The files here correspond to the project described in the paper titled "Natural selection subsumes and unites multiple theories of perceptual compression", which is authored by Victor Quintanar-Zilinskas. All references below to tables, figures, and paper sections correspond to parts of the paper.

All ".m" files were generated and run using Matlab.

Simul.m performs the simulations described in "Methods, Interface allele competition". The data generated are saved in ".mat" files that are labeled with a letter and a number that respectively correspond to the simulation condition (as defined in Table 1) and to the replicate.

X#.mat ("X" represents a single letter) file rows each represent a simulated generation. Odd columns can be ignored; column 2 (4, 6) corresponds to the population in which 90% (50%, 20%) of the population is reproductive from one generation to the next. The numerical values in these columns indicate the number of simulated organisms carrying the "optimal" allele.

qlook.m extracts and organizes data from the ".mat" files and performs the statistical tests reported in Table 1.

Pan_a through **Pan_e**, respectively, generate the data and create the graphics shown in Fig. 2, panels a-e. Data generation is as described in "Methods, Expected utility computation".

SuppEqSolutions.nb is, in this project, a tool used to manipulate and simplify mathematical expressions. Section labels correspond to subsections of the "Supplementary Equations" paper section. Expression manipulations in this file are presented in the same order that they appear in the "Supplementary Equations". This file is created and run with Wolfram Mathematica.

SuppEqSolutions.pdf is provided for those without access to Wolfram Mathematica.