the origin of emotions

version 1.0

mark devon
the origin of emotions

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mark devon
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Chapter 1

Introduction

The Origin of Emotions identifies each emotion’s purpose, trigger and effect.

This is a sample of the assertions made in this book:

- mothers only love their children for 33 months
- men only love a woman for 42 months
- only women feel infatuation and heartbreak
- only men feel jealousy
- you feel revenge when a rule breaker harms you
- you stop feeling revenge when you retaliate
- you feel pride when your rank rises
- you feel humiliation when your rank falls
- you feel humor when another person’s rank falls
- you feel envy when a peer’s rank rises above yours
- you are always doing what is best for the species
There are five types of emotion: conceptions, sensations, reflexes, involuntary expressions and voluntary expressions.

Conceptions, sensations, reflexes and involuntary expressions are biological adaptations. They are transmitted to the next generation through reproduction. They are universal to the species.

Voluntary expressions are cultural adaptations. They are transmitted to the next generation through interaction. They vary by culture.
Conceptions direct your behavior.

Conceptions are positive or negative mental effects that are triggered by conclusions.

Maternal love is a positive effect triggered by the conclusion “my child is happy”. Maternal grief is a negative effect triggered by the conclusion “my child is dead”.

Conceptions can also be triggered by imagining a conclusion. Maternal grief can be triggered by imagining the conclusion “my child is dead”.

Conceptions do not trigger physical effects. Conceptions do not need to trigger physical effects to direct your behavior.

A few conceptions do trigger involuntary expressions, which have a different purpose.
Sensations direct your behavior.

Sensations are positive or negative mental effects that are triggered by the presence or absence of sensory stimuli.

Pleasing taste is a positive effect triggered by the taste of food. Hunger is a negative effect triggered by the absence of food. Disgust is a negative effect triggered by the smell of toxins, such as fecal matter.

Sensations can be triggered by stimuli that is real, recorded, remembered or imagined. Men feel sexual pleasure when they see a naked woman whether she is real, recorded, remembered or imagined.

Sensations trigger almost no physical effects. A few sensations do trigger minor physical effects, like salivation. However, sensations do not trigger any major physical effects, like increased heart rate. Sensations do not need to trigger physical effects to direct your behavior.

A few sensations do trigger involuntary expressions, which have a different purpose.
Reflexes help you avoid threats.

Reflexes are triggered by conclusions or sensory stimuli. Fear can be triggered by the conclusion “a man is pointing a loaded gun at me”. Fear can also be triggered by the sight of a snake.

Reflexes trigger a mental effect that suppresses conceptions and sensations. When you are frightened, you cannot feel sexual pleasure or humiliation. Suppression helps you concentrate on avoiding a threat by eliminating distractions.

Reflexes trigger defensive physical effects. Startle involuntarily tenses neck muscles, which prevents tearing by a predator’s claws or talons. Fear releases adrenalin to increase heart rate, which helps fight or flight.

Reflexes are the only emotions that trigger major physical effects.

<table>
<thead>
<tr>
<th>purpose</th>
<th>direct your behavior</th>
<th>direct your behavior</th>
<th>help you avoid threats</th>
<th>direct behavior of others</th>
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Involuntary expressions direct the behavior of others.

Involuntary expressions are triggered by a conception, sensation or reflex. The reflex of fear triggers the involuntary expression of horror.

Involuntary expressions have a different purpose than their trigger emotion. Fear helps you avoid threats. The expression of horror on your face helps others avoid threats.
Voluntary expressions direct the behavior of others.

Voluntary expressions are triggered by habitual decision. Anger is a habitual response to feeling revenge. Laughter is a habitual response to feeling humor. These expressions seem involuntary because they are deeply ingrained habits, like walking or talking.

Voluntary expressions are better than speech. Anger is more credible than calmly stating “I am being coerced by revenge to harm you”. Laughter can be understood more easily than an audience of people simultaneously saying “I feel humor”.

<table>
<thead>
<tr>
<th>Conceptions</th>
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<th>Reflexes</th>
<th>Involuntary Expressions</th>
<th>Voluntary Expressions</th>
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<td>startle, fear</td>
<td>horror, momentary frowning, prolonged frowning, momentary smiling, crying, prolonged smiling, blushing</td>
<td>anger, laughter</td>
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Emotions fall into three categories of purpose: individual, genetic and group.

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<tr>
<th>Individual</th>
<th>genetic</th>
<th>Group</th>
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<tr>
<td>pleasing taste, hunger, disgust</td>
<td>sexual pleasure, lust, repugnance affection, cute, loneliness</td>
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<td>momentary smiling crying</td>
<td>prolonged smiling blushing</td>
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<td>anger laughter</td>
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</tbody>
</table>

Emotions fall into three categories of purpose: individual, genetic and group.
Individual emotions help you.

Individual emotions encourage eating and avoiding physical harm.

Individual sensations encourage you to eat and avoid toxins. Pleasing taste and hunger encourage eating. Disgust encourages avoiding toxins.

Reflexes help you avoid threats. Startle mitigates the harm of a predator’s initial strike. Fear helps fight or flight.

Eating and avoiding physical harm are the only behaviors that help your survival. All other behaviors harm your survival to help your genes or your group.

<table>
<thead>
<tr>
<th>conceptions</th>
<th>sensations</th>
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<td>anger laughter</td>
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Genetic emotions help your genes.

Genetic conceptions encourage post-natal care. Maternal love and grief encourage the feeding and protection of children. Grandmaternal love and grief encourage the feeding and protection of grandchildren. Monogynic love and grief encourage the support and protection of mothers. Infatuation and heartbreak encourage the activation of monogynic love. Jealousy and adulterous guilt encourage the punishment or avoidance of maternal infidelity.

Genetic sensations encourage mating and kin interaction. Sexual pleasure, lust and repugnance encourage mating with non-kin. Affection, cute and loneliness encourage interaction with kin.

Genetic involuntary expressions warn kin or encourage kin interaction. Horror and momentary frowning warn kin about threats. Prolonged frowning warns kin about grief by making it tangible. Momentary smiling and crying encourage kin interaction.
Group emotions help your group.

Groups are non-kin you cooperate with. Groups include communities, religions, countries, companies, professions, colleges and social clubs.

Group conceptions encourage maximizing group efficiency. Revenge and criminal guilt encourage the punishment or avoidance of rule breaking. Compassion and selfish guilt encourage helping the unfortunate, which reduces insurance costs. Pride, humiliation, humor and envy encourage maximizing rank, which measures your expected contribution to group happiness.

Group sensations encourage maximizing group territory. Excitement and boredom encourage exploring for new scenery.

Group involuntary expressions encourage maximizing rank. Prolonged smiling makes pride tangible to others. Blushing mitigates humiliation during trial-and-error.

Voluntary expressions usually follow a group emotion. Anger usually follows revenge. Laughter usually follows humor.

<table>
<thead>
<tr>
<th>group</th>
<th>revenge, criminal guilt</th>
<th>compassion, selfish guilt</th>
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<td>voluntary expressions</td>
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<td>anger laughter</td>
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There are three types of conception: rewards, coercions and punishments.

Rewards are positive effects triggered by a conclusion. Maternal love is a positive effect triggered by the conclusion “my child is happy”.

Coercions are negative effects triggered by one conclusion and stopped by another. Revenge is a negative effect triggered by the conclusion “X harmed me by breaking the rules”. Revenge is stopped by the conclusion “I harmed X as much as X harmed me”.

Punishments are negative effects triggered by a conclusion. Maternal grief is a negative effect triggered by the conclusion “my child is dead”.

Conceptions begin to be triggered at month 24, when conceptual thought is possible. At this age, children begin to feel the group conceptions: revenge, criminal guilt, compassion, selfish guilt, pride, humiliation, humor and envy. The onset of conceptions is the first of four reasons for the terrible-two’s. The other reasons are: the end of maternal love, the end of cute and the onset of conceptual fear.
Conceptions fall into six categories of purpose: post-natal, courtship, infidelity, legal, insurance and rank.

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<td>courtship</td>
<td>infatuation</td>
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Courtship conceptions activate monogynic love. Infatuation rewards women for activating a man’s monogynic love. Heartbreak punishes women if they fail to activate monogynic love.

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<td>infidelity</td>
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<td>jealousy</td>
<td>adulterous guilt</td>
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Legal conceptions reduce rule breaking. Revenge coerces victims to punish rule breakers. Criminal guilt punishes rule breakers directly.

Insurance conceptions encourage helping the unfortunate. Compassion coerces you to help the unfortunate. Selfish guilt punishes you if you fail to help the unfortunate.

Rank conceptions encourage maximizing rank. Pride rewards you for increasing your rank. Humiliation punishes you for not maintaining your rank. Humor rewards you for learning about rank-reducing mistakes that others make. Envy punishes you when a peer's rank rises above yours.

The rank conceptions are the main reason we compete and cooperate.
CHAPTER 5
MATERNAL LOVE

Type of Emotion: conceptual reward

Conceptual Trigger: “my child is happy”

Mental Effect: positive

Key Features: the happier the child, the stronger the effect has a duration of 33 months for each child

Purpose

Maternal love primarily encourages mothers to breastfeed their children. It secondarily encourages mothers to teach their children.

Conceptual Trigger

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<tr>
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<td>compassion, selfish guilt</td>
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<td>pride, humiliation</td>
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<td>humor, envy</td>
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Maternal love is triggered by a child’s happiness. Happiness is a summary term. If someone is happy, they feel a positive effect. If someone is unhappy, they feel a negative effect.

Eating is the primary source of happiness for children under 24 months. Children do not feel conceptions until 24 months. They do not feel sexual sensations until puberty. They do not feel cute until 33 months. Consequently, the only positive or negative sensations they feel are: pleasing taste, hunger, disgust, affection, loneliness, excitement and boredom. Of these sensations, pleasing taste and hunger are usually the strongest.

Teaching is a secondary source of happiness. If a child has recently been fed, the strongest sensations it will feel are affection, loneliness, excitement and boredom. Children feel affection when they interact with their mothers and loneliness if they do not. Children feel excitement when they see new scenery and boredom if they do not.
Maternal love is triggered regardless of who makes a child happy. Maternal love is triggered by "my child is happy", not by "I made my child happy". This ensures mothers do what is best for their child. If maternal love was triggered by "I made my child happy", mothers would not feel love when grandmothers cared for their children.

**Mental Effect**

Maternal love varies with a child's happiness. The happier a child is, the stronger the positive effect. Mothers feel stronger love when they see their children smile.

Maternal love varies with a child's happiness to maximize a child's development. To maximize the love they feel, mothers do what maximizes a child's happiness. The happier a child is, the faster it will develop. The more a child enjoys food, the more nutritional it is. The more a child enjoys affection, the more intensive the interaction. The more a child enjoys excitement, the more novel the scenery.

Maternal love stops when a child is 33 months old. Mothers maximize their reproduction by focusing on the next child when the current child can feed itself. By 33 months, children can feed themselves if food is available. They can walk and their first set of teeth have completed eruption.

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The natural duration of breastfeeding is 33 months, as surveys of non-Western societies have shown. A Time to Wean: The Hominid Blueprint for the Natural Age of Weaning in Modern Human Populations (Breastfeeding – Biocultural Perspectives) by Katherine Dettwyler explores this subject indepth.

Affection continues after 33 months. Affection is the positive effect that mothers continue to feel when they see or hear their children. Affection usually grows stronger over time. However, it never reaches the strength of maternal love.

The threat of maternal grief also continues after 33 months.

The end of maternal love is the second of four reasons for the terrible-two’s. When a child is 33 months old, mothers no longer receive a hit of maternal love when they make their child happy.

Other Species

Species feel maternal love if mothers feed their offspring. All mammals and most birds feel maternal love.

Kissing

Kissing is a cultural adaptation that evolved from the maternal transfer of masticated food. Before pablum, mothers chewed solid food and then transferred it to their children by putting their mouths directly on their child’s mouth. The transfer was emotional for both mother and child. Both felt affection and pleasing taste. Mothers also felt maternal love. Because mouth-mating was a universal experience, it was also universally recognized as a signal of positive emotions.
CHAPTER 6
MATERNAL GRIEF

Type of Emotion: conceptual punishment

Conceptual Trigger: “my child is dead”

Mental Effect: negative

Key Feature: the closer the child was to puberty, the stronger the effect

Involuntary Expression: prolonged frowning

Synonym: sorrow

Purpose

Maternal grief encourages mothers to protect their children.

Maternal love and maternal grief are different.

Maternal love lasts 33 months. The threat of maternal grief lasts forever. Mothers do not nag their older children because they love them. Mothers nag them to avoid grief.

Maternal love encourages maximum effort. Maternal grief encourages minimum effort. A mother feels more maternal love if she makes her child happier. A mother does not reduce the threat of maternal grief if she makes a safe child safer. Maternal grief encourages minimum effort to maximize the number of children mothers give birth to. The more time mothers spend protecting older children, the fewer children they have.

Maternal love encourages keeping a child happy. Maternal grief encourages keeping a child alive. Mothers do not vaccinate their children to make them happy. Mothers vaccinate children to keep them alive.

Conceptual Trigger

Maternal grief is triggered by a child’s death, whether the mother could have prevented it or not. This encourages mothers to treat all death as preventable. Mothers want to know if power lines cause leukemia.

Like all conceptions, maternal grief can be triggered by imagining its conceptual trigger. Mothers trigger imagined grief when they lose their child in a shopping mall. The relief they feel when they find their missing child is the end of imagined grief.

Imagined grief is more important than actual grief. Actual grief only affects the mothers of dead children. Imagined grief affects all mothers. The prolonged frowning triggered by maternal grief helps other mothers imagine grief’s negative effect.
Mental Effect

Maternal grief varies with a child's death age. The closer a child was to puberty, the stronger the negative effect. Mothers whose children die as teenagers feel the strongest grief.

Grief varies with a child's reproductive value. The closer a child is to puberty, the higher its reproductive value. A 16 year old has survived childhood and still has 100% of its reproductive capacity. *Human Grief: Is its Intensity Related to the Reproductive Value of the Deceased?* is a study led by Charles Crawford of Simon Fraser University that probed the relationship between grief and death age.

Maternal grief causes mothers to favor their first born over other children. First born children are usually the closest to puberty and therefore trigger the strongest grief if they die.

Other Species

Species feel maternal grief if mothers protect their offspring. Crocodiles feel maternal grief, but not maternal love. Crocodile mothers do not feed their young, but they do protect them by gingerly holding them in their jaws when a threat lurks.
CHAPTER 7
GRANDMATERNAL LOVE

Type of Emotion: conceptual reward

Conceptual Trigger: “my grandchild is happy”

Mental Effect: positive

Key Features:
not triggered in pre-menopausal grandmothers
the happier the grandchild, the stronger the effect
has a duration of 33 months for each grandchild

Purpose

Grandmaternal love encourages grandmothers to help feed their grandchildren. Grandmothers primarily help by sharing experience.

Conceptual Trigger

Grandmaternal love is not triggered in pre-menopausal grandmothers. Pre-menopausal women maximize their reproduction by having more children.

Pre-menopausal grandmothers do feel cute and affection when they see grandchildren. These positive effects are mistakenly believed to be grandmaternal love.

Maternal love and grandmaternal love cause helpful conflict. Both are triggered by the happiness of the same child. This causes mothers and grandmothers to compete to make the child happy. Their competition helps maximize the child’s development.
Mental Effect

Grandmaternal love varies with a grandchild's happiness. The happier a grandchild is, the stronger the positive effect. Grandmothers feel stronger love when they see their grandchildren smile.

Grandmaternal love stops when a grandchild is 33 months old. Like mothers, grandmothers maximize their reproduction by focusing on the next grandchild when the current grandchild can feed itself.

Affection and the threat of grandmaternal grief continue after 33 months.
CHAPTER 8
GRANDMATERNAL GRIEF

Type of Emotion: conceptual punishment

Conceptual Trigger: “my grandchild is dead”

Mental Effect: negative

Key Features: not triggered in pre-menopausal grandmothers
the closer the child was to puberty, the stronger the effect

Involuntary Expression: prolonged frowning

Synonym: sorrow

Purpose
Grandmaternal grief encourages grandmothers to help protect their grandchildren. Grandmothers primarily help by sharing experience.

Conceptual Trigger
Grandmaternal grief is not triggered in pre-menopausal grandmothers. Pre-menopausal grandmothers maximize their reproduction by having more children.

Pre-menopausal grandmothers may feel loneliness when a grandchild dies. This negative effect is mistakenly believed to be grandmaternal grief.

Grandmaternal grief is triggered by a grandchild’s death, whether the grandmother could have prevented it or not. This encourages grandmothers to treat all death as preventable. Grandmothers also want to know if power lines cause leukemia.
Mental Effect

Grandmaternal grief varies with a grandchild’s death age. The closer a grandchild was to puberty, the stronger the negative effect. Grandmothers whose grandchildren die as teenagers feel the strongest grief.

Other Species

Other species do not feel grandmaternal love and grief. Grandmothers have not evolved in other species, but good mothers have.

Grandmothers are post-menopausal beyond the sexual maturity of their last born. Humans are post-menopausal for 35 years and need 16 years to reach sexual maturity.

Good mothers are only post-menopausal long enough for their last born to reach sexual maturity, but not beyond. Examples of good mothers include pilot whales, baboons and lions. Pilot whales are post-menopausal for 12 years and their offspring need 12 years to reach sexual maturity. Baboons are post-menopausal for 5 years and need 5 years to reach sexual maturity. Lions are post-menopausal for 2 years and need 2 years to reach sexual maturity.
CHAPTER 9
MONOGYNIC LOVE

Type of Emotion: conceptual reward
Conceptual Trigger: “the woman I love is happy”
Mental Effect: positive
Key Features: activation requires strong visual/audible pleasure
activation requires suddenly strong affection
cannot be activated by more than one woman at a time
cannot be activated by previous women
cannot be activated by kin or friends
the happier the woman, the stronger the effect
has a duration of 42 months for each woman

Purpose
Monogynic love encourages men to support the mother of their children.

Monogynic love encourages social, not sexual monogyny. While monogynic love does encourage men to support one woman, it does not discourage men from having sex with other women. Male infidelity does not jeopardize maternal post-natal care. Maternal love ensures that mothers will care for a man’s children.

Activation

Monogynic love is activated when the total of visual/audible pleasure and affection reaches a threshold. Activation specifically requires both strong visual/audible pleasure and suddenly strong affection within 4 months. Simply put, men fall in love when they interact with an attractive, new woman for 4 months.
Requiring strong visual/audible pleasure ensures fertility. Visual/audible pleasure is triggered by features that separate pre-menopausal, non-pregnant women from other humans. Protruding breasts and wide hips are two examples.

Requiring strong visual pleasure for 4 months ensures non-pregnancy prior to courtship. Strong visual pleasure is triggered by an hourglass figure: protruding breasts, narrow waist and wide hips. If a woman was impregnated by another man prior to courtship, she would lose her narrow waist and her hourglass figure by month 4.

Requiring suddenly strong affection ensures sexual exclusivity during courtship. To trigger strong affection in 4 months, a woman must spend most of her free time with a man. During this time, she would not have time to court another man.

Requiring suddenly strong affection also excludes previous women. Because they are familiar, previous women cannot trigger suddenly strong affection. This encourages men to change partners every reproductive cycle, which increases the genetic diversity of their offspring.

Requiring suddenly strong affection also excludes kin and friends. Because they are familiar, kin and friends cannot trigger suddenly strong affection. As a result, men can only fall in love with strangers.

Activation does not require copulation or pregnancy. Ideally, men would not fall in love until they copulated with and impregnated a woman. However, men cannot detect pregnancy until month 4 and monogynic love needs to be activated at impregnation.

Monogynic love cannot be activated by more than one woman at a time. This ensures that men focus their post-natal support on one woman.

Monogynic love is disproportionately activated by women that look maternal. The more a woman looks like a man’s mother, the stronger the affection she triggers in him. The stronger the affection a woman triggers in a man, the sooner she reaches his activation threshold. Simply put, men tend to fall in love with women with the same eye color, hair color, skin color and facial bone structure as their mothers. This encourages mating with compatible genes.

**Conceptual Trigger**

Monogynic love is triggered by making a woman happy.

