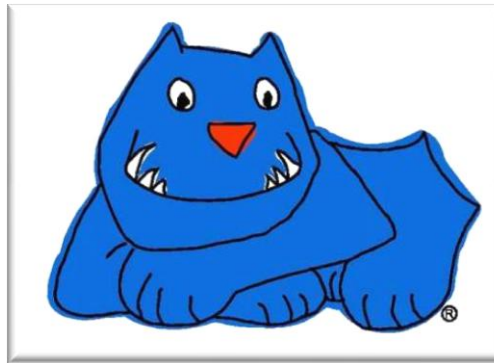


# **The Blue Dog:**

## **The development of a dog bite prevention programme**



Tiny De Keuster, DVM, DECVBM,  
Ray Butcher, MA VetMB MRCVS  
Kerstin Meints, MA, PhD

WORLD SAFETY CONFERENCE - London 2010  
Wednesday Sept 22nd - session C5 – Henry Moore Room

# The pet dog as a special friend, a playmate...



# Love, companionship and acceptance



–Millot 1988, Triebenbacher 1998





# -TRAUMA – DOG BITES



–Schalamon 2006, Steele et al 2007, Hon et al 2007

–**1.064.000 Dogs**

–Average

–11 dogs /100 persons

–Lowest income

–19 dogs / 100 persons



–FOD Economie, algemene  
directie statistiek en  
economische informatie  
Persbericht 31 juli 2007  
–( cijfers 2004)

– **33,6% of families**

–**with children own a dog**

–Kahn et al,

–Journal of Pediatrics, 2004



# –Evidence of **positive role** of pet dog –in child development



- Children who grew up with a pet dog show **more empathy** towards peers, friends and family members, when compared to children who grew up without a dog

–Kidd 1995, Poresky 1996, Raina et al 1999,



**Need to devise **safe methods**  
of living with a dog to retain benefits  
& yet reduce risks**





**–In Belgium, each year 1 person in 100  
is victim of a dog bite**



**–Gisle et al 2001**

## Prevalence of dog bites in children: a telephone survey.

Kahn A, Robert E, Piette D, De Keuster T, Lamoureux J, Levêque A.

Département de Pédiatrie, Hôpital Universitaire des Enfants Reine Fabiola, Av. JJ Crocq 15, 1020 Bruxelles, Belgium. akahn@ulb.ac.be

PMID: 15141311 [PubMed - indexed for MEDLINE]



**Children are **twice as often** victim of a dog bite, then any other age group**

## **Child victims of dog bites treated in emergency departments: a prospective survey.**

Kahn A, Bauche P, Lamoureux J; Dog Bites Research Team.

Hôpital Universitaire des Enfants Reine Fabiola, Av. J.J. Crocq 15, 1020, Brussels, Belgium. akahn@ulb.ac.be



- The majority**
- of dog bites in children**
- happen at home**
- with a familiar dog**
- and a young child**
- (med 5y)**

## **Posttraumatic stress disorder after dog bites in children.**

Peters V, Sottiaux M, Appelboom J, Kahn A.

University Children's Hospital Queen Fabiola, Brussels, Belgium.

Comment on:

J Pediatr. 2004 Jan;144(1):17-22.

Of 22 children who were victims of dog bite, 12 had symptoms of posttraumatic stress disorder 2 to 9 months after the bite. Violent dog attacks inflicting multiple and/or deep wounds were associated with risk of posttraumatic stress disorder.





# –Dog bites in children represent an important health issue



- Chun et al. 1982
- Mathews et al 0994
- Sacks et al 1996
- Voelker 1997
- Weiss et al. 1998
- Ozanne-Smith 2000
- Sacks et al. 2000
- Mcheik 2000
- Lockwood 2001
- Overall & Love 2001
- Ozanne-Smith 2001
- Prescutti 2001
- SCHIRPT 2001
- Bernardo 2002,
- Horisberger 202
- Kahn et al 2003
- Peters et al 2004
- Kohn et al 2004
- Schalamon 2006
- Healy et al 2007
- Hon et al 2007
- Messam et al 2007
- Loewe et al 2007
- Morgan 2007
- Shuler et al 2007
- CDC 2008
- Gilchrist et al 2008
- LNV 2008
- O’Sullivan et al 2008
- Rosado et al 2008
- Shuler et al 2008
- Raghavan et al 2008
- Daniels et al 2009
- Langley et al 2009
- Emet et al 2009
- Patronek 2009

# The target group for prevention:



# Existing prevention programmes:



- Age group > 7 years
- Public place
- Precautionary behaviour towards unknown dog



