

Radiant Life: The Power of Light in Daily Life

A Look at the Transformative Power of Light

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Photo by Nikhita Singhai on Unsplash

Light is a phenomenon that illuminates our world, has been studied extensively by physicists and astronomers and yet remains very mysterious. It has a deep role in the human psyche and experience, with terms like enlightenment, illumination, brilliance, etc... used in many different cultural and spiritual contexts. It is a revelatory phenomenon in that it disperses the darkness to reveal new experiences of the world. In fact, the world we largely know is based on our experience of light through our senses, primarily through our eyes, but there are many ways we interact with light, which we will explore in this article.

Light is a bridge to a timeless and spaceless realm of eternity beyond time and space. According to Einstein's theory of special relativity, time stops at the speed of light, so light itself is ageless and unchanging. It is always itself fresh in each moment, and never tired from its journeys throughout the universe. Light in some way represents the intersection of eternity and our lives, interweaving the ever-changing nature of our often turbulent earthly existence with the perfect unchanging timelessness of the eternal.

And so it is interesting that light was the first event in the creation of the universe. Whether you describe it as a Big Bang, a Flaring Forth, or a Great Emergence, this primordial event bridges what perhaps is a timeless and spaceless existence before the universe with the realm of time, space, matter, and energy in which we live. Light, along with gravity, has also played a central role in the evolution of the universe from the beginning.

But let's start with our experience of light closer to home. Imagine that you've just opened your eyes in the morning after a restful sleep and are looking around seeing the world for the first time this day. Actually, if you've been dreaming during the night, you've been experiencing light in the form of electrical activity in your brain (electricity is a form of light), but let's touch on that more later.

As your eyes open, light from the outside world rushes in through your pupils and registers on your optic nerve, where it is translated into electrical and chemical signals which travel to your brain, creating a new experience of electrical activity as an image in your awareness. All of these signals, messages, and images are made of light, so the light of our inside experience meets the light of the world in our eyes, which are the interface between our experience of ourselves and the outside world. No wonder they say the eyes are the doorways to the soul.



Morning light, Image source: Pixabay

And yet what about this light that enters your eyes from the world? Where does it come from? We may have learned in school that we see objects because of light

reflecting from them from a light source. Let's look at these beautiful red tulip flowers outside our window as an example.

We see an object as red in color because it is primarily reflecting red light and absorbing all the other colors of light falling upon it. But this is only partially true. A light source, such as the sun or a lamp emits light which is absorbed by the atoms in an object, but that light ends its journey in those atoms. The atoms in the object take the energy that enters them and then emit their own fresh light as a result, so when you see a tulip, a chair, your nightstand, or your partner sitting next to you, you are seeing the light emitted by them freshly and immediately in that moment.



Radiant tulips, image by Cornelia Gatz

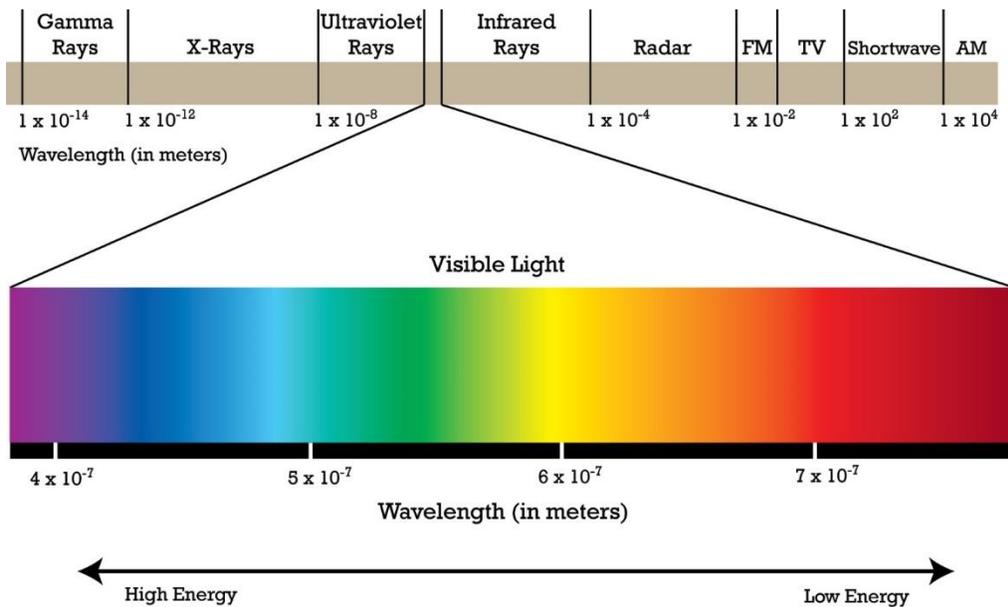
The light that you encounter from the other is literally “of them,” their light, created freshly by their atoms and completely unique to them. So the light from the world around us has been created immediately in that moment by whatever we see that is being illuminated by light, so that we are taking in and absorbing the unique and fresh expression of the world around us all the time.