Before birth control, making a woman happy made a man’s child happy. Women usually became pregnant when men fell in love.

With birth control, making a woman happy does not make a man’s child happy. For childless women, maternal love is not the primary source of happiness. Instead, pride usually is. Pride is triggered by increased rank and diamond rings are a good way to increase rank. Diamond rings sales accelerated after the advent of the birth control pill in 1961.

Monogynic love is triggered regardless of who makes a woman happy. Men feel love when their children make their woman happy, which avoids men competing with children for a mother’s attention.
Mental Effect

Monogynic love varies with a woman’s happiness. The happier a woman is, the stronger the positive effect. Men feel stronger love when they see their women smile.

Monogynic love varies indirectly with a child’s happiness. For women with children, maternal love is their primary source of happiness and it varies with a child’s happiness.

Monogynic love has a duration of 42 months. Monogynic love is usually activated after 4 months of courtship. Before birth control, the activation of monogynic love usually coincided with impregnation. Monogynic love stays active for 42 months to cover 9 months of gestation and 33 months of post-natal care. Monogynic love ends when a child is 33 months old, concurrent with the end of maternal love. Both sexes maximize reproduction by starting a new reproductive cycle when a child can feed itself.

The threat of monogynic grief also has a duration of 42 months.

Affection usually continues after monogynic love ends.
CHAPTER 10
MONOGYNIC GRIEF

Type of Emotion: conceptual punishment
Conceptual Trigger: “the woman I love is dead”
Mental Effect: negative
Key Features: not triggered if monogynic love is no longer active
the longer love had been activated, the stronger the effect
Involuntary Expression: prolonged frowning
Synonym: sorrow

Purpose
Monogynic grief encourages men to protect the mother of their children.

Conceptual Trigger
Monogynic grief is not triggered if monogynic love is no longer active. If a man fell in love
with a woman more than 42 months ago, he will not feel grief if she dies. Men maximize
their reproduction by moving onto a new woman after 42 months. Consequently, they are
not punished for the death of a woman they should have left.

Monogynic grief is triggered even if the dead woman was childless. Ideally, men would not
be punished for the death of a childless woman. However, men cannot detect pregnancy
before monogynic love is activated.

Monogynic grief is triggered by a woman’s death, whether the man could have prevented it
or not. This encourages men to treat all death as preventable.
**Mental Effect**

Monogynic grief varies with the length of time monogynic love had been activated. The longer a man had been in love with a woman when she dies, the stronger the negative effect. Men who had been in love for 42 months feel the strongest grief. Men who fell in love more than 42 months before a woman’s death feel no grief.

Monogynic grief varies with the man’s investment. The more time has been invested, the more grief makes a man willing to protect his investment. A man is more likely to run into a burning building to save a woman he met 35 months ago than a woman he met 5 months ago.

**Other Species**

Other species feel monogynic love and monogynic grief. Marmoset monkeys, wolves and sand grouse are species where fathers help mothers with the feeding and protection of offspring.

Some species feel paternal love and paternal grief. Emperor penguins, rhea and sea horses are species where mothers leave fathers to feed and protect offspring.

Some species just feel paternal grief. Jacana, Darwin’s frog and catfish are species where mothers leave fathers to protect, but not feed offspring.
CHAPTER 11
OTHER TYPES OF LOVE

Only three people feel love. Mothers love children for 33 months. Grandmothers love grandchildren for 33 months. Men love women for 42 months.


Nobody else helps their genes by harming themselves to make another person happy, which is what love encourages you to do. Harming yourself to make another person happy only helps your genes if:

• you are a woman and the other person is your child or your grandchild
• you are a man and the other person is your child’s mother

Other people feel infatuation, affection or cute. These positive effects are mistakenly believed to be love.

Women feel infatuation. Infatuation is triggered when a woman concludes that she triggers a man’s visual/audible pleasure.

Everyone feels affection. Affection is triggered by the sight or sound of familiar people. Unlike love and infatuation, affection does not have a limited duration. Affection usually grows stronger with time.

Affection is what most people mean when they say they love somebody. Spouses feel affection after the end of monogynic love and infatuation. Parents feel affection for children. Children feel affection for siblings, parents and grandparents. Grandparents feel affection for grandchildren. Friends feel affection for friends. People feel affection for pets.

Everyone older than 33 months feels cute. Cute is triggered by the sight of infants.

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CHAPTER 12
OTHER TYPES OF GRIEF

Only three people feel grief. Mothers feel grief when children die. Grandmothers feel grief when grandchildren die. Men in love feel grief when women die.

Nobody else feels grief when someone dies. Women do not feel grief when men die. Men do not feel grief when children die. Children do not feel grief when siblings, parents or grandparents die. Grandfathers do not feel grief when grandchildren die. Friends do not feel grief when friends die. People do not feel grief when pets die.

Nobody else helps their genes by harming themselves to protect another person, which is what grief encourages you to do. Harming yourself to protect another person only helps your genes if:

- you are a woman and the other person is your child or your grandchild
- you are a man and the other person is your child's mother

Other people feel loneliness when someone dies. This negative effect is mistakenly believed to be grief.

Loneliness is triggered by the absence of affection. When someone close to you dies, you imagine the absence of their affection. Imagining that absence triggers loneliness.
CHAPTER 13
INFATUATION

Type of Emotion: conceptual reward

Conceptual Trigger: “I trigger visual/audible pleasure in X, a man who displays group emotions as much as I do”

Mental Effect: positive

Key Features: has a duration of 8 months for each man grows stronger for 4 months and then plateaus for 4 months does not grow stronger without suddenly strong affection does not grow stronger for previous men does not grow stronger for kin or friends during plateau, vaginal pleasure is temporarily elevated the more group emotions displayed, the stronger the effect group emotions must be equal-or-stronger to the woman’s not triggered during gestation and maternal love

Purpose

Infatuation encourages women to activate a man’s monogynic love.


Women often judge a man’s group emotions by his rank. The higher a man’s rank, the more he must be driven by group emotions.

The component of infatuation that encourages women to prefer men who display group emotions is labelled the group preference component.
Without the group preference component, people with above-average group emotions would have disproportionately low reproduction. Because they spend more time helping their groups, people with above-average group emotions spend less time on reproduction. While they have a 50% share of the population, they may only have a 40% share of reproduction time. Without the group preference component, a 40% share of reproduction time translates into a 40% share of offspring.

If the group preference component did not exist, group emotions would not exist.
With the group preference component, people with above-average group emotions have proportionate reproduction. With the group preference component, courtship is much easier for men with above-average group emotions. Their 40% share of reproduction time translates into a 60% share of offspring. Their 60% share combines with women’s 40% share to give all people with above-average group emotions a 50% share of offspring. The additional children produced by male executives offsets the smaller-than-average families of female executives.

The group preference component preserves the group emotions.
Preferring men with above-average group emotions harms a woman’s genes.

These men require more courtship time. There is more competition for men with above-average group emotions. Consequently, women must spend more time courting them. If women courted average men, they would have more time for children.

Their children do not live longer. Men with above-average group emotions can usually provide their children with more assets, like cell phones and cars. However, these assets do not help their children live longer.

Their children do not reproduce more. While their sons reproduce more, their daughters reproduce less. Combined, they have proportionate reproduction.

Male infatuation did not evolve.

Male infatuation is not required. Maternal love, the counterpart to monogynic love, does not require activation.

Men do not spend money or time triggering infatuation. Men do not buy romance novels. Men rarely watch romantic movies unless they are with a woman.

Men do feel monogynic love, affection and sexual pleasure when courting a woman. These positive effects are mistakenly believed to be male infatuation.

**Conceptual Trigger**

Infatuation is triggered when men look at or listen to a woman, not when they have sex with her. Infatuation rewards women for activating monogynic love, which requires triggering a man’s visual/audible pleasure, not his penile pleasure. Vaginal pleasure, which rewards women for tolerating copulation, is elevated when infatuation plateaus. Prior to the plateau, women enjoy dating more than sex. It triggers more infatuation.

Infatuation requires that group emotions displayed be equal-or-stronger to the woman’s. For example, a woman does not feel infatuation unless a man’s rank is equal-or-higher than her rank. Teenage girls enjoy construction workers whistling at them, but supermodels do not. Construction workers are higher rank for teenagers, but lower rank for supermodels.

Requiring equal-or-stronger group emotions eliminates most competitors. Men with below-average group emotions cannot trigger the infatuation of a woman with average group emotions.

Unlike monogynic love, infatuation can be simultaneously triggered by multiple men. Men can only love one woman at a time, but women can be infatuated with more than one man at a time. This creates more competition between men.

Infatuation’s trigger contains nothing to encourage the avoidance of lotharios. Heartbreak encourages the avoidance of lotharios. Because heartbreak addresses the lothario problem, infatuation’s conceptual trigger has room to accommodate the group preference component.
Infatuation has a duration of 8 months for each man.

During the first 4 months, infatuation grows stronger if one man keeps triggering it. This causes women to focus on one man, which they must do to trigger strong enough affection to activate monogynic love.

During the second 4 months, infatuation plateaus and vaginal pleasure is elevated. Elevated vaginal pleasure encourages women to mate. During these 4 months, women almost enjoy sex as much as men do.

After a total of 8 months, infatuation stops and vaginal pleasure subsides. The plateau lasts 4 months to cover at least 3 ovulatory cycles. If a man cannot impregnate a woman in 3 cycles, he probably never will. After 4 months, infatuation stops and vaginal pleasure subsides.

After 8 months, women only feel affection for a man. After 8 months, women lose interest in triggering a man’s visual/audible pleasure. They would rather talk, which triggers affection.

Infatuation does not grow stronger without suddenly strong affection within 4 months.

Requiring suddenly strong affection ensures the activation of monogynic love. If a woman feels affection which grows suddenly strong within 4 months, the man must also feel suddenly strong affection. If he feels suddenly strong affection within 4 months, he has probably fallen in love.

Requiring suddenly strong affection prevents infatuation with previous men. Because they are familiar, men that have previously grown a woman’s infatuation cannot trigger suddenly strong affection. This encourages women to change partners every reproductive cycle, which increases the genetic diversity of their offspring.
Requiring suddenly strong affection also prevents infatuation with kin or friends. Because they are familiar, kin and friends cannot trigger suddenly strong affection. As a result, women can only become infatuated with strangers.

Infatuation is disproportionately triggered by men that look maternal. The more a man looks like a woman’s mother, the stronger the affection he triggers in her. The stronger the affection a man triggers in a woman, the sooner he reaches her infatuation plateau. Simply put, women tend to become infatuated with men that have the same eye color, hair color, skin color and facial bone structure as their mothers. This encourages mating with compatible genes.

Infatuation also varies with group emotions displayed by the man. The stronger a man’s display of group emotions, the stronger the positive effect.

Rank is one measure of a man’s group emotions. The higher a man’s rank, the stronger the infatuation he triggers. Women prefer men who are rich, successful or intelligent because they trigger stronger infatuation.

High-ranking men have more sex because they can. High-ranking men do not have more sex because they have more desire. Men’s desire for sex does not vary with their rank, but women’s infatuation does. Women desire high-ranking men more.
Men with above-average group emotions reach the infatuation plateau sooner. Because they trigger stronger starting infatuation, men with above-average group emotions start closer to the plateau. While an average man requires 4 months to reach the plateau, above-average men may only require 2 months.
Childless relationships leave a 38 month gap for women.

Before birth control, both genders felt strong positive conceptions for almost 4 years. Men felt 42 months of monogynic love. Women felt 8 months of infatuation, followed by a 5 month gap and then 33 months of maternal love.

With birth control, women do not feel maternal love from month 13 to 46. After infatuation ends, childless women only feel affection while men feel monogynic love. During this 38 month gap, women often become focused on marriage, mistakenly believing that it will provide what seems to be missing in their lives.

Relationship Duration

Couples usually split 5 years after courtship begins. Neither gender feels a strong positive conception after 4 years. It then takes another year to realize and confront the fact that neither person feels passion anymore. The peak year for divorce is 4 years after marriage, as Helen Fisher identified in her book *The Anatomy of Love.*
Type of Emotion: conceptual punishment

Conceptual Trigger: “the man I am infatuated with wants to make another woman happy”

Mental Effect: negative

Key Feature: the stronger the infatuation, the stronger the effect

Purpose

Heartbreak encourages women to avoid lotharios. Lotharios are men who pretend to fall in love to have sex. Afterwards, they leave women to raise children without paternal support, a worst case scenario for a woman's genes.

Male heartbreak did not evolve. Female lotharios do not exist. Maternal love ensures that mothers care for a man's child.

Men may stop feeling love or start feeling jealousy or loneliness if a woman leaves. These reductions in happiness are mistakenly believed to be male heartbreak.

Men will stop feeling monogynic love if they were still in love when a woman leaves. Without contact with the woman, a man cannot conclude that she is happy.

Men feel jealousy if they were in love and the woman leaves for another man.

Men feel loneliness if the woman was an important source of affection before she left.

Conceptual Trigger

Heartbreak is only triggered if a woman is still infatuated with a man. If a woman started feeling infatuation more than 8 months ago, she will not feel heartbreak if her man courts another woman. If she has not activated his monogynic love after 8 months, she probably never will and should move on to a new man. Consequently, women are not punished for losing a man they should have left.

Heartbreak is triggered by making another woman happy, not by having sex with her. Women do not feel heartbreak if their man has sex with another woman. Women do feel heartbreak if their man buys another woman presents. Men have sex to make themselves happy. Men buy a woman presents to make her happy. If a man wants to make another woman happy, he is in love with her. If a man is in love with another woman, he cannot be in love with the heartbroken woman.

Imaginary heartbreak is more important than actual heartbreak. Actual heartbreak is triggered after a woman has been fooled by a lothario. Imaginary heartbreak is triggered before a woman is fooled by a lothario. It is easier for women to imagine heartbreak when they have felt it before. Lotharios target naive women for this reason.
Heartbreak varies with a woman’s infatuation. The stronger a woman’s infatuation, the stronger the negative effect. Being heartbroken during the 4 month plateau triggers the strongest heartbreak. Being heartbroken after the plateau has ended triggers no effect.

Heartbreak varies with the risk of pregnancy, which is greatest during the 4 months that vaginal pleasure is elevated.
CHAPTER 15

JEALOUSY

Type of Emotion: conceptual coercion

Conceptual Trigger: “the woman I love made another man feel sexual pleasure”

Mental Effect: negative

Conceptual Stop: “I harmed the woman I love as much she made another man feel sexual pleasure”

Key Feature: the stronger the other man’s pleasure, the stronger the effect

Voluntary Expression: anger

Synonym: not envy

Purpose

Jealousy encourages men to punish female infidelity. Punishing female infidelity prevents men from mistakenly investing 42 months in another man’s child, a worst case scenario for a man’s genes.

Female jealousy did not evolve. Male infidelity cannot cause a woman to mistakenly invest in another woman’s child. Princess Diana knew that her sons were hers. Prince Charles does not.

Women can feel humiliation, heartbreak and revenge if a man commits infidelity. These negative effects are mistakenly believed to be female jealousy.

Women feel humiliation if infidelity lowers their rank. If a woman is the last to know about her man’s infidelity, it lowers her rank.

Women feel heartbreak if they were infatuated and the infidelity was more than sex. If a man buys another woman presents, he wants to make her happy. If he wants to make her happy, he loves her.

Women also feel revenge when humiliated or heartbroken. A woman’s revenge is stopped by harming the man as much as she was harmed by humiliation or heartbreak.

Jealousy and revenge are different. Female infidelity causes men to feel jealousy, whether they feel humiliated or not. Male infidelity causes women to feel revenge, but only if they feel humiliated or heartbroken.
**Conceptual Trigger**

Jealousy can be triggered by any sexual pleasure, not just penile. Jealousy is triggered when another man enjoys visual pleasure while looking at a woman. This encourages men to punish the earliest stages of courtship. Punishing early courtship prevents escalation to sex. Punishing penile pleasure would be too late.

Jealousy is only triggered when monogynic love is active. If a man fell in love more than 42 months ago, he will not feel jealousy if his woman flirts with another man. After 42 months, a man should be on a new reproductive cycle with a new woman.

Women often trigger jealousy to verify monogynic love. Women intuitively know that a jealous man is a man in love. A woman will flirt with other men just to see if it triggers jealousy in her man. If it does, he must be in love.

**Mental Effect**

Jealousy varies with the other man’s sexual pleasure. The stronger the other man’s sexual pleasure, the stronger the negative effect. A man will feel weak jealousy if another man looks at his woman. A man will feel much stronger jealousy if another man is fellated by his woman.

The strength of jealousy determines the likelihood of punishment. A man may tolerate another man just looking at his woman, but he will not tolerate another man being fellated by his woman.

While the strength of jealousy determines the likelihood of punishment, the wording of its conceptual stop determines how much a man punishes a woman.

**Conceptual Stop**

Jealousy is stopped by harm equal to the other man’s pleasure. If a woman just flirted with another man, jealousy can be stopped by giving her the cold shoulder. If she fellated another man, jealousy may not be stopped until she is physically harmed.
Jealousy is frequently triggered during the 38 month gap of childless relationships. Since women do not feel maternal love, they seek new men to trigger their infatuation. While women may not have sex with other men during this period, they will enjoy flirtation with other men, which triggers jealousy in the man that loves them.
Jealousy and Envy

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Jealousy and envy are not synonyms.

Jealousy can only affect men in love. Envy can affect everyone.

Jealousy and envy are triggered by different conclusions. Jealousy is triggered when women commit infidelity. Envy is triggered when a peer’s rank rises above your rank.

Jealousy and envy are both negative mental effects.

Jealousy is stopped by punishing a philandering woman. Envy does not have a conceptual stop. Envy only stops when the conceptual trigger is no longer true. Either your rank rises to your peer’s level or your peer’s rank falls back to your level.
CHAPTER 16
ADULTEROUS GUILT

Type of Emotion: conceptual punishment

Conceptual Trigger: “I made a man feel sexual pleasure who is not the father of my child”

Mental Effect: negative

Key Features: only triggered during gestation and maternal love
the stronger the other man’s pleasure, the stronger the effect

Purpose

Adulterous guilt encourages mothers to avoid infidelity while their children are younger than 33 months.

Maternal infidelity can cause the loss of male post-natal support. Triggering a man’s jealousy can cause a man to abandon a woman he loves, leaving her to raise a child without paternal support, a worst case scenario for a woman’s genes.

Male adulterous guilt did not evolve. Male infidelity cannot harm a man’s genes. Maternal love ensures that mothers care for a man’s child, even if he commits infidelity.

Adulterous men may feel criminal guilt if they commit infidelity. This negative effect is mistakenly believed to me male adulterous guilt.

Men feel criminal guilt if their infidelity causes a woman to feel humiliation or heartbreak. If it causes neither, a man will not feel criminal guilt.

Adulterous guilt and criminal guilt are different. Infidelity causes mothers to feel adulterous guilt, whether their man feels humiliation or not. Infidelity causes men to feel criminal guilt, but only if their woman feels humiliation or heartbreak.

Conceptual Trigger

Adulterous guilt is only triggered during maternal love. Childless women and women with children older than 33 months do not feel adulterous guilt. Unless a woman is pregnant or has children younger than 33 months, she always maximizes her reproduction by courting numerous men until one starts falling in love with her. Consequently, non-maternal women are not punished for pleasuring another man.
Mental Effect

Adulterous guilt varies with jealousy. The more sexual pleasure the other man feels, the stronger the negative effect. A mother will feel weak adulterous guilt if she flirts with another man. A mother will feel stronger adulterous guilt if she fellates another man.

Adulterous guilt and jealousy both vary with the other man's sexual pleasure. Adulterous guilt is strong when jealousy is strong. This ensures that guilt increases its punishment as a woman increases the risk of losing male post-natal support.
CHAPTER 17

REVENGE

Type of Emotion: conceptual coercion
Conceptual Trigger: “X harmed me by breaking the rules”
Mental Effect: negative
Conceptual Stop: “I harmed X as much as X harmed me”
Key Features: the more harm caused, the stronger the effect
               effect generally stronger in men
Voluntary Expression: anger
Synonym: hatred

Purpose

Revenge encourages victims of rule breaking to always retaliate, whether it helps them or not.

