

# From Mendel to the Holocaust

13P035: Introduction à l'histoire et la philosophie des sciences

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# Overview

- Racial purity & hygiene
- The birth of eugenics
- Mendelian genetics
- Mendelian eugenics
- “Herausmendeln” (“Mendel out”)

# Overview

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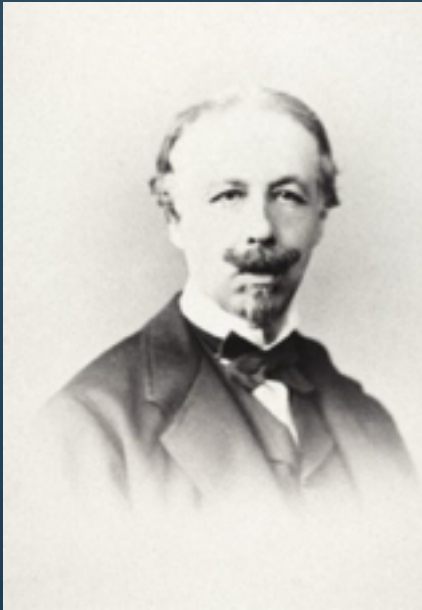
# Racial purity & hygiene

*“I deem myself warranted in concluding, from these examples which embrace all countries and all centuries, even our own land and our own age, that humanity, in all its branches, feels a secret repugnance for interbreeding;”*

*“I now believe myself furnished with all that is necessary to resolve the problem of the life and death of nations, and I affirm that a people would never perish if it remained eternally composed of the same national elements.”*

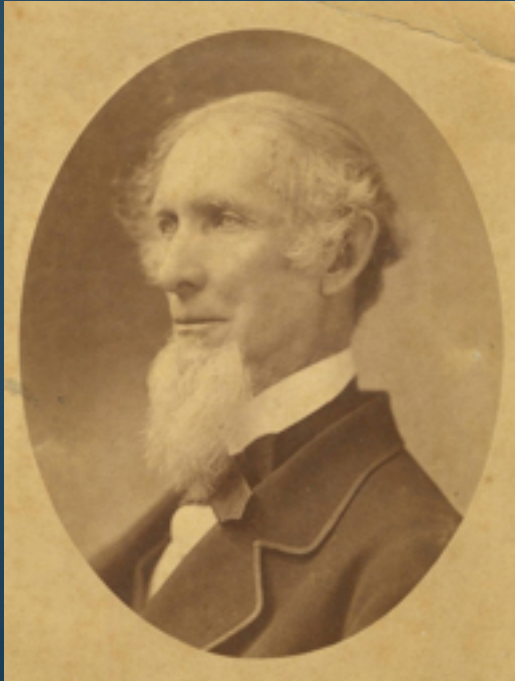
*“Chapter XVI. Recapitulation; the respective characteristics of the three great races; \* the social effects of racial mixing; the superiority of the white type and, within this type, of the Aryan family.”*

*\*the Black, the Yellow and the White*

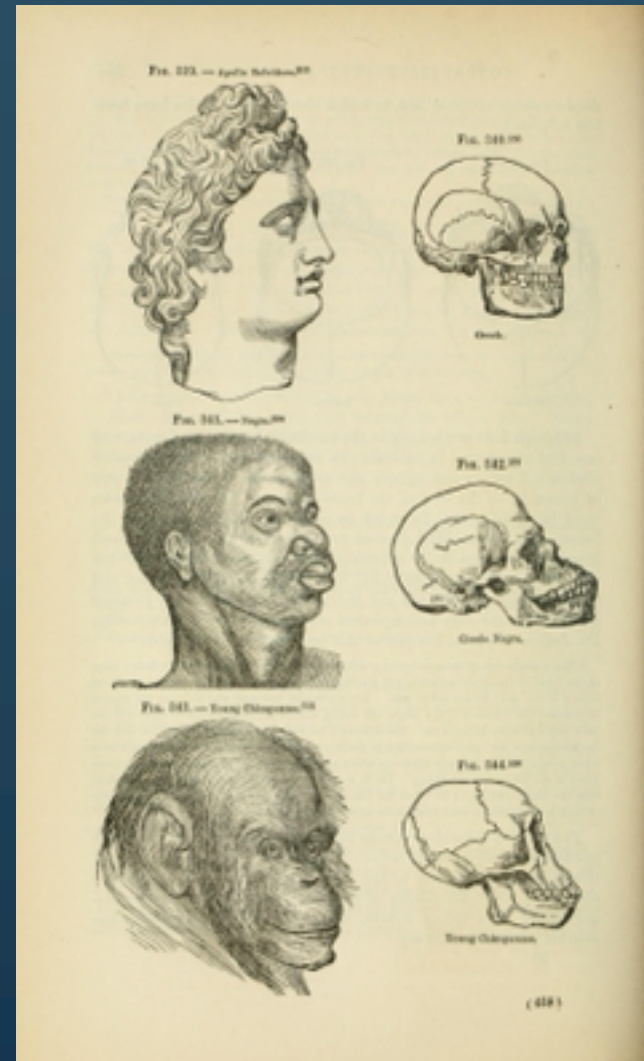


Arthur de Gobineau  
(1816-1882)

# Racial purity & hygiene



Josiah Nott  
(1804-1873)



Nott, J. C., & Gliddon, G. R. (1854). *Types of Mankind: Or Ethnological Researches, Based Upon the Ancient Monuments, Paintings, Sculptures, and Crania of Races, and Upon Their Natural, Geographical, Philological, and Biblical History*. Trubner.

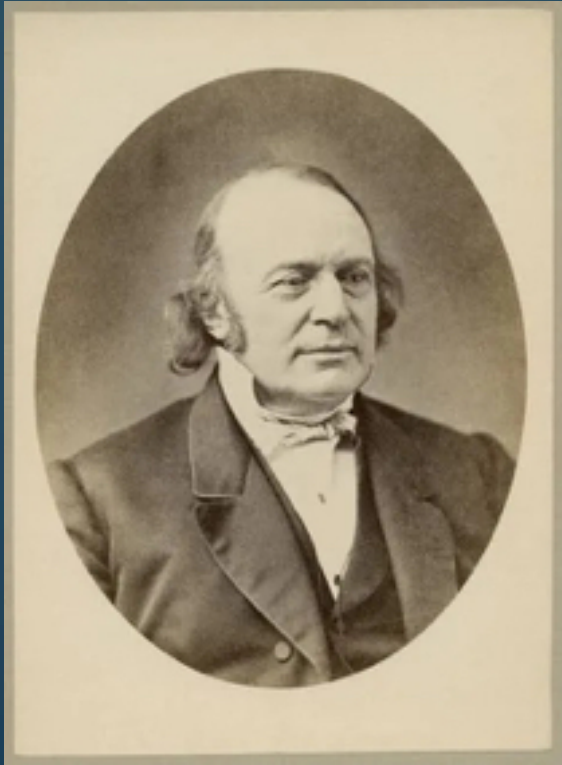
# Racial purity & hygiene



Sketch of the Natural Provinces of the Animal World and their Relation to the Different Types of Man

Nott, J. C., & Gliddon, G. R. (1854). *Types of Mankind: Or Ethnological Researches, Based Upon the Ancient Monuments, Paintings, Sculptures, and Crania of Races, and Upon Their Natural, Geographical, Philological, and Biblical History*. Trubner.

# Racial purity & hygiene



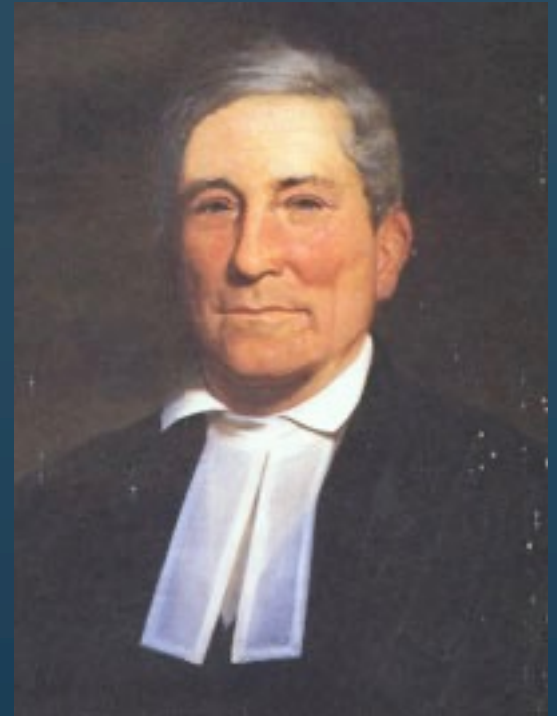
Louis Agassiz  
(1807-1873)

*“There is one feature in the physical history of mankind which has been entirely neglected by those who have studied this subject, viz., the natural relations between the different types of man and the animals and plants inhabiting the same regions. The sketch here presented is intended to supply this deficiency, as far as it is possible in a mere outline delineation, and to show that the boundaries, within which the different natural combinations of animals are known to be circumscribed upon the surface of our earth, coincide with the natural range of distinct types of man.”*

Nott, J. C., & Gliddon, G. R. (1854). *Types of Mankind: Or Ethnological Researches, Based Upon the Ancient Monuments, Paintings, Sculptures, and Crania of Races, and Upon Their Natural, Geographical, Philological, and Biblical History.* Trubner.

# Racial purity & hygiene

*“[T]he white race has not only everywhere established its superiority over the African, but has won its way to all manner of intercourse. ... In regard to the admixture of a superior with an inferior race in America, which in almost every case results in degradation and crime, it should be discountenanced by every lover of virtue, of good order and of sound morality”*



John Bachman  
(1790-1874)

# Racial purity & hygiene

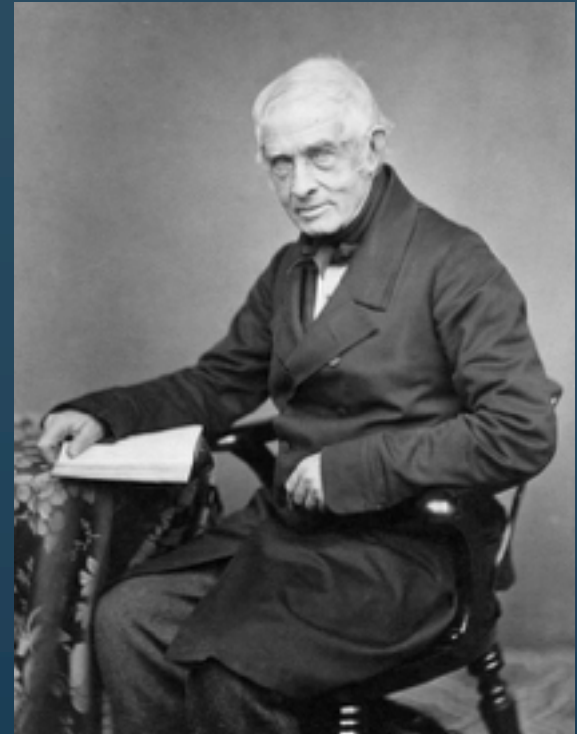
*“Three large bodies of men, of sufficient numerical strength to maintain, if not political power and unity, at least their integrity as a race distinct from others, in sufficient numbers to resist the aggressive action of the admixture of race by intermarriage.... [T]he Celtic, Saxon, and Belgian or Flemish”*



Robert Knox  
(1791 – 1862)

# Racial purity & hygiene

*“The union of closely allied species of the human race produces no appreciable change in the offspring. This applies to all the different races of the European family. The people of Italy have suffered no degradation from a large admixture of England...”*



John Crawford  
(1783-1868)

# Racial purity & hygiene

To describe admixture, such as being 1/3 African and 2/3 European, it is necessary to define the pure categories that are mixed, that is, to define what it means to be 100% African and 100% European.



# Racial purity & hygiene

*“A typical Celt in the gloomy passionateness of his nature, a new Tristan in his love, he is flesh of our flesh and blood of our Teutonic blood ; he is Germanic. Just as Germanic as these so-called “pure German” populations of Swabia and the Black Forest, the home of Schiller, Mozart and many others of the greatest of Germany's sons, who owe their peculiar character and uncommon poetical gifts to the strong admixture of Celtic blood.”*

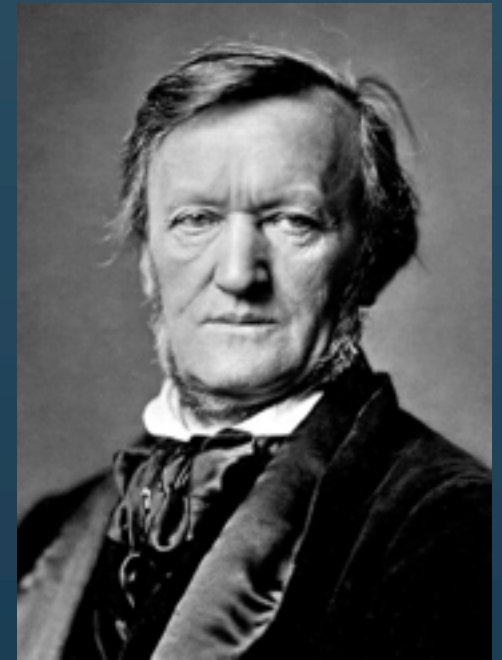
*“The later admixture of negro blood with the Jewish in the Diaspora of Alexandria –of which many a man of Jewish persuasion at this day offers living proof–is also a matter of little importance. What I have said is detailed enough to enable every one to picture to himself the anthropogeny of the Jew in its broad outlines. We have seen that there cannot be the least doubt that the historical Israelite, from whom the real " Jew " later separated himself, is the product of a mixture.”*



Houston Stewart  
Chamberlain  
(1855-1927)

# Racial purity & hygiene

*Jewishness in Music* (1850; expanded 1869) is an antisemitic essay that depicts Jews as alien to German music and as agents of cultural decline.



Richard Wagner  
(1813-1883)

# Racial purity & hygiene



Alfred Ploetz  
(1860-1940)

- coined the term racial hygiene (“Rassenhygiene”) in his 1895 book *The Fitness of Our Race and the Protection of the Weak: An Attempt on Racial Hygiene and Its Relation to the Human Ideals, Especially to Socialism*
- founded the first eugenics journal in the world, the *Journal of Racial and Social Biology* in 1904
- established the first professional eugenics organization, the *Society for Racial Hygiene* in 1905

For comparison:

- the British Eugenics Education Society was founded in 1907
- the Eugenics Records Office in the United States was founded in 1910

# Racial purity & hygiene



Ernst Rüdin  
(1874-1952)

- co-founder of the first professional eugenics organization, the *Society for Racial Hygiene* in 1905
- outlined in a 1911 article a detailed plan for a future Mendelian-informed family research program for psychiatry
- director of the Department of Genealogical and Demographic Studies at the German Institute for Psychiatric Research, established in 1917 in Munich
- director of the Kaiser Wilhelm Society in 1931

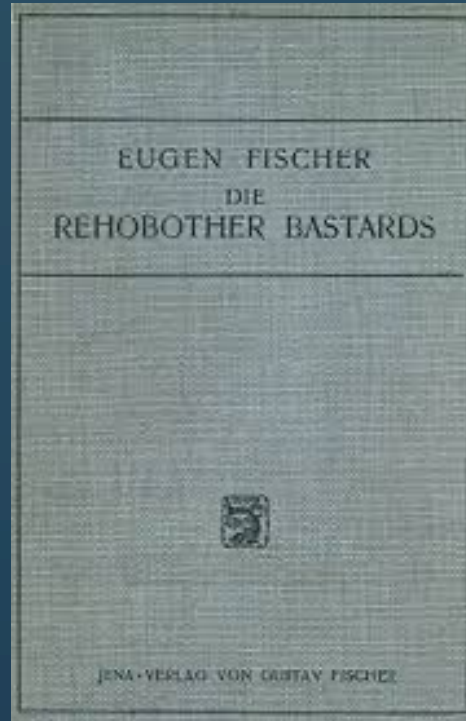
Joseph, J., & Wetzel, N. A. (2013). Ernst Rüdin: Hitler's racial hygiene mastermind. *Journal of the History of Biology*, 46(1), 1–30.

Kendler, K. S. (2021). Ernst Rüdin's, 1911 vision of a Mendelian psychiatric genetics research program: His paper "Methods and goals of family research in psychiatry". *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, 186(5), 279–288.

# Racial purity & hygiene



Eugen Fischer  
(1874-1967)



- Author of a 1913 study of the "racially mixed" children of Dutch men and Hottentot women in German southwest Africa
- Director of the Kaiser Wilhelm Institute for Anthropology, Human Heredity, and Eugenics from 1927 to 1942

# Racial purity & hygiene

Grundlinien  
einer  
Rassen-Hygiene

von  
Dr. Alfred Ploetz.

I. THEIL:  
Die  
Tüchtigkeit unsrer Rasse  
und der  
Schutz der Schwachen.

BERLIN  
S. Fischer.  
1895.

1895

Grundriß  
der menschlichen  
Erblichkeitslehre und  
Rassenhygiene

von  
Prof. Dr. ERWIN BAUR,  
Direktor des Instituts für Vererbungsforschung in Potsdam  
Prof. Dr. EUGEN FISCHER,  
Direktor des anatomischen Instituts der Universität Freiburg i. Br.  
Dr. FRITZ LENZ,  
Privatdozent für Hygiene an der Universität München

Mit 65 Figuren im Text



J. F. Lehmanns Verlag, München  
1921

1921

Ernst Rüdin  
Rassenhygiene  
im völkischen Staat



J. F. Lehmanns Verlag / München

1934

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# The birth of eugenics

*“... intellectual capacity is so largely transmitted by descent that, out of every hundred sons of men distinguished in the open professions, no less than eight are found to have rivalled their fathers in eminence.”*

*“I hence conclude that the improvement of the breed of mankind is no insuperable difficulty. If everybody were to agree on the improvement of the race of man being a matter of the very utmost importance, and if the theory of the hereditary transmission of qualities in men was as thoroughly understood as it is in the case of our domestic animals, I see no absurdity in supposing that, in some way or other, the improvement would be carried into effect.”*

Francis Galton  
(1822-1911)



# The birth of eugenics

*“Hence we must bear without complaining the undoubtedly bad effects of the weak surviving and propagating their kind; but there appears to be at least one check in steady action, namely the weaker and inferior members of society not marrying so freely as the sound; and this check might be indefinitely increased, though this is more to be hoped for than expected, by the weak in body or mind refraining from marriage.”*

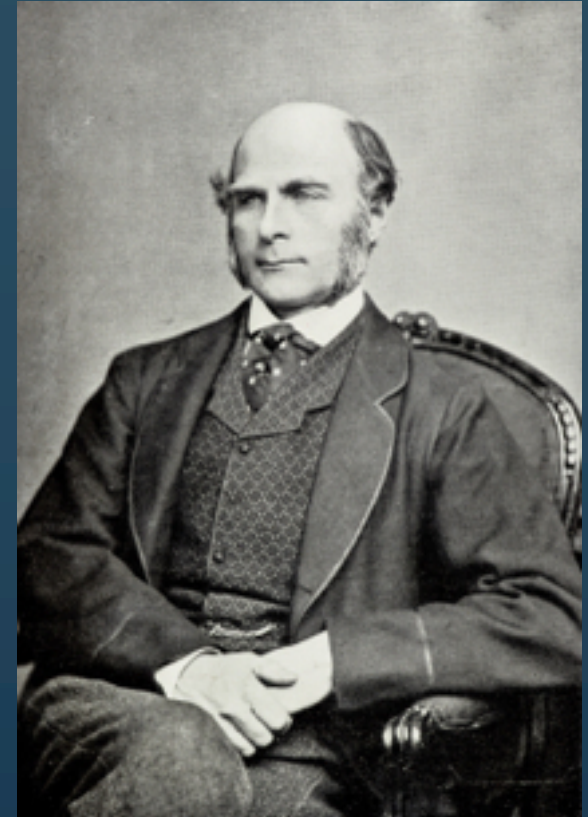
Charles Darwin  
(1809-1882)



# The birth of eugenics

*“Its intention is to touch on various topics more or less connected with that of the cultivation of race, or, as we might call it, with “eugenic”<sup>1</sup> questions, and to present the results of several of my own separate investigations.*

*<sup>1</sup> That is, with questions hearing on what is termed in Greek, eugenes, namely, good in stock, hereditarily endowed with noble qualities. This, and the allied words, eugeneia, etc., are equally applicable to men, brutes, and plants. We greatly want a brief word to express the science of improving stock...”*



Francis Galton  
(1822-1911)

# The birth of eugenics

*“EUGENICS is the science which deals with all influences that improve the inborn qualities of a race; also with those that develop them to the utmost advantage.”*



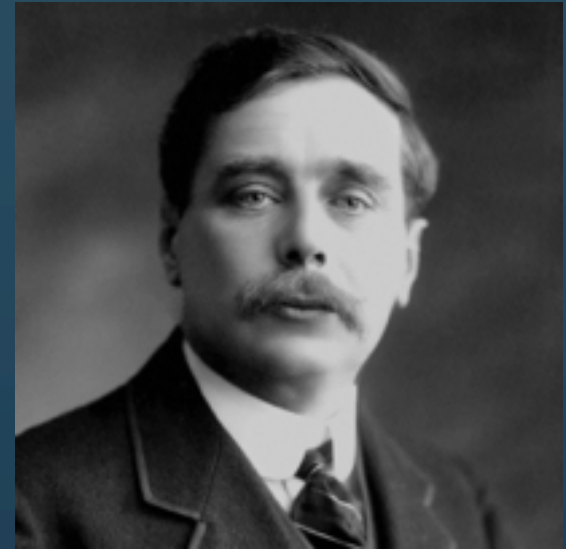
Karl Pearson  
(1857-1936)

Francis Galton  
(1822-1911)

