

Material relating to Francis Galton's paper "The History of Twins As A Criterion of the Relative Powers of Nature and Nurture"

Publication/Creation

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6 years

(Boys & Girls)

F.1

Bell boy & girl

(They have been brought up together & therefore put their differences down to Nature.)

10 1/2. Beaumont boy.

Dispositions totally unlike. They were educated together up to the age of 9

13. Cole boy

It is impossible to find two children more dissimilar than they now are. They have both been educated at home & treated alike in every way until about 2 years ago since which time the boy has had a tutor & the girl a governess. Their dissimilarities of character must have been innate as the external circumstances of their lives have been so much the same that the difference cannot otherwise be accounted for.

adul. Snowden Smith

The Home training & influence were precisely the same and therefore I consider the dissimilarity to be accounted for almost entirely by innate disposition & carries over which we have no control.

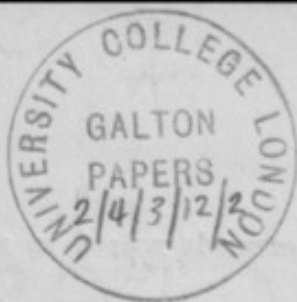


Negatives have been printed
Nov - 20/10
81

P.2



Twins -
Papers not wanted at present



f.1r

QUESTIONS ABOUT TWINS.

By FRANCIS GALTON, F.R.S.

IN the course of some inquiries upon which I am engaged, connected with the resemblance between twins, it has come to my knowledge that you are very probably able to afford me valuable information. I therefore take the liberty of sending this Circular to your address, in which my purpose is briefly stated, and the questions to which I seek replies are contained.

I propose to publish the result of my inquiry, with corroborative extracts from the communications I may receive; but the names of the individuals referred to, and of my correspondents generally, will be kept **STRICTLY PRIVATE**.

Object of the Inquiry.—My object is to collect data for estimating the respective shares that "Nature" and "Nurture" ordinarily contribute to the Body and Mind of adults; meaning by "nature," everything that is inborn, and by "nurture," every influence subsequent to birth.

The effects of Nature are clearly seen in persons, originally unlike and who *continue to be* unlike, although they are reared as nearly as possible in the same way; so the effects of Nurture might be traced in the gradual *extinction* of resemblances among those who closely

resembled each other in childhood, but were afterwards reared in a more or less different manner.

It is easy to obtain suitable instances for the first part of the inquiry, but it is only among twins that they exist for the second.

I have explained myself more at length, and drawn provisional conclusions, in a work just published, "English Men of Science; their Nature and Nurture" (Macmillan & Co.), page 12.

I take the opportunity of asking other questions, which relate to Heredity. The *strength* of the hereditary tendency to bear twins is not yet ascertained; neither is it known whether the tendency is transmitted *equally* by the male and female lines. If my correspondents will kindly reply to the questions about uncles, aunts, and cousins, they will give data to determine these matters.

QUESTIONS.

* * Please address any communications with which you may favour me, to FRANCIS GALTON, 42, Rutland Gate, London, S.W.

(1.) Names of the twins, both Christian and Surnames? (It will, I trust, be clearly understood that *no names will be published*. I ask this question, to guard myself against entering the same case twice; to avail myself of corroborative evidence, if it should reach me; and to learn whether the twins are of the same sex or not, which is a point of some interest in respect to the frequency of strong resemblance.)

(2.) How far were they alike, in body and in mind;—in childhood, in boyhood or girlhood, in youth, and in adult life?

(If they were *never* very closely alike, the questions 3, 4, 5, and 6 must be disregarded.)

(3.) If they were closely alike at any age, give anecdotes to illustrate their resemblance; showing for instance, that near relations frequently mistook them. Test your estimate of their likeness, by considering details of it, thus, Were they of the same height and weight, and were their clothes of the same fit? Had they the same colour of hair and eyes? Had they similar powers of athletic performance? Were they alike in manual skill, as in drawing? Had they similar handwriting and intonation of voice? Were their special tastes the same, as for music and art? Were their dispositions similar, and their associations of ideas alike, as shown by their frequently making identical remarks, or by the same recollections occurring to both of them at the same moment? Was their state of health the same?

(4.) Up to what age were they educated together, and in what respects did their education and pursuits differ afterwards?

(5.) At what period did their close resemblance begin to diminish, and in what respects did they grow unlike in body and mind?

(4)

- (6.) How far do you ascribe their increasing dissimilarity to the development, in due order of time, of the qualities they had at birth, but which had lain dormant, and how far to the effect of external influences?

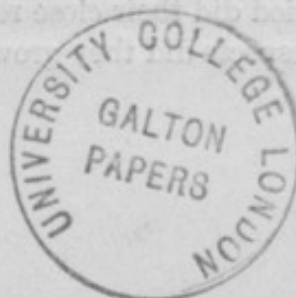
HEREDITY.

UNCLES and AUNTS:—

- (7.) How many Uncles and Aunts had they on the Father's side?
Were there any cases of twins among them?
- (8.) How many Uncles and Aunts had they on the Mother's side?
Were there any cases of twins among them?

COUSINS:—

- (9.) How many Married Uncles had they on the Father's side? How many children had those uncles (including all who may have died in infancy)? How many cases of twins among the children?
- (10.) How many Married Aunts on the Father's side? How many children had those aunts (as above)? How many cases of twins among the children?
- (11.) How many Married Uncles on the Mother's side? How many children had those uncles (as above)? How many cases of twins among the children?
- (12.) How many Married Aunts on the Mother's side? How many children had those aunts (as above)? How many cases of twins among the children?
- (13.) Can you give me the addresses of any persons known to you as being themselves twins or nearly related to twins, and who you think might be likely to respond to this Circular if a copy were sent to them?





P.3r

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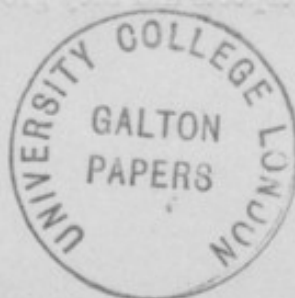
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Twin  
history of —

Francis Galton  
(42. Rutland Gate London)

July 8/75



$$22 \times 9 = 200 \text{ words in a page.}$$

$$\begin{array}{r} 9 \\ 198 \end{array}$$



Twin Notes & deductions from their resemblance.

The resemblance & differentiation of twins

Obiect

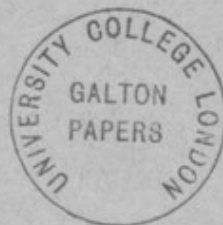
As a matter of fact, many twins are strangely alike  
 mistaken by parents — analysis of points of resemblance  
 have same association  
 have same special ailments  
 have same general character  
 difference one has more energy than the other  
 Cancer of growing differentiation? (chiefly think)  
 nurture does little

As a matter of fact many twins are exceedingly different  
 parents be account of their differentiation  
 Nurture has some nothing — does not approximate their

Conclusion nurture is a minor agent, & if we take resemblance  
 there is selecting children may be neglected as an estimate

Twin supersede statistics — ought to be made much of

"a future communication"  
 1. 3  
 1. 5



The exceedingly close resemblance, ~~said~~  
<sup>attributed to</sup> ~~occasionally to exist between~~ twins, has  
 been the subject of so many plays and novels,  
 and suggests so many curious metaphysical  
 speculations, that most persons <sup>have felt some</sup> must desire  
 to know upon what basis of truth, these works  
 of fiction rest. But twins have other claims  
 to attention. Their history affords means  
 of distinguishing between the <sup>generally</sup> effects upon ~~the~~  
 adult man of the tendencies that they received  
 at their birth and of those that were acquired  
 by them through the various circumstances of  
 their life; in other words, between the effects of  
 nature and nurture. The want of some such  
 criterion was ~~freely~~ keenly felt <sup>by me</sup> when on  
 previous occasions I tried to estimate the  
 degree in which ability was, in the whole,  
 inherited. The objection to any evidence I  
 might adduce, was ~~always made~~ "You take  
 insufficient account of the influence of education  
 and opportunity, which are enjoyed by the

sons of successful men more largely than by  
 the sons of nobodies". No method of inquiry,  
 which I have been able to carry out, and I  
 have tried many methods, is wholly free  
 from this objection; I therefore ~~endeavored~~ <sup>endeavored</sup> ~~to~~ <sup>endeavored</sup>  
 to attack the problem from the opposite side,  
 I ~~sought~~ <sup>seeking</sup> for some new method by which  
 I could weigh in ~~properly~~ <sup>properly</sup> balanced scales, the  
 effects of nature and nurture, and ascertain  
 with some certainty their respective shares  
 in forming the disposition and intellectual  
 ability of the generality of men. The history  
 of twins supplies what I wanted. First, by  
 inquiring <sup>the after history of</sup> about those who were closely alike  
 in their early life, <sup>and who were segregated together</sup> until the period of their  
 separation, we may learn the effect that the ~~diversity~~  
 of subsequent influences may have had in  
 creating dissimilarity. Secondly, the <sup>after</sup> history  
 of twins who were exceedingly unlike in  
 childhood, will show how far they became  
 assimilated under the influence of identical  
 nurtures; having the same home, the same



The twins, being <sup>conjoined</sup> ~~conjoined~~  
 Moreover, ~~being~~ <sup>being</sup> of the same age, they can be compared <sup>together</sup> directly; it is  
 not as ~~in comparison~~ <sup>with them</sup> with ordinary brothers & sisters, where the younger one  
 has to be compared with the recollection of what the elder one was at the  
 same age, under somewhat different circumstances.

but these are the points <sup>with</sup> which the present memoir will deal

My present plan is to begin with facts & anecdote, illustrating  
 the near resemblance occasionally to be found between twins  
 and then to familiarize the reader with my evidence. He  
 will then be placed in a fair position to judge of that which  
 follows, and which it is the real object of this paper to  
~~establish~~ investigate, concerning the relative effects of nature  
 & nurture

teachers, the same associates, and in every other respect the same surroundings. <sup>the</sup> ~~identity of age makes the comparison~~ <sup>between them is</sup> direct and easy.

The interest connected with twins does not stop even here; ~~it appears to me~~ <sup>it seems to</sup> that their history confirms certain physiological views on the theory of heredity, which will be discussed in a separate ~~memorandum~~ communication.

My materials were obtained by sending circulars of inquiry to persons who were either twins themselves or the <sup>next relatives</sup> ~~parents~~ of twins. The last of ~~the~~ <sup>my</sup> many ~~letters~~ <sup>inquiries</sup> that I sent, was <sup>printed</sup> ~~inquiries that I made~~, was <sup>asked</sup> for the address of other twins who might be likely to respond if I <sup>communicated with</sup> ~~wrote to~~ them; this happily led to a continually widening circle of correspondence which I pursued until enough material was accumulated. I found also, that many scientific treatises exist, which treat of the physiology of twins, \* ~~some little of whence~~

\* (note) The best of these is Die Lehre von den Zwillingen von Ludwig Kleinwächter Prag 1871. It contains copious references to other authors.

f.b.r

I have derived <sup>from them</sup> some statistical facts <sup>to be shortly employed</sup> ~~for this~~ ~~memoir~~ and some physiological facts, to be used in the forthcoming memoir. but I have not as yet discovered any work <sup>concerning</sup> ~~the~~ life-history <sup>of twins.</sup> All I have <sup>now</sup> to say about this, is derived from the materials collected by myself concerning persons who, for the most part, are now living, and, for the rest, are but recently deceased.

To begin with a few general facts:- The proportion of twin births to single births, is ~~much~~ greater than is <sup>popularly</sup> ~~commonly~~ imagined; it is very variable in different places and in the same place at different times. It is greater in Dublin, where it is 1 in 87; and lower in Savoy, where it is about 1 in 140. In <sup>such</sup> ~~case~~ ~~the~~ ~~the~~ the word average has no precise meaning, but it will give a serviceable idea of what might be expected to occur, if we ~~of the facts of the case~~ <sup>of what might be expected to occur, if we</sup> suppose that for every 100 births we shall find 1 twin birth and again, <sup>that</sup> for every 100 twin births there will be ~~one~~ one twin birth (three at a time). Here the <sup>System of</sup> ~~progression~~ <sup>(by a hundred at a time)</sup> mark stops, for quartets <sup>though</sup> ~~though~~ very rare and not <sup>(than twings)</sup> ~~one hundred fold~~ <sup>as rare</sup> if they were so, we should find no more than one quartet in every million of births, but I

The cases that are intermediate between these groups are not ~~so~~ numerous; I therefore look upon the groups as fundamentally distinct in character & not as convenient subdivisions of a continuous series. I shall have more to say about this on another occasion.

I have no data to determine the proportion of cases in which the twins were characterized by an extremely close resemblance, because it was for these exceptional cases that I chiefly inquired. As a rough provisional estimate I think that out of every 10 sets of twins, 1 or 2 are cases of extreme likeness, the same number of cases of extreme dissimilarity, and the remainder are neither particularly alike nor unlike. ~~These three cases do not seem to be the intermediate cases being much less numerous than those in the three groups, & merge continuously into one another, which is a fact upon which I should have said something on another occasion.~~ Twins of the opposite sex are hardly ever <sup>either</sup> closely alike, or ~~singularly~~ curiously contrasted. I hear only a single case of close resemblance <sup>between single cases</sup> & this, so far as I can judge from the description, does not exceed a ~~very striking~~ strong family likeness, such as is not infrequent between brothers and sisters.



myself <sup>happen</sup> know of three cases of quartets  
 in <sup>merely</sup> the upper ranks of English society. As  
 for quintets of living children they are  
 almost unheard of, nevertheless a case  
 occurred in England a few years ago. One  
 of our most eminent authorities in ~~these~~  
 matters <sup>connected with child birth</sup> told me that he heard of their  
 remains being ~~exhibited~~ <sup>preserved</sup> in spirits of wine  
<sup>and exhibited</sup> at a public show; that he inquired into  
 the case and verified it; ultimately when  
 the exhibition began to fail he made a  
 judicious offer, and <sup>so</sup> became the happy  
 possessor of this (it is believed) unique obse-  
 -rviceal curiosity. ~~from~~

The instances are about equal in number  
 of the twins being both of males, or being both  
 females, or being of opposite sexes. I shall  
 have to dwell upon this point in my next  
<sup>communicable</sup>  
 memoir.

→ The elder twin is on the whole, the heavier  
 child. The information I have myself  
 collected, only occasionally and incidentally

bears upon <sup>their relative vigour size and strength</sup> ~~this point~~ still, so far as it goes, it is confirmatory of the elder child being the more healthy & vigorous. There is therefore a valid reason for permitting the laws & customs of primogeniture, so long as they exist, to apply to the elder twin.

I am given to understand that an instance like that of Jacob and Esau, implies a very backward state of the art of midwifery and does not ~~exist~~ occur now-a-days.

There is much mortality among twin children due to imperfect nourishment, and to pressure and constrictions before birth, also in many cases to imperfect nourishment after. So that although <sup>about</sup> 1 birth in every 100 births or 1 infant in every 50 infants, is a twin, the proportion among older children is decidedly less.

When the twins and trios have succeeded in surviving their infancy, they seem just as <sup>capable</sup> well as other people to bear their part in the battle of life. Indeed in some cases, they

(I understand it to be a matter of notoriety, that

do so with remarkable success, for Bendigo, <sup>once</sup> the ~~champion~~ champion prize fighter, was a twin, as I am informed. Many men of ability have been twins; one of my returns is from a well known mathematician, a senior wrangler, who was a twin, and the Lord, Eldon & Stowell had each a twin sister.

