CLAIMS

1. An optical lens for a human eye, the optical lens comprising a plurality of alternating optic zones arranged between a centre and a periphery of the optical lens, the alternating optic zones including

(i) a plurality of annular vision correction regions having first refractive powers for correcting myopic refractive errors to create a focused retina image, the first refractive powers being more hyperopic at the lens' periphery than at the lens' centre; and

(ii) a plurality of annular vision defocus regions having second refractive powers for creating a defocused retina image, the plurality of annular vision defocus regions arranged to alternate with respective ones of the plurality of annular vision correction regions~~.~~;

wherein respective ones of the plurality of the annular vision correction regions and the annular vision defocus regions are grouped as pairs for deriving the corresponding first and second refractive powers in the same pair;

and wherein the first refractive powers are derived based on:

$$(x+\frac{2(i-1)}{n-1}D),$$

and wherein the second refractive powers are derived based on:

$$(x+\frac{2(i-1)}{n-1}D)+2.5D,$$

where:

x is refractive error of the human eye;

n is the number of pairs; and

i is pair number of the annular vision correction region and annular vision defocus region.

~~2. An optical lens according to claim 1, wherein respective ones of the plurality of the annular vision correction regions and the annular vision defocus regions are grouped as pairs for deriving the corresponding first and second refractive powers in the same pair.~~

~~3. An optical lens according to claim 2, wherein the first refractive powers are derived based on:~~

~~$(x+\frac{2(i-1)}{n-1}D)$,~~

~~where:~~

~~x is refractive error of the human eye;~~

~~n is the number of pairs; and~~

~~i is pair number of the annular vision correction region and annular vision defocus region.~~

~~4. An optical lens according to claim 2 or 3, wherein the second refractive powers are derived based on:~~

~~$(x+\frac{2(i-1)}{n-1}D)+2.5D$,~~

~~where:~~

~~x is refractive error of the human eye;~~

~~n is the number of pairs; and~~

~~i is pair number of the annular vision correction region and annular vision defocus region.~~

~~5~~2. An optical lens according to any preceding claim, further including four or more alternating optic zones.

~~6~~3. An optical lens according to any preceding claim, wherein there are ten alternating optic zones.

~~7~~4. An optical lens according to any preceding claim, wherein the first refractive powers include varying refractive power values for each of the plurality of vision correction regions.

~~8~~5. An optical lens according to any preceding claim, wherein the second refractive powers include varying refractive power values for each of the myopic defocus regions.

~~9~~6. An optical lens according to any preceding claim, wherein the optical lens is in the form of a contact lens.

~~10~~7. A spectacle including the optical lens of any of claims 1-~~8~~5.