# The birth of eugenics

*“The fact that the sons and nephews of a distinguished judge or great scientific man are themselves eminent judges or successful scientific men may after all, be far more due to a special knowledge of the channels of professional advancement than to any distinctive family gift. I must confess that much of Dr. Galton's classical work in this direction seems to me to be premature.”*

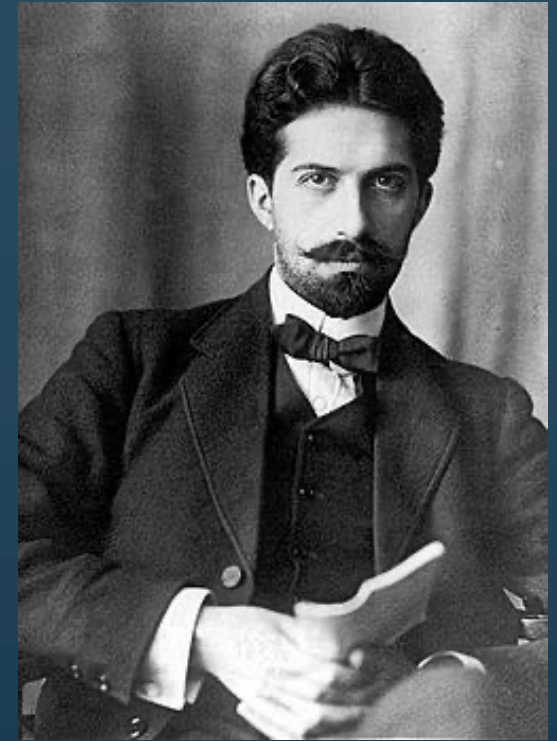
*“I believe that now and always the conscious selection of the best for reproduction will be impossible; ... It is in the sterilization of failures, and not in the selection of successes for breeding, that the possibility of an improvement of the human stock lies.”*



Herbert George Wells  
(1866-1946)

# The birth of eugenics

*“Now if we are to achieve any immediate success we must clearly divide our proposals, as the present writer did some years ago, with Mr. Galton's approval, into two classes: positive eugenics and negative eugenics. The one would seek to encourage the parenthood of the worthy, the other to discourage the parenthood of the unworthy. Positive eugenics is the original eugenics, but, as the writer endeavoured to show at the time, negative eugenics is one with it in principle.”*



Caleb Saleeby  
(1878-1940)

# The birth of eugenics

**Positive eugenics** or reproduction among the “fit”

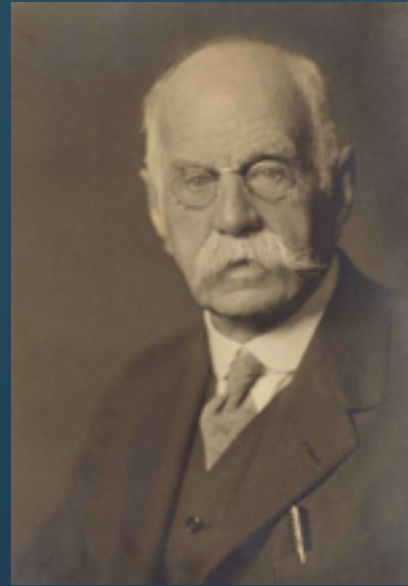
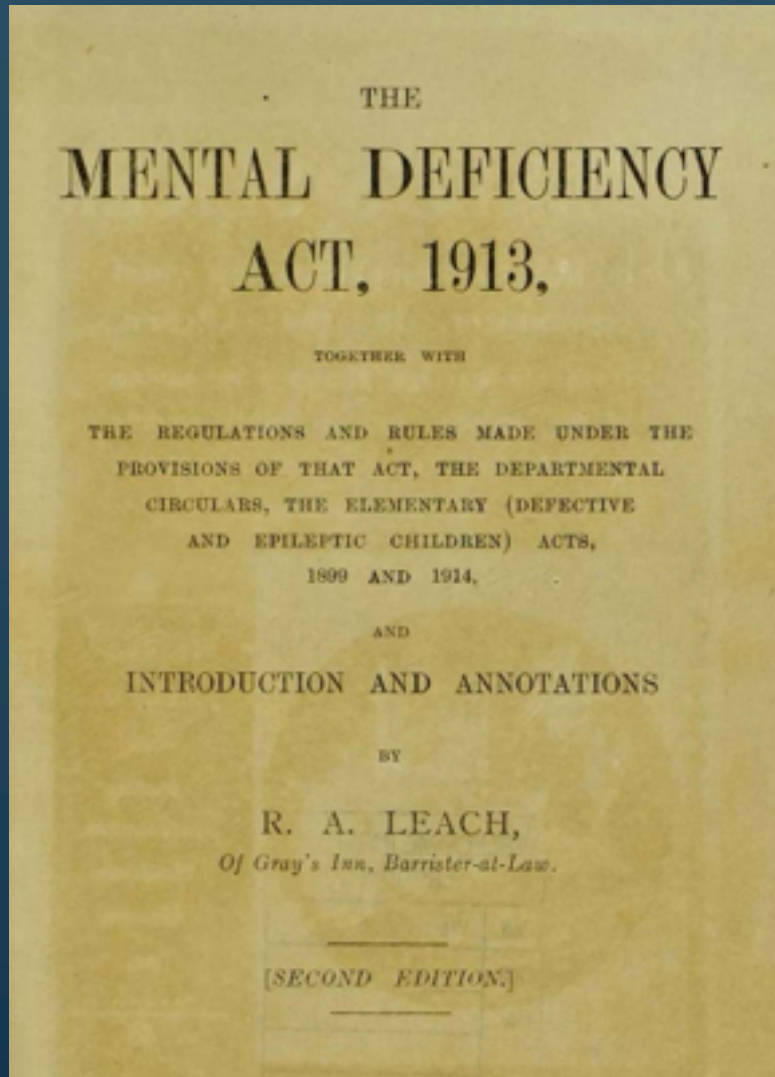
- Selective marriage and childbearing
- “Better baby” and “fitter family” contests
- Social praise or incentives for large families in favored groups

**Negative eugenics** or prevention of reproduction among the “unfit”

- Marriage restrictions
- Segregation and institutionalization
- Compulsory sterilization
- Immigration restriction and anti-miscegenation laws

**Key idea:** Increase in “desirable” births; reduction or prevention of “undesirable” ones.

# The birth of eugenics



Leonard Darwin  
(1850–1943)



Josiah C. Wedgwood  
(1872–1943)

Larson, E. J. (1991). The rhetoric of eugenics: Expert authority and the Mental Deficiency Bill. *The British Journal for the History of Science*, 24(1), 45–60.

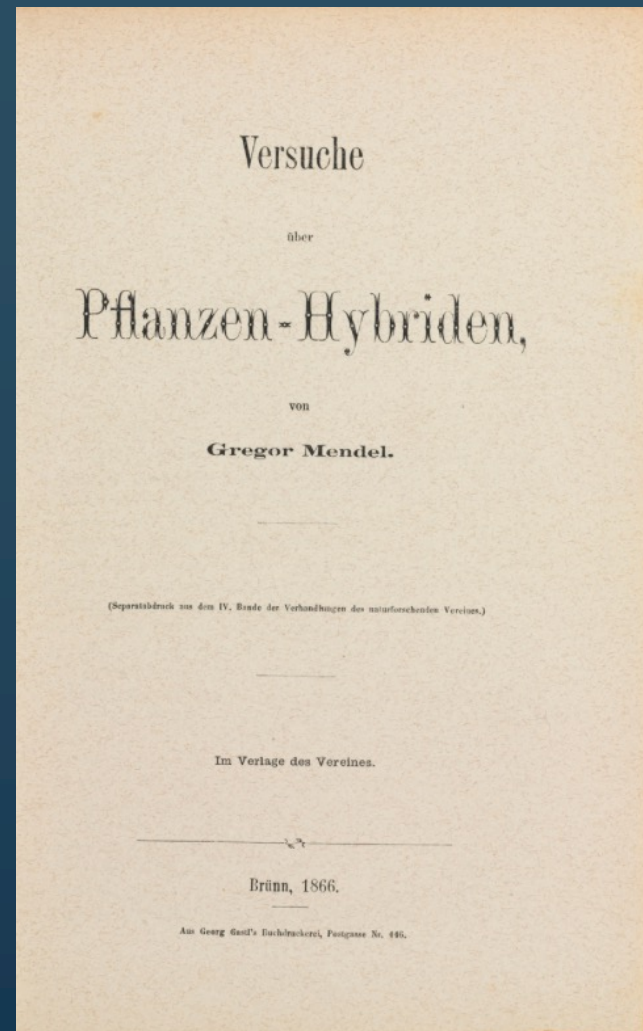
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# Mendelian genetics

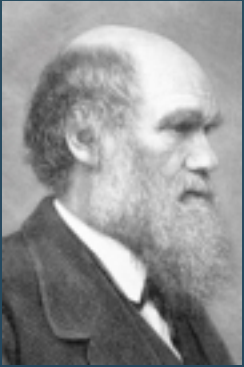


Gregor Mendel  
(1822-1884)

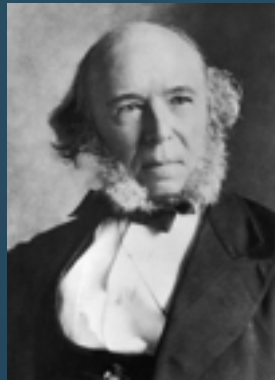


1866 paper

# Mendelian genetics



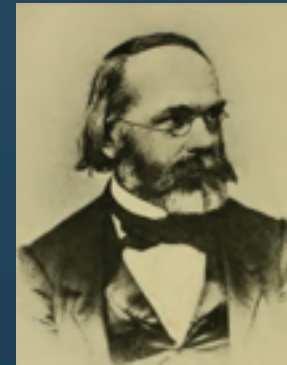
Charles Darwin  
(1809-1882)



Herbert Spencer  
(1820-1903)



Francis Galton  
(1822-1911)



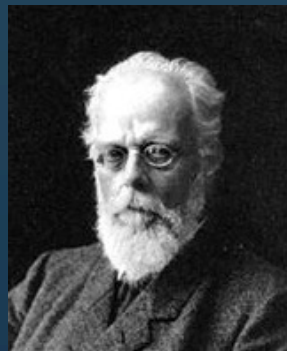
Carl von Nägeli  
(1817-1891)



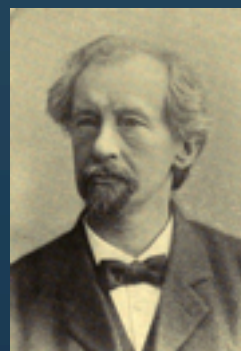
Gregor Mendel  
(1822-1884)



William K. Brooks  
(1848-1908)



August Weismann  
(1834-1914)



Hugo de Vries  
(1848-1935)

# Mendelian genetics



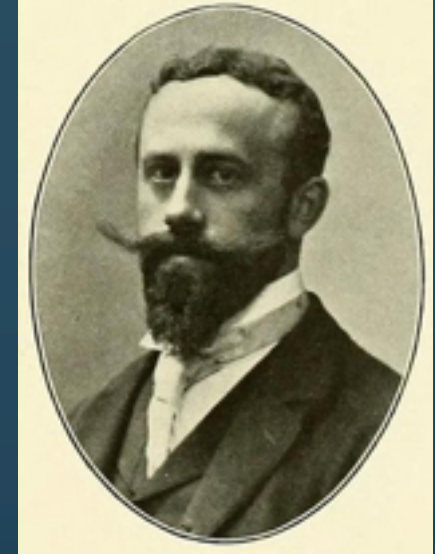
Hugo de Vries  
(1848-1935)

- *Comptes Rendus de l' Académie des Sciences*
- *Berichte der deutschen botanischen Gesellschaft*
- *Revue Générale de Botanique*



Carl Correns  
(1864-1933)

- *Berichte der deutschen botanischen Gesellschaft*



Erich von Tschermak  
(1871-1962)

- *Journal of Agricultural Research*

Brannigan, A. (1979). The reification of Mendel. *Social Studies of Science*, 9(4), 423-454.

Brannigan, A. (1981). *The Social Basis of Scientific Discoveries*. Cambridge: Cambridge University Press.

# Mendelian genetics



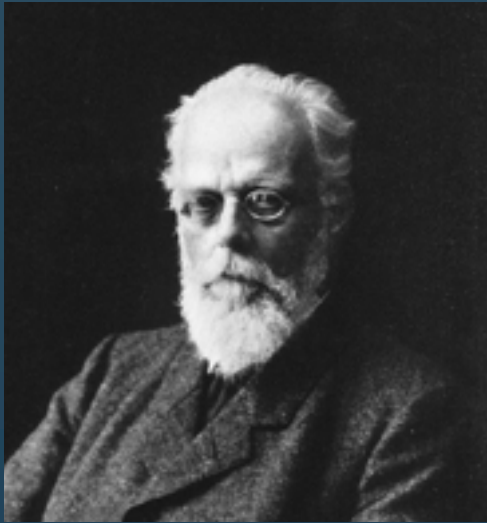
Carl Correns  
(1864-1933)

“G. Mendel’s Law on the Behavior of the Offspring of Hybrid Races.”

Brannigan, A. (1979). The reification of Mendel. *Social Studies of Science*, 9(4), 423-454.

Brannigan, A. (1981). *The Social Basis of Scientific Discoveries*. Cambridge: Cambridge University Press.

# Mendelian genetics

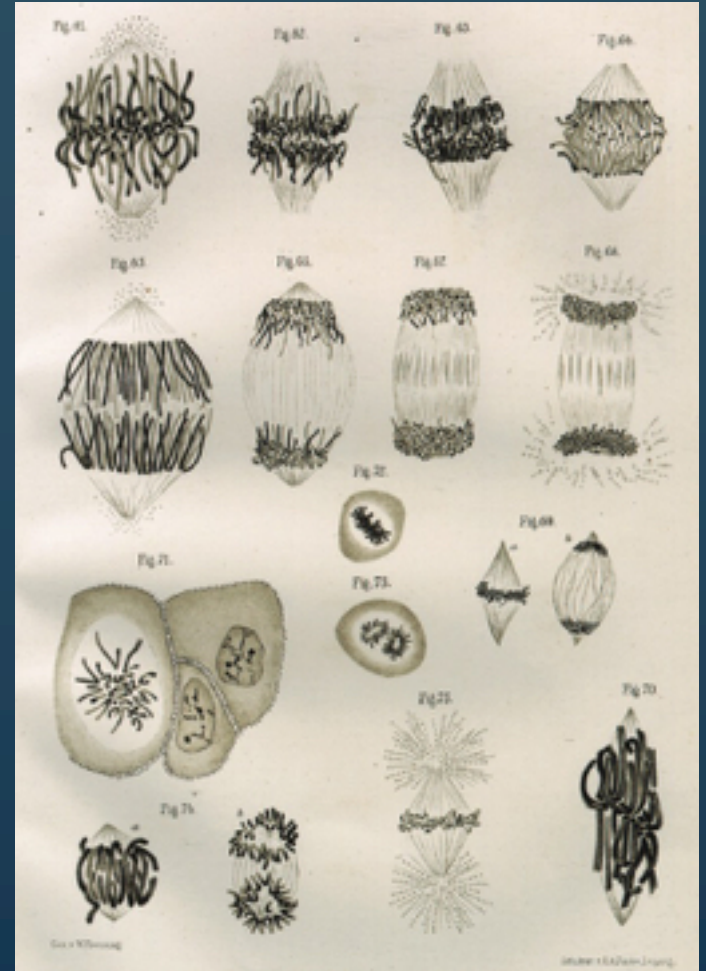


August Weismann  
(1834-1914)

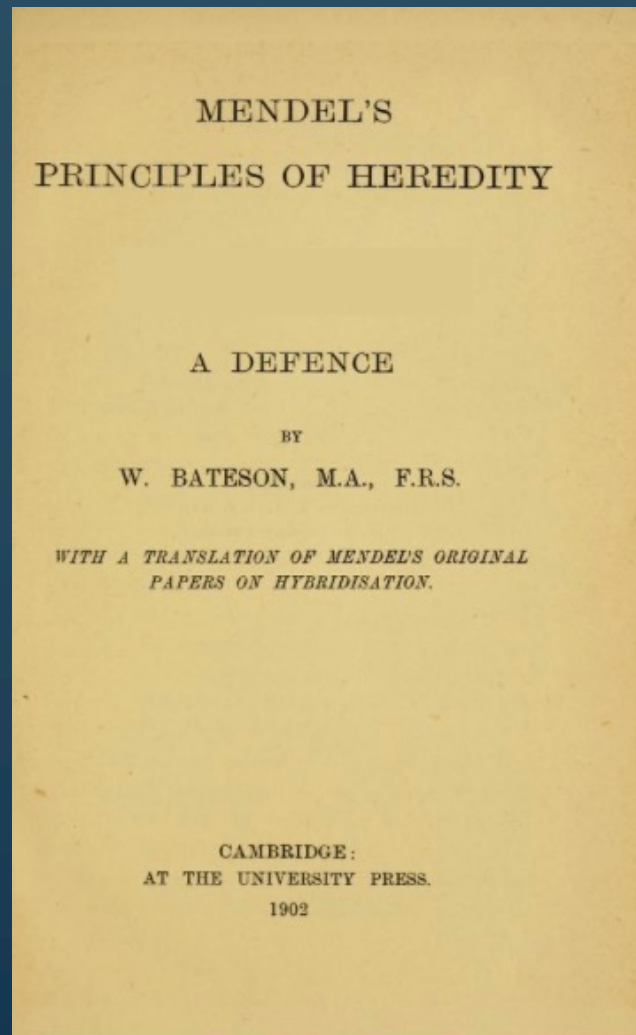


Francis Galton  
(1822-1911)

“hard heredity”



# Mendelian genetics



William Bateson  
(1861-1926)

Bateson, W. (1902). *Mendel's Principles of Heredity: A Defence*. London: Cambridge University Press.

Olby, R. (2000). Horticulture: the font for the baptism of genetics. *Nature Reviews Genetics*, 1, 65-70.

# Mendelian genetics

*“In the discussion that follows, those characteristics which pass into the hybrid combination completely or almost unchanged, and hence represent the hybrid traits themselves, will be described as ‘dominant’, and those which become latent as ‘recessive’. The expression ‘recessive’ was chosen because the traits thus designated recede or disappear completely on the hybrids, but then reappear again unchanged, as will be shown later on among the descendants of these same hybrids.”*

# Mendelian genetics

	<b>A</b>	<b>2Aa</b>	<b>a</b>
<b>B</b>	AB	2AaB	aB
<b>2Bb</b>	2ABb	4AaBb	2aBb
<b>b</b>	Ab	2Aab	ab

1 : 1 : 1 : 1 : 2 : 2 : 2 : 2 : 4

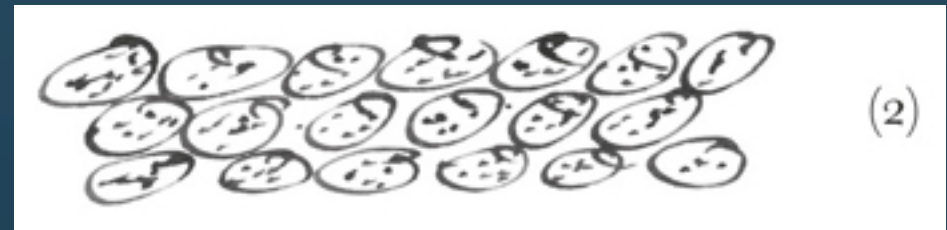
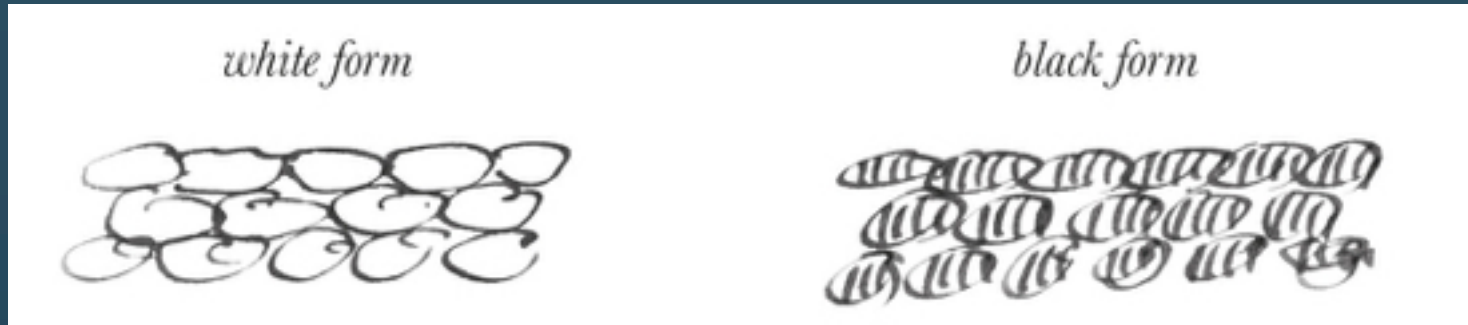
	<b>AA</b>	<b>2Aa</b>	<b>aa</b>
<b>BB</b>	$AABB \rightarrow [AB]$	$2AaBB \rightarrow 2[AB]$	$aaBB \rightarrow [aB]$
<b>2Bb</b>	$2AABb \rightarrow 2[AB]$	$4AaBb \rightarrow 4[AB]$	$2aaBb \rightarrow 2[aB]$
<b>bb</b>	$AAbb \rightarrow [Ab]$	$2Aabb \rightarrow 2[Ab]$	$aabb \rightarrow [ab]$

9 : 3 : 3 : 1

Olby, R. C. (1979). Mendel no Mendelian? *History of Science*, 17, 53–72.

