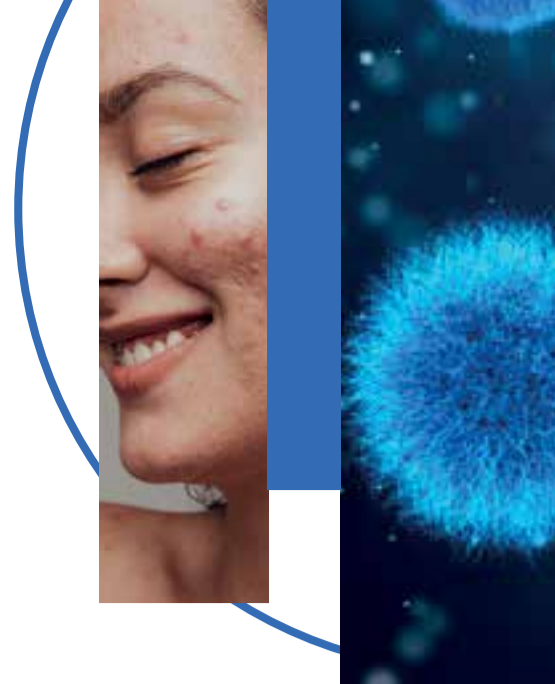


GENDER-RELATED DIFFERENCES IN THE FACIAL AGEING OF FRENCH SUBJECTS AND THEIR RELATIONSHIP WITH PERCEIVED AGES AND TIREDNESS

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1 INTRODUCTION

The unavoidable process of skin ageing results from the interplay of endo- and exogenous factors. When combined, these elements create a complex mosaic that makes skin ageing evolving differently in each individual.¹⁻⁷

To better design cosmetic solution adapted to consumers in their diversity, investigating clinical age-related differences among genders is essential.

This work assessed and compared the changes over time in five facial signs between female and male French Caucasian subjects and evaluated their relationship with perceived age and tiredness.

3 RESULTS

- The severity of skin ageing signs increases with time at a linear-like rate.
- Before the age of 50 years, forehead wrinkles (Figure 2) present a slightly higher severity in men.
- Crow's feet wrinkles do not show significant differences between genders (Figure 3).
- Changes in Marionette lines (Figure 4) significantly ($p < 0.0001$) differ between genders, being much more pronounced in women.
- Nasolabial folds (Figure 5) are more pronounced in men at an older age (>50 years).
- Ptosis was more evident in women over the age of 60 years than in men of the same age (Figure 5).
- Figure 1 shows the significant linear correlation ($r = 0.967$ in women, $r = 0.970$ in men; $p < 0.0001$) between real and averaged perceived ages of the 200 selected