This brings the potential for a new kind of intimacy to our relationships and the world around us as the light from ourselves enters each other through our eyes. In some sense, some energetic essence of ourselves intermingles with the other through seeing them, interweaving our existence with theirs in a very personal way. It's as if we're seeing each other for the first time, and we literally are

through the fresh light that each of us is emitting from ourselves in just that moment.

And it's not only through the eyes that we receive the light of the world. Let's say that it's a chilly morning and you decide to turn on a space heater to warm up a bit. As the heater begins its welcome glow and you feel warmed by its heat, what you're really feeling is the infrared light emitted by the heater through heat sensors in your skin.

It turns out that there are many kinds of light, and they are all manifestations of the same phenomenon. Light can have many different wavelengths and frequencies, and these are the different types of light that make up the electromagnetic spectrum, which is a fancy physics way of describing all the different types of light that exist. There are infrared, visible, ultraviolet, x-ray, radio, microwave, and gamma forms of light and these are different wavebands of light in a similar way that there are different wavebands or stations on your radio.



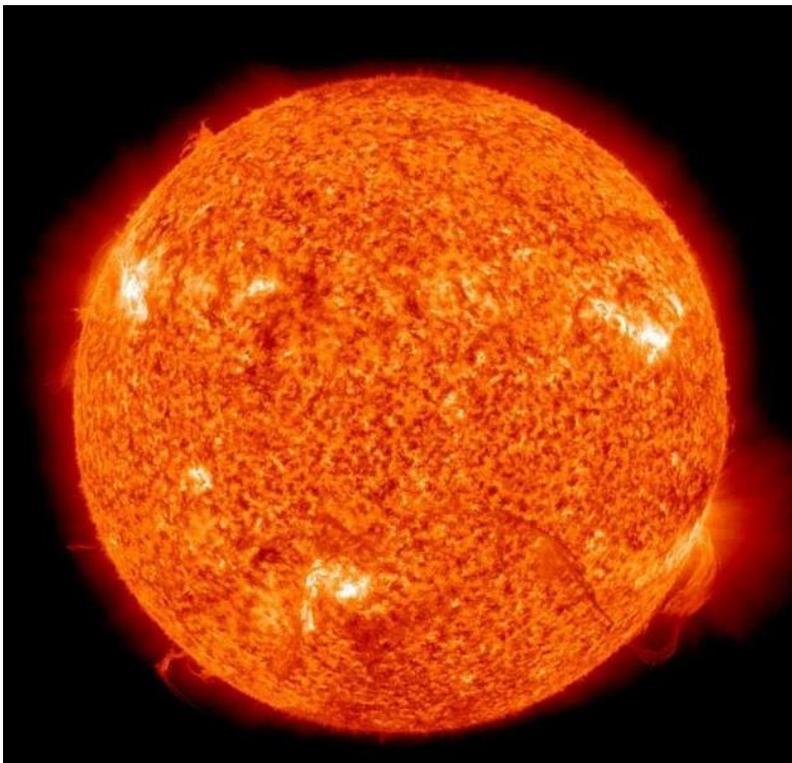
We are surrounded by different types of light (image source: public domain)

When we feel heat, such as from a heater, we are receiving and absorbing infrared light through special sensors in our skin. Amazingly, our bodies have the capacity to not only see light but to feel light! It turns out that one kind of light that things emit depends on its temperature, with higher energy light being emitted by hotter objects. Now everything has a temperature so everything emits light. The kind of light objects emit depends on their temperature, and in our everyday lives

here on Earth, nearly everything around us is at a temperature to emit infrared light, so we don't tend to notice this light on our skin unless we become a bit warmer or cooler than usual.

This also means that even without a light source reflecting on us, our bodies are emitting their own light all the time. Sit next to someone you like and put your hand next to their skin and you will feel the infrared light they are emitting. By the way, this is one way that search and rescue workers can find people in the dark by using special infrared cameras to look for the heat given off by their bodies from even great distances away.

