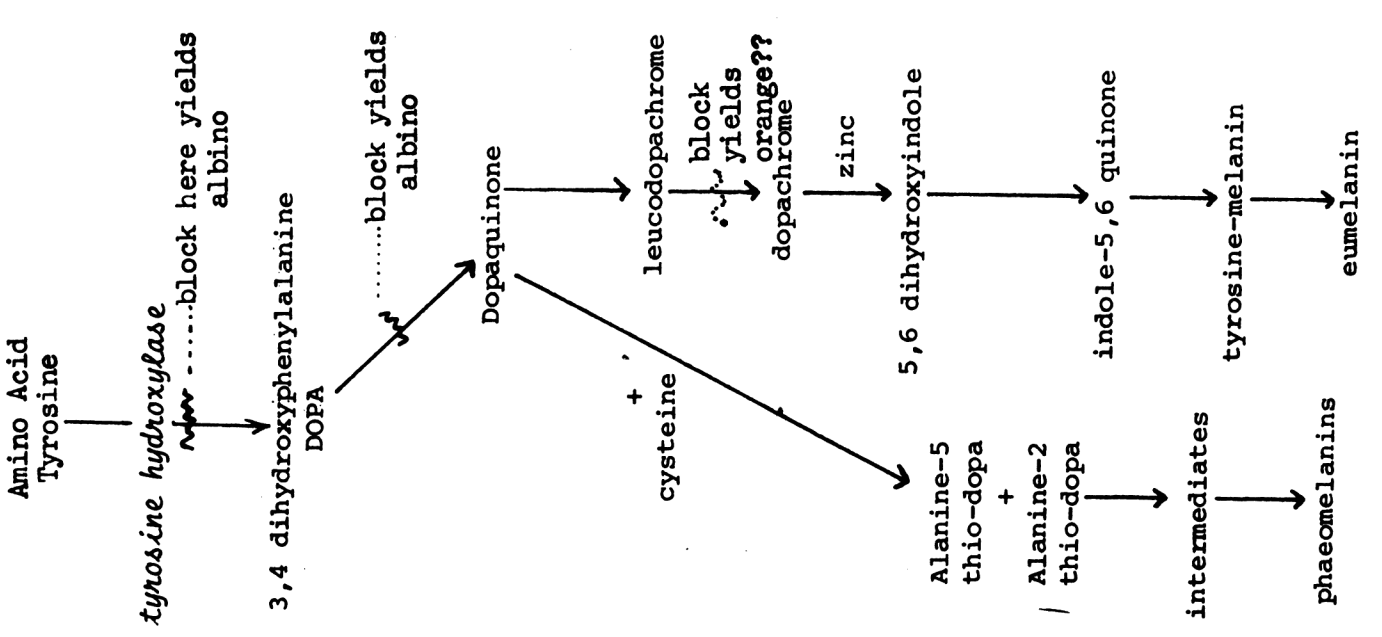
Dark collared doves (Streptopelia decaocto → S. risoria) have a deep red eye, if they are kept outdoors subject to the solar radiation, or even if they are kept indoors and subjected to ultra violet light. Eyes of blond doves are also red, barely a shade lighter? Indoors the eye is a bit lighter red.

