

# Results Summary from GeneEvolve Simulation 2022-05-27 10:39:06

## Basic Parameters:

Working Directory: /Users/matthewkeller/Google Drive/DriveDocuments/Teaching/TwinWorkshops/Assumptions/GeneEvolveSims

Number of generations: 20

Population size at start: 30000

Number of genes: 20

Vertical Trans. model: vertical transmission from parental phenotypes to offspring

Assort. Mating model: primary phenotypic assortment – correlation b/w mates due to their choosing similar phenotypes AM = 0.5

## Sample Sizes in Dataset:

MZ	DZ	Parents	Sibs	Spouses	Children
5688	7172	12717	7340	2282	0

## Variance Components – User Input: (Note: U+MZ+TW=E)

A	AA	D	F	S	U	MZ	TW	SEX	AGE	A.by.SEX	A.by.AGE	A.by.S	A.by.U
0.5	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	0

## Time

Simulation started: 2022-05-27 10:37:52

Simulation ended: 2022-05-27 10:39:07

Minutes taken – looping through generations: 1.16

Minutes taken – creating pedigree datasets: 0.17

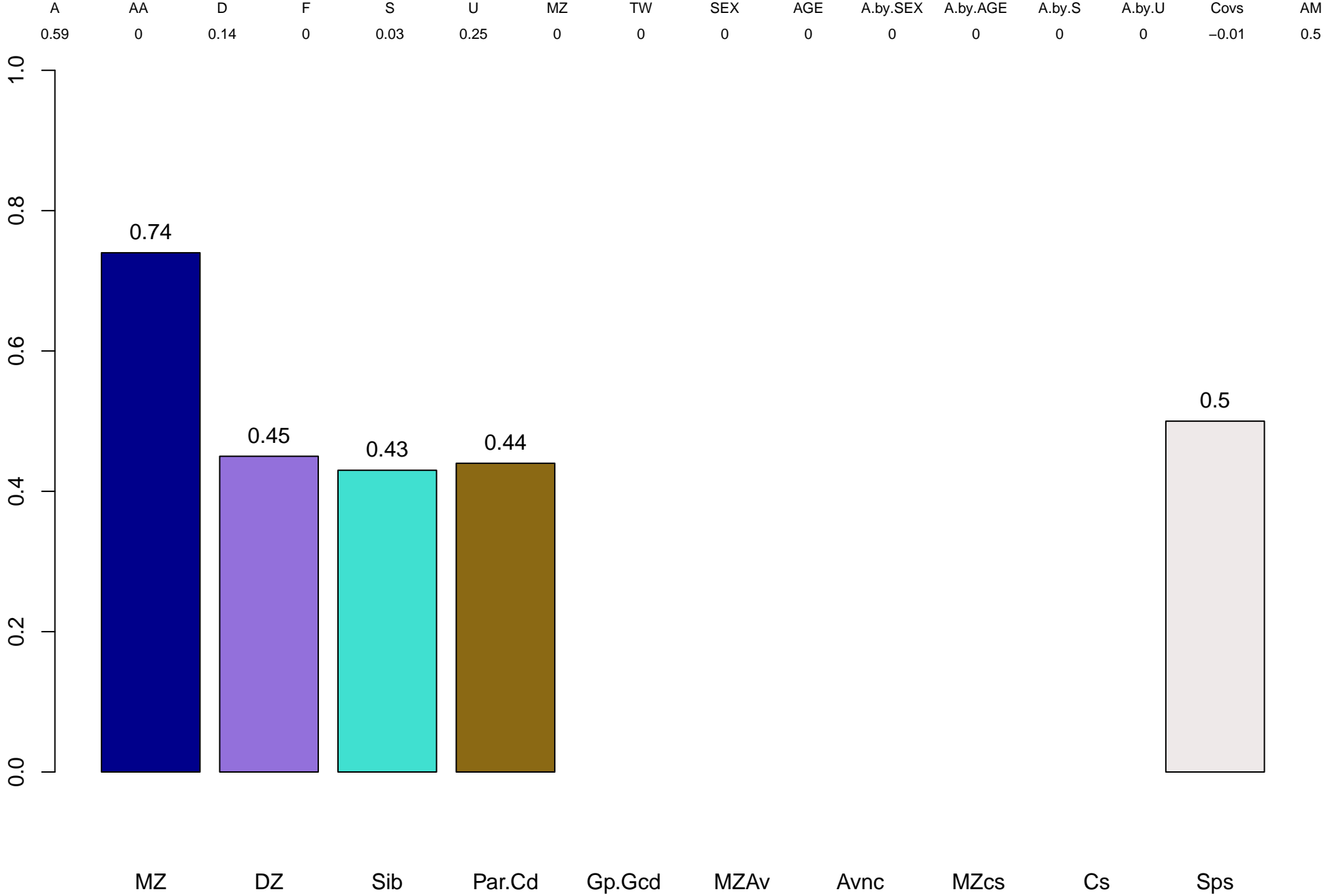
Minutes taken – finding relative correlations: 0.01

