

Science

# Just Like Humans

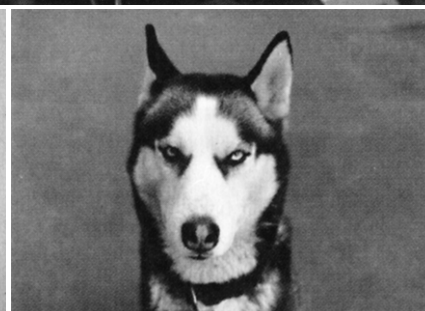
BY JESSICA BENNETT

**W**E NAME THEM, RAISE them, clothe them and spoil them.

We describe them as manipulative, grumpy, sensitive and caring. And they're not even human – they're our pets. It's in our nature to ascribe human characteristics to animals even if they don't really exist. For this reason, in the interests of remaining objective observers of nature, scientists have 12 anthropomorphizing animals. To talk about a dog's having a swagger or a cat's being shy would invite professional sneers.

In recent years, however, evidence has begun to show that animals have personalities after all. Chimps, for example, can be conscientious: they think before they act, plan and control their impulses, says Samuel Gosling, a Texas-based psychologist. 13.

The implications of these findings for research on human personality are powerful. Scientists can look to animal studies for insight into humans the same way they now look to animal testing for insight into drugs. Animal research has already begun to shed light on how different types of people respond to medications and treatments – aggressive and passive rats respond differently to antidepressants, for example. The hope is that animals can illuminate the murky interplay of genes and the environment on 14. The research may even lead to predictions about what people will do,



**EACH A TYPE: Ferocious guard dog, smart husky, elegant Russian wolfhound**

based on their personalities, when they're stressed out or frightened. Putting personality testing – already a thriving business – on a firm footing could uncover a wealth of knowledge about where personality comes from.

Ivan Pavlov did his famous work with dogs in the early 1900s, but animal-personality studies then languished for decades. Now the field is making a comeback. In one study of fruit flies, researchers in the North Carolina State University genetics department found some flies to be consistently more aggressive than others – they made more threats and dished out more physical abuse, going so far as to kick and push others (yes, flies can kick). 15, research from the University of Guelph, in Ontario, looked at differences in rainbow trout; they found some to be consistently bolder in looking for food

than the others. New research, including a paper published last month in the journal *Nature*, asserts that observations of more than 60 animal species, from birds to squids to spiders, clearly show the presence of what can only be called personality.

Animals have obvious advantages as test subjects. Humans are difficult to study over an entire lifetime and are more complicated – psychologists must take into account a person’s goals, values, abilities and attitudes, as well as physical and bodily states, moods and life stories. By putting animals with specific personalities (aggressive or passive, for example) into specific situations (isolation or a social setting) and testing them, scientists could help determine how personality traits 16 to disease and medications. Recent research on stress-related personality disorders like posttraumatic stress, chronic fatigue and depression has already begun to rely on animal models, says Jaap Koolhaas, a Netherlands-based behavioral physiologist. Placing a dominant male rat

in a situation of social defeat (perhaps by introducing it in the territory of a stronger rat) will bring on behaviors characteristic of human depression.

The big payoff may come down the road, as scientists begin to use animals to figure out how genes and environment interact to influence personality. Currently, scientists rely on observations of identical twins brought up in different environments – which doesn’t happen often. Animals, however, can be cloned in large numbers and brought up in systematically varied environments. In experiments on monkeys suffering from the animal equivalent of AIDS, sociable monkeys fared better when they interacted more with other monkeys, while those 17 – like humans in a hospital – fared worse, says Gosling. That’s the kind of effect scientists may now be able to study more widely. Perhaps that’s the 18 finding out humans aren’t as unique as we’d thought.

*Newsweek*

## Tekst 5 Just like humans

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*Kies bij iedere open plek in de tekst het juiste antwoord uit de gegeven mogelijkheden.*

1p 12

- A become less sceptical about
- B investigated the reasons behind
- C taken pains to avoid
- D taken to

1p 13

- A Gosling offers a new explanation why personality traits have evolved in humans and other species
- B Gosling's animal research thus explains the interaction between animals and humans
- C Other psychologists, however, question whether even human personality is definable at all
- D Research has identified similar personality traits in many other species

1p 14

- A aggression and violence amongst humans
- B human genetic make-up
- C people's personalities
- D the use of drugs

1p 15

- A As a result
- B Conversely
- C For example
- D Similarly

1p 16

- A change due
- B enable resistance
- C influence responses

1p 17

- A kept in isolation
- B suffering from AIDS-like symptoms
- C who could not look after themselves

1p 18

- A final word in
- B main reason for
- C paradox in
- D upside to

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### Bronvermelding

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