~~History gives many instances of distinguished twins. There was a curious case in the Bach family of musicians, alluded to in my Hereditary Genius. I may also mention a story in Colville's Warwickshire worthies, <sup>about</sup> of twins, the children of a peasant. They attracted the interest of King who was then hunting in the neighbourhood; he had them educated & they all grew up to be Doctors. <sup>Their names were</sup> ~~Doctors~~ <sup>one was a somewhat eminent theologian</sup> & figures as one of his Colville's worthies. I have returns <sup>stated</sup> concerning 3 sets of twins, in each of which all three brothers lived to be past 80 years of age.~~



The belief exists <sup>not only</sup> that twins generally, <sup>but</sup> and especially those <sup>twins</sup> who nearly resemble each other, are more weakly than other people. I will give the evidence I possess as to the latter point. Out of about 80 cases which I have collected of very close resemblance, 35 are given in such detail as to enable me to treat them as a separate series, for use on such occasions as the present. I select out of the 35 cases, those in which the twins <sup>appear</sup> are stated to possess, what appears to be <sup>what is apparently</sup> ~~be~~ <sup>more</sup> than the average <sup>amount of</sup> vigor. They are 15 in number. I give in every case <sup>both here and elsewhere in their papers</sup> the words of the writers, subject only to trifling grammatical corrections and occasional condensation <sup>or</sup> ~~other~~ slight editorial touches <sup>or condensation</sup>, though the usual marks of quotation have been dispensed with. To save frequent repetition of the elder twin will always be designated by A, & the younger by B.

Cases in which both twins, being closely alike, have more than the average vigour:—

15 cases out of 35. That is 8 cases of twin brothers & 7 of twin sisters.

Twin Brothers, 8 cases.

- (1) In their boyhood both had very high spirits; in their youth, they were powerful and active, and especially, proficient in what was then called "the noble art of self-defence." They were also ardent politicians and liberals. (2) Both of them were excellent cricketers; the one "all round", the other, a batsman. (3) Both "duffers" at cricket. (4) (They were ~~extra~~ remarkably vigorous, boisterous, and irrepressible) (5) Both fond of athletic sports; they are nearly 6 feet in height. (6) Similar and considerable powers of athletic performance. (7) (Both take much athletic exercise); their heights are 5' 1 1/4 inch and 5' 2 1/4 inch. (8) (Both have attained considerable official positions)

Twin Sisters, 7 cases.

- (9) They are very courageous and ready for any athletic exercise; they were famous at foot-ball

and now skate very nicely. They passed the Cambridge local examinations, the one taking the only first class of her year, the other, one of two or three seconds. (10) Can walk or swim with the same power of endurance; both have won several prizes at the ... School of Art. (11) Their physique and their every development seemed alike; equally robust, they could undergo the same amount of fatigue. (12) They were quite equal and, I believe, superior to most of the other members of the family; they certainly attained to greater ages, 79 and 93. (13) They have equally good use of their limbs for running, dancing, riding and skating. (14) They had similar power of athletic performance, as in swimming, paddling a canoe, skating and archery. (15) They are both very intelligent and full of fancy.

This is the evidence that 15 out of 35 sets of twins, who closely resemble ~~the~~ each other,

have decidedly more than the average amount of vigour, it seems to show that about <sup>of the 35</sup> half have more than the average amount or, in other words, that the twins are <sup>not</sup> unequal to other people. The statistical reader may be reminded that if we had been dealing with twins who were <sup>independent in their likeness</sup> ~~not alike~~, the problem would have taken another shape. We should then <sup>have had to</sup> ~~be dealing~~ with 'double events' and not, as in the present case, with what may be considered as repetitions of the same event.

There is another popular belief prevalent in many countries, that ~~both of the twins~~ <sup>instances</sup> it never occurs ~~that both of the twins~~ having children. I have many instances in disproof of this, but not enough to warrant an estimate of the fertility of twins generally. No question on this subject was inserted in my circular and again, a large proportion of my returns were sent me by the parents of twins who were <sup>therefore mostly</sup> still youthful <sup>or of older</sup> and had rarely been



both of them married for many years. Still, I have enough evidence to warrant a belief that ~~the~~ twins are decidedly less fertile than other people. This reason, combined with the increased chance against any 'double event,' gives some ~~that~~ ground for the popular belief.

I will now endeavor to illustrate ~~from several points of view~~ the close similarity that frequently exists between twins, by giving a <sup>score</sup> ~~series~~ of extracts from the SO returns to show the number <sup>(and character)</sup> of the mistakes that really arise from it. Being precluded by considerations of propriety from printing more than short extracts, I have thought it best to confine myself to a single extract from each return. This will give the reader a correct idea of the large number of cases in which a similarity exists, far exceeding that of any strong family likeness ~~of the ordinary description sort.~~ likeness between <sup>those</sup> brothers or sisters who are

I begged in my inquiries for illustrative anecdotes, but  
<sup>few were sent</sup>  
~~have unfortunately received~~ <sup>comparatively</sup> ~~few~~, the replies being usually <sup>drawn up in general terms</sup> ~~of~~ and  
~~general terms~~ as "extremely alike", "mistake, continually made"  
 & the like. Again it is only a small part of the anecdotes that I have  
 received, which I am about to give.

not twins. It must be recollected, that my  
 these returns are, <sup>perfectly authentic, being</sup> chiefly from the parents  
 of the twins; in other cases they are from  
 the twins themselves, from their children,  
 or from their brothers and sisters. I have  
 Two cases, <sup>were given me by</sup> ~~from~~ very observant medical men,  
 who were intimate friends of the family,  
 and not more than two or three from  
 more distantly related informants. I have  
 been very careful in the selection of my  
 data, and feel satisfied that they are free  
 from exaggeration. This being premised  
 I proceed to quote, not exhaustively but merely in illustration  
 of <sup>few points</sup>.  
 General remarks as to likeness: -

- (1). They were so wonderfully alike that almost  
 no one could ever distinguish between them,  
 and as they grew older they continued  
 alike, though changing in appearance. (2)  
 Most awfully alike. (mem: This is the  
 phrase of an accomplished author who does  
 not indulge in random and exaggerated  
 expressions). (3) Their teeth grew alike, they



spoke alike and together, and said the same things, and seemed just like one person. (This graphic little account was given <sup>me</sup> by a ~~person~~ <sup>lady</sup> who had casually met the twins at the house of a mutual friend).

Mistakes of parents and nurses, ~~admitted~~ ~~children were given~~ (As regards, physicks—)

- (4) When about 4 years of age, they suffered together from a severe febrile attack and on one especial occasion, one child was given too close of medicine, the other escaped her dose; their sick features were so very similar.
- (5) A dispute often arose between the mother and their nurse as to which of them was, and the mother has on more than one occasion given the one a dose of physic which was intended for the other. (6) (I have a third case of a similar kind) — as regards food;
- (7) An amusing instance occurred when they were 3 years old, when their mother on one occasion mistook one of them by mistake for the other, and at that time we were in the habit of saying many

times in the day, "which are given". (7) The nurse one day fed the same one twice over though she fancied she could not be mistaken, till the hungry one cried for food. ~~||~~ The

twin are not only apt to be physicked and fed, but also to be whipped vicariously, thus; - (8) They were so alike when about 18 years old, that I often corrected one instead of the other. we were obliged to put different neck ties on them, to know the difference between them.

~~(9) and (10)~~ (I have two other instances of mistakes in punishment) by parents in punishing their children).

insert  
Jan. 19. 20

No less than eight accounts have been sent me of a twin seeing his own reflection in a large mirror at the end of a passage or elsewhere, and believing it to be the other twin in person. The following is an instance of an analogous but more permanent blunder. (13) Both went to a photographer to have their cartes de visite taken. ~~The older~~ <sup>A</sup> having to go on a journey called for his and got by mistake those of his <sup>B</sup> brother, which he considered to be a capital

likeness of himself and distributed as such among his friends. He did not discover the mistake until after his return. — Here is a case in which ~~the artist~~ Even a portrait painter will mistake his subject, thus (14) when 3 or 4 years old, an artist who was taking their portraits, was prevented from having a sitting for three weeks; on returning his work, he could not tell to which child the respective likenesses he had in hand, belonged. — Tatars and <sup>frequently</sup> ~~continually~~ in doubt, I have many instances of this, and quote the following: — (15) So closely did they resemble each other, that their music teacher was ~~continually~~ repeatedly imposed upon by them. They had their lessons at different times, and they took advantage of this to deceive him, for when the one wanted a holiday the other would take her place. (16) They were fond of playing tricks on people and complaints were frequently made. The boys would never own which was the guilty one and the complainants were never certain which it was. The headmaster used to say, that he would never

(I have been told of a case of twin <sup>boys</sup> ~~children~~ who had none  
of the affection <sup>or sympathy</sup> usually existing between twins, but <sup>who always tried</sup> ~~tried~~  
to spite each other. Each, when he had the opportunity, would  
personate the other, and do something wrong in his <sup>brother's</sup> name,  
to get him "into trouble.")



flog the innocent for the guilty, another flogged both if they persisted in refusing to confess which it was. (17) Exactly alike in all, their schoolmasters never could tell them apart, at dancing parties they constantly changed partners without discovery; <sup>their</sup> close resemblance <sup>is</sup> scarcely diminished by age. — Here is another batch of absurd mistakes: — (18) A number of scenes occurred at college when one came to visit the other; the porter on one occasion refusing to let the visitor out of the college gates, for though they stood side by side, he professed ignorance as to which he ought to allow to depart. (19) The barber used to cut the hair of both, thinking they were only one person. (20) In their early city days, they used to dine at the same place; one, say, at half past twelve and the other, about two, and it was the prevailing idea at the dining room that the one was accustomed to dine <sup>twice</sup> daily. (My informant, their father, who appears to be a shrewd man of business, adds — the italics are his own) this

might have been turned to commercial account without scruples".—Quære "without scruple" or "by people 'without scruples'" )

Children, mistake their aunt as uncle, as the case may be, for their parent, thus:—(21) Such was the marvellous similarity, of their features, voice, manner &c that I remember as a child being very much puzzled, and I think, had my aunt lived much with us, I should have ended by thinking I had two mothers. (I have other cases of this kind ~~from~~ of twins from whose relations quotations have already been extracted; the following is one of them:— we were extremely alike and are so at this moment, so much so that our children up to 5 and 6 years old, did not know us apart)

When a twin is engaged to be married, there must be always some risk. ~~Little~~ I was told:—(22) When A was engaged, there was a terror in the family lest her lover might not sufficiently distinguish and be constant in his affection consistent in his tastes, it seemed obvious that either A or B would have suited him equally, though they did not equally

Es on f.20.

(Insert the next page in p. 15)

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As regards other mistakes

(9) Their mother hardly knew me from the other, and an aunt who was much with <sup>them</sup> still says that the children got changed in their bath and that A is B, and B is A.

(10) They are now 12; from their birth I (the father) have not known them apart, though I ought to say that my knowledge of faces is defective. Almost every one in the house makes mistakes about them. This very moment I have been called into the other room, where their mother in the spur of the moment, was unable to say which was which.

(11) (The following is a remarkable case, given me, among many other anecdotes, by the brother of the twin ~~brother~~ who were then in middle life)

~~Some years~~ A was again coming home from India, or leave; the ship did not arrive for some days after it was due; the twin brother B had come up from his quarters to receive ~~him~~ A; their old mother was very nervous. One morning A rushed in saying "Oh mother, how are you?"; and her answer was "NB B it's a bad joke, you know how anxious I am", and it was a little time before A could persuade her that he was the real man.

(12) On one occasion when

continued

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20

I returned from foreign service, my father turned to me and said, "I thought you were in London," thinking I was my brother; yet he had not seen me for nearly 4 years, - our resemblance was so great.

(Go on in page 15)



f. 22 v

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particular >

like him — (In another case, from which I have already quoted, A got married first, but both met the lady together for the first time and fell in love with her, there and then. A managed to see her home and to gain her affection though B went sometimes courting in his place, and neither the lady nor her parents could tell which was which.)

(23) (I have a German letter, written in quaint terms, about twin brothers who married sisters but "could not easily be distinguished by their brides" — The same was said of ~~the~~ two Bach musicians <sup>of the Bach family, I mentioned in my "Hereditary Genius"</sup> ~~to whom I have already referred~~.)

I must take this opportunity of ~~introducing~~ <sup>withdrawing</sup> an anecdote published from hearsay in my "Men of Science" about ~~one~~ <sup>more</sup> ~~of~~ <sup>the</sup> ~~two~~ <sup>brothers</sup> ~~persuading~~ <sup>in a joke</sup> his brother ~~two~~ <sup>brother</sup> ~~at a~~ <sup>table</sup> supper, by putting on his dress, and not being discovered by the wife. I had ~~communicated~~ <sup>long previously</sup> with a member of the family but ~~did not~~ <sup>did not</sup> hear in reply until after the page ~~had~~ <sup>had gone</sup> to press. The story is unconfirmed; however, the twins in question were extraordinarily alike and I have received ~~from~~ <sup>from</sup> ~~the~~ <sup>their</sup> ~~brother~~ <sup>brother</sup> ~~of~~ <sup>of</sup> ~~them~~ <sup>many</sup> curious anecdotes about them.)

(24) In the well known novel by Mr. Lither Collins of "Poor Miss Finch", the blind girl distinguishes the ~~the~~ twin the lover, from his brother, by holding his hand; it gives her a thrill which the touch of the brother does not. I do not know that philosophers have yet investigated the conditions of such thrills, but I have a case in which the touch of both twins appears identical. It was related to me by two ~~persons~~ <sup>persons</sup>, both <sup>of whom are</sup> friends of the twin <sup>lady</sup> ~~who is~~ the subject of the anecdote. It appears that she <sup>was</sup> frequently <sup>known to</sup> remark ~~that~~ that "kissing her twin sister was not like kissing her other sister but like kissing herself, — her own hand, for example."

It would be an interesting experiment for twins <sup>to make / to ascertain</sup> ~~whether~~ <sup>whether</sup> dogs <sup>were able to</sup> ~~could~~ distinguish between them by scent.

There is a curious feature in the <sup>character of the</sup> resemblance between twins, that is well illustrated by the following remarks — (1) There seemed

to be a sort of interchangeable likeness in expression, that often gave to each, the effect of being more like his brother than himself. (2). (~~These~~ <sup>Two</sup> twins, who are closely alike, in analyzing their characters, point out certain shades of difference, and add as follows:—) These seem to have marked us through life, though for a while when we were first separated, the one to go to business and the other to college, our respective characters were inverted, we both think that at that time we each ran into the character of the other. The proof of this consists in our own recollections, in our correspondence by letter, and in the views we then took of matters in which we were interested. (3) They were often mistaken for each other; for instance they often used to let their uncle guess which of them was A, and he usually took him for B.— Many similar cases might be quoted. It may be supposed that when two people are closely alike, every expression in the one may be





at the age of 18, A is the taller.

I have analysed the <sup>features</sup> ~~details~~ in which the <sup>personal</sup> ~~resemblance~~ <sup>held by</sup> failed in the several cases. In a few no point of difference could be specified. <sup>It in the remainder</sup> ~~It seems that~~ The colour of the hair & eyes is almost always the same; the height, <sup>and strength</sup> weight is generally very nearly <sup>so</sup> ~~but not identical~~ in a few cases, of otherwise close resemblance, there is a notable difference; the manner & address is usually the same; the intonation of voice when speaking is <sup>very</sup> commonly the same but it often happens that the two sing in different keys. Frequently there is a difference of expression, familiar to the family nearest relatives but not perceived by ordinary friends, - <sup>(as might be expected)</sup> ~~when~~ <sup>one</sup> ~~finds~~ apt to exaggerate resemblance. The one point in which similarity is rare is, strangely enough, the handwriting. I have but few cases in which it is ~~close~~ alike, and several barely ~~two~~ or three in which it was indistinguishable by others and only one in which the twins say they themselves had frequently been puzzled. ~~Several cases~~ there are several cases

in which it is exceedingly different and same  
 in which it is the only point of difference  
 alluded to. This <sup>discrepancy</sup> is the more strange,  
 as there is frequently <sup>quite</sup> strong family likeness  
 in handwriting; nay, its <sup>peculiarities</sup> ~~peculiarities~~ sometimes  
 to be hereditarily transmitted.