Rules include laws, by-laws, contracts, morals, protocol and etiquette.

Rules are a cultural adaptation that improve group efficiency. Rules force individuals to do what is best for a group when doing so is not what is best for the individual. Traffic flows more efficiently because we obey the rule that you stop at red lights.

Improving group efficiency helps group survival. The more efficiently a nation’s traffic flows, the less it costs to feed its citizens.

Always retaliating deters rule breaking. People are less likely to break rules because they know that revenge is universal. Queues work because potential queue-jumpers expect retaliation from those waiting in the queue.

Always retaliating harms victims. Retaliating can help a victim, but always retaliating does not. Retaliating only helps a victim if it prevents future harm to that victim. If you are mugged by a neighbor, reporting it to the police helps you. You will reduce your risk of being mugged again. If you are mugged in a foreign city, reporting it to the police does not help you. You will not reduce your risk of being mugged again.

Always retaliating also harms a victim’s genes. Reporting a mugging in a foreign city does not provide an offsetting benefit to your reproduction. However, reporting the mugging does help the survival and reproduction of the people who live in that city. Their risk of crime is reduced without any effort on their part.

“Revenge is a dish best served cold” refers to minimizing the harm that retaliating causes to a victim. If you retaliate when you are cool-headed, you can retaliate without breaking the rules and therefore avoid punishment and counter-retaliation.
Conceptual Trigger

Revenge is triggered when you are harmed by rule breaking.

Harm is anything which reduces happiness. Revenge is triggered by rule breaking that harms you physically, financially or emotionally. You feel revenge if somebody’s rule breaking causes you to feel negative emotions, like grief or humiliation. You also feel revenge if somebody’s rule breaking prevents you from feeling positive emotions, like affection or pride.

Revenge requires rule breaking. You feel revenge if another driver collides with your car because they were speeding. You do not feel revenge if another driver collides with your car because they swerved to avoid a child.

Revenge requires harm to you. Witnesses to rule breaking do not feel revenge. If revenge was triggered in victims and witnesses, there would be too much retaliation.

Mental Effect

Revenge varies with the harm caused. The more harm caused to a victim, the stronger the negative effect. You will feel revenge if a mugger forces you to give up your wallet. You will feel stronger revenge if the mugger also breaks your nose.

The strength of revenge determines the likelihood of retaliation. You are more likely to report a violent mugger to the police than a non-violent mugger.

While the strength of revenge determines the likelihood of retaliation, the wording of its conceptual stop determines how much you retaliate.

Revenge is generally stronger in men. Given the same harm caused, men feel a stronger negative effect than women. Men fight more because they feel stronger revenge.

Revenge is stronger in men because male retaliation harms a group less. Because they are physically larger, men can punish rule breakers more easily than women. Men can punish both men and women. Women can only punish women.
Conceptual Stop

Stopping revenge requires equal harm or eye-for-an-eye punishment. The families of murder victims complain when murderers receive less than life imprisonment.

Stopping revenge requires victim participation. Numerous victims of a serial rapist will testify against the rapist, despite one being sufficient for a conviction. The victims know that they will not stop feeling revenge unless they participate in the conviction. Requiring victim participation ensures that equal harm is achieved when multiple victims are involved.

Apologies, anger and violence stop revenge.

Receiving an apology stops revenge without causing physical harm. If somebody apologizes to you, they have admitted to being a rule breaker. They have lowered their rank, which triggers their humiliation. Seeing an apologist feel humiliation is equal harm for minor rule breaking, like being late for a meeting.

Expressing anger also stops revenge without causing physical harm. If you express anger, you are threatening to harm someone. If your threat is credible, you will trigger their fear. Triggering someone’s fear is equal harm for moderate rule breaking, like rude driving.

Being violent stops revenge by causing physical harm. Victims resort to violence when expressing anger fails to frighten a rule breaker. Road rage often escalates to violence when a victim of rude driving expresses anger at a rude driver and the rude driver responds by laughing. The laughing triggers the victim’s humiliation, further adding to their revenge.

Revenge accumulates if not stopped. The negative effect of revenge does not fade away if it is not stopped. It accumulates and re-emerges later, usually in a disproportionate response to minor rule breaking. Men often respond disproportionately to minor rule breaking by family members after accumulating revenge all day at work.

Forgiveness is living with unstopped revenge. If you forgive someone, you are stating that you will not retaliate to stop your revenge. Instead, you will live with the negative effect, hoping that it will fade away with time. It is easy to forgive rule breaking that is ambiguous and causes minor harm, such as minor property damage caused by carelessness. It is more difficult to forgive rule breaking that is unambiguous and causes major harm, such as violence that causes injury.

Forgiveness does not stop revenge. Unstopped revenge does not fade away, regardless of the ambiguity of the rule breaking or the harm caused. If you think you were harmed by rule breaking, you will feel revenge until you retaliate. If you forgive someone, you will stop your revenge by subconsciously retaliating against the rule breaker or by harming a different person. Children retaliate against cruel parents by spending less time with them in old age. Wives with cruel husbands harm their children.
Tamarin monkeys feel revenge. Experimenters trained one monkey to always cheat when playing a game with other monkeys. Victims of the cheater “would go nuts” when they saw the cheater enter the adjoining test chamber. Victims “would throw their feces at the wall, walk into the corner and sit on their hands”. The victim reaction was reported by Stephen Dubner and Steven Levitt in *Monkey Business (The New York Times)*. The experiments, led by Marc Hauser and Keith Chen, are summarized in *Give Unto Others: Genetically Unrelated Cotton-Top Tamarin Monkeys Preferentially Give Food to Those Who Altruistically Give Food Back (Proceedings of The Royal Society)*.
CHAPTER 18
CRIMINAL GUILT

Type of Emotion: conceptual punishment
Conceptual Trigger: “I harmed X by breaking the rules”
Mental Effect: negative
Key Features: the more harm caused, the stronger the effect
effect generally stronger in men

Purpose

<table>
<thead>
<tr>
<th>Cost</th>
<th>Method of reducing rule breaking</th>
<th>People who bear the cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>highest cost</td>
<td>obstacles</td>
<td>everybody</td>
</tr>
<tr>
<td></td>
<td>retaliation (revenge)</td>
<td>victim and rule breaker</td>
</tr>
<tr>
<td>lowest cost</td>
<td>criminal guilt</td>
<td>nobody</td>
</tr>
</tbody>
</table>

Criminal guilt encourages everyone to avoid rule breaking.

Criminal guilt is the lowest cost method of reducing rule breaking. Criminal guilt costs your group nothing. Nobody is physically harmed and no expense is incurred.

Retaliation costs more than criminal guilt. Revenge causes retaliation, which harms both the victim and the rule breaker. A victim cannot work while participating in conviction of a criminal. A criminal does not work while incarcerated.

Obstacles are the highest cost. Obstacles include locks, bulletproof glass, security guards and the police. Everyone pays for obstacles, not just victims and rule breakers. Billions of doors are locked and unlocked everyday to stop theft.

Criminal guilt is used where it is sufficient. Criminal guilt is usually sufficient to cause diners to leave tips in restaurants.

If criminal guilt is not sufficient, retaliation is added. Returning diners tip more. Returning diners want to avoid criminal guilt and retaliation by waiters.

If criminal guilt and retaliation are insufficient, obstacles are added. Tourist restaurants often have a mandatory service charge. If you do not pay it, the police will be called.

Criminal guilt harms potential rule breakers and their genes. You do not live longer or have more children because you tip. The waiter does.
Conceptual Trigger

Criminal guilt is triggered when you harm someone by breaking the rules.

Criminal guilt requires rule breaking. You will feel criminal guilt if your car hits a cyclist after you drive through a red light. You will not feel criminal guilt if your car hits a cyclist after the cyclist rides through a red light.

Criminal guilt requires harm to a victim. Criminals who commit victimless crimes, such as prostitutes and pot smokers, do not feel criminal guilt.

Mental Effect

Criminal guilt varies with the harm caused. The more harm caused to a victim, the stronger the negative effect. Stealing $100 from a poor man triggers stronger criminal guilt than stealing $100 from a rich man.

Criminal guilt varies with the harm caused to reduce it. Rule breakers minimize their harm to minimize the guilt they feel. Thieves avoid stealing from the poor.

Modern justice systems graduate punishment in the same manner. If all criminals received the death penalty, all criminals would kill to avoid capture.

The police know that criminal guilt varies with the harm caused. When they have not caught a murderer, they will parade the murder victim’s grieving mother in front of the news cameras. They want to increase the strength of the murderer’s criminal guilt.

Confessing or being punished does not stop criminal guilt. All conceptual punishments are lifelong to ensure that you never forget the learning.

Criminal guilt is generally stronger in men. Given the same harm caused, men feel a stronger negative effect than women. Criminal guilt is more likely to drive men to commit suicide.

Criminal guilt is stronger in men because male rule breaking was more likely to cause death. If a man did not defend his perimeter during an attack, it could let the attackers flood into a fortification and kill all. If a woman took more than her share of food, others were unlikely to die as a result.
Other Species

Capuchin monkeys feel criminal guilt. An experiment required two monkeys to simultaneously pull two parts of a mechanism to receive one reward each. In one instance, only one monkey was able to retrieve his reward before they both let the spring-loaded mechanism pull away. This left one monkey with a reward and one without a reward. The monkey with a reward helped the monkey without a reward pull the mechanism again so that he could retrieve the remaining reward. He did this despite not receiving another reward. Payment for Labour in Monkeys (Nature) is the article that summarizes the experiments led by Frans de Waal and Michelle Berger.

In addition to criminal guilt, the altruistic monkey may have also felt compassion. The altruistic monkey would have felt compassion if it believed the other monkey was unfortunate, as described in the next chapter.
CHAPTER 19
COMPASSION

Type of Emotion: conceptual coercion

Conceptual Trigger: “I can prevent harm to an unfortunate person”

Mental Effect: negative

Conceptual Stop: “I prevented harm to an unfortunate person”

Key Features: the more preventable harm, the stronger the effect
effect generally stronger in women

Purpose

Compassion encourages everyone to help the unfortunate.

Helping the unfortunate saves lives. Helping strangers whose homes have burned down prevents them from dying of exposure or starvation. Calling an ambulance for a stranger who has fallen unconscious prevents that person from suffering further injury.

Helping the unfortunate also lowers the cost of insurance. Without compassion, you would need two of everything. You would need a second home, stocked with food and clothes. You could not count on your neighbors to help you if your first home burned down. You would also need to take a buddy everywhere. You could not count on strangers to call an ambulance if you fell unconscious.

Lowering the cost of insurance is more important more than saving lives. Saving lives affects a small percentage of a group. Lowering the cost of insurance affects everyone.

Conceptual Trigger

Compassion is triggered when you can prevent harm to an unfortunate person.

Harm is anything which reduces happiness. You feel compassion when you see somebody fall to the ground because of illness. You also feel compassion when you see somebody humiliated because of their race.

Compassion requires misfortune. You feel compassion when you see a double-amputee begging for change. You do not feel compassion when you see an able-bodied man begging for change.

If compassion did not require misfortune, it would reduce group survival. Everyone would feel compassion whenever someone asked for money. The streets would be lined with able-bodied beggars.
Compassion requires that you can prevent harm. You feel compassion if you see somebody fall to the ground in front of you. You do not feel compassion if you see somebody fall to the ground on *America’s Funniest Home Videos*. You cannot prevent harm to the videotaped person. Instead, you feel humor.

Compassion can be mistakenly triggered by other species. You feel compassion when you see a dog hit by a car. Compassion is mistakenly triggered because you misinterpret “prevent harm to an unfortunate person” as “prevent harm to an unfortunate animal”.

The more a species looks human, the more they mistakenly trigger compassion.

Animals with forward-facing eyes trigger compassion more than animals with side-facing eyes. Lions trigger more compassion than gazelles.

Animals with limbs trigger compassion more than animals without limbs. Gazelles trigger more compassion than fish.

Plants never trigger compassion. We kill trees just to decorate our houses for a week.

**Mental Effect**

![Diagram showing the relationship between preventable harm and compassion](image)

Compassion varies with the preventable harm. The more harm you can prevent, the stronger the negative effect. You would feel compassion if you saw an elderly man in a burning house. You would feel stronger compassion if you saw a young child in a burning house. Saving the young child would prevent the loss of more years of life.

Compassion varies to increase the likelihood of helping. Stronger compassion makes you more willing to rescue a young child than an elderly man.

While the strength of compassion determines the likelihood of helping, the wording of its conceptual stop determines how much you help.

Compassion does not vary with the number of unfortunate people. Compassion is triggered by one person at a time. You do not feel more compassion if many people are involved in a tragedy. Charities have learned this. They focus on unfortunate individuals when raising funds, not on the number of unfortunate.
Conceptual Stop

Compassion stops when no further harm can occur. Simply put, compassion stops when an unfortunate person is safe. If you rescue an unconscious child from a burning house, your compassion will continue if you lay the child on the ground and walk away. Your compassion will not stop until emergency workers are caring for the child.

You feel neutral when compassion stops. Heroes do not feel a positive effect after rescuing somebody. They just stop feeling the negative effect of compassion, unless they start talking to the media. Then they start feeling pride.

Other Species

Mammals that live in groups feel compassion.

Vampire bats feel compassion. Vampire bats do not always find a host every night. If they do not find a host, they may die before the next night. When bats return to the cave and find a starving neighbor, they will often regurgitate blood to feed their neighbor, whether the neighbor is kin or not.

Dolphins can feel compassion mistakenly triggered by another species. In New Zealand, a pod of dolphins protected a group of swimmers from a great white shark that was stalking them. The dolphins stayed between the swimmers and the circling shark until the swimmers reached safety. As reported in *Dolphins Prevent NZ Shark Attack (BBC News)*, marine biologists say such altruistic behavior is common in dolphins.

Bonobos can also feel compassion mistakenly triggered by another species. Frans de Waal reports the following in his book *Our Inner Ape*:

"...consider a zoo bonobo named Kuni. When she saw a starling hit the glass of her enclosure, she picked up the stunned bird and climbed to the top of the tallest tree. She carefully unfolded its wings and spread them wide, holding one wing between the fingers of each hand, before sending the bird like a little toy airplane out towards the barrier of her enclosure. But the bird fell short of freedom and landed on the bank of the moat. Kuni climbed down and stood watch over the starling for a long time. By the end of the day, the recovered bird had flown off safely."
CHAPTER 20
SELFISH GUILT

Type of Emotion: conceptual punishment

Conceptual Trigger: “I failed to prevent harm to an unfortunate person”

Mental Effect: negative

Key Features: the more preventable harm, the stronger the effect
effect generally stronger in women

Purpose

Selfish guilt encourages everyone to not wait for others to help the unfortunate.

Without selfish guilt, people would wait for others to help the unfortunate. When someone else helped an unfortunate person, you would stop feeling compassion without being harmed.

With selfish guilt, people who wait do not escape feeling a negative effect. If you let another person help an unfortunate person, you will start feeling selfish guilt when you stop feeling compassion.

Charities make it easier to stop compassion or avoid selfish guilt. You just pick up the phone and make a donation. Before charities, you had to visit unfortunate people to help them.

Commercial insurance is an alternative to compassion and selfish guilt. Both systems give large amounts to a few unfortunate people by taking small amounts from many fortunate people.

Conceptual Trigger

Selfish guilt is not triggered unless you could have prevented harm. Beggars do not feel selfish guilt saying no to another beggar.

Selfish guilt is not triggered unless the other person suffered misfortune. You do not feel selfish guilt saying no to an able-bodied beggar.

If selfish guilt did not require misfortune, it would harm group survival. Everyone would feel selfish guilt whenever they said no to a request for money. The streets would be lined with able-bodied beggars.

Selfish guilt can be mistakenly triggered by other species. You would feel selfish guilt if you left an animal writhing in pain.

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Mental Effect

Selfish guilt varies with the preventable harm. The more harm you could have prevented, the stronger the negative effect. You will feel selfish guilt if you drive by a stranded motorist gesturing for help. You will feel stronger selfish guilt if the motorist dies of exposure that night.

Selfish guilt varies with preventable harm to increase the likelihood of helping next time. The stronger selfish guilt is, the more likely you will help in the future. If you have passed a stranded motorist that died, you are more likely to help stranded motorists in the future.

Compassion and selfish guilt are generally stronger in women. The difference is evident in voting and volunteering. Women are more inclined to vote for the left. Most volunteers are women.

Compassion and selfish guilt are stronger in women because they spend more time with children. Children are more likely to suffer misfortune. Also, rescuing a child saves more years of life than rescuing an adult.

Compassion and selfish guilt are the only group emotions that are stronger in women.
Type of Emotion: conceptual reward

Conceptual Trigger: “my rank has increased”

Mental Effect: positive

Key Features: the larger the increase, the stronger the effect
effect generally stronger in men

Involuntary Expression: prolonged smiling

Synonym: elation

Purpose

Pride encourages everyone to increase their rank.

Your rank reflects your contribution to group happiness. Your rank increases when you are expected to contribute more to your group’s happiness. The unemployed increase their rank when they become employed.

Contributing more to group happiness helps group survival. The fewer unemployed there are, the more efficient a nation is.

Rank reflects expected future contributions to group happiness, not past contributions. Current presidents are higher rank than past presidents.

Rank is usually assigned with money. The more you contribute to group happiness, the more you are paid.

Rank is also assigned with titles, perquisites and trophies. High-ranking people are introduced as the honorable or chief executive. They are given large offices and parking spots near the door. They receive gold medals and statuettes.

Rank and pecking order are different.

Pecking order helps individuals by reducing competition. Pecking order sets a group’s eating order to avoid having a fight before every meal. A pack of dogs avoids fighting before every meal by letting the top dog eat first and so on.

Rank harms individuals by increasing competition. Increasing your rank requires contributing more to group happiness than others. The more you contribute to your group’s happiness, the more you harm yourself.
The harm caused by increasing rank can be seen in the early deaths of early leaders. Analysis of 1672 US governors by Stewart McCann showed that the younger a governor was when first elected, the sooner he died. The results are summarized in *Younger Achievement Age Predicts Shorter Life for Governors: Testing the Precocity-Longevity Hypothesis with Artifact Controls*. As reported in *The New York Times Magazine – The 3rd Annual Year in Ideas: Young Success Means Early Death*, the analysis produced the same result for Academy Award winners, Nobel laureates, prime ministers, presidents and pontiffs.

![Graph showing rank vs age](image)

Rank is increased by learning or innovating.

Learning increases rank throughout childhood. During the first 20 years of life, your rank keeps increasing as you graduate to the next grade or school. Your rank continues to increase during the next 5 to 10 years of work as you learn new skills.

For most adults, rank plateaus in their thirties and remains unchanged until their seventies, when it declines with health.

For a few adults, innovating increases their rank. Dr. Steven Trokel was not content to run a successful ophthalmology practice in New York City. He went on to develop and patent the use of the Excimer laser for corrective eye surgery in 1992.

People usually regret not recognizing the importance of rank early in life. If they did, they would have invested more to increase their rank. Instead, many people push their children to avoid making the same mistake.

**Conceptual Trigger**

Pride is usually triggered when you:

- graduate from school
- win an award or contest
- are complimented by others
- receive a job offer, promotion or raise
- are the underdog and win
- are the favorite and win by more than the spread
- are treated as an equal by a higher-ranking person
- are first asked for your autograph
- buy or receive new possessions
Pride is triggered by higher rank, not high rank. Rookies feel pride, but veteran all-stars do not. Recent nursing graduates feel pride, but doctors nearing retirement do not.

<table>
<thead>
<tr>
<th>Rank</th>
<th>High Rank</th>
<th>Higher Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
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<td>✓</td>
</tr>
<tr>
<td>Nearly-top</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Above Middle</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Middle</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Below Middle</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Nearly-Bottom</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bottom</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

If pride was triggered by high rank, it would only motivate the nearly-top ranked. The top rank would not be motivated to increase their rank. They would feel pride just by maintaining their rank. The nearly-top ranked would be motivated. They would feel pride if they increased their rank. Ranks below the nearly-top rank would not be motivated. They would not feel pride if they increased their rank to the next level.

Because pride is triggered by higher rank, it motivates everyone below the top rank. Everyone below the top rank feels pride when they increase their rank. Vice-presidents feel pride when they are promoted to president. The unemployed feel pride when they become janitors.

