

“Humans are pattern-seeking animals and we are adept at finding patterns whether they exist or not” (adapted from Michael Shermer). Discuss knowledge questions raised by this idea in two areas of knowledge.

Word Count: 1582

Chuck Palahniuk once said, “There are only patterns, patterns on top of patterns, patterns that affect other patterns. Patterns hidden by patterns. Patterns within patterns... What we call chaos is just patterns we haven't recognized. What we call random is just patterns we can't decipher.” Is our world truly filled with patterns, as Palahniuk claims, or do humans simply organize everything into patterns to aid understanding, as Shermer says? While there are plenty of true patterns in our world, humans do tend to systematize information into patterns to make things easier for us to understand, as demonstrated in human sciences and religion.

One area of knowledge in which we tend to find patterns that do not truly exist is human sciences. Many people look for patterns in ethnic or racial groups and then use these patterns to stereotype a large group of people, even though within these stereotyped groups, there is an immense amount of diversity. At one point in human history, the ability to recognize patterns in new people in order to place them into categories using intuition and sense perception was not only helpful, but needed for survival. It was necessary to recognize whether or not a new person was a threat. Today, this instinct is no longer necessary, and instead leads to racial profiling that is harmful to everyone. For example, research shows that even if an African American applicant for a job and a white applicant have the same qualifications, the white applicant is more likely to be offered the position. In a study performed by Marianne Bertrand and Sendhil Mullainathan in which resumes with “white sounding” names and resumes with “African American sounding” names were sent in to employers in Chicago and Boston, a resume with a “white sounding” name, such as Emily or Greg, received 50% more callbacks than a resume with an “African

American sounding” name, such as Lakisha or Jamal.<sup>1</sup> The pattern of resumes of the same caliber, resumes with the same level and amount of experiences, resumes where the only real difference is the ethnicity implied by the name, receiving such differing levels of success across the board is a pattern that is created by the employers who perceive a correlation between race and employability that does not exist. This pattern has been created by hundreds of years of slavery and prejudice which were largely justified by the idea that African Americans were inherently inferior to white people. Nowadays, if asked directly, few people will state that they believe that to be true, but the remnants of this bias are littered throughout our society today. While it was once a useful skill to be able to recognize patterns in groups of people, today, rather than recognizing patterns, we find ourselves using this instinct to look for patterns that do not exist, such as the correlation employers find between employability and race that does not truly exist.

Another area of knowledge in which humans seek out patterns even if they do not exist is religious knowledge systems. Humans are creatures who aim to understand their surroundings, and if they are unable to explain events that occur, they are apt to create an explanation, particularly a faith based explanation. For example, some events, such as weather, do not occur in truly consistent patterns. In order to understand the weather, the Greeks created Zeus, the god of the sky and the weather. After the creation of the myth of Zeus, any time that there were strange events such as lightning storms or great floods, the Greeks said that these events occurred because someone had angered Zeus.<sup>2</sup> In this way, the Greeks created a pattern: first, someone angers Zeus, and then, bad weather occurs. Today, however, we understand that lightning and flooding are not created by an angry god, but rather the water cycle and air pressure, among other things. A project at Oxford that incorporated more than 40

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<sup>1</sup> Bertrand, Marianne, and Sendhil Mullainathan. "Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *National Bureau of Economic Research*. N.p., July 2003. Web. 24 Sept. 2016.

<sup>2</sup> Cartwright, Mark. "Zeus." *Ancient History Encyclopedia*. Ancient History Encyclopedia, 25 May 2013. Web. 25 Sept. 2016.

different studies from countries around the world found that religion is integral in human nature--the director of the project, Roger Trigg, says that, "We tend to see purpose in the world. We see agency."<sup>3</sup> It is not only the Greeks who searched for reasons and patterns to explain unexplainable events, but rather an instinct we all share. Humans seek out patterns as a justification for events we otherwise would not understand, because it is comforting to believe that rather than transpiring randomly, things happen for reasons. That allows humans to believe they have some control--for example, if angering Zeus causes bad weather, the Greeks believed they could avoid bad weather by avoiding angering Zeus. Without this pattern, the Greeks felt that they had no way to prevent bad weather, and therefore had no control over events that were affecting them.

