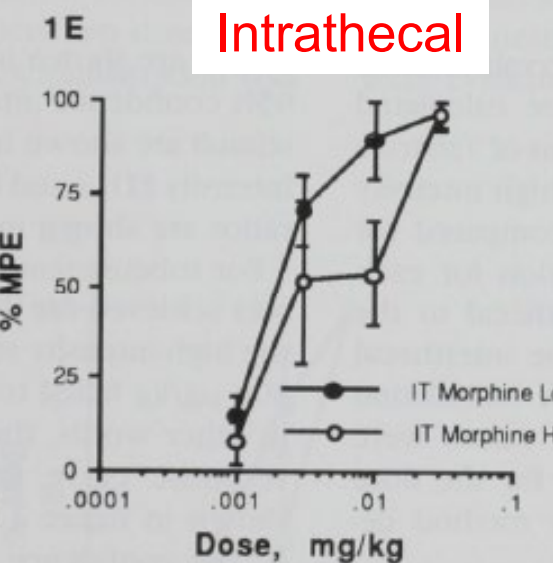
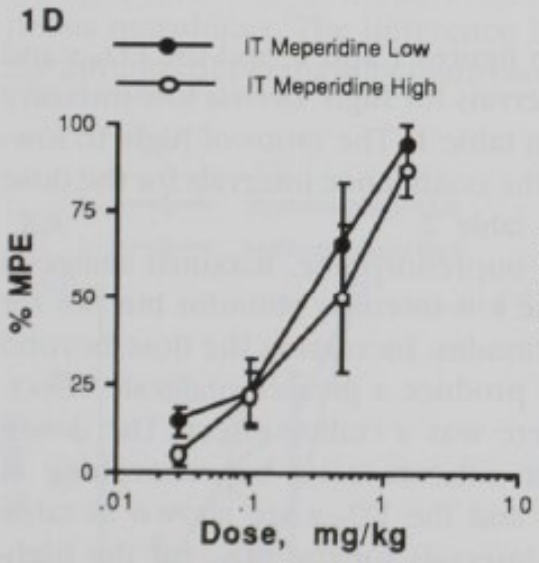
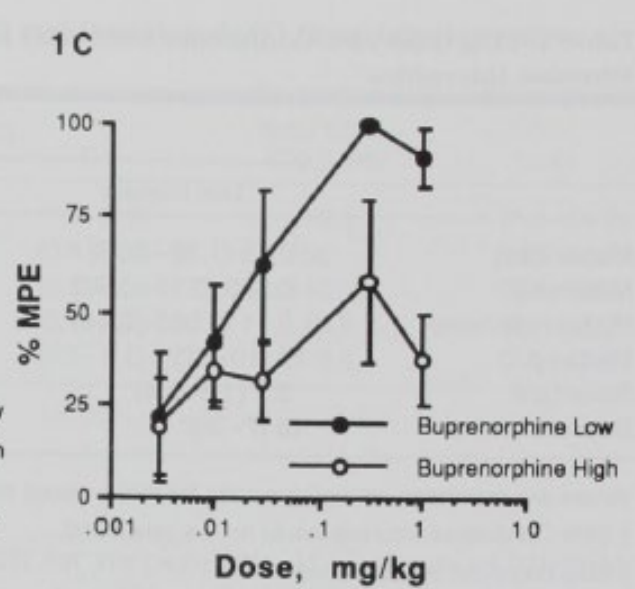
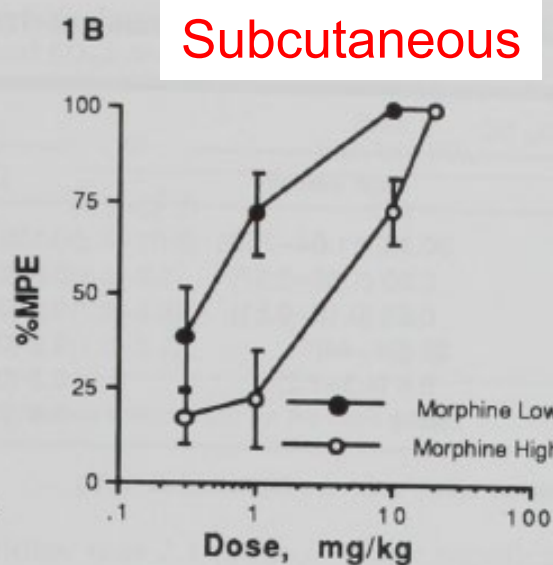
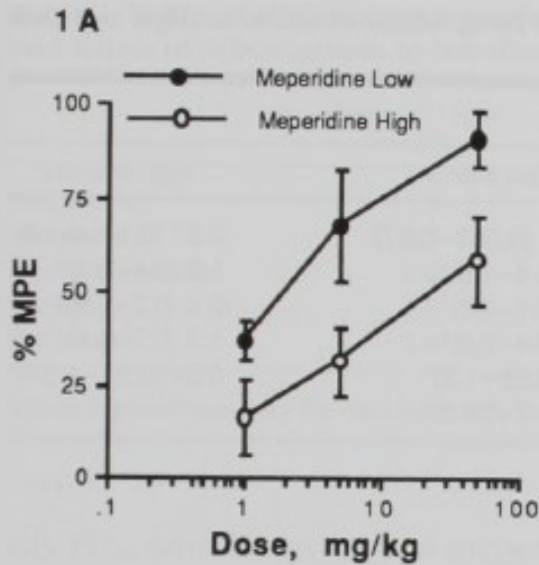
Analgesic efficacy can differ depending on the intensity (or type) of pain



