A HISTORY OF PERCEIVING THE COLOUR BLUE ACROSS CULTURES

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Abstract: The purpose of this paper is to analyse reasons why the colour blue was not perceived by ancient cultures. The explanation comes from the field of evolutionary psychology, and has to do with the fact that colours were associated with various messages, from signaling something dangerous (such as red for blood) to signaling that something is safe to eat, such as various fruit. Since blue fruits are not so often found in nature, and since noticing that the sky is blue were not vital details in ancient times, there were no reasons why the perception of the colour blue could be significant back then.

Keywords: culture, colour, evolutionary psychology, ancient times.

1. Motivation: the Colour Blue in the Ancient World and Today

There's Evidence Humans Didn't Actually See Blue Until Modern Times is the title of an article by Fiona Macdonald from April 7, 2018. This popular science article prompts us to think about the way human beings have perceived colours across history and what the reasons for this state of affairs could be. Macdonald draws our attention to the fact that ancient literature does not mention the colour blue: Homer, in his well-known work *TheOdyssey*, describes the ocean as wine-dark and never as blue. The Bible also never mentions the colour blue when it comes to describing the sea. The ancient tablets of Ugarit, the writings where the Bible originated from, also make no mention of the word blue. Ancient Chinese writings also never mention the colour blue in relation to such a normal reality in our times, when we associate the sea, the ocean and the sky, in a standard way, with the colour blue. Such a reality is inconceivable to us during our contemporary times, as we see blue as a symbol of royalty, of the military, of artistic tendencies, of business, as we associate uniforms worn in various domains with this colour. What is more, naturally, to us saying that the sky is blue is something extremely ordinary and absolutely common it requires no more questioning. We even have the well-known phrase "to feel blue" which means to feel sad, and which we use constantly, to the extent it no longer has any literary or figurative value. The phrase blue blood refers to aristocratic families and it was used due to the issues with poor blood circulation in historical times in such families. The blue city, named Chefchaouen in Morocco is now a well-known site on Facebook through constant sharing.

2. Colours Exist When They are Named: A Matter of Perception

This leads us to the question of how personal perception is, and to what extent it is influenced by cultural factors? Could our ancestors really not see the colour blue if they did not have a name for it back then?

We could say that all of us perceive aspects of this world in a subjective way, but how much of our perception is truly personal? Aren't we influenced by what we are taught about certain aspects of reality? How do we go about between a subjective and objective view of what we see around? The education we receive, personal experiences, unconscious drives and even language may be among what influences our view of the world. Moreover, there seems to be a structure which organizes our perception: we tend to form patterns to order and understand our experience. Such a wish seems normal for us to be able to function in this

world. We not only need to understand the way the world works but we also need a common understanding of it in order to interact symbolically with each other and to live together in a community.

The idea of the existence of certain categories that the mind uses in order to make sense of the raw, unstructured experience may have been first put forward by Kant; but, while Kant regarded them as innate and immutable, the modern authors emphasize their cultural and historical dependency. A great deal of the evidence supporting such a culturally relative view on perception was brought up by linguistic anthropology. Language and thought are intimately related, one may say, along with Wilhelm von Humboldt, who claims that "language is the very fabric of thought" (Gericke 2012: 186). Language implies more than just expressing oneself or describing what we perceive. Languages help us categorize, distinguish, "create" the world in a certain way, according to a pattern. According to Edward Sapir (1929: 69), "Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of a particular language which has become the medium of expression for their society. The fact of the matter is that their "real world" is to a large extent unconsciously built up in the language habits of the group... We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation."

There are patterns we apply to our perception involuntarily. Had we not lived in a certain community speaking and hearing a certain language, our perception of the world would have been different. For instance, as Ralph Strauch writes in *The Reality Illusion*, "[...] something which we see clearly as a physical object, like a house, the Nootka perceive as a long-lived temporal event. The literal English translation of the Nootka concept might be something like 'housing occurs;' or 'it houses." It is difficult for us to think, perceive like the Nootka and the same goes for them. Moreover, had we not read about this we wouldn't have perhaps thought that perceiving the house in this way was even possible.