While humans may be pattern-seeking creatures who have the tendency to create patterns where they do not necessarily exist, that is not to say that humans are incapable of recognizing real patterns. It is possible that the reason humans are constantly pursuing patterns is because they so often find them. For example, Edward Jenner recognized a pattern and used it to cure a disease. In the year 1788, Jenner was working with smallpox patients and he noticed a correlation: people who had contracted cowpox, a much less serious form of the disease, from working with cattle, never seemed to develop smallpox.<sup>4</sup> The fact that Jenner was able to recognize this pattern led to the eventual eradication of what was once one of the world's most deadly diseases. So while humans do seek out patterns and sometimes impose them in places where they may not exist, on other occasions, the ability of humans to discover patterns is a vital asset to our race.

However, if humans truly do seek out patterns where they do not necessarily exist, it begs another question: Would patterns exist if humans did not create them? A pattern is defined

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<sup>3</sup> Greene, Richard Allen. "Religious Belief Is Human Nature, Huge New Study Claims." *CNN*. CNN, 12 May 2011. Web. 28 Sept. 2016.

<sup>4</sup> "EDWARD JENNER (1749-1823)." *Zephyrus*. N.p., n.d. Web. 28 Sept. 2016.

as the regular and repeated way in which something happens or is done or as something that happens in a regular and repeated way.<sup>5</sup> So would patterns still occur if humans were not creating them? Humans do seek out patterns, sometimes even when they are not there, but other patterns would exist whether humans sought them out or not. For example, there are a wide variety of patterns in natural sciences. The sun rises every morning and sets every night. It rises in the East and sets in the West. These are patterns. These patterns would continue to occur whether humans were here to interpret it or not. The world is filled with patterns that repeat day after day, whether humans are aware of them or not. If humans were not pattern seeking creatures, patterns would still exist. On the other hand, patterns that humans invented in order to explain unexplainable events, such as Greek gods to explain the weather, or patterns that humans perceive based on years of culturally integrated prejudice, such as using race to stereotype groups of people, would no longer exist because there would be no one there to discern them.

However, is a pattern still a pattern if there is no one there to recognize it as a repeating sequence of events? Our world is more likely than not filled with events that occur for a reason and repeat regularly, but many of them, humans have yet to stumble upon or lack the technology to understand. But does this mean that these patterns we have yet to interpret are not patterns simply because we do not yet understand them? For example, in mathematics, there is a pattern known as the fibonacci sequence. It is a sequence of integers in which every number is the sum of the two numbers who preceded it. The fibonacci sequence is found in nature everywhere-- most commonly, the arrangement and number of sunflower seeds, the arrangement and number of petals on a rose, and the arrangement of bumps on pinecones.<sup>6</sup> However, the fibonacci sequence was not discovered until 1202. Before the discovery of the

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<sup>5</sup>"Pattern." *Merriam-Webster*. Merriam-Webster, n.d. Web. 28 Sept. 2016.

<sup>6</sup>Parveen, Nikhat. "Fibonacci in Nature." *University of Georgia*. N.p., n.d. Web. 28 Sept. 2016.

sequence, did these patterns not exist in nature because humans were unable to recognize them? Are patterns reliant on the observer? Can a repeating sequence of events occur if there is no one to identify the events as repeating? While patterns would be unidentified if humans were not there to observe and categorize them, they would still continue to occur. Flower petals would continue to grow in a fibonacci pattern. The sun would continue to rise and set, even if humans were not on Earth to classify 'day' and 'night.'

Overall, while patterns do exist in their own right, and there are plenty of true patterns in our world, humans are pattern seeking creatures. We feel most comfortable when we are able to understand the reasons behind events that occur. It is clear that humans are looking to categorize the world into patterns, as evidenced by our tendency to stereotype large groups of people to create a pattern, and by our inclination to use religion to justify events that we cannot explain. So while both Palahniuk, who claims that everything can be organized into patterns, and Shermer, who says that humans are seek out patterns even when they do not exist, are partially correct, Shermer's statement is more correct. It is in human nature to look for patterns in nature, in people, and in events because it makes these events more easily understandable, and makes humans feel more in control.

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