

# Results Summary from GeneEvolve Simulation 2022-05-27 17:30:18

## 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

## Sample Sizes in Dataset:

MZ	DZ	Parents	Sibs	Spouses	Children
5802	7366	13019	7272	2277	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
0.4	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	0

## Time

Simulation started: 2022-05-27 17:29:02

Simulation ended: 2022-05-27 17:30:19

Minutes taken – looping through generations: 1.18

Minutes taken – creating pedigree datasets: 0.18

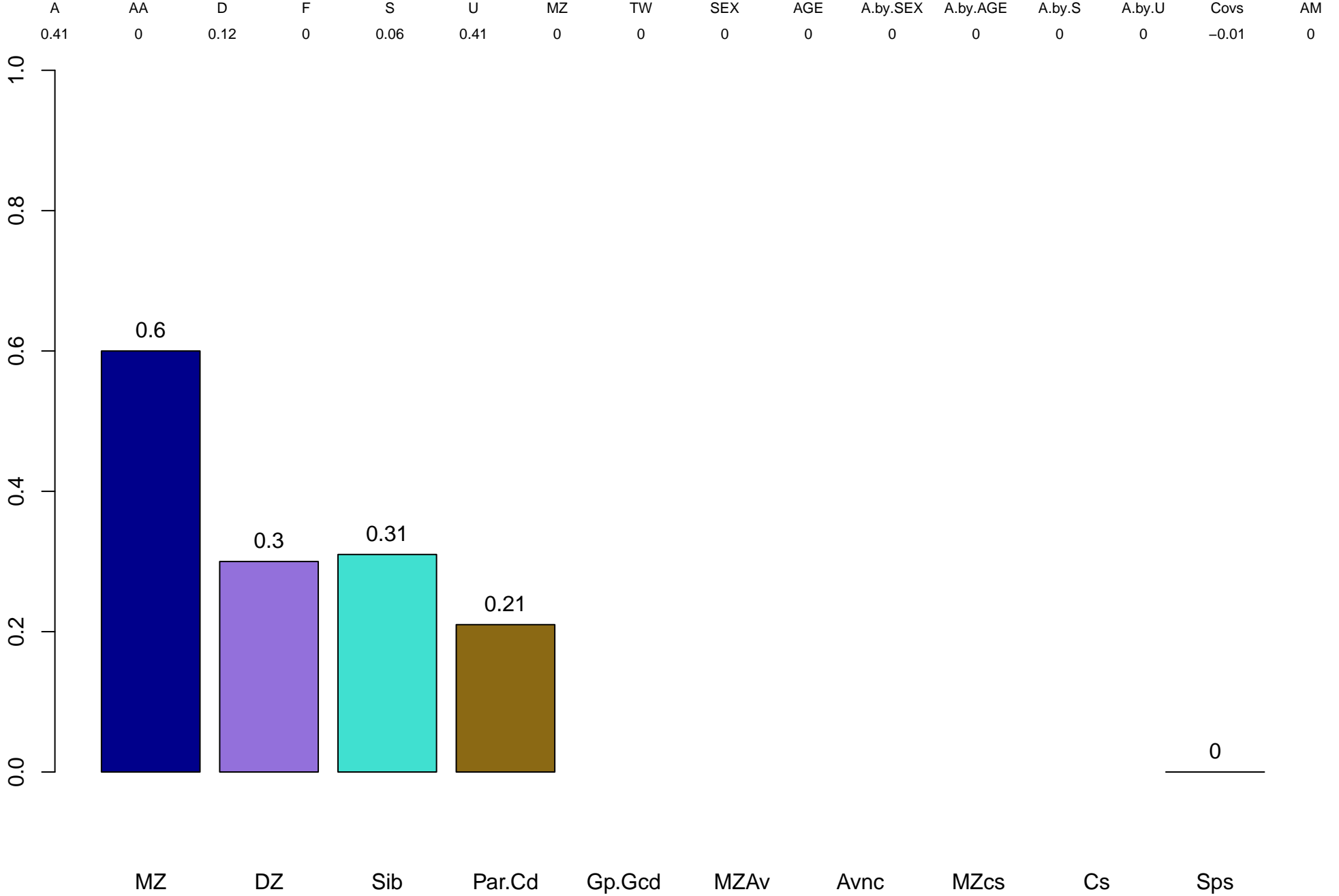
Minutes taken – finding relative correlations: 0.01

