

Central modulation of affective touch, pain, and emotions in humans



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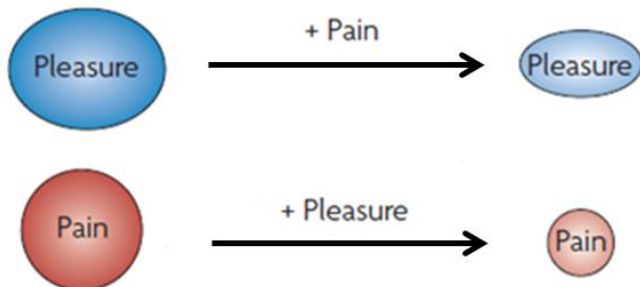
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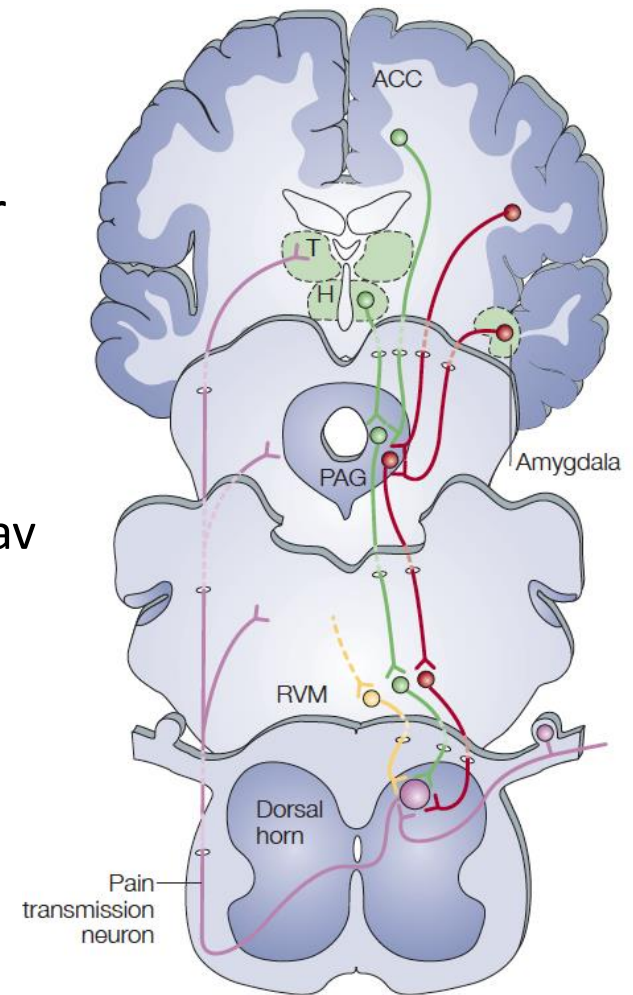
UiO : **Psykologisk institutt**
Det samfunnsvitenskapelige fakultet

Bakgrunn

- Våre sanseopplevelser formes av kontekst/mening → nytteverdien
 - Optimalisering av atferd og ressursbruk
- «Motivasjonsmodus» → smertelindring eller belønning? (Fields 2004 NRN)
 - Placebo-analgesi
 - Placebo-forbedring av nytelse?
- Jeg har undersøkt
 - Forholdet mellom placebo-indusert bedring av smerte (analgesi) og velbehag (hyperhedoni)
 - Hvordan sosiale inntrykk av andre formes av tilgjengelig sanseinformasjon og oxytocin



Leknes & Tracey 2008 Nat Rev Neurosci



Fields 2004 Nat Rev Neurosci

Forventning om forbedring av smerte og nytelse → motsatt modulering av sensorisk prosessering

Placebo manipulation

Oxytocin kan gjøre:

- Berøring mer behagelig
- Varme mer behagelig
- Smerte mindre ubehagelig



Placebo
nesespray
(10 spray)

“Videodokumentar”

