

GENETIC COMPASS

Mendel's 4 Intersectional Genetic Principles Within a Coinciding CorporeAalle / Punnett Square

Born in what is now the Czech Republic, Gregor Johann Mendel (1822-1884) the father of genetics (Genesis) discovered the 4 principles of hereditary transmission by sexual reproduction of dominant (A) and recessive (a) genetic traits. With a naked eye, a pair of spectacles, and a pea garden, the humble monks scrupulous method of observation, experimentation, and record keeping revealed and postulated tiny little "elementen" particles (chromosomes, genes, alleles, and DNA) subsequently to be discovered by curious biologists peering through microscopes. Mendel's 4 genetic principles are all separate and distinct models of hereditary transmission each overlapping and interwoven together in a seemingly endless number of possible genetic combinations manifesting variation within the fabric of a determined kind or reproducing population. No two people are exactly alike, we are uniquely special in every way from our fingerprints to our DNA. Since the dawn of recorded time, all people on Earth past, present, and future are inter-related drops in the human ocean of ongoing generations in perpetuation of their own kind. One noble human family in recognition of one another's sovereignty and the pursuit of life, liberty, and happiness.



Homozygous Dominant ANCESTORS Heterozygous

1

Principle of Dominance and Uniformity

Some alleles, which are variants of a particular gene found at the same chromosomal location, are dominant over the other alleles of a given gene. When traits are inherited from parents to offspring, one trait can completely mask the appearance of another. The alleles that are not dominant are considered recessive. If a dominant allele is paired with a recessive allele, the dominant traits will be manifest in the characteristics of the individual. Dominant genes produce the same phenotype effect whether paired with an identical or dissimilar gene. Thus it can be nigh impossible to know the difference between a homozygous dominant individual versus a heterozygous individual (except in few specialized cases). A homozygous dominant parent will ALWAYS produce children with traits of the dominant allele, even if paired with a homozygous recessive parent.

50% probability of inheriting (A) from mother and 50% probability of inheriting (A) from father resulting in a 25% probability of the child being homozygous dominant (AA)

2

Principle of Independant Assortment

The inheritance of one pair of factors (alleles) is independent of the inheritance of the other pairs. When the two alleles are identical the gene is considered homozygous. When the two alleles are different, the gene is referred to as heterozygous. When alleles of two or more different genes get sorted into gametes (eggs or sperm) independently of one another, an allele a gamete receives for one gene does not influence the gamete an allele receives from another gene. In other words, the genes are inherited independently of one another. It is due to independent assortment that hereditary transmission and sexual reproduction produces so many variable recombinations creating trillions of possible genotypes of the human species.

50% probability of inheriting (A) from mother and 50% probability of inheriting (a) from father resulting in a 25% probability of the child being heterozygous (Aa). 50% probability overall of being heterozygous (25% Aa plus+ 25% aA)

3

Principle of Segregation

Only one of the two gene alleles present in an organism (parent) is distributed to each gamete(egg or sperm) that it makes and the allocation of the allele copies is random. When two members of a pair of alleles separate during gamete formation each parent transfers one off the alleles to their offspring. These sets of alleles in the offspring will depend on the chromosomes of the two gametes uniting at fertilization. Genes come in different versions of alleles. Dominant alleles will always manifest themselves when present. This principle states that when any individual produces gametes the copies of a gene separate so that each gamete receives one and only one copy. Thus causing each gamete to have exactly half of the original alleles, 23 chromosomes. This type of reproduction creates four different kinds of genotypes, AA, Aa, aA, aa each with a 25% frequency.

4

Principle of Dominance and Recessivity

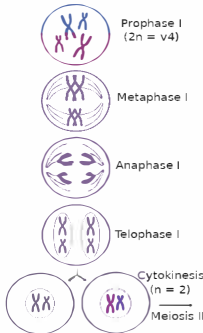
A pattern of inheritance in which a characteristic disappears in one generation only to reappear in a subsequent one. This pattern of inheritance in which the parents do not show a trait, but some of the children do is due to a recessive trait being heterozygous within the parents and appearing as homozygous recessive within some of their offspring, approximately 25% of them. The recessive trait does not manifest when coupled with a dominant allele. This is the case within the heterozygous parents, which is why the trait does not manifest. Recessive traits may skip a generation when covered by a dominant allele, however it remains the same to appear in descending generations because genetic variation comes from breeding that accesses traits already present in the genetic code.