Olby, R. (1985) *Origins of Mendelism* (2<sup>nd</sup> edition). Chicago: The University of Chicago Press.

# Mendelian genetics



*“If there were 2 gemmules only, each of which might be either white or black, then in a large number of cases one quarter would always be quite white, one quarter quite black, & one half would be gray.”*

# Mendelian genetics



Raphael Weldon  
(1860-1906)



Weldon, W. F. R. (1902). Mendel's laws of alternative inheritance in peas. *Biometrika* , 1:228-254.

Radick, G. (2023). *Disputed inheritance: The battle over Mendel and the future of biology*. The University of Chicago Press.

# Mendelian genetics

*“It is this possibility of so great a number of combinations of maternal and paternal chromosomes in the gametes which serves to bring the chromosome-theory into final relation with the known facts of heredity; for Mendel himself followed out the actual combinations of two and three distinctive characters and found them to be inherited independently of one another and to present a great variety of combinations in the second generation.”*



Walter S. Sutton  
(1877-1916)

# Mendelian genetics



C. B. Bridges, A. H. Sturtevant and O. L. Mohr

<https://history.archives.mbl.edu/digital-collection/th-morgan-fly-room-columbia-university-c-1916>

<https://digital.archives.caltech.edu/collections/Images/AHS10.3-5/>

# Mendelian genetics

*“Mendelian heredity has taught us that the germ cells must contain many factors that affect the same character. Red eye color in *Drosophila*, for example, must be due to a large number of factors, for as many as 25 mutations for eye color at different loci have already come to light ... One can therefore easily imagine that when one of these 25 factors changes, a different result is produced, such as pink eyes, or vermilion eyes, or white eyes or eosin eyes. Each such color may be the product of 25 factors (probably of many more) and each set of 25 or more differs from the normal in a different factor. It is this one different factor that we regard as the “unit factor” for this particular effect, but obviously it is only one of the 25 unit factors that are producing this effect.”*

# Mendelian genetics

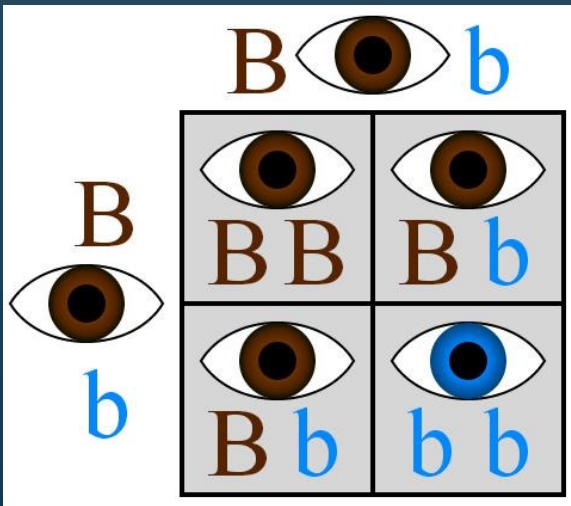
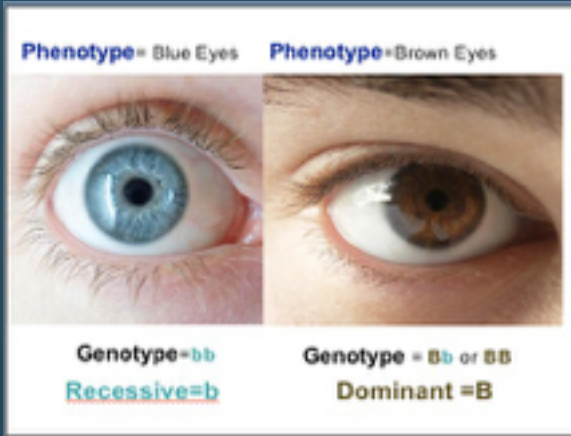
gene 1 →  
gene 2 →  
gene 3 →  
gene 4 →  
... →  
gene 25 →



gene 1 →  
gene 2 →  
gene 3\* →  
gene 4 →  
... →  
gene 25 →



# Mendelian genetics



Holmes, S. J., & Loomis, H. M. (1909). The heredity of eye color and hair color in man. *Biological Bulletin*, 18(1), 50-65.

Sturm, R. A., & Frudakis, T. N. (2004). Eye colour: portals into pigmentation genes and ancestry. *TRENDS in Genetics*, 20(8), 327-332.

# Overview

- Racial purity & hygiene
- The birth of eugenics
- Mendelian genetics
- **Mendelian eugenics**
- “Herausmendeln” (“Mendel out”)

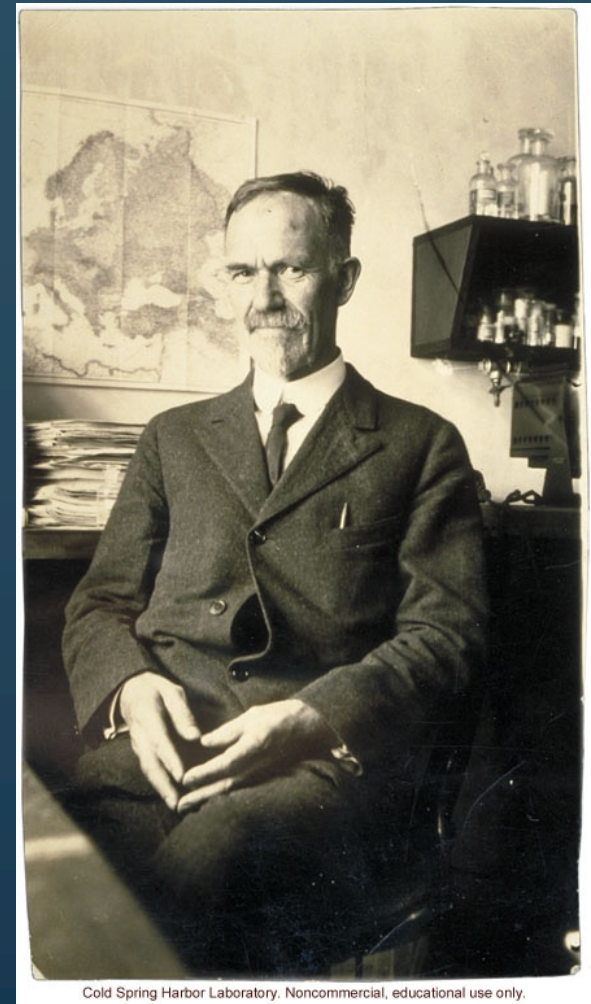
# Mendelian eugenics

*“Brown-eyed children can be secured from blue-eyed stock by mating with pure brown-eyed stock. We have heard of two blue-eyed parents regretting that they had no brown eyed children. They wished for the impossible”.*

*“Blue x blue as a rule gives only blue. However the rule is not without exceptions. In one case a man with brown eyes was born of blue-eyed parents”.*

- *“discordant case”*
- *“probably due to an error”.*

Davenport, C. B. (1911). *Heredity in Relation to Eugenics*. New York: Henry Holt and Company.



Charles Davenport  
(1866–1944)

# Mendelian eugenics



Harry Laughlin and Charles Davenport outside the new Eugenics Record Office building at Cold Spring Harbor, around 1913. Courtesy of Harry H. Laughlin Papers, Special Collections & Museums Department, Pickler Memorial Library, Truman State University.

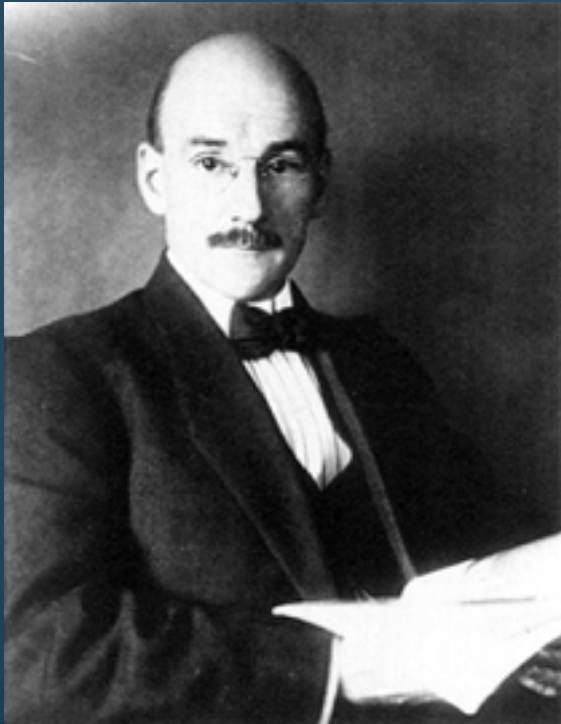


1915

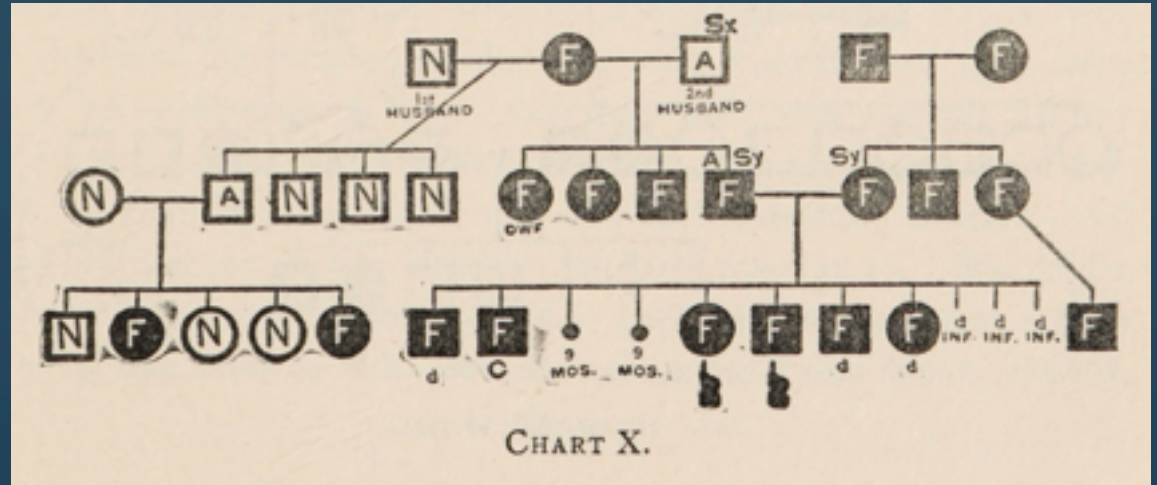


1918

# Mendelian eugenics

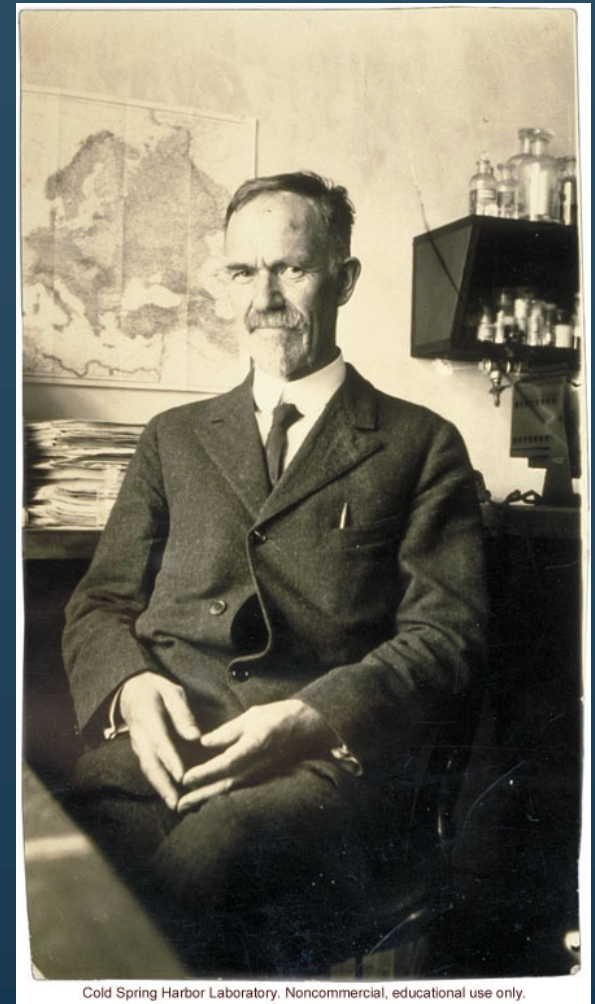


Henry Herbert Goddard  
(1866–1957)



# Mendelian eugenics

*“In view of the certainty that all of the children of two feeble-minded parents will be defective how great is the folly, yes, the crime, of letting two such persons marry.”*



Charles Davenport  
(1866–1944)

Davenport, C. B. (1911). *Heredity in Relation to Eugenics*. New York: Henry Holt and Company.

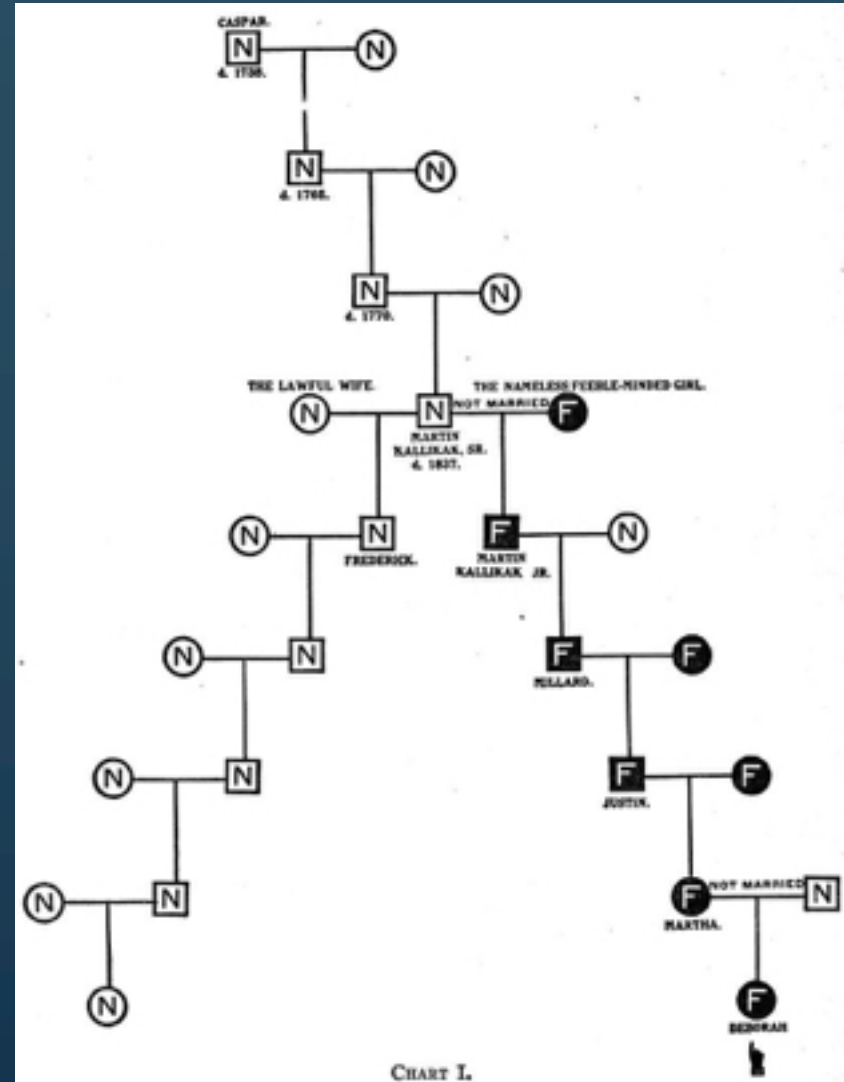
# Mendelian eugenics

## THE KALLIKAK FAMILY



DEBORAH KALLIKAK, AS SHE APPEARS TO-DAY AT THE TRAINING SCHOOL.

*All rights reserved*



# Mendelian eugenics



Henry Herbert Goddard  
(1866–1957)

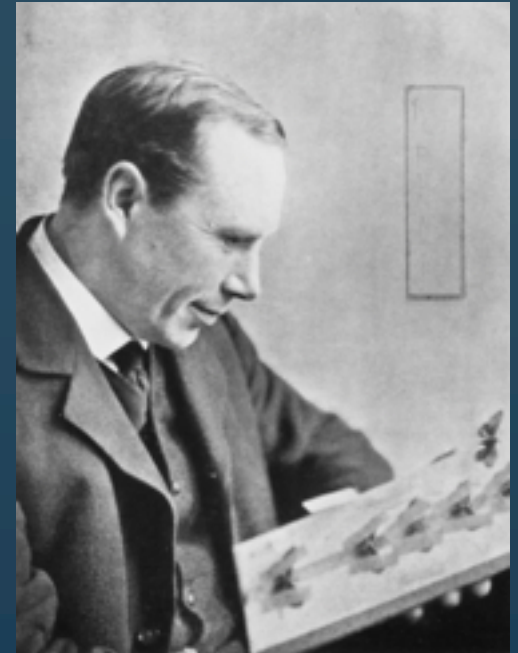
*“Feeble-mindedness has been defined as a “state of mental defect existing from birth or from an early age and due to incomplete or abnormal development in consequence of which, the person affected is incapable of performing his duties as a member of society in the position of life to which he is born.” ”*

*“... we are dealing with a condition of mind or brain which is transmitted as regularly and surely as color of hair or eyes.”*

*“... it seems more in accordance with the facts to conceive that feeble-mindedness is a unit character, ... If this is true we might expect to find normal intelligence not only a unit character but dominant.”*

# Mendelian eugenics

*“The one instance of eugenic importance that could be brought under immediate control is that of feeble-mindedness. Speaking generally, the available evidence suggests that it is a case of simple Mendelian inheritance. Occasional exceptions occur, but there is every reason to expect that a policy of strict segregation would rapidly bring about the elimination of this character.”*



Reginald Crundall Punnett  
(1875–1967)

Punnett, R. C. (1912). Marriage laws and customs. In Problems in Eugenics: Papers Communicated to the First International Eugenics Congress Held at the University of London, London, July 24–30, 151–155.

# Mendelian eugenics

*“A VERY grave responsibility rests at present upon those who have at heart the best interests of Eugenics and believe that there is a possibility in the future of the establishment of a real science of Eugenics which will exercise a marked influence on public opinion and ultimately on legislation. They see, unfortunately, dogma outstripping knowledge; they see fallacious methods of reasoning applied to problems which are essentially statistical by numerous writers who lack the necessary training; and they see wide acceptances of mere opinion where long years of trained and laborious research are needful in order to reach a basis of adequate knowledge.”*

# Mendelian eugenics

*“Dear Davenport*

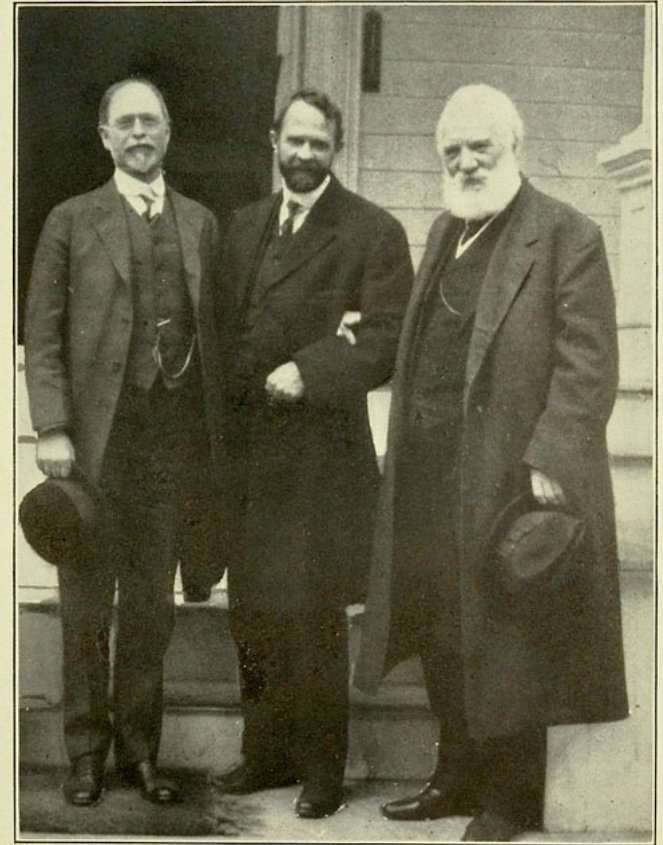
*I have just written to Mr. Popenoe\*<sup>1</sup> resigning from the Committee on Animal Breeding. ... For some time I have been entirely out of sympathy with their method of procedure. The pretentious title,\*<sup>2</sup> for one thing, the reckless statements and the unreliability of a good deal that is said in the Journal, are perhaps sufficient reasons for not wishing to appear as an active member of their proceedings by having one’s name appear on the journal.*

*\*<sup>1</sup>Paul Popenoe, editor of the Journal of Heredity*

*\*<sup>2</sup> Here Morgan is referring to the eugenics committee, which had been named “The Committee to Study and Report on the Best Practical Means of Cutting off the Defective Germ-plasm in the American Population”*

Thomas Hunt Morgan, “Thomas Hunt Morgan to Charles Davenport,” January 18, 1915, Mss.B.D27 Davenport Papers - Morgan, Thomas Hunt, Folder 4, American Philosophical Society, <https://www.amphilsoc.org/library/search-collections>

Allen, G. E. (1978). *Thomas Hunt Morgan: The Man and His Science*. Princeton, NJ: Princeton University Press.



IRVING FISHER      THOMAS H. MORGAN      ALEXANDER GRAHAM BELL  
At a meeting of the Board of Scientific Directors of the Eugenics Record Office, Cold Spring Harbor, Long Island, April 10, 1915.

University of Albany, State Univ. of NY. Noncommercial. educational use only.

