

Young children focus more on baby animals than on non-living objects

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BIOPHILIA is "our innate tendency to focus on life and life-like forms and, in some cases, to associate emotionally with them"

E.O. Wilson, The Future of Life, Alfred A. Knopf, 2002, p. 132.

Human-Nature relationship is a precious source, through which children can mature, evolve, investigate their subjectivity, get in touch with their own emotions and subsequently with those of other living beings, then finally pay attention to the preservation and protection of ecosystems (Barbiero and Berto, 2018).

With this experimental study we have tried to investigate the hypothesis of biophilia in pre-school children. We proceed with a protocol where children (0-3 years and 3-5 years) play freely for 5-10 minutes and then, without warning, let in just one new guest: a pet, a remote-controlled car, a plant or a painting and time their reaction time to become aware of (to shift their attention to) the presence of the new guest. The objective of the experimental observations was to verify differences in the times of fascination (bottom-up attention) in contact with living (baby animals and plants) and non-living (animate and inanimate objects) creatures. We assume that baby animals shift children's attention more quickly and more frequently than non-living objects. And, among non-living objects, animated ones shift attention more than non-animated ones.

26 children (3-5) – 4 proofs

EXP 2 - Urbino

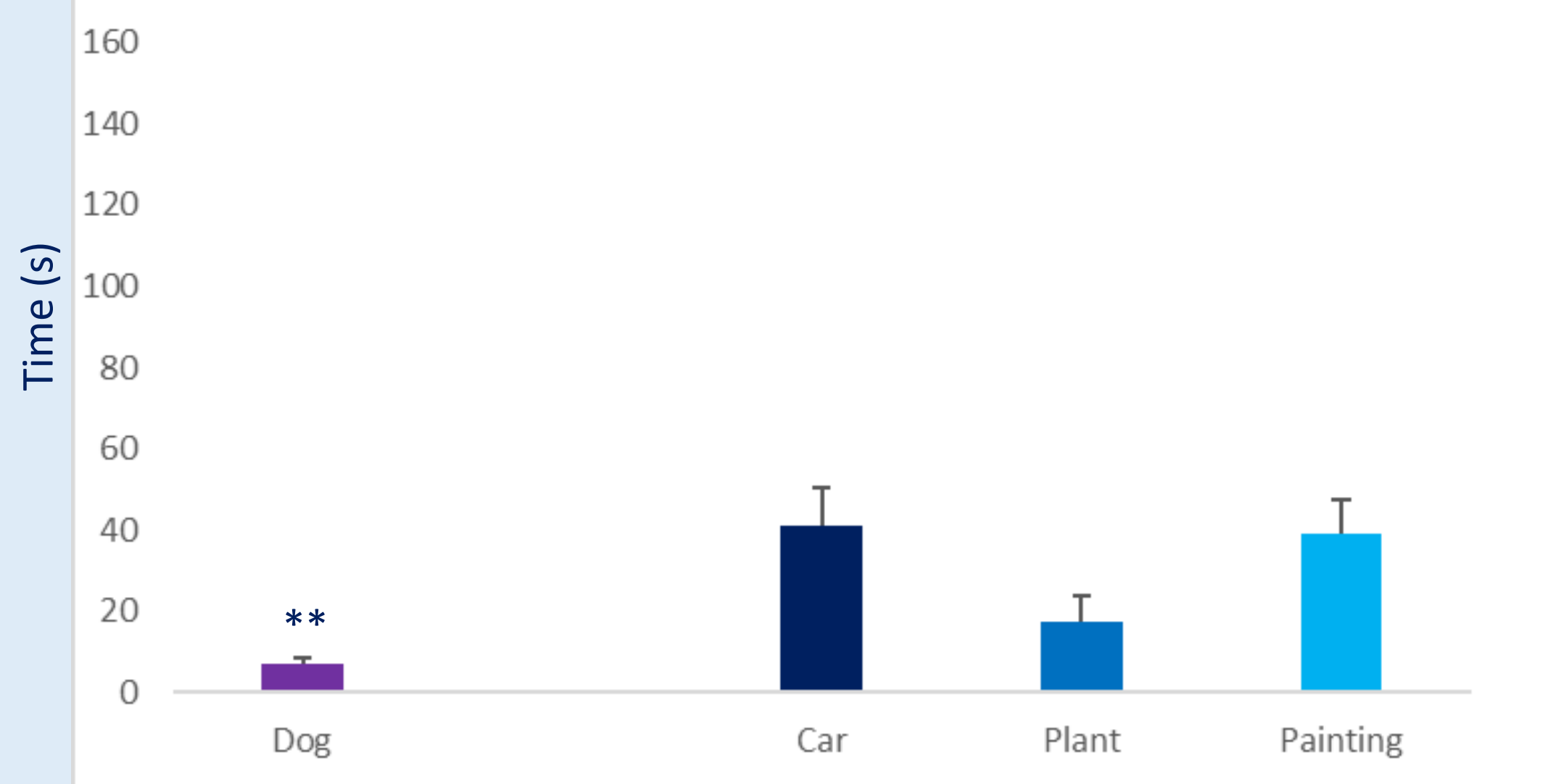


Fig. 2 - Average reaction time of children after the introduction of the subjects.