–Chapman et al 2000

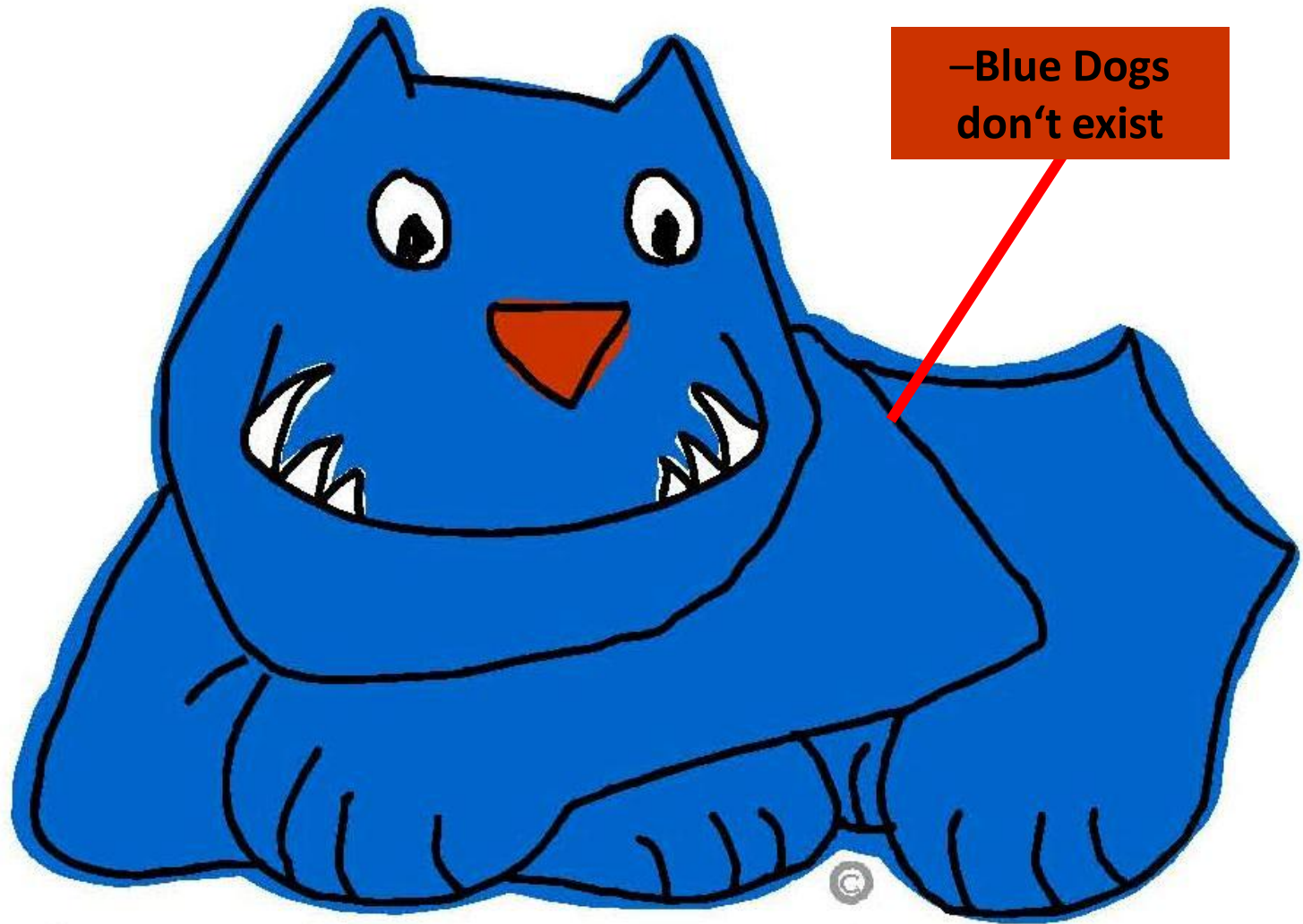


–**Lack** in programmes aimed at preventing dog bites at home with **pet** dog & **young children**



