



# From Donation to Sharing, Experimental Study in Kanak Society : Methodology

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- Received Date: 22 Feb 2022
- Accepted Date: 26 Feb 2022
- Publication Date: 15 Mar 2022

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## Abstract

Since Kanak social norms have a major influence on this *endowment effect* cognitive bias, I launched a second line of research to examine the extent to which Kanak children and adults exhibit an *altruistic* (qualified as such in the Western world) pro-social behavior. I switched from gift-giving to sharing, and I examined whether these two were correlated.

## Introduction

The basic starting point of this thesis is the idea of demonstrating the influence of Kanak culture, particularly of Kanak social norms, on a cognitive bias called the "*endowment effect*" through the paradigm of exchange. Is the *endowment effect* a universal behavior tendency? Or can it be influenced by the expression of culture, by the social norms in force in Kanak country?

To do so, I examine the effect on Kanak children aged 3 to 10 of the context, urban or tribal, in which they lived.

More specifically, the aim is to measure the effect on the *endowment effect* of the social environment in which the child is growing up, with the following questions:

- If the *endowment effect* is universal, then do 3- and 4-year-old Kanak children living in urban and tribal areas exhibit the *endowment effect*?
- Do 5-year-old Kanak children living in urban areas exhibit the *endowment effect*?
- Do 5-year-old Kanak children living in tribal areas not exhibit the *endowment effect*?
- Do 10-year-old Kanak children exhibit the *endowment effect* regardless of the environment in which they live?

## Description

My thesis is based on two experimental paradigms essentially used in experimental economics and on European populations that are characterized, in particular, 1) by a very

marked *endowment effect* and 2) by a low degree of altruism.

The two paradigms used, considerably documented in the literature, concern the exchange of objects ("*exchange paradigm*", [1]) and the unilateral sharing of an initial endowment based on the economic '*Dictator*' game of the [2]:

1) The *exchange paradigm*, developed by Knetsch [1], shows the *endowment effect* that manifests itself in an extremely precise environment: subjects simply decide whether they prefer to keep the item they have just been given or to exchange it for another item of the same monetary value.

2) The game called "*Dictator*" [2], makes it possible to determine whether individuals are motivated solely by self-interest or by other pro-social behaviors, such as altruism.

What do these two experimental paradigms, giving (1) and sharing (2), have in common?

In both experimental situations, the subject receives an initial endowment. In both cases, the *endowment effect* is strongly induced since the appropriation time of several minutes and the discourse accompanying the handing over of the endowment reinforce the feeling of ownership.

## What is the difference?

In the first experiment, the subject is faced with an exchange, in the second, with a sharing.

How complementary the two paradigms are?

From an initial endowment, the subject will decide either to keep or exchange (1), or to keep or share (2).

**Citation:** PROU J-P. From Donation to Sharing, Experimental Study in Kanak Society : Methodology. *Neurol Neurosci.* 2022; 3(1):1-3.

Let us now examine these two paradigms in more detail.

1) Regarding exchanges, human economic decisions are often distorted by judgment biases of psychological or cognitive origin [3]. Experimental economics has shown that in many circumstances (in situations of certainty or uncertainty), human beings do not maximize the utility advocated by the rationality standard, which leads them to decisions that are less rational than those predicted by models. In situations of certainty, the very object of our study, one of the most significant behavioral anomalies is the "*endowment effect*". This cognitive bias is expressed by the owner of a property attributing more value to that property than it is actually worth [1]. Concretely, this owner will be reluctant to make an exchange.

Among the set of biases concerning decision making, the *endowment effect* is particularly studied and the literature on the subject is abundant. A careful review of the literature reveals three explanatory mechanisms for the *endowment effect*: the first is loss aversion, which stems from the perspective theory [2]; the second is the appropriation mechanism linked to the survival instinct, a consequence of our evolution [3]; and finally the last, highlighted more recently, is the mechanism of application of the social norms of politeness [4,5].

In spite of this abundance, we note that the origin of this behavior is little analyzed and deserves special consideration [6] and also that few studies have been conducted outside countries with a high level of economic development, whether in Europe, the United States or Asia. The societies in Europe, the United States and Japan have different social norms, but they are not holistic societies.

