The crooked mind of the commercial pig:
can we rectify abnormal biting behaviour by early and later life conditions?

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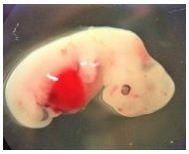
A wild pigs' life

Prenatal	Early postnatal

Early life challenges – solitary males Maturing – **fights are rare**	(Social) Foraging foraging foraging….




Pig aggression

- Occurs when unfamiliar pigs are put together
- Important welfare issue (farmers have limited options to avoid mixing)

A. “Normal” agonistic encounter

B. Direct agonistic and damaging interaction

Photos: M. Farish

Early life socialization

Photos: M. Farish

- **Aim:** Improve social skills to reduce aggression later in life
- Mimicking the natural situation
- **Method:** Mingling 2 litters from 2 wk age onward (or not: control)

- Dyadic encounter at 8 wk age
- n = 380 pigs
- **Results:** Socialized pigs showed a shorter fight duration + had 30% less skin lesions than controls

Alterations in early life can reduce biting

Extreme pig aggression in neonates

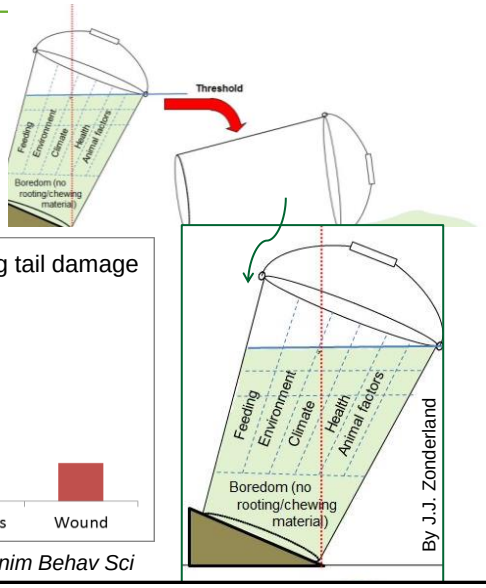
SRUC

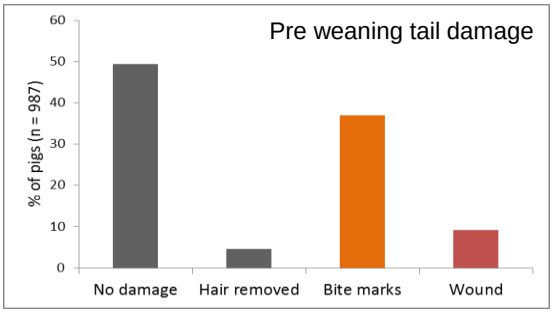
- Piglets are <5 d old
- Enriched environment
- Not related to teat fighting or play
- Very severe aggression (similar to aggression at ~13 wk age)

Video 1: SRUC
video 2: YouTube, full video:
https://www.youtube.com/watch?v=Ujq7CdB3d6g&t=2s

Tail biting also already pre-weaning

Photo: W.W. Ursinus





Adapted from Ursinus et al. (2014) *Appl Anim Behav Sci*

A commercial pigs' life

The overflowing bucket, but starting at birth already with an almost full bucket

Prenatal (stress)	Early postnatal – a blank sheet?

Early life challenges – Increasing no. of examples of abnormal biting	Still 'pre pubertal' – abnormal behaviour that may (intentionally) kill the recipient

Photos: 1 to 6, 8: Google (no rights on photos); 7: M. Farish; 8: W.W. Ursinus

A commercial pigs' life

Many generations of stress & manipulation *(Genetics / epigenetics)*

Action needed

Prenatal	Early postnatal
	
• Predisposition to bite • Genetics • Prenatal stress • **Some research**	• Evidence of extreme aggression • **Very little to no research**

Around weaning	Grower / Finisher
	
• Evidence of tail biting • **Increasing amount of research**	• Fatal consequences • High relevance for industry (costs of biting) • **Most research focus**

Photos: 1, 3: FareWellDock; 2: random Google without credits; 4: W.W. Ursinus

Focus in research on external conditions, mainly in later life.

Evidence is growing of behaviours being expressed already right **<u>from birth</u>**

Are we trying to prevent (suppress) what is already hardwired?

How far back do we have to go?

Note: Many generations of strong selection for single traits

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