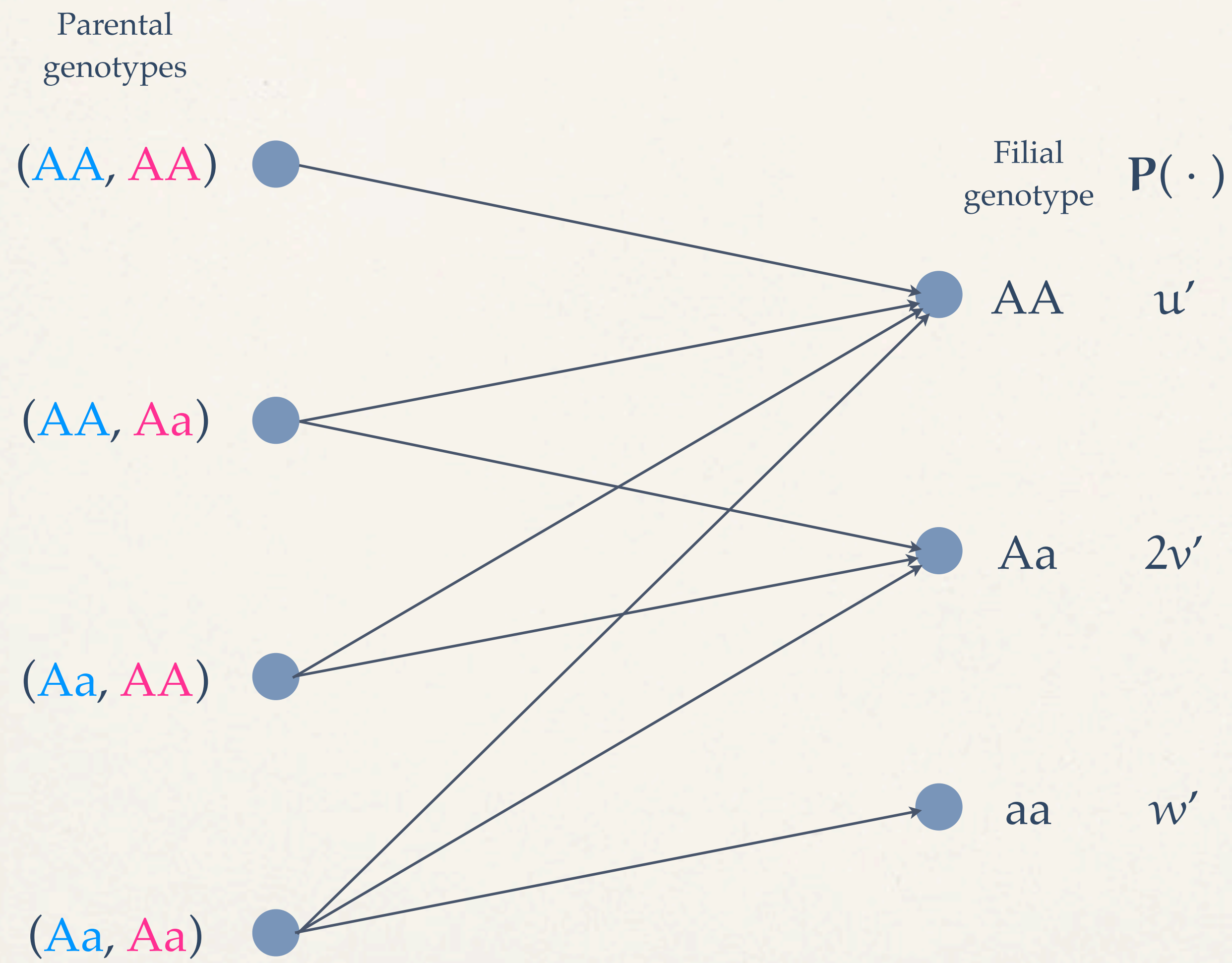


# Random selection and mating

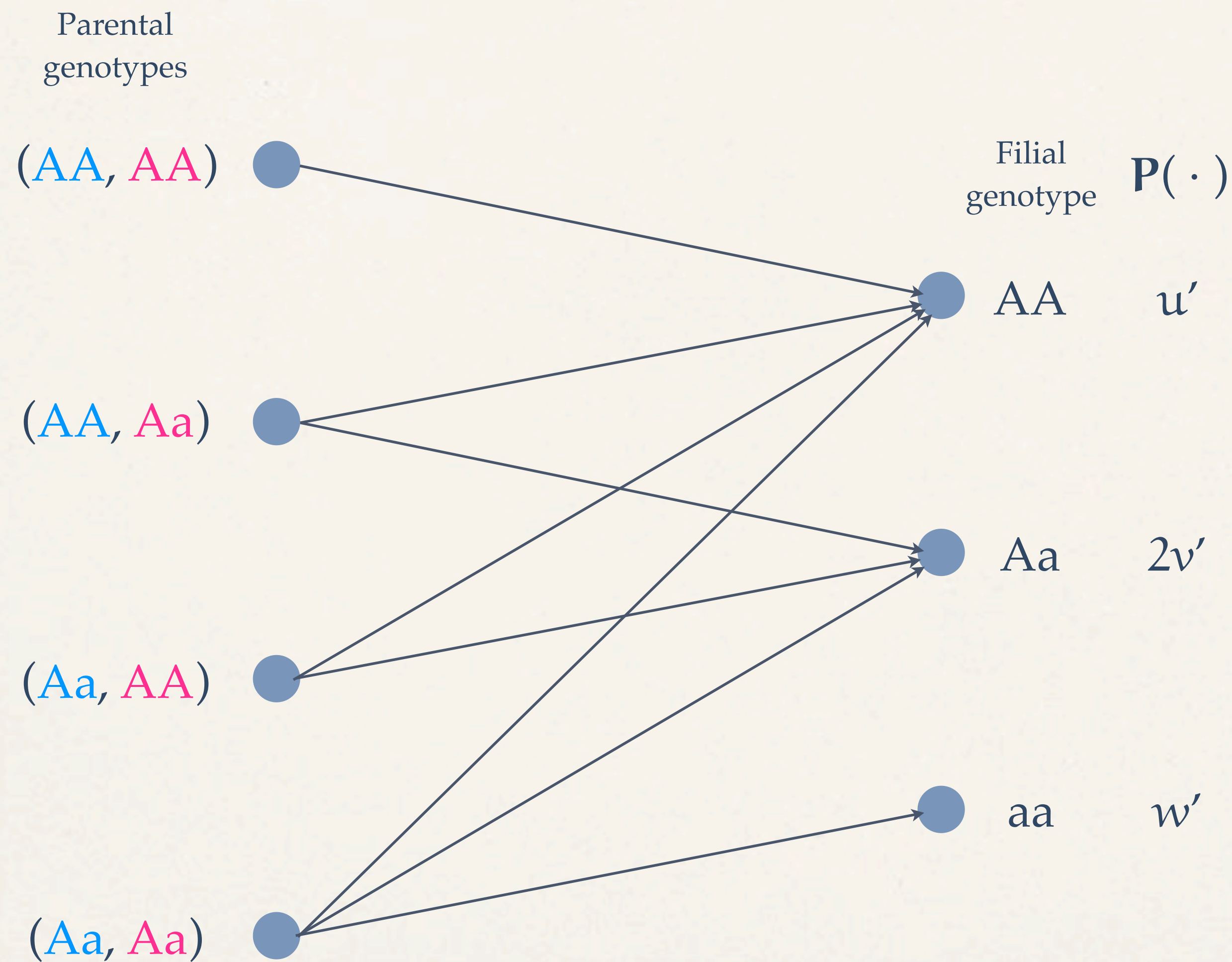
Genotype frequency in mating population		
Genotype	AA	Aa
Frequency	$\frac{u}{1-w}$	$\frac{2v}{1-w}$





