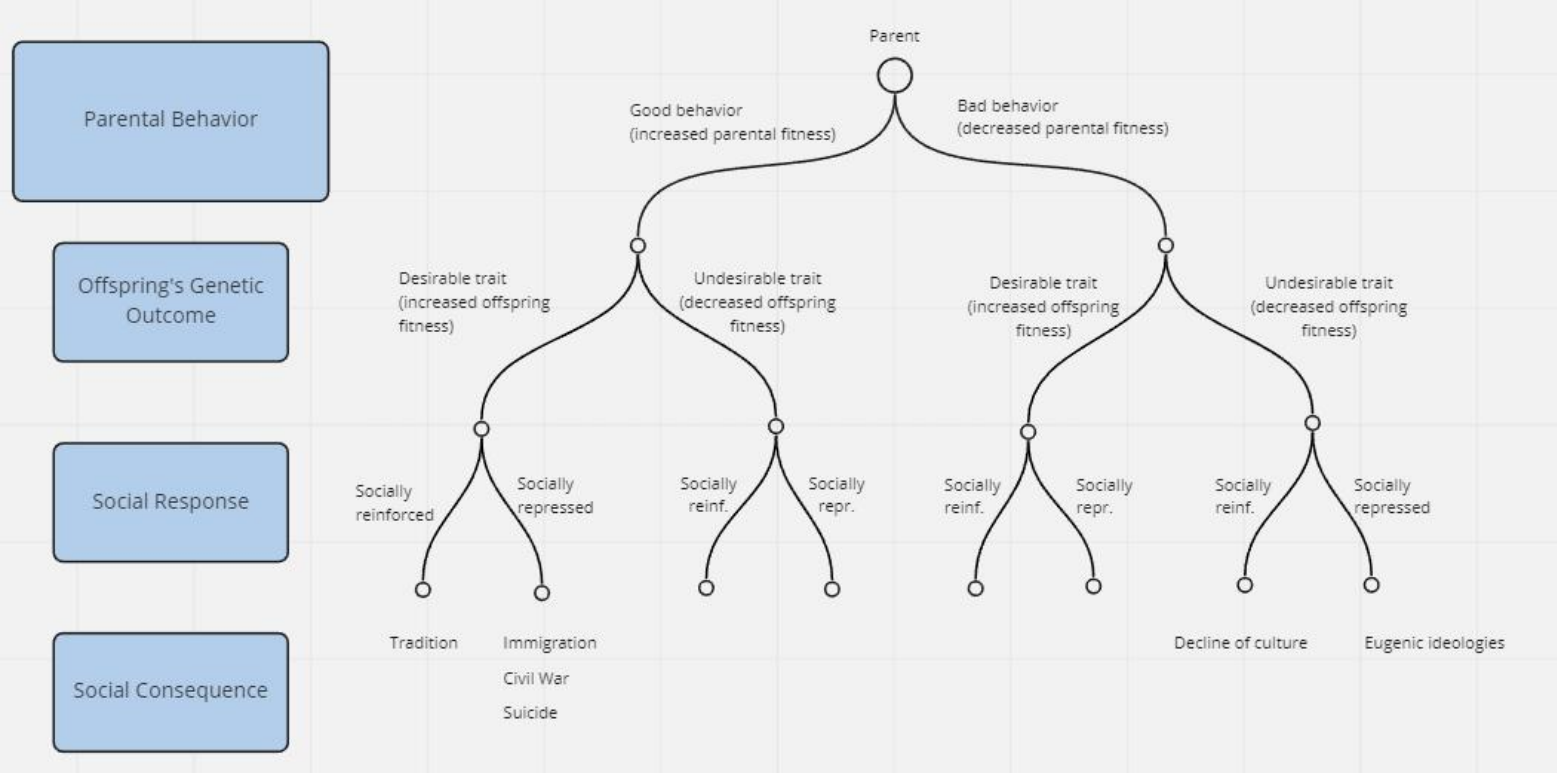
Research Backed Assumption: Behavior X by Parent affects likelihood of Trait Y in Offspring Z[1]

The supported research on how epigenetics affects offspring is almost entirely a measure of how a bad behavior leads to an undesirable trait. For example:

Smoking in young men seemed to affect offspring respiratory health born years later. Epidemiological study showed that fathers started smoking before age 15, and even if they stopped smoking for more than five years before fertilization, the risk of asthma in offspring was still high.[2]

It makes sense research is focused on potential detrimental outcomes. What I am proposing is a space to consider all possible outcomes. The tree below displays the possible outcomes. For example, one possibility is that good parental behavior affects an offspring negatively. The tree distinguishes between whether the offspring has a net negative effect due to social factors or due to a change in fitness for their given environment.