■ Control
■ Placebo

Berøring

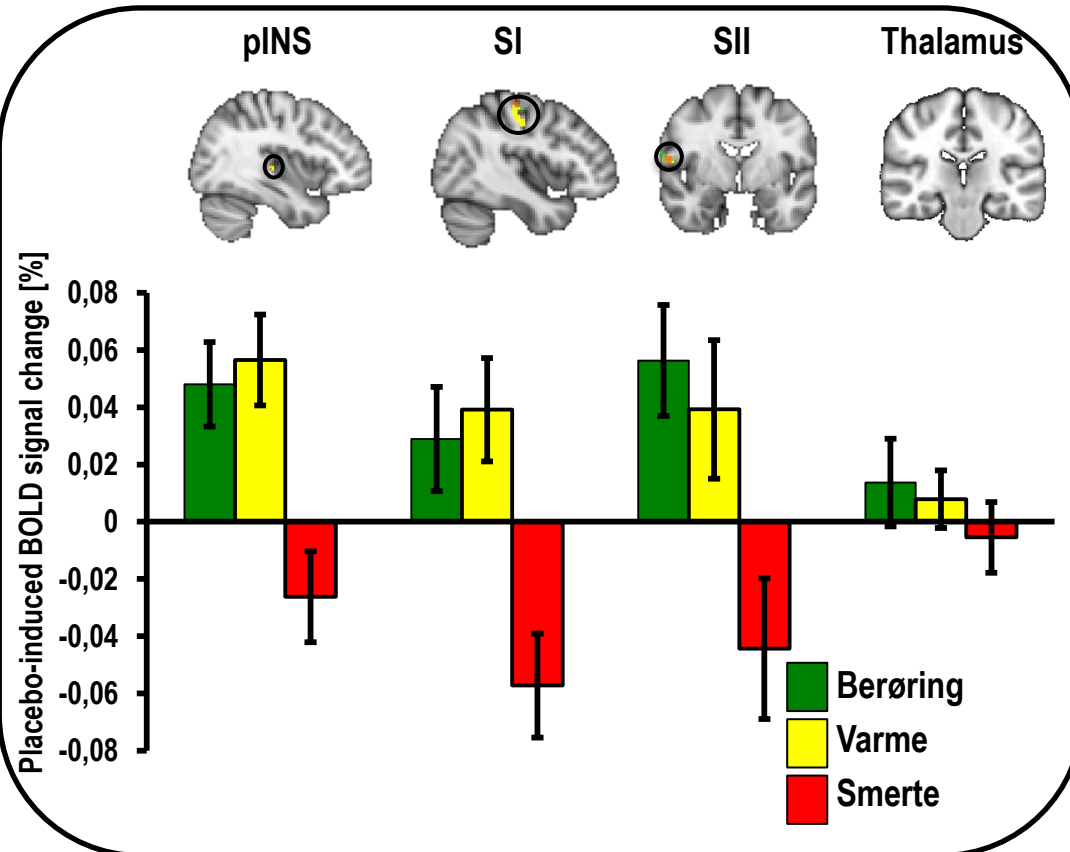
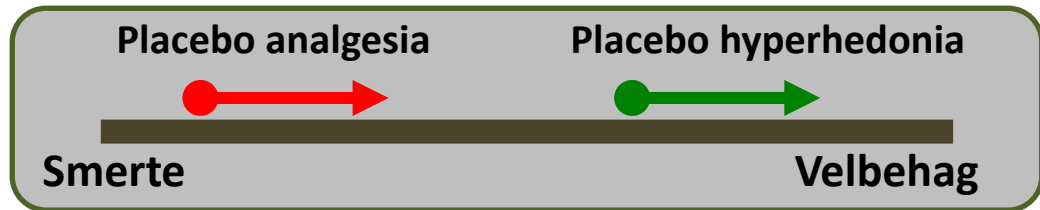
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Smerte

