

# **NAV temperament webinar**

## **Different temperament measurements of relevance**

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**NAV**



# What is temperament?

**Temperament  
at handling**  
(farmer, AI-tech, vet,  
classifier...)

**Temperament  
towards  
human, other  
cows or  
machines**

**Temperament  
at milking**

**Temperament  
around calving**

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# AMS data – Swedish results



Acta Agriculturae Scandinavica, Section A — Animal Science

ISSN: 0906-4702 (Print) 1651-1972 (Online) Journal homepage: <https://www.tandfonline.com/loi/saga20>

Genetic associations of teat cup attachment failures, incomplete milkings, and handling time in automatic milking systems with milkability, temperament, and udder conformation

C. Carlström, E. Strandberg, G. Pettersson, K. Johansson, H. Stålhammar & J. Philipsson

- **Moderate to strong  $r_g$  between attachment failures and temperament for HOL and RDC**
- **Moderate to strong  $r_g$  incomplete milkings/handling time and temperament for RDC**

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# AMS and classifier temperament data Danish results



J. Dairy Sci. 101:11033–11039  
<https://doi.org/10.3168/jds.2018-14804>  
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## Genetic parameters for handling and milking temperament in Danish first-parity Holstein cows

R. S. Stephansen,\*†<sup>1</sup> A. Fogh,\* and E. Norberg†‡

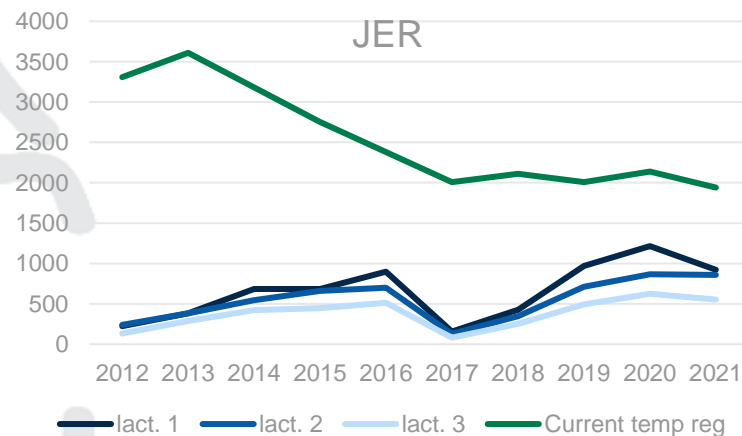
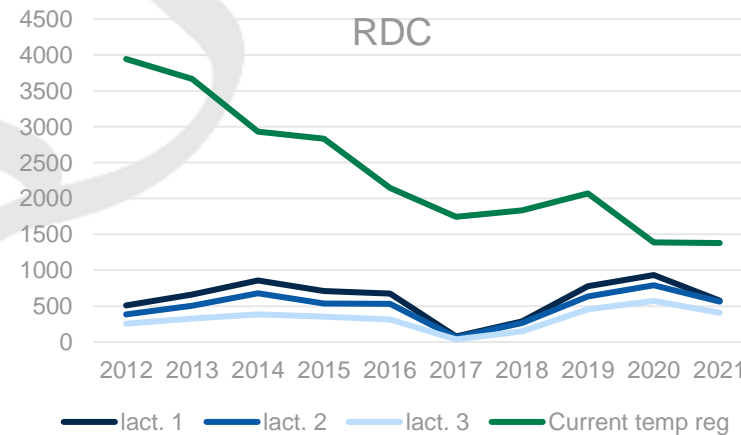
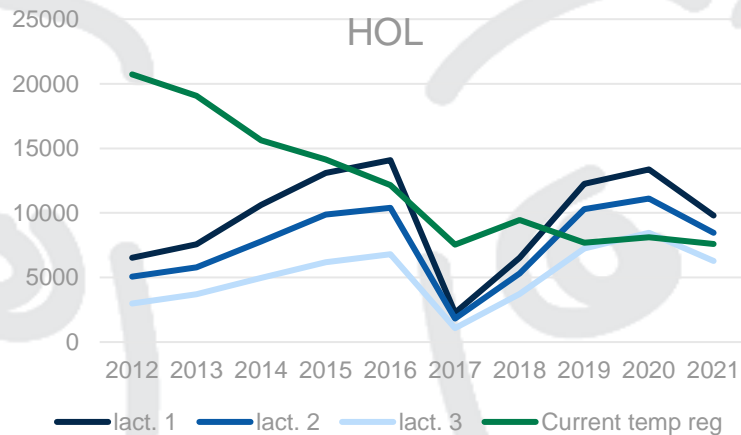
- Moderate  $r_g$  between AMS traits and farmer assessments
- Strong  $r_g$  between classifier and farmer assessed temperament

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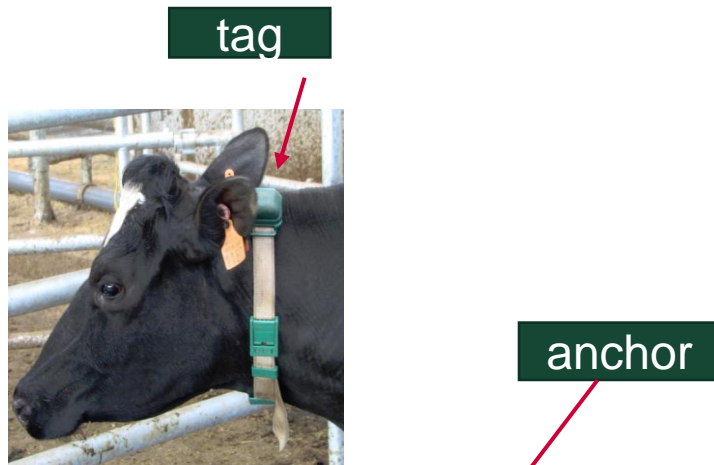
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# Danish AMS data in type evaluation and current Danish temperament registrations



### GEA-CowView

A real-time positioning system



 Anchor

# Quantifying social interactions

- Position of a cow every second, 24/7
- Precision of ~ 50 cm

## Definition of social interactions between cows?

*“Cows spending time together are interacting socially”*

Individual dyadic contacts between cows

- Distance – radius of 1.25 m
- Accumulated durations > 10 min

☞ The 25% most social cows twice as long close to other cows compared to the 25% least social cows



# Other future temperament registrations

## Eye white percentage as a predictor of temperament in beef cattle

The Pearson correlation coefficients for EW percentage and chute temperament scores were 0.674 ( $P < 0.0001$ ), 0.95 ( $P < 0.0001$ ), and 0.696 ( $P < 0.0001$ ), whereas the correlations between EW and flight speeds were 0.415 ( $P < 0.0001$ ), 0.333 ( $P < 0.05$ ), and 0.294 ( $P < 0.01$ ) for groups 1, 2, and 3, respectively. Results from this study indicate that percentage EW in cattle could be used as a quantitative tool with minimal equipment to assess temperament in beef cattle, providing an objective method for temperament selection.

Core et al., J. Anim. Sci. 2009. 87:2168–2174

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# Take home message

- **What is temperament?**
- **AMS data is straight forward to use**
  - **Not same trait as farmer assessed temperament.**
- **Other persons like AI technicians, Veterinarians and classifier could be source of data.**
- **New technologies (e.g. vision and real-time positioning system) could contribute with information.**

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