The analyzes showed significant differences between the "Living Animated" category (Dog) compared to the control categories "Non-living-Animated" (Car); "Living-Non-Animated" (Plant) and Non-Living-Non-Animated (Painting). This results confirm these obtained in EXP 1.

CONTINUOUS ATTENTION

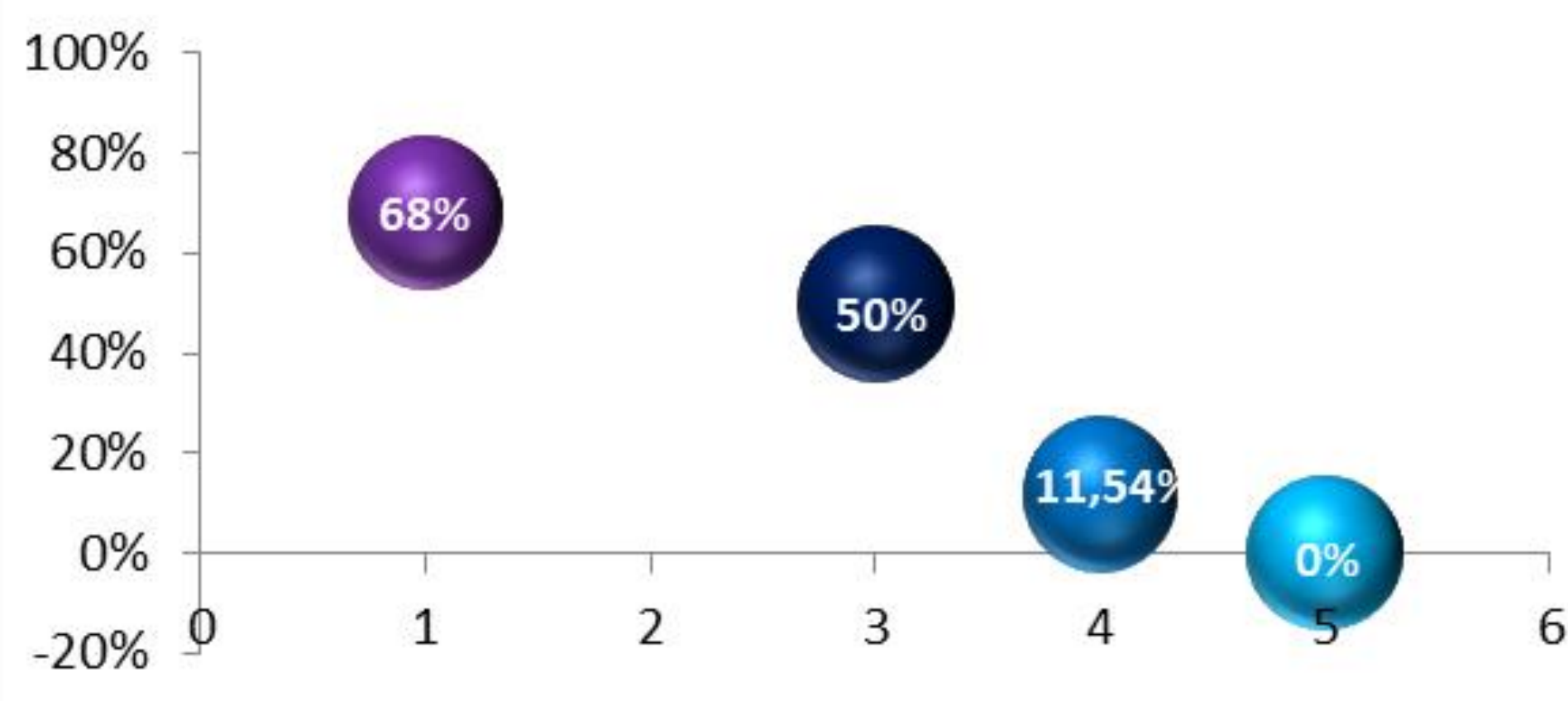


Fig. 3 - Percentage of continuous attention of the children during the observation period.