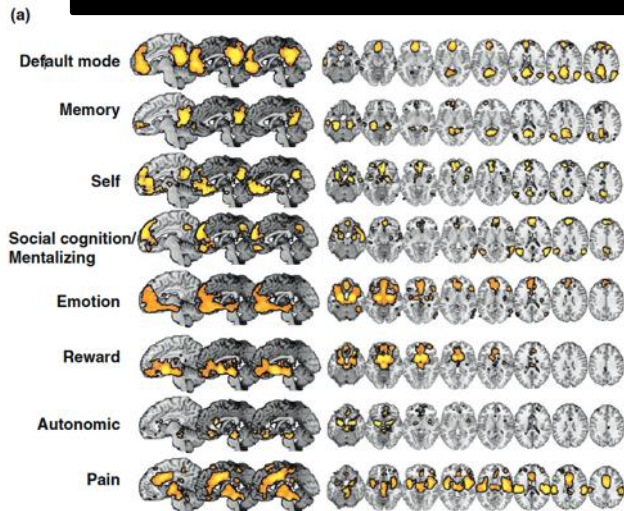
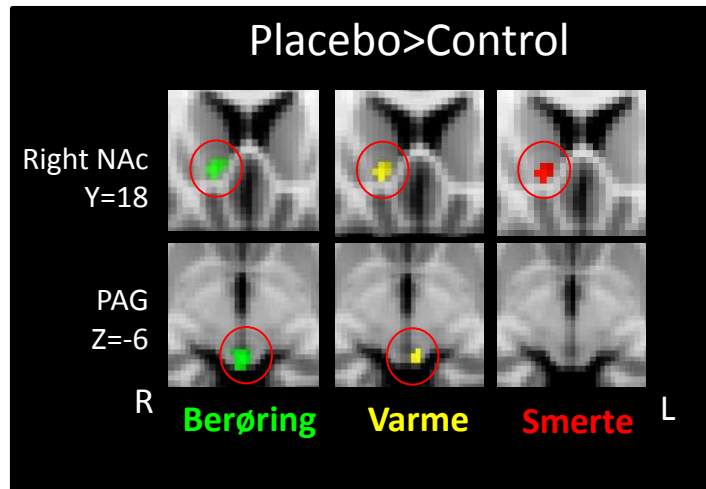
-5 Ubehagelig

