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Alexander Craig Madaus* (amadaus2@washcoll.edu), Chestertown, MD, and **Heather M. Russell** and **Maisie Jann Newman**. *Relating Fox and face colorings of knot diagrams*. Preliminary report.

In 1956, Fox introduced the notion of coloring a knot diagram by assigning values to its arcs such that the values satisfy a particular system of congruence relations. Fox proved that the number of n -colorings of a diagram is an invariant. We introduce a new method of coloring a knot diagram, called face coloring, that assigns a value to each bounded face such that the values satisfy a different set of congruence relations. We have shown that the number of n -face colorings is an invariant. Fox and face coloring share many other similarities, and in this talk we will look at examples of both and explore the connections between them. (Received September 16, 2014)