Heterozygous DESCENDANTS Homozygous Recessive

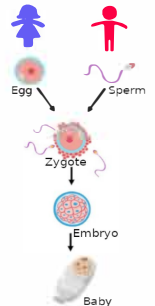
DNA Replication



Cell Division



Sexual Reproduction



Species Perpetuation

Genetic Bible Study in Genealogical Order

(Genesis 1:11-13).... 11 – Then God said, “Let the earth sprout vegetation, plants yielding seed, and fruit trees bearing fruit after their kind, with seed in them, on the earth”; and it was so. 12 – And the earth brought forth vegetation, plants yielding seed after their kind, and trees bearing fruit, with seed in them, after their kind; and God saw that it was good. 13 – And there was evening and there was morning, a third day.(Gen. 1:20-28).... 20 – Then God said, “Let the waters teem with swarms of living creatures, and let birds fly above the earth in the open expanse of the heavens.” 21 – And God created the great sea monsters, and every living creature that moves, with which the waters swarmed after their kind, and every winged bird after its kind; and God saw that it was good. 22 – And God blessed them, saying, “Be fruitful and multiply, and fill the waters in the seas, and let birds multiply on the earth.” 23 – And there was evening and there was morning, a fifth day. 24 – Then God said. “Let the earth bring forth living creatures after their kind: cattle and creeping things and beasts of the earth after their kind”, and it was so. 25 – And God made the beasts of the earth after their kind, and the cattle after their kind and everything that creeps on the ground after its kind; and God saw that it was good. 26 – Then God said, “Let Us make man in Our image, according to Our likeness; and let them rule over the fish of the sea and over the birds of the sky and over the cattle and over all the earth, and over every creeping thing that creeps on the earth.” 27 – And God created man in His own image, in the image of God He created him; male and female He created them. 28 – And God blessed them; and God said to them, “Be fruitful and multiply, and fill the earth, and subdue it; and rule over the fish of the sea and over the birds of the sky, and over every living thing that moves on the earth.”(Gen. 3:20).... Now the man called his wife’s name Eve, because she was the mother of all living.(Gen. 4:1-2).... 1 – Now Adam had relations with his wife Eve, and she conceived and gave birth to Cain, and she said, “I have gotten a manchild with the help of the Lord.” 2 – And again, she gave birth to his brother Abel. And Abel was a keeper of flocks, but Cain was a tiller of the ground.(Gen. 5:1-32).... (Note from website’s author: This is a condensed version of Adam’s descendants to Noah) -> (1) – This is the book of the generations of Adam, Adam -> Seth -> Enosh -> Kenan -> Mahalalel -> Jared -> Enoch -> Methuselah -> Lamech -> Noah (32) And Noah was five hundred years old, and Noah became the father of Shem, Ham, and Japheth.(Gen. 7:2-3).... 2 – “You shall take with you every clean animal by sevens, a male and his female; and of the animals that are not clean two, a male and his female; 3 – also of the birds of the sky, by sevens, male and female, to keep offspring alive on the face of all the earth.”(Gen. 7:8-9).... 8 – Of clean animals and animals that are not clean and birds and everything that creeps on the ground, 9 – there went into the ark to Noah by twos, male and female, as God had commanded Noah.(Gen. 10:1).... 1 – Now these are the records of the generations of Shem, Ham, and Japheth, the sons of Noah, and sons were born to them after the flood.(Gen. 11:10-26).... (Note from website’s author: This is a condensed version of Shem’s descendants to Abraham) -> (10) – These are the generations of Shem. Shem -> Arpachshad -> Shelah -> Eber -> Peleg -> Reu -> Serug -> Nahor -> Terah - (26) – And Terah lived seventy years, and became the father of Abram, Nahor and Haran. (Note from website’s author: This is a reminder to the reader that the aforementioned and the following is a “condensed study” of the genealogical order maintained here consistently from Adam to Abraham to Yeshua)(Gen. 13:14-16).... 14 – And the Lord said to Abram, after Lot had separated from him, “Now lift up your eyes and look from the place where you are, northward and southward and eastward and westward. 15 – for all the land which you see, I will give it to you and to your descendants forever.” 16 – “And I will make your descendants as the dust of the earth; so that if anyone can number the dust of the earth, then your descendants can also be numbered.”(Gen. 17:1-8).... 1 – Now when Abram was ninety-nine years old, the lord appeared to Abram and said to him, “I am God Almighty; Walk before Me, and be blameless. 2 – “And I will establish My covenant between Me and you. And I will multiply you exceedingly.” 3 – And Abram fell on his face, and God talked with him, saying, 4 – As for Me, behold, My covenant is with you, And you shall be the father of a multitude of nations. 5 – No longer shall your name be called Abram, But your name shall be Abraham; For I will make you the father of a multitude of nations. 6 – And I will make you exceedingly fruitful, and I will make nations of you, and kings shall come forth from you. 7 – And I will establish My covenant between Me and you and your descendants after you throughout their generations for an everlasting covenant, to be God to you and to your descendants after you. 8 – And I will give to you and your descendants after you, the land of your sojourning’s, all the land of Canaan, for an everlasting possession; and I will be their God.”(Gen. 21:12).... But God said to Abraham, “Do not be distressed because of the lad and your maid; whatever Sarah tells you, listen to her, for through Isaac your descendants shall be named.”(Gen. 30:31-43).... 31 – So he said, “What shall I give you?” And Jacob said, “You shall not give me anything. If you will do this one thing for me, I will again pasture and keep your flock: 32 – let me pass through your entire flock today, removing from there every speckled and spotted sheep, and every black one among the lambs, and the spotted and speckled among the goats; and such shall be my wages. 33 – So my honesty will answer for me later, when you come concerning my wages. Every one that is not speckled and spotted among the goats and black among the lambs, if found with me, will be considered stolen.” 34 – And Laban said, “Good, let it be according to your word.” 35 – So he removed on that day the striped and spotted male goats and all the speckled and spotted female goats, every one with white in it, and all the black ones among the sheep, and gave them into the care of his sons. 36 – And he put a distance of three days journey between himself and Jacob, and Jacob fed the rest of Laban’s flocks. 37 – Then Jacob took fresh rods of poplar and almond and plane trees, and peeled white stripes in them, exposing the white which was in the rods. 38 – And he set the rods which he had peeled in front of the flocks in the gutters, even in the watering troughs, where the flocks came to drink; and

