

The Hundreth Monkey Revisited

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Most people are familiar with the story of "The Hundredth Monkey." Lyall Watson first told it in "Lifetide," but its most widely-known version is in the book "The Hundredth Monkey" by Ken Keyes. The Japanese monkey, *Macaca fuscata*, had been observed in the wild for a period of over 30 years. One of their favorite foods was the sweet potato. In 1952, an 18-month-old female named Imo on the island of Koshima found she could solve the annoying problem of sand on her potatoes by washing them before eating them. She taught this trick to her mother. Her playmates also learned this new way from her and they taught their mothers. Before the eyes of the scientists, this cultural innovation was gradually picked up by various monkeys, and by 1958 all of the young monkeys on the island had learned to wash sandy sweet potatoes to make them more palatable. In the autumn of 1958, a critical number of Koshima monkeys, estimated at 99, were washing sweet potatoes, and on the day that the hundredth monkey learned to wash potatoes, something startling took place - the habit of washing sweet potatoes jumped over the sea and instantly colonies of monkeys on other islands and on the mainland began washing their sweet potatoes as well!

Elaine Myers, a writer living in Washington State, found the premise - that an ideological breakthrough occurs when enough individuals in a population adopt a new idea or behavior allowing this new awareness to be communicated directly from mind to mind without the connection of external experience - to be very appealing and believable. The concept of Jung's collective unconscious, and the biologists' morphogenetic fields offer parallel stories that help strengthen this strand of our imaginations. The more widespread these fields are, the greater their influence on the physical level of reality. We sometimes refer to the hundredth monkey phenomenon

when we need supporting evidence of the possibility of an optimistic scenario for the future, such as a future based on peace instead of war - if enough of us would just think the right thoughts. However, when Myers went back to the original research cited by Watson, she did not find the same story that he tells. Where he claims to have had to improvise details, the reports are quite precise, and they do not support the "ideological breakthrough" phenomenon. At first, she was disappointed; but as she delved deeper into the research, she found a growing appreciation for the lessons the real story of these monkeys have for us.

Up until 1958, Keyes' description follows the research quite closely, although not all the young monkeys in the troop learned to wash the potatoes. By March, 1958, 15 of the 19 young monkeys (aged two to seven years) and 2 of the 11 adults were washing sweet potatoes. Up to this time, the propagation of the innovative behavior was on an individual basis, along family lines and playmate relationships. Most of the young monkeys began to wash their potatoes when they were one to two and a half years old. Males older than 4 years, who had little contact with the young monkeys, did not acquire the behavior.

By 1959, sweet potato washing was no longer a new behavior to the group. Monkeys that had acquired the behavior as juveniles were growing up and having their own babies. This new generation of babies learned sweet potato washing behavior through the normal cultural pattern of the young imitating their mothers. By January 1962, almost all the monkeys on Koshima Island, except those adults born before 1950, were observed to be washing their sweet potatoes. If an individual monkey had not started to wash sweet potatoes by the time he was an adult, he was unlikely to learn it later, regardless of how widespread it became among the younger members of the troop.

In the original reports, there was no mention of the group passing a critical threshold that resulted in the idea being imparted to the entire troop. The older monkeys remained steadfastly ignorant of

the new behavior. Likewise, there was no mention of widespread sweet potato washing in other monkey troops. There was mention of occasional sweet potato washing by individual monkeys in other troops, but Myers thinks there are other simpler explanations for such occurrences - if there was an Imo in one troop, there could be Imo-like monkeys in other troops.

Instead of an example of the spontaneous transmission of ideas, Myers thinks the story of the Japanese monkeys is a good example of the propagation of a paradigm shift, as in Thomas Kuhn's "The Structure of Scientific Revolutions." Truly innovative points of view tend to come from those on the edge between youth and adulthood. The older generation continues to cling to the world view they grew up with. The new idea does not become universal until the older generation withdraws from power, and a younger generation matures within the new point of view. It is also an example of the way that simple innovations can lead to extensive cultural change. By using water in connection with their food, the Koshima monkeys began to exploit the sea as a resource in their environment. Sweet potato washing led to wheat washing, and then to bathing behavior and swimming, and the utilization of sea plants and animals for food.

What does this say about morphogenetic fields and the collective unconscious? Not very much. There may well be a "critical mass" required to shift a new behavior from a fragile personal idiosyncrasy to being a well-established alternative, but creating a new alternative does not automatically displace older alternatives. It just provides more choices. What the research does suggest, however, is that positive ideas are not sufficient by themselves to change the world. We still need direct communication between individuals, we need to translate our ideas into action, and we need to recognize the freedom of choice of those who choose alternatives different from our own.