

# Escaping RGBland: Selecting Colors for Statistical Graphics

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Statistical graphics are often augmented by the use of color coding information contained in some variable. When this involves the shading of areas (and not only points or lines)—e.g., as in bar plots, pie charts, mosaic displays or heatmaps—it is important that the colors are perceptually based and do not introduce optical illusions or systematic bias. Based on the implementation of the perceptually-based Hue-Chroma-Luminance (HCL) color space in the **colorspace** package, originally written by Ihaka (2003), we have extended the package by new convenient functions for more suitable color palettes in version 1.0-0 (Ihaka *et al.*, 2008). We show how these palettes can be used for coding categorical data (qualitative palettes) and numerical variables (sequential and diverging palettes) in various types of displays (see Zeileis *et al.*, 2009). We also illustrate that it is easier to construct palettes suitable for color-blind viewers (which can be easily assessed using the **dichromat** package, Lumley, 2007).

## References

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