

Wolves, humans and a new moral order of life

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*This paper revisits the narrative of Amala and Kamala, two children said to have been raised by wolves, as a platform for exploring the boundary between human beings and other animal species. Chronicled in *Diary of the Wolf Children* by Joseph Singh, the story of the two girls challenged the view of human uniqueness as it reached social scientists in the 1930s.*

The paper presents the major interpretations and receptions of the diary and will also evaluate the potential truthfulness of the story. Based on this historiographical assessment of the case, the paper extends to an ontological examination of human-wolf relationships, drawing on advancements in both ethology and anthropology. Since the late 1980s, cultural anthropology has begun to examine cultures as extending beyond the strictly human – a movement often termed “the ontological turn,” allowing for a more holistic examination of realities. Meanwhile, developments in ethology since 1995 have begun to consider animals as conscious beings, capable of experiencing complex emotions. Drawing upon these developments this paper explores the possibility of a new moral order of life, with the two species humans and wolves, and their interactions, as the empirical case.

KEYWORDS: ontological turn; multispecies ethnography; human-wolf interactions; Amala and Kamala; Cooperation.

Introduction

In the *Diary of the Wolf Children* (Singh 1942), Joseph Singh chronicles an expedition during which a large team rescued two children from a wolf den. The event took place in August 1920, in West Bengal. During the operation, two adult wolves fled the den and a third was killed. The two human children, approximately two and eight years old, clung fiercely to three wolf pups. These pups were separated from the children and sold at the local marketplace. The two girls were taken to an orphanage known as *The Home*, which was managed by Singh's wife, Rachel Singh. The girls were named Amala and Kamala, and Rachel set out to integrate them into life at *The Home* – a small farm and community that housed about 30 people, including Joseph, Rachel, and their three children.

Using the story of Amala and Kamala as a starting point, this paper embarks on a historical and multi-species exploration of the boundary between the purportedly exceptional characteristics of humanity and those of other animals. Over the past century, this boundary has been renegotiated and redefined numerous times. This paper seeks to examine these shifts through empirical investigations into the lives of wolves, humans, and their interactions. While the lives of Amala and Kamala serve as a focal point, the paper also incorporates ethnographic studies of wolves, intertwining patterns of relationships to provide a comprehensive analysis.

The scientific boundary between humanity and animality has been shaped by developments in both biology and the humanities. These shifts serve as important theoretical underpinnings for this paper.

The field of “animal psychology,” or ethology, has experienced significant development over the years. During the heyday of behaviorism, roughly from 1900 to 1970, it was common to regard animals as emotionless input-output machines. From around 1970 to 1995, lab technicians conducting animal experiments began to see animals in pain. While the paradigm remained behaviorist – studying pain as a behavioral response to stimuli – animal welfare increasingly became a concern (Despret 2009).

Since around 1995, the understanding of pain and its absence has come to include concepts such as fear, pleasure, and happiness. Animals are increasingly recognized as conscious, interpretive subjects capable of experiencing these emotions. Ethologists have begun to observe how the emotions of both the human investigator and the animal can mutually influence each other, thereby shaping research data (Despret 2009).

A major milestone in this development came from primatologists Sarah Brosnan and Frans de Waal, who demonstrated that chimpanzees could act on perceptions of unfairness, not only toward themselves but also on behalf of others (Brosnan and de Waal 2014). This moral principle, often referred to as the “Golden Rule,” holds significance in all major religions. In Christianity, it is expressed as: *Do unto others as you would have them do unto you.*¹

In cultural anthropology, there has been a significant shift in perspective. Traditionally, “culture” was understood as uniquely human, consisting of our interpretations and human-to-human interactions. However, since the late 1980s, many anthropologists have begun to explore “cultures” as extending beyond the human. This marks a shift from studying solely social relations among humans, including their verbal communications, to an effort to examine the multitude of relationships that comprise an entire world. This movement is often referred to as “the ontological turn,” a term coined by anthropologist Eduardo Viveiros de Castro (Viveiros de Castro 2015). Simplifying somewhat, anthropology previously focused on the epistemological study of local epistemologies – essentially, understanding understandings. With the ontological turn, the focus expanded to encompass entire realities.

The story of Amala and Kamala challenged the scientific conception of “humanity” as an empirically and normatively unique phenomenon when it became known to social scientists from the 1930s onward. The diary chronicled the lives of two girls who crawled on all fours, howled at night, and exhibited exceptional olfactory and night vision abilities, while also struggling with digestion. They could not bear daylight and lacked knowledge of any human language.

One might imagine that this challenge could have led to an “ontological turn” in the sciences of the 1940s. That did not happen. Instead, the focus shifted to the truthfulness of the story itself. To understand how the boundary between humanity and other animals was maintained despite this empirical challenge, I will critically analyze the scientific reception of Singh’s diary from the 1940s to the present. Since truthfulness was a concern for scientists who read Singh’s *Diary of the Wolf-Children*, it remains a key issue for us as well.

This paper, then, extends beyond a purely epistemological analysis of the story’s reception to engage in an ontological discussion of human-wolf relationships. If we must historically acknowledge that the story is likely true, by and large, we must undertake some of the ontological work that scientists before us did not do.

1 The Bible, Matthew 7:12.

Thus, following the work of primatologists Brosnan and de Waal in their study of chimpanzee morality, this paper will explore the potential for a new moral order of life, focusing on humans and wolves as the two species in question.

In the first section of this paper, I will critically assess the interpretations of Singh's diary, examining its sources and evaluating its potential truthfulness. The issues at stake here are epistemological, and the method employed is standard historiography. In the second section, the methods become much more interdisciplinary, incorporating both biology and anthropology, with ontology as the focal point. I will address some of the methodological possibilities and challenges associated with this approach at the beginning of that section.

The reception of the story

Amala and Kamala were given various diagnoses when their story became known to the American public. The first came from a doctor in New York, who wrote a letter to the *New York Times* in 1927 after the story sensationally appeared in U.S. newspapers, well before Singh's diary was published.² The doctor confidently diagnosed the children with "microcephalic idiocy" – a term that translates to "small-headed idiocy." While "microcephaly" remains a medical diagnosis today, it is, of course, no longer associated with the term "idiocy."