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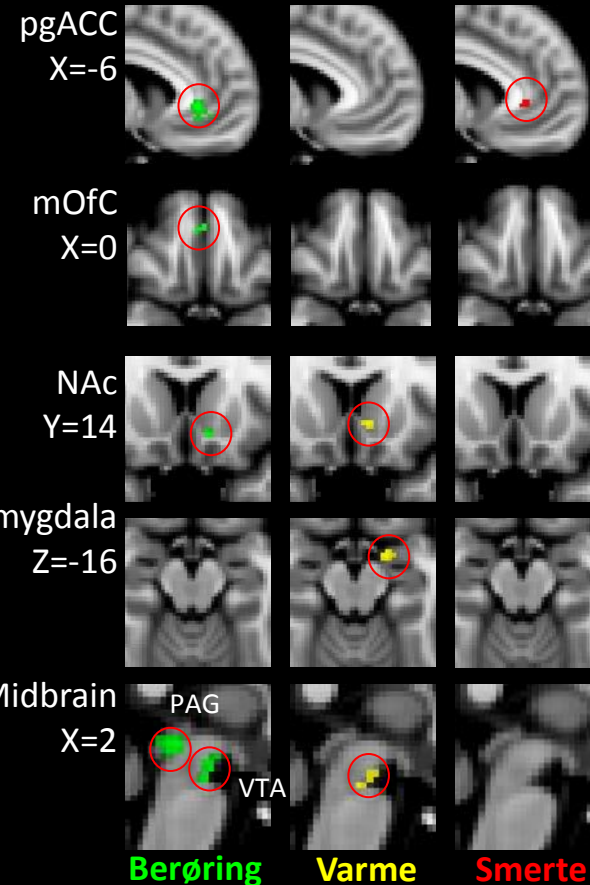
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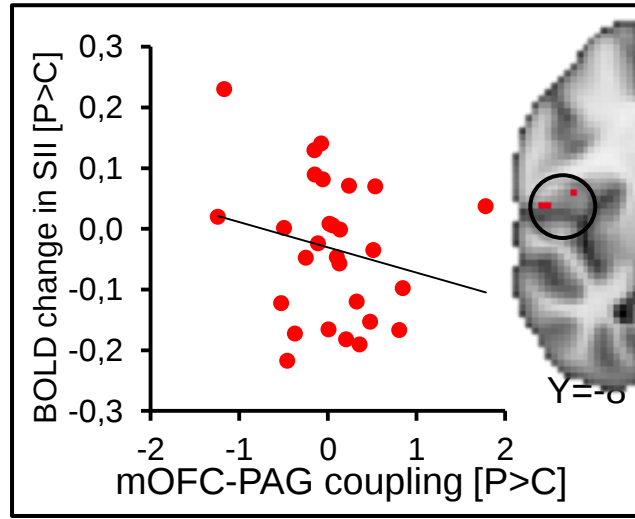
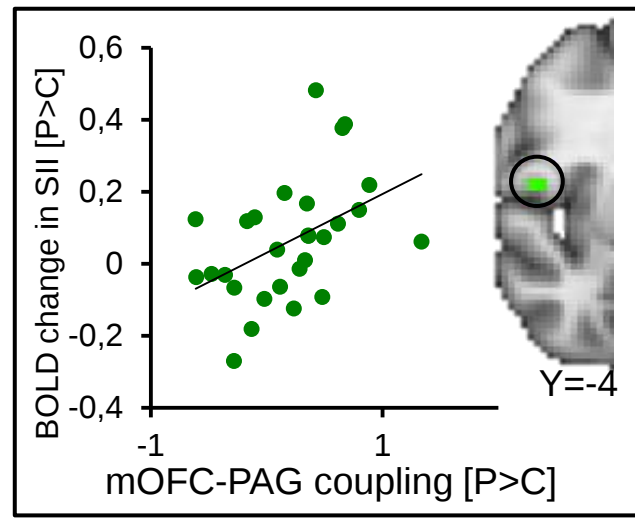