–Foto Martine Verbocht





–Blue Dogs  
don't exist

**THE BLUE DOG**

–Soraya Verbeke, August 2003



**–Any dog is capable of biting a child**



**–Overall & Love 2001, Kahn et al 2003, Reisner et al 2007**



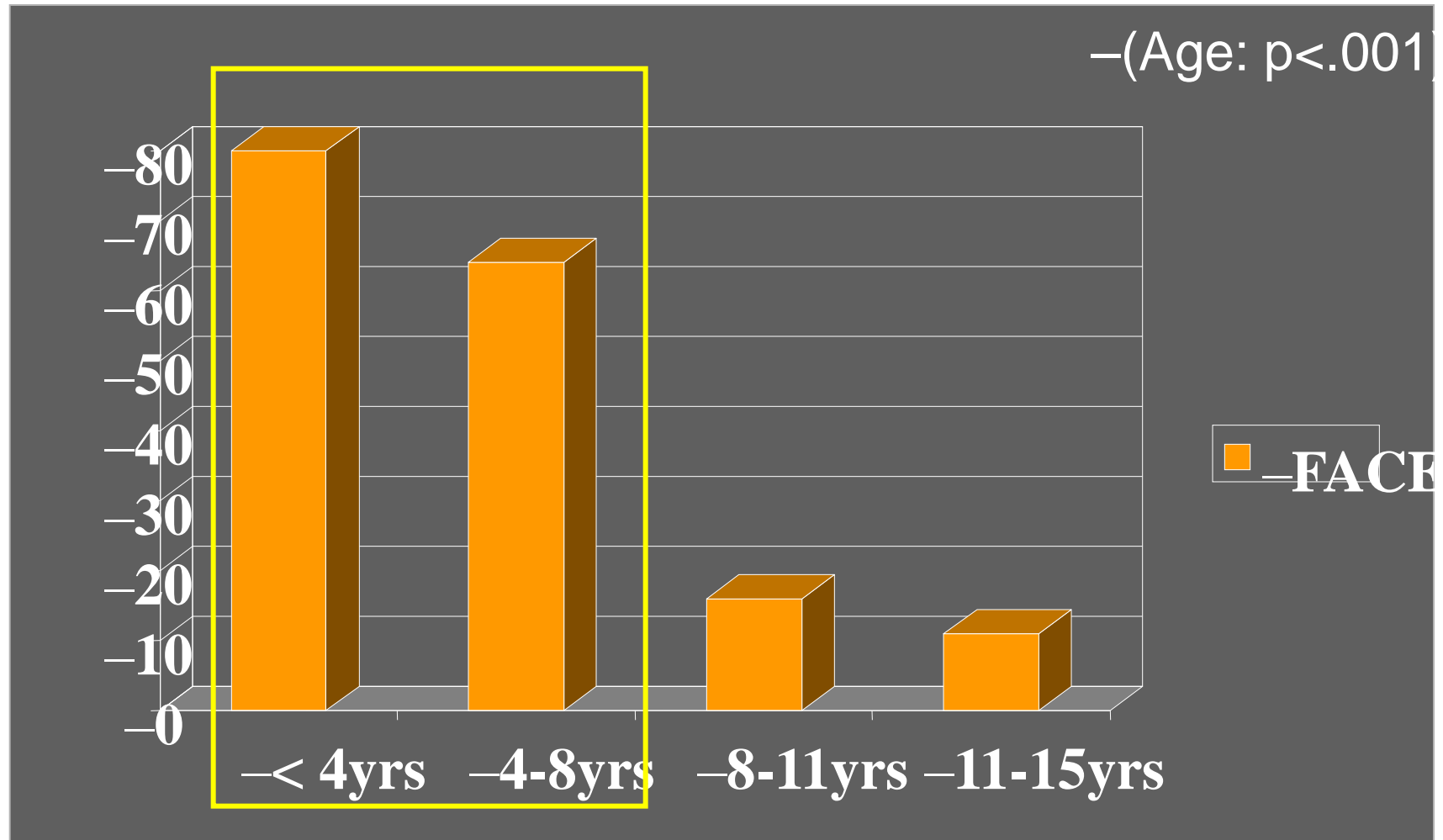


–**No evidence** of lower/higher tendency for aggressive behaviour, based **solely** on dog breed



–AVMA 2001, Overall & Love 2001, Duffy et al 2008

–The child's **age**  
–is the most important factor!!



–Bernardo et al.2002, Kahn et al. 2003, Shalamon



A satellite image of Earth from space, showing the Americas and surrounding oceans. The image is centered on the Americas, with North America at the top and South America at the bottom. The oceans are a deep blue, and the landmasses are green and brown. White clouds are visible over the oceans and parts of the land. A yellow banner with the text '-Prevention Messages' is overlaid on the image.