This was a quite strange diagnose of Amala and Kamala. Microcephaly arises when the skull grows abnormally small, leaving insufficient space for the brain, which may then become damaged. The condition is recognizable by observing a person's head; the face appears normal, but the skull is undersized, indicating a possible developmental disability. No images of the two children displaying such a condition were published at the time in U.S. newspapers, nor did any reports mention "small heads."

We may never know how the doctor arrived at his diagnosis, but it is worth noting that in 1920s New York, William Henry Johnsen, aka *Zip the Pinhead*, had entertained large audiences for most of his long life. A prominent figure on Broadway and Long Island, Johnsen, of African descent, was famous for portraying "the missing link," the ape-man, bridging apes and the so-called "primitive people" of Africa for white audiences. His initial performances involved acting furiously while confined in a cage and playing a violin out of tune, embodying a hybrid of animal and man – half nature,

2 Herman B. Sheffield, in *New York Times*, July 17, 1927. The first major news report in western newspapers was on the front page of *New York Times*, October 22, 1926: "Two little 'wolf girls' in den with wolf cubs".

half civilization. To a white North American audience, Amala and Kamala inhabited the same space between “nature” and “culture”.

In 1938, a group of American and British researchers convened at *the wolf children symposium* (Maclean 1978, 249–53). They discussed how to publish Singh’s Diary. One of the researchers, anthropologist Robert Zingg, compiled questions from his peers and forwarded them to Joseph Singh. Singh’s responses were incorporated into the published diary, appearing partly as footnotes and partly within the six forewords (Singh and Zingg 1942).

These efforts to ensure the diary’s trustworthiness failed to convince its academic audience. After its publication in 1941, several scholars reviewed and commented upon the book (Goodwin 1941; Dennis 1941; Bergen Evans 1941; Gesell 1941; Robert M. Zingg 1941). The most thorough review was written by anthropologist Ashley Montagu, who questioned whether the two girls were “idiots or congenitally defective in any way?” (Montagu 1943) He concluded affirmatively, denying that they were socialized by wolves, yet he offered no formal diagnosis. Montagu speculated that the girls might have been abandoned by their parents but could not explain how they survived alone in the forest long enough to develop their unusual behaviors.

Ashley Montagu’s main reason for finding it unlikely that the kids could have lived among wolves is his lack of trust in Joseph Singh. He wrote:

The writer impresses me as a naïve but honest person who records his observations frankly, while even those which seem to belong to the realm of folklore rather than to that of sober fact read quite as convincingly as those which do not seem to be either a little east or a little west of the truth.

[And a bit further down in the text:]

. . . the facts in this book rests completely on the unsupported testimony of one person, Mr. Singh. Now, however much, and however sympathetically, we might be inclined to put our trust in Mr. Singh’s word, no scientist can accept as true any statement of a fellow-scientist or the statement of anyone else until it has been independently confirmed by others (Montagu 1943, 468).

It is true that one researcher’s observations are typically insufficient to establish facts. Yet, Montagu’s own discipline, cultural anthropology, is one of the few disciplines where observations from one person are indeed accepted as factual. Field reports from The Trobriand Islands by anthropologist Bronislaw Malinowski – Montagu’s teacher – were instrumental in establishing qualitative fieldwork as a scientific method but were not

independently confirmed by others.

Montagu, who did not question Malinowski's observational reports, was dismissive towards Joseph Singh, an Indian priest. The anthropologist went far in suggesting that Singh could not differentiate fact from fantasy, even though Singh's narrative possessed empirical grounding at least as solid as Malinowski's observations of the Trobriand Islanders.

I can only note that the primary difference between Malinowski and Singh, in terms of "credibility," was that Malinowski was a citizen of the British Empire, while Singh was one of its subjects.

In 1951 the American sociologist William Ogburn ventured into West Bengal, intent on investigating the veracity of the "wolf children-story" – perhaps an unexpected endeavor for a retired statistician who had once presided over the American Sociological Association and advised President Herbert Hoover. Ogburn had no experience of traveling on fieldwork in a country where one does not know the language and could only confirm the existence of the peculiar children, but not if they had lived among wolves. Rather vaguely he takes his inability to find proof of their possible lives with wolves to mean that they *could* not have lived among them (Ogburn and Bose 1959, 161).

The major outcome of Ogburn's report was a paper by psychologist Bruno Bettelheim. Bettelheim took as a premise that sociologist Ogburn had proved that Amala and Kamala had lived, but not among wolves. Based on Singh's diary, Bettelheim concluded that the children did not behave like "wolf children," but suffered from what at the time was called *infantile autism*.

Amala and Kamala, Bettelheim reasoned, had been left in the forest to die because they had a developmental disorder. In the first place, then, their developmental disorder was entirely created because their parents, notably their mothers, had failed to give adequate social response to their child.

With this, Bettelheim became a major contributor to the "refrigerator hypothesis" of autism, a condition allegedly created by "cold mothers" (Bettelheim 1959, 467). This theory has later been thoroughly criticized, not only as wrong, but as an assault on the mothers who received the diagnosis, adding insult to injury (Breggin 1991).

Drawing upon Bettelheim's paper Margaret Mead concluded in *Encyclopedia Britannica* that the story was a myth:

All this data, taken together with our growing knowledge about the species-characteristic behaviour of animals, finally dispels the old myth. Wolf children are to be understood as children who were abandoned and who survived for weeks or months before they were found, just in time (Margaret Mead 1968).

New proofs

In 1974 the young Scottish author Charles Maclean set out to investigate the whole case of Amala and Kamala and wrote the book *Wolf Children: Fact or Fantasy*. He based his book on two journeys. First, he traveled to the U.S. to see what he could find about the researchers who corresponded with Joseph Singh in the 1930s. His dedicated pursuit led to the discovery of a repository of letters between various researchers and Singh, neatly tucked away in a forgotten box in the attic of the Gesell Institute of Child Development's library in New Haven. The institute has its name after psychologist Arnold Gesell, and Gesell played a major role in the work to have Singh's diary published. The discovered letters are now registered at the Library of Congress (Ames, Ilg, and Zingg, n.d.).