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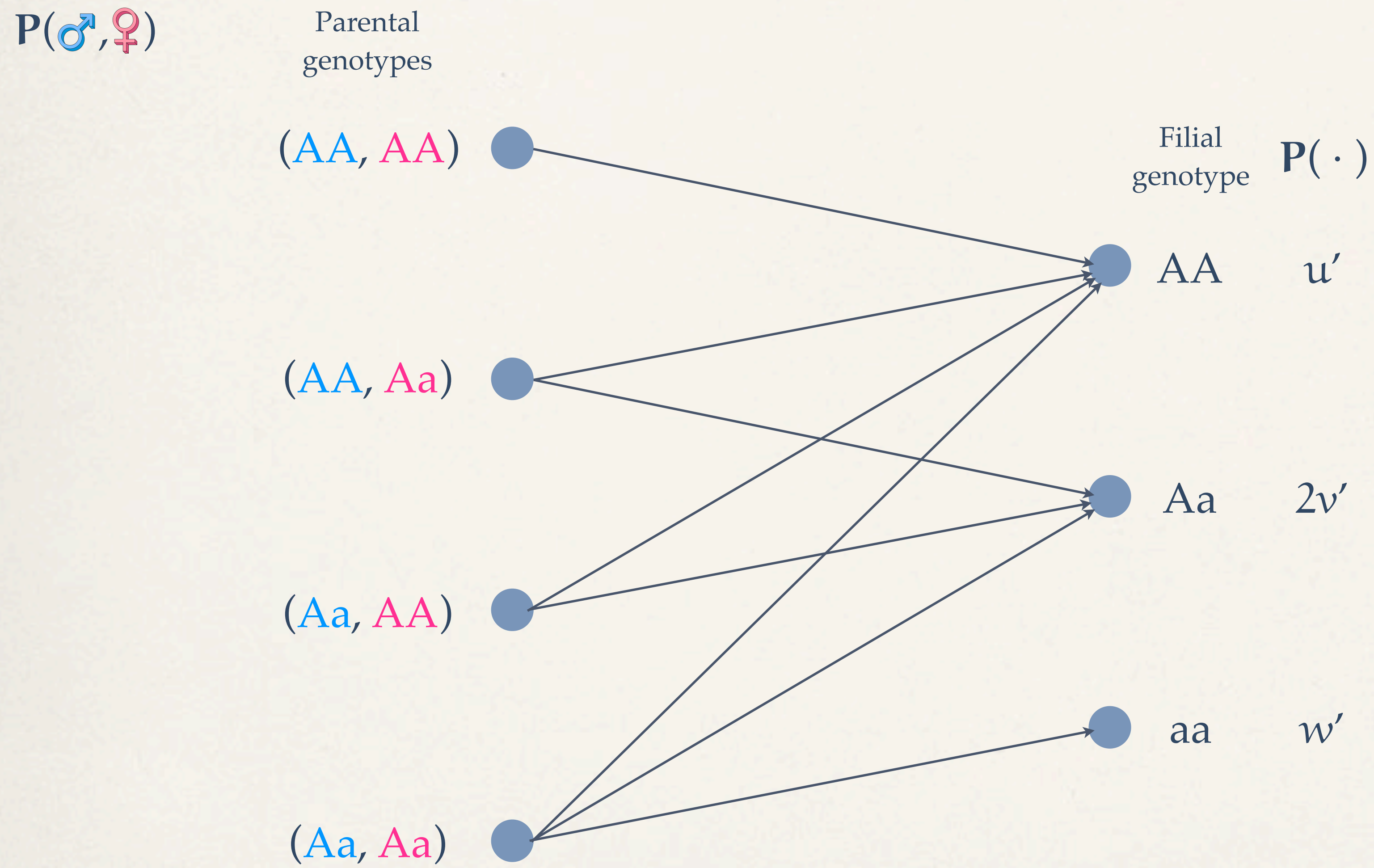


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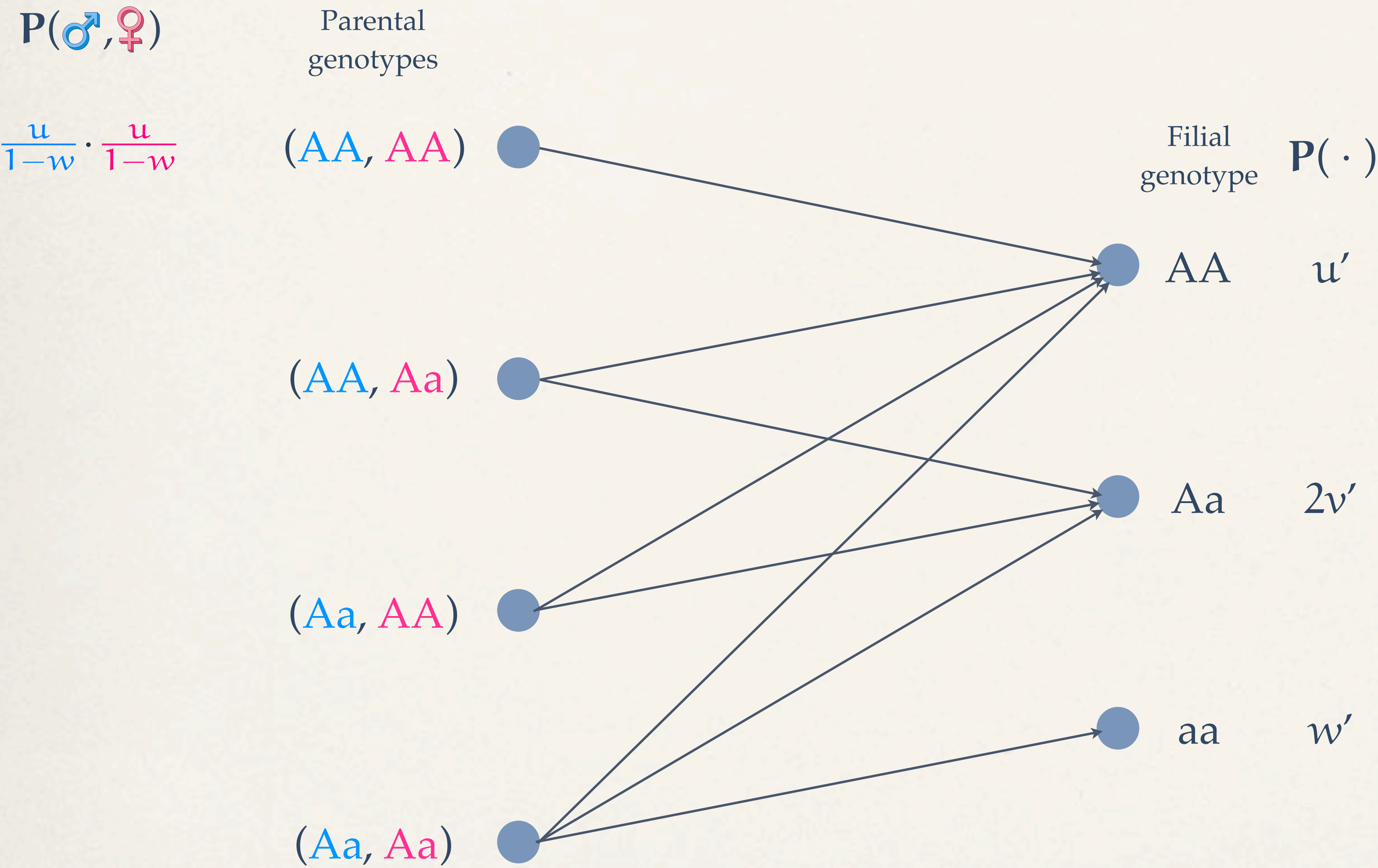