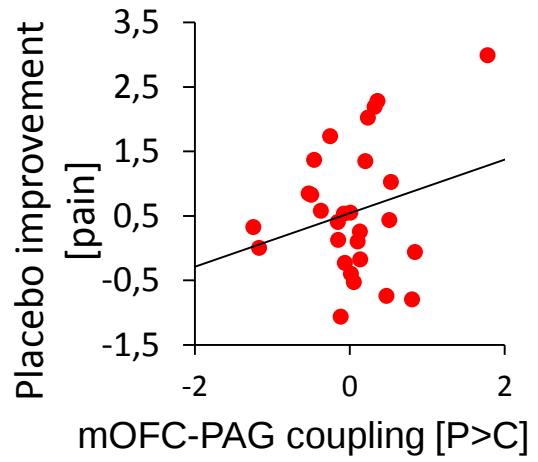
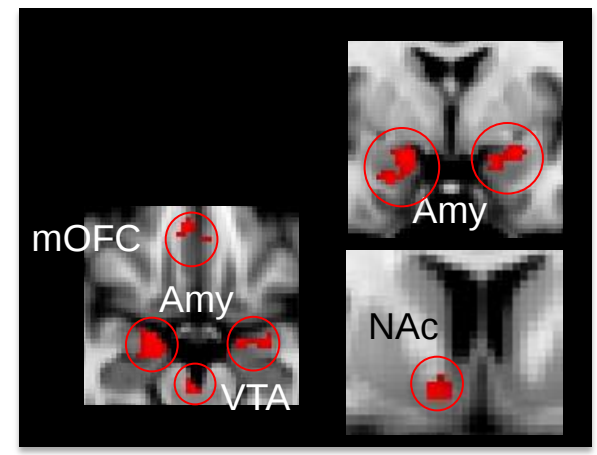
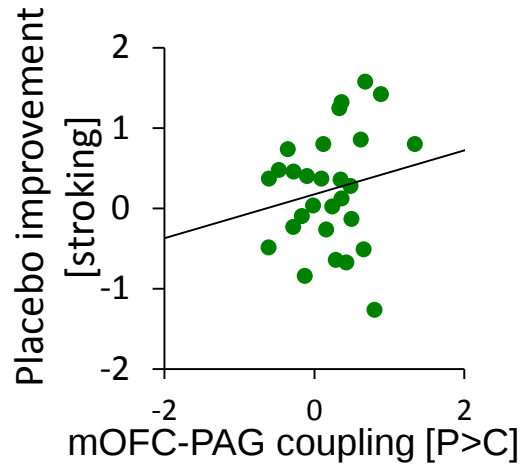
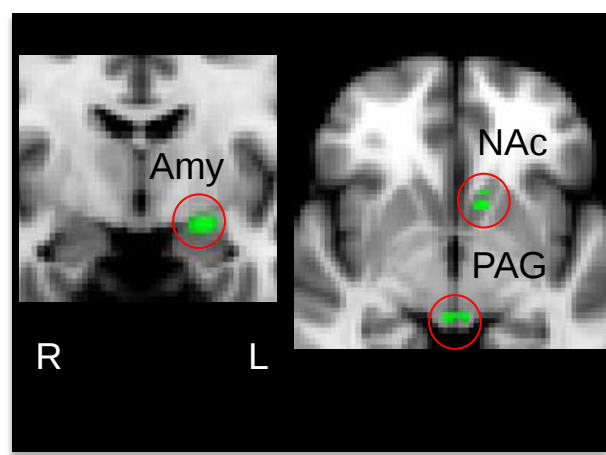
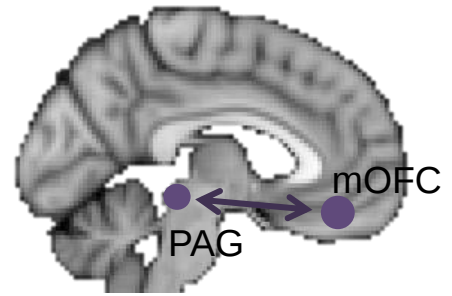
Placebo-aktivering av “felles” emosjonsområder