Subsequently, Maclean went to Midnapore in West Bengal, seeking individuals who might have met Amala, Kamala, Joseph, and Rachel. His quest yielded substantial results. Combined with the letters from the scientists and several missionary reports written by Joseph Singh, Maclean concluded that the story most likely was true. Thus, from 1975 and onward, the fact-checked story regained momentum in academic discourses (Maturana and Varela 1987; Benzaquén 2001).

However, in 2007 Serge Aroles published a book where he claimed that the chronicle of Amala and Kamala was a hoax woven by Joseph Singh to fund his on-the-verge-of-insolvency orphanage. The surgeon asserted that Charles Maclean brought no new witnesses to the case (Aroles 2007, 16).

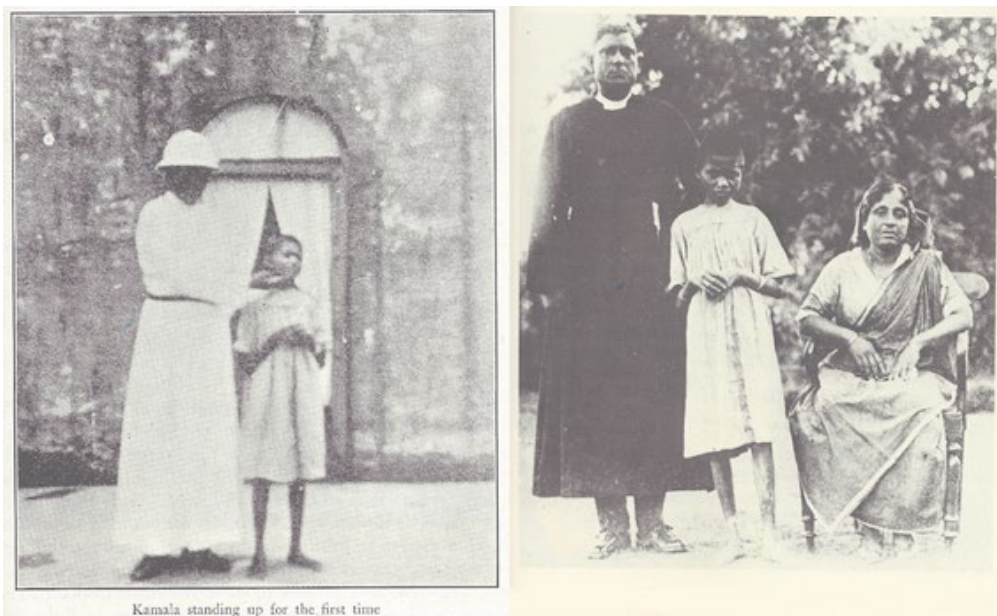
Challenged by this enigma, I posed the question: Had Maclean been deceived, or was he an accomplice to a fabricated tale for commercial appeal? I tracked down the right Charles Maclean in Scotland, called him and presented my case. It turned out that he had kept all his fieldnotes from his trip to India, stuffed away in his attic. He photocopied the entire stack and sent it to me. Included was 101 handwritten pages of interviews, in English – edited on basis of the first fieldnotes. Together with a translator, Maclean interviewed 41 people. Some of them had known Joseph and Rachel well, as young priest-colleagues in Midnapore's Christian community. Others, being direct relatives (a daughter and a daughter-in-law were alive in 1975), co-inhabitants of the orphanage, or casual observers of the girls, had personally met Amala and Kamala. Seventeen out of forty-one interviewees had had direct contact with the girls (For access to all the interviews, see Risan 2024).

The central question about Amala and Kamala has always been whether they were raised by wolves or if they suffered from some kind of developmental disorder.

Delving into Maclean's interviews, I discerned that the accounts of five individuals – four from Maclean's interviews and one from study in 1951 (Ogburn and Bose 1959, 151) – collectively substantiate Joseph Singh's description of the capture of the two kids. Their accounts complement Singh's narrative with fresh elements, confirming the events and the attendees. Maclean's interviewees lived close to where the children were found (Denganalia, Odisha). Their native language was most likely Santali, none of them spoke English, and the English Diary of Joseph Singh has not been translated to any other Indian language (Risan 2022, Chapter 12).

Some memories of the people Maclean interviewed would most certainly be at odds with each other, fifty years later. But in a remarkable way, the story of five independent witnesses supports and supplements the story told by Joseph Singh. Maclean's 41 interviews also give us valuable insight into the life of Amala, Kamala, Rachel, and Joseph Singh. I will return to this.

Buying and translating part Surgeon Aroles' book, I had expected to find some proofs. For example, the surgeon claims that the pictures of Kamala shows another girl than the one picture taken of her in an Indian newspaper, in 1926. Did the surgeon provide some forensic investigation that could show that the pictures in the Diary and the one in the newspaper must have been of two different persons? No, no proofs are provided, and no pictures are reproduced and compared. He just claims that they are different.



Kamala standing up for the first time

Images 1 & 2: The left image is from the diary, 1923, with the original caption. All images from the diary: Copyright Centennial Museum at the University of Texas at El Paso. Reprinted with permission. The right image was published in *The Statesman*, October 16, 1926, and shows Joseph, Kamala and Rachel. The similarity seems more striking than the dissimilarity, but Aroles claims that they clearly picture two different girls.

The French book epitomize what could be called “bullshitting,” amounting to a brash defamation of Joseph Singh. Without any factual support, Aroles brands Singh as a liar (Aroles 2007, 114) and employs denigrating terms such as “swine” or “bastard” (“un salaud”) (Aroles 2007, 122).

Like many before him, Aroles diagnoses the two kids. Amala and Kamala, he claims, suffered from Rett syndrome. This is a congenital disorder that was separated from the general “autism” category in 1966, and one of the symptoms is microcephaly, small heads.

There is still nothing in the physical appearance of Amala and Kamala that suggest such a diagnosis, and you have to do a lot of sherry picking in Singh’s Diary to find selected examples of behavior that suggest that the girls suffered from Rett syndrome. You will find much more examples that suggest that the girls seem to have lived a long time among some nocturnal, meat-eating animals.

To be ‘sick’ can refer to a bodily condition, but the term is also frequently used to express a moral judgment on phenomena that fall between well-established categories. The concept of sickness exists “betwixt and between,” and is thus an epistemological result of our categorization abilities, not an inherent property of the world. The reception of the story of Amala and Kamala is a series of ‘diagnoses’ attempting to address the categorically impossible meeting between humans and wolves, culture and nature.