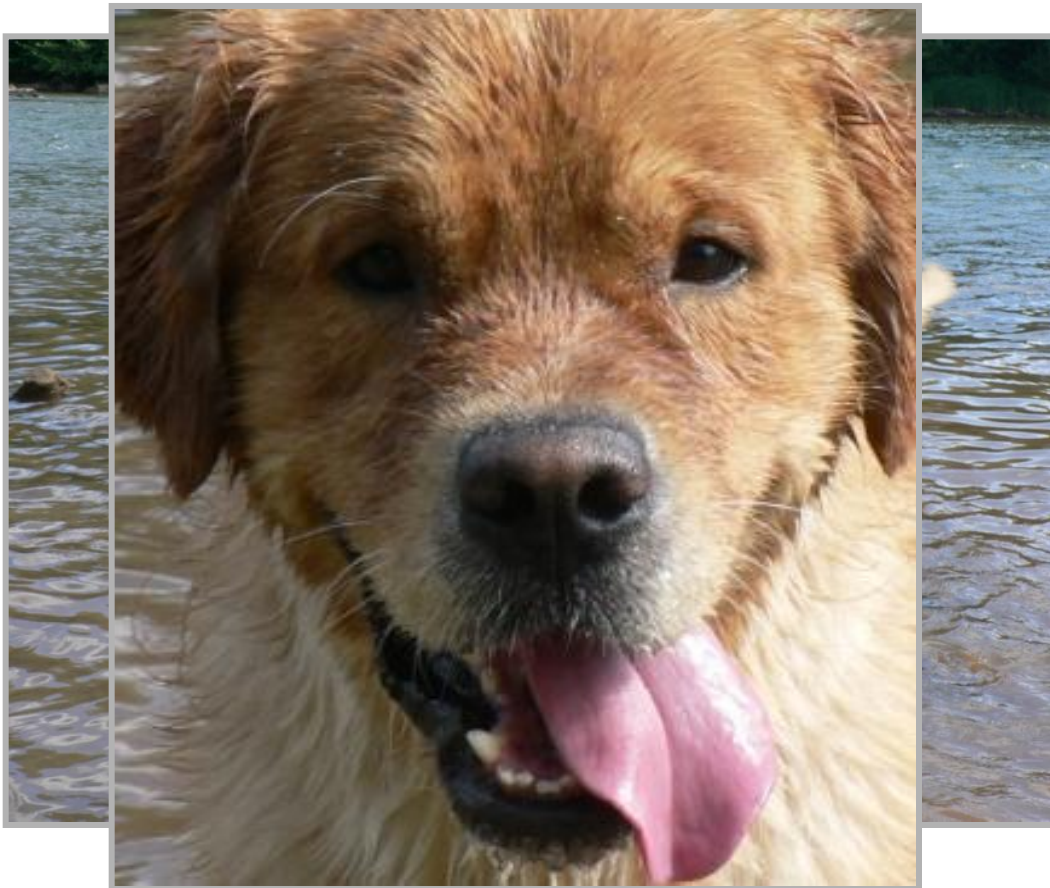
# **–Prevention Messages**

–No evidence so far...



