I Like Your Face—but why? A New Computer Model Pinpoints the Reasons

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Whether you're dating, job seeking, or running for office, an attractive face can get you far. But what makes a face attractive? Most studies have found we're drawn to "average" faces, as well as those whose features fit conventionally with one gender or the other—"masculinity" in men, "femininity" in women.

Except, that is, when we're drawn to "feminine" male faces—or our reactions are mixed.

Psychologists Christopher P. Said of New York University and Alexander Todorov of Princeton University surmised that attractiveness is more complex than those two qualities. So they designed a computer model to tease out and measure the complexities. Their findings, published in an upcoming issue of *Psychological Science*, a journal of the Association for Psychological Science, help resolve the contradictions in earlier research and enrich our understanding of what draws people to each other.

For their study, Said and Todorov used a "face space," a computerized map that treats facial features as "dimensions," or axes, and faces as abstract points in the space. The face space allowed the researchers to test not just two factors, as previous studies had done, but 50 dimensions. They divided these into two categories—"shape," such as nose size or plumpness of lips; and "reflectance," or facial lightness, darkness, and color, such as shadowed eyes or red lips—to see how those qualities interact with averageness and gendered attractiveness.

The psychologists then created a computer program that took thousands of faces and their ratings, from 20 male and 20 female students rating opposite-gender faces, and learned to associate each facial dimension with attractiveness. It could also tell how far, and in which direction, a face had to move in relation to the average to become more attractive.

When Said and Todorov submitted computer-generated faces to the critical "eye" of the program, the results revealed newfound subtleties.

"In female faces, what males typically want is the shape to be feminine and the reflectance to be feminine," said Said. He gave the examples of plump lips and wide eyes. "For male faces, women want the reflectance to be masculine"—swarthier skin, "but the shape to be feminine."

In other words, masculine and feminine attractiveness are not equal and opposite. Each taste comprises many flavors, some of which are more piquant than others. "This paper helps sort out the uncertainty about whether masculinity is attractive or not in male faces," noted Said. In fact, it is and it isn't.

Even the attraction of "average" faces turned out to be less straightforward than previously found. Both men and women deemed average faces attractive, but the most average were not the most attractive.

The authors caution that the study has limitations. An artificial face isn't the same as a real face. Also, raters differ, and their conclusions reflect only the opinions of a few dozen college students. So a computer program can pinpoint the attractiveness of an artificial face in theoretical space. But beauty is still in the eyes of the unique human beholder.