



What I Have Learned of Light: A Poetics of Relativity and the Sonnet Form

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Abstract

This paper aims to discuss the significations of light in two areas: first, in physics, as exemplified by the work of Albert Einstein; and second, in literature, as may be understood in terms of the metaphor or theme of light in relation to a specific poetic form, the sonnet.

The importance of light to human endeavor is undeniable on both practical and symbolic levels. On a practical level, the phenomenon of light has assumed a central role in contemporary physics. The speed of light is the sole constant in a cosmos where Einstein's special theory of relativity has nullified the notion of absolute space and time. His famous equation, $E = mc^2$, incorporates the speed of light, demonstrating that matter and energy are two sides of the same reality. Moreover, thanks to his paradigm-shifting revision of the notion of gravitation in the general theory of relativity, astrophysicists now have the tools to measure distances up to the farthest reaches of our universe. Einstein's insights about light thus bring us closer to answering the existential question found in the title of Paul Gauguin's famous 1898 painting: Where Do We Come from? What Are We? Where Are We Going?

Fittingly, on a symbolic level light has been celebrated as the attainment of knowledge, as for example in Plato's allegory of the cave where the sun stands for the truth of the universal, unchanging Forms of reality. The creation myth of Genesis begins with the sudden appearance of light upon the command of a deity. Words such as "enlightenment" and "illumination" also indicate the close relationship between light and understanding.

Among the poetic forms, the sonnet best conveys this association of light with wisdom and cognition. The sonnet is traditionally defined as a lyric composed of fourteen lines. If the sonnet is written in English, the meter of each line typically follows iambic pentameter, i.e. five sets of unstressed syllables followed by stressed syllables. In the Italian or Petrarchan sonnet, the rhyme scheme is usually abbaabba/cdecde; while in the English or Shakespearean sonnet, it is usually abab/cdcd/efef/gg. The first eight lines usually present a problem or narrative, while the last six provide the resolution. The two main divisions are separated by a crucial turn, which signals a change in tone or shift in attitude. Thus, as a poetic form the sonnet is inherently self-reflective and is conducive for argumentation expressed lyrically.

Keywords

Sonnet, Physic of light, Poetics of light, Special theory of Relativity, General theory of relativity, Albert Einstein