–Child Museum Brussels 2003

- Young children mainly look at the dog's **face** and ignore body postures



- Young children often **confuse** frightened dogs and friendly dogs

–Lakestani et al 200



# Ongoing research University of Lincoln:

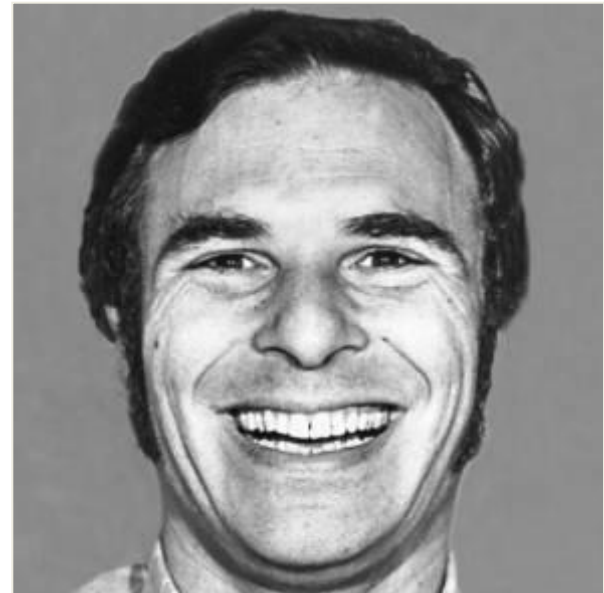
Meints, Racca & Hickey, in prep

–Poster

–Young children misinterpret



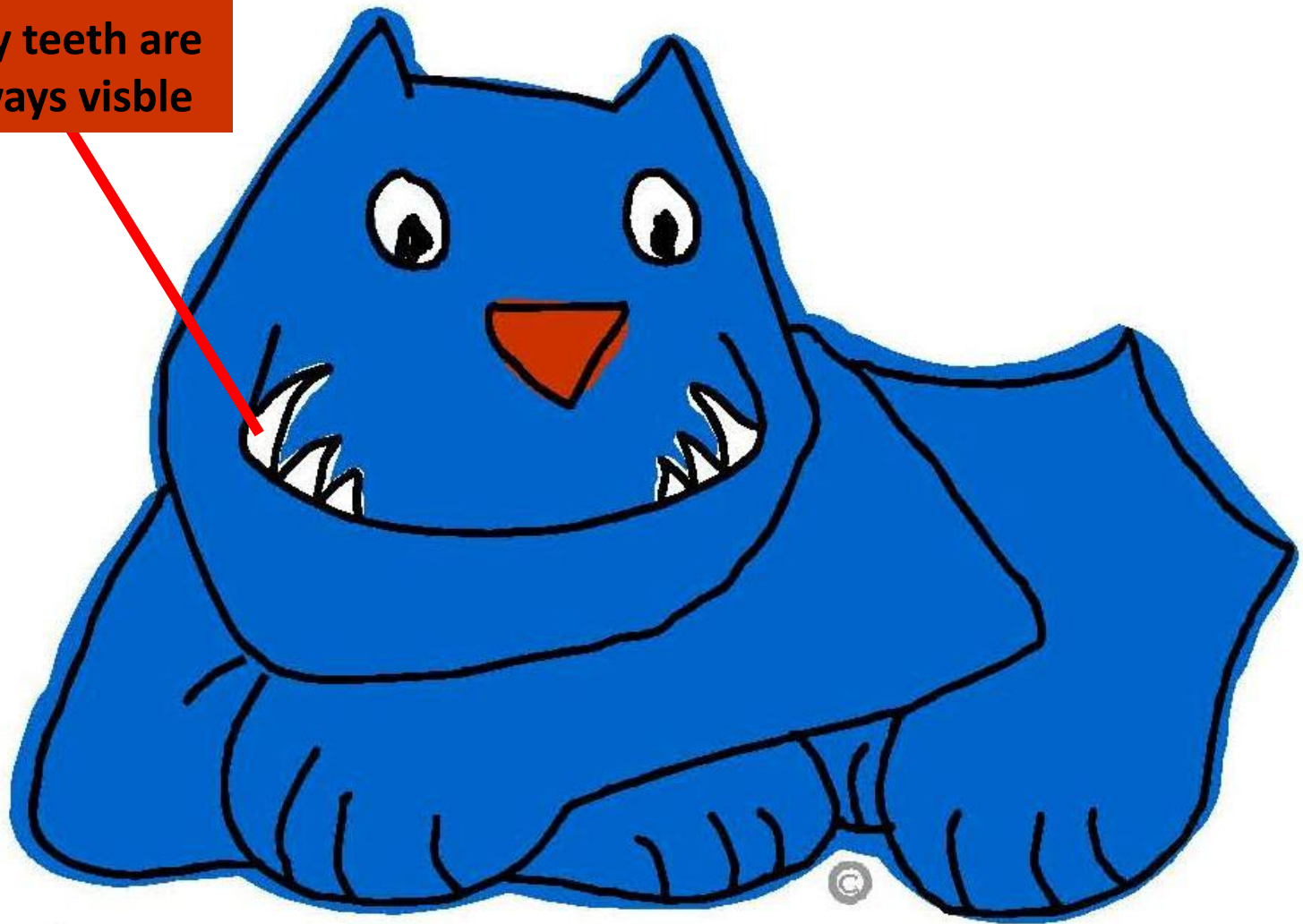
–baring teeth



–smile



–My teeth are  
always visble



**THE BLUE DOG**

–Soraya Verbeke, August 2003

–No evidence how to safely pet any dog.  
Depends on the **individual** dog, the **child** &  
the **context**



- “Be gentle with a dog”
- “Talk to him first”
- “First let the dog sniff”
- “Pet him gently on the back”
- “Pet him gently under the chin”
- “.....”

–Reisner et al., 2007

# Living Safely with your dog



**–Hereditary  
–factors**

**–Development**

**–Socialisation**

**–Education**

**–Physical &  
mental health**

**–Victim  
behaviour**



–Risk factor “**victim behaviour**” should be considered within a context !

