

The Effects of Western Biomedicine on Amazonian Shamanism and Indigenous Culture

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Biomedicine and shamanism are two types of ethnomedicines found in the world. The film, *Embrace of the Serpent*, directed by Ciro Guerra, follows the Amazonian shaman named Karamakate over two timelines leading western scientists in search of a sacred plant called the yakruna.¹ While the characters are fictional, the scientists Theo and Evan are based on two scientists in the twentieth century and their writings of the Amazon and indigenous people.² The film has numerous scenes containing Amazonian healing as well as western misunderstanding and condemnation of the Amazonian culture. I want to research what occurs when biomedicine meets Amazonian shamanism based on this film and other readings to examine if indigenous beliefs and culture can endure in the globalizing world.

Biomedicine is the prominent medicine found in western, specifically American, culture. Its main beliefs are treating the body as a machine and seeing the body and mind as separate entities.³ Comparing the body to a machine gives each part distinct qualities that need to be healed separately by different specialties, while shamanistic healing is based on interacting with the spiritual dimension found in daily life.⁴ For the past few centuries biomedicine has been considered as lacking a culture because it is based in science; however, this started to change with a closer examination of this specific medicine and others.⁵ One problem with biomedicine is its impersonal methodology, which I believe to be a large part of why people globally utilize other alternative healing methods, including shamanism. Biomedicine is rooted solely in science, and it lacks a spiritual or mindful aspect many people seek. In biomedicine, every individual

¹ Enrique Bernales Albites, "Indigenous Narratives of Creation and Origin in *Embrace of the Serpent*, by Ciro Guerra," *English Language Notes* 58, no. 1 (April 1, 2020): 200.

² Albites, "Indigenous Narratives of Creation and Origin in *Embrace of the Serpent*, by Ciro Guerra," 201.

³ Atwood D. Gaines and Robbie Davis-Floyd, "On Biomedicine," *Encyclopedia of Medical Anthropology*, 2003, 4.

⁴ Jeffrey B. Lutzar, José M. Frago, and V, "Shamanism, Christianity and Culture Change in Amazonia," *Human Ecology* 41, no. 2 (April 2013): 299.

⁵ Gaines and Davis-Floyd, "On Biomedicine," 1-2.

body is normalized and not seen as a singular being with an individual illness.⁶ Starting with the ideas of the Enlightenment, European medicine created the metaphor of the body as a machine that could be generalized to diagnose an illness and create a treatment.⁷ Treatments only deal with the immediate illness and specific part of the body, which is experiencing sickness instead of considering possible long-term effects of the treatment and illness as well as how other parts of the body may be affected.⁸ The body is seen as separate from the mind, which often presents a problem since mental health affects the body's health. Biomedicine also utilizes very invasive procedures with many of which may not be needed.⁹ Many people do not want to experience these procedures if there is another option because they may lead to more pain and suffering in the end. On the other hand, alternative healing methods see the body as a whole and treats it as such with the mind and body being one essence. In the United States, people find the personal and spiritual aspect lacking in biomedicine through alternative healing methods, such as yoga or acupuncture.

In *Embrace of the Serpent*, shamanism contains personal and spiritual aspects, which treats the body and mind as being connected. Shamanism was the main healing practice in many areas of the world before colonization and western imperialism. Shamans receive their knowledge of the body and power of healing from spirits and deities through visions or dreams.¹⁰ Specifically in the Amazon, shamans received the knowledge of healing from *Kuwai* who is a spirit that has a body made of songs, sickness, and the ancestry of the people.¹¹ There are three main plants used by shamans from which they draw their power: the plants are mapacho, toē, and

⁶ Margaret Lock and Vinh-Kim Nguyen, *An Anthropology of Biomedicine* (Hoboken, UNITED KINGDOM: John Wiley & Sons, Incorporated, 2010), 1.

⁷ Lock and Nguyen, *An Anthropology of Biomedicine*, 19.

⁸ Gaines and Davis-Floyd, "On Biomedicine," 7.

⁹ *Ibid.*, 10.

¹⁰ Robin Wright, "The Kuwai Religions of Northern Arawak-Speaking Peoples: Initiation, Shamanism, and Nature Religions of the Amazon and Orinoco - ProQuest," *Boletín De Antropología* 33, no. 55 (2018): 144.

¹¹ Wright, "The Kuwai Religions," 123, 126-127.

ayahuasca.¹² The jaguar shaman, who is one of the highest ranking shamans in Amazonian culture, places humanity in terms of two worlds containing deities and the souls of animals as well as the deceased.¹³ During colonialism, the jaguar shaman was responsible for alerting the people of the dangers of losing their traditions.¹⁴ Tradition is an essential part of the culture which links the people to their ancestors, and without it they are vulnerable to increased sickness and the effect of sorcery.¹⁵ This emphasis on tradition is lacking in biomedicine due to its lack of ties to the past and its disengaged approach to culture even though individual patients and healers have different cultures.