Correlation with placebo response

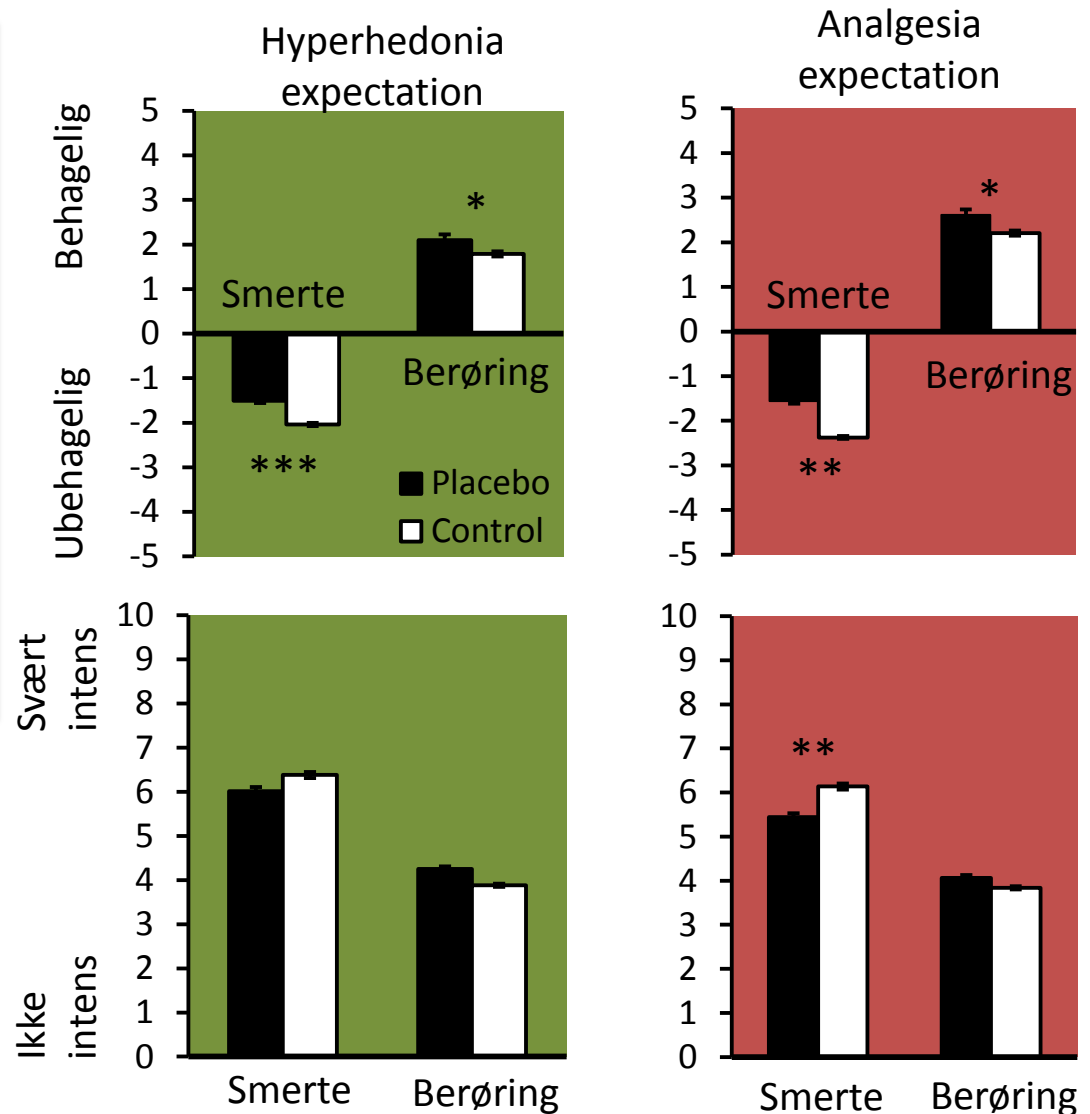
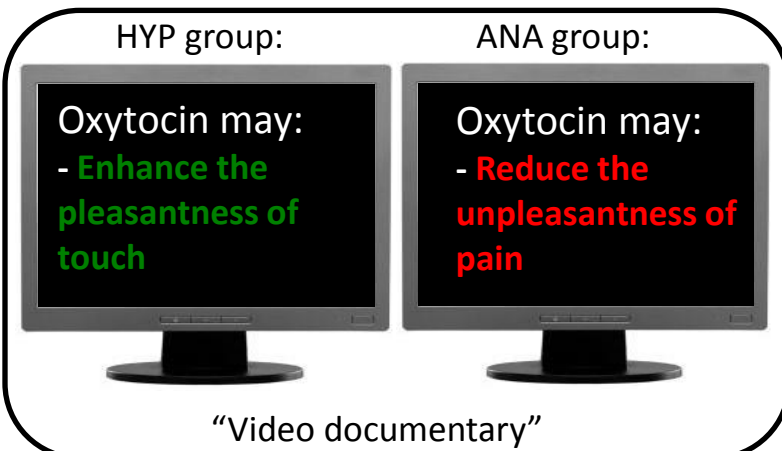
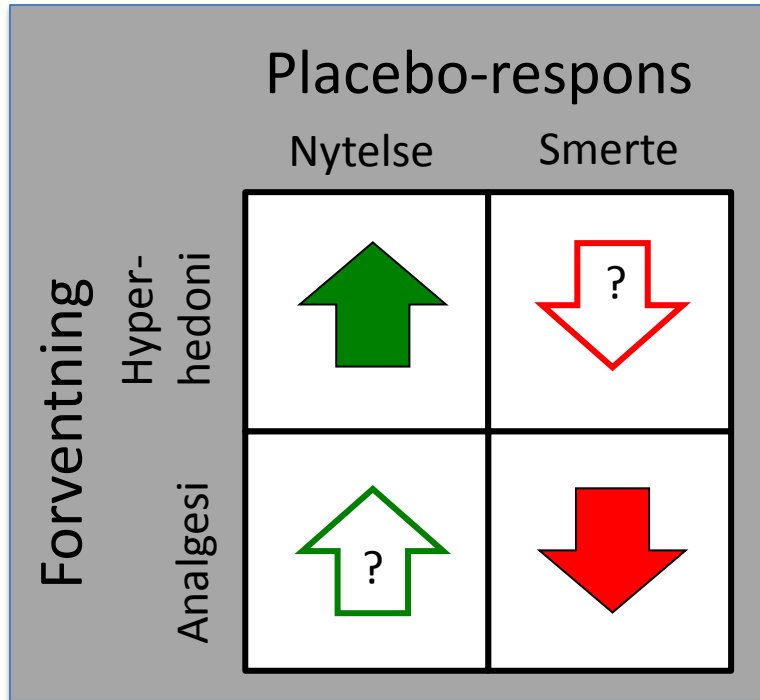