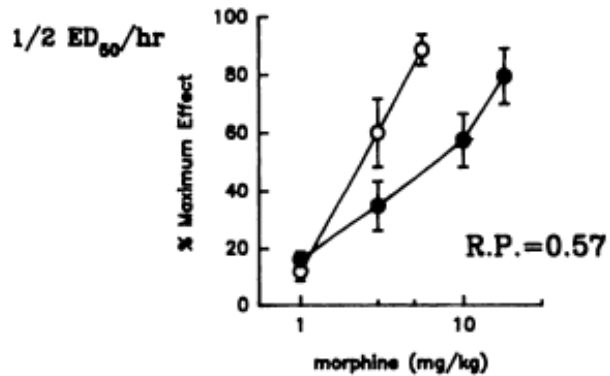
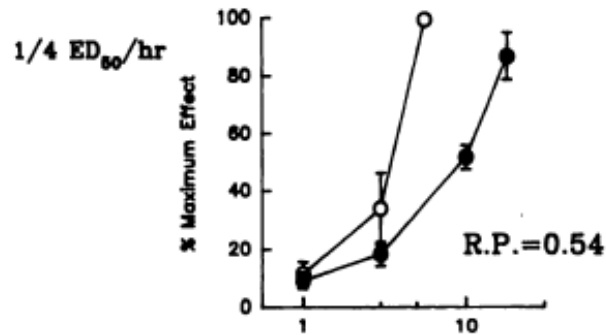
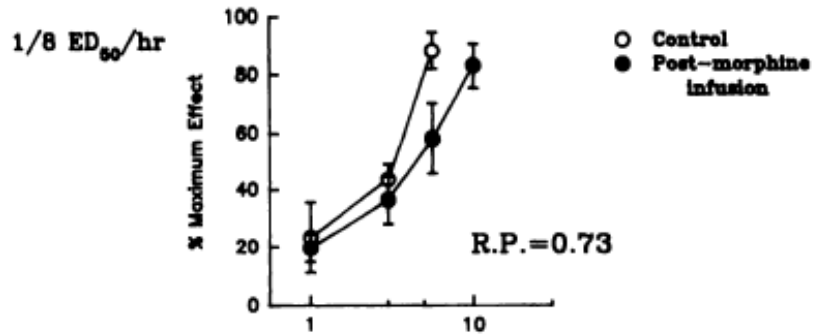
Route of Administration