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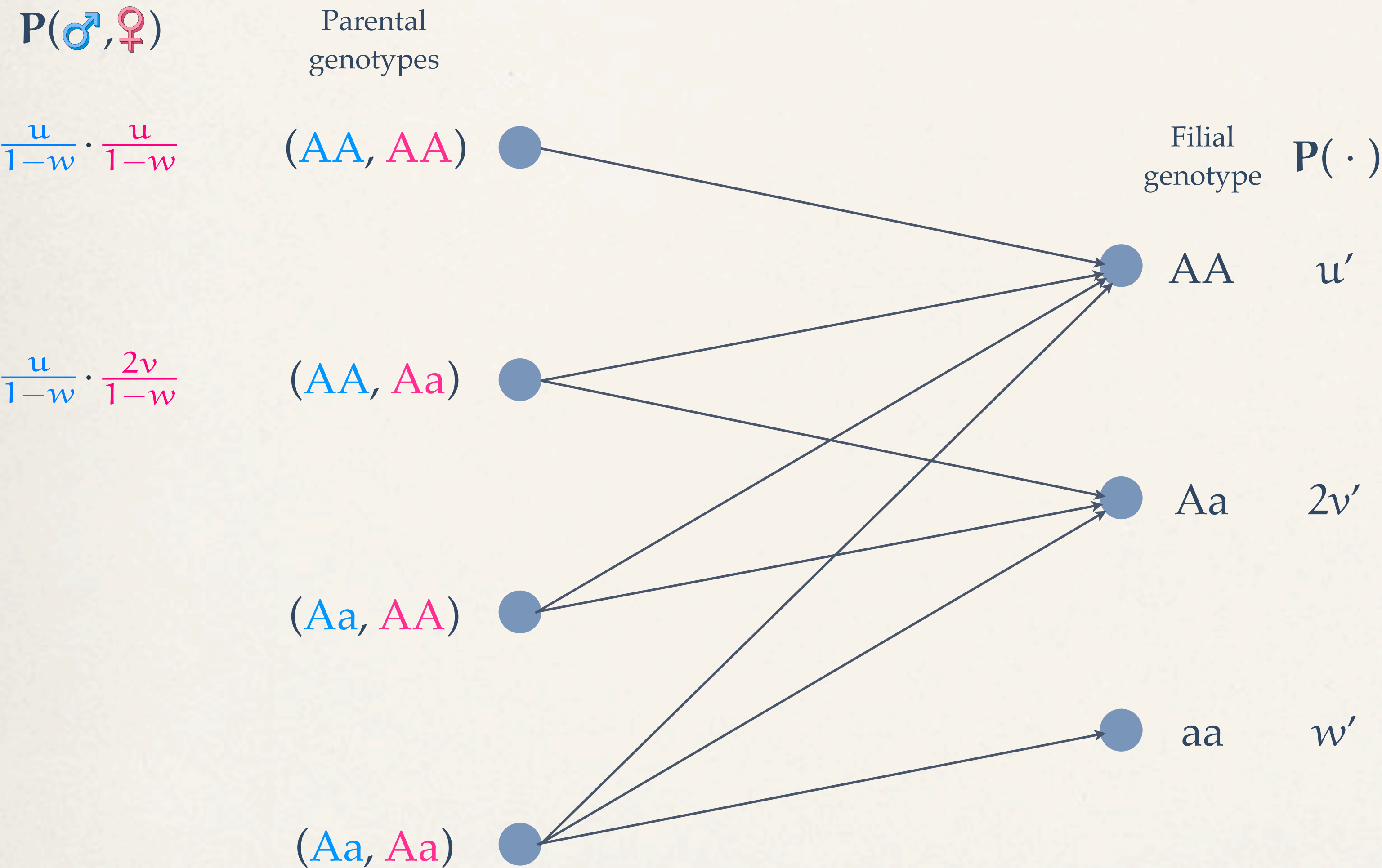


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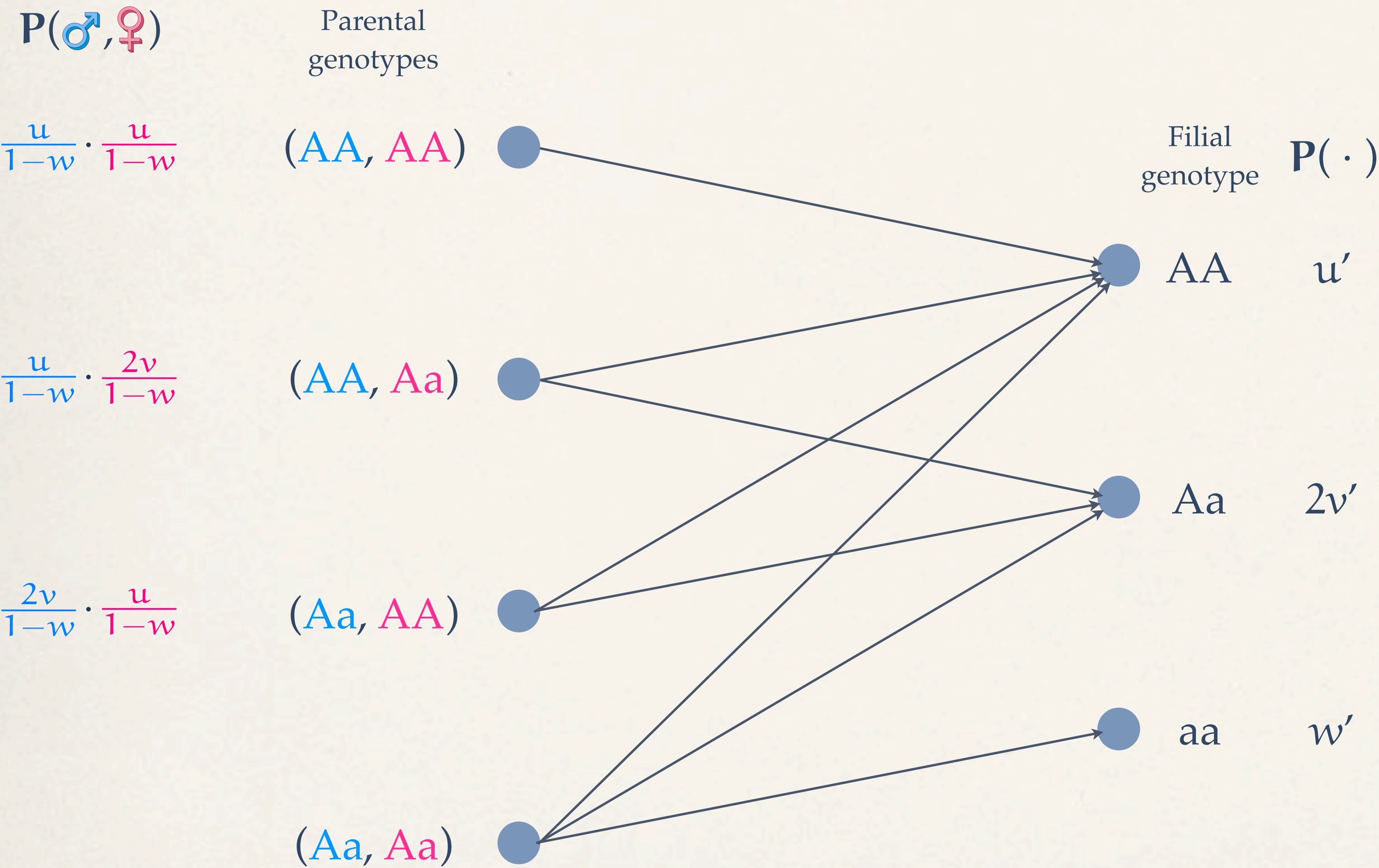