2) In order to understand the foundations of cooperation between men, *altruistic* behavior is particularly studied. A concept defined by the West in the middle of the 19th Century [7], "altruism", as opposed to egoism, characterizes the actions carried out for the well-being of others. It is a pro-social and ethical behavior. The experimental economist Andreoni [8] defined "*pure altruism*" as the maximization of utility entirely directed, not towards oneself, but towards a recipient.

Dozens of experiments carried out using economic games have sought to understand the degree of altruism of the human being in comparison with *Homo Oeconomicus*. *Homo Oeconomicus*, the economic man, this perfectly rational calculator, seeks to maximize his utility (that is, his maximum satisfaction) by analyzing all the information available to him in his environment. In the search for maximum utility, *Homo Oeconomicus* makes rational decisions without taking social preferences into account [9]. Concerned only with his personal interest, he does not engage in *altruistic* behavior. The *Dictator* game was created to verify whether the choices people made were consistent with this theoretical prediction (that is, Player A will not share his/ her allocation with Player B).

For many years, the first studied participants in the *Dictator* game were either students [10-12] or European children from rich democratic countries [13,14], the experiments taking place exclusively in laboratory. The trend in the results obtained was as follows:

- Students transfer an average of 20% of their initial endowment [10].
- From an initial allocation of 10 stickers, children gave 2.8 stickers at age 4, 3 stickers at age 6 and 3.5 stickers at age 9 [13].

In these experiments, the over-representation of European students from Western countries was strongly criticized [15]. Since students represent only a tiny part of the population, their socio-economic living conditions being mostly precarious, the results could in no way reflect the whole of Western societies. Moreover, the ethnocentrism contained in these experiments led the researchers to explore the influence of culture on this behavior.

A careful review of the literature on the origin of *altruistic* behavior highlights two major findings: 1) First, children show a tendency towards altruism at a very early age, even though they spontaneously focus on their own self-interest until the age of 9 [13,14]. 2) Beyond the age of 9, in Canada and the USA, children have assimilated the norm of equitable sharing while in Turkey, South Africa, and China, children of the same age continue to prioritize their own interest [16]. This difference in *altruistic* behavior is accounted for partly by the difference in socioeconomic status, underprivileged children tending to retain a greater proportion of their endowment.

The influence of the cultural characteristics of the participants in experimental economic games, including social norms, was highlighted from the year 2005 for adults [17] and 2009 for children [18]. The study by Rochat et al. [18] reveals that in the U.S., China, Brazil, Peru and Fiji children retain an average of 65% of the items at the age of 3, versus 55% at the age of 5. Besides, children living in small communities (as in Fiji and Peru) where social norms of sharing and caring prevail are more "*altruistic*" than middle-class children (as in the U.S. and Brazil).

The identification of the pro-social behaviors in holistic societies based on the results from experimental economic games was done exclusively according to Western concepts, generally emphasizing the "*altruistic*" character of these behaviors. Nevertheless, we can wonder whether this concept still makes sense in holistic cultures. The vast majority of studies carried out to examine *altruistic* behaviors in non-Western populations have been conducted, even very recently, by Western researchers, often with the help of local translators [19]. The results were characterized according to concepts defined by the West, without departing from this ethnocentrism and without fully taking into account the social totality as a whole, especially when these studies were conducted in holistic societies. To my knowledge, no author has so far raised the question of the meaning of the concept of "altruism" within a holistic society.

We can also see that studies conducted outside countries with a high level of economic development, outside Europe, the United States or Asia, have often neglected to take into account a "*lifespan*" approach. "*Lifespan*" can be translated as "*whole life*", that is, throughout life. By neglecting a "*life span*" approach, we cannot observe, in context, the learning and development of social norms during the development of the child and then of the adult. This is why we will favor this methodological "*lifespan*" approach. To our knowledge, only two studies [20,21] have examined the effect of the age of the adults (18 to 67 years) on *altruistic* behavior, omitting to consider children. These two studies show that people get more *altruistic* as they age. Therefore, the origin of this *altruistic* behavior in communities living outside Western countries deserves special consideration [22].

## Conclusion

By combining approaches from experimental and behavioral economics, cognitive psychology, developmental psychology, social and cultural anthropology, and philosophy, I'm highlight the effect of the (tribal versus urban) social context on the learning of Kanak social norms about giving and sharing. I'm also seeing whether children and adults are able to activate the appropriate social norms according to the social and cultural context.

## Conflict of interests

None declared

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