It is not easy to realize how our perceptions are shaped by the culture we have been born into.

People have always had the tendency to structure the world we live in. For this, we have ordered everything into categories, objects, persons, situations. We did this by understanding the way this world works, by naming objects and so on, by describing situations. And naming these, and language as a whole, have ended up by structuring our perception, in their turn. By doing so we should know what to expect from people or various events. Yet wouldn't we remain somehow "trapped" in this view of the world?

Perception is not only subjective. It's not simply a matter of personal opinion. There are patterns, rules according to which we organize our perception of the world. Some depend on and are required by the culture we live in. Our perception of reality may vary and most of it may be dependent on the patterns established by the structure of language or what has been believed to be innate rules of perception. We form a mental, inner image of the world due to factors previously mentioned.

To us, living in the contemporary world, not perceiving and not naming the colour blue is something pertaining to a science-fiction world. There are fairy-tales telling of how the world came to be coloured, and reasons for this happening are a hero, a child, who travels the world and finds a colourful country and brings the colours to his own home town which was originally white, or a magical colourful bird who loses its feather and brings colours to a black and white world. The folk tales have a grain of truth when they talk about the world first being white, perhaps, if we think of the fact that etymologically, the word *blue* in Romanian, *albastru*, originates from the word *albus*, the Latin for white, and which in Spanish and French means *dawn*.

The existence of the word *blue* in language has to do with whether or not this colour is perceived. Kosara (2011) writes a popular science article about *You Only See Colours You Can Name*. Kosara writes about the Sapir-Whorf Hypothesis, claiming you cannot see something until you have a name for it in language. What accounts for this situation, of no word meaning blue in ancient cultures, could have to do, according to evolutionary psychology, to the lack of need for this for survival. Other colours, such as black and white, were immediately perceived, as when living in ancient times there was a need to distinguish between something basic such as day and night. Also, perceiving the colour red was a must, since it could signal danger: the blood is red and when we are wounded our organism acts immediately by lowering the blood pressure so that we would not lose too much blood and manage to survive. Green and yellow were significant colours, as in ancient cultures there was a need to distinguish among fruit that were ripe or not. However, blue fruit were not very common, and noticing the colour blue in the sky was not something vital. According to Taggart (2018), the ancient humans were colour-blind when it came to blue.

Jones (2017) draws attention to the fact that colour perception depends on culture, and that there are cultures in which there exists no concept for the word *colour*, which is so normal and commonplace to us. The people living in the Candoshi village in Peru do not have such a concept, anthropologist Alexandre Surrallés notices. He asks them about a coloured chip "How is it" and "What is it like?" and they answer with: amber, ginger, yelloworange etc.

3. An Expensive Colour Through History

The colour blue was expensive in the ancient world, as well as in the Renaissance when used in jewelry and in art. In ancient Egypt, the colour blue was used for jewelry, and in the Renaissance, for painting. The shade of blue azurite is the first documented one of the colour blue, and it referred to a natural blue mineral. The Egyptians were the first to produce the colour blue, through the use of pigments. They used it for painting ceramics and statues; they also used it for decorating pharaohs' tombs. The Romans also used it.

Lapis lazuli was a semi-precious stone which started the tone for the ultramarine shade about 6000 years ago. The Egyptians imported it from Afghanistan and turned it into a paint, which they used for jewelry and headdresses. Lapis lazuli was used as a pigment called true blue in the 6th century in Buddhist paintings in Bamiyan and Afghanistan. *Ultramarine* in Latin means "beyond the sea", a phrase which refers to the imported pigment by Italians in the 14th and 15th centuries into Europe. Middle Ages artists in Europe were always looking for the royal blue shade, which was as expensive as gold. This shade was used in paintings for the robes of the Virgin Mary. Vermeer used this colour a lot and his family was put into debt because of this.