By definition, pride is temporary. Pride is only triggered while you conclude that your rank is higher. Eventually, your higher rank is not higher anymore. A new car triggers pride for less than a year.

Pride is not triggered by slower growth. You will not feel pride if you receive a 5% salary increase and others receive a 10% salary increase. Pride only rewards improvements in relative contribution, which requires learning or innovation.

Pride is triggered by slower decline. You will feel pride if you receive a 5% salary rollback and others receive a 10% salary rollback. Rewarding slower decline encourages innovation during bad times.

Underdogs always feel pride when they win. Underdogs are not expected to win. Winning increases their rank.

Underdogs can also trigger pride if they lose by less than the spread. Underdogs are expected to lose by the spread. Losing by less than the spread increases their rank.

Favorites only feel pride if they win by more than the spread. Favorites are expected to win by the spread. They only increase their rank if they win by more than the spread.

Pride is triggered more frequently in growing companies. Their employees feel more pride because they are promoted more frequently than stagnant companies. Growing companies are more profitable because their employees feel more pride.
Being treated as an equal by a higher-ranking person triggers pride. If a higher-ranking person treats you as an equal, it feels like your rank has risen to their higher level. This happens when you meet a famous person.

High-ranking people, like royalty, know they have this effect on lower-ranking people. They know that investing a few minutes being down-to-earth with ordinary people leaves them with a strong positive memory. Afterwards, those ordinary people tell many friends and family how likeable the high-ranking person is.

Being complimented triggers pride. You feel pride the first few times someone says you are attractive or intelligent. Eventually, compliments from that person do not increase your rank further and therefore stop triggering pride.

Being asked for your autograph triggers pride for the first few months. People feel pride when strangers first ask for their autograph. The requests increase their rank to that of a famous person. After a few months, the requests stop triggering pride because they no longer increase the rank of the now-famous person.

New possessions usually trigger pride. New possessions are one of the ways we signal higher rank to others. The more your possessions cost, the higher your rank. Men often use cars to signal higher rank. Women often use clothes or jewelry.

People buy lottery tickets to help trigger imagined pride. People buy $10 lottery tickets despite knowing that the expected payoff is $6, for a net loss of $4 a ticket. However, that payoff does not include the benefit of imagined pride. Ticketholders can more credibly imagine winning than non-ticketholders. Their imagined pride is worth more than $4 a ticket.

Video games have many levels to trigger continuous pride. Each time a player reaches a new level or rank, they feel a burst of pride. Higher rank is recognized with audio/visual effects and awards, such as new weapons or privileges. Gamers become addicted to those bursts of pride, like drug users to heroin or gamblers to slot machines.

People seek challenges to trigger pride. A challenge is something which is a stretch for someone, meaning it requires increasing their rank. People usually seek alternative challenges when their career rank plateaus in their thirties. They start to collect things, run marathons or become politically active.

A sense of accomplishment is pride. If you had a particularly good week at work, you believe that your rank has increased.
Rich children rarely feel pride. Rich children are born high rank and usually stay that way until their seventies. Because they start high rank, they rarely increase their rank. Their inability to feel pride makes them more dysfunctional than average.

A rags-to-riches story is the best life plan. A continuous climb triggers continuous pride. Continuously increasing your rank for a lifetime requires starting at the bottom. If you start higher than the bottom, your rank will hit a plateau before death.

People trigger imagined pride to achieve rank increases that require long-term investment. To remain motivated through a project which only increases rank after many years, people often imagine the pride they will feel when the project is completed. To stay motivated while writing this book, I frequently imagined the pride I would feel when it was completed.

Imagined pride motivates people more than actual pride. Actual pride is triggered after someone increases their rank. Imagined pride is triggered when people are considering making the extra effort required to increase their rank. The prolonged smiling triggered by pride helps others imagine pride's positive effect.
Pride varies with the rank increase. The larger the increase, the stronger the positive effect. Winning a million dollars triggers more pride in a beggar than a billionaire.

Pride varies with the rank increase to focus you where you can best contribute to group happiness. You pursue the career path that offers the greatest potential to increase your rank and therefore group happiness. Most lawyers become lawyers for the potential increase in rank, not to be stuck inside office buildings for long hours.

Pride is generally stronger in men. For the same increase in rank, men feel a stronger positive effect than women. The gender difference is evident in recreational choices. When men have recreational time, they compete or produce visible achievement. When women have recreational time, they socialize. Women prefer socializing because it triggers affection, which is stronger in women.

All four rank conceptions are stronger in men: pride, humiliation, humor and envy.

Rank emotions are stronger in men because lost male reproduction harms a group less. The higher your rank, the more you are contributing to your group. The more you contribute to your group, the less time you spend on reproduction. Lost male reproduction is offset by giving men courtship advantage through infatuation’s group preference component and by increasing other men’s reproduction. Lost female reproduction cannot be offset with courtship advantages or by increasing other women’s reproduction.

Women cooperate more than men because their rank emotions are weaker. They are better team players because they seek pride and humor less than men. They enjoy the spotlight and humiliating others less than men. Women also seek humiliation and envy less. They are less likely to be offended by others or by unequal treatment.

Men compete more than women because their rank emotions are stronger.

All four rank emotions seem to grow stronger with age. They seem to play a more dominant role in your thoughts as you age. However, the strength of their mental effects does not change as you age. What changes is your awareness of their importance to your happiness.
Gambling triggers very strong pride for a short time.

Winning a jackpot gives winners a large and sudden increase in rank. The probability of winning a jackpot is close to 0% moments before it happens. Winning causes the probability to instantly hit 100% and the gambler’s rank to skyrocket. As their rank skyrockets, gamblers feel very strong pride for a short time.

Buying a larger house also causes a large increase in rank, but not as suddenly. The probability of the purchase slowly approaches 100% over a few years. As the probability approaches 100%, so does the imagined rank of the homeowners. As their imagined rank continually increases over a few years, they continually feel weak pride.

**Other Species**

Rhesus monkeys feel pride. A study was conducted in which rhesus monkeys were paid cherry juice to view pictures of other monkeys. They were willing to be paid less juice to view higher-ranking monkeys. Viewing higher-ranking monkeys triggered their pride, just like being treated as an equal by a higher-ranking individual triggers pride in humans. The study, *Monkey Pay Per View: Adaptive Valuation of Social Images by Rhesus Macaques*, was conducted at Duke University by Robert Deaner.
Type of Emotion: conceptual punishment

Conceptual Trigger: “my rank has decreased”

Mental Effect: negative

Key Features: the larger the decrease, the stronger the effect; effect generally stronger in men

Involuntary Expression: blushing, if humiliation stops pride

Synonyms: embarrassment, shame, dejection

**Purpose**

Humiliation encourages everyone to maintain their rank.

Your rank falls when you are expected to contribute less to group happiness. The employed fail to maintain their rank when they become unemployed.

Contributing less to group happiness harms group survival. The more unemployed there are, the less efficient a nation is.

Rank is most likely to fall when rank plateaus and pride stops. Most people hit a rank plateau in their thirties. The continuous pride they felt throughout childhood stops. This is when people experience a mid-life crisis, meaning they think about letting their rank fall. Without the reward of pride, they are less willing to work long hours.

Humiliation maintains rank when pride stops. After hitting a plateau, people maintain their rank to avoid humiliation. They cannot imagine moving to a smaller house or wearing cheaper clothes. They decide that feeling humiliation is worse than working long hours without feeling pride. They give up on weekdays and live for weeknights, weekends and vacations.
Without humiliation, people would roller-coaster on pride. Without a penalty to letting your rank fall, people would repeatedly let their rank drop to the bottom and then raise it back to its peak. Their nearly continuous increase in rank would trigger nearly continuous pride. CEO’s would become alcoholics and then rise up to be CEO’s again. Humiliation stops roller-coastering by penalizing the drops.

Rank also falls when innovation is not adopted. If you fail to adopt innovations like cell phones, your group contribution remains unchanged while others increase theirs.

Humiliation ensures the adoption of innovation. Most adults buying their first cell phone today are primarily doing so to avoid humiliation.

Conceptual Trigger

Humiliation is usually triggered when you:

- fail to graduate from school
- are fired, laid-off, demoted or retired
- are the favorite and you lose
- are the underdog and you lose by more than the spread
- are treated as an equal by a lower-ranking person
- are criticized or putdown
- are the victim of a prank
- apologize
- admit you are wrong or made a mistake
- do not hear others say please and thank-you when making a request
- ask for help, whether you are asking for directions or money
- learn that others have been allowed to break the rules with impunity
Humiliation is triggered by lower rank, not low rank. The only criminals who feel humiliation are first-time offenders. Every CEO feels humiliation when they retire.

<table>
<thead>
<tr>
<th></th>
<th>low rank</th>
<th>lower rank</th>
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<td>nearly-top</td>
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<td>above middle</td>
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If humiliation was triggered by low rank, it would only motivate the nearly-bottom ranked. Those above the nearly-bottom ranked would not be motivated. They would not feel humiliation if their rank fell to the next level. The nearly-bottom ranked would be motivated. They would feel humiliation if their rank fell. The bottom rank would not be motivated to maintain their rank. They would still feel humiliation if they did.

Because humiliation is triggered by lower rank, it motivates everyone above the bottom rank. Everyone above the bottom rank feels humiliation when their rank falls. CEO’s feel humiliation when they retire. Janitors feel humiliation when they lose their jobs.

By definition, humiliation is temporary. Humiliation is only triggered while you conclude that your rank is lower. Eventually, your lower rank is not lower anymore. A scratch on your car is embarrassing, but the embarrassment subsides after a few months.

Humiliation is triggered by slower growth. You will feel humiliation if you receive a 5% salary increase and others receive a 10% salary increase. This ensures that humiliation punishes those who are slow to adopt innovation.

Humiliation is not triggered by slower decline. You do not feel humiliation if you receive a 5% salary rollback and others receive a 10% salary rollback. This ensures that innovation during bad times is not punished. Instead, you are rewarded with pride.

Favorites always feel humiliation when they lose. Favorites are expected to win. Losing lowers their rank.

Favorites also feel humiliation if they win, but fail to beat the spread. Favorites are expected to win by the spread. Winning by less than the spread lowers their rank.

Underdogs only feel humiliation if they lose by more than the spread. Underdogs are expected to lose by the spread. Their rank only falls if they lose by more than the spread.
Being treated as an equal by a lower-ranking person triggers humiliation. If a lower-ranking person treats you like an equal, it feels like your rank has fallen to their level. Adults feel humiliation when a young child addresses them by their first name. The Queen feels humiliation when her subjects do not curtsey or bow for her.

Being criticized triggers humiliation. You feel humiliation when a superior tells you that you need to improve. You also feel humiliation when a friend tells you that you have bad breath.

Being putdown triggers humiliation. You feel humiliation the first few times someone says you are unattractive or unintelligent. Eventually, putdowns from that person do not decrease your rank further and therefore stop triggering humiliation.

Being the victim of a prank triggers humiliation. A prank cannot trigger humor in others unless it lowers someone’s rank.

Apologizing triggers humiliation. If you apologize for being late, you are stating that your rank has fallen to that of somebody who is inconsiderate. People are reluctant to apologize because it triggers humiliation.

Admitting you are wrong or made a mistake triggers humiliation. You are acknowledging that you rank has fallen. People are reluctant to admit they are wrong because it triggers humiliation.

Not hearing others say please and thank-you triggers humiliation.

Saying please and thank-you is a promise of reciprocity. Saying “please pass the salt” is equivalent to saying “if you pass the salt, I will return the favor”. Saying “thank you” is equivalent to saying “I confirm that I will return the favor”.

If someone says please and thank-you to you, they are implying that you are equal-or-higher rank than they are. They do not expect you to cooperate with their request unless they promise reciprocity.

If someone does not say please and thank-you, they are implying that you are their servant. They expect you to cooperate with their request without a promise of reciprocity. If you thought you were equally-ranked, implying that you are a servant lowers your rank and triggers your humiliation.
We say please and thank-you to servants to mask the fact that they are lower rank. Customers and bosses say please and thank-you when dealing with waitresses or employees. They are polite to avoid triggering the servant’s humiliation. Instead, they hope to trigger the servant’s pride by treating them as an equal.

Asking for help triggers humiliation, whether you are asking for directions or money. Asking for help is often perceived as a signal of inferiority. Men do not like asking for directions because it signals a poor sense of orientation. Adults do not like asking for money because it signals inability to generate and manage money.

Allowing a few to break the rules with impunity triggers humiliation. If a few people are allowed to break the rules, it creates two ranks where there was one. Instead of one rank of rule abiders, there are now rule abiders and exceptions. The rule abiders are in a lower rank than before, which triggers their humiliation. People waiting in queues feel this humiliation when others are allowed to jump the queue.

Humiliation is triggered more frequently in an insecure person. Insecure people are frequently looking for evidence that others think they are lower rank. They frequently ask friends if their appearance or manner is embarrassing.

Child stars have the worst life plan. Child stars feel very strong pride as their rank rockets to the top. However, they usually spend the remainder of their lives continuously declining in rank. Their continuous decline in rank triggers continuous humiliation, which they often try to avoid with drugs or alcohol.
Humiliation varies with the rank decrease. The larger the decrease, the stronger the negative effect. Being fired triggers stronger humiliation than being criticized.

Humiliation varies with the rank decrease to mitigate losses to group happiness. To reduce the strength of humiliation, people will minimize their loss of rank. Professionals who lose their jobs will take a blue-collar job to avoid accepting welfare.

Humiliation is generally stronger in men. For the same decrease in rank, men feel a stronger negative effect than women. Men are more likely to commit suicide after losing a job or losing face.

The more public an apology, the stronger the humiliation. The more people know that you are a rule breaker, the further your rank falls. Successful libel plaintiffs often seek retribution by requesting a public apology from the defendant. The plaintiffs often request prominent placement of the apology in large daily newspapers to ensure maximum exposure.

High-ranking people face the greatest threat from humiliation. High-ranking people have the furthest to fall.

"The desire of acquiring the comforts of the world haunts the imagination of the poor, and the dread of losing them that of the rich."

Alexis de Tocqueville
Pride and Humiliation

A survey of Harvard students compared humiliation and pride. Students were asked to choose scenario A or B. In scenario A, the student receives $50,000 and others receive $25,000. In scenario B, the student receives $100,000 and others receive $200,000.

Most students chose scenario A, even though it pays them half as much as B. Students preferred A because it triggered their pride, while B triggered their humiliation. The survey, *Is More Always Better?: A Survey on Positional Concerns* (Journal of Economic Behavior and Organization) was conducted by Sara Solnick And David Hemenway.

Other Species

Rhesus monkeys feel humiliation. In the *Monkey Pay Per View* study referred to in the previous chapter, monkeys had to be paid more cherry juice to view pictures of lower-ranking monkeys. Viewing lower-ranking monkeys triggered their humiliation, just like being treated as an equal by a lower-ranking individual triggers humiliation in humans.
CHAPTER 23
HUMOR

Type of Emotion: conceptual reward

Conceptual Trigger: “I learned that X made a rank-reducing mistake that I could have made”

Mental Effect: positive

Key Features: the more likely the mistake, the stronger the effect
   generally stronger in men

Voluntary Expression: laughter

Synonyms: funny, schadenfreude

Purpose

Humor encourages everyone to learn about rank-reducing mistakes that others make.

Learning about rank-reducing mistakes helps you avoid them. Learning about others becoming alcoholics makes you less likely to become an alcoholic.

Reducing rank-reducing mistakes helps group survival. The fewer alcoholics there are, the more efficient a nation is.

Conceptual Trigger

Humor is often triggered when you:

- hear a joke
- see a comedy
- hear a putdown
- witness a prank
- hear gossip
- read tabloid news
- see a favorite upset
Humor is triggered by lower rank, not low rank. Hearing about strangers begging is not enjoyable. Hearing about a former co-worker begging is.

Humor is triggered by mistakes, not misfortune. You feel humor when you see a man fall down because he stepped on a banana peel. You do not feel humor when you see a man fall down because of illness. Both men have dropped to the rank of people who cannot walk. However, the first man made the mistake of stepping on a banana peel and the second man had the misfortune of illness. You can learn from mistakes, you cannot learn from misfortune. Mistakes trigger humor. Misfortune triggers compassion.

Humor is only triggered by mistakes that you could make. Jokes about giving birth do not trigger humor in men. Jokes about erectile dysfunction do not trigger humor in women. Humor only rewards you for learning about mistakes that you could make.

Humor is only triggered the first time you learn about a mistake. Jokes are not funny the second time you hear them. Humor only rewards you for learning something new.

Humor is not triggered unless there is an unexpected reduction in rank. Watching or hearing an expected reduction of someone’s rank does not trigger humor. If you expect someone’s rank to be reduced, their rank is already lower in your mind. Clowns are not funny to adults. Adults know that clowns will reduce their rank.

Punch lines are funny because they provide an unexpected reduction in rank. ~ Some sad news, President Bush’s lapdog passed away. Gee, I didn’t even know Tony Blair was sick.

Putdowns and pranks trigger humor. If you witness a putdown or prank, you feel humor. If you are the target of a putdown or prank, you feel humiliation.

Self-effacing humor reduces the comedian’s rank. The Three Stooges and Rodney Dangerfield were funny because they lowered their own rank. ~ As a child, I got no respect. When I played in the sandbox, the cat kept covering me up.

Witty jokes trigger humor and pride. Witty jokes also trigger pride because they require insight to be understood. Recognizing the insight elevates your rank to the comedian’s rank. ~ President Bush is waging war for the sake of the environment. He hopes to drive the price of oil so high that we stop driving cars.

Witty putdowns also trigger humor and pride. ~ You’re a waste of carbon.

Puns trigger pride, but not humor. Puns trigger pride because their play on words requires insight to identify. However, they do not lower someone’s rank. ~ I used to be a gold prospector, but it didn’t pan out.

Gossip triggers humor. Gossip is primarily about others losing rank. Friends talk about who is cheating on whom. Co-workers talk about who is being fired. Gossiping also triggers affection, which is true of any conversation.

Gossip triggers more humor than jokes or comedy. People spend a few hours a day conversing recreationally and gossip dominates those conversations. By comparison, people spend less than an hour a day listening to jokes or watching comedies.

Sports fans particularly enjoy upsets because they trigger pride and humor. By winning, the underdogs trigger their vicarious pride. By losing, the favorites trigger their humor.
Mental Effect

Humor varies with the likelihood of making the same mistake. The more likely it is that you could make the same mistake, the stronger the positive effect. Tabloid newspapers focus on famous actresses who are overweight or have a philandering husband because those are the mistakes tabloid readers are most likely to make.

Humor does not vary with the size of the other person’s rank reduction. Unlike humiliation, humor is not stronger for larger rank reductions. You feel the same positive effect when another person’s rank falls, regardless of how far it falls. You prefer gossiping about a neighbor to gossiping about a famous person. Although a famous person’s rank can fall further, you are more likely to make the mistakes a neighbor makes. Tabloids focus on famous people because many readers know them, not because they have further to fall.

Humor is generally stronger in men. For mistakes that apply equally to both genders, men feel a stronger positive effect than women. Fraternity initiations humiliate pledges. Sorority initiations are friendly gatherings.

Humor seems stronger when it also stops envy. If you envy somebody, it is more enjoyable to see them make a rank-reducing mistake. Their mistake simultaneously triggers your humor and stops your envy. This is the tall-poppy syndrome. People prefer to criticize tall-poppies because it triggers humor and stops envy. The most vocal critics of tall-poppies are their former peers, who feel the strongest envy.

Humor seems stronger when it also stops revenge. If you hold a grudge against someone, it is more enjoyable to see them make a rank-reducing mistake. Their mistake simultaneously triggers your humor and stops your revenge. Spreading gossip about somebody is more enjoyable when the other person has spread gossip about you.

People joke about or criticize others for making mistakes they worry about making. The more somebody could make a particular rank-reducing mistake, the more they enjoy identifying others making that same mistake. People on diets are the first to joke about others being fat. People who have recently quit smoking are the most vocal critics of smoking.
Other Species

Chimpanzees feel humor.