Økt vmPFC-PAG konnektivitet → større placebo-responser og sensorisk modulering



Ellingsen et al. 2013 PNAS

Er stimulus-spesifikke forventninger nødvendig for placebo-responser?

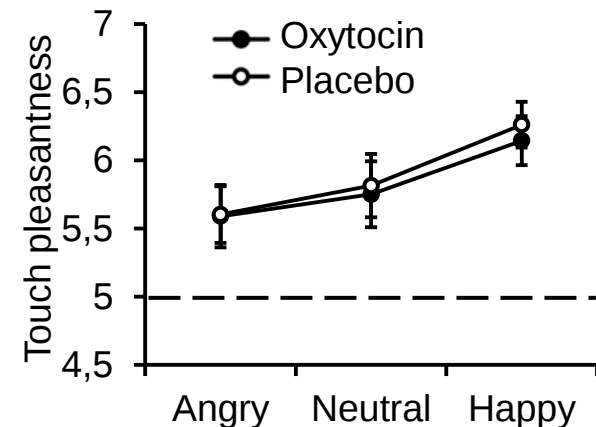
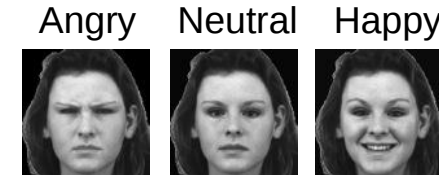
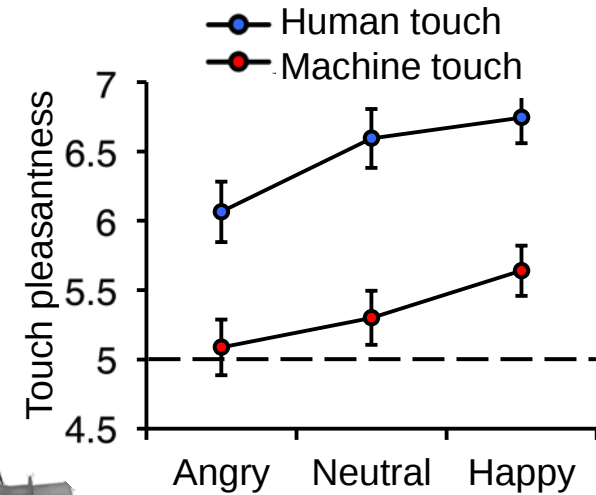


