Two Roads Diverge in a Yellow (?) Wood: Looking for Evidence of Colorblindness in the Poems of Robert Frost

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Summary

- Robert Frost had a condition shared by about 8% of males worldwide – he was colorblind.
- Frost uses words for blue and yellow more than twice as often as words for red and green, consistent with the most common form of colorblindness.
- His use of words along the black to white continuum, such as black, white, silver, and gray, slightly exceeds the number of all color words combined.
- Frost’s colorblindness may also account for the large number of poems that are set in low-light situations.
- How might our knowledge of Frost’s colorblindness affect our understanding of his poems?

How often does Frost used words for different colors?

- Total of 124 words for color in 343 poems analyzed.
- Shades of blue and yellow account for about 70% of all color words.

<table>
<thead>
<tr>
<th>Color</th>
<th>Variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Pink, coral, scarlet, rose-red</td>
</tr>
<tr>
<td>Gold</td>
<td>Golden, gilt, goldenrod, goldthread</td>
</tr>
<tr>
<td>Yellow</td>
<td>Sulfur, brown, tan</td>
</tr>
<tr>
<td>Green</td>
<td>Green-white, verdured</td>
</tr>
<tr>
<td>Blue</td>
<td>Sapphire, sky-blue, steel-blue, blueberries, bluet, bluebirds, bluebells</td>
</tr>
<tr>
<td>Purple</td>
<td>Purple-fringed, purple-stemmed, amethyst</td>
</tr>
</tbody>
</table>

How does the eye see colors?

In the most common form of colorblindness, defective genes for the red and green cone cells impair the ability to perceive reds and greens, causing those colors to be perceived as shades of blue and yellow instead.

For example, O’Keefe’s vivid painting, “Trees in Autumn,” would look very different to a colorblind person.

Does Frost’s altered perception of color affect his word usage?

- In addition to indicating colors, red and green are also used multiple times to express non-color meanings, e.g. “red” was used to refer to Native Americans (3x), to a wavelength of light (2x), and to the Red Cross (1x); “green” was used to mean immature or unripe (4x) and the smell of spruce tar.
- Frost uses many words that could refer to shades of red and green but uses them only in their literal sense: bronze, cherry, chestnut, peach, plum, pomegranate, raspberry, russet, rust, salmon, violet, jade, beryl.

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https://www.usna.edu/Users/chemistry/vsmith/index.php
**Are there any benefits to being colorblind?**
- Documented ability to distinguish between shades of the same color better than people with normal vision
- Anecdotal reports of superior night and low-light vision
- Does Frost’s poetry reflect these beneficial aspects of colorblindness?

**Frost sets many poems in low-light situations**
- Of the Frost poems that specify a setting, about 65% (96/146) are set in low-light situations
- Most are outdoors: at night, at dusk or dawn, in a storm, in a forest or at its edge, under moonlight, in the mist, even underground or in a cave
- Some are indoors: coming home to a darkened house or barn, sitting on a porch at sunset, sitting inside at night, getting ready for bed, darkened interiors
- Includes many of his best known poems, including “Stopping By Woods,” “The Road Not Taken,” “The Death of the Hired Man,” “The Witch of Coös,” “After Apple-Picking,” “Home Burial,” “Choose Something Like a Star,” *et al.*

**Should knowledge of Frost’s colorblindness alter how we analyze his poetry?**
Possibly! Consider Frost’s imagery and word choices of two famous poems when using a colorblindness simulator to view natural scenes as he might have.

**Frost uses many words for shades of gray**

<table>
<thead>
<tr>
<th>Shade</th>
<th>Variations</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Albino, hoary, milky, frosty, pale, pallid, snow-white, anti-dark, white-faced, white-tailed, whiteness</td>
</tr>
<tr>
<td>Silver</td>
<td>Quick silver, moonlit, steel-bright, silvery</td>
</tr>
<tr>
<td>Gray</td>
<td>Iron gray</td>
</tr>
<tr>
<td>Black</td>
<td>Coal-black, ebon, ebony, pitch-black, raven, pitch-dark, blackened</td>
</tr>
</tbody>
</table>

**Many of which are highly descriptive**

**Frost attributed his love of the now-iconic Lankes woodcuts to his colorblindness**

**Websites to Visit**
Colorblindness simulator: http://www.color-blindness.com/coblis-color-blindness-simulator/
Georgia O’Keefe Museum provides EnChroma glasses to color-blind visitors: 
https://durangoherald.com/articles/274141