Ideological biases of the time

Why has it been so difficult to accept that Singh’s diary might largely be true? In the reception of the story, traces of racism are evident, but more notably, the speciesism inherent in a Cartesian, Christian culture. Let’s begin with speciesism and what we might term the great moral order of animal life – an order that both connects and separates humans from other animals. This moral order was significantly reaffirmed both politically and ontologically during the 1940s and 1950s.

Humans

In the 1940s the two cultural anthropologists Margaret Mead and Ashley Montagu were important in an attempt to redefine what it meant to be “civilized.” They both worked to show how “culture,” divorced from the notion of “race,” shaped diverse yet equal human societies. In her seminal work, *Coming of Age in Samoa*, Mead frequently employs the term “Samoan civilization” rather than “Samoan culture” (Mead 2001) to

emphasize the sophistication of Samoan society, particularly in their approach to the sexuality of young women. Her aim was to challenge the American notion of “primitive cultures”, combating US and European racism, and showing that “we” could learn something from “them”.

Ashley Montagu also contributed to the fight against racism. In 1952, he played an important role in the UNESCO statement *The Race Concept: Results of an Inquiry*. As the rapporteur and final editor, responsible for incorporating feedback from scholarly peers, Montagu significantly shaped the document that was pivotal in rebutting scientific racism (UNESCO 1952, 13).

UNESCO firmly emphasized that variations among “human races” (they do use the term, without quotes), aside from superficial color differences, are culturally determined. Human nature is one. In the grim aftermath of the Holocaust, amid the burgeoning civil rights movement in the US and the fall of the West European colonies, it became clear to most people with education that Montagu and UNESCO encapsulated an undeniable truth, both morally and empirically. Mead and Montagu advocated a world view that remains praiseworthy and relevant today. Yet, it created its own set of problems.

During the 1950s, another pivotal discovery emerged within the life sciences, namely the discovery of the double helix and the genetic code. Molecular biology was born. This breakthrough provided a solid empirical foundation for many of the established concepts in biology as of 1953, including Darwinian evolution, the principle of “survival of the fittest,” and the notion, ascribed to Darwin, that evolution occur “as the result of blind chance.” A major novelty of the new Darwinism was dubbed *the central dogma of molecular biology* (Cobb 2017). It stated that all information flows from genes to proteins, not the other way around. Genetic determinism was established as an undeniable fact of Darwinism.

Now, these two truths – the unification of the ‘human race’ and Darwinian molecular biology – presented a conundrum for many scholars, especially biologists and anthropologists: How was it possible to accept that humankind was both a result of a “blind survival of the fittest,” and universally prone to act “civilized”? The two truths needed a common ground, and a resolution to this quandary was found. Here it is formulated by biologists Ernst Mayr in 1963:

We should not deny that there may have been an improvement of the brain without an expansion of the skull [in the last 100,000 years], but there is no real evidence of this. Something must have happened to weaken the selective pressure drastically. We cannot escape the conclusion that man’s evolution towards manness suddenly came to a halt (Mayr 1963, 652–53).

The purported cessation of selective pressure on humans is attributed to the rise of our unique human culture, which effectively civilized us. A cultural evolution unique to humans supplanted natural evolution. Thus, “civilization” arose from a nature “red in tooth a claw”, as the poet Tennyson famously imagined nature in the 1850s. This theory originated in the late 18th century, articulated by cultural anthropologist Franz Boas (Lewis 2001 see section “The Influence of Darwin”), and biologist Alfred Russel Wallace (Lindholm 2022). It has been treated as a fact by many scholars up until recently, e.g. by biologists Steven Jay Gould (Gould 2000) and historian Noel Harari (Harari 2014).

Given this temporal division – human nature evolved before we became cultural – it became possible to accept both the cultural determinism of cultural anthropology and the genetic determinism of Darwinian molecular biology, and to study these two domains of reality separately.

Scholars in the history of science are aware of C. P. Snow’s notion of “the two cultures,” referring to the unfortunate mutual unfamiliarity between the arts and the sciences. When it comes to biology and cultural anthropology it is crucial to acknowledge that this divide wasn’t solely shaped by ignorance, but by a willed division – into Nature and Culture – of both reality and academic labor.

Wolves

In the 1940s, wolves too were incorporated into this scientific moral order of life. Ethology, the study of animal behavior, had emerged as its own sub-discipline of biology during the 1930s. In 1947, Rudolf Schenkel’s pioneering ethological study of wolves was published. He claimed to have found solid empirical evidence for a violent hierarchy within wolf packs, particularly among males – you were either the one to bite or the one to be bitten (Schenkel 1947). The ambition of ethology, from its very foundation, was to study animal instincts. This, according to one of its founders, Konrad Lorenz, was thought to be sufficient to understand animal behavior (Pryor and Lorenz 2000). Schenkel followed this tradition and saw the violent hierarchy of wolves as a product of their innate instincts.

Some social scientists, including those discussing the case of Amala and Kamala, contemplated wolf instincts from comparable viewpoints. Robert Zingg wrote the following in a leading anthropological journal:

Human nature transcends animal nature in its social need for participation in groups. The so-called gregarious animals do not exhibit this social participation because they have no culture (Zingg 1942, 82).

It seems like Zingg, who believed in the story of Amala and Kamala, thought that the two girls had learned to live like wolves, while this way of life was instinct-driven for the wolves themselves. After World War II, then, wolf packs came to epitomize a Darwinian nature “red in tooth and claw,” even if, as Margaret Mead noted, “motherly instincts” could soften their family lives (Mead and Bettelheim 1959).

Humanity on the other hand – perhaps as an act of wishful thinking, considering its recent atrocities – came to be seen as a mammal unique in its capacity to create “civilizations,” transcending the primal laws of nature.

The racism and sexism of the case

There is a troubling irony in the academic handling of Joseph Singh’s diary: The two anthropologists who were prominent figures in challenging scientific racism, Mead and Montagu, also engaged in questionable characterizations of Singh. Montagu called him “naïve but honest”, and Mead, in agreeing with Bettelheim, accepted that Singh was a pathological “narcissist” to the extent that he fabricated the story about “wolf children” (Bettelheim 1959; Mead and Bettelheim 1959). It is evident that such disparaging descriptions align with a North American colonial mindset.