Figure 1 CORRELATION BETWEEN PERCEIVED AGES AND REAL AGES

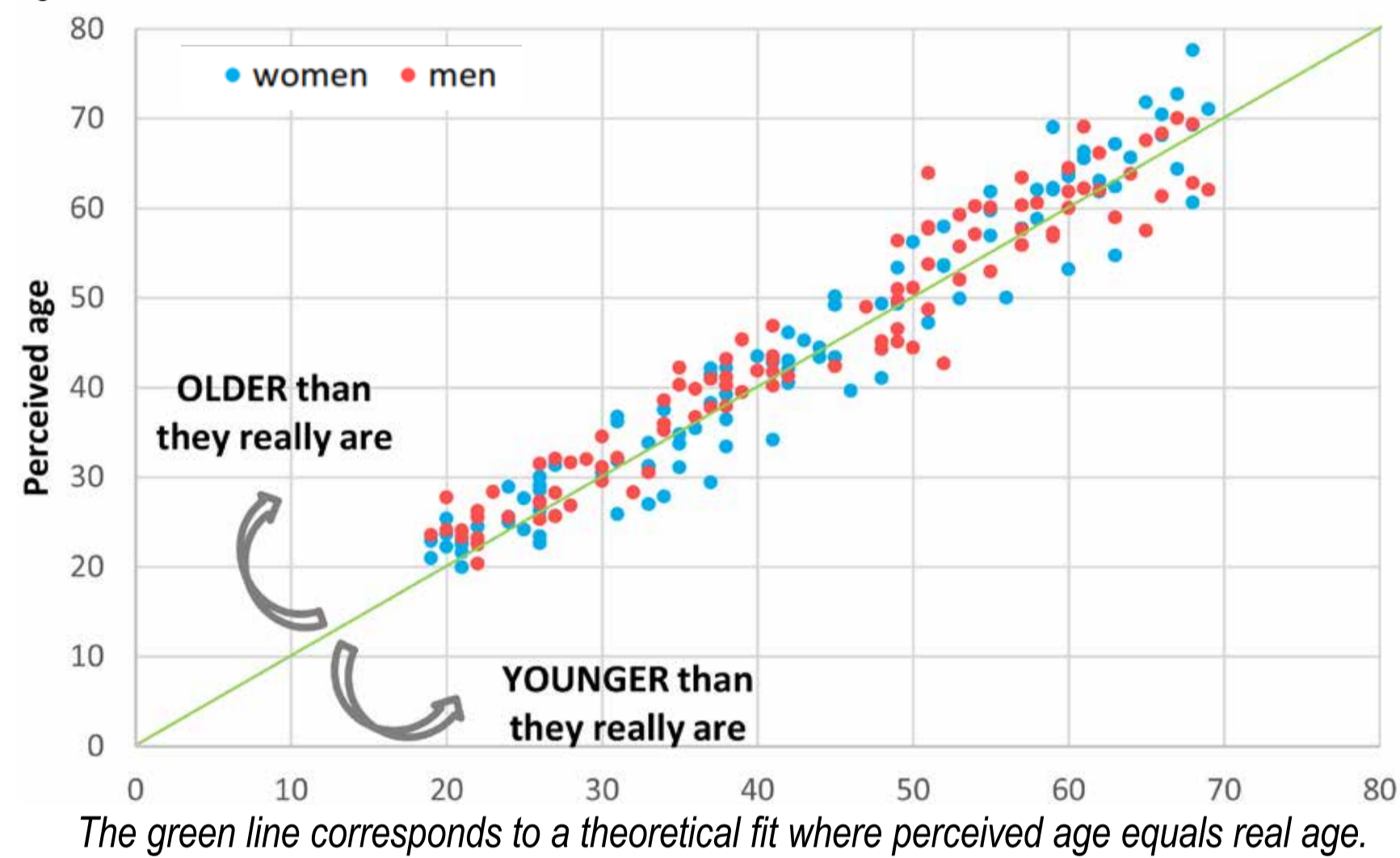


Figure 3 GLOBAL CHANGES OF CROW'S FEET WRINKLES