Oxytocin forsterker effekten av berøring på sosiale inntrykk av andre

- Oxytocin → sosial tilknytning og affektiv berøring (Feldman 2012 Horm Behav)
- Oxytocin øker placebo-analgesi (Kessner et al. 2013 JAMA)

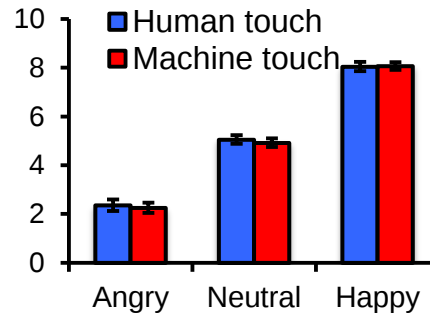
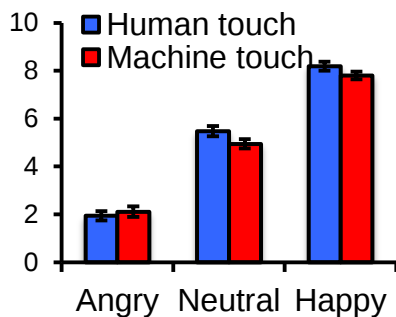
	Oxytocin Group	Saline Group	Mean Difference
Placebo response (control – placebo), VAS score ^b	12.84 (8.67 to 17.01)	7.08 (3.84 to 10.31)	-5.76 (-10.93 to -0.59)

- Prososialt eller økt “salience”?

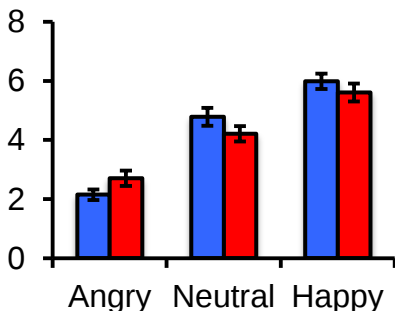


Ellingsen et al. 2014 Psychoneuroendocrinol.
Leknes et al. 2013 SCAN

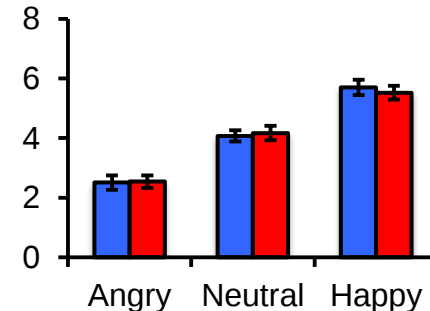
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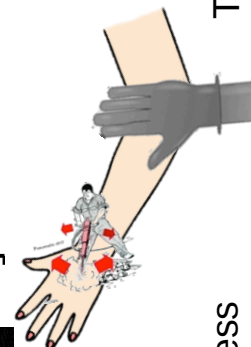
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Oxytocin



Placebo



Oppsummering

- Placebo analgesi og hyperhedoni → lignende hjernesystemer reduserer smerte/øker velbehag
- Forventning om økt nytelse → redusert smerte (og vice versa)
- Oxytocin og berøring forsterker sosiale inntrykk
 - Oxytocinets rolle i placebo-effekter → kontekstavhengig?

Takk for oppmerksomheten



HARVARD
MEDICAL SCHOOL



Martinos Center
FOR BIOMEDICAL
IMAGING

- Ted Kaptchuk
- Vitaly Napadow



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- Siri Leknes
- Bruno Laeng
- Tor Endestad



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- Johan Wessberg
- Håkan Olausson