Subcutaneous

Intrathecal



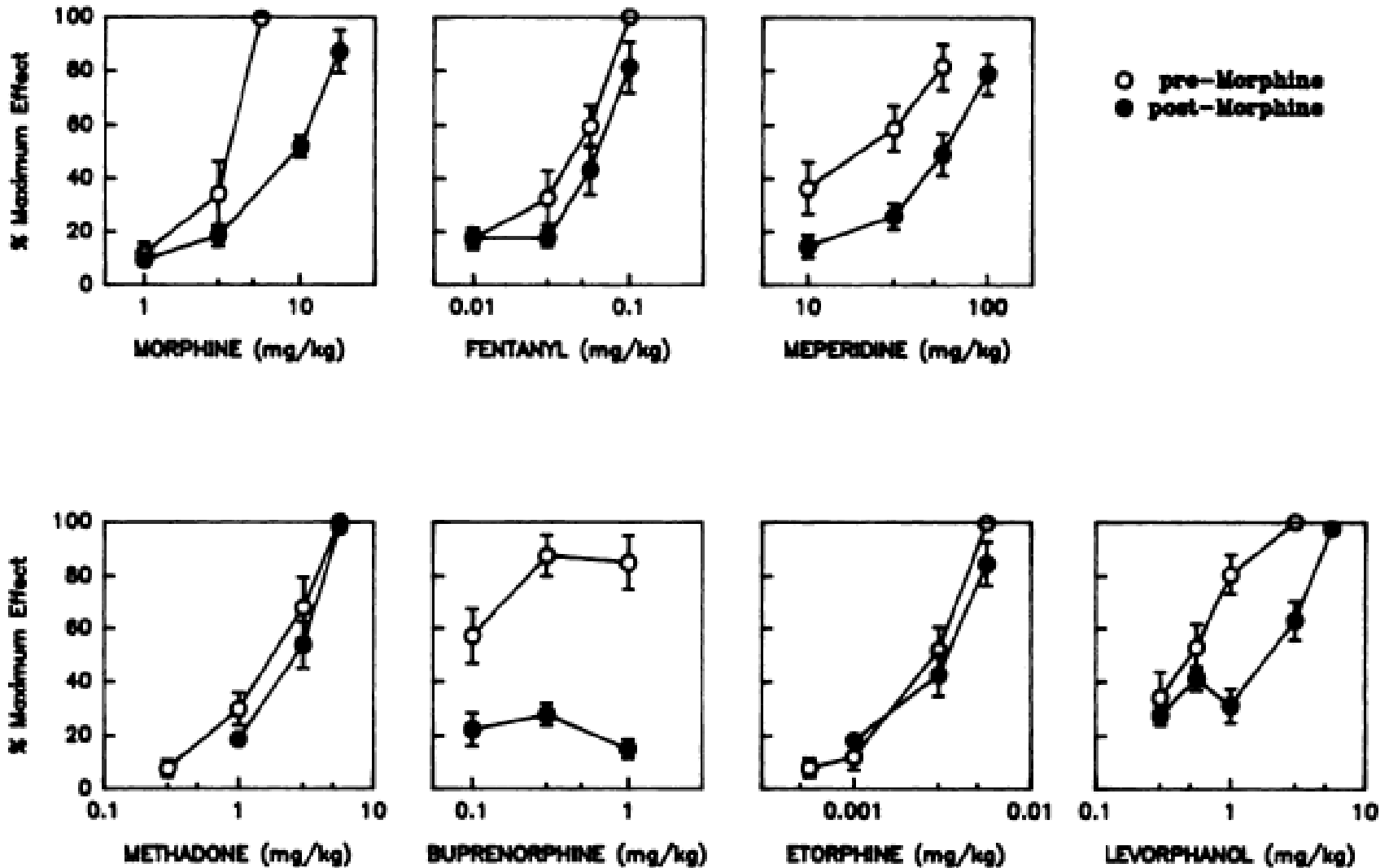
Level of Physical Dependence



Relative analgesic potency decreases with increasing maintenance doses

Level of Physical Dependence

...but this varies depending on the agonist



Other Variables

Experimental and Clinical Psychopharmacology
2008, Vol. 16, No. 5, 376–385

Copyright 2008 by the American Psychological Association
1064-1297/08/\$12.00 DOI: 10.1037/a0012931

Sex Differences in Analgesic, Reinforcing, Discriminative, and Motoric Effects of Opioids

Rebecca M. Craft
Washington State University



PAIN

Pain 75 (1998) 129–140

Genetic variance in nociception and its relationship to the potency of
morphine-induced analgesia in thermal and chemical tests

Gregory I. Elmer^{a,*}, Jeanne O. Pieper^a, S. Stevens Negus^b, James H. Woods^c

Methods of Assessing the Endpoints

Observational – clinical

Experimental – rank order of potency (ED50)

Finney Assay – statistical

Which method is best?

Thank you!