GENERAL

Turning the Left Cheek Examined using Modern Photography

McManus and Humphrey's investigation into turning the left cheek in formal portraits¹ from the sixteenth to twentieth centuries prompted me to check two 1972 school yearbooks for the same phenomenon. I found a similar tendency to expose the left side of the face more than the right. I found, however, no significant differences between sexes and seem to have discovered a difference between groups in left preference.

difference between the CWC faculty and staff and other groups, and also a difference between the CWC seniors and other groups, although no such tendency was noted in the Easley student body. The difference between the two Easley classes and the CWC student body was chiefly because of the CWC seniors.

If there really is a lessening of some sexual behaviour difference, or the development of group differences in facial exposure, Central Wesleyan College is one of the last places I would have expected to find such developments. Extreme hair length in males and other aspects of the "unisex" look are discouraged. There is considerable social contact between faculty and staff and students, and both groups are largely drawn from the same small religious body

Table 1 Left/Right Alignment in Yearbook Photographs

	Left side of face exposed	Right	Left preference %	P^*		Sex difference
CWC, senior males ² CWC, senior females	18 6	12 13	60 32	NS NS	}	< 0.05
CWC, faculty and staff males CWC, faculty and staff females	6 4	13	32 31	NS NS	}	NS
CWC, all non-senior student males CWC, all non-senior student females	49 62	35 28	58 69	NS < 0.001	}	NS
Easley, senior males ³ Easley, senior females	68.5 68	37.5 30.5	64 69	<0.01 <0.001	}	NS
Easley, sophomore males Easley, sophomore females	57 60	26 27	69 69	< 0.001 < 0.001	}	NS

^{*} P=Likelihood of these results showing preference, based on χ^2 test with 50% expected preference. Sex difference—based on 2 by 2 χ^2 comparisons. NS—not significant.

The photographs in the yearbook were taken by a single photographer for each school, who was unknown to the subjects. The subjects chose which of four poses would be published. It is possible that the same photographer took all the photographs used in this study. The use of a camera and subject selection of pose, and the same photographer for an entire group, seems to eliminate the hypothesis of bias in the artist's skill¹. Subject selection of pose would eliminate bias in positioning of the subject by the artist. Only head photographs were used in this study.

In Table 1 I show that preference was for the left side of the face to be exposed except for the three small groups from CWC. Because the senior females appeared to be different in preference, my wife independently checked senior males and females and found essentially the same preference tendencies as myself in both sexes (63% as against 60% in males, 27% as against 32% in females). As a further check against investigator bias or difficulty in classification, a naive observer independently classified the Easley seniors, and agreed almost perfectly with me (63.8% as against 63.6% in males, 68.6% as against 69.7% in females). The Easley seniors are an average of these two tabulations. No faculty head-only pictures were published in the Easley yearbook,

With the exception of the CWC seniors, no significant difference was found between sexes in any group, nor was there such a difference in all subjects combined, or all Easley students plus all CWC non-senior students combined. This difference from the findings of McManus and Humphrey might indicate a social factor in exposure preference¹, which has disappeared with time as some sex behaviour and appearance differences have decreased. It may also reflect fewer data in the present study.

In Table 2 I compare the several groups, using a 2 by 2 χ^2 test in each comparison. There seems to be a significant

Table 2 Pairwise Comparisons

	CWC, non-senior students	Easley, seniors	Easley, both classes	CWC, faculty staff
Easley, both classes	NS			< 0.001
Easley sophomores		NS		_
CWC, all students	NS		< 0.10	< 0.01
CWC, seniors	< 0.02	-	< 0.01	NS

(the Wesleyan Church) in the Southeastern United States. Perhaps the group differences are statistical flukes, but it seems unlikely that the lack of sex difference in preference is, since it is reflected in both student bodies.

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- McManus, I. C., and Humphrey, N. K., Nature, 243, 271 (1973). Easley, S. C., High School, Green and White, 45 (1972).
- Central Wesleyan College, Central, S.C., Centralian, 38 (1972).

Reference Abbreviations

ALL abbreviations of references in *Nature* should now conform to the style of the *World List of Scientific Periodicals*, fourth ed. (Butterworth, 1963-65). Authors submitting manuscripts are asked to ensure that the references are written appropriately.