Minutes taken – TOTAL: 1.28

## Warnings in script:

# Correlations between 10 Relative Types

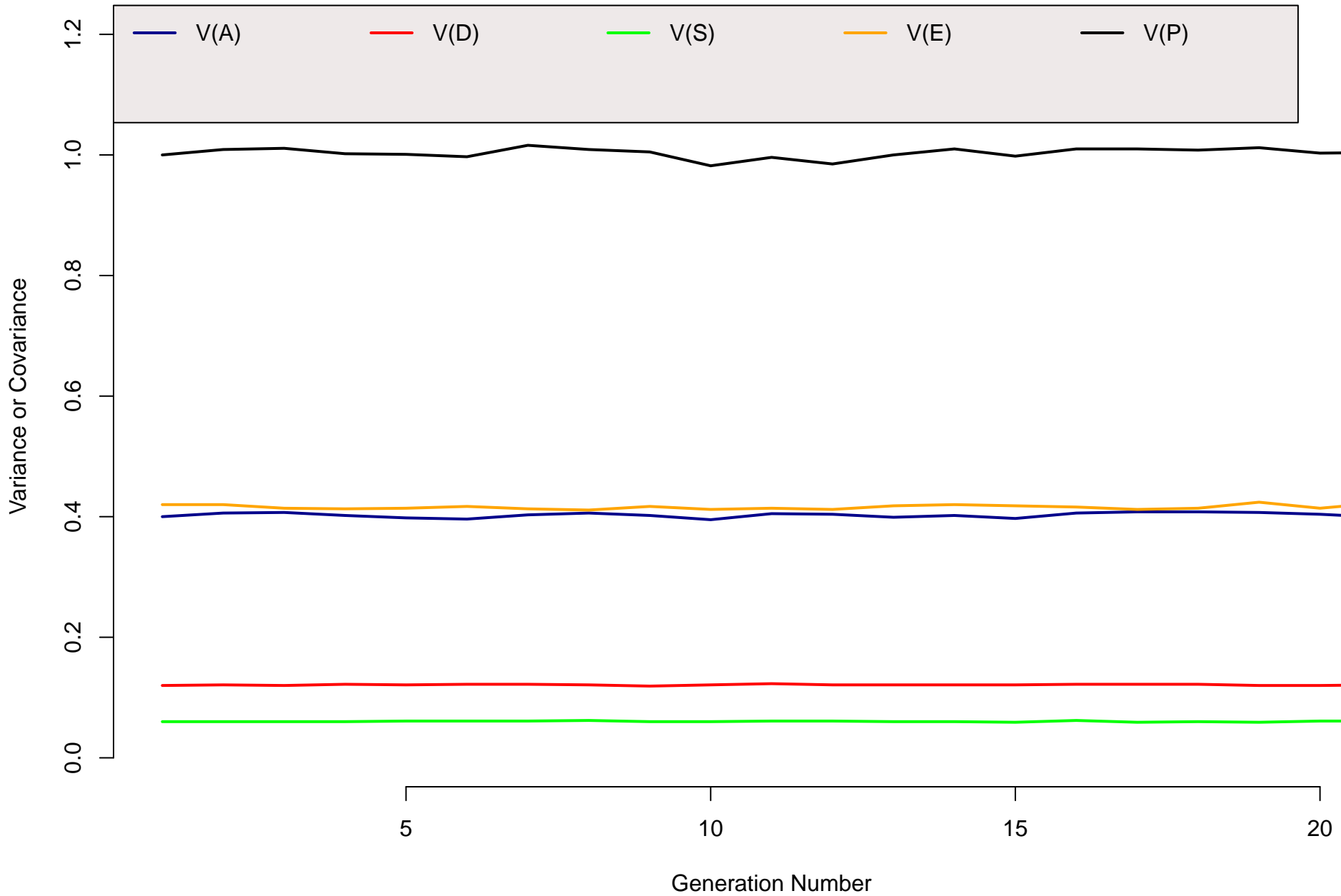
True Standardized Variance Components in Dataset