In the globalizing world, biomedicine is seen as the epitome of medicine and technology, which undermines other ethnomedicines and does not categorize them as medicine. This is largely due to it being a part of western culture. With colonialization, the idea of western superiority spread, and this included the idea of biomedicine. Biomedicine quickly forced its way into parts of the world where shamanism was prominent, and it became the dominant healing method due to it believing it is superior and as an aspect of colonization and western imperialism. It dismissed other types of healing methods as superfluous and too mystical to be considered a medicine. Indigenous healing methods were seen as “culturally biased” and cannot be reliable because of the lack of a scientific base.¹⁶

With biomedicine having this sense of superiority and due to its hegemony in the world, it is hard for shamanism to endure in the current time; however, it is possible for the two to co-exist. In *Embrace of the Serpent*, a main theme throughout the film is how western culture

¹² Beyer Stephan V, *Singing to the Plants : A Guide to Mestizo Shamanism in the Upper Amazon* (Albuquerque: University of New Mexico Press, 2009).

¹³ Robin M. Wright and Michael J. Harner, *Mysteries of the Jaguar Shamans of the Northwest Amazon* (Lincoln, United States: Nebraska, 2020), 149.

¹⁴ Wright, “The Kuwai Religions,” 140.

¹⁵ Ibid.

¹⁶ Gaines and Davis-Floyd, “On Biomedicine,” 1-2.

understands or rejects indigenous knowledge, specifically surrounding Karamakate's healing and knowledge. At the end of the first timeline occurring early in the twentieth century, Karamakate finds that the sacred yakruna plant has been cultivated and used in ways that disrespect the spiritual importance of the plant.¹⁷ Karamakate burns the plant, so it cannot be used again in this way. This scene shows the aspect of colonial dominance where western values overshadow indigenous culture and traditions. Theo was sick and only had self-seeking purposes for finding the yakruna plant. He did not respect the shaman or the culture of the Amazon. During colonization and to current day, western culture and biomedicine sees itself as superior and does not consider other medicines as being valid. During the 1900s, shamanism was seen as more mystical and given the term "primitive medicine," which undermined its effectiveness at healing and as an ethnomedicine.¹⁸ Indigenous healing is being lost to the dominance of western colonization. In the end, Theo dies by Karamakate's actions of burning the plant because of his disrespect of the shaman and his culture.¹⁹

In the second timeline of the film occurring later in the century, Karamakate and Evan find the last yakruna plant in existence. Karamakate uses the yakruna plant to induce visions for Evan, which shamans often do with medicinal plants to help heal the patient or to transfer knowledge.²⁰ Karamakate gives his knowledge of healing to Evan in the end of the film because he was willing to understand the culture and healing methods.²¹ This exchange of healing knowledge between the two men could represent a shared desire for protection of all lives.²²

Since the start of European colonialism, there was a fear within the Amazon of forgetting or

¹⁷ Thomas Prash, "Embrace of the Serpent (El Abrazo de La Serpiente)," *Film & History* 46, no. 2 (Winter 2016): 93.

¹⁸ Greene, "The Shaman's Needle," 635.

¹⁹ Albites, "Indigenous Narratives of Creation and Origin in Embrace of the Serpent, by Ciro Guerra," 205-206.

²⁰ Albites, "Indigenous Narratives of Creation and Origin in Embrace of the Serpent, by Ciro Guerra," 204.

²¹ *Ibid*, 205-206.

²² Deldon McNeely, "Embrace of the Serpent . 2015. Written by Ciro Guerra and Jacques Toulemonde Vidal. Directed by Ciro Guerra," *Psychological Perspectives* 60, no. 2 (April 2017): 267.

losing their traditions due to other beliefs being forced upon them.²³ One reason is that the knowledge has to be transferred through oral tradition, which is often forgotten in the midst of western medicine's reliance on written scrutiny for the transfer of knowledge.²⁴ However, this exchange shows a continuation of the healing through mutual respect and understanding.

In recent years, biomedicine has become to be called an ethnomedicine, and various shamanistic healing traditions have been categorized as ethnomedicines instead of "primitive medicines."²⁵ Categorizing shamanism as a "primitive medicine" is another aspect of colonization and superiority found in biomedicine. It dismisses other forms of medicine as only religious and having no credibility; however, biomedicine and shamanism have some aspects in common, which are often ignored by western culture. Biomedical doctors and shamans gain knowledge through apprenticeships with experienced healers, their knowledge is communicated through certain events and terminology only the healers understand, and there also has to be a space for the healing to take place.²⁶ These are certain criteria all ethnomedicines meet. Categorizing biomedicine as an ethnomedicine challenges the colonization aspect of superiority and gives more recognition to shamanism and other healing methods throughout the world.