~~The last set of~~  
 The ~~previous~~ extracts have been taken out  
 of the whole series of 50 cases of close resemblance, but  
 the remaining points will be illustrated from  
 the 35 cases, only, as the select series of 35. It  
 is important to bear this distinction in mind on  
 account of its statistical significance.

Cases of both twins suffering from some special  
 ailment or having some exceptional peculiarity:—

- (1) They both have the defect of not being able to  
 come down stairs quickly, which however was not  
 born with them but came on when they were about  
 twenty years old. They were both subject to asthma  
 (which they inherited from their father and grandfather,  
 like the younger was eight or nine, but the elder  
 had continual <sup>attacks</sup> till she was about twenty-one; since

then, they have become less frequent. (2) There is a congenital flexure at the second phalangeal joint of the little finger, in each of the twins, but not so marked as to cause untightliness or discomfort. I ~~have~~ (my informant, a medical man) have ascertained that they inherited this from their maternal grandmother. Their parents have no trace of it, nor their four brothers and three sisters. (3) One was born ruptured (and cured), the other became ruptured at the age of six. <sup>(The statement is not very clear but I think this is what is meant)</sup> (4) At about the age of twenty-two, B went to reside for some years in a tropical colony; eighteen months after he had gone, both his hair and that of his brother <sup>A</sup>, who had remained in England, began to grow thin round the crown, to the same extent in each case; then the thinning stopped in both cases. B returned after 3 years, and the state of the hair of A and B continued still alike. (4) We both became bald at forty. (5) At about three years of age, they both had tooth-ache, and the same tooth had to be drawn in each.



Quercus in front two cages against top of 10  
of West. bank.

case. 5) Their state of health had been much the same, and they both died in ~~middle~~<sup>advanced</sup> age of heart disease. One however survived the other for seven years owing (as the correspondent writes) to his having had by far the less professional strain upon his mind. (7) The twins, who were greatly attached and very much alike, both became government clerks and lived together. One was seized with Bright's disease and died, then the other, sickened of the same disease, and died <sup>of it</sup> three months later.

I now come to a

Cases of both twins being often ill at the same time :-

9 cases out of 35.

- (1) Their general health is closely alike; whenever one of them has an illness, the other invariably has the same, within a day or two, and they usually recover in the same order. Such has been the case with whooping-cough, chicken pox, measles; <sup>also with</sup> ~~and~~ slight bilious attacks which they

have succeeded, and latterly they have had a  
feverish attack at the same time. (2) If anything  
affects one of them, identical symptoms nearly  
always appear in the other. This has been <sup>regularly</sup>  
visible in two instances during the last two months;  
then, when in London, one fell ill with a  
violent attack of dysentery, & within 24 hours  
the other had precisely the same symptoms; a  
similar coincidence took place with measles,  
nine months ago. (3) Whilst I knew them  
(<sup>medically and</sup> intimately) for a period of two years, there was not  
the slightest tendency towards a difference in body  
or mind. External influences seemed powerless  
to produce any dissimilarity. I met them  
three months ago on board a steamer in stormy  
weather, and discovered that they both <sup>became</sup> ~~were~~ got  
sea-sick at the same time. (4) Their state  
of health has been always the same; they generally  
feel poorly ~~at the same time~~ and have colds,  
&c., about the same time. (5) When they  
were little children, we used to say "A is  
ailing and B will soon droop", but their

attitudes were not always similar. Latterly, they being now twenty-five, we have not observed their coincidence so much. (6) When they were children, if one were teething or became ill, the other began two or three days later. (7) As babies, if one woke, the other was sure to wake also; for this reason we used to say, "it was more than double trouble". (8) Their attitudes have always been similar; both had an attack of ophthalmia at the age of fourteen. (9) Until the age of fifteen, when one had a serious illness, they generally shared any little indisposition, or one followed the other within a few days. They shed their first milk tooth within a few hours of each other.

incident  
in 34  
tradition

Similar associations: —

II. Cases out of 35

- (1) Their ideas became so alike, that they simultaneously uttered the same opinions and recalled the same remembrances. (2) The association of their ideas was uniform of the same



and at the same moment. (3, I have frequently noticed their individuality of purpose and desire of being and acting in concert. (4, I should certainly say that our association of ideas is alike, as we often make identical remarks. (5, They do make similar remarks at the same time. (6, When young, one would begin a sentence and the other would finish it. (7, There was often a coincidence in their association of ideas, as shown by their remarking upon the same subject or commencing to sing the same song, at precisely the same moment. (8, Associations the same. (9, Association of ideas similar. (10, Associations and remarks alike. (11, A few years ago B being <sup>at a town in Scotland</sup> ~~at Glasgow~~ ~~there~~ bought a set of champagne glasses & bring home as a surprise for A. At the same time, A <sup>remaining in England</sup> ~~being at Bradford~~, bought a set of identically the same pattern, for <sup>the</sup> exactly similar purpose. (this is only one out of three or four curious anecdotes respecting these twins).

The closeness of the mental resemblance to be found among the 35 sets of twins is sufficiently proved by the foregoing evidence but it may be added that in about a third of the ~~whole number of the~~ returns I find phrases such as "tastes and dispositions exactly alike"; - also cases in which the brother or sister when at school, kept side by side in their classes, having exactly the same mental ability. In fact, ~~absolute~~ <sup>mental</sup> likeness may be affirmed where dissimilarity is not pointed out and as I shall shortly have to speak of dissimilarities, it is unnecessary to dwell longer upon likeness.

I may mention ~~that~~ here that I have only one case of strong personal likeness accompanied by strong mental dissimilarity, and one case also of the converse kind. The questions that arise out of this will not be discussed here but in my next paper. In the mean time, I would warn my readers against accepting the above facts as evidence <sup>the existence of</sup> of a general rule, ~~namely~~

that features and qualities are intimately connected; such being by no means the case among brothers & sisters who are not twins.

This concludes all the evidence it seems necessary to adduce, in proof of the closeness of the resemblance ~~to~~ occasionally met with in twins. It shows that a few cases of extraordinarily close resemblance have been found during an inquiry which has reached but a minute fraction of the population, and it justifies the belief that a more exhaustive research would proportionately add to their number ~~of them even~~. Also, that it would discover some in which the resemblance exceeded that of any of my cases, and would therefore amply justify <sup>what some may have thought</sup> the ~~most~~ extravagant creations of the kind ~~that have ever been made by~~ writers of fiction.

without fuller information? Dr. Moreau tells his tale  
in far too easy and off-hand a way <sup>can</sup> to carry <sup>the</sup> conviction, that  
he had investigated the case with the scrupulous exactness  
which so unique a phenomenon <sup>deserves</sup> would have richly deserved.  
If full and precise notes of the case exist, they certainly  
ought to be published at length.



Insert in page 30

f.36

34

Cases of insanity in twins:—

I am informed of three strange cases by  
Tread writers, the most curious of which is  
that by D<sup>r</sup> J. Moreau of Tours. (<sup>morbid 1859 p. 172</sup> La Psychologie), concerning  
parallel attacks of madness in twins. D<sup>r</sup> Moreau  
ranks as a very considerable medical authority  
but the parallelism which he traces, <sup>principally on the authority of the hospital attendants</sup> is so minute  
& persistent, that I hesitated in accepting it ~~as~~  
~~fact~~. I sent copies of the paper to the  
superintendents of the chief lunatic asylums  
in England, asking if they had ever witnessed  
any such <sup>instances</sup> ~~cases~~; their replies confirmed my hesitation.  
All I have able to gather of the kind, are 3 or 4  
cases in which the character of the madness was  
<sup>pretty close alike but</sup> ~~not much closer~~ than might be found among brothers  
or sisters who <sup>perhaps</sup> ~~were~~ not twins. The circumstances  
of these cases are painful, and I do not feel  
justified in publishing extracts from them.

See page 30

Go on in page 30

We have next to consider the slight ~~and~~  
growing dissimilarities that existed in the 35  
cases, and the reasons assigned for them.

~~subject of being divided into two groups; accidental and  
essential. The first group of 15 cases was  
the cases in which the disease had been acquired  
which the other had not. The first group of 15 cases  
resembled the second group of 20 cases.~~

- (1) About five years ago, when the twins were four  
years old, one of them had scarlet fever; since  
that time they have not been so much alike.
- (2) The <sup>A</sup>elder had the scarlet fever at the age of  
twelve, and grew about four inches taller than her  
sister; she remained taller for some years but the  
younger has now passed her by two inches.
- (3) The <sup>B</sup>second, at the age of ~~the~~ sixteen, caught the  
scarlatina and afterwards the small pox, from  
neither of which did the <sup>A</sup>elder one suffer. Since  
these complaints, the <sup>B</sup>second has been a little more  
excitable and more easily disturbed by circumstances,  
than the <sup>A</sup>elder, though she is strong and active  
and perfectly well in health. (4) Their state  
of health was remarkably alike and generally

The questions I put, <sup>to gain information about these,</sup> ~~which there are replies,~~ were "At what F.37v  
period did they show resemblance <sup>(to the twins)</sup> (begin to diminish, and in what respects  
did they grow unlike in body and mind?" and again, "How far do you  
ascribe their increasing dissimilarity to the effect of external influences, and  
how far to the development in due order of time, of the qualities they had at  
birth, but which had lain dormant?" "I will ~~begin~~ <sup>begin</sup> with the latter, and  
the former, "accidental" ~~causes~~ <sup>causes</sup> and in order to illustrate ~~the point~~  
yet more fully, I will give <sup>every</sup> ~~every~~ <sup>instance</sup> ~~instance~~ which has reached me of one twin  
having had a remarkable illness or accident which the other has not. I do not  
suppose the list <sup>to be</sup> literally exhaustive, but ~~in all cases~~ <sup>in all cases</sup> feel convinced  
from the fullness and character of the correspondence that it is so in ~~most~~  
of the ~~35~~ <sup>35</sup> cases. It will be observed, that there are 13 instances <sup>given</sup>, and that  
all but ~~one~~ <sup>one</sup> of them, were assigned as causes of slight differences <sup>(the latter</sup>  
~~causes being~~ <sup>causes being</sup> ~~not~~ <sup>not</sup> ~~important~~ <sup>important</sup>).

Accidental causes of dissimilarity:-  
13 cases out of 35

very good, except as regards one illness of scarlet fever which ~~the elder~~<sup>A</sup> had very severely, whilst ~~the younger~~<sup>B</sup> entirely escaped, although exposed to the poison at the same time and in the same manner. About the age of twenty one ~~the~~ A elder became "engaged", and is now thinner than ~~the~~<sup>B</sup> younger, so that we (the family) know them apart. (5) They were at the same school and were kept in the same class until ~~the elder~~<sup>A</sup> was attacked by typhus fever, which was at that time epidemic; he was consequently kept at home for a quarter, and his brother got a class ahead of him. ~~By~~ (I may mention here, that I have a case of twin sisters who were totally unlike in mind and body, ~~but~~ who were ~~totally~~ both attacked by typhus fever at 16. Its effects upon them were exactly opposite; A, a small frail child had been extremely delicate, the fever completely altered her constitution for the better, and she <sup>is</sup> now in <sup>very good</sup> ~~excellent~~ health. B was large in frame, she had been "extremely robust in health and almost hygienic



long denied in disputation, but the fever  
 rendered her delicate; she has been so ever  
 since, and she is now a timid, yielding,  
 woman".) (6) The health of the twins has  
 been similar and almost invariably good,  
 but A had a nervous fever after the marriage  
 which has perhaps left her a little more  
 sensitive. (7) Their close resemblance began  
 to diminish a little gradually, but the great  
 difference took place after the time when A  
 went to India; of course the effects of an Indian  
 climate have been considerable (as a set-off  
 against this "of course" I would remind the  
 reader of the case II in p 19 where a four  
 year residence in India had produced so  
 little change <sup>on a twin A</sup> that ~~the~~ his own mother ~~thought~~  
~~he was his brother~~ when he returned home)  
<sup>would not for a while</sup> ~~did not believe~~ he was A, but <sup>that B</sup> ~~his~~ brother, who  
 had persecuted him) (8) B at his birth  
 was ~~the~~ <sup>one</sup> one pound heavier than A, and he  
 continued to be the heavier until the age of fifteen,  
 when he became greatly reduced by an attack of

eight months duration. (9) At birth they were exactly alike, except that one was born with a bad varicose affection, the effect of which has been to prevent any violent exercise such as dancing or running, and as she has grown older, to make her more serious and thoughtful. Had it not been for this infirmity I (the father) think the two would have been as exactly alike as it is possible for two women to be, both mentally and physically. even now, they are constantly mistaken for one another. (10) They were very much alike in

childhood (numerous anecdotes are given in proof of their extreme resemblance at that time), but during the last thirty years they have become less and less alike. One of them, when a young man, had a very bad fracture of the leg, the effect of which was to prevent him ever after from taking proper exercise. He is now stout, while his brother is thin and of active habits. (11) The younger suffered a little from a red eruption up to his sixth year. ~~(These troubles are now gone up and continue)~~ ~~(to be extraordinarily alike)~~ He is a little the less lively in temperament. —

(12) Up to the age of seventeen, it was impossible to distinguish them; then A fell off in health and his growth was retarded, so that B became four inches taller than he was. By the age of 20 A has regained his health and likeness, but he is still about an inch less tall and not quite so stout as B. (13) A, when a boy, had a swelling of the glands on one side of the throat; it was as large as a small egg, but is now, at the age of twenty nine, much diminished.

~~Natural causes~~

~~Natural causes of deformities~~

(1) They are

insert here  
p. 45 46 & part of 47,  
then part of 52, and 53

Natural mental differences in twins who were outwardly alike:- (Many of the extracts given, I see, a notion of a stronger difference than the letters ~~from which they were taken~~, did, on the whole, convey. The reader should understand that in all cases, where the contrary is not emphatically stated, ~~these~~ such phrases should be understood as:- "Fatter and disposition generally the same, but".)