“Georgia lives at the Yerkes National Primate Research Center in Atlanta, Georgia. When she sees visitors approaching, she hurries to the tap to collect a mouthful of water. She then mingles with the other chimps, and not even the best observer will spot anything unusual. Georgia can wait for minutes with closed lips until the visitors come near, then there are shrieks and laughs as she sprays them.”

Frans de Waal – Suspicious Minds (NewScientist)
CHAPTER 24

Envy

Type of Emotion: conceptual punishment

Conceptual Trigger: “X, a former peer, is now higher rank than me”

Mental Effect: negative

Key Features: the more similar the peer, the stronger the effect
effect generally stronger in men

Synonym: not jealousy

Purpose

Envy encourages everyone to reach their highest potential rank.

Envy punishes you if a former peer achieves higher rank than you. You envy siblings and classmates who are paid more than you. You envy co-workers who are promoted ahead of you.

Higher-ranking former peers are good proxies for your highest potential rank. Siblings had the same genes and childhood experience. Classmates and co-workers had the same rank and opportunities.

Envy is stopped by matching a higher-ranking peer. You stop envying a wealthier sibling or classmate when you become equally wealthy. You stop envying a senior co-worker when you are promoted to their level.

Envy acts like a non-urgent coercion. Coercions are negative effects that stop if you take action. Revenge, for example, stops when you retaliate. Envy is also a negative effect that stops if you take action. Envy stops if you increase your rank to match a higher-ranking peer.

Striving to reach your highest potential rank helps group survival. The more everyone strives for their highest potential rank, the more efficient a nation is.

Conceptual Trigger

Envy is often triggered when:

- a sibling receives more parental attention
- a competitor wins an award and you do not
- a college classmate buys a bigger house than you
- a co-worker is given a larger office than you
- a neighbor buys a better car than you
- you attend a school reunion
Envy is triggered by higher rank, not high rank. You do not envy a stranger driving a much better car than yours, like a Rolls Royce or a Ferrari. You do envy a sibling who drives a slightly better car than you.

Envy is only triggered by former peers. You envy a co-worker who is promoted ahead of you. You do not envy employees who are promoted at levels above or below you.

Reunions intensively trigger all four rank emotions. Reunions put many peers together to discuss how their ranks have changed. Pride, humiliation, humor and envy are being continuously triggered and the mental effects are strong.

**Mental Effect**

![Graph showing the relationship between strength of negative effect and peer similarity.](image)

Envy varies with peer similarity. The more similar a peer’s circumstances, the stronger the negative effect. Siblings usually trigger the strongest envy because they usually have the most similar circumstances.

Envy does not vary with the size of the peer’s rank increase. Unlike pride, envy is not stronger for larger increases in rank. You feel the same envy towards two brothers if one buys a house twice the size of yours and the other buys a house ten times the size of yours.

Envy is generally stronger in men. For the same peer similarity, men feel a stronger negative effect than women. Men are more concerned about differences in wealth. Men are more concerned about co-workers being promoted ahead of them.

Unlike the other rank emotions, envy is permanent. The other rank emotions stop without any effort on your part. Pride stops when your higher rank is not higher anymore. Humiliation stops when your lower rank is not lower anymore. Humor stops the second time you learn about another’s mistake. Envy does not stop unless you close the gap between you and your higher-ranking former peer.

The best reason to be top ranked is not feeling envy. The pride you feel is temporary. The envy that your former peers feel is permanent, unless they increase their rank.
Other Species

Capuchin monkeys feel envy. Capuchin monkeys will take grapes or cucumber if offered, but prefer grapes. They will take cucumber if they see that another monkey is given cucumber. They will not take cucumber if they see that another monkey is given grapes. *Monkeys Reject Unequal Pay (Nature)* summarizes this research, which was led by Sarah Brosnan and Frans de Waal.

Chimpanzees feel envy and revenge. In California, captive chimpanzees attacked a man who was giving another chimp special treatment. The attacking chimpanzees bit off the man’s nose, foot and testicles. They attacked when they saw the man bring a birthday cake to another chimp. The man had been making daily visits to the birthday chimp during the eight weeks preceding the attack. This visit was different because it included a cake. *Birthday Party Turns Bloody When Chimps Attack* was reported by *USA Today*. 
## CHAPTER 25
### SENSATIONS

![Diagram of sensations and emotions]

<table>
<thead>
<tr>
<th>Individual</th>
<th>Sensations</th>
<th>Reflexes</th>
<th>Involuntary Expressions</th>
<th>Voluntary Expressions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal love &amp; grief</td>
<td>pleasing taste, hunger, disgust</td>
<td>startle fear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandmaternal love &amp; grief</td>
<td>sexual pleasure, lust, repugnance affection, cute, loneliness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monogamic love &amp; grief</td>
<td></td>
<td>horror momentary frowning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infatuation, heartbreak, jealousy, adulterous guilt</td>
<td></td>
<td>prolonged momentary smiling crying</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenge, criminal guilt, compassion, selfish guilt, pride, humiliation, humor, envy</td>
<td>excitement, boredom</td>
<td></td>
<td>prolonged smiling blushing</td>
<td>anger laughter</td>
</tr>
</tbody>
</table>

### Purpose

<table>
<thead>
<tr>
<th>Direct your behavior</th>
<th>Direct your behavior</th>
<th>Help you avoid threats</th>
<th>Direct behavior of others</th>
<th>Direct behavior of others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusions</td>
<td>Sensory stimuli</td>
<td>Conclusions or sensory stimuli</td>
<td>Conception, sensation or reflex</td>
<td>Habitual decision</td>
</tr>
<tr>
<td>Positive or negative</td>
<td>Positive or negative</td>
<td>Suppressive</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>None</td>
<td>Almost none</td>
<td>Defensive</td>
<td>Facial expressions</td>
<td>Facial &amp; vocal expressions</td>
</tr>
</tbody>
</table>

### Copyright © 2006 Mark Devon
There are three types of sensation: rewards, coercions and punishments.

Rewards are positive effects triggered by the presence of sensory stimuli. Pleasing taste is triggered by the taste of food.

Coercions are negative effects triggered by the absence of sensory stimuli and stopped by its return. Hunger is triggered by the absence of food and stopped by its return.

Punishments are negative effects triggered by the presence of sensory stimuli. Disgust is triggered by the smell of animal toxins, like fecal matter.

Non-sexual sensations can be triggered at birth or within a few months of birth. Sexual sensations cannot be triggered until puberty. Cute cannot be triggered until 33 months.
Sensations fall into four categories of purpose: survival, sexual, social and scenic.

<table>
<thead>
<tr>
<th>Survival</th>
<th>Rewards</th>
<th>Coercions</th>
<th>Punishments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pleasing taste</td>
<td>hunger, craving, thirst</td>
<td>bitter, sour</td>
</tr>
<tr>
<td></td>
<td>pleasing odor</td>
<td></td>
<td>disgust</td>
</tr>
<tr>
<td></td>
<td>pleasing scenery</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>warmth</td>
<td>seasonal affective disorder</td>
<td>pain</td>
</tr>
</tbody>
</table>

There are many survival sensations. Survival rewards include pleasing taste, pleasing odor, pleasing scenery and warmth. Survival coercions include hunger, craving, thirst and seasonal affective disorder (SAD). Survival punishments include bitter, sour, disgust and pain.

Survival sensations encourage eating and avoiding physical harm. Survival rewards reward you for eating. Survival coercions coerce you to eat. Survival punishments punish you for detecting toxins or suffering trauma.

Eating and avoiding physical harm are the only behaviors that help your survival. All other behaviors harm your survival to help your genes or your group.

<table>
<thead>
<tr>
<th>Sexual</th>
<th>Rewards</th>
<th>Coercions</th>
<th>Punishments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sexual pleasure</td>
<td>lust</td>
<td>repugnance</td>
</tr>
</tbody>
</table>

Sexual pleasure consists of eight different sensory rewards: visual/audible pleasure, penile pleasure, penile orgasm, vaginal pleasure, female nipple pleasure, male nipple pleasure, clitoral pleasure and clitoral orgasm.

Social sensations encourage kin interaction. Affection and cute reward you for interacting with kin. Loneliness coerces you if you do not. Kin interaction transfers knowledge to future generations.

<table>
<thead>
<tr>
<th>rewards</th>
<th>coercions</th>
<th>punishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>social</td>
<td>affection, cute</td>
<td>loneliness</td>
</tr>
</tbody>
</table>

Scenic sensations encourage exploring for new scenery. Excitement rewards you for finding new scenery. Boredom coerces you if you do not. Exploring for new scenery helps groups expand their territory.

<table>
<thead>
<tr>
<th>rewards</th>
<th>coercions</th>
<th>punishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>scenic</td>
<td>excitement</td>
<td>boredom</td>
</tr>
</tbody>
</table>
CHAPTER 26
SURVIVAL REWARDS

Specific Sensations: pleasing taste, pleasing odor, pleasing scenery, warmth

Sensory Trigger: food or the places where food is found

Mental Effect: positive

Key Features: the more concentrated the stimuli, the stronger the effect. Effect fades with repeated short-term exposure

Physical Effect: salivation

Purpose
Survival rewards encourage everyone to eat and live near food.

Sensory Triggers
Pleasing taste is triggered by the taste of food. Four pleasing tastes have been identified so far: sweet, salty, fatty and umami. Sweet is triggered by fruit. Salty is triggered by salt and marine seafood. Fatty taste is triggered by food with lipids, like hamburgers and fries. Umami or savory taste is triggered by foods with free glutamates, like parmesan cheese or tomatoes. Umami is more pleasing when combined with salt, which makes ketchup and soy sauce popular condiments.

Pleasing odor is triggered by the smell of food. Flavor is the combination of pleasing taste and pleasing odor which is triggered as food travels over your tongue and releases odors upwards into your nasal cavity. There are numerous pleasing flavors because there are numerous pleasing odors, not because there are numerous tastes. The importance of odor can be noticed during a cold. Food has little flavor when your nose is congested.

Pleasing odor can also be triggered by the smell of places where food is found. We enjoy perfumes because they smell like flowers. Flowers grow where fruit is found.

Pleasing scenery is triggered by the sight of places where food is found. We pay premiums for real estate that faces water and green spaces. We put windows in our walls to see outside vegetation. If we cannot see outside vegetation, we bring vegetation inside or hang landscape paintings on the walls.

Warmth is triggered by sunlight. Sunlight enables your skin to produce vitamin D, another type of food you need to consume. People enjoy warmth when they sunbathe.

Warmth and warming up are different. Warming up feels good because it stops cold, a type of pain.

Water and oxygen do not trigger a pleasing taste or pleasing odor. Water is not food. Oxygen is food, but is consumed involuntarily.
Mental Effect

Survival rewards vary with a stimuli’s concentration. The higher the concentration, the stronger the positive effect. The higher a food’s sugar content, the more pleasing it tastes. The more lush the scenery, the more pleasing it appears.

Survival rewards fade with repeated short-term exposure. The first taste of food triggers the strongest effect. The second taste triggers a weaker effect than the first and so on. This short-term fading discourages eating too much.

Modern Eating

Increased flavor variety has contributed to overeating.

In the past, we only ate a few flavors. After a few mouthfuls, meals were not pleasing. We kept eating to avoid hunger, not to enjoy pleasing taste.

Today’s greatly expanded variety of flavors makes meals enjoyable from start to finish. As soon as one flavor stops triggering pleasing taste, we switch to a new flavor. After the appetizer and main course, everyone always has room for dessert.

We exercise more than necessary so we can eat more than necessary. To enjoy survival rewards as much as possible, we exercise to burn off the extra calories we eat but do not need. While we can burn off extra calories, our bodies are not built for the overuse, as evidenced by the growing numbers of hip replacements.
CHAPTER 27
SURVIVAL COERCIONS

Specific Sensations: hunger, craving, thirst, seasonal affective disorder (SAD)

Sensory Triggers: absence of food or water

Mental Effect: negative

Sensory Stops: food or water

Key Feature: effect grows stronger with time

Purpose

Survival coercions encourage everyone to avoid malnutrition and dehydration.

Coercions add to your motivation, but only when necessary. Pleasing taste always encourages you to eat. Hunger also encourages you to eat, but only when you have not eaten recently. The alternative to temporary hunger is permanently stronger pleasing taste, which would cause too much eating. Eating would always be better than sex.

Sensory Triggers

Hunger is triggered when you need food.

Cravings are triggered when you need a particular nutrient. In war-torn Germany, pregnant women craved plaster. Their unborn children were depleting their calcium levels. Milk, their main source of calcium, was scarce. Plaster, which contains calcium, was abundant thanks to the Allied bombing of civilians.

Thirst is triggered when you need water. You become thirsty when you do not consume enough water with your food.

Seasonal Affective Disorder (SAD) is triggered when you need vitamin D. SAD is most prevalent in northern latitudes during March, when the sun’s rays have been oblique for a few months. Canadians refer to this feeling as cabin fever.
Mental Effect

Survival coercions vary with time. The longer a coercion has been triggered, the stronger the negative effect. The longer you have been hungry, the stronger your hunger feels.

Survival coercions grow stronger as necessary to ensure eating or drinking. As your hunger or thirst grows stronger, you are more motivated to overcome obstacles to eating or drinking.

Sensory Stops

Survival coercions are stopped by consuming food or water. Hunger is stopped by eating food. Cravings are stopped by eating a particular nutrient. Thirst is stopped by drinking water. SAD is stopped by going outside on a sunny day.
CHAPTER 28
SURVIVAL PUNISHMENTS

Specific Sensations: bitter, sour, disgust, pain
Sensory Triggers: toxins or trauma
Mental Effect: negative
Key Features: the more concentrated the stimuli, the stronger the effect. Effect fades with repeated short-term exposure
Involuntary Expression: momentary frowning
Physical Effect: vomiting

Purpose
Survival punishments encourage everyone to avoid toxins and trauma.

Sensory Triggers
Bitter and sour are triggered by plant toxins. Most poisonous plants are bitter. Most rotting plants are sour.

Disgust is triggered by animal toxins. Disgust is triggered by feces, urine, vomit or rotting flesh. Disgust is not triggered by a person’s behavior.

Pain is triggered by physical trauma.
Mental Effect

Survival punishments vary with a stimuli’s concentration. The higher the stimuli’s concentration, the stronger the negative effect. The closer you are to fecal matter, the more disgusting it smells.

Survival punishments fade with repeated short-term exposure. Farmers working with manure do not notice its odor by the end of the day. This short-term fading helps you. If you cannot avoid a toxin or trauma, it does not help to continue punishing you.
CHAPTER 29

VISUAL/AUDIBLE PLEASURE

Type of Emotion: sensory reward

Sensory Triggers: the visual and audible differences that separate pre-menopausal, non-pregnant women from other humans

Mental Effect: positive

Key Features: the more incorrect humans excluded, the stronger the effect the closer to the reproductive ideal, the stronger the effect the more novelty, the stronger the effect

Physical Effect: penile erection

Purpose

Visual/audible pleasure encourages men to court women.

Female visual/audible pleasure did not evolve. Female visual/audible pleasure did not evolve because male visual/audible pleasure did. Only one gender needs to travel to the other for mating to occur.

This gender difference can be seen in pornography sales and clothing choices.

Women buy a tiny percentage of the pornography sold. Men buy virtually all of the pornographic movies and magazines. Men are virtually all of the customers for telephone sex. Men are virtually all of the customers in strip clubs. If women do visit a strip club, they go with a group of friends as a novel way to socialize.

Men do not dress to be sexually appealing, but women do. Women wear bras, high heels, plunging necklines, skirts, pantyhose and thongs to trigger visual pleasure in men. Men do not make themselves similarly uncomfortable to be visually appealing to women.

Women can feel infatuation or sexual pleasure when looking at a man. These positive effects are mistakenly believed to be female visual pleasure.

Infatuation is triggered when a woman sees a man looking at her. If a woman sees a man looking at her, she can conclude that she triggers his visual pleasure.

Infatuation is also triggered when a woman sees an erect penis. If a woman sees that a man has an erection while looking at her, she can confidently conclude that she triggers his visual pleasure.

Sexual pleasure can be triggered by imagining sex. Women enjoy looking at a man’s bum because they imagine it thrusting, which helps them imagine vaginal pleasure.
Sensory Triggers

Visual pleasure is triggered by the sight of:

- protruding breasts
- plump lips
- wide hips
- slender appendages - head, face, neck, arms, hands, legs, feet
- 8% shorter height
- beardless face
- pubic hair
- non-grey hair
- narrow waist

Audible pleasure is triggered by the sound of an adult female voice talking, laughing, singing or moaning.

Visual pleasure is not triggered by female genitalia. Female genitalia was not visible before Brazilian waxing.

Visual pleasure is not triggered by eyes. Eyes are not a feature that separates women from other humans. Women apply make-up in the mistaken belief that eyes trigger visual pleasure.

Eyes do trigger affection. Affection is triggered by differences between humans and other primates, such as the unique white sclera of human eyes. Women feel the affection that white eyes trigger when they are looking in the mirror while applying make-up. Eye make-up amplifies affection, not visual pleasure.

Mental Effect

Visual/audible pleasure varies with the incorrect humans excluded. The more incorrect humans are excluded by a feature, the stronger the positive effect.
Incorrect humans are men, children, post-menopausal women, visibly pregnant women and not-visibly pregnant women. Correct humans are pre-menopausal, non-pregnant women.

An hourglass figure excludes the most incorrect humans. An hourglass figure is the combination of three features: protruding breasts, a narrow waist and wide hips. The only incorrect humans not excluded by this combination are not-visibly pregnant women.

Protruding breasts and plump lips exclude men, children and post-menopausal women.

Wide hips, slender appendages, feminine voice and 8% shorter height exclude men and children.

Beardless face, pubic hair, non-grey hair and narrow waist exclude one category each. Beardless face excludes men. Pubic hair excludes children. Non-grey hair excludes post-menopausal women. Narrow waist excludes visibly pregnant women.
Visual/audible pleasure also varies with a feature’s proximity to the reproductive ideal. The closer an individual feature is to the ideal, the stronger the positive effect. The reproductive ideal is what best helps a woman to conceive, gestate, give birth to, breastfeed and protect a child.

Ideal breasts are large and do not sag. Breasts have an optimal size. Freakishly large breasts trigger weaker visual pleasure than average breasts. Sagging influences visual pleasure more than size. Small, non-sagging breasts trigger stronger visual pleasure than large, sagging breasts. Sagging indicates post-menopausal.

Ideal lips are more plump than men’s and children’s. Like breasts, lips have an optimal size. Freakishly large lips trigger weaker visual pleasure than average lips.

The ideal waist-to-hip ratio is 0.7. Women without narrow waists may be pregnant. Women without wide hips may be sexually immature. The waist-to-hip ratio is explored in depth by Devendra Singh in *Adaptive Significance of Female Physical Attractiveness: Role of Waist-to-Hip Ratio* (*Journal of Personality and Social Psychology*).

Ideal appendages are not muscular, chubby or thin. Muscularity indicates masculinity. Chubbiness indicates sexual immaturity. Thinness indicates illness or malnourishment.

Ideal voice has a pitch and resonance midway between men and children.

Ideal height for a woman is 8% shorter than a man, which is approximately 6 inches. More than 6 inches shorter indicates sexual immaturity. Less than 6 inches shorter indicates masculinity. Average women are more attractive than tiny or tall women.

Ideal face is hairless, symmetrical, blemish-free and taut. Bearded faces indicate masculinity. Asymmetric faces indicate genetic defects. Blemished faces indicate illness. Sagging faces indicate post-menopausal.

Ideal hair is shiny, thick and not grey. Dull or thin hair indicates illness or malnourishment. Grey hair indicates post-menopausal.
Visual/audible pleasure also varies with a woman’s novelty. The more novel a woman appears or sounds to a man, the stronger the positive effect. Women frequently change their appearance to maximize their novelty. Women often seem more attractive to men when they have a foreign accent.

Men preferred blondes because they were novel. Thanks to hair coloring, blonde hair has lost its novelty. Consequently, more women are dying their hair red to be novel.

Women become less attractive to men. As a woman becomes less novel to a man, she triggers weaker visual/audible pleasure. Even the most beautiful women become increasingly less attractive to a man. The husbands of supermodels cheat on their wives as much as other men do.