<http://www.eugenicsarchive.org/html/eugenics/static/images/1439.html>

# Mendelian eugenics

“Goddard has shown that feeble-mindedness is transmitted as a Mendelian recessive.”

“Pairing among carriers of feeble-mindedness has occurred in the ratio of 1 to 200 marriages; then, if no selective mating has taken place, carriers of feeble-mindedness must occur in the general population in the ratio of 1 to 14.”

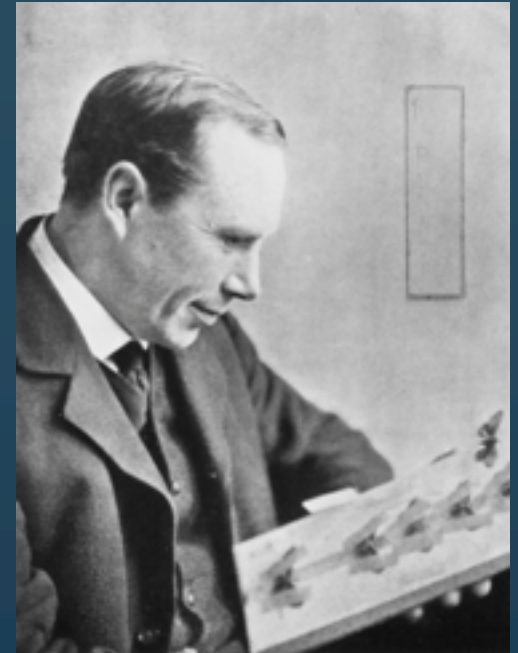
“The problem of cutting off defective germ-plasm, therefore, is not the comparatively simple one of preventing the multiplication of those so affected. This task, though sufficiently difficult in practice, is possible: the way has been pointed out; something has been accomplished. It is rather the almost hopeless task of reducing the birthrate among transmitters of serious defects.”



Edward Murray East  
(1879–1938)

# Mendelian eugenics

*“Clearly if that most desirable goal of a world rid of the feeble-minded is to be reached in a reasonable time some method other than that of the elimination of the feeble-minded themselves must eventually be found. The great strength of this defect in the population lies in its heterozygotic reserves; if the campaign against it is to meet with success it is at these that it must be directed.”*



Reginald Crundall Punnett  
(1875–1967)

# Mendelian eugenics

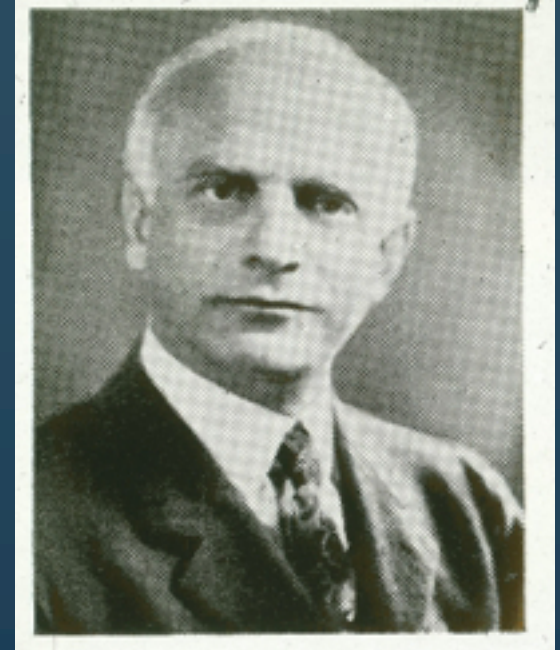
**Table 2.** Geneticists' responses to the Mendelian recessive theory of mental defect<sup>40</sup>

Geneticists who accepted and endorsed the theory	Geneticists who modified and refined the theory	Geneticists who criticized/ rejected the theory
East (1917)	East (1917)	Holmes (1921)
Punnett (1917)	Holmes (1921)	Morgan (1925)
East and Jones (1919)	Fisher (1924)	Hogben (1930)
Gates (1920–1921)		Hogben (1931)
Holmes (1921)	These refinements were reported in:	Hogben (1931)
Newman (1921)	Gates (1923 and 1929)	Crew (1931–1932)
paper by Downing (1920)	Crew (1927)	Hogben (1933)
Bateson (1921–1922)	Guyer (1928)	Fisher (1934)
Holmes (1923)	Jennings (1930)	(Brock Committee Report)
Gates (1923)	Castle (1931)	Penrose (1934)
East (1926)	Huxley (1931)	Haldane (1935)
Crew (1927)	For development of the Social Problem group concept see also	Haldane (1938)
Guyer (1928)	Wood Committee (1929)	Penrose (1938)
Haldane (1928)	Caradog Jones (1934)	
Gates (1929)		
Conklin (1929)		
Jennings (1930)		
Huxley (1931)		
Jennings (1931)		
Castle (1931)		
East (1931)		
East (1932)		
Gates (1934)		
Huxley (1937)		
Shull (1938)		
Huxley (1941)		

Barker, D. (1989). The biology of stupidity: Genetics, eugenics and mental deficiency in the inter-war years. *The British Journal for the History of Science*, 22 (3), 347–375.

# Mendelian eugenics

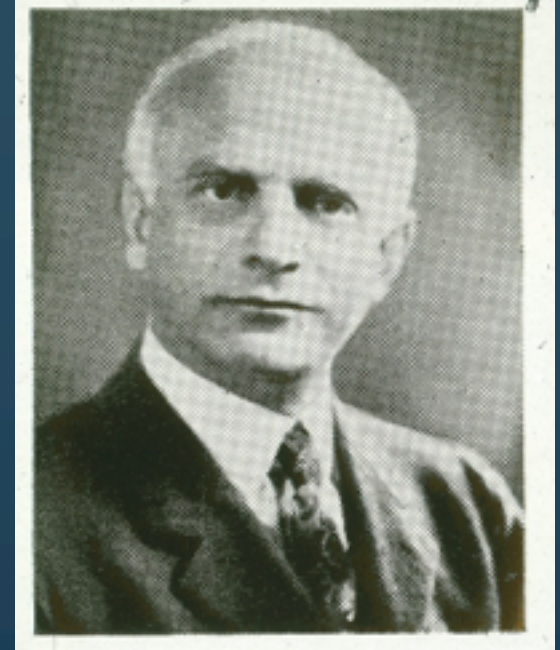
*“...Davenport and his co-workers and Rosanoff and his have contributed the most to the subject - Davenport to the question of feeble-mindedness and epilepsy and Rosanoff to clinical psychiatry. These two writers have worked entirely from the standpoint of Mendelism, and their efforts seem to me to be directed not so much to discover the laws of the transmission of insanity as to fit the facts to Mendelian theory.”*



Abraham Myerson  
(1881-1948)

# Mendelian eugenics

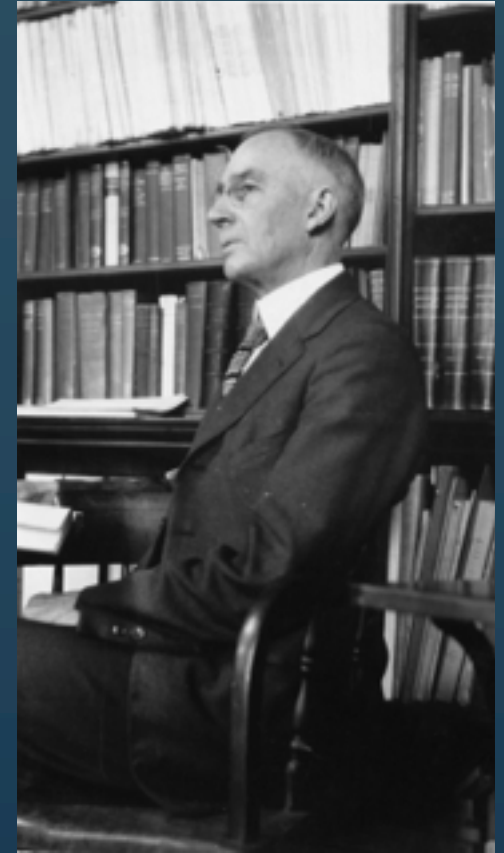
*“To do this with any show of plausibility it has been necessary to divide mankind into two types-the normal and the neuropathic. The latter...includes a list which starting from A proceeds alphabetically - apoplexy, alcohol, blindness, Bright's disease, criminality, cancerous, choreic, cripple, and so on through the various letters, including paranoia, locomotor ataxia, tuberculosis, tumor, and vagrant! All these varied diseases are to be considered as dependent upon the absence of a unit determiner and therefore the “neuropathic” constitution is to be considered as a unit character from the Mendelian standpoint. This is really polymorphism with a vengeance but disguised as Mendelism.”*



Abraham Myerson  
(1881-1948)

# Mendelian eugenics

*“Notwithstanding the striking results obtained by Goddard the complete dominance of normal mentality over feeble-mindedness cannot be regarded as clearly established. In a very large number of cases in which characters obey the Mendelian rules of segregation the organisms which are heterozygous for the characters in question show a more or less intermediate condition.”*

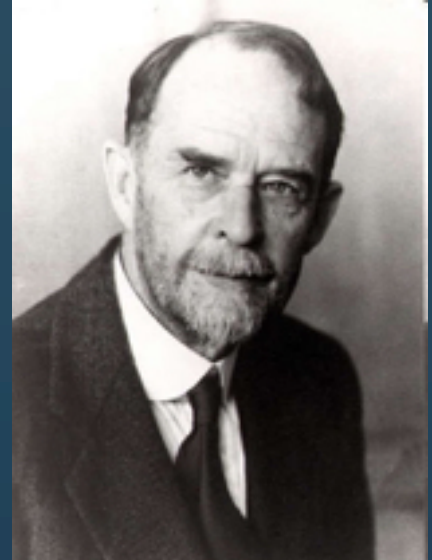


Samuel Jackson Holmes  
(1868-1964)

Holmes, S.J. (1921). *The Trend of Race: A Study of Present Tendencies in the Biological Development of Civilized Mankind*. Harcourt, Brace and Company.

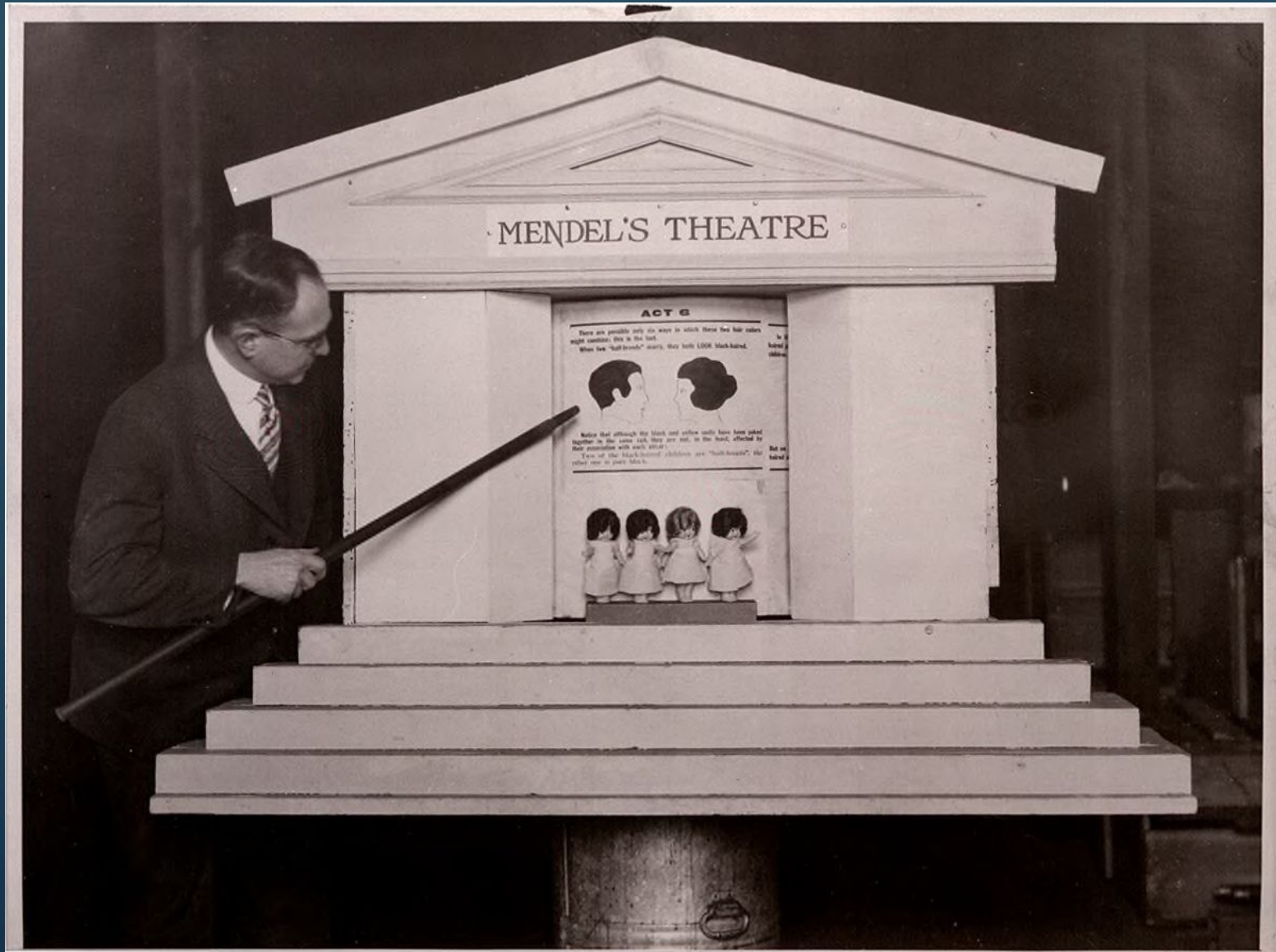
# Mendelian eugenics

*“The case most often quoted is feeble-mindedness that has been said to be inherited as a Mendelian recessive, but until some more satisfactory definition can be given as to where feeble-mindedness begins and ends, and until it has been determined how many and what internal physical defects may produce a general condition of this sort, and until it has been determined to what extent feeble-mindedness is due to syphilis, it is extravagant to pretend to claim that there is a single Mendelian factor for this condition.”*



Thomas Hunt Morgan  
(1866-1945)

# Mendelian eugenics



*“Mendel’s Theatre” showing the inheritance of hair color, demonstrated by eugenicist Leon Fradley Whitney (1894–1973) in 1926.*

# Mendelian eugenics



*Eugenic and Health Exhibit, Kansas Free Fair, 1929. On the leftmost part of the photo, there is an array of stuffed black and white guinea pigs arranged on a vertical board in a way that shows the inheritance of coat color.*

# Mendelian eugenics

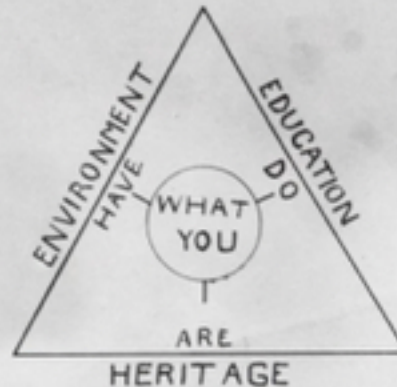


*Eugenic and Health Exhibit, Kansas Free Fair, 1929. On the leftmost part of the photo, there is an array of stuffed black and white guinea pigs arranged on a vertical board in a way that shows the inheritance of coat color.*

# Mendelian eugenics

UNFIT HUMAN TRAITS  
SUCH AS FEEBLEMINDEDNESS  
EPILEPSY, CRIMINALITY,  
INSANITY, ALCOHOLISM,  
PAUPERISM AND MANY OTHERS,  
RUN IN FAMILIES AND ARE  
INHERITED IN EXACTLY THE  
SAME WAY AS COLOR IN  
GUINEA-PIGS. IF **ALL**  
**MARRIAGES WERE EUGENIC**  
WE COULD **BREED OUT**  
MOST OF THIS UNFITNESS  
IN **THREE GENERATIONS.**

## THE TRIANGLE OF LIFE



**YOU** CAN IMPROVE YOUR *EDUCATION*,  
AND EVEN CHANGE YOUR *ENVIRONMENT*;  
BUT WHAT YOU REALLY **ARE** WAS ALL  
SETTLED WHEN YOUR PARENTS WERE  
BORN.  
SELECTED PARENTS WILL HAVE  
BETTER CHILDREN **THIS**  
IS THE GREAT AIM OF **EUGENICS**

*Chart used at the  
1929 Kansas  
Free Fair  
describing "unfit  
human  
traits" and the  
importance of  
eugenic marriage*

# Mendelian eugenics

## MARRIAGES.- FIT AND UNFIT

### 1. PURE + PURE:-

CHILDREN NORMAL

### 2. ABNORMAL + ABNORMAL:-

CHILDREN ABNORMAL

### 3. PURE + ABNORMAL:-

CHILDREN NORMAL BUT TAINTED;  
SOME GRANDCHILDREN ABNORMAL.

### 4. TAINTED + ABNORMAL:-

CHILDREN  $\frac{1}{2}$  NORMAL BUT TAINTED  
 $\frac{1}{2}$  ABNORMAL

### 5. TAINTED + PURE:-

CHILDREN:  $\frac{1}{2}$  PURE NORMAL  
 $\frac{1}{2}$  NORMAL BUT TAINTED

### 6. TAINTED + TAINTED

CHILDREN: OF EVERY FOUR, 1 ABNORMAL  
1 PURE NORMAL, AND 2 TAINTED.

\* PURE - NORMAL AND TRANSMITTING ONLY NORMAL.

TAINTED - NORMAL BUT CAN TRANSMIT ABNORMALITY.

ABNORMAL - SHOWING THE ABNORMALITY.

## HOW LONG

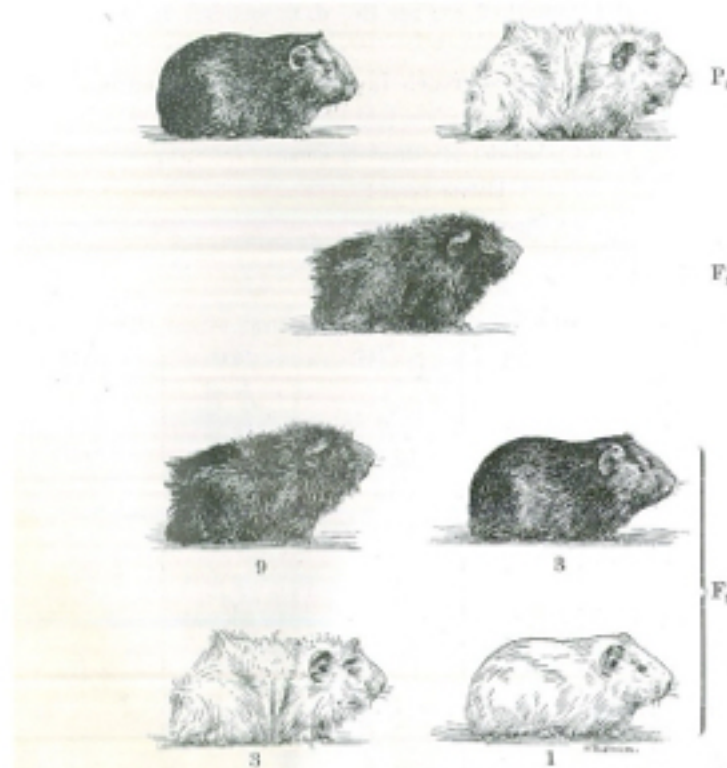
ARE WE AMERICANS TO  
BE SO CAREFUL FOR THE  
PEDIGREE OF OUR PIGS  
AND CHICKENS AND  
CATTLE, - AND THEN  
LEAVE THE ANCESTRY  
OF OUR CHILDREN  
TO CHANGE, OR TO  
"BLIND" SENTIMENT?

Chart used at the  
1929 Kansas  
Free Fair  
describing "unfit  
human  
traits" and the  
importance of  
eugenic marriage

# Mendelian eugenics



**Figure 6.** An image used by Castle to illustrate a discussion on dihybrid crossing between a smooth-coated, dark animal and a rough-coated, white one. (Reprinted from Castle 1911, p. 41. Copyright status: Public domain. This work is no longer under copyright protection.)



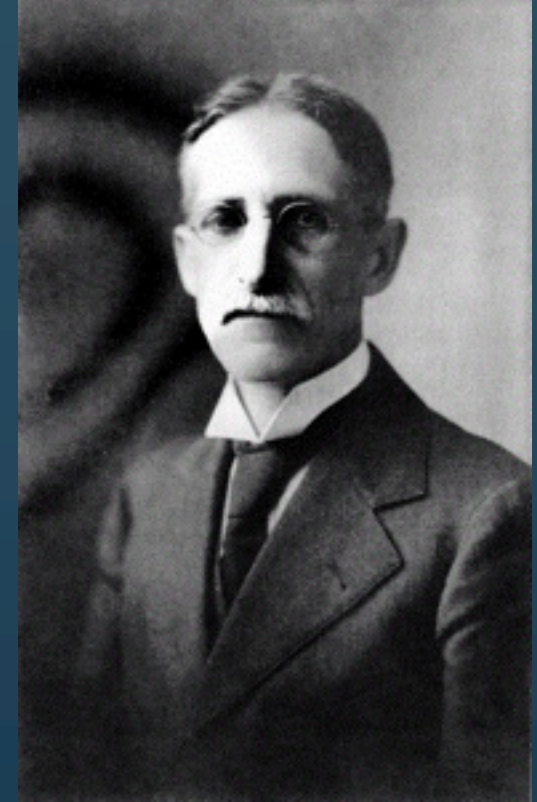
**Fig. 31.** Kreuzung einer schwarzen glatthaarigen Meerschweinchenrasse mit einer weißen rauhaarigen. F<sub>1</sub> schwarz rauhaarig. In F<sub>2</sub> Spaltung nach 9:3:3:1 (nach CASTLE).