19 cases out of the 35



The evidence thus far, has chiefly concerned physical differences, whereas we are most concerned with mental differences. The replies <sup>(as regards the latter,</sup> ~~in the 35 cases~~ <sup>are</sup> ~~directed towards~~ <sup>are</sup> analyzing the differences that exist, rather than in tracing its growth, for the simple reason (which is apparent enough from the tone of the replies) that the differences were inborn, and <sup>became</sup> ~~developed~~ <sup>had been</sup> of their own accord. Such <sup>mental</sup> differences as ~~were~~ <sup>had been</sup> due to accident of any kind, were given in the previous group.

|                                                                                  |  |                                                                  |  |
|----------------------------------------------------------------------------------|--|------------------------------------------------------------------|--|
| Natural mental differences in twins who were                                     |  |                                                                  |  |
| outwardly alike.                                                                 |  | It must be understood that most                                  |  |
| of these have been prefaced by some such phrase as "Partly, and dispositionally" |  | as "Partly, and dispositionally"                                 |  |
| 19 cases out of the 35                                                           |  | were alike but <sup>they must be</sup>                           |  |
|                                                                                  |  | generally lead as denoting <sup>only</sup> shades of difference. |  |

Sisters: (1) A is far more vigorous, fearless and energetic; also the more quick tempered. B is gentle, clinging and timid; she is a little inclined to be sulky, but is the more affectionate. (2) A is the stronger minded and more persistent; she has also of always been of the greater weight; B is the more agile. (3) A has great courage which B

lacks; A has also had better general health, ~~But~~ B is a little the stouter and heavier. (4) A has a stronger mind and a finer disposition; she has the better abilities so that I (the mother) used frequently to say, "she is a year older than her sister"; she has the greater taste for music; she has always been the stronger (physically). B is the more tender hearted and affectionate; she has the greater taste for drawing. (5) A has the best nerves ~~for~~ riding. B is rather the fatter and stouter; ~~she is fond of flowers, and arranges them with great taste either in nosegays, or dried in a book.~~

(6) A is more ardent; B is more calm and gentle. (7) A is more active and handy; neater and more elegant; sharper, critical and fond of reading. B, who is slightly the larger and heavier, is awkward in her movements, and inclined to be left handed; she is more droll, more affectionate and clinging; more indolent. Animals are more attracted by her than by her sister, - though both are fond of animals, - and are more pleased by her touch and notice. (8)

should mention that this is the only case, which on a review of all the circumstances connected with it, it has been possible to class under the head "<sup>close</sup> alike in body but unlike in mind". (8) Their characters are similar but not altogether alike.

(9) (This is the case already quoted N<sup>o</sup> (V) & differs. (9) B has the organ of wit more largely developed, her perceptions are quicker, she has a more excitable temperament and a more sensitive nervous organization.

Brothers (10) B is <sup>the</sup> more independent, original and self-contained; he is larger built and stronger physically, though not in constitution. A is the more generous, hasty and vivacious. (11)

~~Remember~~ B remarks that he is said to be the more "peppery" of the two; he is the better musician and a trifle stronger in athletic performance. (12) B is the more vivacious.

(13) A is the taller & the stouter; B has the more mental power. (14) B <sup>is</sup> sanguine and

Sometimes depressed; he had much the best temper  
though he was much the less thoughtful (of others).  
A was the greater in boyhood, gentle and more  
even spirited (15) B has perhaps a little  
more decision; he is slightly the taller. (16)  
~~A has somewhat more lively temperaments;~~  
~~B suffered a little of his health.~~ (16) A is  
a little the more boisterous of the <sup>two</sup> ~~one~~ (17) A,  
independently of his professional pursuits, followed  
with avidity, Geology & Natural History; he  
became a liberal, his family having been always  
staunch Conservatives; his head is the larger.  
(in all other respects the brothers have an astonishing  
mental as well as bodily resemblance) (18)  
The one has become rather more luxurious than  
the other, and more particular about his personal  
appearance (19) A works most with his head,  
he is now the taller. B works most with his hands.



These two last groups contain the whole of  
 the evidence that has reached me concerning  
 the ~~existence~~ <sup>35 cases of</sup> and growth of dissimilarity between  
 the ~~twins~~. In not a single instance have  
 I found a word about the difference being  
 caused by the action of a firm and free  
 will, which had ~~caused~~ <sup>triumphed</sup> nature to bend ~~under~~  
 it, and yet a singularly large proportion of my  
 correspondents are clergymen whose bent of  
 mind is opposed, as I feel assured from the  
 tone of their letters, to a necessitarian view  
 of life. The evidence appears to me to show  
 that the ~~range~~ <sup>no</sup> of circumstances <sup>within the range of things that</sup> which affect  
 persons of the same social condition, have ~~very~~  
<sup>any</sup> ~~little~~ <sup>decided</sup> effect in causing dissimilarity, with the  
 sole exception of illness or <sup>of some</sup> accident which  
 produces physical infirmity. The twins  
 who closely resembled each other at birth, continue their lives  
~~as~~ <sup>and</sup> keeping time like two watches, and  
 are ~~only~~ <sup>hardly to be</sup> thrown out of accord <sup>except</sup> by some  
 physical jar. They ~~then~~ follow their  
 destiny in a very passive spirit.

(Insert in p. 39)

p. 48

45

~~destiny in the a perfectly passive spirit.~~ The  
effect of illness <sup>on the body</sup> is greater than I had anticipated  
and ~~seems to~~ deserves some consideration, especially  
as sanitary discipline admits of being enforced.  
It appears from these returns that the constitution  
of youth is not so elastic as we think, but that  
an attack <sup>for example,</sup> of scarlet fever leaves a permanent  
mark, easily recognised by the present mode of  
comparison. This <sup>recalls</sup> ~~reminds me of~~ an impression  
made strongly on my mind several years ago,  
by <sup>the sight of</sup> a few curves drawn by a mathematical  
friend. He took monthly measurements of the  
circumference of his children's heads, <sup>during</sup> ~~for~~ the  
first ~~two or three~~ <sup>few</sup> years of their lives, a ~~having~~  
protracted the measurements on the successive  
lines of a ruled piece of paper <sup>by taking the</sup>  
edge of the paper as a base line. He <sup>then</sup> formed  
a curve of growth, by joining the free ends  
of the lines. The curves had on the whole,  
the regular sweep that was to have been

expected, but it also shewed occasional halts, like ~~lozings~~ level stages in a long curved inclined. The developement had been arrested by something, and was not made up for by after growth. ~~Opposite to~~ Each of these halts, my friend had on the same piece of paper, my friend had registered the various infantine illnesses <sup>corresponding</sup> and to each illness was one of these halts. There remained no doubt in my mind but that if the illnesses in question had been warded off, the developement of the children would have been <sup>increased by</sup> ~~more~~ <sup>in other words</sup> almost to the precise <sup>amount</sup> ~~degree~~ lost by these halts. The disease had drawn upon the capital, not on the income of their ~~constitution~~ <sup>constitution</sup>. I hope these lines may induce <sup>some</sup> scientific men to repeat the experiment on their as yet unborn children. They can compress two years of a child's developement on one side of a ruled half sheet of foolscap paper, if they let each <sup>successive</sup> ~~ruled~~ line

~~stand for a successive month, beginning from the birth of the child, and <sup>if they</sup> marking off the circumference of the head by laying, the not the <sup>of the tape</sup> end of the tape, <sup>against the edge of the page</sup> say, the 12 inch division, <sup>against its edge</sup>, in order of save space.~~  
 stand for a successive month, beginning from the birth of the child, and if they mark off the measurements by laying, not the 0 of the tape against the edge of the page, but say, the 10 inch division, in order to <sup>economize</sup> space. (go on at page 52)

twins, who closely resemble each other in physical features, the differences in character <sup>which are</sup> due to natural peculiarities which were the subject of the last group of instances, appear to be <sup>as in most cases</sup> nearly all reducible to <sup>a single</sup> <sup>(that is)</sup> cause; the difference in energy, in some one or other of its many manifestations.

The <sup>twin</sup> one has more strength, independence, courage & vivacity than the other, but <sup>he has</sup> not in other respects, a different quality of mind.

~~It has~~ <sup>been</sup> ~~already~~ <sup>been</sup> remarked. This is very different <sup>state of things</sup> to what we find among <sup>those</sup> brothers & sisters, who are



not twins, but are outwardly much alike.

Extreme dissimilarity: — (I have 20 cases)

The last set of extracts which I shall give are those referred to from those cases of sharply contrasted characters features of body & mind which I find to my surprise, are no less a marked characteristic of twins than are the cases of extreme resemblance.

1) They have had exactly the same nurture from

~~marked dissimilarity~~ their birth up to the present time, they are both perfectly healthy & strong, yet they <sup>are</sup> otherwise as dissimilar as two boys could be, physically, mentally & in their emotional nature.

2, I should say that my sister's character and my own are diametrically opposed and have been utterly different from birth.

(they are equally opposite in stature & appearance)

3, I can answer most decidedly that the twins have been perfectly dissimilar in character, habits and likes, from the moment of their birth to the present time, though they were nursed by the

same woman, went to school together and were never separated till the age of fifteen (4) (The father remarks) they were curious, different in body & mind from their birth. (The surviving twin adds) a fact struck all our school contemporaries that my mother & I were complementary, so to speak, in point of ability and disposition. He was contemplative, poetical and literary to a remarkable degree, showing great power in that line. I was practical, ~~linguistic~~ mathematical and linguistic. Between us we should have made a very decent sort of a man. 5, Singularly unlike in body and mind from babyhood; A was of a placid temperament, fond of mathematics, at school, prudent & careful, went to college & became a clergyman; B was sanguine and fond of classics at school; open-handed and careless of money; went to sea, then to New Zealand and now occupies an estancia in S. America. 6, Very dissimilar in body and mind; A is

quiet, retiring and slow, but sure; good tempered but disposed to be sulky when provoked; B is quick and vivacious, forward, acquiring easily and forgetting soon, quick tempered & choleric but ~~soon~~ quickly forgetting and forgiving. (7) They have never been separated, never treated differently in the ~~slightest~~ least degree, in food clothing or education, both are and have been exceedingly healthy & have good abilities, yet they differ as much from each other in complexion, height & mental cast, as any one of my family differs from any other. There is a greater unlikeness and difference in height and appearance between these twins than there is between the shorter twin and his youngest brother or between the taller twin and his ~~elder~~ brother. (8) (I have a careful and curious analysis of the peculiarities of two twin boys, ~~than~~ their father, which I regret much to be unable to quote with propriety. The one boy is like the good boy

of a story book, and a born gentleman besides; the other boy is a thorough mauvais sujet, without brilliancy. They are perfectly dissimilar, in appearance) (9) Unlike in body & mind throughout their lives; the case is, I (a brother of the twins) should think, somewhat remarkable for dissimilarity. (Then follow details which might perhaps annoy, if quoted)

It remains to <sup>but I need do so very</sup> summarise briefly, my object having been to make the writers <sup>so to arrange the extracts</sup> speak for themselves, that anything like an analysis of what their evidence ought to convey, becomes unnecessary. The first impression left by reading these <sup>latter</sup> cases is a wonder, whether nurture can do anything at all. Their evidence emphatically confirms that conclusion of the preceding groups as to the insignificant power of <sup>un</sup>nature compared with that of nature, and I think wholly <sup>meets</sup> removes the objection, which ~~is~~ mentioned at






the <sup>moment that it reaches</sup> ~~instant it touches~~ it, the stroke falls.  
Necessitarian, may derive new arguments from  
~~fact~~ in the life-history of twins.

go on p. 40

the beginning of this paper, as standing in the way of  
the complete proof of the hereditary transmission of ability.  
It then, as it seems to me, that when reasonable  
care is taken in selecting cases in evidence of hereditary  
ability, such slight differences of nurture as may be  
common to the sons of eminent men, are of no  
account whatever.

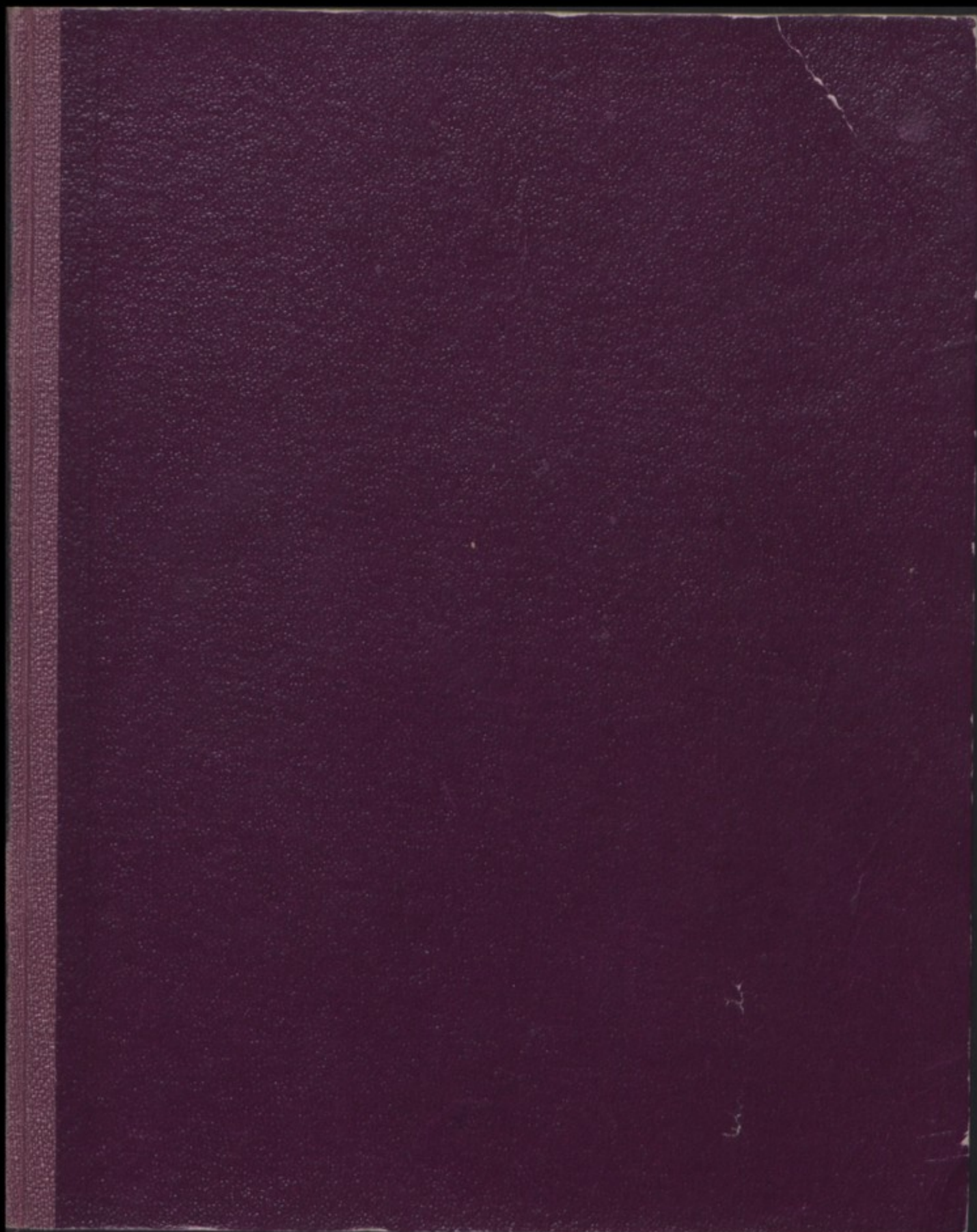


You may compare people the success  
 The persons whom you ~~choose~~ for comparison, may  
 have lived under very similar social conditions  
 and <sup>may</sup> have been educated in the same sort of schools  
 yet these <sup>prominent conditions</sup> are only a small part of those conditions that are  
 necessary to success; there remains, the <sup>hidden</sup> effect of a  
 vast number of accidental influences, upon which  
 the ~~real~~ bent and success of each man's life <sup>mainly</sup> ~~entirely~~  
 depends. These you leave <sup>wholly</sup> out of account, and therefore  
 your statistics are ~~valueless~~ of very little use.

to my evidence has always been "the persons whom  
 you compare may have lived under similar social conditions and  
 been educated had similar advantages of education, but these prominent  
 conditions are only a small part of those which determine success in life.  
<sup>These are the small accidental circumstances of life that</sup>  
~~These which~~ mainly give the bent to a man's disposition and career,  
 are the accidental circumstances, unknown to biographers, & possibly very  
 numerous. & These you leave wholly out of account, and therefore your  
 statistics however plausible at first sight, are really of very little use."