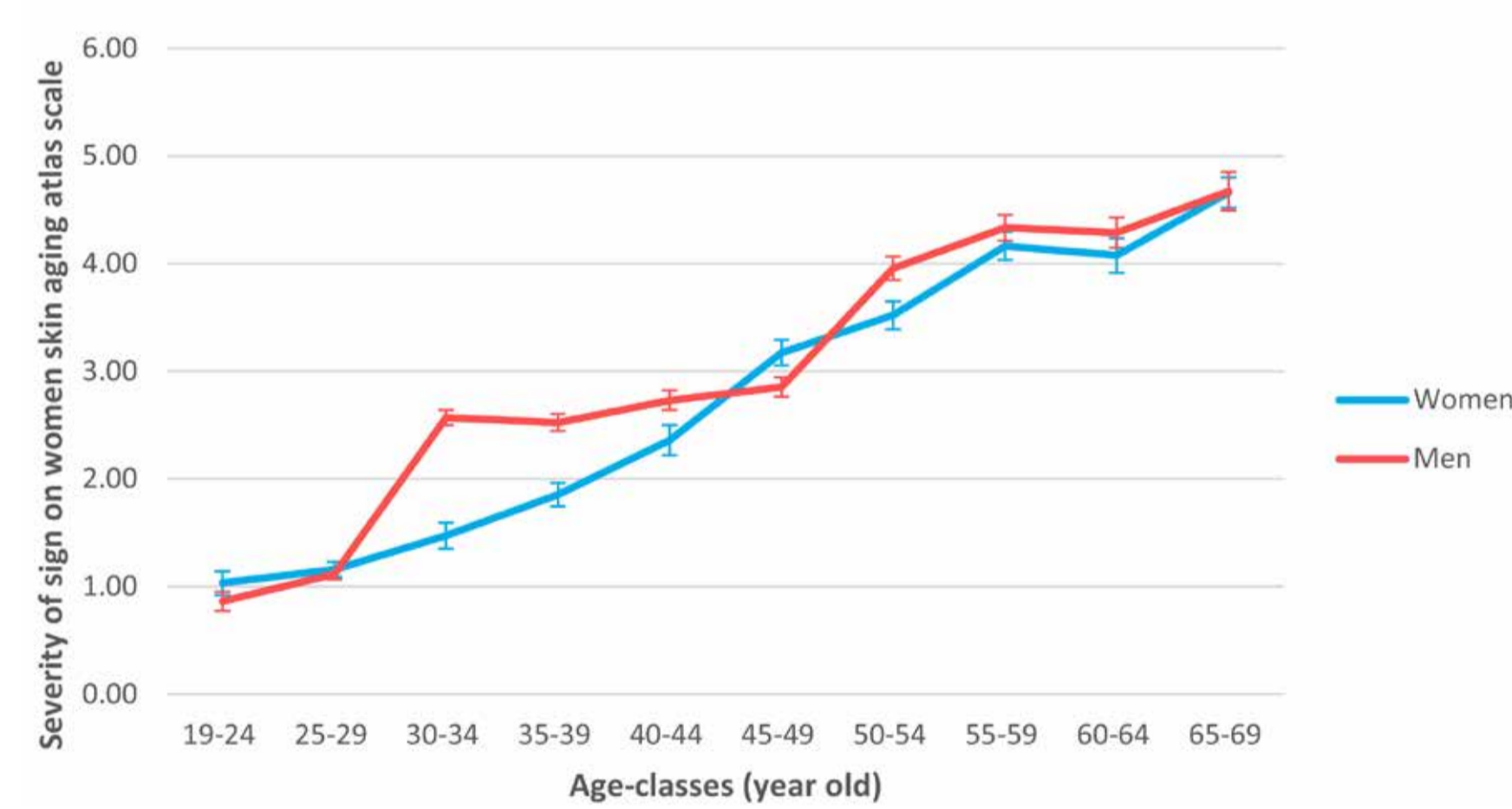
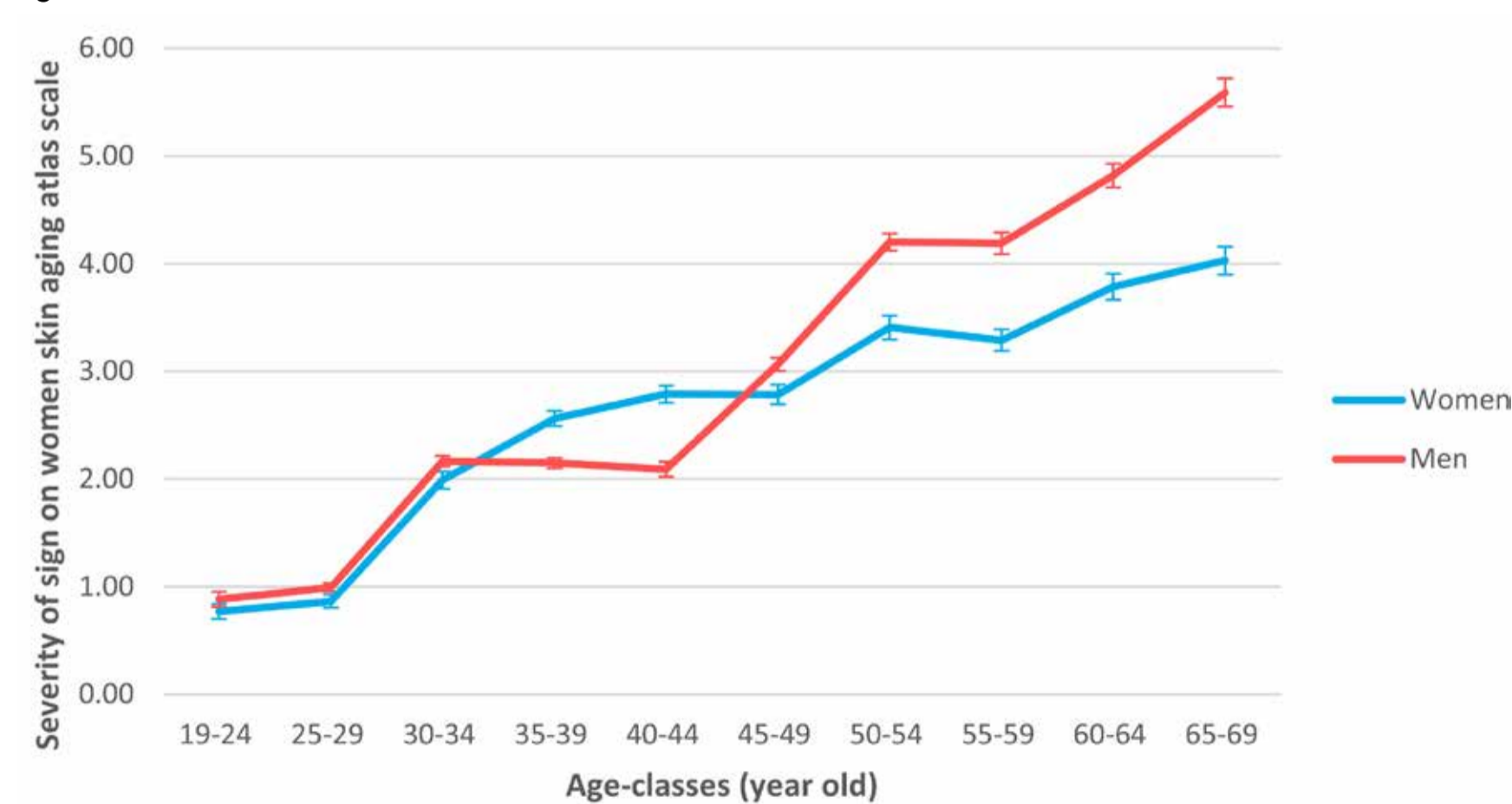


