

## Learning Animal Behaviour through *Nyatua*: Revealing the Values of *Satua* Bali

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### Abstract

Sub-Theme: (3)  
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One form of cultural heritage is *satua* bali. Animal behaviour can be learnt through *satua* bali. The purpose of this study is to identify the animal behaviour being describes on the animal-themed *satua* and to know the moral values in it. This research is a qualitative research. The subjects of the study were 30 students of biology education study programme. The data were taken by conducting observation, documentation and questionnaire, obtained by using three instrument types, namely; storytelling rubric, animal behaviour type observation guidance, moral values questionnaire. Data were analyzed using Miles and Huberman version which included data reduction, data presentation and conclusion. The validity checked by using triangulation techniques and deepening study of the material. The results showed that, *satua* entitled *siap selem* is the most widely contained animal behaviour than other six *satua* chosen by the students, that is about 26%. While the other *satua* only ranged in percentage 12,85% - 16,42%. 31,82% of the total 22 types of animal behaviour, having frequency above 50% to be appeared, ie; innate (69,44%), habituation (52,78%), innovation (88,98%), shelter-seeking (52,78%), digestive (83,33%), social (77,78%) and resting (52,78%). The moral values of the six *satua* are varied, including the values of tolerance, self-discipline, work ethic and learning, responsibility, self-control, positive thinking, love and affection, mutual cooperation, solidarity, mutual respect and honesty. Every *satua* has the same main meaning: good will always win against evil, therefore *satua* is significance for the moral formation.

**Keywords:** animal behaviour; values; satua bali.

### 1. Introduction

Animal behaviour is branch of biology. Another term of animal behavior is ethology. The word ethology comes from the Greek "ethos" means character, and "logos" or "logia" means knowledge. Thus, animal behavior or ethology is a branch of biology to study animal in term of behaviour. Based on this subject, animals will interact with their environment since they first appeared on earth. It is done to survive. There are various types of animal behaviours, such as innate, habituation, social, reproductive, and fighting behaviour. Some examples of the behaviour are also experienced by humans, so in some sources mentioned that animal behavior is branch of biology that studies the behavior of animals and humans.

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The result of self-reflection on the animal behavior learning in the Biology Education Study Program of Universitas Mahasaraswati Denpasar indicates that the animal behaviour is still a teacher-oriented learning. Lecturer provides learning materials such as pictures and videos as information of students to study animal behaviour. In addition, the more concern is the lack of information sources that related to the local animal because it is dominated by sources from abroad. So to overcome this, students are eventually assigned to assess the behaviour of animals that exist around.

However, this is not enough to answer the challenge to realize the goal of 21st century education, which is to encourage students to have the 21st century life skills so that they become more responsive to the changes and developments of the era. There are four 21st century life skills, critical thinking, creative, communicate and also collaborate. In addition, Suwono (2017) added 21st century life skills in Indonesia context, spiritual values and multicultural attitudes. Therefore, to instill the 21st century life skills is also required recognition of the culture. One of the culture values that can be introduced through learning is the story or folklore.

In Balinese culture, stories or folklore called *satua*. *Satua* bali is one of the literary works that includes oral literature (Suardiana, 2011). It is approximately existed before the writing and also anonymous because it is told from mouth to mouth from generation to generation. Based on the author's search results, many *satua* are animal-themed or known as fables. Suastika (2011) states, there are two types of *satua* according to the character, namely animals and humans *satua*. *Satua* with animal figures, for example *I Siap Selem*, *I Lutung*, *I Bojog* and *I Kambing* are summarized in the Tantri Story.

*Satua* is an effective medium for transferring moral virtuous values to the next generation (Mustika, 2017, Kristanto, 2014). The existence of various *satua* with animal figures may not be separated from the goal that is to be an example for humans who listen to it.

The variety of animal-themed *satua* gives the idea for the writer to use it as a media or method in animal behavior learning. The new method in animal behavior learning is story telling method, which in Balinese called *nyatua*. To prove that *nyatua* method is useful for learning animal behavior, it is necessary to conduct a research to identify the behavior of animal that emerged from some animal-themed *satua* which has been selected by the students, and find the moral values in it.

## 2. Material and Methods

This research is a qualitative research. The subjects were 30 students of Biology Education Study Program of Universitas Mahasaraswati Denpasar. Data were taken by observation, documentation and questionnaire. Data obtained by using three types of instruments, namely; storytelling rubric, animal behaviour guidance, and moral values questionnaire. Data were analyzed using Miles and Huberman Model, which consist of data collection, data reduction, data display or presentation and conclusion. Data validity obtained by using triangulation technique and deepening of the material through literature.