9 children (0-3) – 15 proofs –

Exp 1 - VdA

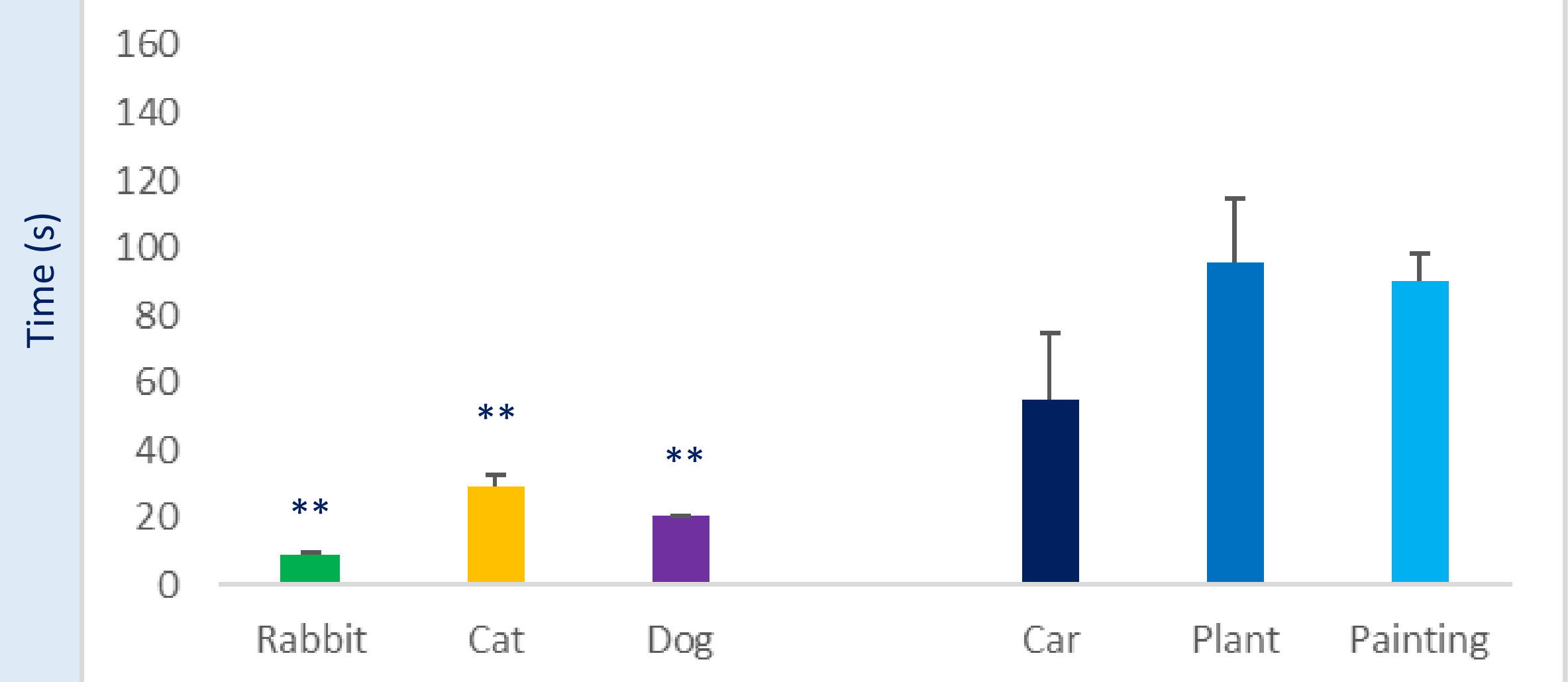


Fig.1 - Average reaction time of children after the introduction of the subjects.

The analyzes showed significant differences between the "Living Animated" categories (Rabbit, Dog, Cat) compared to the control categories "Non-living-Animated" (Car); "Living-Non-Animated" (Plant) and Non-Living-Non-Animated (Painting).

