

# TOYS ARE US... OR NOT



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Scientific literature is prolific concerning animal welfare and the methods used to enrich animals' habitats. However more experimental enrichment studies are conducted with laboratory and farm animals, than with zoo animals. This lack of investigation could be prejudicial for the animals themselves and for their caretakers who intend to improve animal welfare. Moreover it shows a striking need for theoretical frameworks. I will define and analyze the "5 Freedoms" developed as minimal standards for farm and captive animals. I will give examples of various environmental enrichments. They are commonly defined as *the addition of stimuli, or provision of choice, that results in the improvement of animal well-being*. The 5 initial broad categories (e.g. physical, occupational, sensory and nutritional) are now extended into 8 categories, which are: feeding, tactile, structural, olfactory, social, auditory, or visual enrichment and human-animal interactions enrichment. Finally, I will explain how constructivist ethology can help us to investigate the effectiveness of environmental enrichments in animals under human care.

## THE FIVE FREEDOMS

five criteria have been established to measure **welfare** in animals (O.I.E., 2002):

- F1: being spared from hunger, thirst and malnutrition,
- F2: being spared from physical discomfort,
- F3: being spared from pain, wounds and sickness,
- F4: being spared from fear, stress and distress,
- F5: to be free to display the species behavioral repertoire\*.

\* Ethogram ≠ behavioral repertoire ; redefinition of the repertoire for captive species

## ENVIRONMENTAL ENRICHMENTS

*the addition of stimuli, or provision of choice, that results in the improvement of animal well-being / welfare.*

- 5 categories: physical, occupational, sensory and nutritional (Bloomsmith et al., 1991) NOW extended into 8 : **feeding, tactile, structural, olfactory, social, auditory, or visual** enrichment and **human-animal interactions** enrichment (Young, 2003)

## EXAMPLES OF ENVIRONMENTAL ENRICHMENTS

used at Parc Astérix (France) with dolphins (*Tursiops truncatus*) (left) and sea lions (*Otaria byronia*) (right)

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Due to safety reasons, some objects are only introduced during daytime (vs night time)

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## NEW PERSPECTIVES

### Needs for theoretical backgrounds

- **constructivist ethology, embodied cognition and phenomenology**: to consider each animal as a subject who gives meanings to its surroundings by its actions, perception and specific cognition & to prevent any specism or questionable ethical positions (Delfour, *submitted*)
- **situated approach**: to emphasize the importance of the context,
- **personality**: to understand the needs of each individual (Gutierrez et al. 2010- Poster EAAM),

### Needs for scientific assessments

- to ensure that enrichment doesn't impair the **5 freedoms** or to analyze if it reinforces one (e.g. **F5**)
- to scientifically measure the **behavioral effectiveness** of the enrichment (Beyer et al. 2010 – Poster EAAM),
- to question **estheticism** and **realism** of animals' habitat and enrichment devices,
- to analyze the **appropriateness** of the animals' behavioral (social) - cognitive needs and the enrichment.

### Environmental enrichment is effective if:

- **animals' welfare/wellbeing improvement is scientifically demonstrated**
- **subjects gave "appropriate" or "beneficial" meanings to the stimulus.**

Literature cited: Beyer, H. Mercera B, & Delfour, F. 2010. Effectiveness of environmental enrichment in dolphins: a behavioural assessment. EAAM, Lisbon, 12-15<sup>th</sup> March - Bloomsmith, MA, Brent, LY, & Shapiro, SJ., 1991. Guidelines for developing and managing an environmental enrichment program for non-human primates. In: Enrichment for captive animals – RJ Young ed, p. 2-3, Blackwell Publishing – Delfour, F. 2010. Conscience, souffrance et bien-être animal (in press) - Gutierrez, L., Mercera, B. & Delfour, F. 2010. Dolphins (*Tursiops truncatus*) behavioral profiles. EAAM, Lisbon, 12th-15th March - Organisation Mondiale de la Santé Animale 2002. Code zoosanitaire international pour les animaux terrestres, édition 2002. Paris: OIE Ed. - Young, RJ., 2003. Enrichment for captive animals. Blackwell Publishing.

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