–**POSTER**



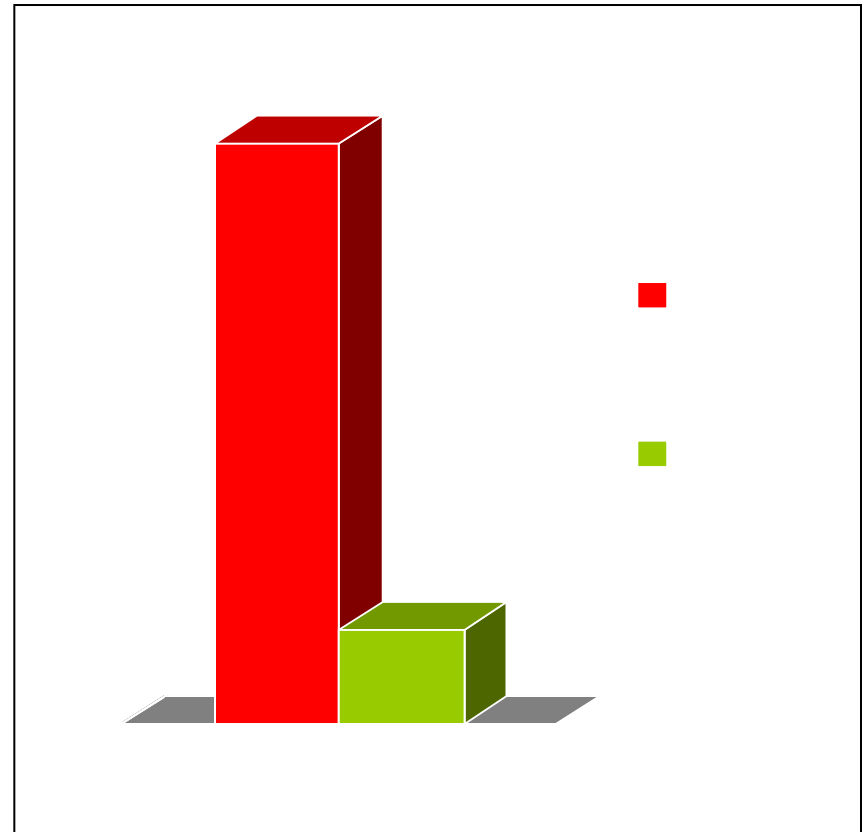
–86% Interaction  
–Victim → Dog



–61-80% of victims did  
–**NOT** interact with dog



In 86% of the cases, an **ACTION** from the **child** triggers the bite



# NOT

- “Leave the dog alone when he sleeps”
- “Don’t bother the dog while he is eating”
- “Don’t approach your face to the dog”
- “Don’t chase the dog”
- “.....”



–Children's safety can be improved  
by interactive training



–**Detection** of dangerous and safe  
situations – **interpretation** - action



# –Risk situations in the home with familiar do



–Child  
–behaviour

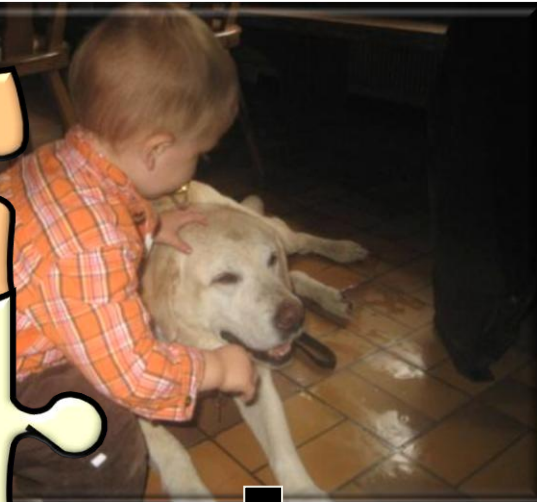
–Resources

–Interactions

# –Risk situations in the home with familiar do



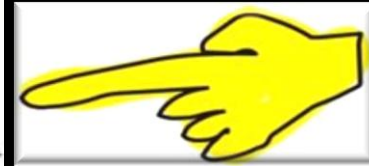
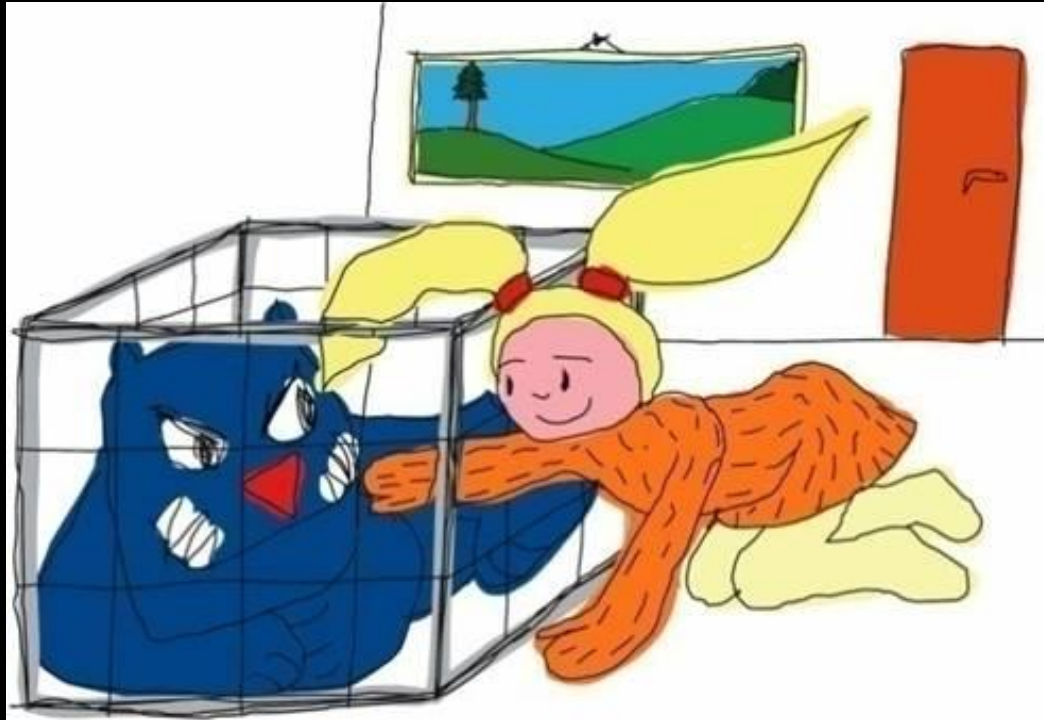
–Child  
–behaviour