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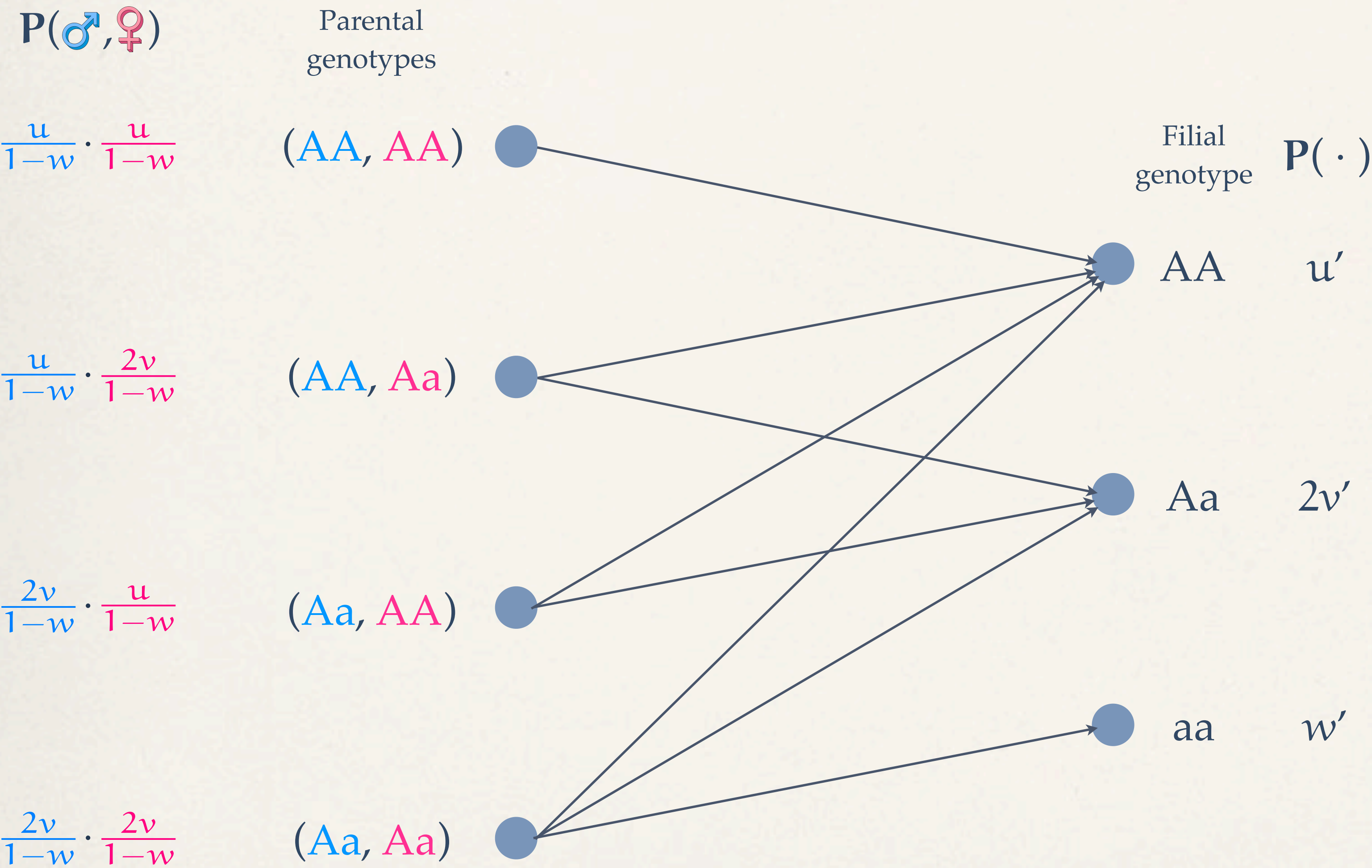


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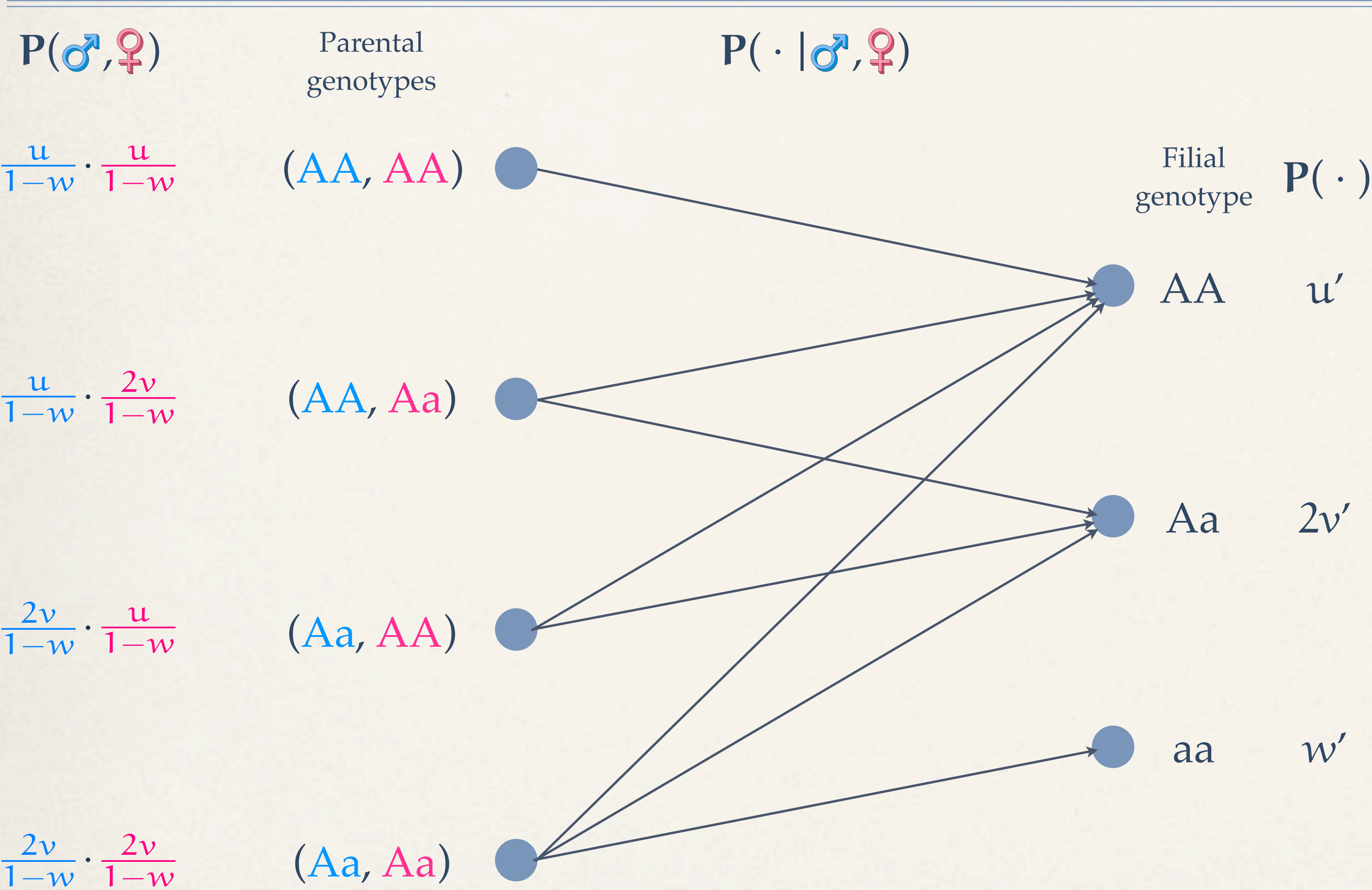