98



99

38. M

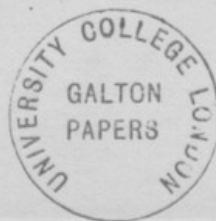
Whitting

f.1b

John Bowther

The case is I sh<sup>d</sup> think somewhat remarkable for dissimilarity in physique as well as for strong contrast in character. They have been unlike in body and mind throughout their lives. Both possess high moral character and strong affections, but not similar in kind. Stature about the same; both delicate in infancy but grew up strong. Fair. Shows in mental acquisition as a boy having been slightly affected by paralysis when a child but has since developed great perception of true principles and order for business & has always been an artistic admirer of beauty in art & nature. Dark. Quick as a boy in mental acquisition, possessed of much personal address: good at languages; always fond of military life; has been a soldier since at 17. Great aptitude for order management and generalship. Rather full in manner and apt to exaggerate unimportant matters herein very different to his brother. Distinguishable from

Both reared in a country home and at same schools till age 16



# Index

f. 2

1

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Cases of both twins being often ill at the same time

(Scott Oct 15, p. 15) Their general health is closely alike; whenever one of them has ~~an~~ an illness the other invariably ~~has~~ <sup>has</sup> the same within a day or two, and they usually recover in the same order. Such has been the case with whooping cough, chicken pox, measles, and ~~with~~ <sup>with</sup> a feverish attack which they ~~had~~ had latterly; also ~~with~~ <sup>with</sup> slight bilious attacks which they have ~~successively~~ ~~in succession~~ one after the other.

(Jane Oct 16, p. 2) If anything ails one of them, identical symptoms nearly always appear in the other. This has been singularly visible in two instances during the last two months; thus, when in London, one fell ill with a violent attack of dysentery, within twenty-four hours the other had precisely the same symptoms; <sup>a similar coincidence</sup> ~~approximate~~ ~~the~~ ~~same~~ took place with measles, <sup>nine</sup> months ago.

(Macrae p. 12 by Mrs. Macrae) Whilst I knew them, for a period of two years, there was not the slightest tendency towards a difference in body or mind. External influences seemed powerless to produce any dissimilarity. I met them three months ago on board a steamer in stormy weather, and discovered that they both were sea sick at the same time.

Hicks  
h. 7. oct 7) Their state of health has been always the same;  
they generally feel poorly at the same time and  
have colds, &c, about the same time.

Cornish  
h. 3. oct 25) When they were little children, we used to say  
".... (the elder) is ailing and .... (the younger) will  
soon droop", but their ailments were not always  
similar. Latterly, (<sup>twins</sup> they are now <sup>at</sup> 25) we have not  
observed this coincidence so much.

Jepson  
h. 10 oct 18) When they were children, if one were teething  
or became ~~at all~~ ill, the other began two or  
three days later.

Sheppard  
h. 16. ) As babies, if one woke, the other was sure to  
wake also; for this reason we used to say "it was  
more than double trouble."

Wapfield  
h. 54 ) Their ailments have always been similar; both  
had an attack of ophthalmia at 14.

Fowler  
41 ) Until the age of 15 (when one had a serious illness) they generally  
shared any little indisposition, or one followed the other within  
a few days. They shed their first milk tooth within a  
few hours of each other.

## Cases of both twins having some special ailment

<sup>p. 11</sup> Keir). They both have the defect of not being able to come down stairs quickly, which however was not born with them but came on when they were about Oct 20. They were both subject to asthma, (which they inherited from their father and grandfather) till the younger was Oct 8 or 9, but ~~the attacks continued with~~ the elder <sup>has continued attacks</sup> till about Oct 21, since then they have become less frequent.

<sup>p. 12</sup> Macrae). There is a congenital flexure at the second phalangeal joint of the little finger, in each of the twins, but not so marked as to cause unsightliness or discomfort. I have ascertained that they inherited this from their maternal grandmother. Their parents have no trace of it, nor their four brothers and three sisters.

<sup>p. 8</sup> Hull). One was born ruptured (and cured), the other became ruptured Oct 6.

<sup>and p. 54</sup> Wakefield). At about Oct 22, the younger went to reside <sup>for</sup> some years in the West Indies. Eighteen months after he had gone there, both his hair and that of his

brother who remained in England, began to grow  
 thin round the crown, and <sup>it thinned</sup> to the same extent in  
 each case, <sup>(again, in each case,</sup> after a while, the thinning stopped; then the  
 younger brother returned ~~the~~ to England and the  
 state of the hair of the two brothers continues alike.

Mansel) We both became bald at the age of 40.

~~Quaker~~ They shed their first milk tooth, within a  
 few hours of each other

Lehmann At Oct 23 they both had toothache and the same tooth had to be drawn in each case.

Creel) Their state of health had been much the same and  
 they both died <sup>in middle age</sup> of heart disease. One however  
 survived the other for seven years, owing, as it is  
 considered, to his having had by far the less  
 professional strain upon his mind.

? name). They were <sup>greatly</sup> ~~singularly~~ attached <sup>(to one another,</sup> ~~and~~ <sup>being both being</sup> ~~governments clerks, they~~ lived together. One was  
 seized with Brights disease and died, and the  
 other sickened of the same disease and died three  
 months later. (This case is a singularly touching one  
 in <sup>many respects</sup> ~~its details~~ generally. The father, who communicated it  
 to me, concludes <sup>his letter</sup> with a quotation which seems appropriate  
 and just "they were lovely in their lives and in their deaths they  
 were not divided".) (Insert 2 cases from p 10)



Cases in which one twin had an illness or accident which the other had not. The almost uniform result was, that the close resemblance between the twins became thenceforward diminished.

---

Martin  
p. 13) About 5 years ago, when the twins were 4 years old, one of them had scarlet fever; since that time they have not been so much alike.

Hall  
p. 8) The elder had the scarlet fever at the age of 12, and grew about 4 inches taller than her sister. She remained taller for some years, but the younger has now passed her by 2 inches.

G...  
p. 1) The second, at the age of 14, caught the scarlatina and afterwards the small pox, from neither of which did the elder one suffer. Since these complaints, the second has been a little more excitable and more easily disturbed by circumstances than the other, though she is strong and active and perfectly well in health.

Shillitoes) Their state of health was remarkably alike  
and generally very good, except as regards  
one illness of scarlet fever which the elder had  
very severely, whilst the younger entirely escaped  
although exposed to the poison at the same  
time and in the same manner. About Oct 21  
the elder became "engaged" and is now thinner  
than the younger so that we (the family) know  
them apart.

Goffey) They were at the same school and were kept in the  
same class until the elder was attacked by typhus  
fever, which was at that time epidemic. He was  
consequently kept at home for a quarter, and his  
brother got a class ahead of him.

Sanders) (I may mention here, that I have a case of  
twin sisters who were totally unlike in mind  
and body, but who were both attacked by typhus  
fever ab 16. Its effects upon them were exactly  
opposite. The elder, a small frail child, had  
been extremely delicate, the fever completely altered  
her constitution for the better, and she is now in

very good health. Her sister was <sup>in frame, she</sup> large ~~man~~ had been <sup>extremely</sup> <sup>in health,</sup> robust and almost boydenish in disposition. the fever rendered her delicate, she has been so ever since, and she is now a timid, yielding woman.)

Mildred) The health of the twins has been similar and <sup>p. 14</sup> almost invariably good, but the elder one had a nervous fever after she married, which has perhaps left her a little more sensitive.

Phyllis) Their close resemblance began to diminish <sup>p. 51</sup> a little gradually, but the great difference took place after the time when the elder one went to India. Of course, the effects of an Indian climate have been considerable.

William) (I have already, p. ., quoted an instance in which four years service as an officer in India, had so little altered a twin, that his own mother mistook him on his return, for his brother who was then staying in the same house with her, and it was some little time before she could be convinced of her mistake.)

Fowler<sup>p. 41</sup>) The younger at his birth, was ~~1<sup>st</sup>~~ heavier than his brother, and he continued ~~to~~ be the heavier until ~~at~~ 15, when he became greatly reduced by an illness of 8 months duration.

Gresley<sup>5</sup>) At birth they were exactly alike, except that one was born with a bad varicose affection, "the effect of which has been to prevent any violent exercise such as dancing or running, and as she has grown older, to make her more serious and thoughtful. Had it not been for this infirmity, I think that the two would have been as exactly alike as it is possible for two women to be, both mentally and physically; even now they are constantly mistaken for one another."

Brandrell<sup>p. 38</sup>) They were very much alike in childhood (numerous anecdotes are given in proof of their extreme resemblance at that time), but during the last 30 years they have become less and less alike. One of them, when a young man, had a very bad fracture of the leg, the effect of which was to prevent him ever after from taking proper exercise. He is now stout, while his brother



is thin and of active habits.

<sup>54</sup>Wölfel) The younger suffered a little from a red eruption, up to his 6<sup>th</sup> year. (These twins are now grown up and continue to be extraordinarily alike)

<sup>53</sup>Robertshaw) Up to the age of 17, it was impossible to distinguish them; then the elder fell off in health and his growth was retarded so that his brother became 4 inches taller than he was. By the age of 20 he had regained his health and likeness but he is still about an inch less tall and not quite so stout as his brother

<sup>57</sup>Wakefield) (This is a case already quoted, in which the ailments of the twins were generally similar and both had had ophthalmia). The elder, when a boy, had a swelling of the glands on one side of the throat. It was as large as a small egg, but is now, at 29, much diminished.

<sup>39</sup>Butler). One of two adult twins, who still nearly resemble each other, speaks of "no affinity in

insert from p. 11

Enough information has reached me about the <sup>(facts & dispositions)</sup> characters of 32 pairs of twins <sup>who are outwardly or somewhat alike in their ~~characters~~</sup> ~~in outward appearance~~, to enable some conclusions to be drawn. In no less than 13 of the instances, the characters are so alike that no point of difference can be specified and in nearly all the remainder <sup>the greater part of the</sup> difference there may be admitted of being reduced to the simple condition of greater or less energy, <sup>or vitality, or sensibility, or</sup> the energy manifesting itself <sup>in the twin who has it, in a more</sup> ~~independence~~ <sup>than his brother</sup> ~~originality~~ <sup>deficiency by a relatively</sup> ~~more~~ <sup>timid and</sup> ~~and its~~ <sup>disposition</sup>. It will also be observed that the larger share of energy is ~~often~~ <sup>usually</sup> accompanied by a better physical development; the twin who has it being <sup>more</sup> ~~described as~~ <sup>the</sup> ~~stronger~~ <sup>more</sup> ~~taller or healthier than the other~~.  
 1st bro.

Hick 7

Hull 8

Jeffrey 10

Mered 14

Skillicoe 17

Brandell 38

Batley 39

Lushington 46

Oldham 50

Phillipotts 51

Nasen 52

Wilkinson 55

Barroclough 27

In 32 cases of twins who are closely alike in person and of whose character I possess sufficient information to enable ~~fast~~ some conclusions to be drawn, I find as follows:-

Twelve instances in which the disposition and abilities are so similar that no points of difference can be specified, seventeen instances where there is a <sup>strong</sup> ~~general~~ resemblance except in certain <sup>cognitive</sup> particulars, and three others ~~which I cannot easily classify.~~ \* (note)

(note) One of these is the case already given ( ) where a difference exists and is accounted for; the others are, "character similar but not altogether alike" and "the one works more with his head & the <sup>younger</sup> ~~other~~ with his hands".

It will be observed ~~that the younger twin is~~ <sup>that the younger twin is</sup> the differences in the seventeen cases admit of being classed ~~as~~ <sup>under the heading of</sup> "Energy", as manifested by greater or less courage, independence of character and vivacity. The ~~weaker~~ <sup>twin</sup> who has the least Energy is frequently the more clinging and affectionate. Also it will be observed, that the twin who has the greater energy is usually the stronger, taller or healthier.

illness"; ~~but~~ I have not further particulars.

Barnard's <sup>27</sup> Their state of health has not been the same; in fact she who was the weaker in childhood is now the stronger. One of them has been in a very delicate state for 12 or 18 months, but their resemblance is not much diminished.



## Mental differences between twins who are outwardly alike

~~In 32 cases of twins who are closely alike in person and of whom I have known whose characters I have sufficient information to enable just conclusions to be drawn, I find there are 12 <sup>instances</sup> cases in which the disposition and abilities are considered to be very similar or even identical, 1 case (already quoted <sup>Greuter</sup>) where a difference exists and is accounted for, and 19 others which I cannot classify viz "characters similar but not altogether alike" and "the one works more with his head and the other with his hands"~~

~~(the points of resemblance <sup>compared to</sup> far outnumber those of dissimilarity. What~~

~~In the remaining 17 cases, the difference <sup>there many times</sup> ~~is~~ chiefly depends upon one of the twins having a <sup>greater</sup> ~~greater~~ <sup>larger share</sup> ~~degree~~ of energy, <sup>than his brother</sup> as manifested by <sup>his greater</sup> ~~greater~~ courage, independence of character or vivacity. The twin that excels in energy, is usually the taller, stronger or healthier. It must be clearly understood that a close mental resemblance prevails <sup>in most cases</sup> ~~in most cases~~ in those that are specified.~~

~~(Sister)~~

~~(1) is far more vigorous, fearless and energetic; also the more quick tempered. (2) is gentle,~~

clinging, and timid. She is a little inclined to be sulky, but is the more affectionate

<sup>Keat</sup> Sisters; - (1) is the stronger minded and more persistent  
 (2) is the more agile & (1) has always been of the greater weight.

<sup>Daunt</sup> Sisters: - (1) has great courage which (2) lacks. -  
 (1) has had better general health, (2) is a little the stouter and heavier.

<sup>Leff</sup> Sisters: - <sup>(Has a stronger mind and a finer disposition. She)</sup> had better abilities so that I frequently used to say "she is a year older than her sister".  
 She has a ~~finer disposition and a stronger mind.~~  
 She has the greater taste for music. (2) is the more tender hearted and affectionate, She has the greater taste for drawing & (1) has always been the stronger.

<sup>Leff</sup> Sisters: - (1) has the best nerves in riding. (2) is fond of flowers and arranges them with great taste either in nosegays or dried in a book.  
 (2) is rather the taller and stouter

Emfitt Sisters:- (1) more ardent, (2) more calm and gentle

Hevelly Sisters:- (1) more active and handy; neater and more elegant; sharp, critical and fond of reading. (2) awkward in her movements and inclined to be left handed; more droll; more affectionate and clinging; more indolent. Animals are more attracted by her than by her sister, though both are fond of them, - and are more pleased by her touch and notice.

(2) is slightly the larger and the heavier.

(I should mention that this is <sup>(the only)</sup> one of the very few cases that I possess, which I have <sup>been able to</sup> classify as being like in person but unlike in mind.)

> Continue Sisters from p 16

Mishley Brothers:- (2) more independent, original and self-contained; (1) more generous hasty and vivacious.

(2) is larger built, and <sup>more</sup> stronger physically, though not in constitution.

Langford Brothers:- (2) is said to be the more "peppery". He is the better musician and a trifle stronger in

athletic performance.

Lehmann 4th Brothers:- (2) is the more vivacious.

Arnold 37. Brothers:- (2) has the more mental power  
(1) is the taller and the stouter

Creed 40 Brothers:- (2) Sanguine and sometimes depressed;  
he had much the best temper though he was  
much the less thoughtful (of others). (1) was the  
graver in boyhood, gentle and more even spirited.

Woolf 5th Brothers:- (2) has perhaps a little more decision.  
He is slightly the taller.

Woolf 5th Brothers:- (1) has a somewhat more lively tem-  
perament

(2) suffered a little up to his 6th year from eruption

Robertson 52 Brothers:- (1) a little the more boisterous of  
the two.

Mansel 40 Brothers:- (1) Independently of his profession,  
he followed and excelled in Natural History.



f.16v

v.

about

he became a liberal, his family, being all staunch Conservatives.

