

## Convergence in the Physical Appearance of Spouses<sup>1</sup>

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*This study attempted to determine whether people who live with each other for a long period of time grow physically similar in their facial features. Photographs of couples when they were first married and 25 years later were judged for physical similarity and for the likelihood that they were married. The results showed that there is indeed an increase in apparent similarity after 25 years of cohabitation. Moreover, increase in resemblance was associated with greater reported marital happiness. Among the explanations of this phenomenon that were examined, one based on a theory of emotional efference emerged as promising. This theory proposes that emotional processes produce vascular changes that are, in part, regulated by facial musculature. The facial muscles are said to act as ligatures on veins and arteries, and they thereby are able to divert blood from, or direct blood to, the brain. An implication of the vascular theory of emotional efference is that habitual use of facial musculature may permanently affect the physical features of the face. The implication holds further that two people who live with each other for a longer period of time, by virtue of repeated empathic mimicry, would grow physically similar in their facial features. Kin resemblance, therefore, may not be simply a matter of common genes but also a matter of prolonged social contact.*

Dear Dr. Brothers: I am a 17-year-old who looks at all the couples passing by. Old married couples, people in love—or at least who seem to be in love. I am struck by the fact that they almost always look alike. I heard that opposites attract. . . .

A. L.

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Dear A. L.: As far as physical appearance is concerned, likes seem to attract. Some experts feel that this resemblance may partly be explained by the fact that couples who've lived together for some time usually eat the same diet and share the same habits.

*The Joyce Brothers Column*

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It is commonly believed that people who select each other as mates are more similar in appearance than randomly chosen couples. This belief has considerable support in the empirical literature. Rushton, Russell and Wells (1985), for example, aggregated a variety of correlations between spouses' physical characteristics and found consistently positive coefficients for height, chest breadth, length of the earlobe, minimum neck circumference, middle finger length, and several others. However, independently of their physical similarity at marriage, spouses are believed to grow physically more similar as they grow older. Evidence for this conjecture does not exist and, moreover, it isn't at all clear why the conjecture should be true.

This study seeks to determine whether the faces of spouses appear more similar after 25 years of marriage. If the suspected convergence in the physical appearance of spouses can be demonstrated, then we will consider the question of possible causes and mechanisms. Among the possible explanations we shall pay particular attention to is a theory of emotional efference recently reclaimed (Zajonc, 1985)—a theory that has as one implication that repeated patterns of emotional expression may produce slight permanent changes in the facial features, and that by virtue of prolonged mutual mimicry two people living in close proximity might grow similar in these patterns.

## METHOD

### *Overview*

Twenty-four photographs of men and 24 photographs of women were judged for their resemblance to each other, and for the likelihood of a given man and a given woman being married to each other. The photographs were actually those of the partners of 12 married couples. Half of the photographs were taken at the time of the men's and women's wedding, and half about 25 years later.

### *Subjects*

A total of 110 undergraduates (42 males and 68 females) volunteered to participate in the study as a means of obtaining partial credit in an in-