–Food  
–Bones  
–Toys  
–Objects

–Hugging  
–Petting, touching  
–Approaching sleeping dog  
–Waking dog  
–Pushing dog from sofa  
–Chasing dog

# Script including common risk situations



–SAFE OUTCOME



–UNSAFE OUTCOME

–Kahn et al., 2003



—..to an **interactive** computer animation





# –Department Child Psychology

## –Team Dr Kerstin Meints



–96 Children  
Ages 3-4-5 & 6 years



–Research financed by

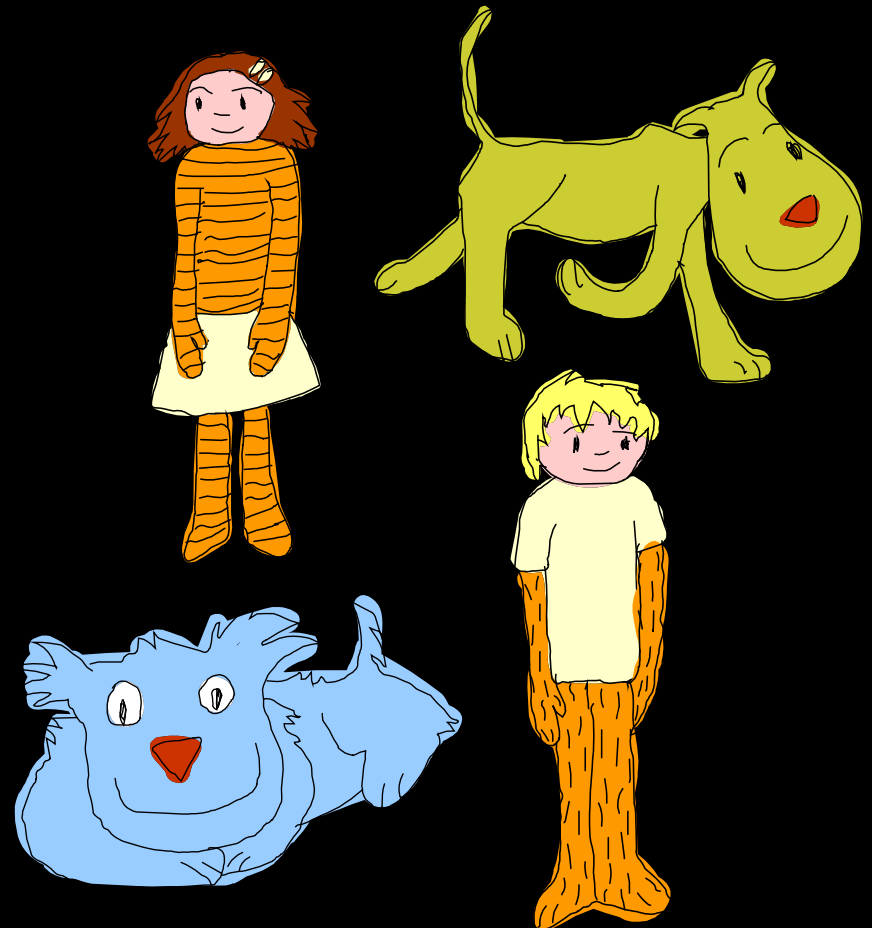




–1. Children learn from the blue dog scenes to make the **safe choices**

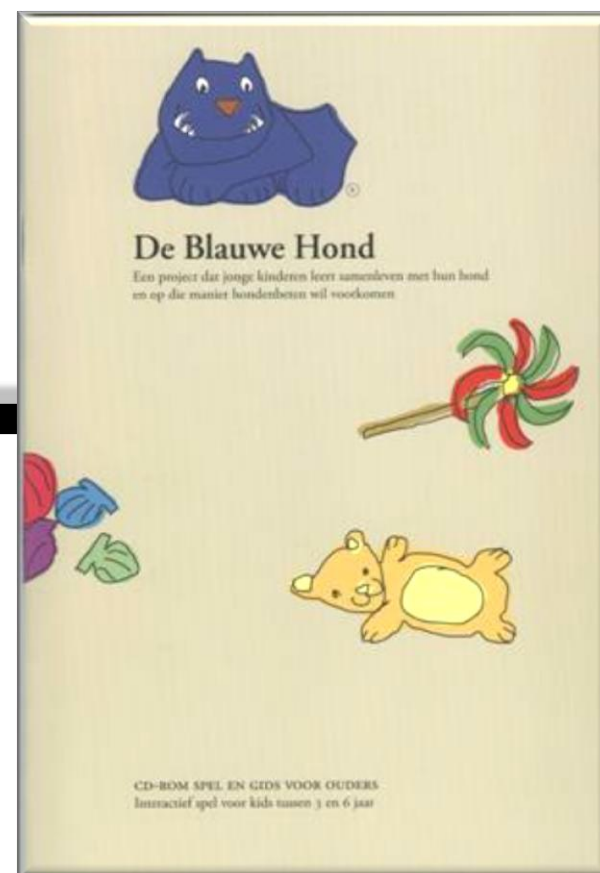
–2. **Parental** support improves the learning