**Figure 7.** "Crossing of a black smooth guinea pig race with white rough-haired. F<sub>1</sub> black rough-haired. In F<sub>2</sub> segregation according to 9:3:3:1 (after Castle)." (Legend and figure are reprinted from Baur 1914, p. 84. Copyright status: Public domain. This work is no longer under copyright protection.)

# Mendelian eugenics

*“Feeble-mindedness. The most complete study of the inheritance of feeble-mindedness that has ever been made is that published by Dr. H. H. Goddard of the Vineland New Jersey Training School for Feeble-minded, ... He has studied the family histories of three hundred and twenty-seven families which sent pupils to the Vineland School.”*

*“The data of Goddard indicate clearly that feeble-mindedness is inherited as a recessive Mendelian character, but one which like albinism may occur in many different grades, the higher grades probably tending to dominate.”*



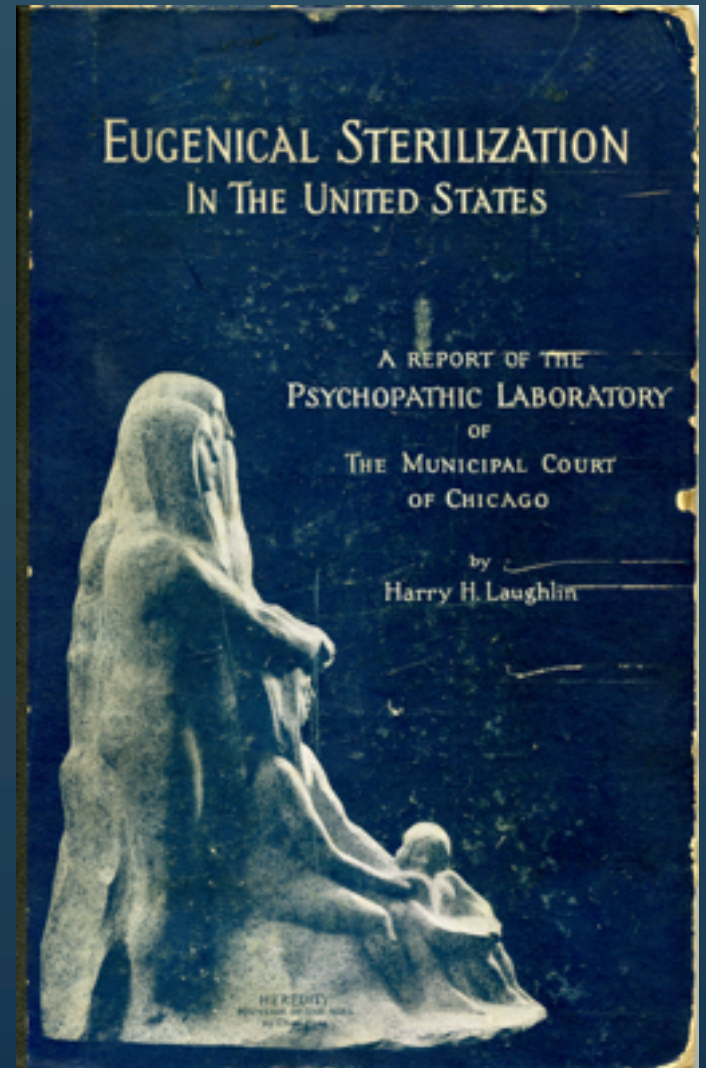
William Ernest Castle  
(1867-1945)

Castle, W. E. (1926). *Genetics and eugenics: A text-book for students of biology and a reference book for animal and plant breeders* (3<sup>rd</sup> edition). Harvard University Press.

# Mendelian eugenics

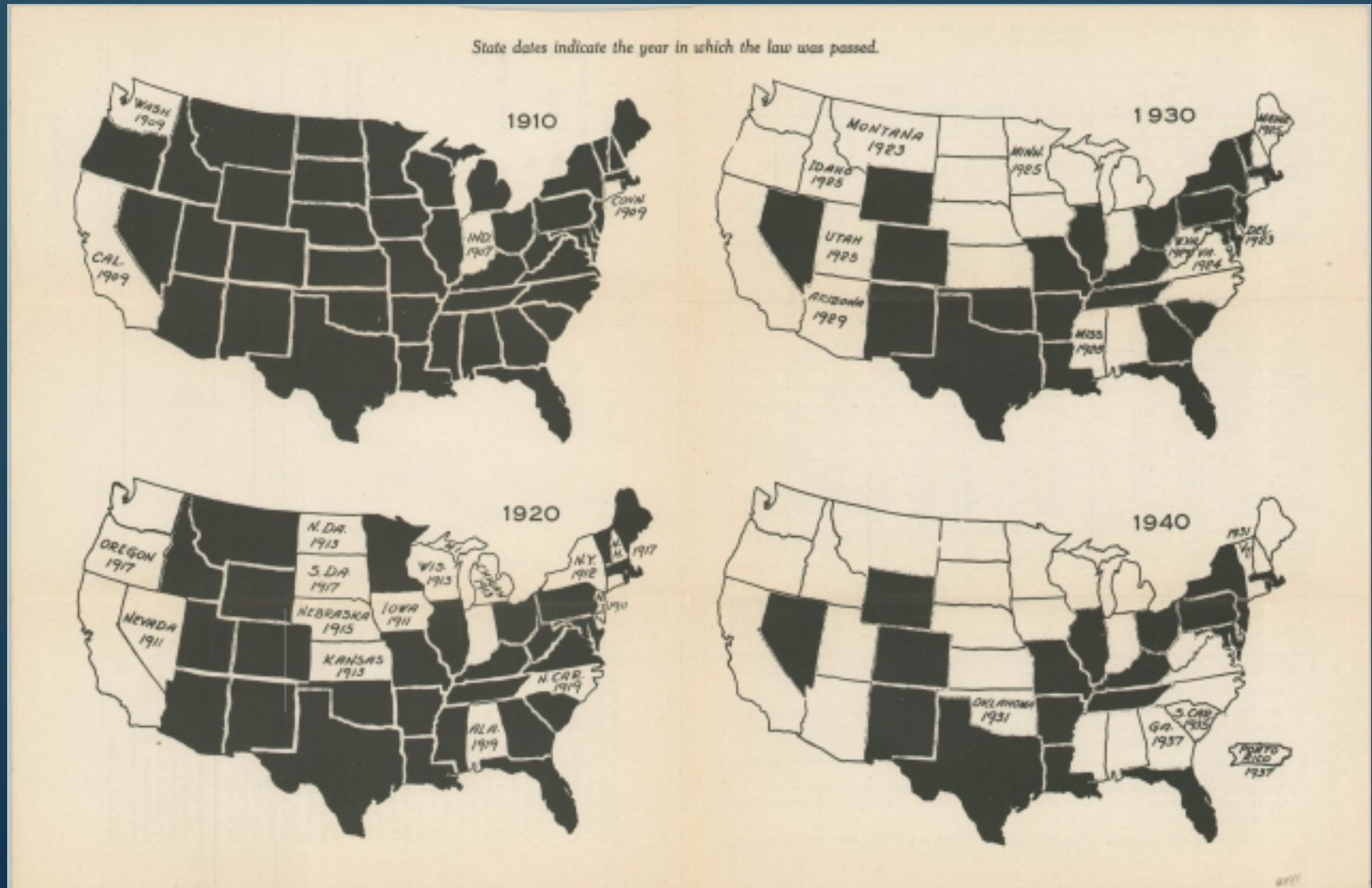


Harry Laughlin  
(1880-1943)



Laughlin, H. H. (1922). *Eugenical sterilization in the United States: A report of the Psychopathic Laboratory of the Municipal Court of Chicago*. Psychopathic Laboratory of the Municipal Court of Chicago.

# Mendelian eugenics



Birthright, Inc. (1944). U.S. maps showing the states having sterilization laws in 1910–1920–1930–1940 [Map]. P. J. Mode Collection of Persuasive Cartography, Cornell University Library.

# Mendelian eugenics



*Carrie and  
Emma Buck,  
1924*

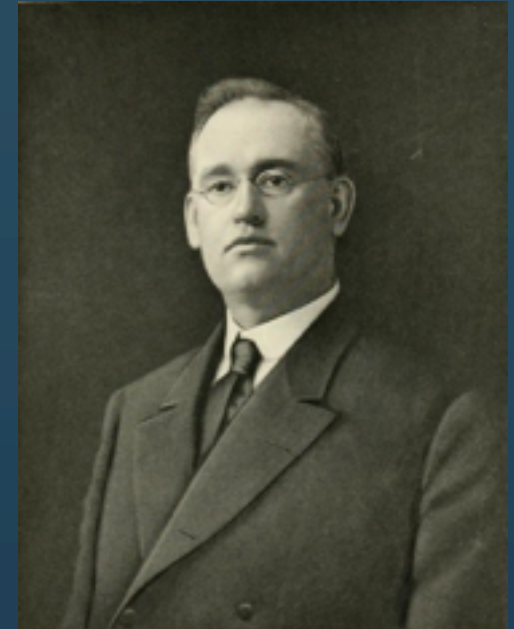
# Mendelian eugenics

*“The feebleminded woman will have three children to every one child a college graduate will have. They are easily over-sexed, and it depends on their looks as to how the boys or men will take advantage of them, and it depends on her opportunities”.*

When asked what was the evidence for this:

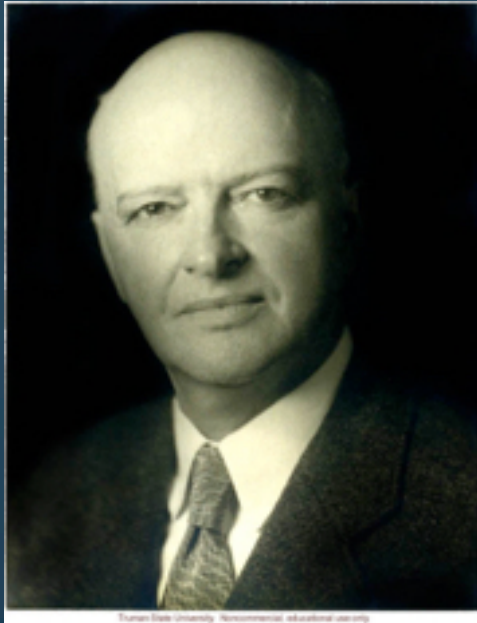
*“The Callicac case”.*

*“That is a report that was generally published throughout most of the books on heredity.”*



Joseph DeJarnette  
(1866-1957)

# Mendelian eugenics



Harry Laughlin  
(1880-1943)

*“Let me say, also, that in the archives of the Eugenics Record Office there are many hundreds of manuscript pedigrees of families with feebleminded members. These pedigrees prove conclusively that both feeblemindedness and other intelligence levels are, in most cases, accounted for by hereditary qualities.”*

# Mendelian eugenics

*“It is better for all the world if, instead of waiting to execute degenerate offspring for crime or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind. The principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tubes. *Jacobson v. Massachusetts*, 197 U. S. 11. Three generations of imbeciles are enough.”*

**Buck v. Bell, 274 U.S. 200 (1927)**



Supreme Court Justice Oliver  
Wendell Holmes  
(1841-1935)

# Mendelian eugenics

**TABLE 9.2**

**Incidence of Insanity in Parents and Offspring in a Study of the Relatives of Inmates of Asylums, and the Expected Incidence Based on Mendelian Genetics**

Nature of Parents as to Insanity	Total Offspring Recorded		Percentage Offspring Recorded		Percentage Offspring Expected Based on Mendelian Genetics	
	Insane	Sane	Insane	Sane	Insane	Sane
Both insane ( $RR \times RR$ )	4	4	50	50	100	0
One insane ( $DR \times RR$ )	93	299	24	76	50	50
Both sane ( $DR \times DR$ )	314	1179	21	79	25	75

Source: Based on Tables IV and V in Heron (1907), p. 17.

*“No argument in favour of Mendelism seems possible on these figures . . . there is no obvious reason why the expectation should be so much more closely fulfilled by the record in the third mating than in either of the other two.”*



Lancelot Thomas Hogben  
(1895-1975)

Hogben, L. (1931). *Genetic Principles in Medicine and Social Science*. London. Williams and Nordgate Ltd.

Heron, D. (1907). *A First Study of the Statistics of Insanity and the Inheritance of the Insane Diathesis*. London: Dulau and Co.

# Mendelian eugenics

*“There is still less justification for such conclusions as those which Davenport and Goddard have put forward in their studies on insanity and feeble-mindedness.”*

*“... feeble-mindedness is clinically not one thing but many things. There is no one single problem of the hereditary basis of feeble-mindedness”.*

*“So long as any group of defectives is differentiated from the normal by reference to the results of intelligence tests, it is impossible to entertain the likelihood that a single gene is involved in the distinction”.*



Lancelot Thomas Hogben  
(1895-1975)

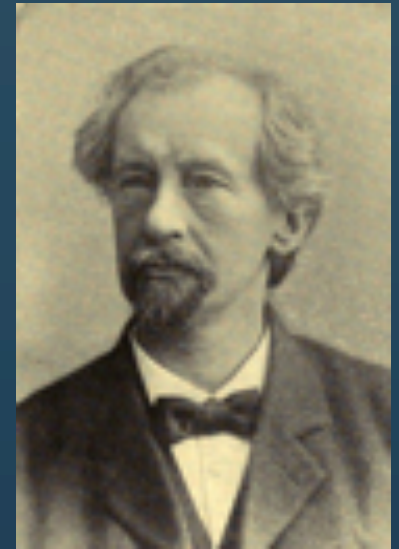
# Overview

- Racial purity & hygiene
- The birth of eugenics
- Mendelian genetics
- Mendelian eugenics
- “Herausmendeln” (“Mendel out”)

# “Herausmendeln” (“Mendel out”)

*“In the second section of this volume, I explained that it is predominantly—if not exclusively—the retrogressive [recessive traits that revert to an ancestral form] and degressive [recessive traits that weaken or diminish a characteristic] traits which, when crossed with their antagonists, follow the Mendelian laws.”<sup>1</sup>*

<sup>1</sup> *“In everyday language and in written correspondence, it has become customary to shorten this expression and simply say that the traits in question “Mendelize.” (“mendeln”)*

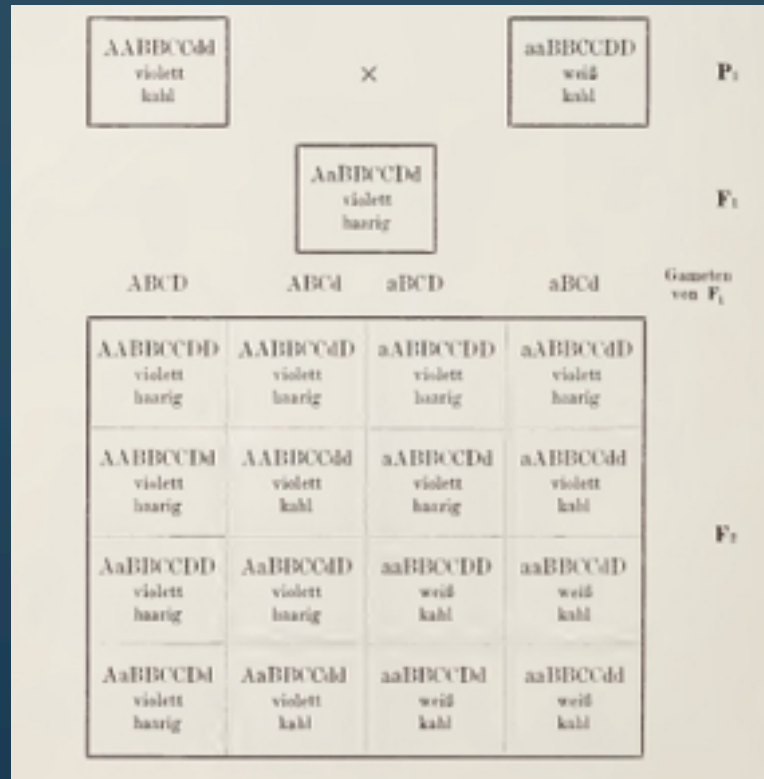


Hugo de Vries  
(1848-1935)

# “Herausmendeln” (“Mendel out”)

“We should also expect this observed ratio on theoretical grounds. In this case, all the violet plants that mendel out (herausmendeln) here in F<sub>2</sub> are hairy, while all the yellow and white ones are glabrous.

Other crosses, however, also produce two categories among the violet plants, namely hairy and glabrous. One such crossing experiment may be presented here, in the form of the usual scheme.”



Erwin Baur  
(1875-1933)

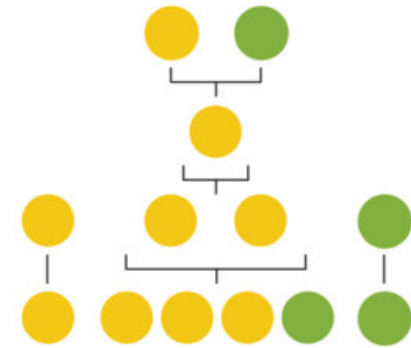
# “Herausmendeln” (“Mendel out”)

A central concern for the Nazis was to prevent the unwanted results of “mendeling out” (“herausmendeln”): the sudden reappearance of ancestral traits that had been “hidden” for several generations in a mixed population.

There was only one certain way to avoid this in Mendelian terms: achieving purity via homozygosity.

## SOCIAL MENDELISM

Genetics and the Politics of Race  
in Germany, 1900–1948



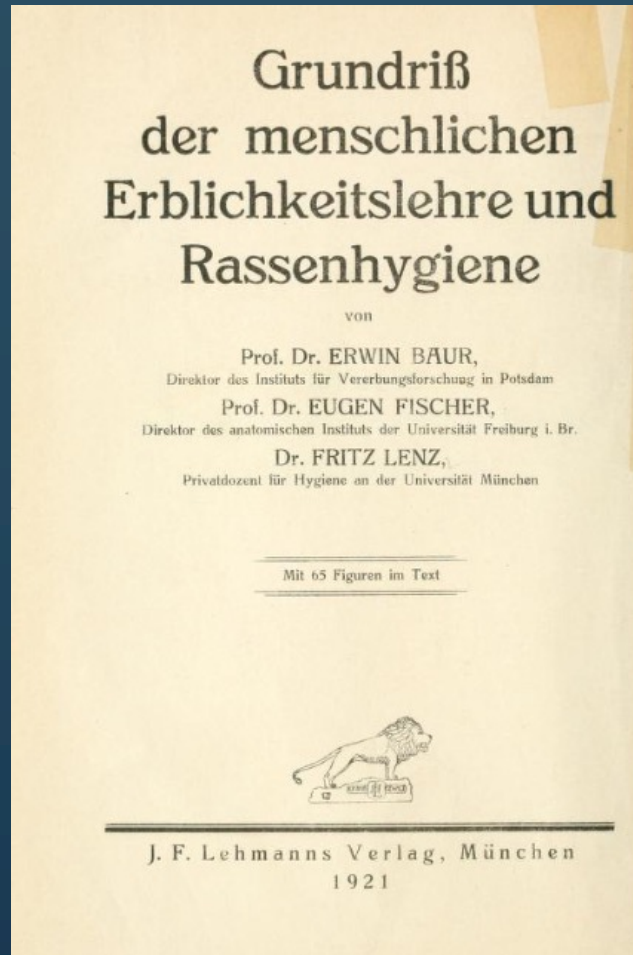
AMIR TEICHER



# “Herausmendeln” (“Mendel out”)



Fritz Lenz  
(1887-1976)



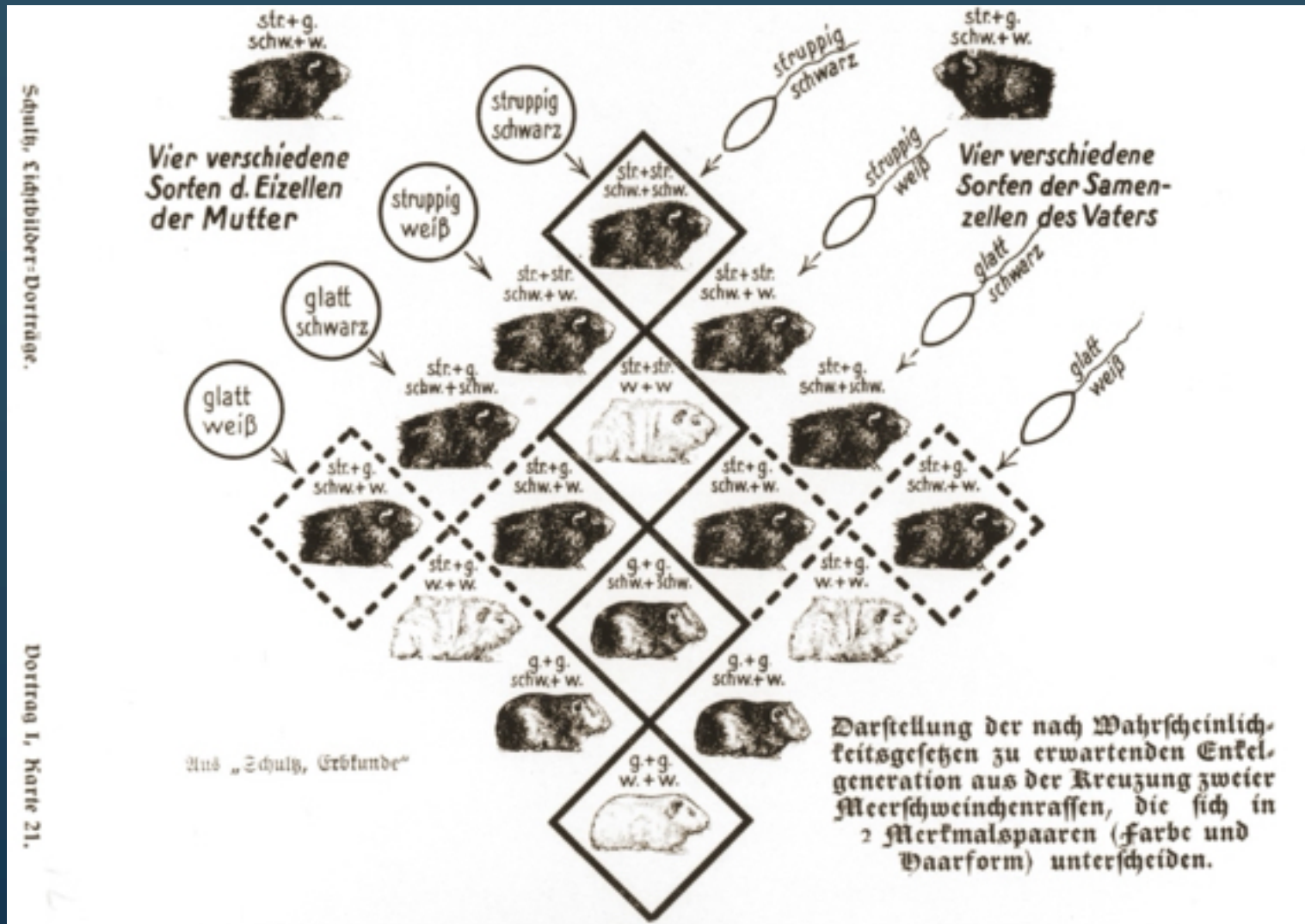
In 1931 Lenz praised National Socialism as “applied biology.”