Famous shades of blue are cobalt blue, used in the 8th and 9th centuries, for the colouring of ceramics and jewelry, then indigo, which was used for dying textiles and which was cheaper than the blue used for paintings, then marine blue, used for British Royal army uniforms, and, afterwards, Prussian blue, used by Pablo Picasso in his Blue Period and by the Japanese woodblock artist Katsushika Hokusai for his Mount Fuji works.

4. Blue, the Colour of the Divine and of Spirituality

From ancient, pagan times, to Christian art, gods and saints are represented in relation to the colour blue. In Jewish religion, as in the previously mentioned cases, blue stands for the sky and for the divine. Mosques in Iran are built using blue tiles. In ancient Egyptian culture, blue stood for the sky, as a symbol of separating life from death. In Buddhism blue stands for the heavens above and the waters below. In Hinduism, also, dark blue stands for the god Vishnu. In China, blue is also associated with the skies and with immortality. As such, blue is a constant and universal symbol of spirituality throughout cultures and

throughout history. It stands for the sky and for the sea in Japanese and Indian culture. The colours blue thus retains a special aura, and it stands apart from the other colours, perhaps due to its history of perception and creation, as well as its expensive nature.

Furthermore, blue is also regarded as a symbol for longing, and within the trend of Romanticism, for instance within German Romanticism, the blue flower is a symbol of aspiring towards infinity and towards an ideal, in a similar way to the connection with symbolizing spirituality.

The fact that blue is a symbol for high aspirations and spirituality may also have to do with the way it is perceived by the human eye, not just with vast and apparently infinite spaces such as the sky and the seas, which have captivated the imagination and have led to the creation of ancient mythologies. There is a sharp process of refraction of the colour blue by the human eye, making the less flatten and the blue image is pushed back. As a result, the blue spaces and areas are perceived as receding and apparently smaller than in reality, and, if interior spaces use the colour blue too much, then the process of refraction lead to the perception of a phenomenon similar to a fog. Due to such an optical illusion, we may have imagines something spiritual about the colour blue. What is more, there is an optical effect named atmospheric perspective, which explains how objects which are far away seem to be more blue.

5. Conclusions

The association with the colour blue of the sea, ocean and sky is a normal reality nowadays, and it is fascinating to think back to the ancient world where this association never occurred. As a proof, when we imagine stories from the Bible and from Homer's *Odyssey*, we inevitably think of the sea, of the ocean and of the sky as blue. We have never thought about the fact that such a word was never mentioned in those early works. This proves that our perception is always influenced by the culture we live in. We have been taught to perceive the colour blue and to associate it to the world around us without giving too much thought to it. As a result, we never noticed the fact that the word was not mentioned in ancient texts until we were drawn attention to this interesting detail by popular science articles on the Internet.

The paper has drawn attention to the fact that there are possible correlations between the way blue has been established as a universal symbol across cultures and the way it is perceived by the human eye, besides the way it has been created as an expensive dye in the history of art. Due to the optical illusions of perceiving blue objects through the fog or further away, there is the suggestion that blue can stand for a spiritual dimension, which is far away due to the effort to reach it through aspirations and spiritual perfection. Since it had nothing to do with basic survival in the early days of humanity, its symbolism together with its use was removed from the world down here, and came to stand for what is refined (blue blood refers to aristocracy), expensive and precious (lapis lazuli), and spiritual longing. If today blue is also the colour associated with military and business uniforms, the symbolism of something precious and worthy remains: the military is associated with the heroic, and the business world as well, together with an aura of exceptionalism achieved through hard and efficient work, making all the effort valuable. Blue remains a mark of distinction. There are, however, exception in some cultures such as Korean where blue is the colour of mourning, yet even in this case it is connected to religious feelings and spirituality. However, when it comes to the phrase to feel blue, it refers to a very earthly feeling, sadness, which is related to here and now.

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