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

Unstandardized Variance Components

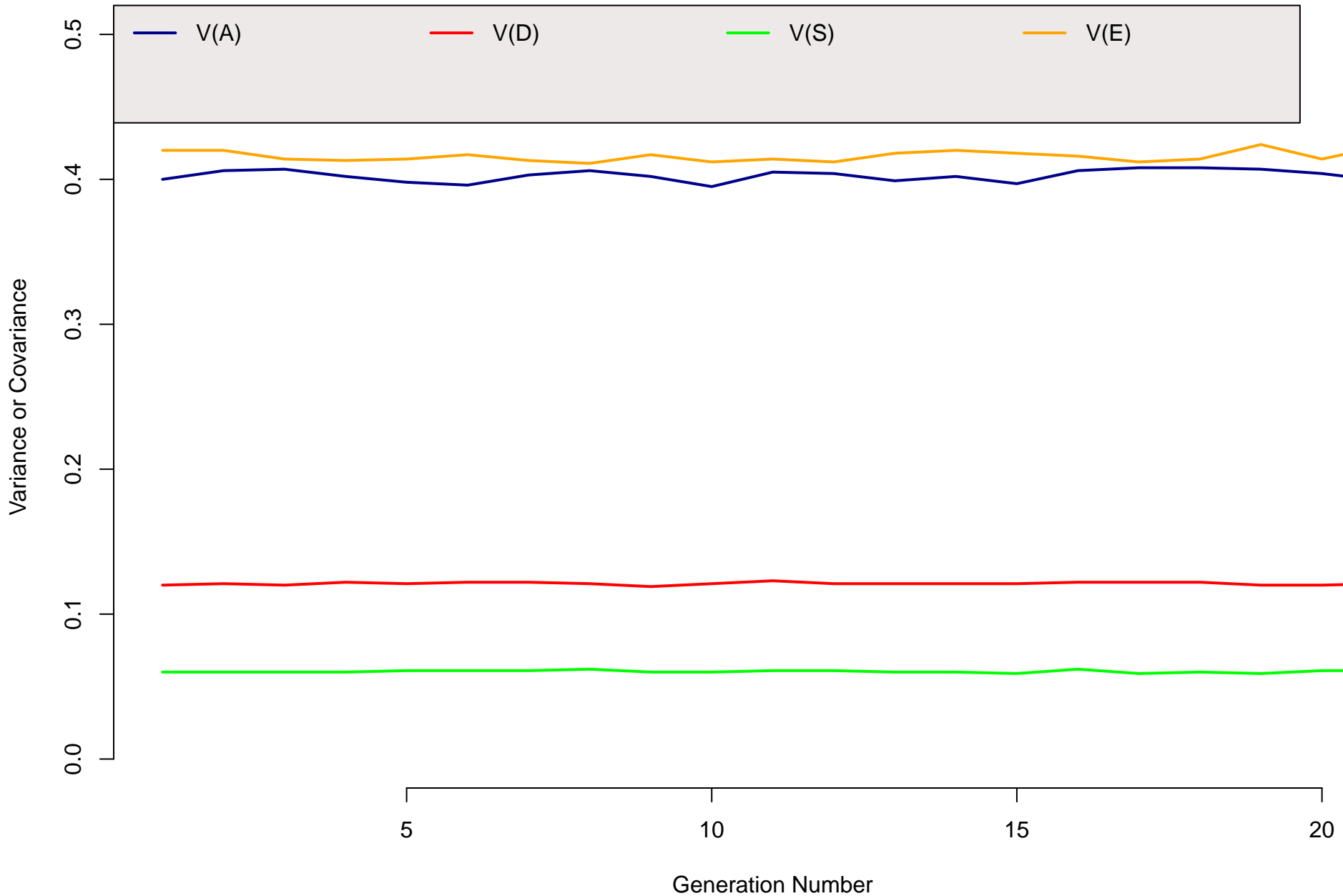
	V(A)	V(AA)	V(D)	V(F)	V(S)	V(E)	V(Sex)	V(Age)	V(AxSex)	V(AxAge)	V(AxS)	V(AxU)	Cov(A,F)	V(P)	r(sps)
Start:	0.4	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	1	0
End:	0.4	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	1	0
Data:	0.41	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	1	0



# 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:	0.4	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	0
End:	0.4	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	0
Data:	0.41	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	0



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

Unstandardized Variance Components

	$V(A)$	$V(AA)$	$V(D)$	$V(F)$	$V(S)$	$V(E)$	$V(\text{Sex})$	$V(\text{Age})$	$V(\text{AxSex})$	$V(\text{AxAge})$	$V(\text{AxS})$	$V(\text{AxU})$	$\text{Cov}(A,F)$	$V(P)$	$r(\text{sps})$
Start:	0.4	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	1	0
End:	0.4	0	0.12	0	0.06	0.42	0	0	0	0	0	0	0	1	0