Even with the predominance of biomedicine around the world due to colonization, indigenous healers have maintained a large patient pool.²⁷ Specifically in the Amazon with the rise of biomedicine and Christianity in the area, shamanism has decreased, but it is still relied upon when biomedicine does not have the answers.²⁸ Sometimes people also prefer to turn to shamanism because it gives them a more personal and spiritual aspect, which is not found in

²³ Wright, "The Kuwai Religions," 131.

²⁴ Albites, "Indigenous Narratives of Creation and Origin in Embrace of the Serpent, by Ciro Guerra," 208.

²⁵ Greene, "The Shaman's Needle," 636.

²⁶ Bisan Salhi, "Beyond the Doctor's White Coat: Science, Ritual, and Healing in American Biomedicine," in *Understanding and Applying Medical Anthropology: Biosocial and Cultural Approaches*, ed. Peter J. Brown and Svea Closser, Third edition (Walnut Creek, California: Left Coast Press, Inc, 2016), 210.

²⁷ Gaines and Davis-Floyd, "On Biomedicine," 11.

²⁸ Luzar, "Shamanism, Christianity and Culture Change in Amazonia," 308.

biomedicine. Indigenous medicines are also often encouraged by individual governments around the world.²⁹ Since biomedicine is considered part of western culture and specifically American culture, it is seen as a threat to moral values and to tradition in many countries.³⁰ Indigenous healing is associated with positive moral values and is often considered as protecting family values in the midst of biomedicine's focus on contraceptives.³¹

However, it is rare to find shamanism in the modern day without the influence of biomedicine. During healing, the shaman often has two diagnoses with the source of the sickness being from sorcery and then a non-sorcery element, which is recognized by biomedicine.³² Traditions are still followed; however, the patient receives a diagnosis that is deemed acceptable to biomedicine, which is not traditionally part of the shamanistic healing methods. In the past few years, views regarding ethnomedicines have changed, but there is still the biomedical belief that it is superior and that shamanism should only be seen as magical or religious instead of a medical practice.³³ Because of this, biomedical beliefs of the body being a machine, and the body and mind being separate can be found in other cultures now.³⁴

Many people in western cultures have misconceptions regarding types of medicine. One concept they do not realize is that biomedical research depends on medicinal plants and indigenous knowledge in order to find effective healing methods.³⁵ In order for this to occur, companies and biomedical researchers need to recognize indigenous rights to the land and healing knowledge.³⁶ In *Embrace of the Serpent*, the sacred yakruna plant is cultivated in a way that is disrespectful to its importance in the Amazonian culture. Because of this, Karamakate

²⁹ Lock and Nguyen, *An Anthropology of Biomedicine*, 62.

³⁰ Ibid., 64.

³¹ Ibid., 64.

³² Luzar, "Shamanism, Christianity and Culture Change in Amazonia," 648.

³³ Ibid., 635.

³⁴ Gaines and Davis-Floyd, "On Biomedicine," 10.

³⁵ Greene, "The Shaman's Needle," 638.

³⁶ Ibid., 639.

burns the plant, so it cannot be used in this way again. Many times pharmaceutical companies and biomedical researchers will not know or will ignore the importance of the plant in the local culture. This impedes on the indigenous land and disrespects the culture. In order for biomedicine and shamanism to co-exist, the companies and researchers need to consult the local healers and indigenous community to respect their culture and to learn more about how the two healing methods can work together.

A second misconception is the use of hallucinogens in healing. Many indigenous healing methods rely on plants that may be hallucinogenic to receive healing guidance from spirits and deities. Hallucinogens are looked down upon in western culture because they are seen as impairing judgement and as not morally correct. The idea of receiving messages from deities and spirits are also dismissed in the midst of the scientific base of biomedicine because it is seen as mystical and rooted in religion. However, the drugs used by biomedicine utilizes many of these medicinal plants. The drugs made by pharmaceutical companies are the main healing technique of biomedicine, and parts of the medicine would not exist without these plants and indigenous culture and knowledge.

Biomedicine and shamanism can co-exist because people will still turn to shamanism due to biomedicine's impersonal nature. Shamanism and alternative healing methods give people a different and important view of their bodies and illnesses, which broadens the understanding of their body to more than the specific diagnosis they receive. Biomedicine is often lacking in its views towards the body and sometimes does not have an answer to explain an illness. Many of its techniques are invasive and harmful, which many people do not want to endure if there is another option. Other ethnomedicines, including shamanism, have helped in many cases when biomedicine does not have an answer and gives people other options regarding healing methods.

Shamanism and other indigenous healing methods will persist in the globalizing world while biomedicine continues to dominate in many countries. Alternative healing methods have gained popularity in the past few decades and will continue to receive patients seeking a way to heal both their bodies and minds. Biomedicine is still the dominant ethnomedicine in the world due to colonization; however, shamanism is still turned to for its healing techniques and views regarding the body.

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