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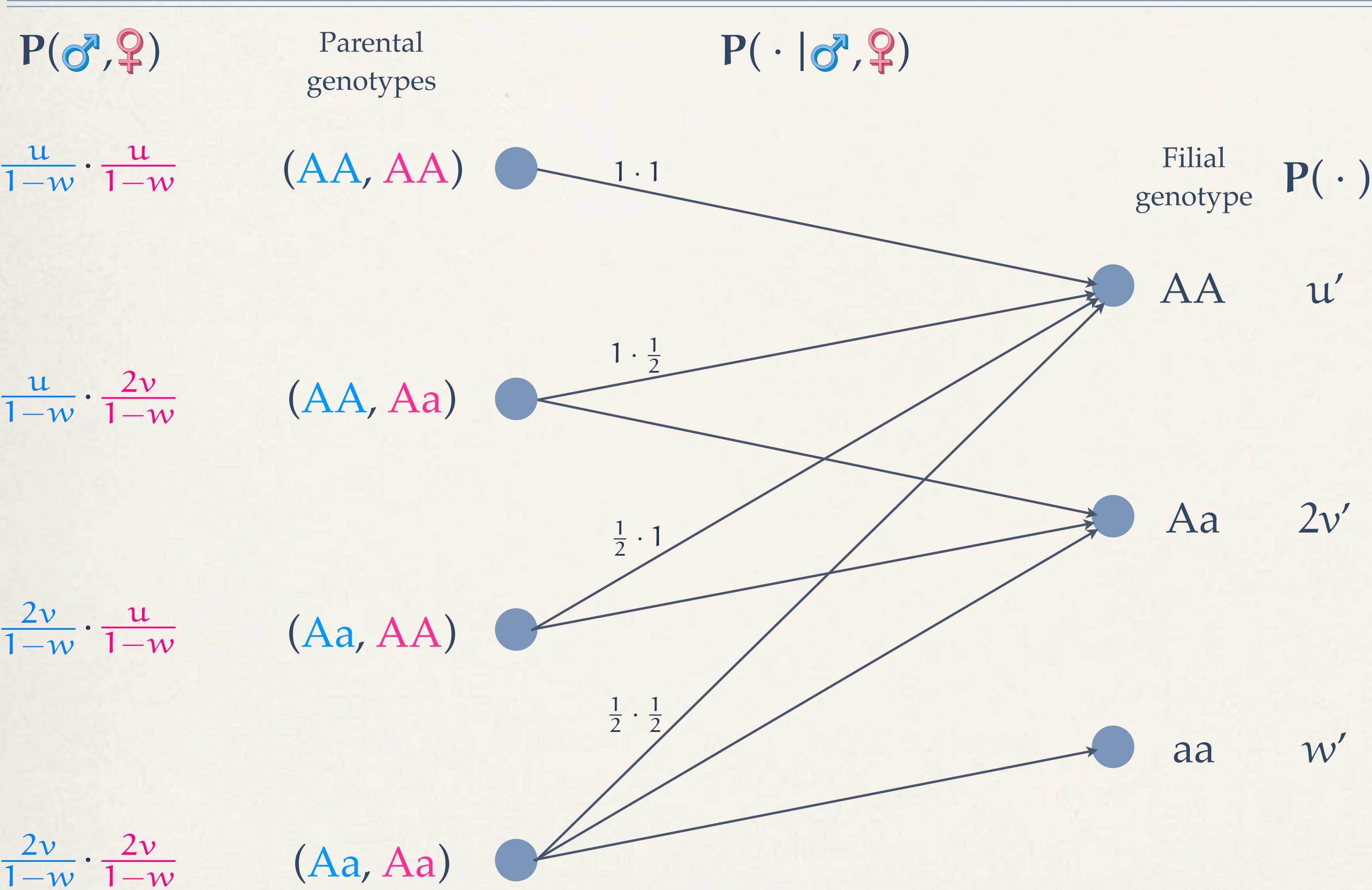


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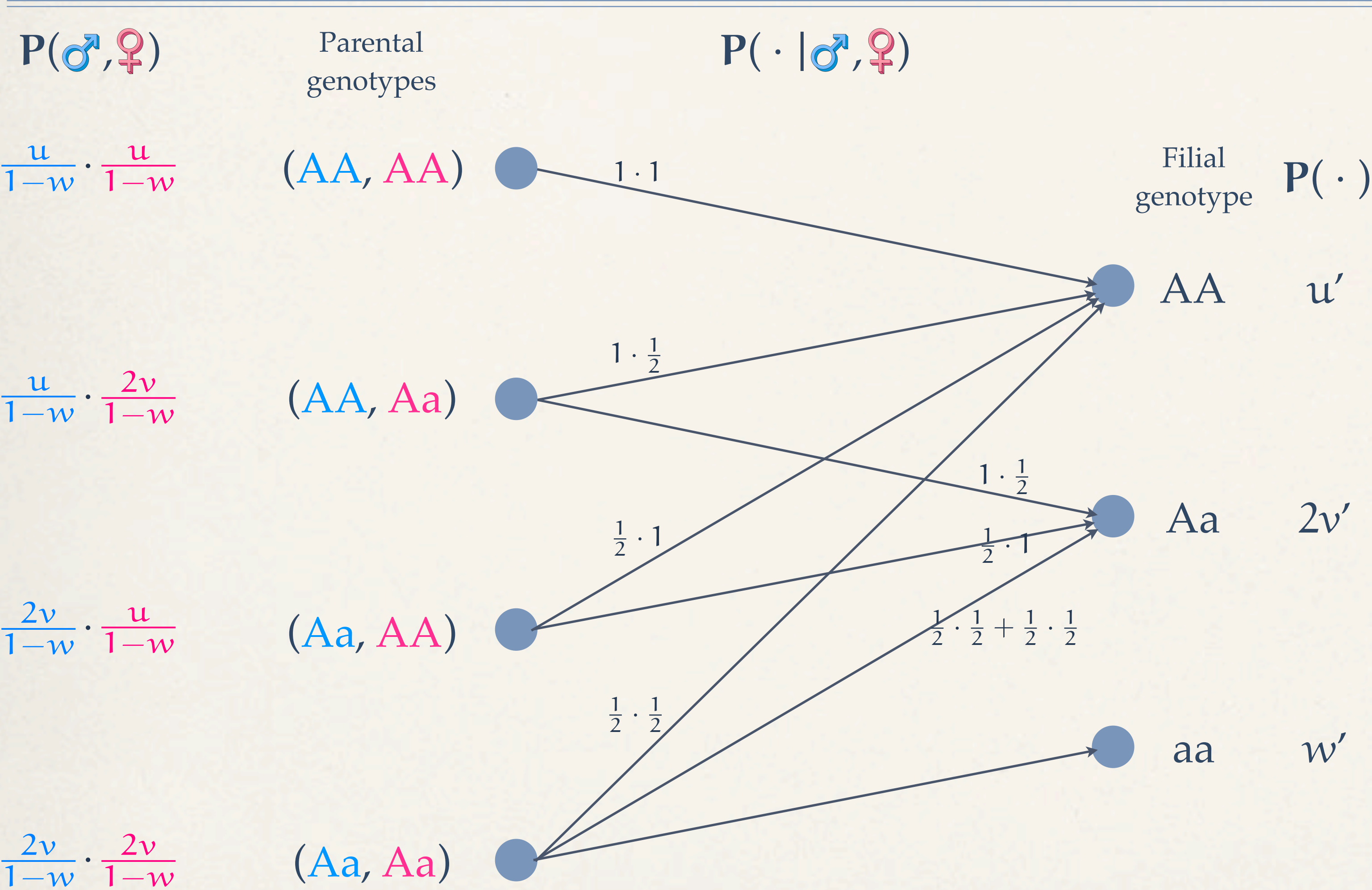