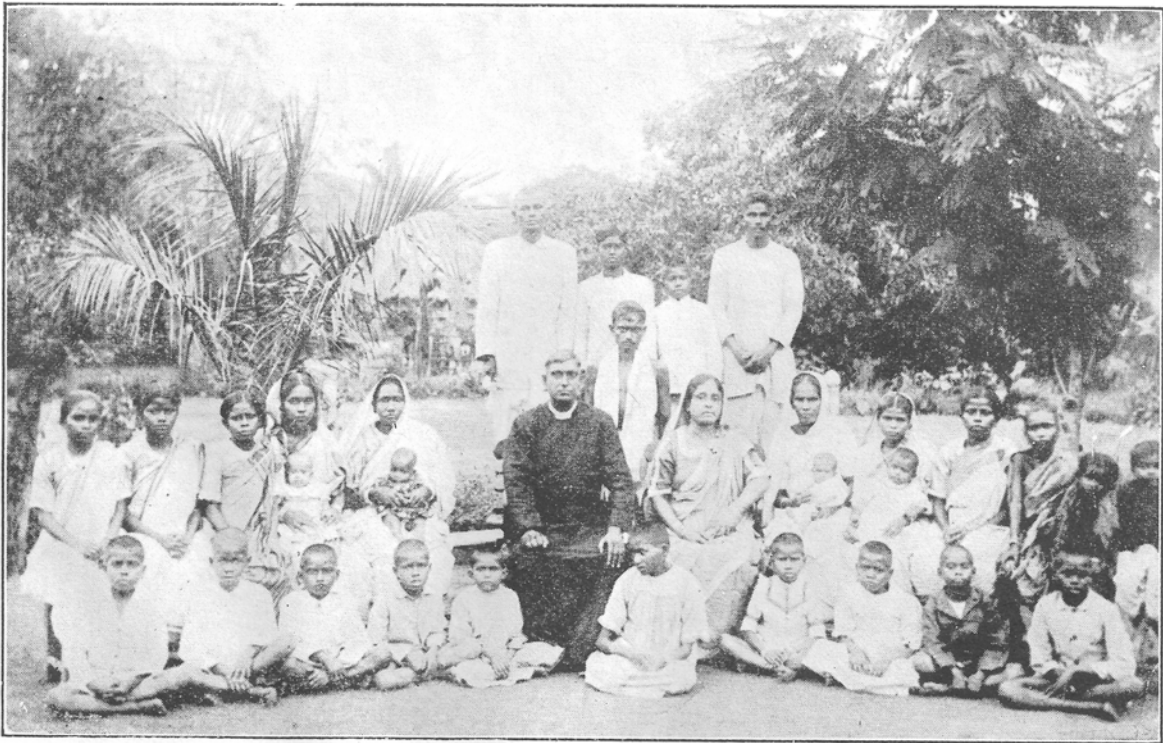
If Joseph Singh was made small by those who criticized him, the treatment of Rachel Singh was even more stunning. In the entire reception history of Singh’s story (both before and after the publication of the Diary), no one has ever asked a single question about Rachel Singh, nor asked her a question. Who was Rachel Singh? How did she shape the lives of Amala and Kamala, and the history about them? How might understanding her provide insight into the tale of Amala and Kamala, including its possible truthfulness? Those who believed in the story, believed in Joseph. Those who rejected it, disbelieved him. She was effectively silenced.

I will tell her story, but I will do that as part of the next section, where I explore aspects of the ontology of human-wolves interactions.

Humans, wolves and how they may interact

Rachel Singh and The Home

The orphanage – *The Home* – where Amala and Kamala were brought was also the residence of Rachel Singh, her three children, and her husband, Joseph Singh. In the early 1920s this institution served as *the home* or workplace to approximately 30 people (see image 3). Joseph worked outside the orphanage, first as a headmaster at a Christian school, then as a missionary, spending many months each year traveling, and eventually, progressively, served as the local church's priest. Rachel Singh managed the business, while also being a mother and a wife.



Personnel of the Midnapore Orphanage: The Wolf-Child Kamala at the feet of Rev. and Mrs. Singh

Image 3: *The Home*. Its inhabitants and employees sometime in the mid-1920s. Joseph and Rachel in the middle, Kamala between them.

We know some fragments of her early life, primarily gleaned from interviews conducted by Maclean with her daughter, her daughter-in-law, the son of the family physician of *The Home*, and a priest colleague of Joseph Singh.³ In addition, we know her through

3 Rachel's eldest daughter Preeti Lota Jana (interviewed 19 May 1975), her daughter-in-law M.M. Singh (interviewed 29 March 1975), the son of the family physician at *The Home*, K. C. Sarbadhicari (interviewed 29 March 1975), and the priest Lionel Hewitt (interviewed 4 May 1975).

the diary of Joseph Singh. Many of his accounts of the two girls also shed light on Rachel's work.

Rachel was born into the barber caste, one of India's lower castes. Her father died when she was young. The mother had to move in with her brother, and Rachel and her two sisters grew up with her uncle's family. The family was Christian, which explains why Rachel was called Rachel. Rachel moved to Calcutta and probably got a job at the University of Calcutta. It's unlikely she was a student there, given her status as a low-caste woman. According to the priest Lionel Hewitt, Rachel was "intelligent but without education" (Lionel Hewitt, interview).

At the university Rachel met Joseph, an English student. They married, but the union had a tumultuous beginning due to opposition from both their families. Joseph came from a high-caste family, they were warriors, and Joseph's mother refused him to marry a low-caste woman. Rachel's family also opposed the marriage. Joseph was a dark-skinned Indian, and Rachel's family hoped for a lighter-skinned suitor. However, the couple defied both families' bans, and they chose each other rather than tradition. The first two years of their marriage they lived in a town where neither Joseph nor Rachel had relatives. Lionel Hewitt emphasized that it was a "love wedding".

After some years of marriage, Joseph's family's perspectives softened. In 1906, they invited him back to Midnapore to take up the position of headmaster at the mission school founded by his late grandfather, who passed away in 1901. Upon his return, Rachel was accepted as their daughter-in-law. The couple bought a somewhat neglected small farm in Midnapore, which featured a 3.5-acre fruit and vegetable garden surrounded by fencing, and with housing both for animals and humans. Here the couple not only established their own home and had two more children but also founded the orphanage. Rachel had the main responsibility for organizing and running this institution.