Minutes taken – TOTAL: 1.26

## Warnings in script:

# Correlations between 10 Relative Types

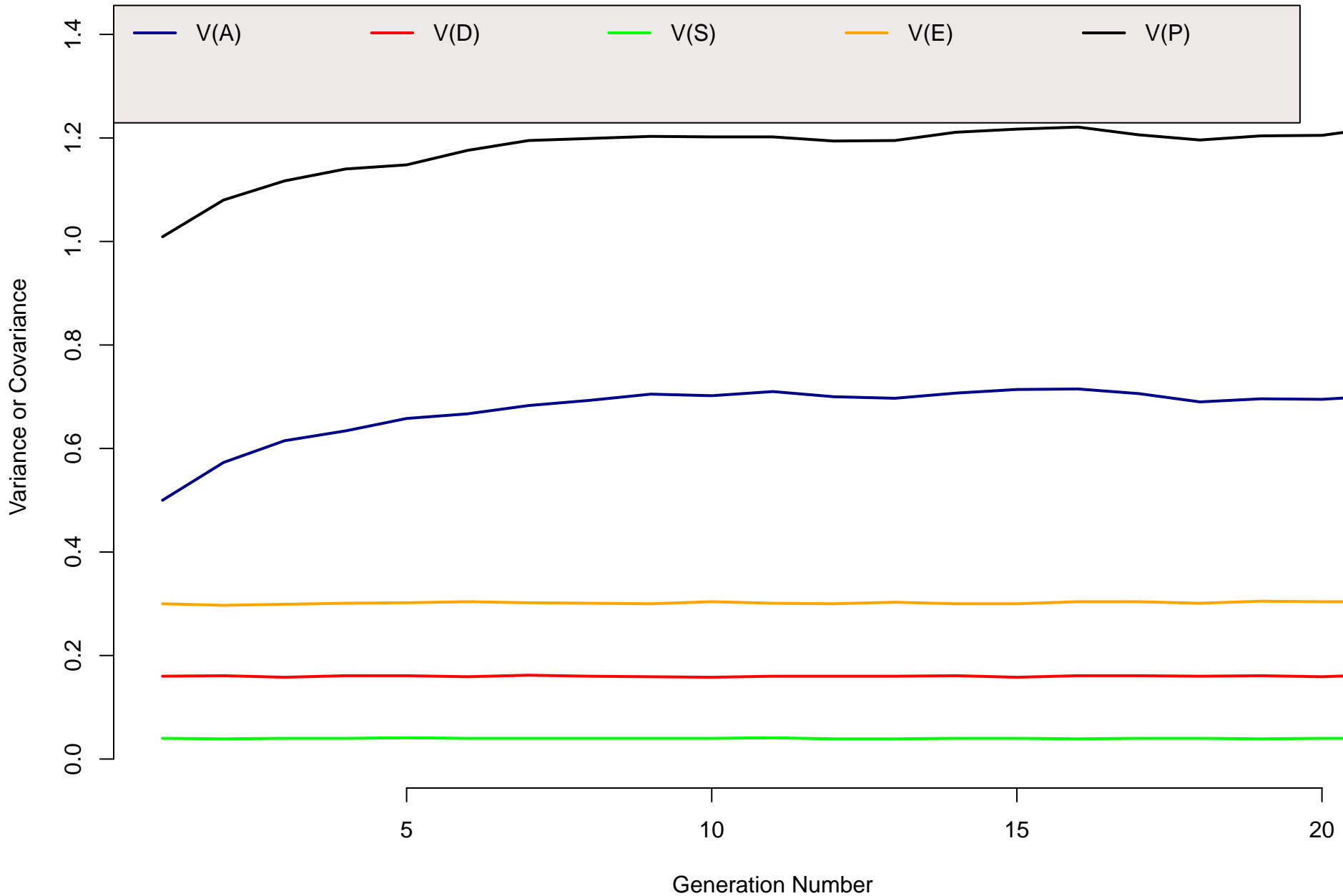
True Standardized Variance Components in Dataset