Both sexes become less attractive to each other. Shortly after the start of courtship, a woman begins triggering increasingly weaker visual/audible pleasure in a man. After 8 months of courtship, a man no longer triggers infatuation in a woman.

The preference for novelty encourages men to prefer new women, which increases the genetic diversity of their offspring.
Beards

Beards evolved to stop men courting men. Beards evolved during our aquatic detour, when our heads were the only body part routinely visible above water. *The Aquatic Ape Hypothesis*, by Elaine Morgan, explores our aquatic detour in depth.

Erect Penis

Visual pleasure is also triggered by the sight of an erect penis. Men feel visual pleasure when they see another man’s erect penis.

Men prefer pornography that shows an erect penis. The vast majority of heterosexual pornographic movies include men with erect penises, not just naked women. The most important scenes are the cum shots which feature a close-up of an erect penis.

The triggering of visual pleasure by the sight of an erect penis would have been helpful during multi-male mating. Multi-male mating is multiple males mating with the same female within hours of each other. Males in primate species that use multi-male mating also feel visual pleasure when they see an erect penis. It causes them to develop an erection, which prepares them to mate when the opportunity arises.

The triggering of visual pleasure by the sight of an erect penis has probably led men to mistakenly believe they are homosexual.
CHAPTER 30

PENILE PLEASURE

Type of Emotion: sensory reward
Sensory Trigger: copulation or contact that replicates it
Mental Effect: positive
Key Features: effect grows stronger with sustained copulation
minimum duration of 120 seconds to reach orgasm threshold

Physical Effect: penile erection

Purpose

Penile pleasure encourages men to clean women.

Copulation is cleaning followed by insemination. Cleaning has a minimum duration of 120 seconds to reach the orgasm threshold. Insemination has a fixed duration of 6 seconds. Cleaning is encouraged by penile pleasure. Insemination is encouraged by penile orgasm.

Cleaning is not required for insemination. Cleaning is not the norm. Males in many species only require one or two thrusts to complete insemination.

Cleaning is common in species using multi-male mating, like chimpanzees. Cleaning removes seminal deposits from previous males.

Multi-male mating does not explain extended human cleaning. Chimpanzees only clean for 10 seconds, despite using multi-male mating far more than humans do and they have the testicles to prove it. Relative to their body weight, chimpanzee testicles are 4 times heavier than human testicles.
Our aquatic detour explains our extended cleaning. During our aquatic detour, we lived and mated in the water. Cleaning would have removed marine deposits already present in the vagina or pushed into the vagina during initial penetration.

The baculum and hymen are further reproductive evidence of our aquatic detour. Among our closest primate relatives, only humans are missing a baculum and only humans have a hymen. Human males lost their baculum, which is a penis bone, because waves broke it during mating. Human females gained a hymen to prevent marine pathogens from entering the vagina during childhood.

The penis is shaped to help with cleaning and insemination. The bulbous head of the penis acts like a bi-directional flange as it rides over deposits during vaginal penetration and then bends back to scoop deposits out when the penis withdraws. When the head is fully erect, as it is during orgasm, it pushes deposits forward and scoops nothing out when it withdraws. Most primates, including chimpanzees, did not evolve a bulbous head or true glans penis.

**Sensory Trigger**

Penile pleasure is triggered by copulation or contact that replicates it.

Masturbation replicates copulation. Masturbation is more common in humans than other species. Appendages that are good for using tools are also good for replicating copulation. Masturbation is less common in horses and bears.

**Mental Effect**

Penile pleasure grows stronger with sustained copulation or cleaning. This encourages men to penetrate and withdraw once a second for a minimum of 120 seconds. This frequency and duration ensures the removal of pre-existing vaginal deposits.

After penile orgasm, penile pleasure temporarily becomes a weak negative effect. This discourages men from cleaning their own seminal deposit.
CHAPTER 31

PENILE ORGASM

Type of Emotion: sensory reward

Sensory Trigger: total pleasure threshold is reached

Mental Effect: positive

Key Feature: fixed duration of 6 seconds

Physical Effects: ejaculation, erection termination, lethargy

Purpose

Penile orgasm encourages men to inseminate women.

Penile orgasm also encourages men to court and clean women. Penile orgasm adds to the motivation to court and clean already provided by visual/audible and penile pleasure. While they act like a salary, penile orgasm acts like a bonus payment. Visual/audible and penile pleasure reward men with moderately strong pleasure as they court and clean. Penile orgasm rewards men with very strong pleasure, but only if they successfully complete courting and cleaning.

Sensory Trigger

Penile orgasm is triggered when total pleasure reaches a threshold. Total pleasure is the combined strength of penile pleasure and visual/audible pleasure.

Reaching the threshold requires strong penile pleasure. Strong penile pleasure requires at least 120 seconds of cleaning before insemination.

Reaching the threshold also requires strong visual/audible pleasure. Simply put, men cannot reach orgasm without seeing, hearing or imagining a woman. This requirement encourages men to reach orgasm with women.
Affection may also help men reach the total pleasure threshold. It seems to be easier for men to reach orgasm when a woman makes eye contact or talks to them. If affection helps men reach the orgasm threshold, it would encourage men to reach orgasm with women.

Separating the role of affection and visual/audible pleasure is difficult because they are triggered by the same features or neighboring features. Visual affection is triggered by white eyes. Visual pleasure is triggered by the slenderness of a woman’s face. Audible affection is triggered by human voices. Audible pleasure is triggered by the slightly higher pitch and resonance of a woman’s voice.

**Mental Effect**

Unlike other sensory rewards, the strength and duration of orgasm does not vary. It is always a very strong positive effect with a duration of 6 seconds.

Erectile dysfunction drugs do not affect the strength of penile pleasure or penile orgasm. Viagra, Cialis and Levitra only affect penile erection. They do not improve sexual pleasure for men with normal erectile function.

**Physical Effect**

Penile orgasm triggers ejaculation.

Penile orgasm also terminates penile erection. Men cannot achieve an erection for a few hours after orgasm. This prevents men from cleaning their own deposits.

Penile orgasm also induces lethargy. By staying with a woman, a lethargic man discourages other men from attempting to mate with her and clean his deposit.
CHAPTER 32
VAGINAL PLEASURE

Type of Emotion: sensory reward
Sensory Trigger: copulation or contact that replicates it
Mental Effect: positive
Key Feature: effect elevated during infatuation’s 4 month plateau
Physical Effect: vaginal lubrication when elevated

Purpose

Vaginal pleasure encourages women to tolerate copulation.

Sensory Trigger

Vaginal pleasure is triggered by copulation or contact that replicates it.

Mental Effect

![Diagram showing the relationship between relationship age, infatuation, affection, and vaginal pleasure over time.]

Vaginal pleasure is elevated during infatuation’s 4 month plateau. If women feel strong infatuation and affection, they must have activated a man’s monogynic love. With the guarantee of 42 months of male support, women are encouraged to mate by an elevation in vaginal pleasure. During these 4 months, women almost enjoy sex as much as men do.

Unlike penile pleasure, vaginal pleasure does not grow stronger with sustained copulation.

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Vaginal orgasm did not evolve.

Vaginal orgasm is not required. Copulation requires almost no voluntary behavior from women. They just need to tolerate it.

Women do experience clitoral orgasm. Clitoral orgasm is a similarly strong positive effect mistakenly believed to be vaginal orgasm. Clitoral orgasm can be triggered by intercourse, but only if a man's pubic bone makes contact with a woman's clitoris. Vaginal pleasure can also help women reach the clitoral orgasm threshold.

*The Case of the Female Orgasm*, by Elisabeth Lloyd, provides an indepth exploration of the female orgasm in humans.

**Other Species**

Other primates have the same experience as human females: females do not reach orgasm during vaginal stimulation, but do reach orgasm during clitoral stimulation. *Primate Sexuality: Comparative Studies of the Prosimians, Monkeys, Apes and Human Beings* by Alan Dixson reviews the literature on female orgasm in primates.
CHAPTER 34
FEMALE NIPPLE PLEASURE

Type of Emotion: sensory reward
Sensory Trigger: breastfeeding or contact that replicates it
Mental Effect: positive
Physical Effect: nipple erection

Purpose
Female nipple pleasure encourages women to tolerate breastfeeding.
CHAPTER 35
MALE NIPPLE PLEASURE

Type of Emotion: sensory reward
Sensory Trigger: contact that replicates breastfeeding
Mental Effect: positive
Key Feature: functions like female nipple pleasure, but weaker effect
Physical Effect: nipple erection

Purpose
Male nipple pleasure serves no purpose.

Male nipples are embryonic leftovers. Nerve endings that reach the epidermal envelope must be hardwired before an embryo’s gender is set. Consequently, both genders have nipples and penises. Men have nipples where women have nipples. Men have a penis where women have a clitoris.

Male nipple pleasure is also an embryonic leftover. Embryonic hardwiring extends from the epidermal envelope to the positive effects triggered in the brain. Clitoral pleasure and clitoral orgasm are also embryonic leftovers.
CHAPTER 36
CLITORAL PLEASURE

Type of Emotion: sensory reward
Sensory Trigger: contact that replicates copulation
Mental Effect: positive
Key Feature: functions like penile pleasure, but weaker effect
Physical Effect: clitoral erection

Purpose
Clitoral pleasure serves no purpose. The clitoris and clitoral pleasure are both embryonic leftovers.

Sensory Trigger
Clitoral pleasure is triggered by contact that replicates penile penetration of a vagina.

Mental Effect

Clitoral pleasure grows stronger with sustained copulatory contact. After clitoral orgasm, clitoral pleasure temporarily becomes a weak negative effect.
CHAPTER 37

CLITORAL ORGASM

Type of Emotion: sensory reward

Sensory Trigger: total pleasure threshold is reached

Mental Effect: positive

Key Feature: functions like penile orgasm, but weaker effect

Physical Effects: ejaculatory reflex, erection termination, lethargy

Purpose

Clitoral orgasm serves no purpose. The clitoris, clitoral pleasure and clitoral orgasm are all embryonic leftovers.

Sensory Trigger

Clitoral orgasm is triggered when total pleasure reaches a threshold. Total pleasure is the combined strength of clitoral pleasure, nipple pleasure and vaginal pleasure.

At least 120 seconds of clitoral pleasure is required to reach the orgasm threshold. Clitoral orgasm lasts 6 seconds.
CHAPTER 38
OTHER TYPES OF SEXUAL PLEASURE

There no other types of sexual pleasure.

Sexual pleasure is not triggered by being touched elsewhere. Reproduction only requires contact with the penis, vagina and nipples. Consequently, sexual pleasure is only triggered by contact with the penis, vagina, nipples or their embryonic leftovers. You do not feel sexual pleasure when you are kissed, hugged or massaged. You may feel imagined sexual pleasure if you expect more to follow.

Sexual pleasure is not triggered by touching others. Reproduction does not require touching others. Men mistakenly believe they enjoy touching breasts because they enjoy looking at them so much. Similarly, we mistakenly believe that we enjoy eating because we enjoy the taste and odor of food.
CHAPTER 39
LUST

Type of Emotion: sensory coercion

Sensory Trigger: absence of penile orgasm

Mental Effect: negative

Sensory Stop: penile orgasm

Key Feature: effect grows stronger with time

Purpose
Lust encourages men to copulate.

Lust provides additional motivation to mate, but only when necessary. Sexual pleasure always encourages men to mate. Lust also encourages men to mate, but only when they have not mated recently. The alternative to temporary lust is permanently stronger sexual pleasure, which would cause men to mate too much. Sex would always be better than eating.

Female lust did not evolve. Female lust did not evolve because male lust did. Only one gender needs to seek the other for mating to occur.

Women do not commit crimes or spend money to stop lust. Women do not rape. Women do not need to be told no. Women are not regular customers of prostitutes or strip clubs. Women do not accumulate large collections of pornographic magazines.

Women do desire infatuation. Women’s desire to feel this strong positive effect is mistakenly believed to be female lust.

Sensory Trigger
Lust is triggered by the absence of penile orgasm. Ideally, lust would be triggered by the absence of copulation. Unfortunately, men cannot detect the difference between copulation and other methods of achieving penile orgasm.
**Mental Effect**

Lust varies with time. The longer a man has felt lust, the stronger the negative effect.

**Sensory Stop**

Lust is stopped by penile orgasm.


**CHAPTER 40**

**REPUGNANCE**

Type of Emotion: sensory punishment

Sensory Trigger: sexual pleasure triggered by women a man lived with prior to age 6 years

Mental Effect: negative

Key Feature: the stronger the pleasure, the stronger the effect

**Purpose**

Repugnance encourages men to avoid incest.

Female repugnance did not evolve. Female repugnance did not evolve because male repugnance did. Only one gender needs to leave to avoid incest.

The gender difference can be seen when siblings start dating. Boys are uncomfortable when other boys date their sisters. Girls are not uncomfortable when other girls date their brothers.

**Sensory Trigger**

Repugnance is triggered when men feel sexual pleasure triggered by women they lived with prior to age 6 years. Simply put, men feel repugnance when they imagine their mother or sister naked.

Prior to age 6 is a proxy for kin. Prior to age 6, boys primarily interact with siblings. After age 6, they begin interacting with non-siblings. Schooling usually starts at age 6.

This negative sexual imprinting was first suggested by Edward Westermark who noted the “remarkable lack of erotic feelings between people who have been living closely together since childhood”. Robin Fox found supporting evidence in Israeli kibbutzim. Unrelated toddlers raised together in a kibbutz never date or marry, as described in *Sibling Incest* (*British Journal of Sociology*).
Repugnance is not triggered in fathers. Daughters are not alive when fathers were 0-6 years old.

Repugnance is not triggered in brothers that are 6 or more years older. Younger sisters were not alive when older brothers were 0-6 years old.

Fathers and older brothers were not a problem in the past. Fathers would have moved on to a new woman long before their daughters reached puberty. Older brothers would have left home when they reached puberty.

Repugnance is not triggered by other behaviors, like homosexuality. Incest triggers repugnance because it produces defective offspring. Homosexuality does not produce defective offspring.

**Mental Effect**

The strength of repugnance varies with the sexual pleasure triggered. The stronger the sexual pleasure, the stronger the negative effect. Men feel weak repugnance if they see their sister wearing tight clothes. They feel stronger repugnance if they see their sister naked. Repugnance increases to discourage the escalation of sexual interest.
CHAPTER 41
AFFECTION

Type of Emotion: sensory reward

Sensory Triggers: the visual and audible differences that separate humans from other primates

Mental Effect: positive

Key Features: the more incorrect primates excluded, the stronger the effect
the more proof of interaction, the stronger the effect
the more past interaction, the stronger the effect
the more maternal similarity, the stronger the effect
the more symmetry, the stronger the effect
effect generally stronger in women
effect stronger if accompanied by sympathetic behavior

Involuntary Expression: momentary smiling

Purpose

Affection encourages everyone to interact with kin.

Kin interaction transfers knowledge to future generations. Children learn by observation when they interact with their parents. They learn simple behaviors such as how to eat different types of food. They also learn complex behaviors, such as cooperating for strength-in-numbers.

Kin interaction does not help parents. Kin interaction transfers knowledge from parents to children.

Kin interaction helps children, but they don’t know it. Children do not realize the value of learning from parents until they become parents.

Kin interaction preserves knowledge when each generation dies. Current generations use knowledge that has been accumulating since affection evolved. Future generations will also use the knowledge that accumulates between now and then. Current parents teach their children to wear seat belts. Future parents will teach their children to wear seat belts and avoid fatty foods.

Schools are now the primary method of transferring knowledge. Schools provide most of the knowledge downloaded to children. Schools are more efficient than kin interaction. One adult teaches 20 children, allowing 20 mothers to work. Schools also increase labor flexibility. Children are not restricted to learning what their parents know.


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Affection also encourages kin to help kin.

Affection gives kin a reason to help kin survive. To maintain the affection that kin trigger, people will help kin more than they would help non-kin. You would rescue your brother from a burning house before you would rescue a stranger. You would loan money to your children before you would loan money to a neighbor.

Affection also helps both genders identify suitable mating partners.

Monogynic love is not activated without suddenly strong affection. A woman cannot trigger suddenly strong affection in a man unless she is in frequent contact with him. If she is in frequent contact with a man, she would not have time to court or be courted by another man.

Infatuation does not grow stronger and vaginal pleasure is not elevated without suddenly strong affection. If a woman does not feel suddenly strong affection, her man must not feel suddenly strong affection. If he does not feel suddenly strong affection, he must not have fallen in love. Without the proof of love provided by a woman’s suddenly strong affection, mating is not encouraged.

**Sensory Triggers**

Visual affection is triggered by the sight of:

- smiling
- faces with eyebrows, white eyes, chins, everted lips, philtra, down-facing nostrils
- hands with opposable thumbs
- walking that is bipedal
- bums without tails
- feet without opposable toes

Audible affection is triggered by the sound of a human voice talking, laughing or singing.

Affection can also be triggered by stimuli that are recorded or transmitted. Visual affection can be triggered by photographs and video. Audible affection can be triggered by voicemails and telephone calls.

Affection can also be triggered by remembering stimuli. Reading a letter from a friend triggers affection because it causes you to recall memories of the friend’s face and voice.

Affection is mistakenly triggered by humanoid faces and sounds, like pets and music.

Affection could not be self-triggered in the past. Before mirrors, you could not see yourself. Before tape recorders, you could not hear your external voice. While you can hear your internal voice, it does not trigger affection. That particular sound is an affection dead-spot.

Affection can be triggered 3 months after birth. Affection can be triggered when somebody becomes familiar. Involuntary smiling, which is triggered by affection, begins at 3 months when newborns see or hear their mother.
Mental Effect

Affection varies with the incorrect primates excluded. The more incorrect primates were excluded by a feature in the past, the stronger the positive effect it triggers today.

Incorrect primates were arboreal, terrestrial, partially-aquatic and fully-aquatic/small-brain. Humans were fully-aquatic/large-brain primates.

Walking, bums and feet excluded arboreal primates. Only terrestrial and aquatic primates can walk bipedally. Only terrestrial and aquatic primates lost their tails and opposable toes.

Certain facial and hand features excluded arboreal and terrestrial primates. Only aquatic primates had eyebrows, white eyes and chins, which they used to communicate underwater with facial expressions like horror and frowning. Only aquatic primates had everted lips, philtra and down-facing nostrils, which prevented water from flooding into their lungs. Only aquatic primates had opposable thumbs, which they used to open shellfish.

Talking excluded arboreal, terrestrial and partially-aquatic primates. Only fully-aquatic primates evolved the advanced breathing control which also produces human speech.

Singing excluded arboreal, terrestrial, partially-aquatic and fully-aquatic/small-brain primates. The only primates with the intelligence and advanced breathing control required to produce a logical sequencing of continuous vocalizations with the acoustics of a human voice were fully-aquatic/large-brain primates.
Affection also varies with proof of interaction. The more a feature proves you are interacting with the other person, the stronger the positive effect.

A smiling face triggers stronger affection than a relaxed face. Smiling people feel affection. If you trigger someone's affection, they must be looking at or listening to you.

Eye contact triggers stronger affection than eyes looking elsewhere. Our unique white eyes make it easy to see that someone is looking at you. If someone is looking at you, that person must be interacting with you.

Whispering in somebody's ear triggers stronger affection than normal conversation. To hear a whisper, you must be very close to the whisperer.

Sympathetic behavior triggers stronger affection than passive behavior. Dancing or singing to music triggers stronger affection than just listening to music. Sympathetic behavior confirms interaction with the source of the logical sequencing of sounds.
Affection also varies with past interaction. The more you have interacted with somebody, the stronger the positive effect. Kin usually trigger the strongest affection. Early in life, your parents and siblings are the people you have interacted with the most. Later in life, your children become the people you have interacted with the most.

Non-kin can mistakenly trigger strong affection. Spouses, friends and co-workers can easily accumulate as many hours of interacting as kin do. Non-kin triggering of affection helps your group, not your genes. It encourages knowledge transfer between non-kin.

Entertainment stars can also mistakenly trigger strong affection. Oprah Winfrey and Howard Stern have accumulated many hours of interaction with their audiences.