Many of the children who grew up in *The Home* had lost everything they had or never owned anything at all. Some infants even appeared on the stairs early in the morning, waddled into rags and left to be found. (Preeti Lota Jana, interview.) Others were helped out of child prostitution. As part of *The Home* Rachel and Joseph also established *Brothers of the Poor*. (Lionel Hewitt, interview.) This was a charitable association dedicated to assisting lepers, cholera victims, prostitutes, and untouchables by offering them shelter at *The Home*.

Rachel's major challenge

In Rachel's life of mixed business and family life, the arrival of the two wolf children – Amala and Kamala – presented an extraordinary challenge. The weeks that followed the capture of the girls were really tough for them all. Both children fell ill, and Rachel, with the help of Joseph, devoted intense efforts to sustain their lives. For those interested in the details, Joseph meticulously chronicled these events (Singh and Zingg 1942, chapter one and two).⁴

A month following their arrival, Rachel commenced the delicate process of socializing the two girls, even if they spent most of their daytime hiding away in the darkest corner of the house, and woke up when the sunset, often with haunting howls described in the diary as being “neither human nor animal.”

The fundamental mission of *The Home* was to socialize the kids to become viable members of the Christian Indian society of Midnapore. For the female residents, this objective included preparing them for marriage and integration into a household economy. Joseph's extensive 120-page diary predominantly recounts how the two girls slowly did their best to embrace a human way of life. Rachel's dedication to guiding the girls through this transformative journey was astounding.⁵

The first successful attempt to socialize with Amala and Kamala was through massage, a practice commonplace among Indian women when caring for infants. Before long, the girls became receptive to having their legs and arms systematically massaged. Rachel started the massage as an attempt to loosen their hip- and knee joints. From the very beginning she did that as a social event. In the relaxing atmosphere of the morning massage, she invited the other toddlers to come and sit next to Amala and Kamala, prattling with them, and the two girls accepted that close presence of the small kids (Singh 1942, 49–50).

Rachel's patient endeavors to coax Amala and Kamala towards human social interaction gradually yielded results. By the summer of 1921, the girls began to approach Rachel for comfort, with Amala taking the lead followed by Kamala.

One major issue for the girls, also giving the entire household a challenge, was their persistent digestive issues. Frequent episodes of severe diarrhea – sometimes accompanied by worm infestations – were common. They would urinate and defecate seemingly indiscriminately. It was after one such serious worm infection that the youngest

4 The Diary is also available online, see <https://www.midnapore.in/wolf-children-of-midnapore/wolf-children-of-midnapore1.html> (visited 14. August 2023).

5 The story is it is fully covered in my book, see (Risan 2022).

girl, Amala, died, short of a year after she was found. She was diagnosed with nephritis (inflammation of the kidneys) by the family physician, and the death certificate is reprinted in the diary.

Amala's demise sent Kamala into a depression and almost complete isolation. However, in February 1922 Rachel embarked on a systematic effort to get Kamala to stand upright. The challenge was not only to make her walk on two feet. Kamala struggled to fully extend her knee and hip joints, always adopting a partly curled posture, whether walking on all fours or lying on her side with her knees pulled up towards her chest. The first goal, therefore, was to enable her to stretch out.

Once again, Rachel employed a technique where the other kids were involved in the exercises to learn Kamala to stretch out and, slowly to rise up. Kamala was invited to adopt human behavior by involving her in playful activities with younger children, designed – with sweet biscuits as rewards – to be both socially and personally pleasing.

Joseph chronicles these exercises in great detail (Singh 1942, chapter 12), and we learn how Rachel's approach consistently maintained respect for Kamala's individuality. Kamala was always encouraged to make her own choices. Additionally, physical training frequently incorporated elements of social learning, letting Kamala observe her peers and mimic their behaviors.

Did Joseph and Rachel ever force Kamala (and Amala) to behave "properly"? Yes, at least with respect to nakedness: The two girls were not allowed to roam about naked. For at least the first year, they were made to wear a loin cloth fastened around their waist and crotch "in such a fashion," Singh writes, "that they could not open it out" (Singh 1942, 31) This cloth certainly also served as a diaper for some time. Cleaning the girls, especially the first year, must have been a daily job, and one that involved some forceful handling, since the girls resisted all contact with water.

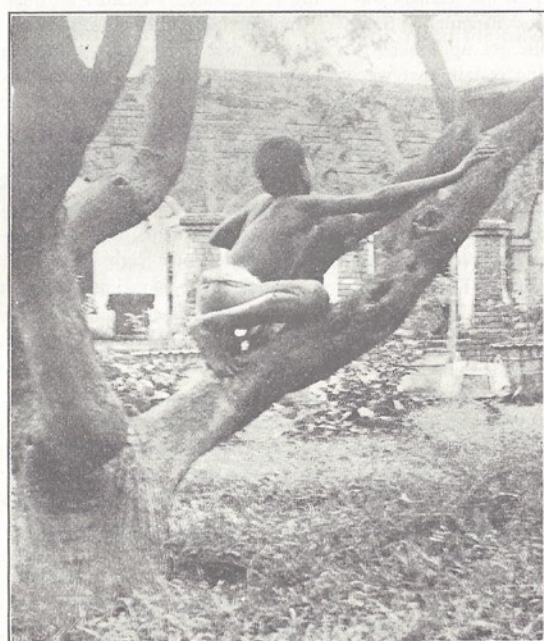
Over time, however, a loving bond formed between Kamala and Rachel, and Kamala started to embrace a human way of life. Kamala was lured into becoming bipedal in playful social settings, together with the younger children. As a result, the following pattern in her bipedalism emerged.

The first documentation of her standing upright – albeit with a helping hand – is a picture from 1924 (image 1), and the first documentation of her walking is from 1926 (image 4). This walk had two apparent characteristics: it was not smooth and "natural", and it reflected how it was learned in an intensely social context. Here is an example:

January 29, 1926:

The change of clothes in the morning and evening was a signal for her to go out for a stroll in the maidan, like the babies. She used to be very glad at this time to accompany them. In these strolls, she sometimes walked on her two legs, and sometimes when she wanted to go faster, she would go either on her knees and hands, or on all fours (Singh 1942, 92).

