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On the Relativity of Perception

Álvaro Rojas¹

When thinking about reality, it is common to think that the world perceived through the senses is the same for everyone. Nevertheless, a more careful reflection reveals that this type of assertion is not always true. If we acknowledge that all human beings are essentially different, we must also recognize that the constructions processed, perceived and recreated by our senses are just as divergent. Based on Oliver Sacks's "Speed" and various other theoretical sources, this essay discusses the relativity of perception and sensorial images as determined by our individual biological configuration. It is finally concluded that, regardless of the stimuli present in the medium, perception is an individual, subjective process, and "reality" is just a mental construct; an image which is potentially different for every person.

KEYWORDS: RELATIVITY, TIME PERCEPTION, SUBJECTIVE REALITY

Throughout our lives, whether we are aware of it or not, our reality is constantly questioned and altered by the way in which circumstances we find ourselves in are perceived by our senses. When undertaking an undesirable task, minutes seem to pass like hours, time becomes unbearable to the point where even the end that is so sought after seems unreachable. Contrast that to the speed which time seems to embody when one is enjoying some particular situation. Time seems to never end when we are doing something we do not enjoy, but it seems to slip by incredibly fast when we are doing something we like. This is a clear example of the way our perception may be altered by circumstantial relativity.

This kind of phenomenon is not exclusive of time perception. Other stimuli processed by our senses are subject to the same level of variability. Optical illusions and auditory disorders give us a clear idea of this. In this essay, I will write about the unreliability of perception when the world is apprehended through the senses, focusing mainly on Oliver Sacks's "Speed", and other theoretical

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texts by different authors. I do not intend to arrive at a definite conclusion as to why our perception is unreliable because, given the nature of reality, our experiences are eminently subjective and particular for each individual. My goal is, instead, to reflect on the topic, giving a brief account of other authors' ideas and to discuss them from my own perspective.

In 2004, the British neurologist Oliver Sacks published the article "Speed", in which he makes reference to his experiences working with parkinsonian and touretic patients. Via his interaction with these patients, he learned that people with these diseases have a distorted time perception, one that can either accelerate or slow down various moments in time, leading to a distorted speed in their movements and actions. Sacks postulates that "our judgment of time, our speed of perception, depends on how many "events" we can perceive at a given unit of time" (65). This means that our perception of time and speed is largely determined by the amount of things we can process in a certain time unit. The more we perceive per second, the slower things seem to happen. This theory is supported with studies conducted by Russell Noyes and Roy Kletti about people involved in near death experiences. When facing an extreme danger they recalled perceiving everything as happening slowly, as if everything were played in slow motion. Going through a similar experience, I remember feeling the same. As a child, I was in a car accident and I can clearly remember thinking "I think we are going to crash... we are going to crash... we crashed!" In just a couple seconds, I perceived things that would have otherwise been unnoticed: I remember approaching the house in "slow motion" while also hearing what the people in the car were saying. When our life is in danger our perception is greatly improved and we become aware of stimuli that we would not normally perceive. Accounts like this make it possible to say that the speed with which things occur depends upon our capacity to pay attention to them.

The notion of *time* has already been discussed by several scholars and philosophers, but any attempt to define or explain it presupposes a difficulty in itself. Saint Augustine wrote in his confessions "¿Qué es el tiempo? Si nadie me lo pregunta lo sé; si me lo preguntan y quiero explicarlo ya no sé" (19). We are so used to its "presence" that we rarely stop to think about it. We know what it is because we have lived our lives with it and in it, but when trying to define it or to speak about it we arrive at a dead end. It is not an objective element that we can touch or feel, it is something that *occurs* to us and it only manifests itself as it follows its course. To understand it, we need to think about past or future; what has gone by or what is about to come, but explaining it without these referents is extremely difficult, if possible at all. Also, time can only be defined in relation to other things: when we think of time as an object we immediately associate it with minutes, hours, days, and so forth. However, these units are mere conventions, and do not have an intrinsic connection with reality. We know what a day is because we see the sunrise and the sunset approximately twelve hours later; we know what a year is because we have assigned a time unit to the earth's rotation around the sun. Furthermore, we have grown so accustomed to these units that even without a watch we think in their terms. What would happen, however, if these units were gone? Think of the following situation: you are locked in a room without windows, the lights are turned on and off at irregular intervals, you fall asleep and wake up several times. Unless you start paying attention to your beard or hair's growth, after a while it is almost impossible to know how much time has gone

by. At this point, the convention of the clock becomes irrelevant and senseless. Without “objective” referents there is no such thing as time (at least the units with which we measure it), and the only valid parameter is our own perspective, which is individual and therefore subjective. The course of time becomes something that occurs only in our minds and bodies, its limits being now blurred and illusory. Once we know that time is lived individually, the only thing left is the hope that others experience it in a similar way, so as to have a common ground with the rest of mankind. That individual perspective of time is called by some *individual or subjective time*, and according to Comte-Sponville, it is essentially different from objective clock time. “Nuestro tiempo –el tiempo vivido, el de la consciencia, del corazón – es plural, heterogéneo, desigual” (18).

The subjectivity with which we live time is the main point Sacks makes in his essay. Brain disorders like Parkinson’s and Tourette’s confirm the fact that *time* is nothing but a mental construct. We tend to think things are real or absolute, but those conceptions come from an assumed normality which is only “a balance between excitatory and inhibitory systems in the brain, a balance which, in absence of drugs or damage, has a remarkable latitude and resilience” (70). Even though we exist in a given moment and space, their apparent reality is entirely determined by our ability or disability to perceive them.