His head was larger than that of his twin brother, (to whom, notwithstanding that their politics are at the Antipodes, he is stated to bear an astonishing mental and well as bodily resemblance.)

<sup>Suppl</sup> Brothers: - 71

<sup>42</sup> Brothers: - The one has become rather more luxurious than the other and more particular in his personal appearance.

<sup>Inter</sup> Brothers: - (1) works more with his head, (2) with his hands.  
(1) is now the taller.

<sup>Suppl</sup> Sisters: - Their characters are similar but not altogether alike.

<sup>(Gresley)</sup> Sisters: - (Case already quoted p. . of a difference due to circumstances.) (2) has the more decided character, is more serious & thoughtful, is fond of children.

<sup>Scott</sup> Sisters: - (2) has the organ of wit more largely developed.

her perceptions are quicker, she has a more excitable  
temperament and a more sensitive nervous organization

Comparison of elder and younger twins

10.

Among those twins who are closely alike, the difference such as it is, shows that the elder is physically the finer (taller, stronger & heavier) in 13 cases, the younger in 9, and they are stated to be exactly equal in 14.



## Similar Associations

F.20

19

Lehmann<sup>41</sup>) Their ideas became so alike that they uttered the same opinions (simultaneously) and recalled the same remembrances.

Griffith<sup>10</sup>) The association of their ideas was uniformly the same and at the same moment

Macrae<sup>12</sup>) I have frequently noticed their individuality of purpose and desire of being and acting in concert.

Mayer<sup>40</sup>) I should certainly say that our association of ideas is alike, as we often make identical remarks

Jepson<sup>10</sup>) They do make similar remarks at the same time.

Oldham<sup>50</sup>) When young, one would begin a sentence and the other would finish it.

Wakefield<sup>51</sup>) There was often a coincidence in their association of ideas, as shown by their remarking upon the same subject, at precisely the same moment, and ~~by~~ ~~their~~ ~~both~~ commencing to sing the same song.

Mildred<sup>11</sup>) Associations the same.

Barnard 27) Associations of ideas similar

Wither 55- Associations and remarks alike.

Robertshaw. (Similarity of associations is shown by the following <sup>little</sup> ~~one of many~~ anecdote.) A few years ago (2), being at Glasgow, bought a set of champagne glasses, as a surprise for his <sup>young</sup> brother, when he returned home, at the same time, (1), being at Bradford, bought a set of the identical pattern, for exactly the same purpose.

Cases in which both twins, being alike, <sup>f.22</sup> have considerable vigour.

21

The first group refers to twin brothers:-

Creel <sub>40</sub>) In their boyhood, both had very high spirits; in their youth they were powerful and active, and especially proficient in what was then called, "the noble art of self defence". They were also ardent politicians and liberals.

Raven <sub>52</sub>) Both of them were excellent cricketers; the one "all round", the other a batsman.

Phillips <sub>51</sub>) Both "duffers" at cricket.

Robertson <sub>53</sub>) (Decidedly vigorous; irrepressible)

Oldham <sub>51</sub>) Both fond of athletic sports; <sup>they are</sup> ~~and~~ nearly, <sup>6ft 4</sup> six feet high.

Horne <sub>43</sub>) Similar and considerable powers of athletic performance

Fowler <sub>41</sub>) (Both take much <sup>athletic</sup> exercise) Their heights are 6ft. 1 $\frac{1}{4}$  and 6ft. 2 $\frac{1}{4}$ .

Luskington (Both have achieved a considerable official position)

The following <sup>group</sup> refers to twin sisters: -

Hall<sup>8</sup>) They are very courageous and ready for any athletic exercise; they were famous at foot ball and now skate very nicely. They passed the Cambridge local examinations, the one taking the only first class of her year, the other, one of two or three seconds.

Cornish<sup>2</sup>) Can walk or swim with the same power of endurance; both have won several prizes at the <sup>(Reading)</sup> ... school of art.

Macrae<sup>12</sup>) Their physique and their every development seemed alike; equally robust, they could undergo the same amount of fatigue.



Mildred<sup>16</sup>) They were quite equal, and I believe they were superior to most of the other members of the family; they certainly attained to a greater age (79 and 93).

Jephth<sup>16</sup>) They have equally good use of their limbs for running, dancing, riding and skating.

Shillita<sup>17</sup>) They had similar powers of athletic performance as in swimming, paddling a canoe, skating and archery.

Hewitt<sup>19</sup>) They are both very intelligent and full of fancy.

## Dissimilarity

p. 25r.

24

Burton  
h3

They have had exactly the same nurture from their birth up to the present time, they ~~are~~ both perfectly healthy and strong yet they are otherwise as dissimilar as two boys could be, physically, mentally and in their emotional nature

Sander  
22

I should say that my sister's character and my own are diametrically opposed and have been utterly different from birth. (they are equally opposite in stature and appearance)

Smith  
4h

I can answer most decidedly, that the twins have been perfectly dissimilar in character, habits and likeness, from the moment of their birth to the present time, though they were nursed by the same woman, went to school together and were never separated till the age of 15.

Wicks  
h9

(The father says:) They were curiously different in body and mind from their birth. (The surviving twin adds:) A fact struck all our school contemporaries, that my brother and I were complementary, so to speak, in point

f. 25v

Green Co  
Bordman

of ability (~~excess~~ and disposition). He was contemplative, poetical, and literary to a remarkable degree, shewing great power in that line. I was practical, mathematical and linguistic. Between us, we should have made a very decent sort of man.

Hope  
65

Singularly unlike in body and mind from babyhood (1) was of a placid temperament, fond of mathematics at school, prudent and careful; went to College and became a clergyman (2) Sanguine and fond of claps at school; open handed and careless of money; went to sea, then to New Zealand and now occupies an estancia in S. America

Wynne  
26

Very dissimilar in body and mind (1) is quiet, retiring, and slow but sure; good tempered but disposed to be sulky when provoked. (2) is quick and vivacious, forward, acquiring easily and forgetting soon; quick tempered and choleric, but quickly forgetting and forgiving



Green<sup>64</sup>) They have never been separated, never treated differently in the least degree, in food, clothing or education, both are and have been exceedingly healthy and have good abilities, yet they differ as much from each other in complexion, height and mental cast, as any one of my family differs from any other. There is a greater unlikeness and difference in height and appearance between these twins, than there is between the shorter twin and his younger brother or between the taller twin and his elder brother.

Bodington<sup>61</sup>) (I have a careful <sup>and curious</sup> analysis, but no summary which I can quote, of the peculiarities of two twin boys, which appear to be diametrically opposed. In character, the one twin is amiable, courteous, intelligent and domestic. The other is singularly the reverse. They are <sup>quite as</sup> ~~exactly~~ dissimilar in <sup>their</sup> appearance.)

Whitting<sup>70</sup>) Unlike in body and mind throughout their lives, the case is, I should think, somewhat remarkable for dissimilarity. (then follow details, which I do not quote.)





At the beginning, Nov 14/54 received from Mr. Ainsell  
 address of "190 Twins in which both children lived to be at least 3 years  
 old. In a large proportion of the remaining 260 families  $\left(\frac{190}{260}\right)$   
 one or both the twins died early & in other cases the addresses were either  
 not given or have not been preserved."

750 Circulars printed; about 600 posted

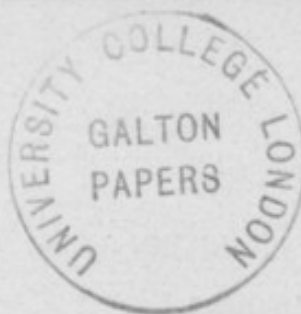
total cases received 159, from say 125 correspondents

or 1 reply to 4 circulars. but many of these were handed to  
 several people & some were sent to persons  
 who had expressed a wish to have them

∴ 1 reply to 5 or 5½ circulars sent to persons of whom I knew  
 nothing, appears <sup>to be</sup> about the proportion.







f.1br

# QUESTIONS ABOUT TWINS.

BY FRANCIS GALTON, F.R.S.

IN the course of some inquiries upon which I am engaged, connected with the resemblance between twins, it has come to my knowledge that you are very probably able to afford me valuable information. I therefore take the liberty of sending this Circular to your address, in which my purpose is briefly stated, and the questions to which I seek replies are contained.

I propose to publish the result of my inquiry, with corroborative extracts from the communications I may receive; but the names of the individuals referred to, and of my correspondents generally, will be kept **STRICTLY PRIVATE**.

---

*Object of the Inquiry.*—My object is to collect data for estimating the respective shares that "Nature" and "Nurture" ordinarily contribute to the Body and Mind of adults; meaning by "nature," everything that is inborn, and by "nurture," every influence subsequent to birth.

The effects of Nature are clearly seen in persons, originally unlike and who *continue to be* unlike, although they are reared as nearly as possible in the same way; so the effects of Nurture might be traced in the gradual *extinction* of resemblances among those who closely

resembled each other in childhood, but were afterwards reared in a more or less different manner.

It is easy to obtain suitable instances for the first part of the inquiry, but it is only among twins that they exist for the second.

I have explained myself more at length, and drawn provisional conclusions, in a work just published, "English Men of Science; their Nature and Nurture" (Macmillan & Co.), page 12.

---

I take the opportunity of asking other questions, which relate to Heredity. The *strength* of the hereditary tendency to bear twins is not yet ascertained; neither is it known whether the tendency is transmitted *equally* by the male and female lines. If my correspondents will kindly reply to the questions about uncles, aunts, and cousins, they will give data to determine these matters.

## QUESTIONS.

\* \* Please address any communications with which you may favour me, to FRANCIS GALTON, 42, Rutland Gate, London, S.W.

- (1.) Names of the twins, both Christian and Surnames? (It will, I trust, be clearly understood that *no names will be published*. I ask this question, to guard myself against entering the same case twice; to avail myself of corroborative evidence, if it should reach me; and to learn whether the twins are of the same sex or not, which is a point of some interest in respect to the frequency of strong resemblance.)
- (2.) How far were they alike, in body and in mind;—in childhood, in boyhood or girlhood, in youth, and in adult life?
- (If they were *never* very closely alike, the questions 3, 4, 5, and 6 must be disregarded.)
- (3.) If they were closely alike at any age, give anecdotes to illustrate their resemblance; showing for instance, that near relations frequently mistook them. Test your estimate of their likeness, by considering details of it, thus, Were they of the same height and weight, and were their clothes of the same fit? Had they the same colour of hair and eyes? Had they similar powers of athletic performance? Were they alike in manual skill, as in drawing? Had they similar handwriting and intonation of voice? Were their special tastes the same, as for music and art? Were their dispositions similar, and their associations of ideas alike, as shown by their frequently making identical remarks, or by the same recollections occurring to both of them at the same moment? Was their state of health the same?
- (4.) Up to what age were they educated together, and in what respects did their education and pursuits differ afterwards?
- (5.) At what period did their close resemblance begin to diminish, and in what respects did they grow unlike in body and mind?

- (6.) How far do you ascribe their increasing dissimilarity to the development, in due order of time, of the qualities they had at birth, but which had lain dormant, and how far to the effect of external influences?

---

#### HEREDITY.

##### UNCLES and AUNTS:—

- (7.) How many Uncles and Aunts had they on the Father's side? Were there any cases of twins among them?
- (8.) How many Uncles and Aunts had they on the Mother's side? Were there any cases of twins among them?

##### COUSINS:—

- (9.) How many Married Uncles had they on the Father's side? How many children had those uncles (including all who may have died in infancy)? How many cases of twins among the children?
- (10.) How many Married Aunts on the Father's side? How many children had those aunts (as above)? How many cases of twins among the children?
- (11.) How many Married Uncles on the Mother's side? How many children had those uncles (as above)? How many cases of twins among the children?
- (12.) How many Married Aunts on the Mother's side? How many children had those aunts (as above)? How many cases of twins among the children?

- 
- (13.) Can you give me the addresses of any persons known to you as being themselves twins or nearly related to twins, and who you think might be likely to respond to this Circular if a copy were sent to them?



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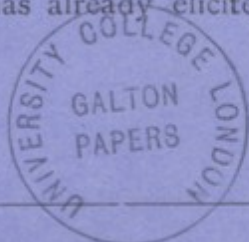
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QUESTIONS ABOUT TWINS. f. 1e

MAY I beg the favour of your informing me, whether in the course of your experience among the insane, you have met with any cases of twins suffering under the same form of insanity, so alike in minute details as to be comparable with that which has been described by a well-known authority, Dr. J. Moreau, in the strange account that I have translated, and given below?

The motive of my inquiry is partly, but sufficiently, explained by the enclosed Circular, which I am sending to twins whose addresses I happen from time to time to learn, and which has already elicited numerous answers of great interest.



FRANCIS GALTON,

42, RUTLAND GATE, LONDON.

Extract (translated) from p. 172 of La Psychologie Morbide, par le Docteur J. Moreau (de Tours), Medicin de l'Hospice de Bicêtre, Paris. 1859.

He speaks "of two twin brothers who had been confined, on account of monomania, at Bicêtre. . . . Physically the two young men are so nearly alike that the one is easily mistaken for the other. Morally, their resemblance is no less complete, and is most remarkable in its details. Thus, their dominant ideas are absolutely the same. They both consider themselves subject to imaginary persecutions; the same enemies have sworn their destruction, and employ the same means to effect it. Both have hallucinations of hearing. They are both of them melancholy and morose; they never address a word to anybody, and will hardly answer the questions that others address to them. They always keep apart and never communicate with one another.

"An extremely curious fact which has been frequently noted by the superintendents of their section of the Hospital, and by myself, is this:—From time to time, at very irregular intervals of two, three, and many months, without appreciable cause, and by the purely spontaneous effect of their illness, a very marked change takes place in the condition of the two brothers. Both of them, at the same time, and often on the same day, rouse themselves from their habitual stupor and prostration; they make the same complaints, and they come of their own accord to the physician, with an urgent request to be liberated. I have seen this strange thing occur, even when they were some miles apart, the one being at Bicêtre and the other living at Saint-Anne."

- 74 leaf - Statistics of Circulars sent
 12 Anecdotes of mistakes - extracts
 62 Ditto summarised for book
 64 Tabulated replies
 83 Results in a small table
 91. M.S. for book
 107 Extract from Letter Physiology
 109 Extracts about simultaneous effects
 115 " Difficulties in thought
 121 Extracts contrasted disposition in terms outwardly alike
 127 Association of ideas & simultaneous remarks
 129 considerable vigour, a both terms being alike
 131 ~~deeply~~ ^{Chorionic Maceata}
 134 a few statistics - older or younger & stronger
 taken after relations
 136 } various notes.
 137 }



Girls closely alike (Twins)	age	Height	Weight	Fit of clothes	Colour of hair	Colour of eyes	athletic power	skull & drawing	voice	character	voice	music	art	Disposition	Health
Barracough	30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X
Cane	6	✓	✓	✓	✓	✓			✓	✓				X vigorous energy clinging timid (see)	(2 doses)
Cobbold (quinn's?)															
Cornish	25	✓	✓		✓	✓	✓							... (see)	✓ see
Davey	32	✓	✓		✓	✓	X	X		X	✓	✓		X courage (2 doses)	X
Hull	18	✓	✓		✓	✓	✓		✓	✓		✓		✓ g. ability (see)	
Jefferson (infant)	58	✓	✓		✓	✓			✓	✓		✓		✓ g. ability (see) dis. also (see) courage (see) which please see closely alike.	
Jessop	17	✓	✓		✓	✓			X	✓	X	X		(2) better abilities	
Wareham (see Manual)															
Martin	9														
Naville (see Page) adult														so wonderfully alike that almost no one could distinguish between them	
Scott	15	✓	✓	✓	✓	✓	✓	✓						X slight diff.	
Adeane (see Stanley)	17													"as long as they lived they were in every thing similar to each other"	
Edgcombe (Stokes) adult														"one could not be told from the other"	
Sykes	17													"so much alike that they could scarcely be distinguished apart"	
Vithair	adult													very shy.	
Suxmore (Butler)														so wonderfully alike in the eyes of strangers but members of the family could distinguish them.	
Woods	"													as like as two peas	
Grönigen	28													ditto ditto.	
Cooper (Harris)	ad													were continually mistaken for each other	
Macrae	16	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	remarkably alike	
Nicholls	16	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	remarkable (see)	

Writer

To what age
educated
togetherSubsequent
persons

B yes

F

from

M yes

F yes

F yes

have to 18.