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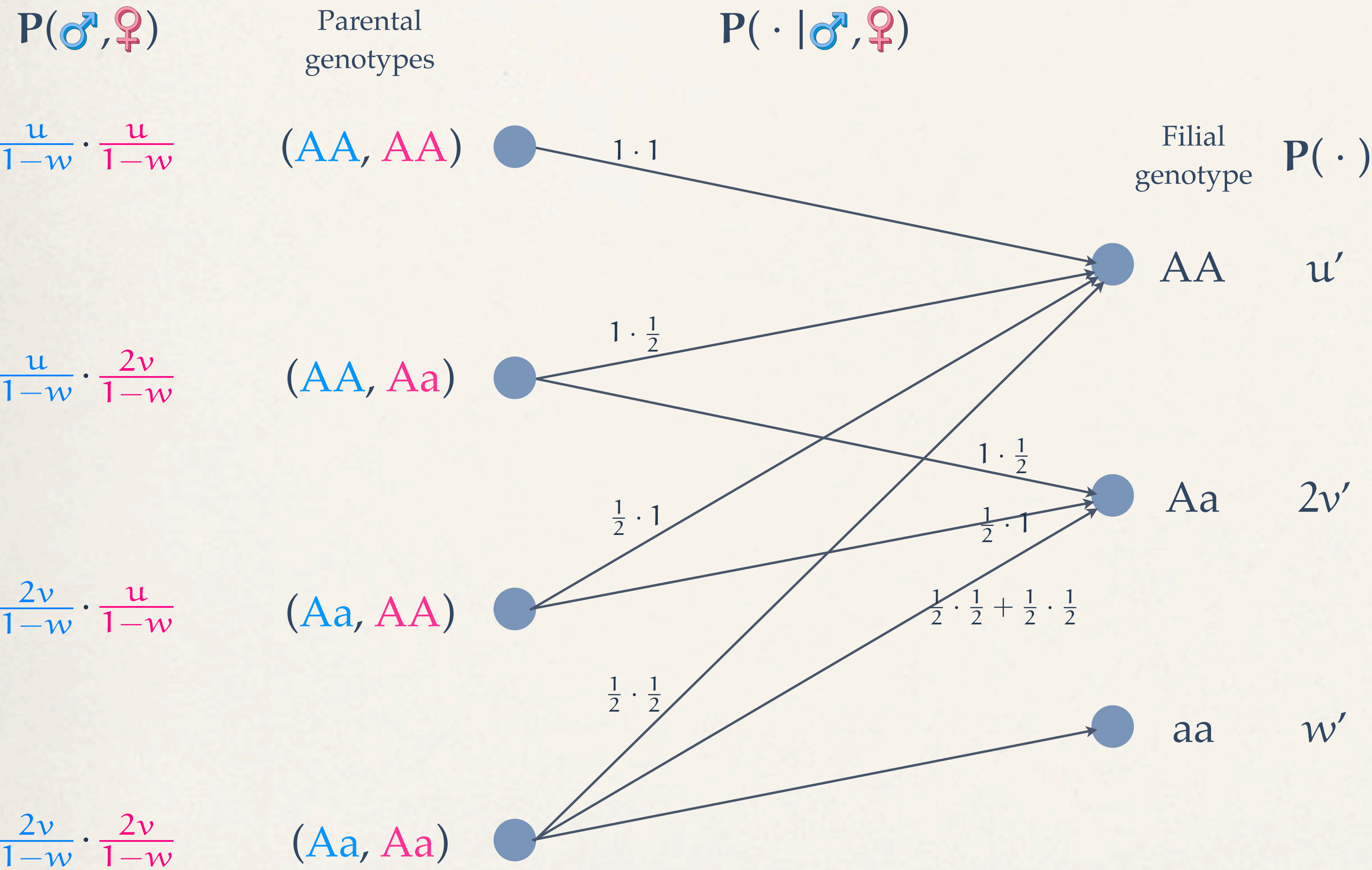


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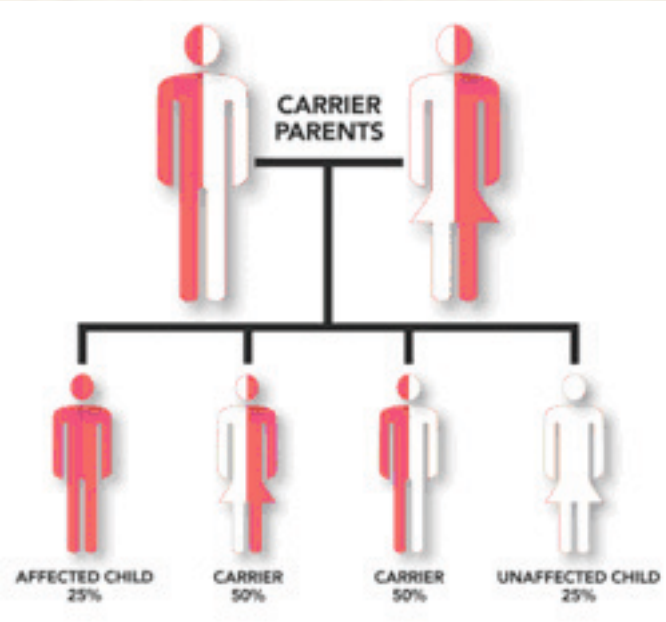


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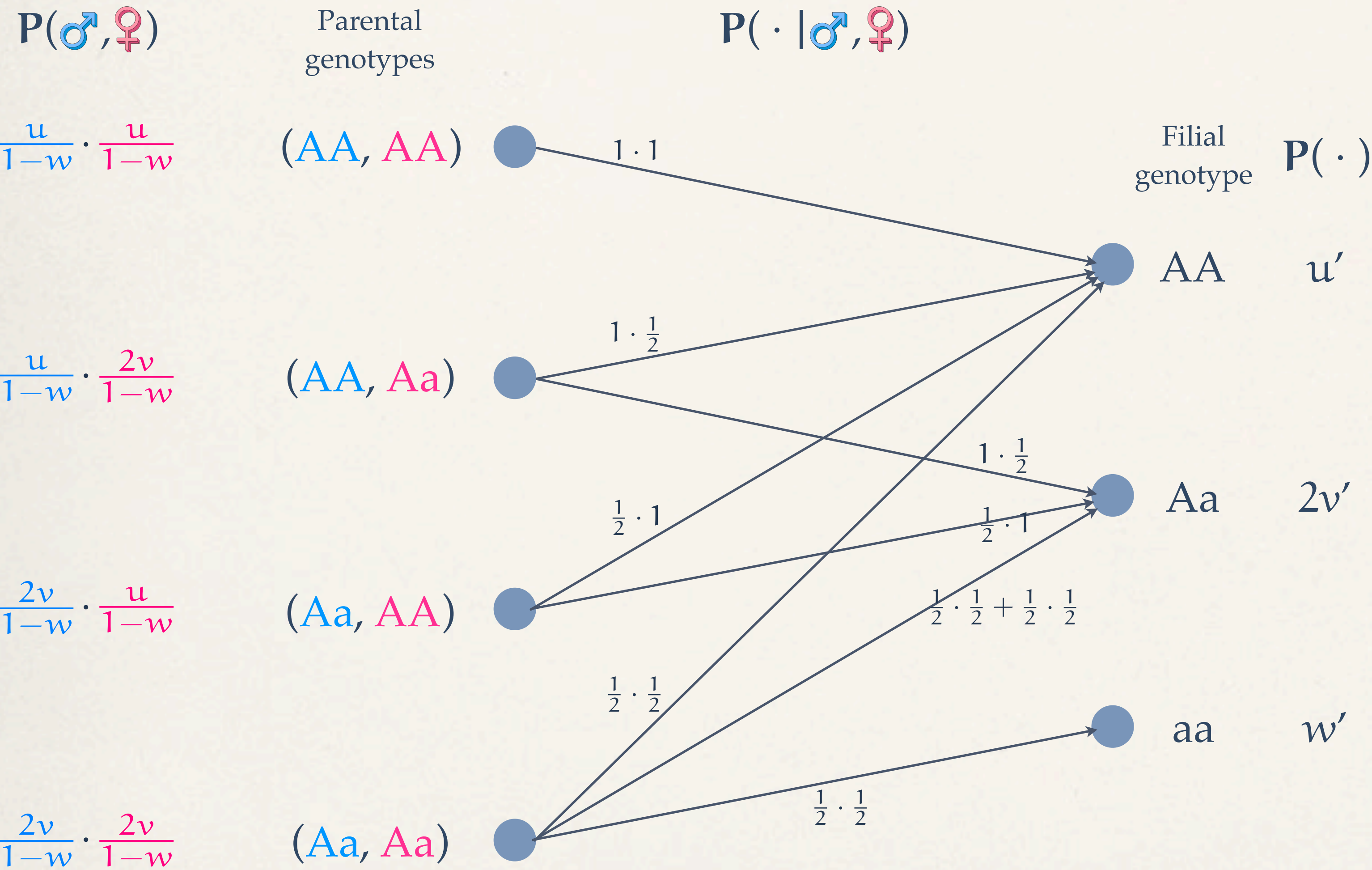
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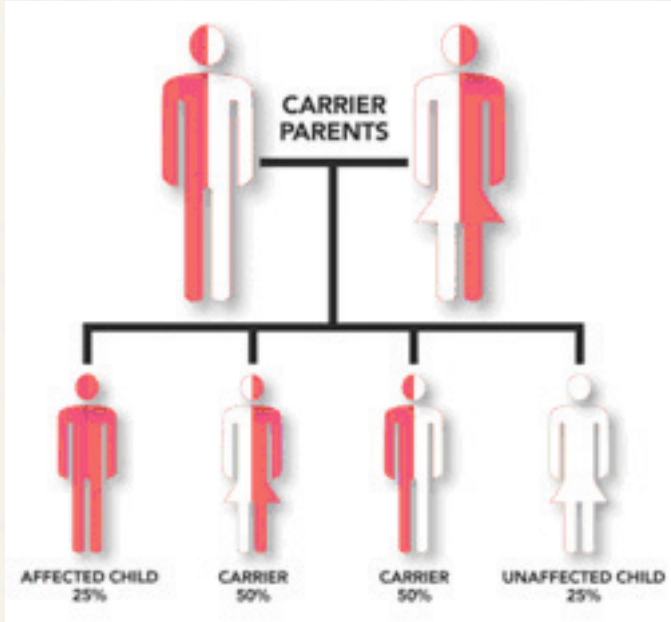