He emphasized that “racial renewal,” could go beyond a purely antisemitic application to make possible, as its highest goal, the “Nordicization of German people.”

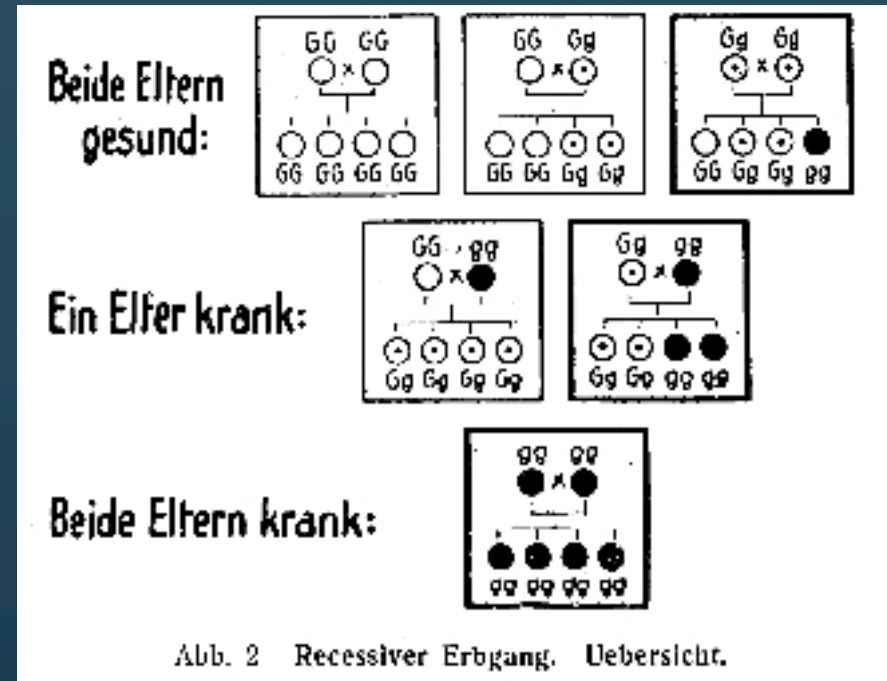
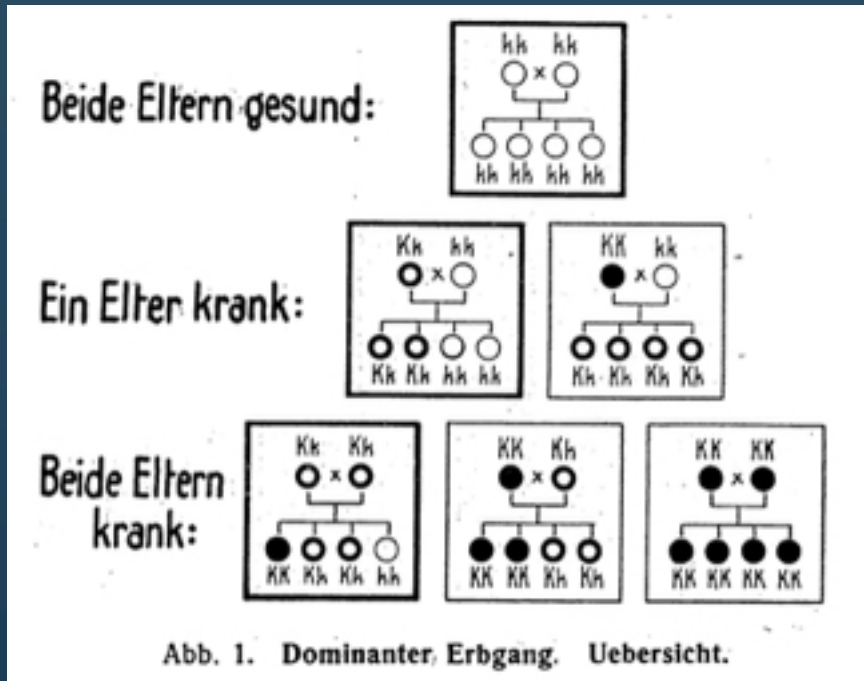
Lenz, F. (1931) *Menschliche Auslese und Rassenhygiene*. München.

Gies, H. (2019). Richard Walther Darré: Der „Reichsbauernführer“, die nationalsozialistische „Blut und Boden“-Ideologie und Hitlers Machteroberung. München: K. G. Saur.

# “Herausmendeln” (“Mendel out”)



# “Herausmendeln” (“Mendel out”)





# “Herausmendeln” (“Mendel out”)

## Gesetz zur Verhütung erbkranken Nachwuchses

vom 14. Juli 1933

mit Auszug aus dem Gesetz gegen gefährliche Gewohnheitsverbrecher  
und über Maßregeln der Sicherung und Besserung vom 24. Nov. 1933

Bearbeitet und erläutert von

Dr. med. Arthur Gütt  
Ministerialrath  
im Reichsministerium des Innern

Dr. med. Ernst Rüdin  
o. ö. Professor für Psychiatrie an der Universität und Direktor  
des Kaiser Wilhelm-Instituts für Genetik und Demographie  
an der Deutschen Forschungsanstalt für Psychiatrie in München

Dr. jur. Falk Ruttke  
Stellvertreter des Reichsministers für Volksgesundheit  
im Reichsministerium des Innern

Mit Beiträgen:

Die Eingriffe zur Unfruchtbarmachung des Mannes  
und zur Entmannung  
von Geheimrat Prof. Dr. med. Erich Lezer, München

Die Eingriffe zur Unfruchtbarmachung der Frau  
von Geheimrat Prof. Dr. med. Albert Döderlein, München

Mit 15 zum Theil farbigen Abbildungen



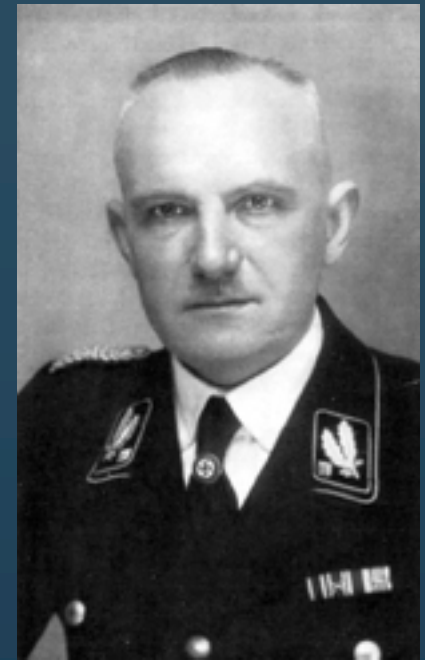
J. F. Lehmanns Verlag / München 1934

“Law for the Prevention of  
Genetically Diseased Offspring”

This law provided for the compulsory eugenic surgical sterilization of people diagnosed with “genetic” conditions such as feeble-mindedness, schizophrenia, manic-depressive insanity, genetic epilepsy, Huntington’s chorea, genetic blindness or deafness, or severe alcoholism.

# “Herausmendeln” (“Mendel out”)

*“We now know that good and bad hereditary traits are unchangeably passed down to children and grandchildren according to Mendelian rules over many generations. We already understand the hereditary patterns of many disease conditions so well that we can predict with great certainty whether and to what extent the descendants of hereditarily diseased individuals will suffer from genetic defects.”*



Arthur Gütt  
(1891-1949)

Head of the Public Health Department in the Reich Ministry of the Interior, chairman of the Expert Advisory Board for Population and Racial Policy of the Ministry.

# “Herausmendeln” (“Mendel out”)

In 1934 DeJarnette calculated that 56,244 “defectives” had already been sterilized under the new regime, and commented:

*“the Germans are beating us at our own game and are more progressive than we are”*



Joseph DeJarnette  
(1866-1957)

Richmond Times-Dispatch (16 January, 1934).

Catte E. (2022) *Pure America: Eugenics and the Making of Modern Virginia*. Belt Publishing.

# “Herausmendeln” (“Mendel out”)

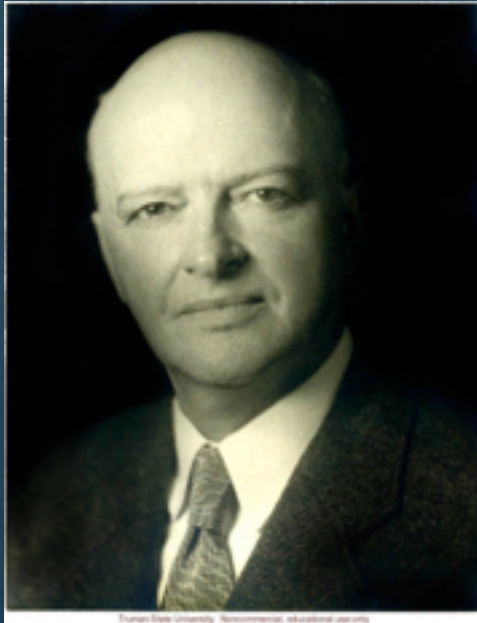
*“Many far-sighted men and women in both England and America, however, have long been working earnestly toward something very like what Hitler has now made compulsory. Ridiculed, even vilified, they have fought courageously and steadily for the legalization of what they consider a constructive agency in the betterment of the race.”*



Leon Whitney  
(1894-1973)

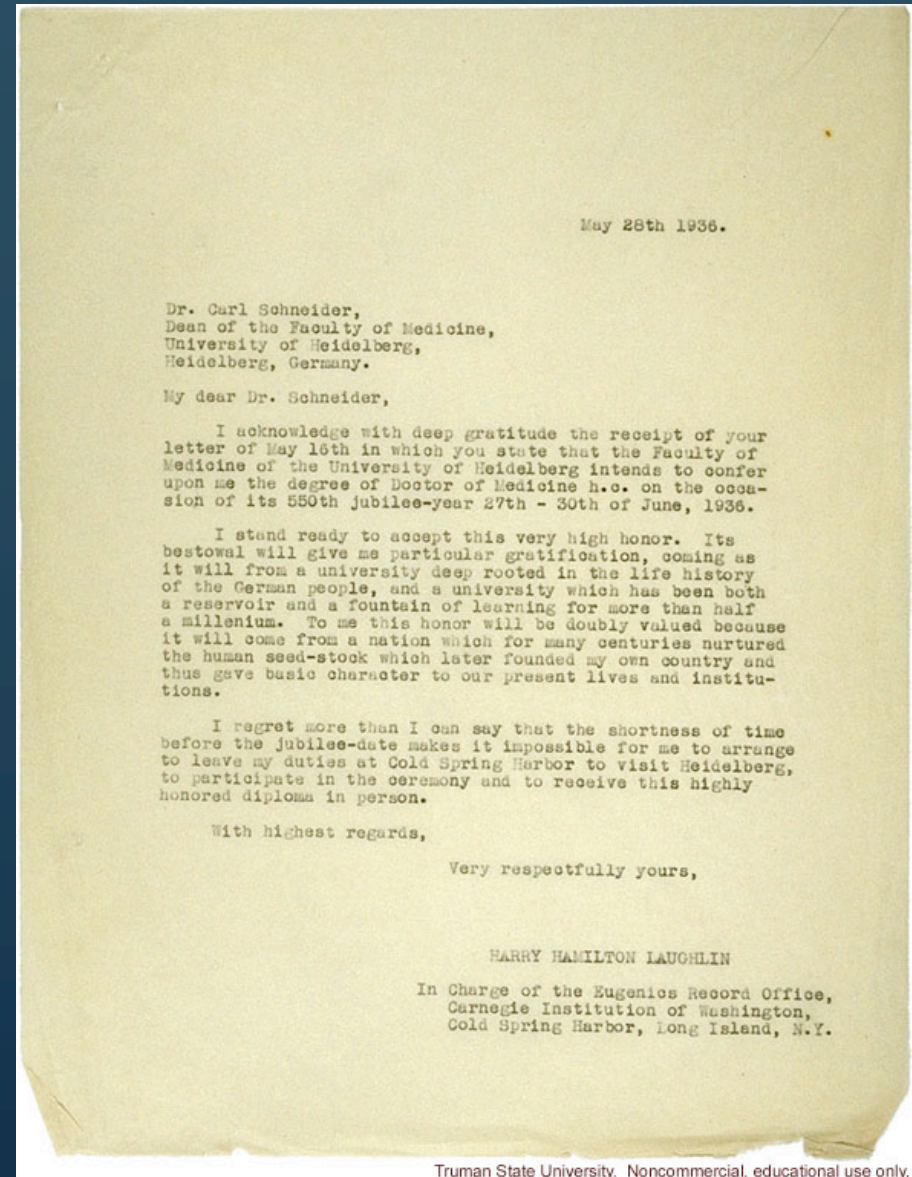
Article from 01  
Jan 1934  
Casper Star-  
Tribune(Casper,  
WY)

# “Herausmendeln” (“Mendel out”)



Harry Laughlin  
(1880-1943)

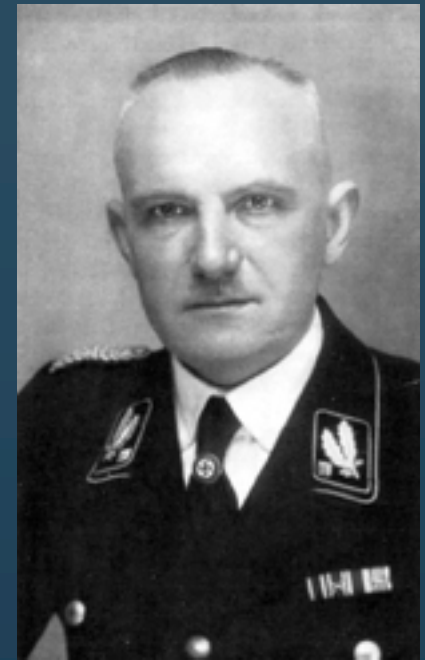
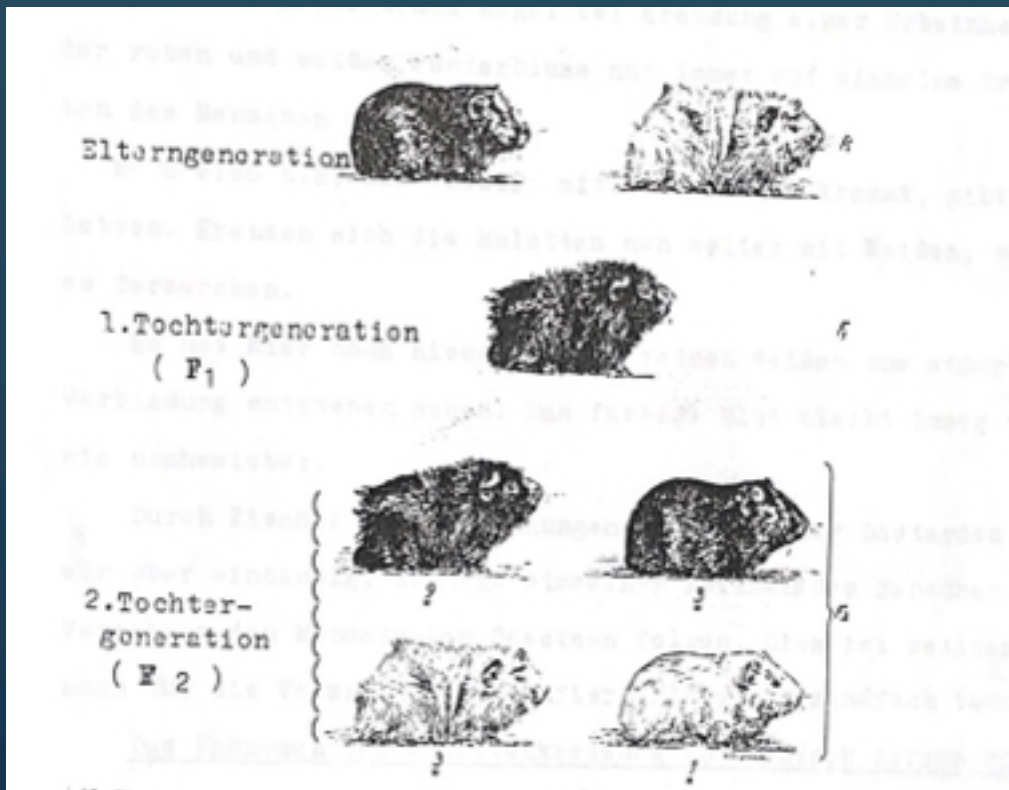
<https://perspectives.usmmm.org/item/letter-from-dr-harry-h-laughlin-to-dr-carl-schneider>



# “Herausmendeln” (“Mendel out”)

Department of Public Health -Reich and Prussian Ministry of  
the Interior 25.9.1935

## Principles of Mendelian Inheritance



Arthur Gütt  
(1891-1949)

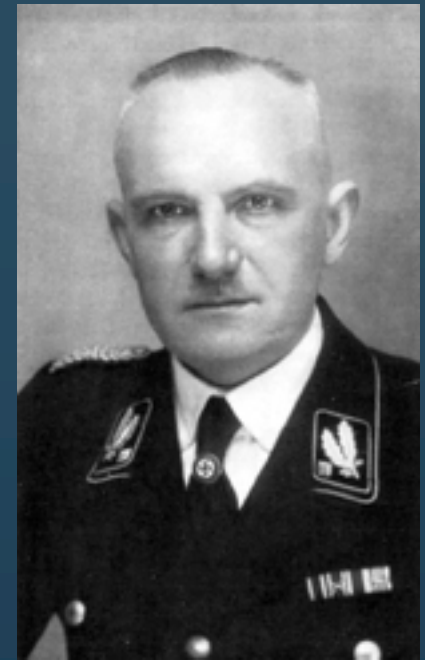
Head of the Public Health Department in the Reich Ministry of the Interior, chairman of the Expert Advisory Board for Population and Racial Policy of the Ministry.

# “Herausmendeln” (“Mendel out”)

## *“III. The Jewish Problem*

*For the racial crossing of German-blooded and Jews, the following results:*

*1. Through the mixing of quarter and half-Jews with German-blooded individuals, it is impossible to achieve a complete disappearance of Jewish traits. Thus, through continued mixing with either half-Jews or quarter-Jews, pure German-blooded individuals cannot emerge.*



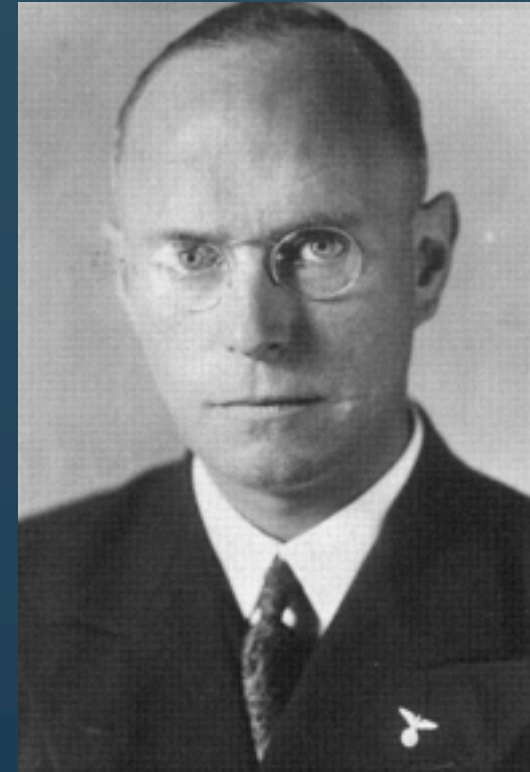
*Arthur Gütt  
(1891-1949)*

Head of the Public Health Department in the Reich Ministry of the Interior, chairman of the Expert Advisory Board for Population and Racial Policy of the Ministry.