### 3. Result and Discussion

#### 3.1. *Animal Behaviour Learning*

Animal behaviour or also known as the term of etology is a branch of Zoology that studies the behaviour of animals, mechanisms and factors causing it. It is also a combination of laboratory and observational result in the field, as well as having a strong association with certain subject such as neuroanatomy, ecology, and evolution (Wikipedia, 2018; Encyclopaedia Britannica, 2018).

Suhara (2010) states that ethology is an subject that studies the behaviour. Behaviour is an action that changes relation between organism and its environment. It is an activity that is directed from the outside and does not include many changes inside the body that are happened constantly to organism. Behaviour can occur as a result of an external stimulus. The receptor is needed to detect the stimulus, the nerve is needed to coordinate the response, the effectors actually perform the action. Behaviour can also be caused by internal stimulus. For example, animals who feel hungry will find food so that they satisfied after getting food. More often, the behaviour of an organism is the result of a combined stimulus from the outside and from within. Thus, based on the statement, the reciprocal relationship between the stimulus and the response that occurs in the organism is a part of subject about animal behaviour. Other subject is about growth problem and evolutionary mechanism of organism.

#### 3.2. *Animal-Themed Satua and Its'Values*

*Satua* in Bali-Indonesia dictionary means story and *masatua* or *nyatua* means storytelling (Anom, et al., 2008). *Satua* is one of the literary works of Bali *purwa* (traditional) literature found in Balinese society and it is anonymous. Formerly, *nyatua* tradition often done by parents at night to lull children and grandchildren. Delivering orally is the way to transfer it easier.

In addition, the *satua* contains many moral messages which are good for the children moral development. Thus, the *satua* is an oral tradition in Bali that has existed for a long time and has been inherited from generation to generation. As an oral tradition, *satua* becomes an important tool in conveying ideas, taste, knowledge, customs, habits that exist within the community. Through it, there is a cultural transformation that is conveyed continuously with a unique style. Satyananda (2017), states that *satua* and *masatua* are local wisdoms that are still relevant today. As a local wisdom, it contains local ideas that are wise and full of wisdom that is embedded and followed by members of the community. *Satua* not only told before sleep, but also in other form. For example staged in drama or made a writing (eg a storybook for children). *Satua* has main function to maintain social norms and value that become the guidance of the society's behaviour.

Mustika (2017) states, Balinese people have many *satua*, such as; *I Siap Selem, I Belog, I Cupak Teken I Grantang, Men Sugih teken Men Tiwas, Ni Bawang teken Ni Kesuna, I Kambing Takutin Macan, Ni Tuwung Kuning, I Rare Angon, Pan Balang Tamak, Sampik Ingtai, Tuma teken Titih, I Klesih, I Iacur, I Cicing Gudig, Lutung teken Kambing, I Yuyu Melaksana Melah, Angsa Teken Empas, Crukcuk Kuning, Bagus Diarsa, I Lubdaka, Lutung dadi Pecalang, I Ubuh, Sang Lanjana*, and others.

Among those examples, the *satua* about animals (fables) is quite a lot and interesting to observe. This is evident from the television show that raises the theme of animal fairy tale that is currently being favoured by children, the animated film made in Malaysia, entitled "Pada Zaman Dahulu". The scene revolves around a grandfather (Aki) who always tells the tales of his grandchildren (Aris and Ara), where in each tale always contains good advice. And many more other types of impressions that became a family spectacle.

However, the circulation of stories from outside can actually threaten the existence of the *satua*. I Nyoman Suka Ardiyasa, The Chairman of Balinese Care Alliance stated that *satua* is an intellectual property in which there is a typical Balinese intellectual value or original character of the Balinese people. With the rise of impressions or mass media that presents stories from the outside will undermine the existence of the *satua* so that later including elimination the original character of Balinese itself (Bali TV, 2016).

### 3.3. Identification of Animal Behaviour in Animal-Themed *Satua* (Fable)

The study analyzed six *satua* (fables) that have been selected by students who learnt animal behaviour. The six *satua* are; *Kambing Takutin Macan*, *I Siap Selem*, *I Lutung Teken Kancil*, *I Cagak Mati Ulian Loba*, *I Lutung Teken I Kekua*, *I Lutung Teken Macan*. Indicators observed are some animal behaviour in the form of observation sheet when the student is in front of the class. As the observer is another student and also author. In addition to observe the behaviour of animals, students and author also analyze the values of characters contained in the *satua*.