A similar degree of subjectivity may be true for our entire sensorial world. Every perceptual and cognitive experience is determined by our biology; ergo it is personal, independent, and potentially different from the experience of others, even though the source of that experience may be the same. Questions then rise: Do we all see/hear/feel the same? Do our senses work in the same way? It seems sensible to think that two people looking at one object will perceive the same, or that those people listening to a song will hear the same. The truth is that if we analyze such asseverations, they could be easily refuted. As Maturana and Varela state “la aparente solidez de nuestro mundo experiencial se hace rápidamente sospechosa cuando la miramos de cerca” (7).

When referring to our senses we usually think of them in quantitative or qualitative terms: I see more or less; I have a clear or a blurred vision; I can or cannot hear, I have good or bad hearing. However, beyond these somewhat superficial differences, we rarely think whether or not it is possible that we simply perceive in a different manner. Our faces and bodies are different, our organs have different shapes and sizes, and they work differently: some people are lactose intolerant, some people’s hearts pump blood more quickly, and some have a faster metabolism than the rest. The same range of difference may exist at the level of sensorial organs. As Maturana and Varela postulate “nuestra experiencia está amarrada a nuestra estructura de forma insoluble” (10). It is possible that what I perceive as green may look like a certain shade of blue for others. Color blind people are a good example of this. While they have problems decoding the colors green and red, they can distinguish more shades of violet than “normal” people can. Differences of this type exist not only with shades of color but also with light exposure, distance calculation, image recognition, and such. Similarly, two people can hear disparate things when processing sound waves. Someone with more acute hearing (or a better auditory system on the whole) may recognize more instruments and details on a song than someone who is not used to hearing music. Furthermore, they could

listen to a guitar being played, and recognize its tone as a guitar, comparing it with their previous experience and cultural background. But *that* particular type of sound, associated with the concept of “guitar” could quite possibly be different for each person. Of course, all these hypotheses cannot be proven, because we cannot be in other people’s shoes, penetrate their minds to see what they see, or the associations they make. Still, reflecting about them gives us an idea of how fragile and relative the world of perception is. As Sacks points out, we become “aware of what a knife-edge we live on” (70).

Let us come back now to the discussion on speed and time perception. We have learned about the enormous differences in perception among humans, but if our worldviews vary, “we have every reason to think that creatures may possibly differ enormously in the amounts of duration which they intuitively feel, and in the fineness of the events that may fill it” (Sacks 62). Consider tortoises for example, whose average lifetime is of a hundred and fifty years. Their moves seem to us lethargic and slow, as if they “live[d] in a different time frame altogether” (Sacks 61). Think also of flies and other insects that live no longer than a couple of days. The tortoise, one could say, lives a very long life, whereas the latter’s life seems ridiculously short. The truth is that these judgments are only based on what we consider normal according to our own parameters. Nevertheless, the experts affirm that “the average life expectancy of a given animal is determined by factors such as genetic make up, metabolic rate, body size, age of sexual maturity etc” (The Life Span of Animals). Therefore, the perception of what a long and a short life are relative, depending on each species. However long they may live, that amount of time is enough to be born, reach maturity, reproduce, and die.

Not only animals’ lifespan is relative but also people’s. “Life expectancy increased dramatically in the 20th century, especially in developed nations. Life expectancy at birth in the United States in 1901 was 49 years. At the end of the century it was 77 years, an increase greater than 50%” (Life Expectancy). While a century ago it was normal to study less, get married and have children earlier, nowadays we find that these stages are pushed forward as life quality improves. Our grandparents used to get married and form a family in their late teens, while now most people are horrified at the thought of having children before turning thirty or finishing their degrees. Also, the average death age was sixty years, whereas now we are shocked if someone dies at that age, and we are sorry that he or she died so young. The different phases we go through have been distributed over a longer period time. Most probably, in a century it will be normal to live a hundred years, and dying at eighty five will be a disgrace. It becomes clear that our idea of time and its course is relative not only when speaking about other living beings, but also about our own existence. All the judgments we now pass are subject to change; all the notions we hold to be truth can and will be modified if our circumstances change.

Some people may argue that the points referred to in this essay are too farfetched or only a pointless attempt to theorize about matters that do not need further discussion. Nevertheless, I believe that thoughts like that are mere consequences of the western world view. The positivist-rationalist approach has created a tendency to look for absolute perspectives or explanations for

every single phenomenon. Our culture has taught us to consider such perspectives unquestionable. *Certainty* constantly tempts us to adhere to an objective, absolute standpoint. If that unique truth is challenged, we are terrified and prefer to ignore that “revolutionary” point of view. Maturana and Varela say “nosotros tendemos a vivir en un mundo de certidumbre, de solidez perceptual indisputada, donde nuestras convicciones prueban que las cosas sólo son de la manera que las vemos, y que lo que nos parece cierto no puede tener otra alternativa. Es nuestra situación cotidiana, nuestra condición natural, nuestro modo corriente de ser humanos” (5).

Considering the arguments given and the points discussed in the essay, one can say that perception is an extremely variable phenomenon. Everything we perceive is ultimately determined and processed by our biological composition. Even though the stimuli the environment sends may seem concrete and objective, the mental images we construct are the result of an inner world that is eminently different. We see, hear, smell, and live time differently, and these impressions are true only if we believe them to be true. Reality is a “lie” we like to believe. Its conception as a sender-medium-receiver chain is a construction in which the receiver does most of the work. There is no such thing as a norm, a rule, or a unique truth. What is real is what our brain makes us think to be real, however subjective or individual that perspective may be.

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