# “Herausmendeln” (“Mendel out”)

*“At the very first meeting, the Party representatives put forth their maximum demands; first and foremost, to extend the definition of Jew to include one-quarter Jews (at first Wagner had demanded the inclusion of one-eighth Jews); the compulsory dissolution of mixed marriages; the sterilization of those with various degrees [of Jewishness], etc. We fought back with an array of collected arguments.”*

- *“the completely unnecessary creation of a large number of new opponents, each of half Germanic heredity”*
- *“each half Jew had one Aryan parent, thus Aryan relatives and friends, all of whom would inevitably turn into enemies of the state”*
- *“the loss of approximately two divisions of soldiers”*



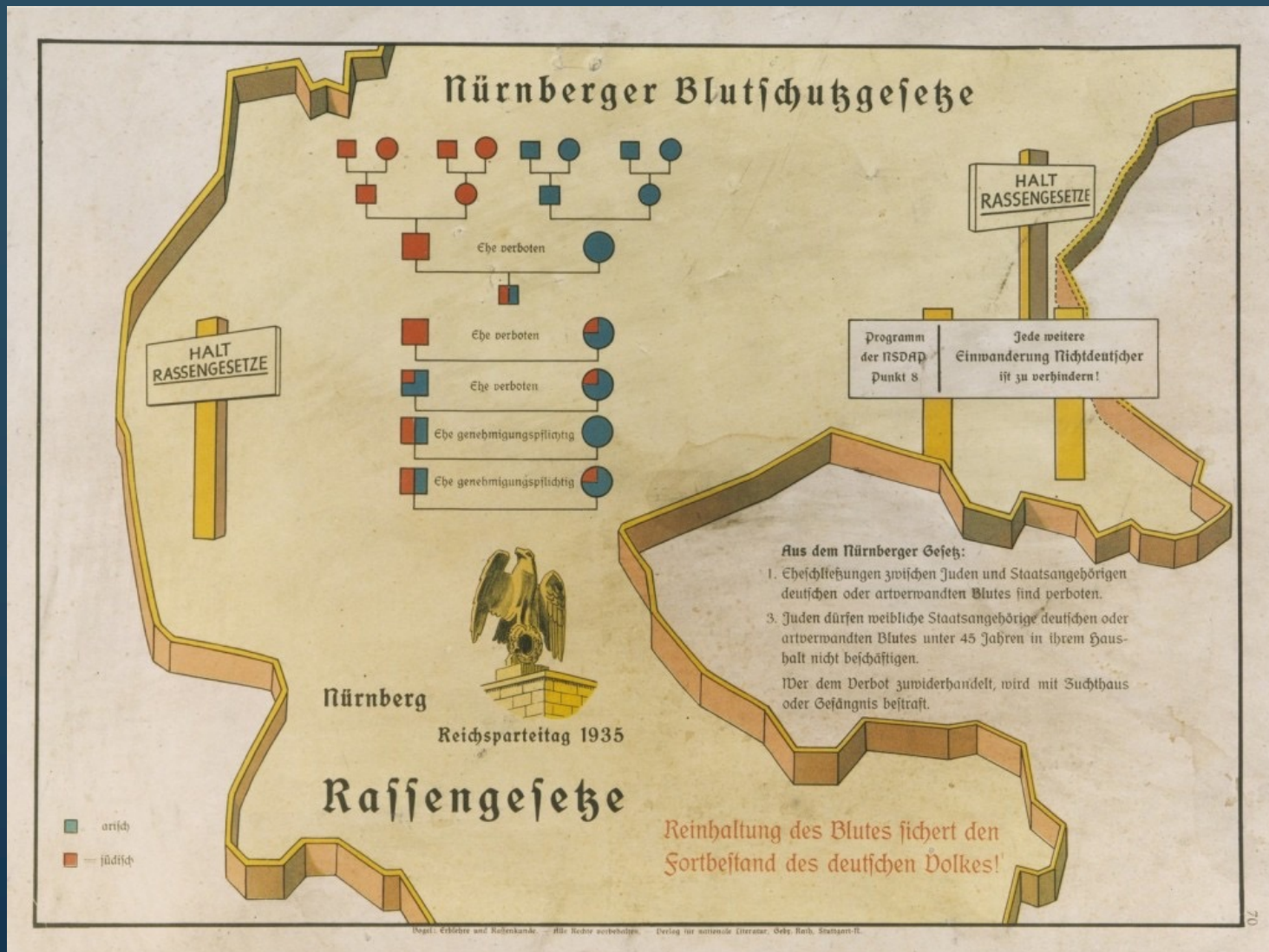
Bernhard Lösener  
(1890-1952)

# “Herausmendeln” (“Mendel out”)

## Die Nürnberger Gesetze

Deutschblütiger	Mischling 2. Grades	Mischling 1. Grades	Jude	Jude
<p><b>Eltern</b></p> <p><b>Eltern</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden deutschblütig</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder gelten als deutschblütig</b></p> <p><b>Ehe nur mit Genehmigung zugestimmt</b></p> <p><b>Ehe verboten</b></p> <p><b>Ehe verboten</b></p>	<p><b>Eltern</b></p> <p><b>Eltern</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder gelten als deutschblütig</b></p> <p><b>Ehe verboten</b></p> <p><b>Ehe nur mit Genehmigung zugestimmt</b></p> <p><b>Ehe verboten</b></p> <p><b>Ehe verboten</b></p>	<p><b>Eltern</b></p> <p><b>Eltern</b></p> <p><b>Ehe nur mit Genehmigung zugestimmt</b></p> <p><b>Ehe nur mit Genehmigung zugestimmt</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Mischlinge</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Juden</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Juden</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Juden</b></p>	<p><b>Eltern</b></p> <p><b>Eltern</b></p> <p><b>Ehe verboten</b></p> <p><b>Ehe verboten</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Juden</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Juden</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Juden</b></p>	<p><b>Eltern</b></p> <p><b>Eltern</b></p> <p><b>Ehe verboten</b></p> <p><b>Ehe verboten</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Juden</b></p> <p><b>Ehe geschlossen</b></p> <p><b>Kinder werden Juden</b></p>
<p><b>Zeichenerklärung</b></p> <p>Deutschblütiger </p> <p>Mischling 2. Grades </p> <p>Mischling 1. Grades </p> <p>Jude </p> <p>Jude </p>	<p><b>Sonderfälle bei Mischlingen 1. Grades</b></p> <p>Mischling gilt als Jude, wenn er bei jüdischen Religionszugehörigkeit angeht.</p> <p>Mischling gilt als Jude, wenn er mit einem Juden verheiratet ist.</p> <p>Kinder werden Juden.</p> <p>Mischling der aus verheirateten ausländischen Ehepaar mit einem Juden geboren und der nach dem 31. Juli 1934 außerehelich geboren wird, gilt als Jude.</p>	<p><b>Reichsbürgergesetz vom 15.9.1935</b> 1. Verordnung vom 14.11.1935</p> <p><b>Gesetz zum Schutze des deutschen Blutes und der deutschen Ehre vom 15.9.1935</b> 1. Verordnung vom 14.11.1935</p>		

# “Herausmendeln” (“Mendel out”)



Poster about the Nuremberg racial laws, 1935.

# “Herausmendeln” (“Mendel out”)

*“We might avoid this danger were we to insist that the immigrant, before he leaves foreign soil, is temperamentally adapted to our national background. There are racial considerations too grave to be brushed aside for any sentimental reasons. Biological laws tell us that certain divergent people will not mix or blend. The Nordics propagate themselves successfully. With other races, the outcome shows deterioration on both sides. Quality of mind and body suggests that observance of ethnic law is as great a necessity to a nation as immigration law.”*

Coolidge, Calvin. “Whose Country Is This?” *Good Housekeeping* 72, no. 2 (February 1921): 13–14, 109.



Calvin Coolidge  
(1872-1933)

30<sup>th</sup> US President

# “Herausmendeln” (“Mendel out”)

The Immigration Act of 1924 restricted U.S. immigration through national-origins quotas, granting visas equal to 2 percent of each nationality’s U.S. population in the 1890 census, and it completely barred immigrants from Asia.



President Coolidge signing appropriation bills for the Veterans Bureau on the south lawn during the garden party for wounded veterans

<https://history.state.gov/milestones/1921-1936/immigration-act>

<https://www.loc.gov/pictures/resource/cph.3c11372/>

# “Herausmendeln” (“Mendel out”)

## Wie Rassenfragen entstehen

Weiß und Schwarz in Amerika

**Gesetzliche Beschränkungen von Negerrechten**

	Kein Wahlrecht, Verbot von Ehen mit Weißen, Rassentrennung
	Alle obigen Beschränkungen mit Ausnahme des Wahlrechtes
	Mischehen verboten, Rassentrennung in der Schule
	Mischehen verboten

**Die größte Negerstadt der Welt heißt Harlem, ihr Name kommt noch aus jener Zeit, da Hauser, an dessen Ende Harlem liegt, zusammengekauert gesessen wurde. Es ist nicht lange her, noch vor dem Weltkrieg war auch Harlem weiß; als aber in Europa der Weltkrieg tobte, wälzte sich in den Vereinigten Staaten eine Dillkermobilität. Die Handlungsführer der Ökonomie brauchten Arbeitskräfte, und die Neger — bis dahin meist Landarbeiter in den Südstaaten — ergriffen die Gelegenheit und eroberten in unermüdlichem Kampfe ein Stadtviertel nach dem anderen. Schließlich mussten die Neger Harlem begeben, jeder Haas, in das Lager einziehen, weil sofort alle anderen Häuser kündigt, und neue Negerfamilien zogen ein. Bald sah man auf den prächtigen Avenuen von Harlem, der südlichen Verfaßt Kenosha, die kurz zuvor an Religion und Glauben dem Brauchwerk erster Konkurrenz gemacht hatte, nur noch Schwarze. Zwei Grundstücksbesitzer besaßen die Neger dort. Die Neger 200000 farbigen Einwohner in Harlem die größte Negerstadt der Welt, mit eigenen Theatern, eigenen Kinos, eigenen Verkehrsmitteln, eigenen Banken, eigenen Zeitungen, eigenen Hotels und Restaurants — Schwarz für Schwarz. Hat als „Schwarz“ oder „Farbig“ wird in Amerika nicht allein der Verblüffung, so wird jeder bezichtigt, der auch nur einen Tropfen Negerblut in den Adern hat und der infolge dessen aus der Gemeinschaft der weißen Bevölkerung ausgeschlossen ist.**

Freilich wird das angeführte Gesetz gegen die Neger in den Nordstaaten nicht so streng gehandhabt wie im Süden. Jeder Staat der Union hat nämlich seine eigenen Verhaltungsmaßregeln zwischen Weiß und Schwarz. So dürfen Schwarze in St. Louis, jeweils der Stadtbezirk im Staat Missouri liegt, nur Straßenschilder führen. Soweit der Bezirk aber ins Gebiet von Louisiana reicht, können sie auch Anzeigebilder tragen.

9

	Kein Wahlrecht, Verbot von Ehen mit Weißen, Rassentrennung
	Alle obigen Beschränkungen mit Ausnahme des Wahlrechtes
	Mischehen verboten, Rassentrennung in der Schule
	Mischehen verboten

- No right to vote, prohibition of marriages with whites, racial segregation
- All of the above restrictions except the right to vote
- Mixed marriages prohibited, racial segregation in schools
- Mixed marriages prohibited

Neues Volk. Blätter des Rassenpolitischen Amtes der NSDAP 4, No. 3 (1936), p. 14

# “Herausmendeln” (“Mendel out”)




Source:  
“Rassenkunde in der  
Volksschule,” Neues  
Volk 7 (1934), 9

# “Herausmendeln” (“Mendel out”)


**Ostisch**  
**Fälisch**  
**Nordisch**

**Rassenkunde  
in der Schule**

ANTONIA SCHNEIDER-HEINER




**Die Schattenseite der rassistischen Erziehung!**  
In dieser Darstellung, nicht weit von Leipzig, gibt es zwei kleine ästhetische Typen, wie wir der westliche Fremdling heißt. Aber die dem Hauptstrom des norddeutschen Lebenswesens Langhalsigkeit, der schmale Nasenrücken und der breite schräge Schädel der baltischen Rasse, deren Name und der Lehrer bezieht auf nach gut die Straß- und Zonenbezeichnungen ihrer und Heiligkeit des baltischen Mittelalters selbstständig zu machen, um die Rassenlehre zu



in in Oberbayern Baden Kleinasien, und auch schon untereinander der baltische nordische Übergänge des schmalen und schmalen Rassencharaktere Kennzeichen und auf den Schwere Bedeutung der Kinder bei in westliche

**Genau ist die Theorie — warum nicht im Leben greifen, wenn dies schon in Gestalt von dreißig vierzehnjährigen, lehrerbezogenen Kindern vor einem stütz langen in der ersten Bank sitzend, ein nordischer Typ, Anweisung von Fenster hat einen ostfriesischen Eindruck, Hirt und Feter, die Zwillinge, zeigen nämlich eine überausgehende Ähnlichkeit und ist toll der Lehrer, der in der Volksschule den neuen rassenkundlichen Unterricht zu erlernen hat, folgen und Anweisung nach vom. Bei ihrer Schulführung, an ihrem Körperbau nicht an die Rassenlehre leben, die und schließt das Auge der Kinder für die Merkmale der vertriebenen Rassen, aus denen das deutsche Volk besteht. Er macht die Schüler auf bestimmte hervorstechende Eigenschaften aufmerksam, die über einzelnen Typen in bestimmten Maße zeigen sind und die die Kinder an ihren Mitschülern bereits kennen. Dann werden Strömungen, welche angelegt, die Kinder tragen bei der Großmutter nach des Großvaters der Großmutter, alle Familienbilder wurden hervorgerufen und in die Schule mitgebracht, und der Lehrer hat natürlich ein großes Anschauungsmaterial: längere Fragefragen, den viele noch kennen, hatte ebenfalls Schicksal wie Jungen selbst. Es wird rassen- und völkerverständliches Interesse durch die bewusste Mitarbeit der Kinder von der Schulbank hinweggetragen in jede Familie und in die ganze Volk.**




**Marie und Lina**  
— eigentlich nur ein Zugl und Halbwand an unterscheiden. Die beiden Eltern, wenn bei jedem Rassenkunde, sind vollkommen gleich. Der Lehrer erzieht sie an dem Beispiel der Behandlung der Schulfächer. Lina

**Dunkle Schenkerin — helle Schenkerin!**  
Eine Schenkerin der dunklen Rasse wird in eine Schenkerin von heller Rasse umgewandelt in der Folge ihres immer wieder dunkler Typus! Beispiele dieser Art schließt das Genetik für die Notwendigkeit der Rassenkunde!


**Lage zeigt ihr Profil!**  
Sie ist ein vorzügliches Beispiel für den Langhalsigkeit der nordischen Rasse: wohl bekanntlich. Langhalsigkeit! nicht bedeutet, daß das Gesicht von unten lang aussieht, sondern daß die Schiefheit, was oben gesehen, langhalsig aussieht. Aber auch die Form des Gesichts ist wichtig: hier zeigt der Lehrer den „Schiefhalsigkeit“ — das Vorwärts rücken des Längs und der Breite des Gesichts. Er weist darauf hin, daß diese Gesichter meist den schmalen und langhalsigen Rassen gehören — und die Kinder können es an den Kennzeichen langhalsig

**Kindersehen im Odn!**  
Hilf auch Eltern zu verstehen!



**Seiner Meinung ist die Größe Angelegenheit!**  
Die kleine Anne wird es nie vergessen, daß sie in der Schule kleine Kinder in Deutschland gemacht hat, und zwar für Deutschland der kleinen! Für den deutschen Orden muß sie ein glühendes und das größte, mit schwarzem Haar, die Felle. Sie wird nicht vergessen, was der Lehrer in Deutschland werden so wenig immer nach so wenig Kinder gehören. Siegen aber leicht Hatten, er weiß um die Nichtkommen einer weißen und einer reinen Rasse zu werden, und er weiß und eine Farbe es sein werden, und deren Nichtkommen wiederum nicht durchweg sein, werden es schuldig — auch den Menschenleben entgegen — teilte sich, teilte weiß Hirt wieder durch. Auf diese Weise sind Leipzig und Bevölkerungspolitik kein Zeichen Kopf nicht, werden schuldige Anerkennung, und die Statistik, gegen Form und Farbe

**Überdeckende Erziehung bei der Gartenschule.**



Source: Arbeitsgruppe Pädagogisches Museum (ed.), Heil Hitler, Herr Lehrer: Volksschule 1933-1945, Das Beispiel Berlin (Hamburg: Rowohlt, 1983), 104-105, reproduced from Die Woche, Berlin, October 1935

# “Herausmendeln” (“Mendel out”)

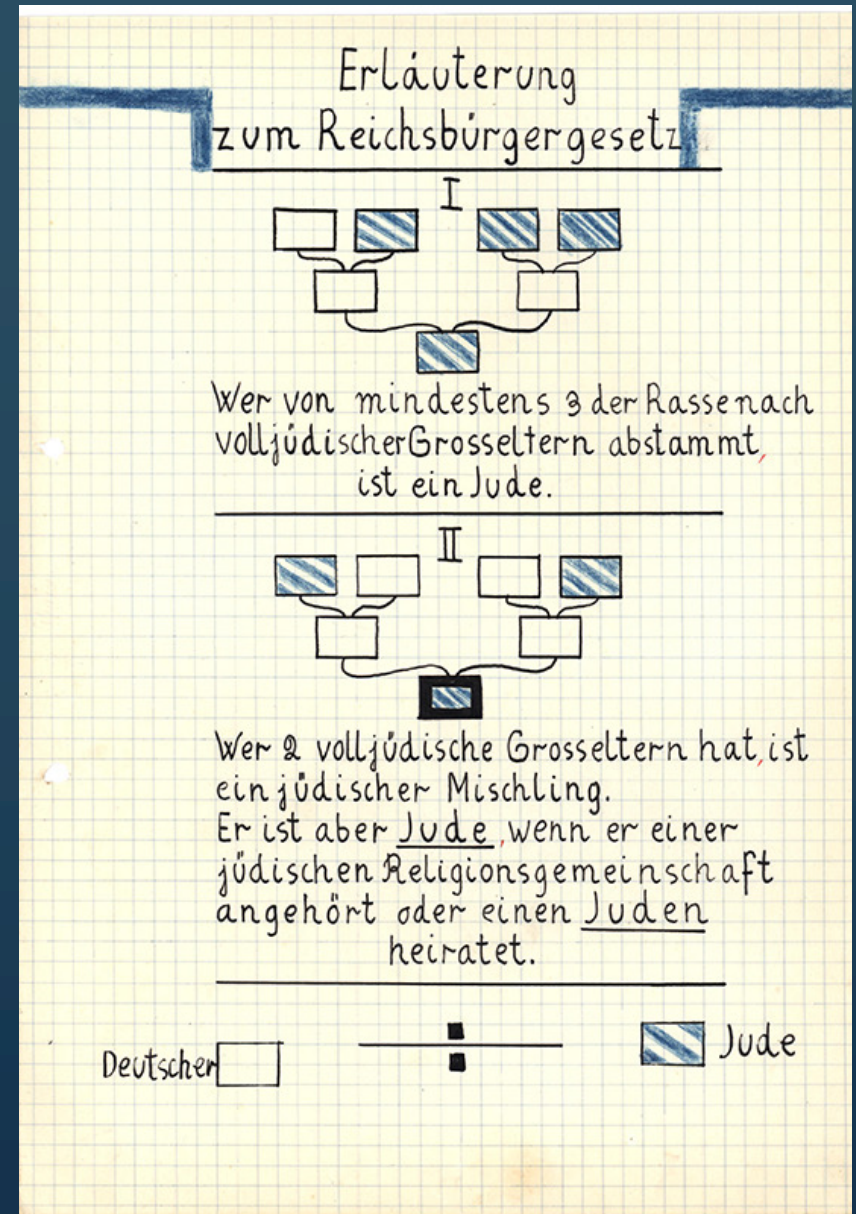
## “Explanation of the Reich Citizenship Law

Anyone who descends from at least 3 full-blooded Jewish grandparents is a Jew.

Anyone who has 2 full-blooded Jewish grandparents is a Jewish mixed-race individual. However, he is considered Jewish if he belongs to a Jewish religious community or if he marries a Jew.”

This drawing (1935-1936) was created by a young girl, Gerda Nabe. It explains how to define if a person is a Jew.