Pets can also mistakenly trigger strong affection. Pets can trigger surprisingly strong affection, given their non-human faces and lack of a voice. They do it by accumulating more hours of interaction per year than humans do. Pets make eye contact with you more frequently than humans do.

Music can also mistakenly trigger strong affection. Like pets, you can accumulate many hours of interaction with a song.
Affection also varies with maternal similarity. The more somebody looks or sounds like your mother, the stronger the positive effect they trigger in you. Looks-like-your-mother refers to visual features that are not gender or age specific, such as eye color, hair color, skin color and facial bone structure. Sounds-like-your-mother also refers to audible features that are not gender or age specific, such as language and accent.

Affection varies with maternal similarity to encourage interacting with kin. The more somebody looks or sounds like your mother, the more likely they are kin.

The effect of maternal similarity can be seen in urban melting pots. People tend to socialize with and marry people who look and sound like them, even when most people around them do not look or sound like them.
Affection also varies with symmetry. The more symmetrical somebody appears to be, the stronger the positive effect.

The more symmetrical a face appears to be, the stronger the affection it triggers, as reported by Dahlia Zaidel in *Appearance of Symmetry, Beauty, and Health in Human Faces (Brain and Cognition)*.

The more symmetrical bipedal movement appears to be, the stronger the affection it triggers. The more symmetrical dancing appears to be, the more people enjoy watching it, as reported by Robert Trivers in *Dance Reveals Symmetry Especially in Young Men (Nature)*.

The more symmetrical somebody is, the fewer genetic defects they have. Affection encourages you to prefer interacting with beautiful people. Their genes are more likely to transfer knowledge to future generations.

Affection, cute and loneliness are generally stronger in women. Women enjoy socializing more. Women enjoy infants more. Women dislike being alone more.

Affection, cute and loneliness are stronger in women because they spend more time with children, who are the targets of the knowledge transferred by kin interaction.
Other Species

Cooperative carnivores feel affection. Affection encourages kin interaction to transfer their methods of cooperating to the next generation.

Examples of kin interaction leading to knowledge transfer have been spotted in cooperative carnivores.

Dolphins have been seen using sponges to protect their noses while they scour the ocean floor looking for food. This was reported by Michael Krutzen in *Cultural Tool Use in Bottlenose Dolphins* (*Proceedings of the National Academy of Sciences*).

Chimpanzees have been seen using sticks to extract termites from trees, as reported by Andrew Whiten in *The Second Inheritance System in Chimpanzees and Humans* (*Nature*).

Captive killer whales have been seen baiting birds by leaving food floating on the water’s surface, then capturing the birds when they land. This was reported in *More Animals Join the Learning Circle* (*NewScientist*).

In each of these examples, offspring observed and then copied the innovation.

Flags, Currency, Anthems, Politicians & Royalty

Flags, currency, anthems, politicians and royalty are used to promote patriotism, which is national affection.

Flags and currency are poor promoters of patriotism. Because they are ubiquitous, we accumulate many hours of interaction with these national symbols. However, they do not look or sound like humans.

Anthems are better than flags and currency. They are as ubiquitous as flags and currency, but also include a human or humanoid sound. They are also usually accompanied by the sympathetic behavior of singing.

Politicians and royalty are better than anthems, flags and currency. The media makes them ubiquitous and they obviously look and sound like humans.

Royalty are better than politicians. They accumulate interaction longer than politicians. Queen Elizabeth the Second has been accumulating interaction for more than 80 years.

Poetry and Alliteration

We prefer poetry and alliteration for the same reason we prefer singing. They all trigger strong affection because they are a logical sequencing of human vocalizations. ~ *Peter Piper picked a peck of pickled peppers.*
Chapter 42

Cute

Type of Emotion: sensory reward

Sensory Triggers: the visual and audible differences that separate newborns from 33 month old children

Mental Effect: positive

Key Features: not triggered before 33 months
the younger the child, the stronger the effect
effect generally stronger in women

Involuntary Expression: momentary smiling

Purpose

Cute encourages everyone to interact with infantile kin.

Cute encourages infantile interaction because affection does not. Infants do not trigger affection in others. They have not accumulated the past interaction required to trigger affection. Also, they cannot begin accumulating the required past interaction because they cannot talk or walk.

Sensory Triggers

Visual cute is triggered by the sight of:

- smaller scale bodies, face, hands, feet
- relatively larger scale eyes
- clumsy walking

Audible affection is triggered by the sound of a voice with very high pitch and resonance.

Cute is mistakenly triggered by non-kin. You feel cute when you see infants who belong to co-workers or strangers.

Cute is mistakenly triggered by non-human infants, like puppies or kittens.

Cute is mistakenly triggered by scaled-down objects, like the Mini Cooper or Legoland.

Cute is not triggered before 33 months. Infants do not like kittens and toy soldiers, but older children do. Infants cannot transfer knowledge to newborns, but older children can. Older children can help infants learn to speak.
Cute varies with a child's age. The younger the child, the stronger the effect it triggers in others. Newborns trigger the strongest cute. Children that are 33 months or older do not trigger cute. Children stop triggering cute when they can trigger strong affection in others.

The end of cute is the third of four reasons for the terrible-two's.
### CHAPTER 43

#### LONELINESS

<table>
<thead>
<tr>
<th>Type of Emotion:</th>
<th>sensory coercion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory Trigger:</td>
<td>absence of affection</td>
</tr>
<tr>
<td>Mental Effect:</td>
<td>negative</td>
</tr>
<tr>
<td>Sensory Stop:</td>
<td>affection</td>
</tr>
</tbody>
</table>
| Key Features:   | effect grows stronger with time  
effect generally stronger in women |
| Involuntary Expression: | crying |

#### Purpose

Loneliness encourages everyone to interact with kin.

Loneliness provides additional motivation to interact with kin, but only when necessary. Affection always encourages you to interact with kin. Loneliness also encourages you to interact with kin, but only when you have not interacted recently. The alternative to temporary loneliness is permanently stronger affection, which would cause too much interaction. Interacting would always be better than sex.

#### Sensory Trigger

Loneliness is triggered by the absence of affection. You become lonely if you do not interact with people who trigger your affection. Similarly, you become hungry if you do not eat.

Death usually triggers imagined loneliness. If someone dies, you will imagine the absence of their affection in the future. Imagining the absence of their affection triggers your loneliness. The breakup of a marriage or the death of a pet usually causes the same reaction.

Loneliness is usually not triggered until 3 months after birth. Newborns are rarely left alone long enough to feel loneliness. Crying or weeping, an involuntary reflex triggered by loneliness, is usually not seen until 3 months after birth.
Loneliness varies with time. The longer you have felt loneliness, the stronger the negative effect. After a few months of loneliness, people usually start talking to themselves in a futile effort to trigger their affection and stop their loneliness.

Loneliness grows stronger as necessary to ensure kin interaction. As loneliness grows stronger, you are more motivated to overcome obstacles to interacting with kin. Castaways would rather risk death on poorly-constructed rafts than continue to feel their tortuous loneliness.

Solitary confinement seeks to maximize the strength of loneliness.

Sensory Stop

Loneliness is stopped by affection.

Loneliness is not stopped by interacting with strangers. The widespread loneliness of urbanites proves this. You must interact with people who trigger your affection to stop loneliness. Strangers cannot trigger affection.

Loneliness is not stopped by crying. Only affection stops loneliness. If crying causes someone to interact with you, as it evolved to do, it will indirectly stop loneliness.

People primarily buy pets to stop loneliness, not to trigger affection. They leave their pets when friends call. Pets cannot trigger the affection that a good friend can.
**CHAPER 44**

**Excitement**

<table>
<thead>
<tr>
<th>Type of Emotion:</th>
<th>sensory reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory Trigger:</td>
<td>new scenery</td>
</tr>
<tr>
<td>Mental Effect:</td>
<td>positive</td>
</tr>
</tbody>
</table>
| Key Features:   | the more novel the scenery, the stronger the effect  
|                 | effect generally stronger in men |

**Purpose**

Excitement encourages everyone to explore for new scenery.

Exploring for new scenery helps your group, but harms you and your genes.

Your group has a lot to gain and little to lose. If you find new territory that is habitable, your group headcount can be increased for an infinite number of generations. If you die, you are replaced in one generation.

You and your genes either lose a little or lose a lot. At best, you waste time exploring that could have been used to gather more food or reproduce more. At worst, you die and your reproduction stops.

**Sensory Trigger**

Excitement is triggered by new scenery. Vacations and weekend trips trigger excitement. The countryside is exciting to urbanites. The city is exciting to farmers. Everyone feels excitement the first time they visit Las Vegas.

Excitement is mistakenly triggered by a change of weather or season. The changing of the leaves and the first snowfall trigger excitement. Christmas decorations also trigger excitement for the first week.

Excitement is also mistakenly triggered by postcards, magazines, television and kaleidoscopes.

Excitement is not triggered by anticipating positive emotions. If someone says they are excited about being promoted, they are anticipating the positive effect of pride.

Curiosity is the desire to trigger excitement. The desire to see what lays around the corner or over the hill is the desire to feel the excitement triggered by a new vista.
**Mental Effect**

![Graph showing the relationship between novelty and the strength of the positive effect, with excitement on the y-axis and novelty on the x-axis, with a linear increase from low to high.]

Excitement varies with novelty. The more novel scenery is, the stronger the positive effect. Foreign cities trigger more excitement than domestic cities.

**Pleasing Scenery and Excitement**

<table>
<thead>
<tr>
<th>who</th>
<th>pleasing scenery</th>
<th>excitement</th>
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<tbody>
<tr>
<td>everyone</td>
<td>everyone</td>
<td>everyone</td>
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<td>sensory trigger</td>
<td>lush scenery</td>
<td>new scenery</td>
</tr>
<tr>
<td>mental effect</td>
<td>positive</td>
<td>positive</td>
</tr>
</tbody>
</table>

Pleasing scenery and excitement are similar, but different sensations. Pleasing scenery is triggered by lush scenery, whether it is new or not. Excitement is triggered by new scenery, whether it is lush or not.

Pleasing scenery and excitement serve different purposes. Pleasing scenery encourages living near food. Excitement encourages finding new territory.

The most enjoyable scenery is lush and new, which triggers both sensations.
CHAPTER 45
Boredom

Type of Emotion: sensory coercion

Sensory Trigger: absence of excitement

Mental Effect: negative

Sensory Stop: excitement

Key Features: effect grows stronger with time
effect generally stronger in men

Purpose

Boredom encourages everyone to explore for new scenery.

Boredom provides additional motivation to explore, but only when necessary. Excitement always encourages you to explore. Boredom also encourages you to explore, but only when you have not explored recently. The alternative to temporary boredom is permanently stronger excitement, which would cause too much exploring. Exploring would always be better than sex.

Sensory Trigger

Boredom is triggered by the absence of excitement.

Boredom is not triggered by the absence of any stimulation. Large cities are full of stimulation. Despite this, urbanites become bored.
Mental Effect

Boredom varies with time. The longer you have been bored, the stronger the negative effect. Boredom is weakest just after returning from your last vacation. Boredom is strongest just before your next vacation.

Boredom grows stronger as necessary to ensure exploring. As boredom grows stronger, you are more motivated to overcome obstacles to exploring.

Solitary confinement also seeks to maximize the strength of boredom.

The scenic sensations are generally stronger in men. Excitement and boredom trigger stronger effects in men than women. Men are more interested in exploring. Men are less likely to sit still for hours.

The scenic sensations are stronger in men because lost male reproduction harms a group less. If a man dies exploring, other men can offset his lost reproduction. If a woman dies exploring, other women cannot gestate more to offset her lost reproduction.

Sensory Stop

Boredom is stopped by excitement. Boredom is stopped by taking a vacation or flipping through a glossy travel magazine.

Boredom can be temporarily masked by other emotions, but not stopped. Boredom does not stop if you start reading a good book. The drama of the book may trigger emotions that temporarily mask your boredom, but it returns when you stop reading.
There are two emotional reflexes: startle and fear.

While there are many other reflexes, such as the gag reflex, only startle and fear are generally considered to be emotions.
CHAPTER 47

STARTLE

Type of Emotion: reflex

Sensory Triggers: audible, tactile or vestibular stimuli that differs from the past

Conceptual Trigger: “I detect stimuli than differs from what I expected”

Physical Effects: arms move up to shield the neck and torso
neck and face muscles tense
eyelids blink

Mental Effect: suppressive

Key Feature: the greater the difference, the more pronounced the effects

Involuntary Expression: none, although it appears to

Synonym: surprise

Purpose

Startle helps you survive the initial strike of an ambush predator.

Sensory Trigger

Sensory startle is triggered by stimuli consistent with being ambushed by a predator.

Sensory startle is triggered by sudden differences in what you hear or feel. If you are
ambushed by a predator, the audible of the predator’s leap will be the first stimuli to reach
you. Next will be the tactile feel of the predator making contact with your skin. That will
be followed by the motion of your body being propelled forward by the impact, which is
detected by the vestibular system in your ear.

Sensory startle is not triggered by sudden differences in what you see. If you see a predator,
you can voluntarily prepare. Sudden differences in what you see do trigger the eye blink
reflex, which is also triggered by startle. Sudden differences in what you see do not trigger
any of startle’s other physical effects, like moving your arms to protect yourself.

Tactile, Acoustic and Vestibular Systems Sum to Elicit the Startle Reflex is a University of
Toronto study by John Yeomans that explores sensory startle indepth.

Sensory startle can be triggered from birth onwards. A standard test for newborns is
making a loud noise to see if their eyelids blink.
Conceptual Trigger

While sensory startle is triggered by stimuli that differs from the past, conceptual startle is triggered by stimuli that differs from expectation. Sensory startle is triggered by a loud noise, whether it was unexpected it or not. Conceptual startle is triggered by an unexpected noise, whether it was loud or not.

Conceptual startle is triggered by any stimuli that differs from what you expected, including what you expected to see. You are startled if you believe you are working alone and look up to see someone quietly standing there.

Conceptual startle cannot be triggered until a child is 24 months old. Prior to this age, children do not imagine the future and therefore do not have expectations.

Physical Effects

Startle’s physical effects help you survive an ambush predator’s initial strike. Predators pounced on us with claws or plucked us from above with talons. Their initial strikes targeted our head, neck and torso.

Startle causes you to involuntarily move your arms to shield your neck and torso. This prevents the tearing of jugular veins or internal organs. It sacrifices injury to your arms to avoid a fatal injury.

Startle causes you to involuntarily tense your neck and face muscles. Muscles are more difficult to claw through when they are tense.

Startle causes your eyelids to blink. Closing eyelids protects eyes from being scratched or torn out.

The greater the difference in stimuli, the more pronounced the physical effects. Your arms only move slightly if you hear a quiet noise. Your arms move all the way to your neck if you hear a loud noise.

Startle’s physical effects save time. You can voluntarily raise your arms to protect your neck and torso. However, deciding to raise your arms loses valuable time. A claw would be through your jugular in the time required to decide to protect yourself.
Mental Effect

Startle triggers a suppressive mental effect. You stop feeling positive and negative mental effects when you are startled. Suppression helps you concentrate on avoiding a threat by eliminating distractions.

Involuntary Expression

Startle does not trigger an involuntary expression, although it appears to. Involuntary tensing of the face and neck muscles looks like a facial expression.
CHAPTER 48
FEAR

Type of Emotion: reflex

Sensory Triggers: historic threats and warning expressions

Conceptual Trigger: “I expect my happiness to change”

Physical Effects: adrenalin, aldosterone, endorphins released
palms and feet sweat
piloerection, lip curl
bladder and bowel evacuation
fainting

Mental Effect: suppressive

Key Feature: the greater the threat, the more physical effects are triggered
the greater the threat, the stronger the suppressive effect

Involuntary Expressions: horror, screaming

Synonyms: terror, anxiety, worry

Purpose
Fear helps you avoid threats.

Sensory Triggers
Sensory fear is triggered by the sight of historic threats, such as snakes or heights.

Sensory fear is also triggered by involuntary warning expressions. You feel fear when you
see the expression of horror or hear a blood-curdling scream.

Sensory fear can be triggered from birth onwards.

You can become desensitized to fear’s sensory triggers. If you are continually exposed to a
threat without being harmed, it stops triggering fear. Most adults do not feel fear when they
see a snake.

Desensitizing helps you. If you survive being continually exposed to a threat, it must not be
harmful. If reaching a good hunting ground requires climbing a cliff, being continually
frightened by the height of the cliff will not help you.
Conceptual Trigger

While sensory fear is triggered by a historic threat or warning expression, conceptual fear is triggered when you expect your happiness to change. Bungee jumping triggers both. Sensory fear is triggered by the sight of the distant ground below. Conceptual fear is triggered by the thought of the bungee cord breaking.

Conceptual fear is triggered when you expect any change in your happiness, not just when you expect to feel pain. Your palms sweat beforecourting a mate or making a speech. Your heart rate increases if you expect to be hired or fired.

Triggering fear when you expect to feel pain is logical. Increased heart rate and sweaty palms help you fight or flee a threat.

Triggering fear when you expect to feel a conceptual coercion may also be logical. The conceptual coercions are jealousy, revenge and compassion. If a woman has committed infidelity, increased heart rate would make a man’s anger more credible. If somebody has harmed you by breaking the rules, increased heart rate would make it easier to retaliate. If you see somebody pinned under a machine, increased heart rate would help you save that unfortunate person.

Although it occurs, triggering fear when you expect other emotions is not logical. Fear does not help if you feel love, infatuation, pride or humiliation. Sweaty palms do not help you court the opposite gender or make a speech. Increased heart rate does not help you get hired or avoid being fired.

Conceptual fear cannot be triggered until a child is 24 months old. Children begin to imagine monstersat this age. The onset of fear is the fourth of four reasons for the terrible-two’s. The other reasons are: the onset of conceptions, the end of maternal love and the end of cute.
The greater the threat, the more physical effects are triggered. Even weak fear triggers adrenalin release. Only strong fear triggers fainting.

Adrenalin increases your heart rate, which helps you fight or flee an attacker. Aldosterone regulates blood pressure when your heart rate increases. Endorphins suppress pain if you are injured.

Palms and feet sweat to give you better grip. You use the same principal when you lick your finger to turn a page. Fingerprints on your hands and feet also give you better grip.

Piloerection and lip curl make you appear more threatening. Erect body hair makes you appear larger, like a frightened cat. Lip curl shows your teeth. Piloerection and lip curl have almost atrophied since we lost the need for thermal hair and canine teeth.

Bladder and bowel evacuation help fight or flight by making you lighter.

Fainting can evade predation by making you appear lifeless, like opossums do. Fainting is more common in women because it is a better strategy for them. Their smaller size makes them less likely to successfully fight or flee a predator.

Vomiting is not triggered by fear. Vomiting would hinder fight and flight by obstructing vision and breathing. Vomiting is only triggered by survival punishments, like disgust.
Fear triggers a suppressive mental effect. When frightened, you do not feel positive emotions like pleasing taste or sexual pleasure. You also do not feel negative effects like humiliation or loneliness. Suppression helps you concentrate on avoiding a threat by eliminating distractions.

The greater the threat, the stronger the suppressive effect.

Weak fear only suppresses weak emotions. A horror film can suppress weak boredom, but not moderate hunger.

Strong fear suppresses all emotions. Even strong revenge is suppressed when someone points a loaded gun at you.

People use fear’s suppressive mental effect to suppress negative emotions. People enjoy driving fast, taking amusement rides and parachuting because it triggers fear. Triggering fear suppresses their loneliness or boredom.

The placebo effect is the absence of fear’s suppressive mental effect. People who do not expect pain, do not feel fear. Consequently, their emotions are not suppressed. They feel better because they can feel positive emotions like affection or excitement.

Fear also triggers better memory storage. You always remember the details of frightening events, like the music that was playing when you were in a car accident. Better memories help you spot and avoid the same circumstances in the future.

Fear does not automatically make you fight or behave aggressively. Your survival is maximized by letting you decide whether fight or flight is better. Automatically committing you to fight would reduce your survival. It would eliminate the option of fleeing, which is usually the least harmful method of avoiding a threat.
Involuntary Expressions

Fear triggers the involuntary expression of horror. While fear evolved to help you avoid a threat, the involuntary expression of horror on your face evolved to help others avoid a threat.