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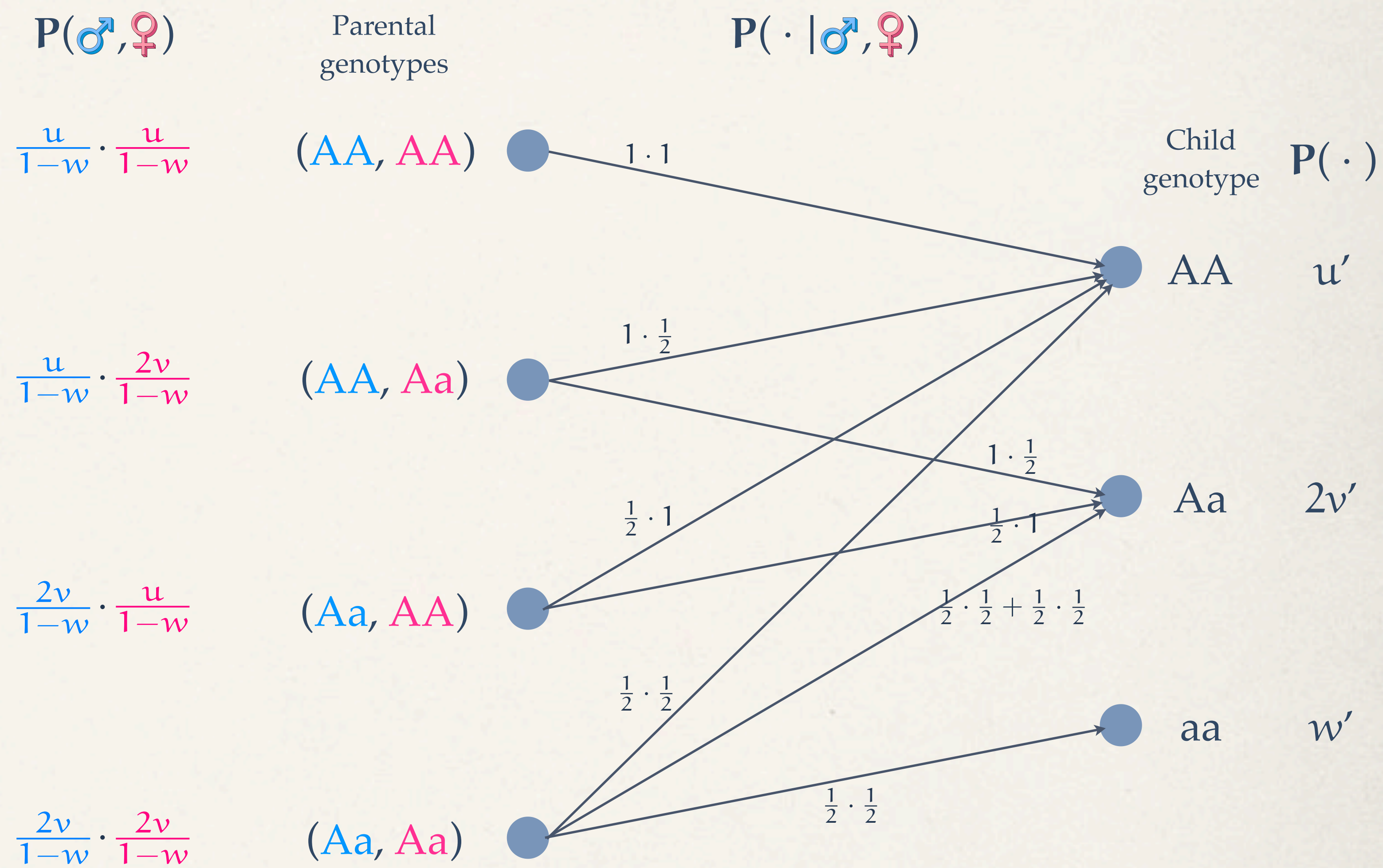
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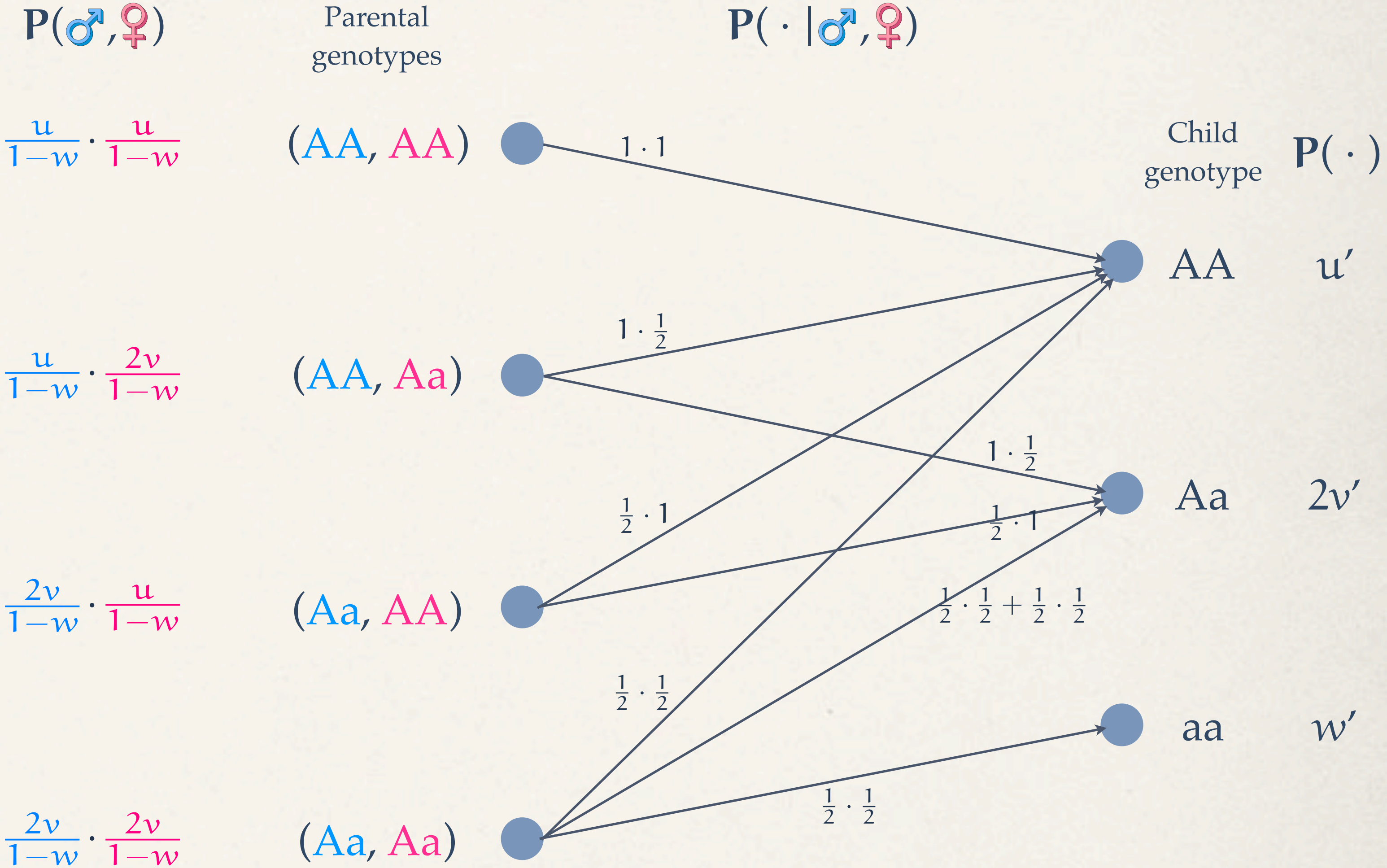