Based on the research, *satua* entitled *I Siap Selem* show the animal behaviour at most about 26% or 25,71%. While the appearance of behaviour in other *satua* only ranged in percentage 12.85% - 16.42%. The percentage of animal behaviour occurrence can be observed in Figure 1 below.

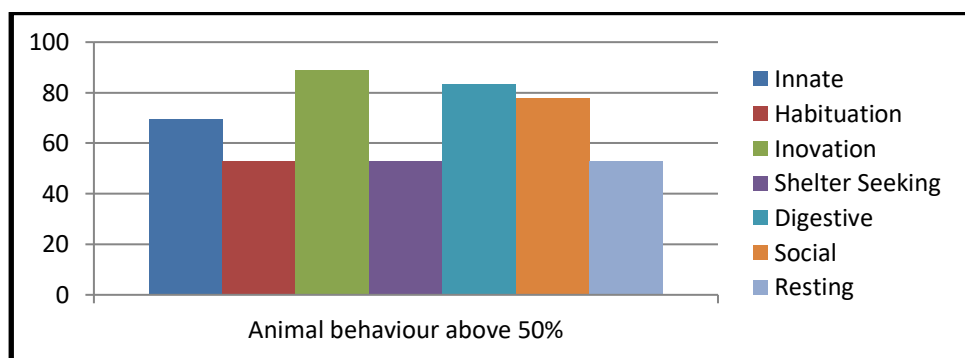


Figure 1. Percentage of Animal Behaviour in *Satua*

About 31.82% of the total 22 types of animal behaviour, have frequencies above 50% to appear. The type of animal behaviour that has a frequency above 50% ie; innate (69.44%), habituation (52.78%), innovation (88.98%), shelter seeking (52.78%), digestive (83.33%), social (77.78%) and resting (52.78%).

Based on the data, *satua* can be analyzed in terms of animal behaviour. The animals in the *satua* tend to give rise to some behaviours. Innate is behaviour that has existed in the individual and developed permanently for example; the newborn know the mammary gland by themselves. This behaviour is also known as the basic instinct. Then habituation behaviour, is a type of animal behaviour that ignores a repetitive stimulus and does not endanger itself (Anonymous, 2016). In addition the animals in the *satua* also exhibit other behaviours such as shelter seeking and resting. Those are very reasonable because both of these are necessary for animals to life. The interesting thing about animal behaviour analysis in this animal-themed *satua*, there are three prominent behaviors that are often raised by animals in *satua*, namely innovation behavior, digestive/eating behavior and social behavior.

#### 3.4. Moral Values in *Satua*

Is the result of this animal behaviour analysis related to the Balinese people character portrayal which is inherited from generations to other through the *satua*? Based on the statement before, animal behaviour is a branch of zoology that studies about animal behaviour. Humans are obviously animals. The dominant behaviour such as innovation, digesting and social may be the value of characters that may be conveyed in the same. Where the behaviour of innovation is also called insight learning or reasoning: is the most intelligent behaviour in animals. Digesting behaviour is a behaviour that shows how to obtain food. While social behaviour is a behaviour that is done to communicate or interact with each other. *Satua* is an intellectual property in which there is a typical intellectual value of the Balinese or the original character of the Balinese society. Thus, some of them have unique intellectual values such as, intelligent, ie using the mind to solve problems, entering into food (in this case livelihood) to live and be able to live and interact in social life.

The values of manners that emerged from the six *satua* also varied, including the values of tolerance, self-discipline, work ethic and learning, responsibility, self-control, positive thinking, love and affection, cooperation, solidarity, mutual respect and honesty. Each one has the same primary meaning: good always wins against evil, therefore is significant for moral formation. This is in accordance with the findings of Mustika (2017) that is, *satua* contains many character values that can be an example. In the end the authors found that the animal-themed *satua* is a picture of human behaviour that is packed in the form of animal stories, which contains the character of man to become a good human being.

#### Conclusion

*Satua* can be analyzed in terms of animal behaviour. The animals in the *satua* tend to give rise to some behaviours. The type of animal behaviour that has a frequency above 50% ie; innate (69.44%), habituation (52.78%), innovation (88.98%), residence search (52.78%), digest (83.33%), social (77.78%) and rest (52.78%).

The values of manners that emerged from the six *satua* also varied. Each one has a major meaning; good always wins against evil so it is very good as role model for learners. The animal-themed *satua* is an image of human behavior packaged in animal story form, which contains the character of man to become a good human being.

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