Figure 5 GLOBAL CHANGES OF THE NASOLABIAL FOLD



2 MATERIAL AND METHODS

- Once zoomed from standardized photographs, five skin ageing signs in 518 French Caucasian subjects of both genders and different ages (18–69 years) were graded by 15 experts, using a referential skin aging atlas.
- A naive panel of 1000 subjects (500 women and 500 men) was asked to attribute a perceived age and a degree of tiredness to 200 among the 518 subjects.

subjects. Although unsurprising from a statistical viewpoint, this figure also shows that the gaps between these ages may reach 6-8 years, more so in older subjects (>50 years). Inversely, the gaps appear logically shorter in younger age groups (20-30 years).

- Perceived ages were highly ($p < 0.0001$) correlated with the severity of the facial signs; the perception of tiredness was associated with perceived age in men, but not in women above 40 years.
- Gender-related perceptions from the panel in both ages and tiredness did not differ from between women and men.
- As for changes in facial signs, the upper-half face was more affected in men while this was observed for the lower-half face of women above 40 years.
- The panel focused on the same areas to predict age.

Figure 2 GLOBAL CHANGES OF FOREHEAD WRINKLES

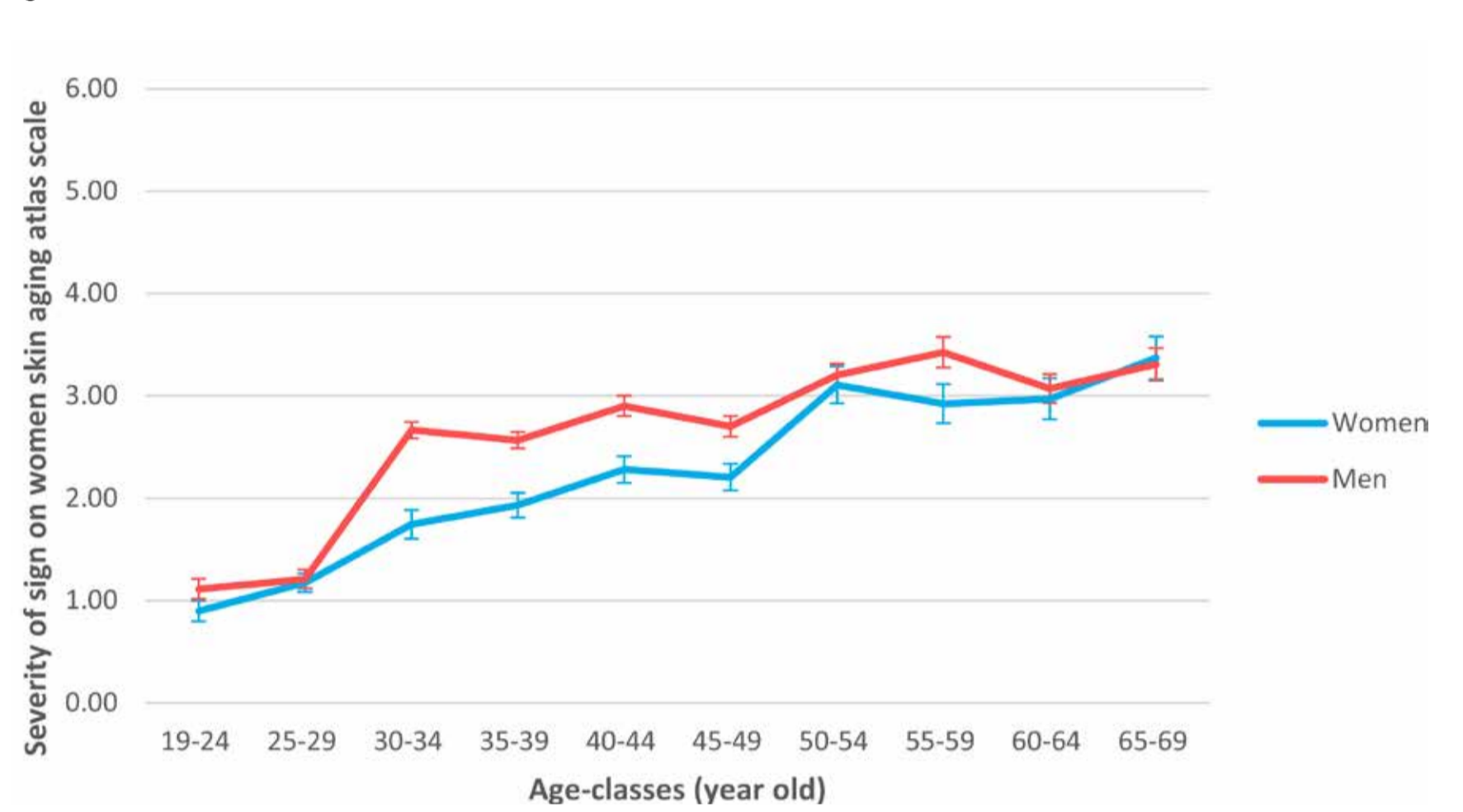


Figure 4 GLOBAL CHANGES OF THE MARIONETTE LINES

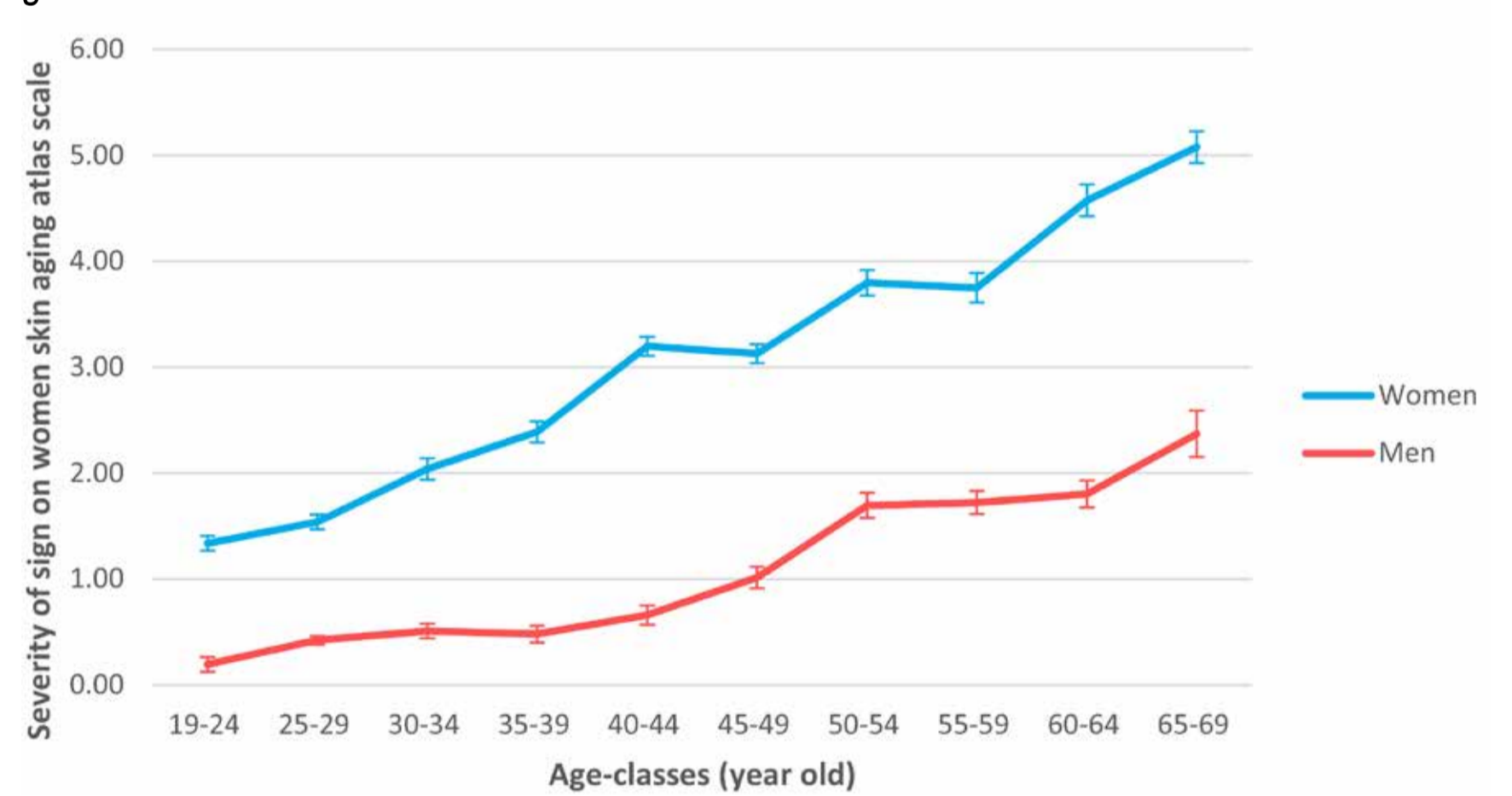
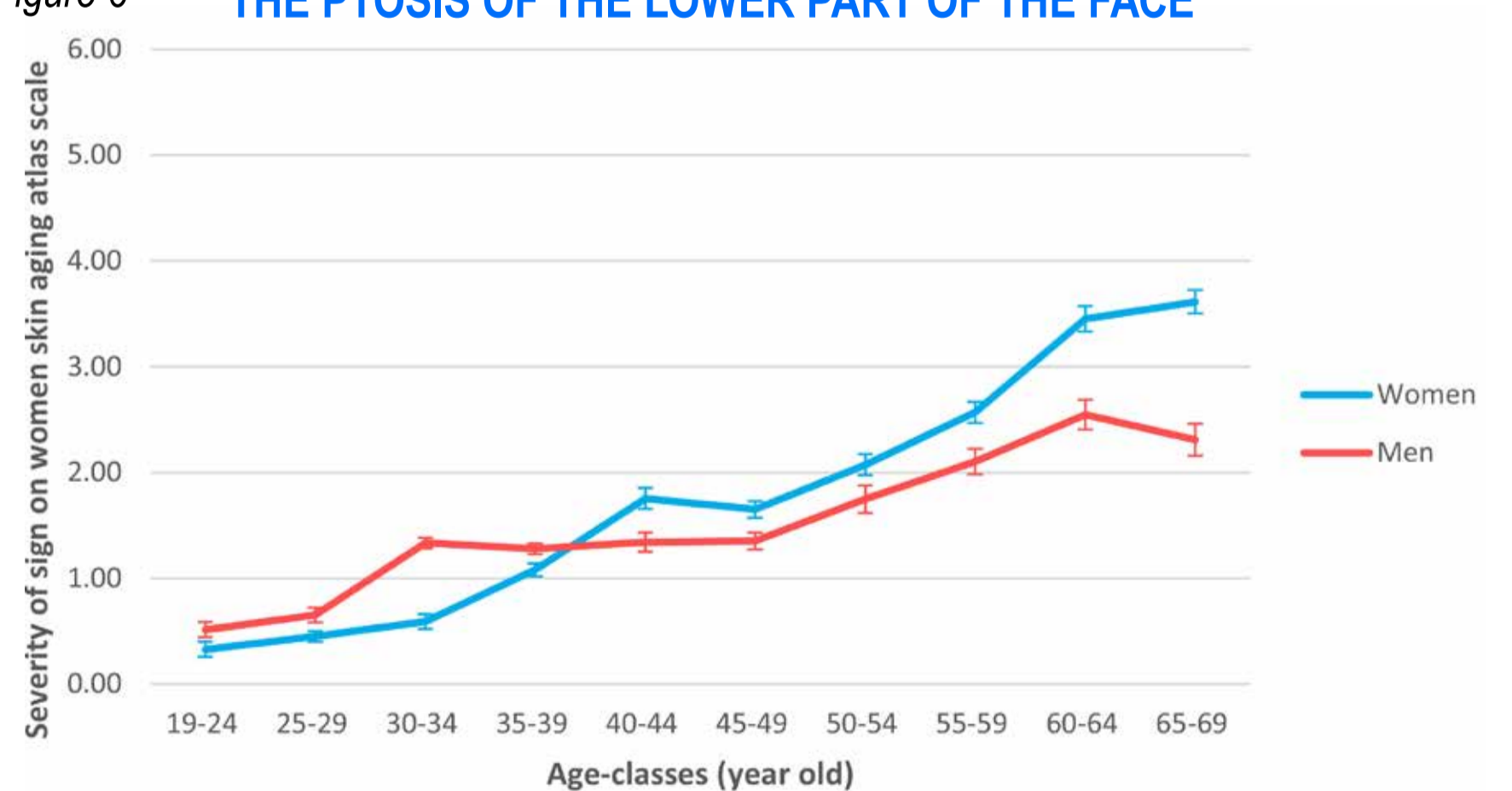


Figure 6 GLOBAL CHANGES OF THE PTOSIS OF THE LOWER PART OF THE FACE



4 CONCLUSIONS

This work reveals ethnical-related differences, indicating that facial signs of the lower face play a major role in the assessment of perceived age of both genders from different ethnicities.

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KEY WORDS

skin ageing, gender, French, Caucasian, wrinkles