# Change in Variance Across Generations – Includes V(P)

Unstandardized Variance Components

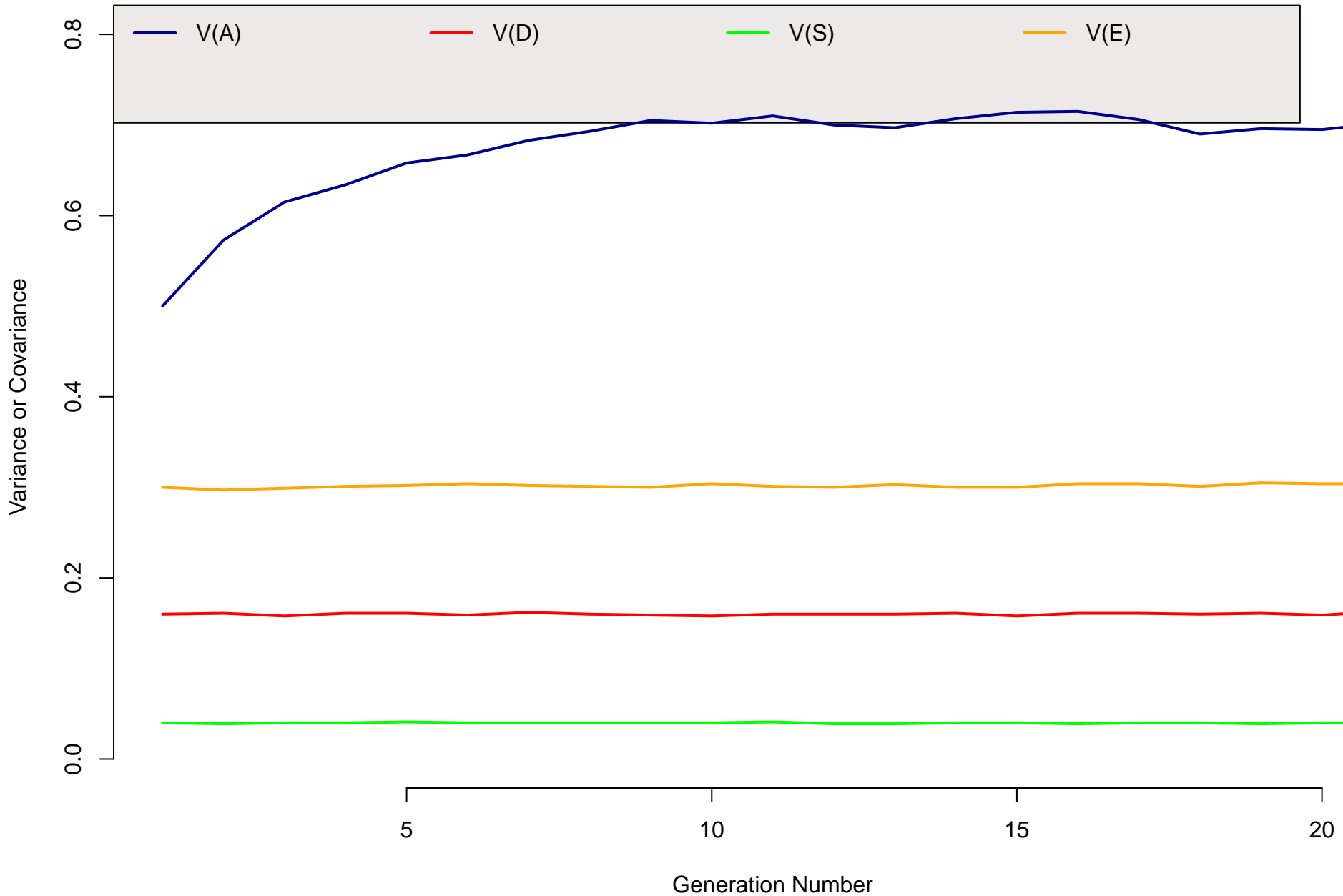
	V(A)	V(AA)	V(D)	V(F)	V(S)	V(E)	V(Sex)	V(Age)	V(AxSex)	V(AxAge)	V(AxS)	V(AxU)	Cov(A,F)	V(P)	r(sps)
Start:	0.5	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	1.01	0.5
End:	0.7	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	1.22	0.5
Data:	0.7	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	1.2	0.5



# Change in Variance Across Generations – Does Not Include V(P)

Unstandardized Variance Components

	V(A)	V(AA)	V(D)	V(F)	V(S)	V(E)	V(Sex)	V(Age)	V(AxSex)	V(AxAge)	V(AxS)	V(AxU)	Cov(A,F)	r(sps)
Start:	0.5	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	0.5
End:	0.7	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	0.5
Data:	0.7	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	0.5



# Change in V(A) Across Generations due to Assortative Mating

Unstandardized Variance Components

	V(A)	V(AA)	V(D)	V(F)	V(S)	V(E)	V(Sex)	V(Age)	V(AxSex)	V(AxAge)	V(AxS)	V(AxU)	Cov(A,F)	V(P)	r(sps)
Start:	0.5	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	1.01	0.5
End:	0.7	0	0.16	0	0.04	0.3	0	0	0	0	0	0	0	1.22	0.5