M

from

most

F

Nucle

from

G. Butler

I a
refusedmodified
after out.

M

except that one of them has been for 12 or 18 months in a delicate state
their likeness is not much diminished

a looking glass anecdote

Whatever difference there is I ascribe it to their respective "natures" - their
vital & cerebral natures, so E put it. - Elder takes after mother & her family, & vice versa
one inspired, the other became so at 6 months old. different expression

child (the writer) much puzzled by resemblance of aunt & mother. (Was)

as infants they were left alike, then after

as they grew older they continued alike though changing in appearance,
expression slightly different.

1) having lived so long in court has acquired the address & air of her position

never quarrelled. unlike their brothers & sisters in this respect. During 2 years
of separation not the slightest tendency to differ & appearance &c. - both have 2 consciences
flashing in them.

F.6v

Authority

Age

General
height
weight
build
color
shape
complexion

Personal
voice
shape
complexion

Athletic power

Skill manual

Handwriting

voice

musical

art

Taste

Health
Strength
Endurance

ability

12 Girls alike; ~ anecdotes of mistakes (A)

p. 74

C.... The nurse one day fed the same one twice over, though she fancied she could not be mistaken, till the hungry one cried for food

Came at oct 3. Their mother on one occasion dictated one of them by mistake for the other

~~See next page~~

~~Cobbold at oct 12. (1) had to go into the Doctor's study on a black Monday; being his first appearance there he was let off with a 'caution'; the following Monday (2) had to go into the Dr's study. "How is this?" I cautioned you last week; can't let you off again - get me the cane!". "Nurse Sir it was my brother~~

Dacey
(see below)
Hick
(ditto)
Jefferson

Such was the marvellous similarity of their features, expression, voice, manner, &c that I remember as a child being very much puzzled and I think, had my Aunt lived much with us, I should have ended by thinking I had two mothers

Macrae, ^{So closely did they resemble each other that} their music teacher was repeatedly imposed upon by them. They had their music lesson given at different times, & they took advantage of this to deceive him. When (1) wanted a holiday, (2) would take her place, and vice versa. In this way they made the task of learning music tolerably agreeable without getting into scrapes & quarrels

Groningen

Dacey When about 4 years of age they suffered ^{together} rather severely from a severe febrile attack and on an especial occasion, one

f. 8r

food

✓

↓

2

Girls alike continued - Anecdotes of mistakes (A) f. 8v

14

Child was given two doses of medicine, the other escaped her dose - their sick features were so very similar. The two children were only semi-conscious; they were lying together in one bed.

Came
Sh. be in
last page

A lady seeing them, at h, a few weeks ago, was much amused at their likeness and made several trials by sending them out of the room and calling them in again and mistook them each time (compare this with Foster at end)

An amusing instance occurred about 3 years ago (or 3) when their mother on one occasion dictated one of them by mistake for the other and at that time we were in the habit of saying many times in the day, "which are you?" They never dissociate the one from the other; and look upon themselves as one. Perhaps one reason which binds them is that they always sleep together.

Stick
Sh. be in
last page

near relations as father & mother constantly know and do never at any mistake one from the other & have to ask them which is which.

Newble
& Page

They were so wonderfully alike that almost no one could ever distinguish between them, and as they grew older they continued alike while changing in appearance.

Patel
by Land, Strachy

Their teeth grew alike, they spoke alike & together, and said the same things and seemed just like one person.

by Mrs. H. Potlock
confirmed by
Mrs. Bailey

"She frequently remarked that when kissing her twin sister it was not like kissing her other sisters but like kissing herself,

phyrice

✓ food

16) Girls alike, continued — anecdotes of mistakes. A

P 9v

her own hand, for example "

Shepherd Looking glass anecdote

Shillitoe ~~It is believed that the children who changed in their~~ ^{had in no occasion been}
~~Their mother hardly knew one from the other, and an aunt who was mixed with them still says,~~
 both & that a is b & b is a. The nurse who always

attended them having to give one of them a Powder in time
 jam, they being fond of sweets, changed places and the nurse
 gave it to the wrong child and did not find out her mistake
 until they told her of it, when she came in great trouble to
 their mother. Until lately if they were at a ball and danced
 as they always were alike, it used to be quite amusing to
 see how the partners to whom they were engaged to dance would
 mistake them and come and claim the dance with one when
 he was engaged to the other (Red Baser)

Vilkin When W. was "engaged," there was a terror in the family lest the
 lover might not sufficiently distinguish & be consistent in his taste;
 it seemed obvious that ~~the either of them~~ ^{neither of them} could have suited him
~~just as well as the other~~ ^{equally} though they did not equally like him. The
 twin sisters were most closely attached, they slept together and felt
 as one; their sympathy was extremely close and they were every thing
 to one another.

Lady Eastlake ~~from Stark~~ Twin girls most awfully alike

f. 10 r

Looking Club

Physic

Marriage

18 Quots alike continued Anecdotes

f. 10v

Cobbold
(see under boys) Speaker of two sisters and a looking glass mistake

M^r K. W. W.
Hornes
former story Looking glass mistake

looking sharp

looking sharp

Brandreth. I believe there were a good many anecdotes but I can only remember one or two. (Looking glass) (A mistake in a railway train by a friend who long conversed with the military brother, thinking notwithstanding his smart dress that he was the chrysmean brother)

Cobbold. When at school at 12 A had to go into the Doctor's study on a black Monday; being his first offence, he was let off with a caution. The following Monday B had to go into the Doctor's study. "How is this? I cautioned you last week, get me the cause!" "Please Sir it was my brother" "Oh very well, you may go." (They were not however closely alike - different colored hair, &c.)

Creed. My uncle ^{before he wore a moustache} was staying at my father's house and at an evening party the conversation having fallen on the likeness of the brothers, Col T. declared he "should know the one from the other, even if they changed their clothes". The brothers glanced at each other, both found excuses to leave the room & my uncle reappeared in my father's large white tie and old-fashioned clerical coat and sat at the head of the table at supper. Col. T. addressed him as my father, & my father as my uncle for the rest of the evening & wished them good bye as such — They were fond of playing tricks on people; complaints were frequently made to their Father & the headmaster of their school (Boy R. Edwards) The boys would never own which was the guilty one and the complaints were never known to be certain which it was. One headmaster used to say that he would never flog the innocent for the guilty;

Looking glass

Proving

✓

another flogged both of they persisted in not confessing which it was. - (Another story of a college friend meeting & accosting the brother unknown to him at Newmarket & refusing to be convinced & betting a guinea upon it to the brother, which he lost on returning to Cambridge & seeing the twins together.) - When my father was engaged to my mother he was sitting by her while she was at work and talking to her; my uncle took my father's chair and continued the conversation, she went on talking without perceiving the difference till she looked up, and said "Why it's George!" 2 other instances are given of mistakes. Also this.

My uncle had been a pupil of Sir Charles Clark, who also knew my father very well. One day Sir Charles put his head out of a railway carriage window and said called out "Ah! Creed, I know you, though you have got your brother's hat on. At that time my Father wore a very broad brimmed hat. Again another instance about a patient mistaking the clergyman brother who happened to come into the consulting room for the doctor. When she saw them together she said

(Fowler says) "Why you are the very moral of each other, gentlemen"

Supply. In infancy ^(? childhood) one was shown a looking glass, he at once said it was his brother he saw; the other did likewise. When sleeping, they used to puzzle their mother who once accused the nurse of having placed them in the wrong beds, but it was the mother's mistake.

F. 135

Marriage

interchangeable



2 looking glass.

26

Boys alike. anecdotes

f. 13v

Thiff. They are now at 12; from their birth I (the father) have not known them apart (tho' I ought to say that my knowledge of faces is very defective) almost every one in the house makes mistakes about them. This very moment I have been called into the other room where their mother was unable to say on the spur of the moment which was which.

Lehmann At Göttingen the barber cut the hair of both, thinking that he was only serving one person.

Sawford of themselves at 55. Exactly alike in all. Their schoolmasters never could tell them apart; at dancing parties they constantly changed partners without discovery - Close resemblance scarcely diminished with age.

Mausel at 58. We were all extremely alike and are so at this moment so much so that our other children up to 5 and 6 years old did not know us apart. On one occasion when I returned from foreign service, my father turned to me and said "I thought you were in London" thinking I was my brother; ~~yet~~ he had not seen me for nearly 4 years - our resemblance was so great.

Northolt In school life we were sometimes punished for the other. Amusing scenes occurred at college when we came to visit the other, the porter on one occasion refusing to let the visitor out of the college gates, for though they stood side by side, he professed ignorance as to which he ought to allow to depart. Comical mistakes arose at wine parties from mistaken identity and

f. 14r

Prospic

52

- at chapel the visiting brother was rudely turned out of the visitor's seat by a Don and ordered to put on his surplice and sit with the undergraduates.

Phillipotts as a was walking in Mount St. a gentleman said to him "I left you in Bombay". (he was a civilian in Bombay)

~~Robertshaw~~
see Mr. Lane Top

Robertshaw I bought a few years ago a set of Champagne ^{at Glasgow} glasses & surprise C with, who at the same time bought a set of the identical pattern at Bradford to surprise L with. — C got married first, but both met the lady together for the first time and fell in love with her there and then; Calvin managed to see her home and to gain her affection though Luther went sometimes courting in his place and neither the lady nor her parents could tell which was which — Looking back anecdotes of both L as to C & of C as to L — Their younger children could tell C from L, and even Mrs L took Calvin for her husband a few days ago, ^(at 44) simply because he had put on a new suit of clothes which are similar to those of L's usual wear. — Both went to a Photographer to have their cartes de visite taken, Luther having to go on a journey called for his cartes & got by mistake, Calvin's, which he interchangeable

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30)

Boys alike - anecdotes

p. 16v

considered a capital wheeler of himself and distributed as such amongst his friends. The mistake was only found out on his return when the Photographers told him that he had by accident got hold of the wrong cards.

Underwood. About asking the way - first one asked a man & then the other coming up a few minutes after & asking the same question, made the man quite cross who said "I have just told you"

Wakefield. In childhood they were on one occasion at Rotherham Gardens and one being lost the other was sent in search and he now and again returned and was taken for the missing one instead of himself and had to assert his identity to his near relatives present. — Frequently walked to town with each other's friends without being detected & such cases have been of frequent occurrence until quite recently (Oct 29) - During their early City days they used to dine at the same place, one say at 1/2 past 12 & the other about 2, and it was the prevailing idea at the dining room that the one was accustomed to dine twice daily. (this might have been turned to economical account without scruples)

Watton They were so alike about 6 years old that I often corrected one instead of the other; we were obliged to put on different neck ties to know the difference. A dispute often arose between their mother & their nurse as to which either of them was; and the mother has on more than one occasion given the one a dose of physic which was intended for the other, and rewards & punishments have been given under similar error by their parents & others.

Withinson at 50 or more, the woman at the bath at Newton remarks they were as like as two shells. At 16 or 17 one was late to absence, the head master always made both appear afterwards. After 16 one went into the army the other to private tutors. The army one I went to visit & the tutor was out at dinner. When the tutor rang the door bell at night upon his return, I who had never seen the tutor said to O, get under the table and I will talk to your tutor. The tutor did not find him out till O laughed from under the table. I the next year went to visit O at Cambridge & on the stairs saw a Gyp carrying a bowl of milk punch, & said hullo, where are you going? Gyp answered to your room Sir, opened the door & nearly tumbled down when he saw his master sitting at the

floups

physis

table and her ditto behind him. ~~James & George~~
 & O ^{went} into the Bengal cavalry & on his way home on
 furlough visited J who was quartered at Exbattar.
 I was on the sick list and in bed; O went to the
 billiard room. L^{td} Charles Wellesley the Colonel
 of the 15th came in, saw, as he thought I playing,
 went out in a rage and sent Chaor J put under arrest
 whereas I was in bed and O was playing whist. The
 orderly brought his book to O to sign. Another time
 some years later O was again coming home from
 India on leave. The ship did not arrive for some
 days after it was due. I had come up from his quarters
 to receive his brother. Their old mother was very
 nervous. One morning O rushed in "O Mother
 how are you" & her answer was "No J, its a bad joke
 you know how anxious I am" & it was a little time
 before O could persuade her he was the real moon.
 Two years ago (about Oct 50) I was walking in the Park
 with O, a first cousin came up, shook hands and
 took him for J, then a great friend of J came up
 & shook O heartily by the hand; he did not know O.
 I myself last year waited for him in O's room; then
 left a note & was going out, a cab drove up to the
 door & I shook hands as I thought with O, saying

I have been waiting here for an hour. It was J who had just come up from Gosport. These are a few instances; both brothers were well known about town last year & hundreds of people mistook them. wölfel They often were mistaken for each other; for instance they often asked to let their uncle guess which of them was R and he usually took him for J (see Cam)

Fowler When 3 or 4 years old, an artist who was taking their portraits was prevented from having a sitting for 3 weeks & on returning his work, he could not tell to which child the respective likenesses that he had in hand, belonged. When about the same age, one of them not being quite well, the doctor called to see him, when the wrong child was (unintentionally) brought to him & pronounced to be quite well now, whatever may have been the matter with him, and it was not till the J^r had left the house, that it was discovered that the boy who was in his mother's room waiting till the J^r came, had been taken upstairs to have his frock changed, & his brother left in his place. There seemed to be a sort of interchangeable likeness in expression that gave each often the effect of being more like his brother than himself.

F. 20r

interchangeable

✓

marked over 16

38

f. 20v

Kropp
by Lehmann

Their married sisters (but not twin sisters) and they
could not easily be distinguished by their brides.

1
36 cars

P. 21

Murphy

Anecdotes of Nivhahs

P. 22v

I ^{in the first place} will select from the 70 or 80 communications that have reached me concerning twins who closely resemble each other, ^{twenty four} ~~a few~~ anecdotes illustrative of their alleged resemblance ^{in various particulars,} and in order to convey a just idea of the large number of cases in which close similarity is found, I ~~will~~ ^{have} not, ^{except in the one case, N^o 22,} ~~used other words than~~ ^{used} more than a single ~~one~~ anecdote out of each communication. They ^{are} ~~written~~ ^{printed} just as I received them with ^{only one alteration; namely that of} ~~the single change~~ ^{that of} ~~that~~ ^{instead of the real names} ^{as in the} ~~the~~ catechismal letters "Maor N" as the case may be. I ~~have~~ ^{have} always substituted all the communications of which I make ^{in their memory} use, ^{of} ~~have~~ reached ^{sources which I believe to be} ~~same~~ ^{perfectly} trustworthy; sometimes they ^{have} ~~come~~ ^{come} from the twins themselves, ^{sitting together in council,} but more ^{commonly} ~~usually~~ from their parents, children or brothers. We will begin with three ~~general~~ remarks on likeness generally:—

I have received between 70 & 80 communications concerning twins who closely resemble each other and will select ^{from these} a few illustrative anecdotes from the replies sent me by those that have been sent to me in illustration of the nearness of their resemblance. I will not cast more than one extract ^{will be taken} from each reply, unless the contrary be stated and I may say once for all ^{may be} that the ^{communications} ^{come} in all cases from thoroughly qualified observers - sometimes from the twins sitting in concert together, or few cases from the parents, children or brothers of the twins, ^{or from the twins themselves}, and that the first three remarks are from observant friends ^{more} or distant relations.