<https://www.theholocaustexplained.org/childhood-in-nazi-germany/>

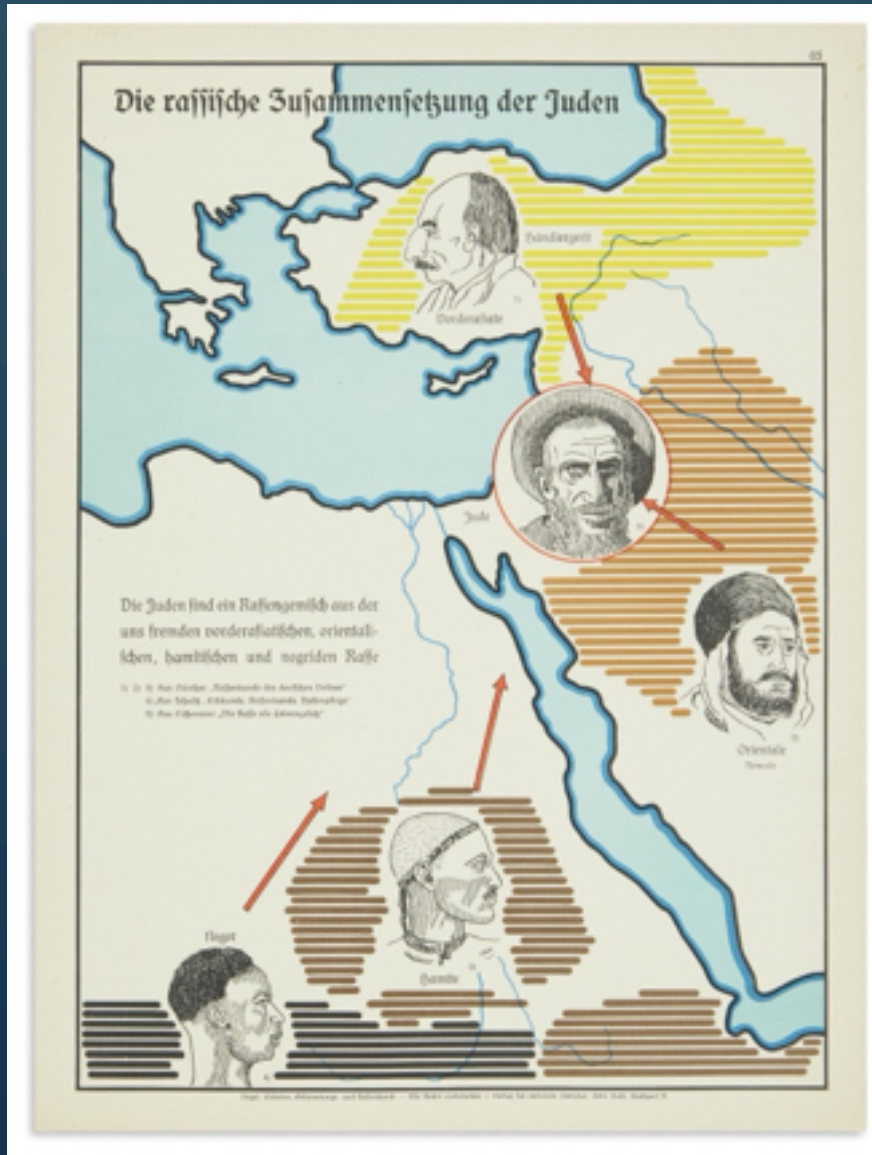


# “Herausmendeln” (“Mendel out”)



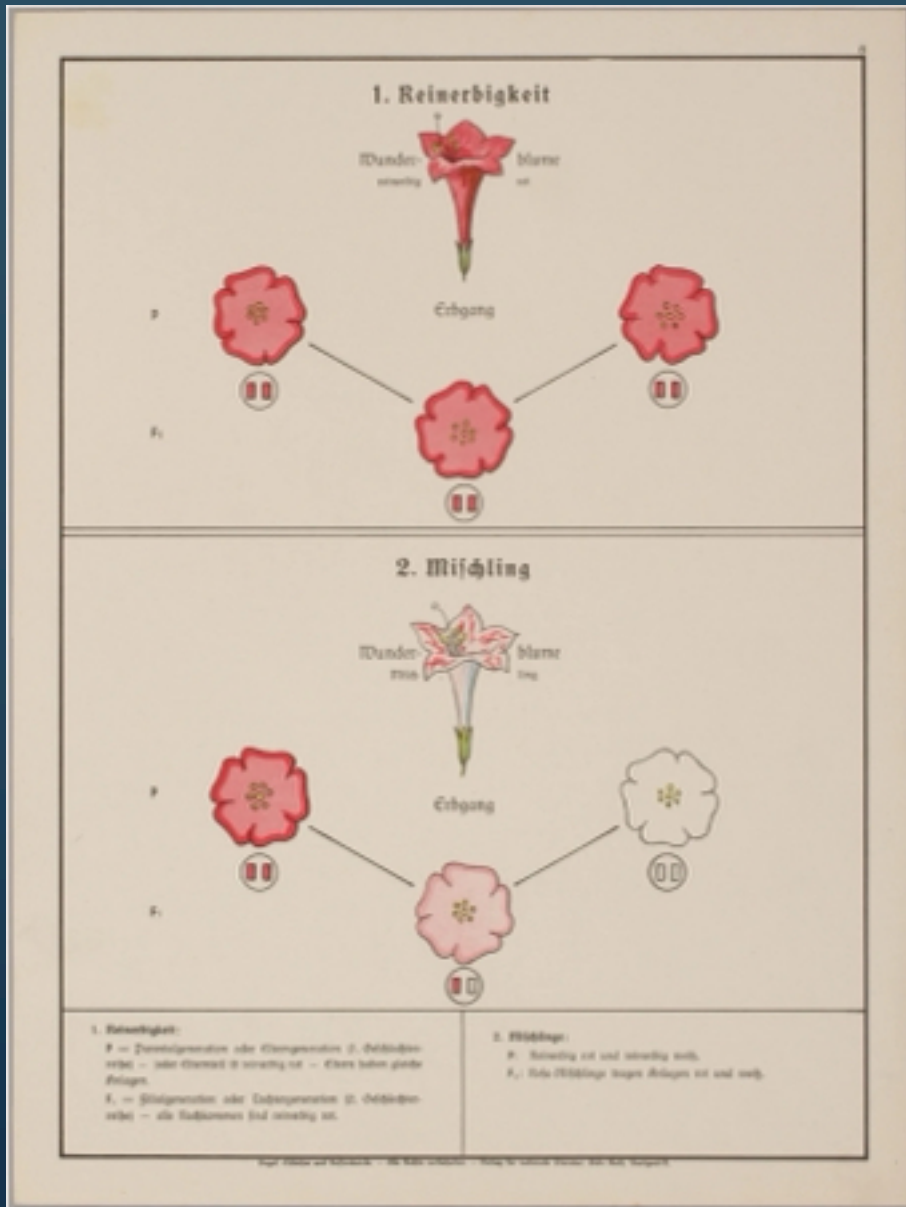


# “Herausmendeln” (“Mendel out”)



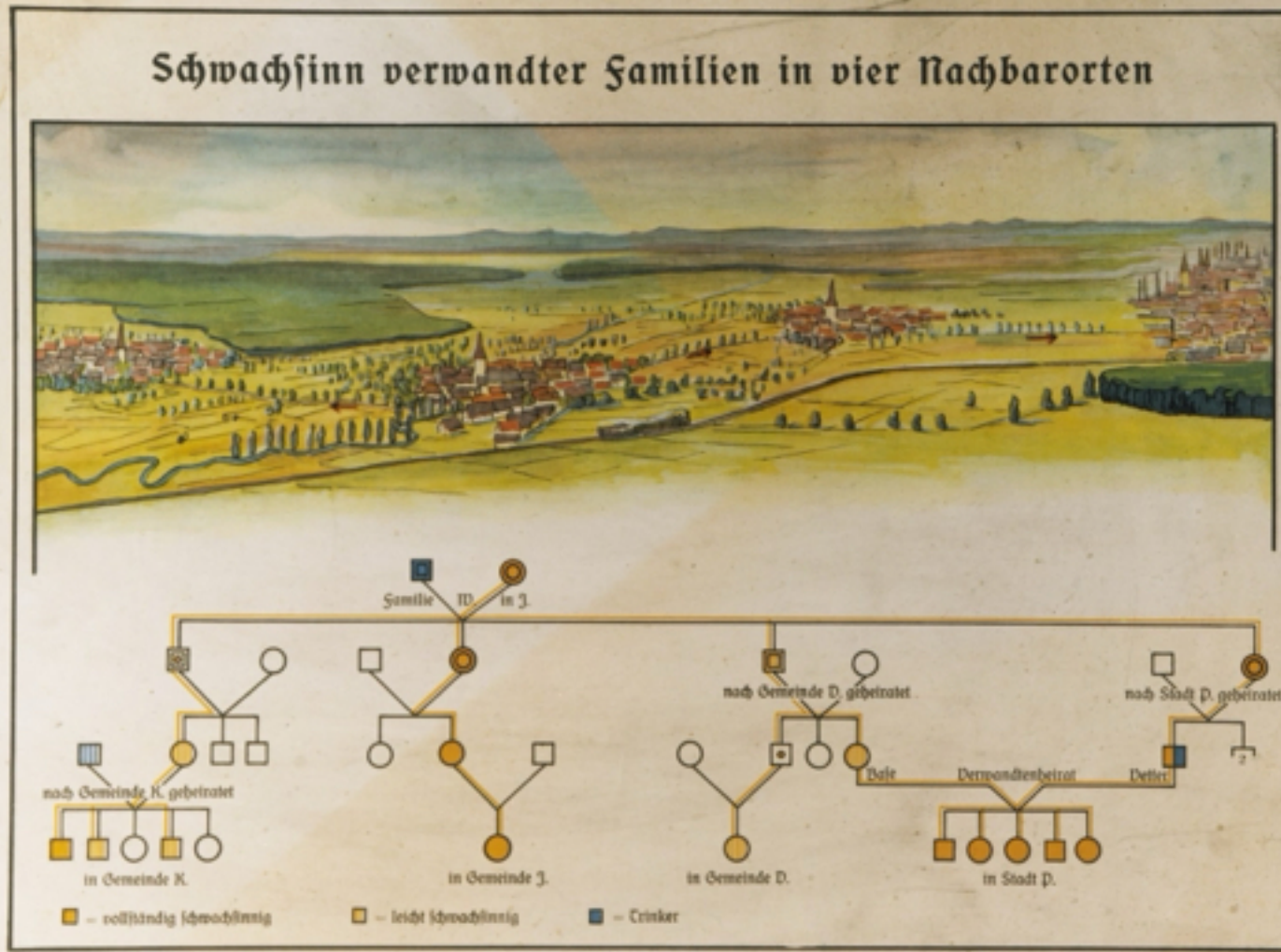
Educational Poster showing that Jews are a mixture of several non-European races and are therefore inferior to other purebred races. From the 1938 racial science textbook, *Erlehnre und rassenkunde für die grund-und hauptschule* (Heredity and Race Studies for Primary and Secondary Schools), by Alfred Vogel.

# “Herausmendeln” (“Mendel out”)



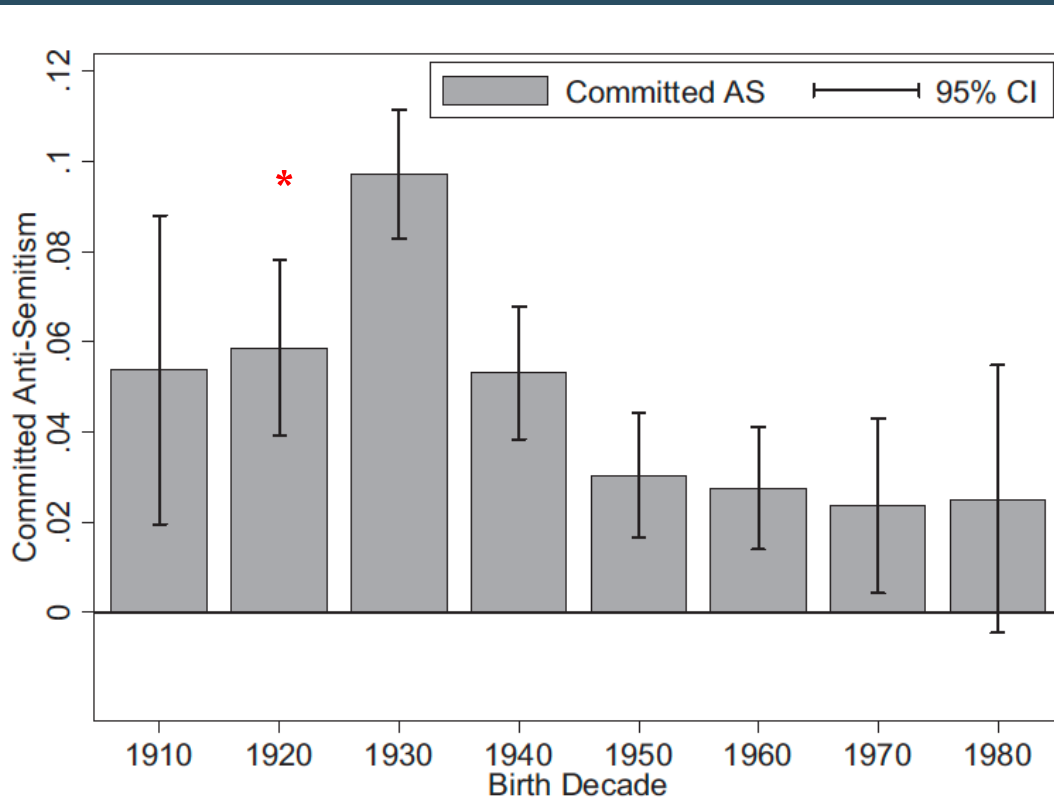
Poster from the 1938 racial science textbook, *Erblehre und rassenkunde für die grund-und hauptschule (Heredity and Race Studies for Primary and Secondary Schools)*, by Alfred Vogel. The upper half depicts genetic “purity”, the bottom half “mixed-breed.

# “Herausmendeln” (“Mendel out”)



“Feeble-mindedness” in related families in four neighboring towns. Educational poster with a family tree showing how alcoholism and feeble-mindedness are passed down from a couple to their four children and their families.

# “Herausmenden” (“Mendel out”)



**Fig. 1.** Share of committed anti-Semites by birth decade. Source: ALLBUS data. The figure shows the proportion of respondents who answer with 6 or more (on a scale of 7) on each of three Jew-specific questions asked in ALLBUS: “Do Jews have too much influence in the world?,” “Are Jews partly responsible for their own persecution?,” and “Are Jews trying to exploit their victim status for financial gain?”

\*

Many men born during the 1920s were soldiers during WWII, so this sampling does not take into account the war casualties.

5,300  
respondents  
in 264 towns  
or cities

Voigtländer, N., & Voth, H. J. (2015). Nazi indoctrination and anti-semitic beliefs in Germany. *Proceedings of the National Academy of Sciences*, 112 (26), 7931–7936.

# “Herausmendeln” (“Mendel out”)



Otto Hoffman  
(1896-1982)

Chief of SS Race and Settlement Main Office  
(Rasse-und Siedlungshauptamt der SS, RuSHA)  
9 July 1940-20 April 1943

*"SS Gruppenführer Hofmann took the view that there must be extensive use of sterilization, in particular because any Mischlinge faced with the choice of being evacuated or sterilized would rather submit to sterilization".*

SS-Gruppenführer H o f m a n n steht auf dem Standpunkt, daß von der Sterilisierung weitgehend Gebrauch gemacht werden muß; zumal der Misch-

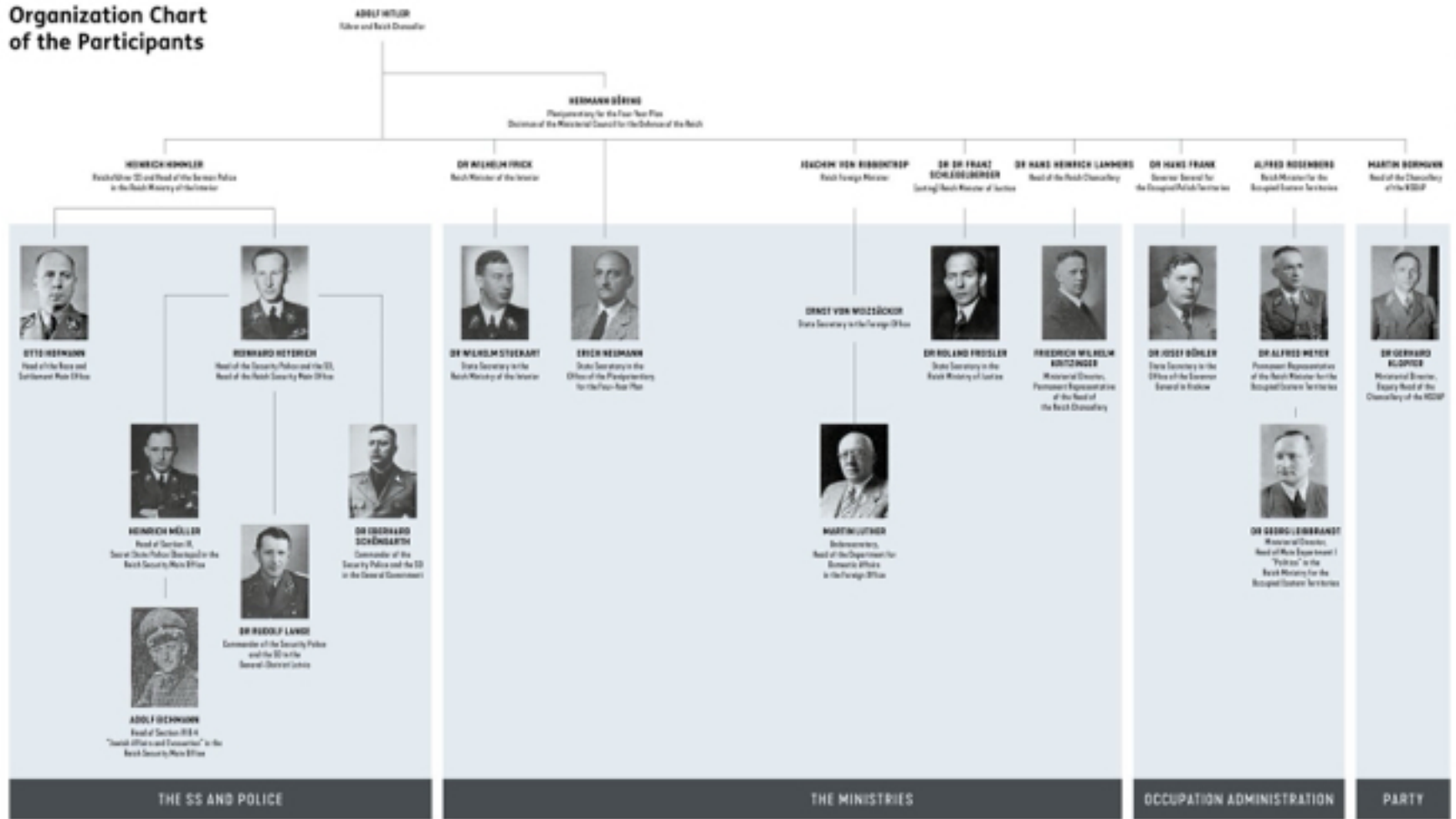
ling, vor die Wahl gestellt, ob er evakuiert oder sterilisiert werden soll, sich lieber der Sterilisierung unterziehen würde.

Longerich, P. (2022). *Wannsee: The Road to the Final Solution*. Oxford University Press.

<https://www.ghwk.de/en/conference/protocol-and-documents>

# “Herausmendeln” (“Mendel out”)

## Organization Chart of the Participants



# “Herausmendeln” (“Mendel out”)

TRANSLATION OF HOFMANN DOCUMENT 54  
HOFMANN DEFENSE EXHIBIT 61

EXTRACT FROM "INFORMATION SERVICE OF THE R.  
OFFICE OF THE NSDAP REICH ADMINISTRATION  
CONCERNING RACE PROTECTION LAWS OF OI

Information Service of the Racial-Political Office  
Reich Administration 30 July 1937 — No. 18-090

Insert following in filing key as subsections to 09:01 D  
Supplement previous issues of 09 by adding 01.

RACE PROTECTION LAWS OF OTHER C

UNITED STATES OF AMERICA

Since 1907 sterilization laws have been passed in 29 States of the United States of America. Those affected by the law were primarily criminals, feeble-minded, insane, epileptics, alcoholic and narcotic addicts, as well as prostitutes. Although almost all states try to carry out sterilization on a voluntary basis the courts have more than once ordered compulsory sterilizations. In a judgment of the Supreme Court of October 1926 it says, among other things: "It is better for everybody if society, instead of waiting until it has to execute degenerate offspring or leave them to starve because of feeble-mindedness can prevent obviously inferior individuals from propagating their kind. The principle justifying compulsory vaccination is broad enough to cover the severing of the Fallopian tubes".

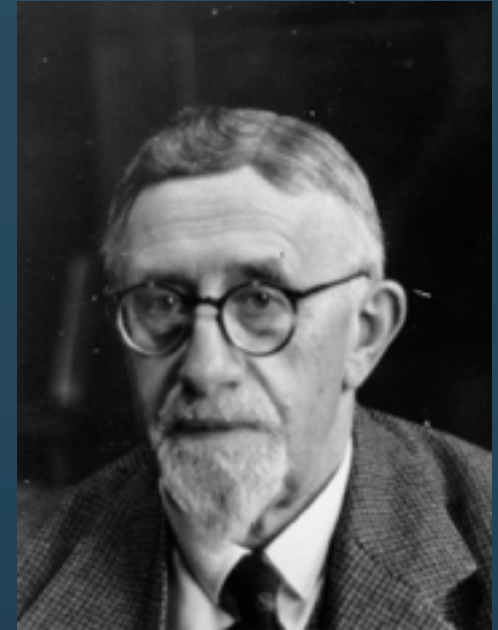
The United States, however, also provides an example for the racial legislation of the world in another respect. Although it is clearly established in the Declaration of Independence that everyone born in the United States is a citizen of the United States and so acquires all the rights which an American citizen can acquire, impassable lines are drawn between the individual races, especially in the Southern States. Thus in certain States Japanese are excluded from the ownership of land or real estate and they are prevented from cultivating arable land.

Allied Control Council, N. 1. (1945) *Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10 "Green Series": Volume 4*. [Periodical] Retrieved from the Library of Congress, [https://www.loc.gov/item/2011525364\\_NT\\_war-criminals\\_Vol-IV/](https://www.loc.gov/item/2011525364_NT_war-criminals_Vol-IV/).

# “Herausmendeln” (“Mendel out”)

*“The Jews really must be able to smell or feel each other out, because usually 1/2, 1/4, 1/8 Jew-mixtures marry among themselves all over again, for which reason absolutely pure Jews or more of the awful Jew-mixtures must mendel out (herausmendeln) of such marriages!”*

*Erich von Tschermak-Seysenegg to R. Walther Darré, December 26, 1942, Tschermak Papers, box 1, folder 105*



Erich von Tschermak  
(1871-1962)

“Herausmendeln” (“Mendel out”)

*“Eugenics became evil when it became Mendelian.”*

# From Mendel to the Holocaust

13P035: Introduction à l'histoire et la philosophie des sciences

April 30, 2026

Kostas Kampourakis

University of Geneva, Section of Biology and IUFE

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