they mated when they came to drink. 39 – So the flocks mated by the rods, and the flocks brought forth striped, speckled and spotted. 40 – And Jacob separated the lambs, and made the flocks face toward the striped and all the black in the flock of Laban; and he put his own herds apart, and did not put them with Laban’s flock. 41 – Moreover, it came about whenever the stronger of the flock were mating, that Jacob would place the rods in the sight of the flock in the gutters, so that they might mate by the rods; 42 – but when the flock was feeble, he did not put them in, so the feebler were Laban’s and the stronger Jacob’s. 43 – So the man became exceedingly prosperous, and had large flocks and female and male servants and camels and donkeys.(Gen. 35:22-26).... 22 – And it came about while Israel was dwelling in that land, that Reuben went and lay with Bilhah his father’s concubine; and Israel heard of it. Now there were twelve sons of Jacob – 23 – the sons of Leah: Reuben, Jacob’s first-born, then Simeon and Levi and Judah and Issachar and Zebulun; 24 – the sons of Rachel: Joseph and Benjamin; 25 – and the sons of Bilhah, Rachel’s maid: Dan and Naphtali; 26 – and the sons of Zilpah, Leah’s maid: Gad and Asher. These are the sons of Jacob who were born to him in Paddanaram.(Leviticus 18:6).... “None of you shall approach any blood relative of his to uncover nakedness; I am the Lord.”(Lev. 18:17).... “You shall not uncover the nakedness of a woman and of her daughter, nor shall you take her son’s daughter, or her daughter’s daughter, to uncover her nakedness; they are blood relatives. It is lewdness.”(Psalm 139:13-15).... 13 – For Thou didst form my inward parts; Thou didst weave me in my mother’s womb. 14 – I will give thanks to Thee, for I am fearfully and wonderfully made; Wonderful are thy works, And my soul knows it very well. 15 – My frame was not hidden from Thee. When I was made in secret, And skillfully wrought in the depths of the earth.(Genealogy from Matthew 1:1-17).... 1 – The book of the genealogy of Jesus Christ, the son of David, the son of Abraham. 2 – To Abraham was born Isaac, and to Isaac, Jacob; and to Jacob, Judah and his brothers; 3 – and to Judah were born Perez and Zerah by Tamar; and to Perez was born Hezron; and to Hezron, Ram; 4 – and to Ram was born Amminadab; and to Amminadab, Nashon, Salmon; 5 – and to Salmon was born Boaz by Rahab; and to Boaz was born Obed by Ruth; and to Obed, Jesse; 6 – and to Jesse was born David the king. And to David was born Solomon by her who had been the wife of Uriah; 7 – and to Solomon was born Rehoboam; and to Rehoboam, Abijah; and to Abijah, Asa; 8 – and to Asa was born Jehoshaphat; and to Jehoshaphat, Joram; and to Joram, Uzziah; 9 – and to Uzziah was born Jotham; and to Jotham, Ahaz; and to Ahaz, Hezekiah; 10 – and to Hezekiah was born Manasseh; and to Manasseh, Amon; and to Amon, Josiah; 11 – and to Josiah were born Jeconiah and his brothers, at the time of the deportation to Babylon. 12 – And after the deportation to Babylon, to Jeconiah was born Shealtiel; and to Shealtiel, Zerubbabel; 13 – and to Zerubbabel was born Abiud; and to Abiud, Eliakim; and to Eliakim, Azor; 14 – and to Azor was born Zadok; and to Zadok, Achim; and to Achim, Eliud; 15 – and to Eliud was born Eleazar; and to Eleazar, Matthan; and to Matthan, Jacob; 16 – and to Jacob was born Joseph the husband of Mary, by whom was born Jesus, who is called Christ. 