20 children (3-5) – 5 proofs

EXP 3 - Urbino

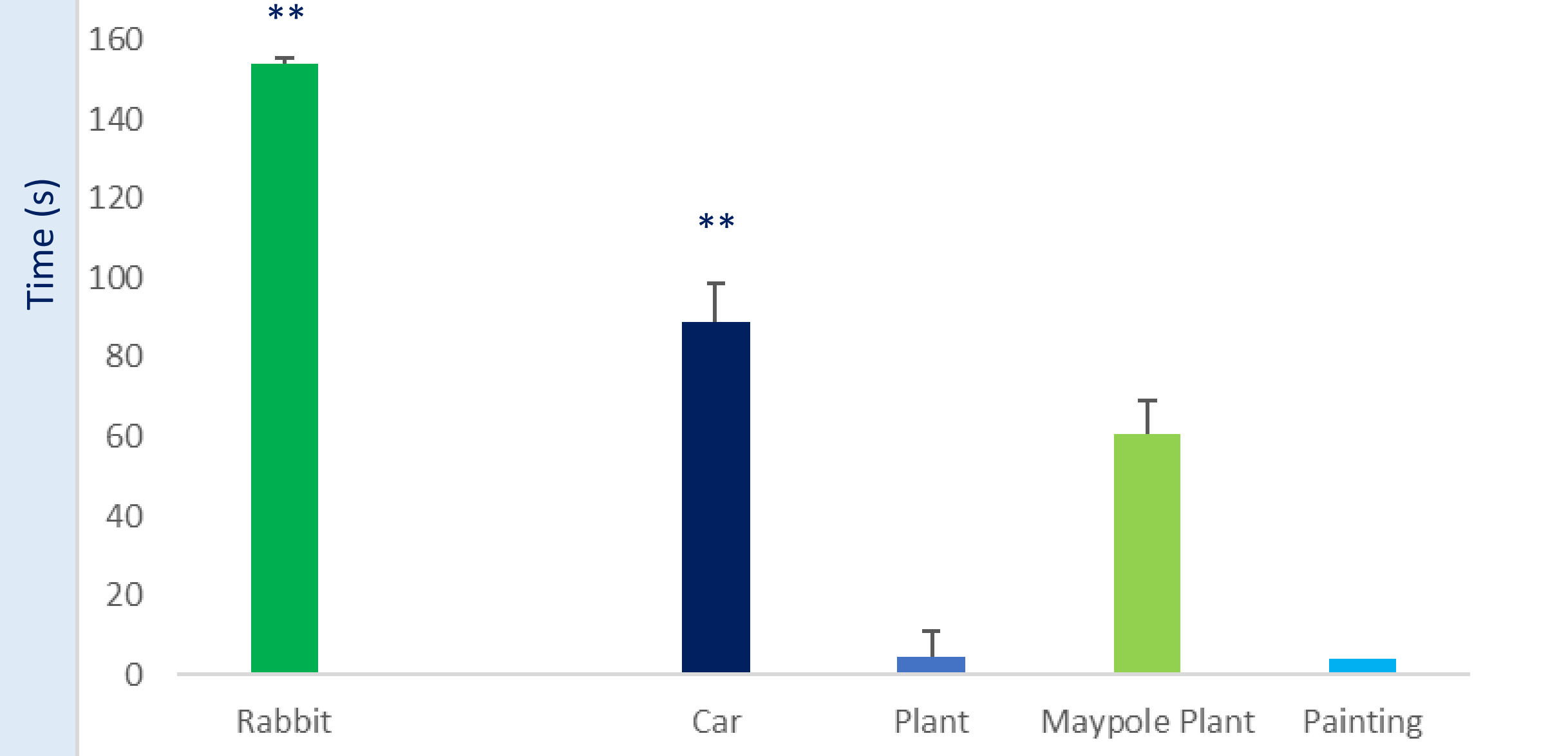


Fig. 4 - Average attention time that children spent to the subject during the 5 minutes observations.

The analyzes showed significant differences between the "Living Animated" categories (Rabbit) compared to the control categories "Non-living-Animated" (Car), "Living-Non-Animated" (Plant) and Non-Living-Non-Animated (Painting). Further "Non-living-Animated" (Car) shows significative differences compared to Plant and Painting. In this experiment a "decorated" plant (Maypole Plant) was also introduced in which the children showed more interest.

This is the first attempt to demonstrate that children are fascinated from living animals (Fig. 1 and 2) which most frequently attract their attention (Fig. 3 and Fig. 4). We are therefore within Wilson's prediction (biophilia is "our innate tendency to focus on life and life-like forms (Fig. 1 and 2) and, in some cases, to associate emotionally with them (Fig.3 and Fig. 4)") and, considering the age of the small experimenters, most likely it is an innate behavior that reinforces the idea that biophilia is an evolutionary adaptation (Barbiero and Berto, 2021).

A growing literature shows that active care for the environment in adulthood is frequently associated with positive experiences of nature in childhood or adolescence, along with childhood role models who gave the natural world appreciative attention (Chawla, 2007; Sachs et al. 2020).

This first experimental study aims also to highlight how Affective Ecology (whose constructs are the Biophilia Hypothesis and the Gaia Theory) can become complementary to formal ecology, to bring people closer to Nature and strengthen the motivations that drive them to assume pro-environmental behaviors (Barbiero, 2014).