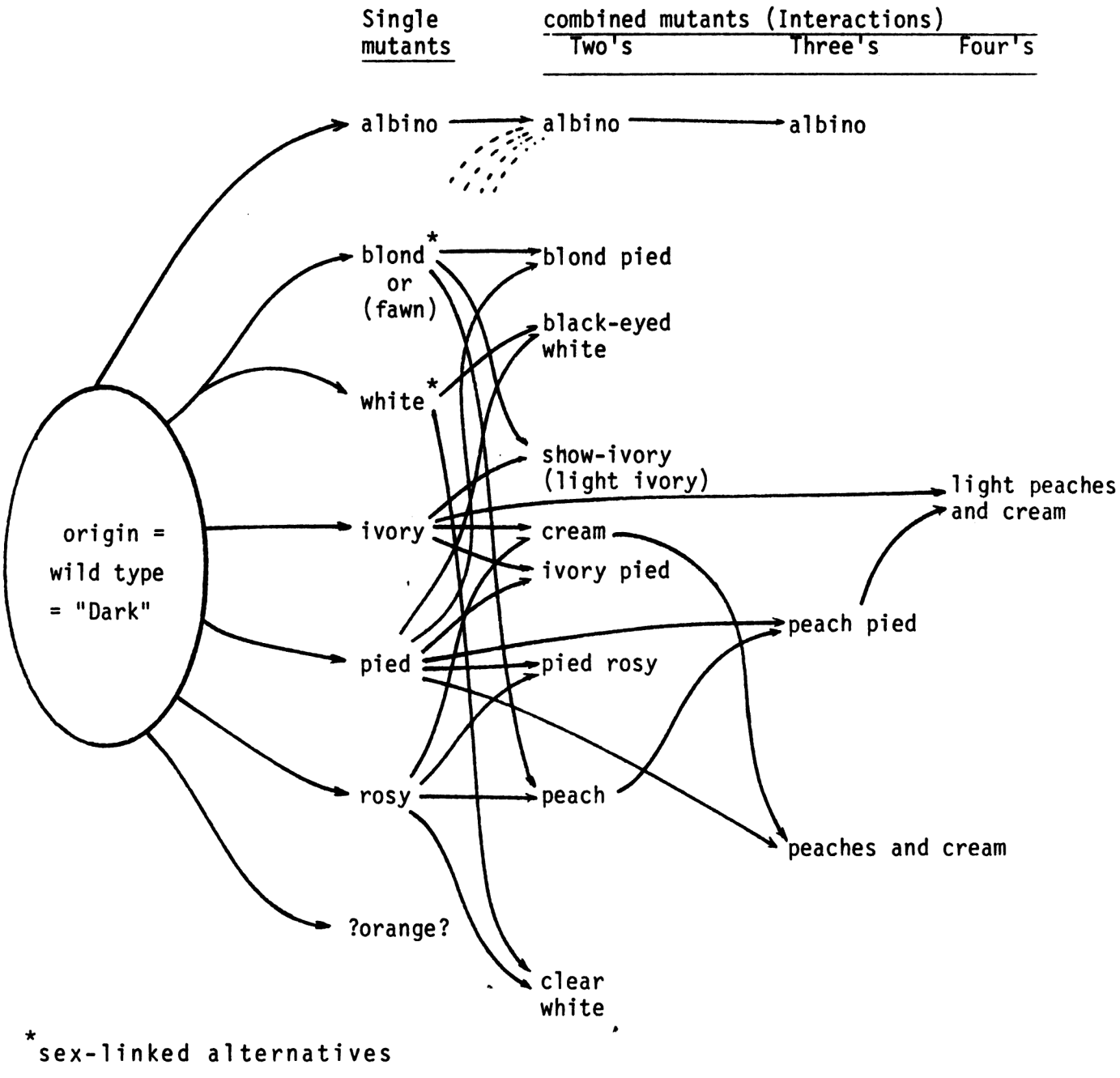
Plumage of the dark dove may be described as dark gray. Evidently, no one has investigated the pigments involved in doves. However, very likely two related types are involved in the plumage and eye color - - the eumelanin, black-browns, and phaeomelanin, red-yellows. These are very widespread among most all vertebrates.

The gray plumage of dark doves becomes blackish in the neck ring, in the flight feathers and in the tail bar. Likely, the phaeomelanin is missing there. This notion is supported by the orange mutant (see Miller and Munsell p. 5 Nov/Dec ADAN, 1985 issue). The tips of the tail feathers, especially toward the side (less in the middle ones) become whitish with no melanin or very little present. Juvenile dark doves and even blonds show a buff edge lacing that is most noticable in the wing shield coverts. This is lost in the adult plumage. A whitish trailing edge to some flight and secondary wing feathers is also seen. For a fuller description see Goodwin, D., 1977, "Pigeons and Doves of the World".

To reiterate, the wild color in the collared dove is gray from the mixture of various amounts of eumelanin and phaeomelanin. All the color varieties are mutant forms of various patterns, dilutions, and/or blocking of one or the other of these pigments. The diagram below of the tyrosine → melanin biochemical pathway shows where an early block of the path by an abberrant or missing enzyme such as tyrosine hydroxylase will result in albino. Dove and pigeon albinos likely are a result of the second block, since the first is involved also in the adrenaline pathway.



Diagramatic summary of color mutants in ringneck doves, Streptopelia risoria



*sex-linked alternatives