**A contribution to the discussion about the colour modification of characters**

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There is discussion about the proposed addition of various coloured shape characters into Unicode.

There is discussion about having a way of expressing in Unicode plain text the changing of the colour of all or part of another existing character. An example being discussed is of the changing of the colour of an emoji of a bear from being brown to becoming white.

Alas, the two discussions are intertwined. In the opinion of the present author the two discussions should be separate each from the other as they are two different things.

In the opinion of the present author, the direct use of any of the various coloured shape characters - whether encoded already or being proposed for encoding - for the changing of the colour of an emoji would be a mistake as it could lead to ambiguity of meaning in some circumstances. There appears to be two possible ways to avoid the problem.

One way is to use a ZWJ (Zero Width Joiner) character between the emoji and the coloured shape character, with the coloured shape character always being after the ZWJ character.

The other way is to encode a collection of colour modifier characters and to use a sequence of an emoji followed by a colour modifier character, without the use of a ZWJ character. Thus a similar format as is already in use for the emoji modifiers related to the Fitzpatrick scale used for skin colour, though for colour modifier characters there would need to be some indication in the description of an emoji character as to which part of the emoji glyph the colour modifier would be regarded as being applied. However, the present author opines that such colour modifiers should also be available for use with some other characters as well as with emoji characters.

The present author considers that the encoding of colour modifier characters would be the better approach as it would both keep the two discussions separate each from the other and also would avoid using a ZWJ character.

A colour modifier character could have its own glyph, to act as a graceful fallback glyph, of a design somewhat like the display of paint from the sweeping of an artist's paint brush from upper left to lower right. The design used here had originally been thought of as like a mirror image of a hysteresis loop as used in discussions of the physics of magnetism.

As a starting point for discussion of the design to be used a glyph design that illustrates this idea has been produced by the present author. The design uses a Quick Button shape from the Serif PagePlus version X7 desktop publishing program that is being used to produce this document. The Quick Button has various adjustable handles and some of those have been used so as to have angular corners and rounded corners, and to have what were vertical lines in the basic shape sloped at exactly fifteen degrees to the vertical.

Here are sixteen example glyphs for such colour modifiers. The colours are Black, Brown, Red, Orange, Yellow, Green, Blue, Magenta, Grey, White, Cyan, Pink, Dark Grey, Light Grey, Dark Green, Sky Blue. The actual red, green, blue values that are used here are not necessarily those that would be used if colour modifiers are encoded, yet it would be important for an encoding-value to be published in the description of each such modifier.