Several reports of Kamala's walking in the following years suggested that she used bipedalism as a way to convey her connection with others, such as when walking to church on Sundays, rather than primarily as a method of locomotion. Bankira Chaulia, who resided at *The Home* in the 1920s, told Maclean in 1975: "She could walk, but not very naturally and her hands hung straight down in a crooked way" (Bankira Chaulia, interview 1. April 1975). Comparing the images above with the one below, gives us a glimpse of Kamala's bodily capabilities, because when climbing a tree, she seems to be in good shape.



Kamala riding on a tree



Kamala walking by herself

Images 4 & 5: Right hand side: Kamala was reported walking on two for the first time in January 1926. Left hand side: Kamala probably in March 1922 (Singh is a bit inaccurate with the dating of his pictures), a photo hinting at her physical capabilities when not standing upright or walking. Original captions.

We don't know how well adapted to a human way of life Kamala might have become. In November 1929, Kamala fell ill, died and was diagnosed with a break-down of her kidneys.

Kamala's language developed more "naturally", but only very rudimentary, and was not a result of any systematic training. In December 1924 Joseph compiled a list of 40 simplified one-syllable version of Bengali words. In 1929, he gives two examples of how she made three-word sentences, with her simplified words, albeit not following Bengali grammar. (Singh 1942, 112–13.)

Nonetheless, it was Kamala's burgeoning will to connect that Joseph Singh heralded as her most commendable progress. He records the following as a particularly proud moment, one that I also will return to below:

December 3, 1927:

Kamala learned to identify herself with the children. On the third of December 1927, she was standing at the dining table when the table was being laid for tea. Mrs. Singh, finding her there, gave her a biscuit. She ran to the children, and all the children flocked round the table, expecting to get a biscuit each. Mrs. Singh scolded them for thus coming in before the tea bell rang, and one by one they all left the dining room. Kamala, finding that they had gone away without a biscuit, put her biscuit on the table and went away. The biscuit lay there till the tea bell rang. After the bell, all the children congregated and were given two biscuits each. Kamala took only one biscuit from Mrs. Singh and picked up the one she had left on the table. (Singh 1942, 110–12.)

A multispecies ethnography of wolves and humans

Ethnography is normally done by means of participant observation. It is predicated upon gaining the trust and confidence of the research subjects, and the goal is insight into local knowledge, even if all ethnographic meetings will also have to deal with the meeting as such. The challenge of "multispecies ethnography" is to do something similar when not all the subjects are human beings.

French philosopher Vinciane Despret has examined this methodological change in the field of ethology over the last three decades (Despret 2009). There is now a growing number of researchers on farm animals that adopts methodologies akin to "participant observation." In such studies, ethologists remain cognizant of their influence on the animals while immersed in the animal group. Similarly, some anthropologists, including myself, have learned the basics of farm animals' sign language as a means of conducting ethnographic research among them. We may never get close to

“feeling like a cow,” but emphatic identification with animals has proved productive (Hartigan 2021; Risan 2003).

Carrying out participant observation among wolves poses an even greater challenge. Domesticated farm animals are more receptive to the inclusion of a human being. Wolves, however, have all learned the deadly threat of human beings. Nevertheless, studies approximating participant observation among wolves have been conducted, and I am familiar with three such inquiries. Together they profoundly change our understanding of the social life of wolves.

In his study of Alaskan Grey wolves, Gordon Haber examined a large, extended wolf family, which he referred to as the Toklat pack. During his 40-years of fieldwork, he noted behaviors and ways of life unique to this group, which persisted across generations. Thus, he essentially studied *Toklat culture*, even if he did not explicitly label it as such (Haber and Holleman 2013).

The peculiarities of the Toklat culture become especially recognizable when compared with those of Grey wolves in Belarus, studied by biologist Vadim Sidorovich and photographer Irina Rotenko (Sidorovich and Rotenko 2019). I will focus only on a small selection of these disparities, specifically relating to their family structures.

In Alaska only the “alpha couple” (Haber’s term) mated each other, monogamously over many years, and the other adult wolves fully accepted this. They entire group protected, raised up and fed the young ones, to the extent that several females began lactating in order to feed the pups. Thus, a two-year-old sister of the newborn pups could start lactating and assist their shared mother in feeding them.

In the Belarus pack bringing up the young ones is equally collective, but also systematically different.⁶ In Belarus, the pack was led by a single wolf, which could be either male or female. When the pack was led by a female, up to three females (including the pack leader) could give birth to pups each spring, fathered by one or more males. The mating partners were not monogamous couples over time (as an “alpha couple”). Moreover, the litters born one spring did not live separately in three dens. Mothers shifted the pups between the dens, resulting in mixed litters. Consequently, the mothers, staying in their own den, nursed a blend of pups.

⁶ Sidorovich and Rotenko summed up their research on wolves and lynxes in Sidorovich and Rotenko 2019 (Sidorovich and Rotenko 2019). Newer research is published online, at <https://sidorovich.blog/>, and most of their findings on the social organization of the wolf pack they’ve studied is presented here.

Male leaders of the pack also allowed multiple females to give birth the same year also in hard times, but then only with themselves as the father.⁷

Sidorovich and Rotenko do not theorize “wolf culture” to explain the differences in the pack organization of the Alaska and the Belarus Grey Wolves. They merely document that the assumed general existence of one alfa couple is wrong. I want to suggest that the differences between the packs are cultural, seeing how the extended family groups among Grey Wolves in Alaska and Belarus exhibit a degree of variation that resembles the diversity of social organization found in among varying ethnic groups of humans.

I base that interpretation on the fact that both Haber and Sidorovich/Rotenko are very thorough in their long-time empirical investigations of the same species. There is little reason to think that one of them is wrong in describing an imagined “one nature” of *canis lupus*, and good reasons to think they document some of the multiplicity of its cultures.

We might, however, question the extent to which the difference in family organization under the leadership of female vs. male wolves in Belarus constitutes a cultural pattern, or if it is as much a result of a particular individual constellation. After all, Sidorovich and Rotenko only observed this family pattern over a period with one female wolf – *Torn Ear* – as the leader, that led the pack in two periods, with a male leader in between. Was she just “liberal-minded” as a personal trait, in allowing other females to reproduce?

