

# Human – Animal Studies in Indonesia: An open field for multidisciplinary research and intervention

Puspita Insan Kamil<sup>1,2\*</sup>, Harry Susianto<sup>1</sup> and Adrian Dwiputra<sup>3</sup>

<sup>1</sup>Faculty of Psychology, Universitas Indonesia, Kampus UI Kota Depok, Jawa Barat 16424, Indonesia

<sup>2</sup>Komodo Survival Program, Jl Tegal Wangi II, Gang Kubusaba no 11, Denpasar, Bali 80223, Indonesia

<sup>3</sup>Ecological Modelling Unit, World Agroforestry Centre, Jalan CIFOR, Situ Gede Sindang Barang, Bogor, Jawa Barat 16115, Indonesia

Corresponding author: Puspita I. Kamil, e-mail: [puspita.kamil@komododragon.org](mailto:puspita.kamil@komododragon.org) / [puspitainsankamil@gmail.com](mailto:puspitainsankamil@gmail.com)

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Animals have been an indispensable part of human lives for thousand years, yet the kind of relationship between human and animal just began to gain attention from scientific communities in the 20<sup>th</sup> century. In 21<sup>st</sup> century, research concerning the interactions between human and animals, including habitat protection, animal welfare, and a vegan lifestyle expanded rapidly in Western culture (Wilcox, 2015), conducted under various fields of social (Amiot & Bastian, 2014). In 2010, the field of “anthrozoology” appeared and - often referred to as “Human-Animal Studies” (HAS) - was defined as the new interdisciplinary science that focuses on the relationship-interactions between humans and animal (Herzog, 2010). HAS continue to grow in countries like the United States, New Zealand, Canada, Australia and throughout Europe, where the trend primarily involves domestic animals and topics like Animal Assisted Therapy, animal welfare, or human-animal bond (Shapiro and DeMello, 2010).

Apart from human interaction with domesticated animals, the “morphology” of interaction with wild animals remain understudied, as pointed out by Amiot and Bastian (2014), who reported that, unlike studies on human relationship with cat or dog, only three out of total of 199 empirical psychological HAS articles reviewed focused on human-wild animal relationship. The extinction of species from anthropogenic causes continues at alarming rate in various places on earth and a better understanding of how and why humans behave towards wild animals can provide important information to help plan for better management and conservation intervention.

Despite being the World’s second richest biodiversity country, Indonesia suffers an alarming biodiversity

and habitat loss, averaging 47,600 ha primary forest per year between 2000-2012 (Margono et al., 2014). Habitat loss, poaching and human-wildlife conflict have driven many species to the brink of extinction. Hunting for mammals and birds has reduced abundances in the tropics by 58% and 83%, respectively (Benítez-López, et al., 2017). Understanding drivers of such behaviour, i.e. how or why humans have specific attitudes toward wild animals, is vital to prevent further species loss in the future. The development of HAS in Indonesia as a multidisciplinary research subject that focuses on wildlife diversity crisis will most likely contribute positively to finding better solution to prevent the ongoing species extinction crisis.

The main differences between HAS development in developed countries and Indonesia relates to the kinds of relationship that are formed between humans and wildlife. In Indonesia, many citizens still struggle to fulfil basic livelihood needs and Animal Assisted Therapy is considered an exotic and unnecessary privilege. Social scientists who consider to do research in HAS might be interested to explore more on two relationship types: food and pest.

Bushmeat consumption is often a means for financially disadvantaged citizens to get nutritious and relatively cheap food. In the 21<sup>st</sup> century, however, there are many other local options for food available in Indonesia and consuming wildlife appears unjustified. For example, the exceptional case of consuming the yaki (*Macaca nigra*), the critically endangered Celebes crested macaque protected under the National Decree, as ceremonial food on traditional holidays is not linked to nutritional needs (Melfi, 2010). The “Moral Foundation Theory” argues that humans are the only species that

develops a feeling of disgust, which contributes to our negative attitude towards cannibalism (Haidt, 2012) and other species that are unfamiliar to us. In addition, humans find it difficult to consume wildlife they see as intelligent with emotional attributes (Bastian, et al., 2011; Bilewicz et al., 2011). Yet there remains little research available that assess the effect of manipulating humans perception of the animals' intelligence to humans' intention to eat the animals in Indonesia.

Many in Indonesia consider Sumatran elephants (*Elephas maximus ssp. sumatranus*) a pest, because they have destroyed at least 20 houses, killed 2 people, injured 1 person, and damaged plantations around Bukit Barisan Selatan National Park (Sitompul, 2004). This conflict reduces local peoples' support to elephant conservation (Nyhus et al., 2000). Orangutan and Buton macaque are also known for crop-raiding activities (Meijaard, et al., 2011; Riley and Priston, 2010). In addition to crop-raiding, livestock depredation conflicts are common when local communities live in habitats with large carnivores such as tigers (*Panthera tigris sumatrae*). HAS can help identify solutions by shifting communities' mindset and negative attitude towards wildlife competitors and support conservation in addition to the more traditional strategy of providing only external support e.g. compensation and removing conflict animals.

While food and pest challenges are categorised as resources conflicts, illegal wildlife trade for companionship, medicine and symbol values are triggered by other drivers than primary needs. In some circumstances, such practice also violates the species protection law (National Decree No. 5 year 1990), which prohibits the possession of protected wild animals without legitimate permit, as in the case of possession of slow loris (*Nycticebus* sp.), an endangered Indonesian native primate species (Nekaris et al., 2013). Being illegally captured as pet as well as for traditional medicine, the species faces risk of extinction. The practice of keeping slow loris gained sudden popularity after a video depicting a "cute" slow loris tickled by its owner went viral on the internet. Comments from viewers suggested that people associated the animal with anthropocentric feelings and were keen to buy it (Nekaris et al., 2013). From being an obscure animal, the "cute" video created a huge demand for slow lorises as pets overnight.

Many Indonesians keep wild animals as symbols or ornaments. Colour features and attractive vocalisation are in high demand. Jepson and Ladle (2005) found that

bird-keeping is important to many people in Indonesia with one in every fifth person kept birds (21.8%). This is in stark contrast to the number of people keeping chicken (16.6%), fish (9.5%), cat (3.4%) and dog (2.7%) (Jepson and Ladle, 2005). To be able to supply this huge demand for songbirds, many local communities in Java harvest songbirds from the wild without being aware that populations of a range of species have declined significantly. Keeping birds in cages is specifically important in Java, where a bird in a cage symbolizes a balanced life. Whereas many poor communities supplement income from bird hunting, bird ownership is generally associated with better educated and richer households (Jepson and Ladle, 2005).

In a nation with so many human-wildlife challenges, HAS must focus on bringing multi-disciplinary disciplines together and designing studies that examine the complex interaction between humans and animals and, in particular, find effective solutions to sustainable use. In this, it is important to include the "human element" as an integral part of conservation action, since humans are almost always the key reasons for species decline (Ariefiandy, et al., 2015; Kamil, et al., 2014). A key role for social scientists in HAS is to provide a robust understanding of humans' behaviour and attitudes, so conservation scientists can develop better and more effective conservation action plans. Working together, HAS will be able to progress as a new field to help safeguard biodiversity in Indonesia.

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