*a priori* probabilities

Parental pairing	$P(\text{♂}, \text{♀})$
AA, AA	$\frac{u^2}{(1-w)^2}$
AA, Aa	$\frac{2uv}{(1-w)^2}$
Aa, AA	$\frac{2uv}{(1-w)^2}$
Aa, Aa	$\frac{4v^2}{(1-w)^2}$





*a priori* probabilities

Parental pairing	$P(\text{♂}, \text{♀})$
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Aa, AA	$\frac{2uv}{(1-w)^2}$
Aa, Aa	$\frac{4v^2}{(1-w)^2}$

transition probabilities

$P(\cdot   \text{♂}, \text{♀})$	AA	Aa	aa
AA, AA	1	0	0
AA, Aa	1/2	1/2	0
Aa, AA	1/2	1/2	0
Aa, Aa	1/4	1/2	1/4

$P(\text{♂}, \text{♀})$

$\frac{u}{1-w} \cdot \frac{u}{1-w}$

$\frac{u}{1-w} \cdot \frac{2v}{1-w}$

$\frac{2v}{1-w} \cdot \frac{u}{1-w}$

$\frac{2v}{1-w} \cdot \frac{2v}{1-w}$

Parental genotypes

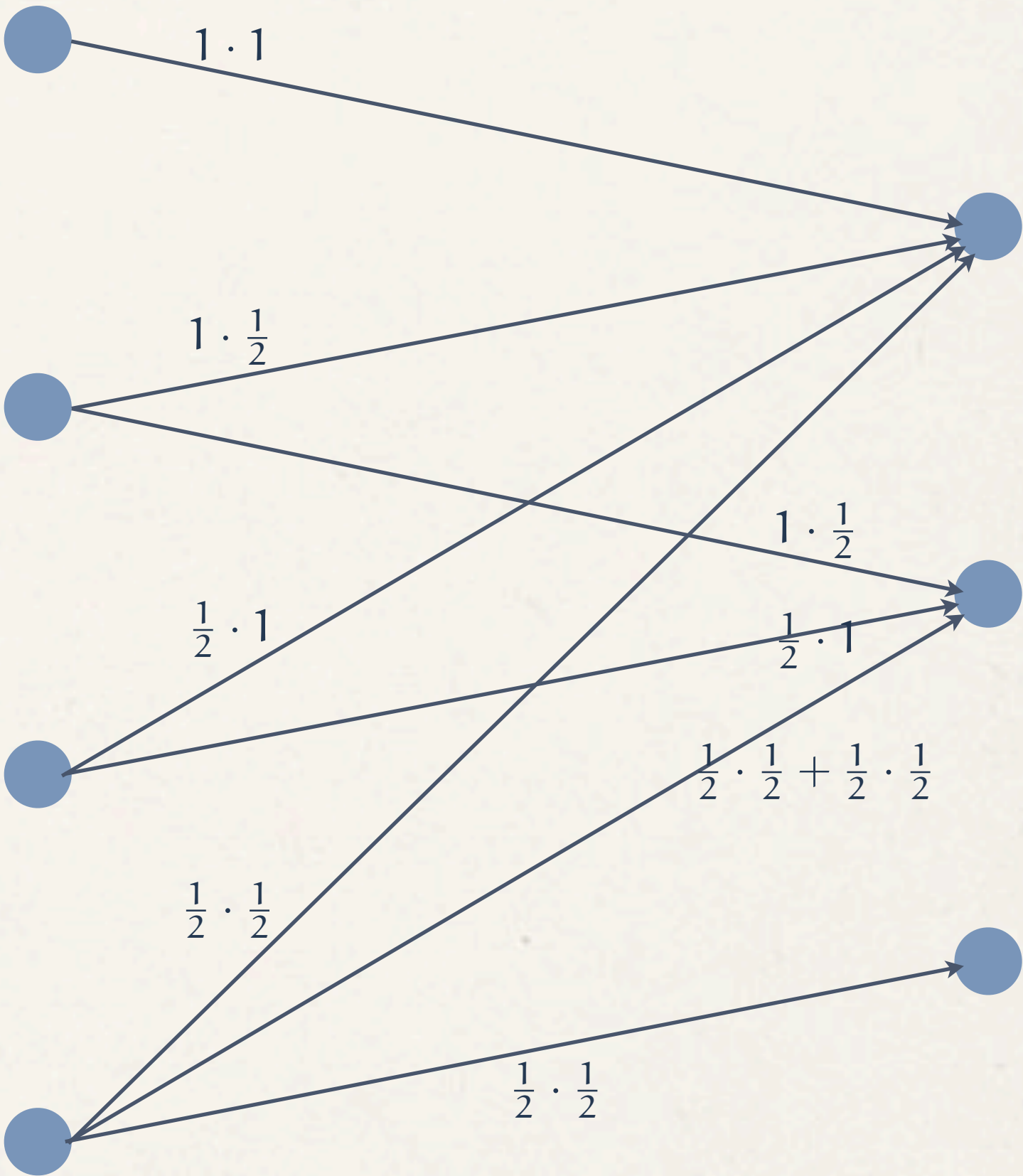
(AA, AA)

(AA, Aa)

(Aa, AA)

(Aa, Aa)

$P(\cdot | \text{♂}, \text{♀})$



Child genotype  $P(\cdot)$

AA  $u'$

Aa  $2v'$

aa  $w'$