17 – Therefore all the generations from Abraham to David are fourteen generations; and from David to the deportation to Babylon fourteen generations; and from the deportation to Babylon to the time of Christ fourteen generations. -> (Footnote from author of The Ryrie Study Bible, New American Standard: {Matt. 1:16} “by whom.” The word feminine singular, indicating clearly that Jesus was born of Mary only and not of Mary and Joseph. It is one of the strongest evidences for Jesus’ virgin birth. This apparently the genealogy of Jesus through His mother, Mary).(Mark 10:6).... But from the beginning of creation, God made them male and female.(Genealogy from Luke 3:23-38).... 23 – And when He began His ministry, Jesus Himself was about thirty years of age, being supposedly the son of Joseph, the son of Eli, 24 – the son of Matthat, the son of Levi, the son of Melchi, the son of Jannai, the son of Joseph, 25 – the son of Mattathias, the son of Amos, the son of Nahum, the son of Hesli, the son of Nagai, 26 – the son of Maath, the son of Mattathias, the son of Semein, the son of Josech, the son of Joda, 27 – the son of Joanan, the son of Rhesa, the son of Zerubbabel, the son of Shealtiel, the son of Neri, 28 – the son of Melchi, the son of Addi, the son of Cosam, the son of Elmadam, the son of Er, 29 – the son of Joshua, the son of Eliezer, the son of Jorim, the son of Matthat, the son of Levi, 30 – the son of Simeon, the son of Judah, the son of Joseph, the son of Jonam, the son of Eliakim, 31 – the son of Melea, the son of Menna, the son of Mattatha, the son of Nathan, the son of David, 32 – the son of Jesse, the son of Obed, the son of Boaz, the son of Salmon, the son of Nahshon, 33 – the son of Amminadab, the son of Admin, the son of Ram, the son of Hezron, the son of Perez, the son of Judah, 34 – the son of Jacob, the son of Isaac, the son of Abraham, the son of Terah, the son of Nahor, 35 – the son of Sereg, the son of Reu, the son of Peleg, the son of Heber, the son of Shelah, 36 – the son of Cainan, the son of Arphaxad, the son of Shem, the son of Noah, the son of Lamech, 37 – the son of Methuselah, the son of Enoch, the son of Jared, the son of Mahalaleel, the son of Cainan, 38 – the son of Enosh, the son of Seth, the son of Adam, the son of God. -> (Footnote from author of The Ryrie Study Bible, New American Standard: {Luke 3:23} “son of Eli.” Joseph was Jacob’s son by birth {Matt. 1-16} and Eli’s son by marriage.)(Hebrews 11:6-12).... 6 – And without faith it is impossible to please Him, for who comes to God must believe that He is, and that He is a rewarder of those who seek Him. 7 – By faith Noah, being warned by God about things not yet seen, in reverence prepared an ark for the salvation of his household, by which he condemned the world, and became an heir of the righteousness which is according to faith. 8 – By faith Abraham, when he was called, he obeyed by going out to a place which he was to receive for an inheritance; and he went out, not knowing where he was going. 9 – By faith he lived as an alien in the land of promise, as in a foreign land, dwelling in tents with Isaac and Jacob, fellow heirs of the same promise; 10 – for he was looking for the city which has foundations, whose architect and builder is God. 11 – By faith even Sarah herself received ability to conceive, even beyond the proper time of life, since she considered Him faithful who had promised; 12 – therefore, also, there was born of one man, and him as good as dead at that, as many descendants as the stars of heaven in number, and innumerable as the sand which is by the seashore.