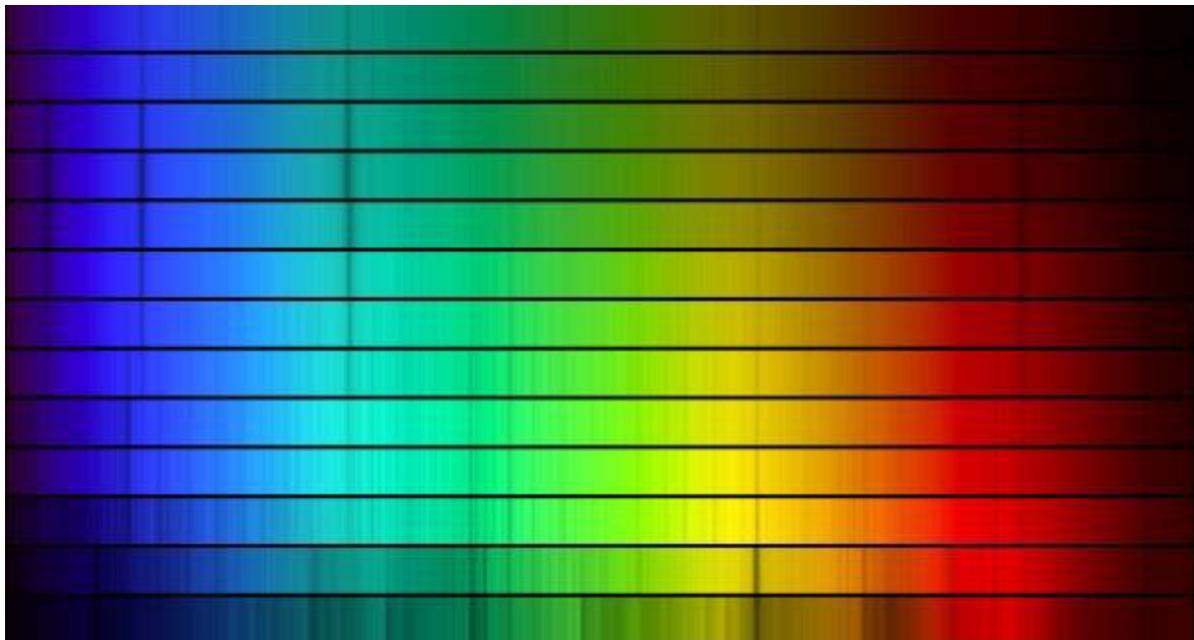
As you warm up from the heater, you venture outside to greet the day and see the sun rising and sharing its light with the world. As you feel the morning sun's warm on your skin and bask in its light you encounter many different forms of light that the sun radiates. It turns out that the sun, being very hot, emits many different forms of light, with our eyes detecting a bit less than half of the light it emits, and our skin feels as heat some of the infrared light that we can't see with our eyes.



The Sun emits many different kinds of light (image source: NASA)

The kinds of light that we can interact with directly depends on the kinds of light we can receive with our senses. For humans, this turns out to be some kinds of infrared light and what we call visible light. However, there are other animals that can detect wavelengths of infrared and ultraviolet light that we can't see or feel so it's a reminder that every organism has its own experience of the world through the light it receives from it.

Now you spend your day amazed by all of this and decide to go outside that night to do some stargazing. What kinds of light are you encountering here? As you bask in the glow of the starshine raining down upon you, you are encountering light from all different parts of the universe. The stars themselves are speaking to us through the light that they emit, and astronomers decode the messages from the stars through analyzing their spectra, which gives us information about celestial objects such as their temperature, composition, movement through space, conditions on their surface, and much more. Nearly everything we know about the stars and the universe beyond the few places we have visited with probes in our solar system has come to us from their light. Light is the messenger of communication of the cosmos.



Star talk - spectra from stars tell us all about them (image credit: KPNO 0.9-m Telescope, AURA, NOAO, NSF)

As you may have heard, the light from the stars we see at night has been travelling for many years only to reach our eyes on this night. Many of the nearly five thousand stars that you can potentially see on a clear night are tens,

hundreds, or even thousands of light years away. The light from the bright star Deneb, for example, in the constellation Cygnus, has been travelling for nearly 2600 years only to end its long journey by entering your eye tonight!