[1] Gross N., Taylor T., Crenshaw T., et al.
[2] Svanes C., Koplin J., Skulstad S. M., et al.



(Note: the brainstorming of potential social consequences is incomplete)

Considerations:

Desirable trait vs undesirable trait exists in the context of the place the genetics adapted to for increased survival. For example, blue eyes are advantageous in higher latitudes. Say, working out increases the likelihood of blue-eyes in offspring. But the blue-eyed people now live in Fiji, near the equator, where having darker eyes is advantageous.

Assumption: Behavior X by Parent affects likelihood of Trait Y in Offspring Z

1. Culture affects behaviors in an individual.
2. Behaviors affect genetic outcomes of offspring (epigenetics)
    a. Offspring receives an altered genetic makeup that does bode well in that culture
    OR
    b. Offspring receives an altered genetic makeup that does NOT bode well in that

EXAMPLE

1. The Country of Theoland promotes drinking alcohol every Wednesday night. It's tradition.
2. Jason, living in Theoland, engages in the tradition by drinking every Wednesday night. Due to this behavior, there is an increased likelihood that his offspring is short.
    a. Culturally, shortness as a physical trait is seen as divine in Theoland. An offspring experiences better treatment in Theoland.
    OR
    b. Culturally, shortness as a physical trait is looked-down-upon in Theoland. An offspring experiences worse treatment in Theoland.

There are four outcomes to consider, with some added assumptions:
Assumption: Culture promotes behavior X, which leads to trait Y in offspring Z
Assumption: Society views trait Y as either contributing to fitness or not. Accepts/Rejects
Assumption: Trait Y *actually* either contributes to fitness or does not.

1. Culture views trait Y as **good** & trait Y is actually **good** (as it relates to fitness)
    - Offspring Z with trait Y is given better social treatment and this **increases** fitness by S, & benefits for all other non-social related things and this **increases** fitness by M.

2. Culture views trait Y as **bad** & trait Y is actually **bad** (as it relates to fitness)
    - Offspring Z with trait Y is given worse social treatment and this **increases** fitness by S, & suffers for all other non-social related things and this **decreases** fitness by M.

3. Culture views trait Y as **good** when it's actually **bad** (as it relates to fitness)
    - Offspring Z with trait Y is given better social treatment and this **increases** fitness by S, but suffers all else in non-social related things and this **decreases** fitness by M.

4. Culture views trait Y as **bad** when it's actually **good** (as it relates to fitness)
    - Offspring Z with trait Y is given worse social treatment and this **decreases** fitness by S, but benefits all else in non-social related things and this **increases** fitness by M.

Epigenetic Valence

There is a overall **net-positive benefit** of having trait Y as it relates to fitness:
(S) > (M) = positive epigenetic valence of trait Y

There is a overall **net-negative benefit** of having trait Y as it relates to fitness :
(S) < (M) = negative epigenetic valence of trait Y

NOW… view epigenetic valence as the aggregate for the set of all offspring with trait Y = (Z1, Z2, Z3, … Zn), given behavior X. Then PEV and NEV are summed values, measuring whether fitness for a society improves because of behavior X.

1. Culture perceives trait Y as **good** & indeed there is a **positive** epigenetic valence of Y
   Leads to Ideological/Cultural Reinforcement of Behavior X in society AND Heightened Fitness of People with Trait Y. OSSIFICATION, Society thrives

2. Culture perceives trait Y as **bad** & indeed there is a **negative** epigenetic valence of Y
   Reduced Fitness of People with Trait Y, and so eventually the influence of said Ideological/Culture that encourages Behavior X dies out. people w/ trait Y won't be as influential and cannot impose their culture which encourages behavior X

3. Culture perceives trait Y as **good**, but there is a **negative** epigenetic valence of Y
   Leads to??? Friction in some regard
   Hollywood?
   Moral demise, Corruption
   Demise of civilizations? Poverty?

4. Culture perceives trait Y as **bad**, but there is a positive epigenetic valence of Y
   Leads to?? Friction in some regard
   Immigration, wanting to be more accepted?