Extreme fear can also trigger involuntary screaming. Involuntary screaming causes serious harm to the screamer by ensuring that attackers know where the screamer is. Because it causes such serious harm to a screamer, it is only triggered by extreme fear. If you feel extreme fear, you are probably going to die. Giving away your location does not cause you additional harm, but it does help save others.

Lie Detectors

Lie detectors detect fear, which is different than detecting lies. Lie detectors detect fear’s physical effects: increased heart rate, increased blood pressure and sweaty palms. Fear is triggered if you think you might be caught lying. Fear is also triggered if you think you might be wrongly convicted or embarrassed.
**Involuntary Expressions**

Involuntary expressions are triggered by a conception, sensation or reflex.

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**Chapter 49**

**Involuntary Expressions**

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<table>
<thead>
<tr>
<th>Individual</th>
<th>Pleaseing taste, hunger, disgust</th>
<th>Startle</th>
<th>Fear</th>
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<tr>
<td>Genetic</td>
<td>Maternal love &amp; grief</td>
<td>Sexual pleasure, lust, repugnance</td>
<td>Horror</td>
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<tr>
<td></td>
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<td>Affection, cute, loneliness</td>
<td>Momentary frowning</td>
</tr>
<tr>
<td></td>
<td>Monogynic love &amp; grief</td>
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<td>Prolonged frowning</td>
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<td></td>
<td>Infatuation, heartbreak</td>
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<td>Momentary smiling</td>
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<td></td>
<td>Jealousy, adulterous guilt</td>
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<td>Crying</td>
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<tr>
<td>Group</td>
<td>Revenge, criminal guilt</td>
<td>Excitement, boredom</td>
<td>Prolonged smiling</td>
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<tr>
<td></td>
<td>Compassion, selfish guilt</td>
<td></td>
<td>Blushing</td>
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<td></td>
<td>Pride, humiliation, envy</td>
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<td>Anger</td>
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<tr>
<td>Physical Effects</td>
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<td>Almost none</td>
<td>Defensive</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Facial &amp; vocal expressions</td>
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</table>

**Purpose**
- Direct your behavior
- Direct your behavior
- Help you avoid threats
- Direct behavior of others
- Direct behavior of others

**Trigger**
- Conclusions
- Sensory stimuli
- Conclusions or sensory stimuli
- Conception, sensation or reflex
- Habitual decision

**Mental Effects**
- Positive or negative
- Positive or negative
- Suppressive
- None
- None

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There are two types of involuntary expression: muscular and autonomic.

Muscular expressions use facial muscles. There are three basic muscular expressions: horror, frowning and smiling. Prolonged frowning and prolonged smiling are just extended versions of two basic expressions.

Muscular expressions evolved during our aquatic detour. We used facial expressions to communicate underwater. We are the only primates that smile or frown. We are also the only primates that have eyebrows, white eyes or chins.

Autonomic expressions use autonomic systems. Crying uses the tear glands. Blushing uses the circulatory system.

Autonomic expressions evolved after our aquatic detour. Crying is a re-adaptation of a mechanism previously used to leak salt. Blushing evolved after our three color vision evolved a second time. Three color vision, which is required to see blushing, is only used by terrestrial species.
Involuntary expressions fall into three categories of purpose: warning, social and rank.

**warning**
- muscular
- autonomic
- horror
- momentary frowning
- prolonged frowning

Warning expressions warn kin about harm. Horror warns kin about threats. Momentary frowning warns kin about toxins or trauma. Prolonged frowning warns kin about grief by making it tangible.

**social**
- muscular
- autonomic
- momentary smiling
- crying

Social expressions encourage kin to interact with you. Momentary smiling triggers affection in kin, which rewards them for interacting with you. Crying triggers compassion in kin, which they stop by interacting with you.

**rank**
- muscular
- autonomic
- prolonged smiling
- blushing

Rank expressions encourage others to increase their rank or to not reduce yours. Prolonged smiling makes the reward of pride tangible to others. Blushing triggers compassion in others, which they stop by not laughing at you.

Involuntary expressions only help your genes or your group. If an expression helps you, you express it voluntarily.
CHAPTER 50
HORROR

Type of Emotion: muscular involuntary expression

Trigger Emotion: fear

Facial Expression: three circles formed by the eyebrows and mouth
  eyelids open wide to fully show whites of eyes

Key Feature: can be triggered at birth

Purpose

Horror helps kin avoid threats. If kin see you express horror, they have extra time to avoid
the threat that triggered your fear.

Horror also helps groups. If your co-workers or friends see you express horror, your
expression helps non-kin avoid a threat.

Facial Expression

Horror is forming three circles with the eyebrows and mouth. The bottom of the eye
sockets form the bottoms of the top circles. Edvard Munch’s The Scream is an example.

Horror triggers sensory fear in others. You feel slight sensory fear when you look at the
diagram above.

Horror is the most visible expression. Horror visibly distorts the face more than the other
expressions.
Other Species

Most animals that live in groups have a predator warning expression. Most predator warnings are vocal expressions. Unlike facial expressions, vocal expressions do not require line-of-sight and close proximity. A screaming squirrel warns more squirrels than a squirrel with a horrified look on its face.

Eyebrows

Eyebrows evolved solely for communication. Eyebrows do not protect your eyes. The skeletal bump underneath eyebrows does protect your eyes, but not the hair on it. Eyebrows are equivalent to canine tails.

Only humans have eyebrows, which were used to communicate underwater during our aquatic detour.
CHAPTER 51
MOMENTARY FROWNING

Type of Emotion: muscular involuntary expression
Trigger Emotions: survival punishments - bitter, sour, disgust, pain
Facial Expression: corners of mouth are pulled down
Key Feature: can be triggered at birth

Purpose

Momentary frowning helps kin avoid toxins and trauma. If kin see you frown while eating or touching something, they will avoid doing the same.

Momentary frowning also helps groups. If your co-workers or friends see you frown, your frowning helps non-kin avoid toxins or trauma.

Facial Expression

Frowning is pulling the corners of the mouth down.

Frowning triggers a sensory punishment in others. You feel a slight negative effect, like disgust, when you look at the diagram above.
Voluntary Frowning

Most frowning is voluntary. We voluntarily frown because it is quicker than saying “my reaction is negative”.

Infants often combine voluntary frowning and wailing. Newborns learn that mothers pay attention when they involuntarily frown, so they voluntarily frown to obtain more attention. They also learn that mothers pay more attention when they add the voluntary vocal expression of wailing to their frowning.

Other Species

Only humans frown. Only humans have chins, which prevent frowning muscles from sliding sideways when we frown.

Other terrestrial species stick out their tongues when they detect toxins or trauma, which is more visible than frowning. We would swallow water if we did the same during our aquatic detour.
CHAPTER 52
PROLONGED FROWNING

Type of Emotion: muscular involuntary expression
Trigger Emotions: maternal grief, grandmaternal grief, monogynic grief
Facial Expression: corners of mouth are pulled down
Key Feature: longer duration than momentary frowning

Purpose

Prolonged frowning helps prevent the death of kin. Prolonged frowning makes the punishment of grief tangible to kin.

Prolonged frowning also helps groups. If your co-workers or friends see you frown, your frowning makes grief tangible to non-kin.

Prolonged frowning saves more lives than grief. Grief only punishes one person. Prolonged frowning makes grief tangible to many people.

Facial Expression

Prolonged frowning is a longer version of momentary frowning. While momentary frowning lasts less than a second, prolonged frowning lasts more than a second.
CHAPTER 53

MOMENTARY SMILING

Type of Emotion: muscular involuntary expression

Trigger Emotions: affection or cute

Facial Expression: corners of mouth are pulled up
upper eyelids raise slightly to enlarge eyes

Key Features: can be triggered at 3 months
more frequently triggered in women

Purpose

Momentary smiling encourages kin to interact with you. Momentary smiling triggers affection in kin, rewarding them for interacting with you.

Momentary smiling also helps groups. If your co-workers or friends see you smile, your smiling rewards non-kin interaction.

Trigger Emotions

Momentary smiling can be triggered at 3 months. Affection is not triggered until others become familiar. Mothers are the first to become familiar. Children begin involuntary smiling at 3 months when they see or hear their mothers. Blind children also begin involuntary smiling at 3 months when they hear their mother’s voice, as reported by Selma Fraiberg in *Insights from the Blind: Comparative Studies of Blind and Sighted Infants*.

Momentary smiling is more frequently triggered in women. Affection and cute are generally stronger in women.

Facial Expression

Smiling is pulling the corners of the mouth up. Smiling is also the slight raising of the upper eyelids to enlarge the eyes.

Smiling triggers affection in others. You feel affection when you look at smiley above.
Voluntary Smiling

Most smiling is voluntary. We voluntarily smile because it is quicker than saying “my reaction is positive”. We also voluntarily smile when attempting to trigger affection in others.

Voluntary smiling does not raise the upper eyelid. You can detect this subtle difference. You know that a salesman’s voluntary smile is not authentic. His eyes are not “bright and sparkling”. This subtle difference was first noticed by Duchene and reported by Charles Darwin in *The Expression of the Emotions in Man and Animals*.

Other Species

Only humans smile.

Cooperative carnivores use vocal or body expressions to reinforce kinship. Cats purr. Wolves howl. Dogs wag their tails. Unlike facial expressions, these expressions do not require line-of-sight and close proximity.
Crying

Type of Emotion: autonomic involuntary expression
Trigger Emotion: loneliness
Facial Expression: tears
Vocal Expression: none - wailing is a voluntary vocal expression
Key Features:
- frequently suppressed
- suppressed crying is indirectly released by other emotions
- not usually triggered until 3 months
- more frequently triggered in women
- not more frequently triggered in children

Synonym: weeping

Purpose
Crying encourages kin to interact with you. Crying triggers compassion in kin, which they stop by interacting with you.

Crying also helps groups. If your co-workers or friends see you cry, your crying encourages non-kin interaction.

Trigger Emotion
Crying is only triggered by loneliness.

Crying is frequently suppressed. Crying is suppressed because it has the stigma of immaturity or instability. Suppressed crying does not go away.

Suppressed crying is indirectly released by other emotions. These emotions cause mental distraction which prevents the continued suppression of crying. That is why people cry when they are with others and therefore not lonely. Tears of joy are the release of suppressed crying by positive emotions like pride or affection. Suppressed crying can also be released by negative emotions, like humiliation or pain, or by reflexes, like fear.

Contagious crying is the release of suppressed crying by the sight of others crying. If you see someone crying, you feel compassion. Your compassion indirectly releases your suppressed crying. Your crying then causes others to feel compassion and to release their suppressed crying and so on. The global cry-a-thon following the death of Princess Diana was a good example.

While crying is a biological adaptation, the suppression of crying is a cultural adaptation. Suppression varies by culture. Men suppress crying more than women. Adults suppress crying more than children.
Crying is usually not triggered until 3 months after birth. Crying cannot be triggered until a child feels loneliness. Newborns are rarely left alone long enough to feel loneliness. Crying is not usually seen until 3 months after birth, as reported by Charles Darwin in *The Expression of the Emotions in Man and Animals*.

Crying is more frequently triggered in women. Loneliness is generally stronger in women.

Crying is not more frequently triggered in children. Loneliness is not generally stronger in children. Children seem to cry more because they suppress less.

**Facial Expression**

Crying is autonomic because it triggers compassion. If crying could be voluntarily triggered, it would be used fraudulently. All children would cry to obtain attention, whether they were lonely or not. Truly lonely children would not receive attention.

The release of suppressed crying looks like a muscular facial expression. People who are releasing suppressed crying have muscular twitching around their chins that looks like frowning. These twitches are the relaxation of the muscles that suppress crying. Choppy breathing also accompanies the release of suppressed crying for the same reason. Choppy breathing is caused by the relaxing of the diaphragm muscles, which also help suppress crying.

**Other Species**

Humans are the only primates that use tears to communicate.

A few non-primates also use tears to communicate, as Elaine Morgan reports in *The Scars of Evolution*. Gulls produce copious nasal drippings in confrontations. Sea otters shed tears when frustrated. Both species also use tears to leak salt, which helps their kidneys handle the salinity spikes caused by eating marine seafood.
CHAPTER 55
PROLONGED SMILING

Type of Emotion: muscular involuntary expression
Trigger Emotion: pride
Facial Expression: corners of mouth are pulled up
              upper eyelids raise slightly to enlarge eyes
Key Features: not triggered before 24 months
              more frequently triggered in men
              longer duration than momentary smiling
Synonym: beaming

Purpose

Prolonged smiling encourages others to strive for higher rank. Prolonged smiling makes the
reward of pride tangible to others.

Prolonged smiling motivates more people than pride. Only a winner feels pride, but many
people see a winner’s prolonged smiling.

Trigger Emotion

Prolonged smiling is not triggered before 24 months of age. Pride is not triggered before 24
months. Earlier smiling is momentary smiling or voluntary smiling.

Prolonged smiling is more frequently triggered in men. Pride is generally stronger in men.

Facial Expression

Prolonged smiling is a longer version of momentary smiling. While momentary smiling lasts
less than a second, prolonged smiling lasts more than a second.
CHAPTER 56
BLUSHING

Type of Emotion: autonomic involuntary expression
Trigger Emotions: humiliation stops pride
Facial Expression: face reddens
Key Features: not triggered before 24 months
more frequently triggered in children and young women

Purpose

Blushing encourages others to mitigate your humiliation during trial-and-error learning.

Humiliation during trial-and-error learning can be permanently demotivating. If you are humiliated during an early attempt at public speaking, you may never try again.

Blushing encourages others not to laugh at you. Your blushing triggers compassion in others, which they stop by not laughing at you.

Trigger Emotions

Blushing is triggered when humiliation stops pride. You will blush if you enter a party and everyone looks at your face and then at your crotch, where you notice a stain for the first time. Their attention triggers your pride. The stain triggers your humiliation.

Blushing is not triggered by humiliation alone. You would not blush if you did not notice your stained pants until you had returned home. You would still feel humiliation, but it would not be preceded by pride.

Humiliation stopping pride is a proxy for failure during trial-and-error learning. The rank spike required to produce this combination rarely occurs in other circumstances. Blushing is not triggered before 24 months of age. Humiliation and pride are not triggered before 24 months.
Blushing is more frequently triggered in children. Children are more likely to experience the rank spikes associated with trial-and-error learning.

Blushing is more frequently triggered in young women. Infatuation makes women more prone to feel rank spikes. Everyone feels pride when a higher-ranking individual treats them like an equal. Young women also feel strong infatuation when a higher-ranking man courts them. The combination of strong pride and strong infatuation makes young women stumble conversationally. Their stumbling triggers their humiliation and stops their pride.

Facial Expression

Blushing is autonomic because it triggers compassion. If blushing could be voluntarily triggered, it would be used fraudulently. People would just blush whenever they made a rank-reducing mistake, instead of taking steps to avoid making the mistake.
There are two emotional voluntary expressions: anger and laughter.

While there are many other voluntary expressions, such as puzzlement, only anger and laughter are generally considered to be emotions.
CHAPTER 58
ANGER

Type of Emotion: voluntary expression

Preceding Emotions: usually revenge or jealousy

Facial Expressions: glaring, flared nostrils, curled lips, clenched jaw

Vocal Expressions: louder, lower pitch, lower resonance

Verbal Expressions: profanity, but not putdowns

Synonyms: rage, tantrum, fury

Purpose

Anger makes threats more credible. An angry threat is more credible than calmly stating “I am being coerced by revenge to harm you”. Anger makes revenge and jealousy tangible.

Anger stops revenge and jealousy without physically harming anyone. Credibly threatening someone harms them by triggering their fear.

Anger, like cooperation, is a good idea we learn from others.

Preceding Emotions

Anger usually follows revenge or jealousy.

Anger does not always follow revenge or jealousy. People rarely express anger when their bosses or the police are present. People rarely express anger when they are alone. If they do, they imagine they are with others.

Anger is not always preceded by revenge or jealousy. Homeowners use anger to deter intruders. Mothers use anger to control children.
Children can express anger as soon as they learn it from others. Prior to 24 months, children just express anger to obtain cooperation from others. After 24 months, children also express anger because they feel revenge. After puberty, men also express anger because they feel jealousy.

Facial Expressions

Anger's facial expressions show your ability to attack. Glaring indicates the completion of visual targeting. Flared nostrils indicate elevated breathing. Curled lips show teeth, our best natural weapons. Clenched jaws highlight muscles that power those weapons.

Vocal Expressions

Anger's vocal expressions suggest masculinity and therefore large size. Vocal expressions are louder, lower pitch and lower resonance. Angry people make nonsensical statements just to yell. Parents often express anger by just dropping the tone of their voice half an octave.

Verbal Expressions

Anger's verbal expressions include profanity, but exclude putdowns.

Profanity is subtle snarling. Profane words show your teeth. Words with hard k's are particularly good for showing teeth. Fuck and cunt are considered more profane than shit and piss, despite triggering less imagined disgust. Fuck and cunt are more profane because they show more teeth.

While profanity is just a threat to harm, putdowns cross the line and cause harm. Putdowns cross the line by triggering somebody's humiliation. Confrontations often escalate from profanity to putdowns to violence.

Other Species

Elephants express anger. After one member of a herd of working elephants was killed by a bus on a highway in Kenya, the remaining elephants began shrieking at the bus and threatening to charge it. The elephants threatened harm, but did not harm anyone. They left when Kenyan Wildlife Service Wardens arrived and fired shots into the air, as reported by The Daily Telegraph.
CHAPTER 59
LAUGHTER

Type of Emotion: voluntary expression
Preceding Emotion: usually humor
Vocal Expression: audible which can be recognized while expressed

Purpose

Laughter is feedback for comedians. It tells comedians they have triggered your humor.

Laughing is better than speaking. Comedians could not understand an audience of people simultaneously saying “I feel humor”.

Laughing is better than applauding. Laughing does not require the 1-2 seconds to raise your hands and clap that applauding does. Because laughing is quicker, audiences can use it to provide feedback during a performance without interrupting its timing. Applauding is used at the end of performances, when timing is not interrupted.

Laughing helps establish what is considered low rank. We do not laugh at racial jokes. We do laugh at jokes about racists, like Archie Bunker.

Preceding Emotion

Laughter usually follows humor.

Laughter does not always follow humor. People rarely laugh when they are alone. If they do laugh when they are alone, they imagine they are with others. People who laugh while watching television alone hear the audience laugh track.

Laughter is not always preceded by humor. People laugh at jokes they do not understand to avoid looking stupid. Obsequious employees laugh at their employers’ non-humorous jokes.
Children can laugh as soon as they learn it from others. Prior to 24 months, children just laugh to obtain attention. After 24 months, children also laugh because they feel humor.

Seemingly-uncontrolled laughter occurs when your inability to control your laughter lowers your rank. The more you are unable to control your laughter, the more you lower your rank. The more you lower your rank, the more humor it triggers. The more humor it triggers, the more you laugh and so on.

Vocal Expression

Laughter is a sound that can be recognized while expressed. You can recognize other people laughing while you are laughing. This allows a group to quickly provide group feedback. An audience cannot have a meeting and decide what their group opinion is. An audience can listen to others laughing and decide if they want to join in.

Applauding is also a sound that can be recognized while expressed. Laughter is the sound that we agree signals that we feel humor. Applauding is the sound we agree signals that we believe the performance was good.
When you maximize your happiness, you do what is best for the species.

Individual emotions encourage behaviors that help you. Those behaviors also help your genes, your group and the species. Eating is an example.

Genetic emotions encourage behaviors that harm you to help your genes. Those behaviors also help your group and the species. Mating is an example.

Group emotions encourage behaviors that harm you and your genes to help your group. Those behaviors also help the species. Increasing your rank is an example.

Group emotions can also encourage behaviors that harm a group to help the species. The race to the moon was an example. The Soviets wanted to feel pride. The Americans wanted to avoid humiliation. Both countries invested enormous resources that could have been used to save the lives of many citizens. Neither country gained advantage over other countries that did not join the lunar club. However, all countries did gain from the accelerated development of aerospace technology. We can now divert asteroids away from earth. It would have been better for the Soviets and Americans to wait for others to make the enormous investment, like the Chinese did.

When you do what is best for the species, you do what maximizes species headcount.
### Chapter 61

#### Summary

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