The interplay between cultural adaptability and individual personality is complex among humans – for instance, a good leader can significantly alter an organization’s culture. Similarly, culture, norms, and individuality seem to be deeply entangled in wolf packs. The third extended, qualitative fieldwork among wolves shows this.

In 1991 Jim and Jamie Dutcher moved in with a wolf pack (Dutcher and Dutcher 2013). They could do that because they fed the first pups, which they got from zoological gardens. The two human beings then became an integral part of the extended wolf family.

This blended family, including the Dutchers in a large tent, resided at the foot of the Sawtooth Mountains for six years. Jim and Jamie are themselves examples of the flexibility of wolves’ social organization. The two people became a second alpha-couple of the pack, serving as a sort of “grandmother” and “grandfather” of the pack. This status

⁷ The interpretation here is based on recent findings presented on Sidorovich’s blog, <https://sidorovich.blog/>.

was confirmed every morning. When the wolves woke up, the lower ranks wolves all recognized the status of the alpha couple by licking their nose. The alpha wolves did not lick back. When the two human beings came out of their tent to join the pack, all the wolves – including the alpha couple – took turn in licking the faces of the two people.

The Dutchers were good at observing the individual differences among the wolves, and to see how those individualities composed a particular community. This community was defined by more than general notions like “motherly care” and “hierarchical structure”.

Let us begin with the second ranged male wolf, Matsi. When the first litter was born in the pack, and not raised by Jim and Jamie, Matsi took the role as the “responsible uncle” of the pups, attending the youngsters, thus making sure that the mother wolf got some time of her own, when she needed a rest. Another male, *Amani*, took the role as the “playful uncle,” doing all he could just to play with the pups, loving to have them crawl all over him.

The Sawtooth pack – but not the Toklat pack or the wolves in Belarus – also had two victims of bullying, two underdogs, “omegas”, one male and, to a lesser extent, one female. Here is, briefly, the story of the male omega: By the end of the six years, the pack had five adult male wolves. There was the alpha male, Kamots; the beta male, Matsi; two “in-betweens,” *Amani* and *Motomo*; and the omega wolf, *Lakota*.

The two in-between male wolves could be rough on Lakota, sometimes biting him so hard that he was wounded. At these incidents, Matsi would often intervene to protect Lakota, forcing the two bullies away. As this developed, Lakota and Matsi became best friends. They spent a lot of time together and always slept close to each other. The two in-between wolves steadily tried to bully Lakota, but Matsi stood up for him.

Matsi did not accept the wrongs done against Lakota. He worked to prevent the pain of someone else, without being in the same position himself. There is no reason to believe that the difference between Matsi and the two bullies was one of a universal “instinct”. It looks like a choice, a moral choice.

The Golden rule and a new moral order of life

Concluding this paper, I will discuss the general possibility of non-human animals doing good. Why would an animal adopt another animal, sometimes even its possible prey? When stories about animal adoption capture media attention, they often appear as sensational paradoxes, seemingly contradictory to a world governed by Darwinian

competition. This “paradox”, however, stems from a specific interpretation of natural history – one that we may have gotten wrong.

Margaret Mead, we remember, wrote that “our growing knowledge about the species-characteristic behaviour of animals” indicated that Amala and Kamala could not have been raised by wolves (Margaret Mead 1968). That knowledge has changed. We now know that animals have their own cultural traditions, and with the work of Brosnan and de Waal we have a compelling reason to reconsider the moral order of animals: Chimpanzees can act according to the Golden Rule, not accepting unfairness towards others (Brosnan and de Waal 2014).

Moreover, I believe that thinking with these primatologists can take us even further: Brosnan and de Waal distinguish between what they call *first* and *second order fairness*. By first order fairness they mean the response of someone who feels that “I have been treated unfairly.” Second order fairness is the response of someone who feels that “You have been treated unfairly.”

By formulating the golden rule as “second order,” they suggest a particular hierarchy where this morality is “higher” or “more recent” than the lower selfishness of first order fairness. “More complex” (Brosnan and de Waal 2014, 3) is the term they use, and we know that complexity has been increasing through natural history. This implies that something akin to “civilization,” now including non-human primates, has evolved out of a lower and more selfish nature, “red in tooth and claw” as Tennyson put it long ago.

Tennyson’s poem together with Adam Smith’s political philosophy are famous examples of how the primacy of competition over cooperation was moral and political order before Darwin naturalized it as an evolutionary mechanism.

We might therefore question the natural history behind this political philosophy: Is it really the case that the Golden rule, the ability to act “civilized” if you will, rose out of an earlier, simpler form of selfish nature? I don’t think so.

Firstly, considering phylogenetic evolution or natural history: Researchers on the origin of life tend to agree that the molecular processes and elements of prebiotic life, at the bottom of the sea almost four billion years ago, cooperated before they competed. They had to cooperate in order to make up the first organism that could become a “self” to compete and practice “selfishness” (Smith and Morowitz 2016). Moreover, the onset of life and biological evolution was not scarcity, but abundance – an abundance of energy and matter given by the Earth itself, coming from its interior and still sipping out of black and white smokers at the bottom of the ocean. Given this abundance, the molecular constituents of life self-organized to become life-like. They did so by being necessary parts of a self-organized whole, that is by cooperating (Shock, McCollom, and Schulte 1998).

Secondly, consider ontogenetic development, the growth of an individual animal. Every bird and mammal that wakes up to parents that feed them, is confronted with a first existential experience: There is someone there for you who gives unconditionally, someone how feeds you before they feed themselves.

Thus, cooperation has preceded competition in natural history, and unconditional love precedes selfishness as something to experience, to the vast majority of mammals and birds. Might it be, then, that something akin to second order fairness preceded first order fairness?

The life of Kamala offers a story for such an exploration. Leaving the one biscuit on the table and only taking one more when the other kids got two biscuits from Rachel, was an archetypal act of second order fairness. So was the doings of the wolf *Matsi*, when he did not accept the wrongdoings against Lakota. Then, we might ask: Did Kamala learn this moral rule from Rachel, or could she have drawn upon experiences she once had in the wolf hive? Was she raised by wolves to become a moral critter among human beings?

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