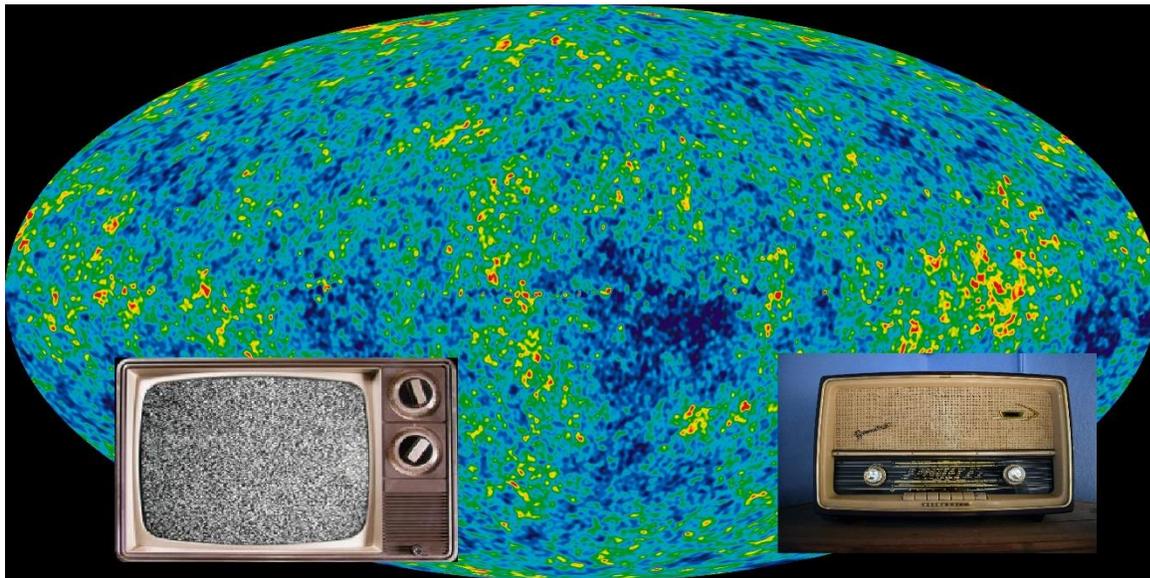
*The light from the stars has been travelling for many years to reach us, yet remains fresh and new in each moment.
(image credit: NASA, ESA, Hubble; Acknowledgement: E. Olzewski (U. Arizona))*

It also turns out that according to Einstein's special theory of relativity, time slows down for moving objects and stops at the speed of light. So the starlight that has been traveling for so long has not aged a bit and is as fresh as it was when it was first emitted by those stars.

Each night we are showered upon by the ageless and silent whisperings of the stars we see in the night sky, and we are also bathed in the light of all the stars, nebulae, galaxies, and other objects throughout the history of the universe that we can't see with our eyes directly. Astronomers use very large telescopes to gather this extremely faint light but we can remember that it's falling on us whether we can see it with our eyes or not. While we bathe underneath the night sky, light from all the stars, light from the first galaxies, light from new solar systems being born, light from all kinds of spectacular events throughout the entire history of the universe is falling silently upon us in each moment.

As if this weren't enough, we are also continually immersed in the very light of the creation of the universe. The light from the birth of the universe, called the Cosmic Background Radiation, illuminates the entire universe, filling all space with its primordial radiance. This light has been tirelessly travelling through space over the entire history of the universe as space has been expanding and the cosmos evolving all around it.

This cosmic light of creation expresses itself as microwave light, which is kind of like radio waves, and so these pass right through our bodies but can be detected by radio telescopes as well as radio or television sets in your homes. It sounds like a faint background hiss so if you see static on your tv or hear it on your radio, some of this static is from this cosmic background radiation from the birth of the universe!



We can see or hear the birth of the universe on tv or radio. (image credit: NASA)

Since light is the way the universe communicates with itself, there's a wonderful reciprocity here, with the light coming from the birth of the universe finding its homecoming here on Earth 13.8 billion years later, creating a circuit of connection between ourselves and the source of the universe in this moment. In some very real sense, the Big Bang is happening right now, as we interact with the birth of the universe directly through its light in each moment. The primordial light that created everything is welcomed home by us, meeting the light of our own awareness moment by moment right here and right now. Just as each of us is a unique expression of this primordial light shaped by the universe's 13.8 billion year history, so are we a unique receptacle for receiving its gift and message.

Our encounters with the different forms of light, whether we are encountering it from each other, our environment, or the larger universe is a kind of presencing, an interactive witnessing that extends our psyche throughout cosmic history to include the whole universe. Through our own participation and interaction with light we encounter the eternal in our lives and also express it to the world. We are each a source of light for each other and the world, radiating from our essence as the expression of our unique selves.



Photo by Joshua Earle on Unsplash

And so as we approach the equinox, the time of balance between darkness and light, it's a wonderful time to celebrate and connect with the light that fills our lives both day and night. Even as the days shorten and the nights grow longer in the coming months and we are bathed in darkness, we recognize that even on the darkest nights we are still in the presence of light unseen, a reminder that we live in the midst of a vast mystery called the universe that is constantly revealing itself to us in new and unexpected ways.

This article is based on a talk given to the Deep Time Journey Network on September 9, 2020, as part of a community celebration of the Fall/Spring Equinox. For more information on the Deep Time Network, please visit: dtnetwork.org

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