–POSTER 1



# Most accidents happen when there is no **active** parental supervision







# World Launch: WSAVA / FECAVA Congress

## Prague Oct 2006





## –THE BLUE DOG TRUST

### –Partnerships with national veterinary associations

Austria

Belgium

Czech Republic

Denmark

Estonia

France

Germany

Italy

Netherlands

Norway

Poland

Portugal

Serbia

Spain

Switzerland

UK

USA



–Research supported by the Blue Dog Trust

## 1. Facial Proximity study

–Co-funded by W



–Poster 115



–Meints, De Keuster & Syrnyk, in prep.



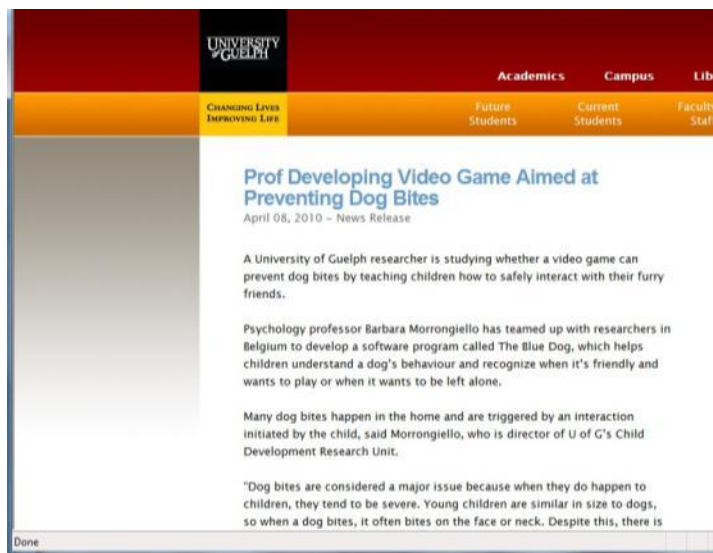
# –Research supported by the Blue Dog Trust



–Prof. Barbara Morrongiello  
–University of Guelph  
–(Canada)



–Prof. David Schwebel  
–University of Birmingham  
–Alabama, US

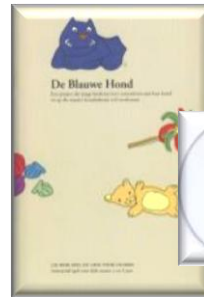






# –Research supported by the Blue Dog Trust

## 3. Effectiveness of the Blue Dog in Real-life: a longitudinal study of children's behaviour with the family dog



–Meints & Lakestani , ongoing

## –Further challenges

### Spreading a prevention message



–Erm..  
–quite a  
–challenge



# –Challenges in –communicating a fear appeal

–POSTER

–Witte K., 1992



–“Every dog is capable of **biting** a child.”



–“The use of **lower the risk** of your dog biting your child.”

**Sincere thanks to all  
who helped in the realization of  
the Blue Dog**



**–André Kahn  
–1944 - 2004**

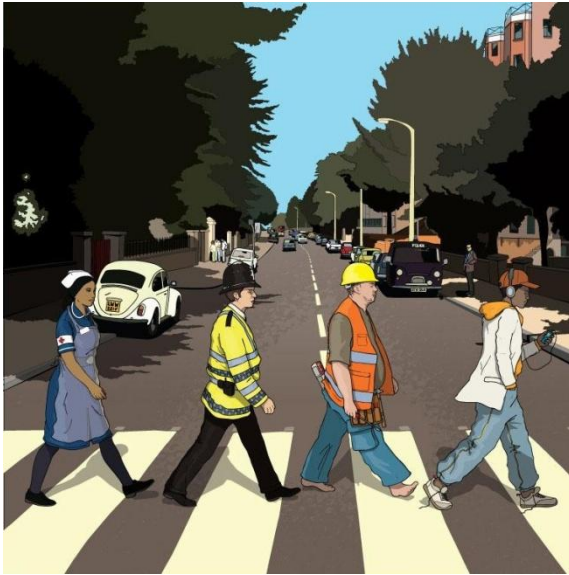


# THANK YOU

Please visit us during the poster session



–[bluedog.admin@tiscali.co.uk](mailto:bluedog.admin@tiscali.co.uk)



# Safety 2010 World Conference