Newble

Lady Eastlake

Pabel

I have received between 70 & 80 communications concerning twins who closely resemble one another and will select from these a few ^{phrases} anecdotes illustrating the nearness of the resemblance.

Only one extract will be taken from each reply unless the ^{which I will always substitute in the real initials, the catechismal letters M & N as the case may be} contrary be stated, and I may mention, once for all, that the communications come in every case from thoroughly trustworthy sources, sometimes from the twins themselves, sitting together in concert, but more frequently from their parents, brothers or children.

(Newble) (11) They were so wonderfully alike that almost no one could ever distinguish between them, and as they grew older they continued alike though changing in appearance.

(Lady Eastlake) (16) "Most awfully alike". (This is the phrase of

(3) ^(with E-adult life)
 "as long as they lived" (they were in society they similar to each other,
 we could not be told from the other"

(after the subsequent number)

Base, 12

~~16~~ 16 32

Watten 32

Cane 12 16

an accomplished author, who ^{shows} ~~does not use~~ random and exaggerated expressions) / (Patch) (3) "Their teeth grew alike, they spoke alike and together, and said the same things and seemed just like one person."

In early childhood ^(occurs in physicking, Thomas; I) mistakes of the following kind

C. Davy
12

occur (4). When about 4 years of age, they suffered together from a severe febrile attack and on an especial occasion, one child was given two doses of medicine, the other escaped her dose: - their sick features were so very similar - The two children were lying together in one bed." I have two other cases of this mistake in physicking. (5) "A dispute often arose between their mother and their nurse as to which either of them was & and the mother has on more than one occasion given the one a dose of physic which was intended for the other" I have ^{also a third} ~~another~~ case of this kind. Similar

Waller
32

Come
14

mistakes occur in respect to food (6) "An amusing instance occurred (see 3) when their mother on one occasion dieted one of them by mistake for the other, and at that time we were in the habit of saying many times in the day, "Which are you?" (7) "The nurse one day fed the same one twice over, though she fancied she could not be mistaken, till the hungry one cried for food". The twins are not only apt to be physicked & fed but also to be furnished

C.
12

Waller
32

whipped vicariously: thus: - "They were so alike when about 6 years old, that I often corrected one instead of the other; - we were obliged to put different neck ties on them, to know the difference between them". I have two other

cases of ~~their~~ mistakes. in punishment.

~~Robertson~~ No left than eight ^{have been sent me} accounts of a ~~person~~ ^{person} seeing his ^{own} reflection in a large mirror ~~at~~ at the end of passage or elsewhere, and believing it to be the person of the other twin, and ~~calling out~~ addressing it. ^{The following} There is an instance of an analogous but more marked blunder:—

(9) "Both went to a Photographer & have their cartes de visites taken. M, having to go on a journey, called for his cartes and got ^{through a} mistake, those of N, which he considered a capital likeness of himself and distributed as such among his friends. The mistake was only found out on his return, when the Photographer told him that he had by accident got hold of the wrong cartes". Very close observation may be insufficient to realize a difference between twins, ~~when~~ at least when they are young.

(10) "When 3 or 4 years old, an artist who was taking their portraits, was prevented from having a sitting for 3 weeks, and on returning his work, he could not tell to which child the respective likenesses he had in hand belonged".

Tutors are ^{frequently} ~~continually~~ ~~tricked~~ ~~thus~~ "So closely do they resemble each other that their music teacher was repeatedly imposed upon by them. They had their music lessons given at different times and they took advantage of this to deceive him. When M wanted a holiday,

It would take his place, and vice versa. In this way they made the task of learning music tolerably agreeable without getting into scrapes & quarrels. Schoolmasters ^{and others} were ^{with casuistical difficulties about them through their likeness to} ~~very~~ puzzled ~~at~~ ^{by} ~~the~~ ^{the} boys. They were fond of playing tricks at school on people and complaints were frequently made to their father and to the headmaster of the school at which they were. The boys would never own which was the guilty one and the complainants were never known to be certain which it was. One headmaster used to say that he would never flog the innocent for the guilty, another flogged both if they persisted in not confessing which it was. Again

Greer
20

¹⁴⁹ "Exactly alike in all. Their schoolmasters never could tell them apart; at dancing parties they constantly changed partners without discovery. Close resemblance scarcely diminished by age".

Lantern
24

Another case ^{of twins} ⁽¹³⁾ "Amusing scenes occurred at college, when one came to visit the other; the porter on one occasion refusing to let the visitor out of the college gates, for though they stood side by side, he professed ignorance as to which he ought to allow to depart." I will quote one more case

Montfort
26

^{of mistakes at school} ~~this kind~~ furnished me by twins aged 55:—

Belmont
26

Tradesmen are or might be taken in:—⁽¹⁵⁾ At —, the barber cut the hair of both, thinking they were only one person. Again in another case ⁽¹⁶⁾ during

Worshipful
30

their early City days, they used to dine at the same place, one say at ~~half~~ half past twelve and the other about two, and it was the prevailing idea at the dining rooms that the one was accustomed to dine daily. (this might have been turned to commercial account without scruples)" I give the proper statistics & all, just as I received it, because there ~~appears to be~~ ^{is a decidedly} a delicious equivocal in the part between brackets, ^{which} coming as it does, from ^{a shrewd man of} ~~an actor~~ business, ~~man~~ seems all the more to suggest a lingering regret ~~in his heart~~ that the opportunity of effecting a ^{daily} ~~good~~ stroke of business was neglected ^{through the unreasonable scruples of} owing to ~~his~~ ^{her} prejudices ~~of~~ ^{her} son.

Elphinstone
(16)

I do not lay much store on, nor do I care to ^{many} such cases in which mothers mistake their living children for one another when young, but here is one in addition to those already given (17) "Their mother hardly knew one from the other, and an Aunt who was much with them still says that the children got changed in their bath and that M is N, and N is M." There are however cases in which a parent has mistaken his child in ^{boyhood} ~~later~~ years and even in ^{adulthood} ~~adult~~ life:—(18) "They are now at 12. From their birth I" (the father) "have not known them apart, though I ought to say that my knowledge of faces

Iliff
12

is defective. Almost every one in the house makes mistakes about them. This very moment I have been called into the other room where their mother in the spur of the moment was unable to say which was which". The following illustration is far more remarkable & was given me by the brother of the twins who were then in middle life:—

"~~When again~~ (19) "Some years later, M was again coming home from India, on leave. The ship did not arrive for some days after it was due; N had come up from his quarters to receive his brother; their old mother was very nervous. One morning M rushed in "Oh mother, how are you?" and her answer was "No ~~N~~, it's a bad joke, you know how anxious I am^{am}." and it was a little time before M could persuade her that he was the real man". As parents mistake their twin children so ^a children ^{with} mistake a twin uncle or aunt for ~~their~~ its parent. Thus, a twin nearly 60 years old writes "we were of himself and brother⁽²⁰⁾" "we were extremely alike and are so at this moment, so much so that our own children up to 5 and 6 years old did not know us apart"; he adds ^{a remark that} ~~perhaps~~ "I might have ^{been} entered under the previous heading "On one occasion when I returned from foreign service, my father turned to me and said "I thought you were in London", thinking I was my brother; yet he had not seen me for nearly 4 years;— our resemblance was so great". Here is another

Manuscript
26

of a child doubting about its parent:-

P. 29

55

Jefferson
12

case⁽²¹⁾ Such was the marvellous similarity of their features, expression, voice, manner &c, that I remember as a child, being very much puzzled and I think, had my Aunt lived much with us, I should have ended by thinking I had two mothers."

William
16

When twins are engaged to be married there appears to be some risk ~~of the same twin being given in preference~~ ^{of the same twin being given in preference}. I was told that⁽²²⁾ "When M was engaged, there was a terror in the family lest her lover might not sufficiently distinguish & be consistent in his tastes; it seemed obvious that either would have suited him equally, though they did not equally like him." again

Robertson
20

another case, from which I have already quoted⁽²²⁾ "M got married first; but both met the lady together for the first time and fell in love with her there and then. M managed to see her home and to gain her affection, though N were sometimes courting in his place, and neither the lady nor her parents could tell which was which." I have also a German letter about twin brothers who married sisters ⁽²³⁾ "could not easily be distinguished by their brides" * (note)

In my Men of Science p. . I gave a story as communicated to me ^{by a friend} of a twin brother putting on his brother's dress for a joke at a supper table & not being discovered by ^{the brother's} wife. It went to press before I had opportunity of referring to the family in which ^{the event was said to have} it occurred, & I found ^{afterwards} ~~found~~

that ^{the story was} ~~it is~~ ^{much to} ~~inexact~~ ^{be} ~~as~~ ^{drawn} ~~the~~ ^{work}. The vexation I felt at having published an incorrect statement, was a ^{strong} ~~reason~~ ^{motivation} ~~to~~ ^{for} I undertook this present enquiry. In the well known novel by Mrs Collins of "Poor Miss Fitch" the blind girl distinguishes the twin the lover from his brother by the touch of his hand, which ~~it~~ gives her a thrill, ^{that} ~~which~~ the touch of the other brother does not, but I have a case in which that difference would probably be absent. They ^{are} ~~are~~ ^{two persons that are friends of mine, the same lady who was a lover} ~~I was told of a lady & said the story was corroborated~~ ^{by a second witness - that} ~~the~~ ^{she} frequently remarked that when kissing her twin sister, it was not like kissing her other sisters but like kissing herself, - her hand for example". I have never heard of experiments made by twins to learn whether a dog would distinguish ~~a scent~~ between them in respect to scent.

~~I have been much surprised by the following~~ ^{is a curious one:-} remark

(1) "there seemed to be a sort of interchangeable likeness in expression, that ^{often} gave ^{to} each, ^{often} the effect of being more like his brother than himself" ^{because of its propriety} ~~because I have met with~~ corroborated ^{statements elsewhere, the following} (2) "A lady seeing them (at h) a few weeks ago, was much amused at their likeness and made several trials by sending them

to Mrs
Bolton
14

Foster
36

Care
14

6) Mother (Two twins who are close, alike, in analyzing their
49 characters point out certain shades of difference and
add) "There seem to have marked us through life, though to
a while when we ^{were} first separated, the one to business and
the other to College, our respective characters were inverted. We
both think that at that time we each ran into the character
of the other. The proof of this consists in our own recollection,
and in the ^{my} letter correspondence and in the view we ^{they} took of
matters in which we were interested."

7) (The following case points in the same direction as the above.)

7) Joseph As infants they were like like them they are now
the elder being much the larger child, as they became older,
the likeness became stronger, though the elder remained the
larger, heavier & taller, requiring larger clothes and larger
boots and gloves. At at 15 the younger became the taller
and shorter, now ^{again} at 18 the elder is the taller.

out of the room and calling them in again, and mistook them each time" — (3) "They often were mistaken for each other; for instance they often used to let their uncle guess which of them was M, and he usually took him for N." — (4) "My uncle M had been a pupil of Sir — — (a medical man), who also knew my father N ^{very} well. One day Sir — — put his head out of a railway carriage window and ~~and~~ called out "Ah! M I know you, ~~very well~~ though you have got your brother's hat on. At that time, my father N ^(a clergyman) wore a very broad brimmed hat." — (5) "In childhood they were on one occasion at Netheroville Gardens, and one being lost, the other was sent in search and he now and again returned and was taken for the missing one instead of himself and had to assert his identity to his near relatives present". It may be supposed

that when two persons are closely alike, every phase of expression of the ~~one~~ may be matched by a corresponding phase in the other, but it does not follow that the most common phases of expression ^{are} the same in both cases. Now we should individualise ^{at any period of their life} ~~either~~ twin's ^{his} most common phases of expression, ^{at that time, therefore} ~~and whenever these were replaced by other, less common phases we should be inclined to doubt that he was himself and suspect him to be his brother.~~

~~either twin's defects~~ but ~~either~~ of two ^{events} may ^{but} ~~occur~~ ^{the} ~~predominant~~ expression of the one ^{temporarily} may give place to the one ^{common} ~~after~~ ^{which} ~~usually~~ ^{usually} ~~dist~~ ^{is} found in the ^{other} twin brother and secondly, ^{during} in the process of development the ~~one~~ ^{brother's} may alternately outstrip each other, ~~as in the~~ ^{as in the} ~~case~~ ^{case} that which mentioned the last.

Woolfel
36Greed
20

Lepid

Mouth

	sex	age	General Statements		Height	Weight	fit of clothes	color of hair & eyes	expression	athletic powers	handwriting	voice
			General terms	general remarks								
Bailey	F	adult	Papa used not to know us apart, & think of them as one	Figures different	nearly the same			Same		unlike	unlike	unlike
C...	F	adult	became exactly alike in body & disposition	born of different size, the smaller was the latter	nearly 2 ^d the same		Same					unlike
Barracough	F	30	Always much alike in body and mind	weaker in childhood is now the stronger	Same	Same	Same	Same	on the face	very similar	diff	diff
Cane	F	6	Increasingly alike in body & disposition. no very real diff.	M more vigorous & common	Same	Same	Same	Same	on the face	very similar		diff
Cordie (see 66)	F	25	Very much alike in body & mind up to present time		slight diff.	diff		Same		Same		diff. a little
Cornish	F	25	Very much alike in body & mind up to present time		Same	diff		Same		diff: alike	unlike	
Davey	F	adult	From birth, much alike in body but very much less so in mind	M more vigorous	Same	diff		Same		diff: alike	unlike	
Freeman	F	83	Very much alike in person	unlike in mind & temperament	about same			Same			unlike	unlike
Gresley	F	adult	At birth exactly alike & afterwards disposition very similar	M more decided character				unlike		same in all		
Groningen	F											
Hall (Du Cane)	F	33	Remarkably alike. Father did not know them apart, large families diff. in countenance & disposition									
Hick	F	7	Are constantly mistaken for one another in mind are very similar		1/2 inch	Same	Same	Same		made the same		Same
Hobbes	F	adult	In childhood as like as two peas; in after years unlike in every way							no particulars		
5 Crawford	F	18	Very much alike in body and mind, much more alike than my other children - Refused both, which		2 inch	Same		Same	diff	Same	similar	Same
Hull	F	18	Very much alike in body and mind, much more alike than my other children - Refused both, which		2 inch	Same		Same	diff	Same	similar	Same
Jeaffreson	F	58	Always resembled very closely in body & mind		identical			Same				
nee Kearney	F	17	Always much alike, same tastes (M. had better adaptation "I was older" all mental larger, M. has finer disposition & stronger mind)		all mentally larger & better							diff
Jelsoy	F	adult	Even now some of their friends cannot distinguish tastes, personality similar - M stronger minded		Same	diff		Same				diff
Kent	F	adult	Strongly alike up to 15 then became more dissimilar		Same	Same	Same					diff
Lucas	F	16	Same (most remarkably) in mind & body		Same	Same	Same					Same
Macrae	F	9	Close similarity in 3 or 4 years when M had scarlatina & they began to differ a little									diff
(partly 8. Murdoch)	F	9	Close similarity in 3 or 4 years when M had scarlatina & they began to differ a little									diff
Martin	F	up to 79	Extremely alike, all through life. Tastes & disposition similar		Same	Same	Same					diff
Mitford	F	16	resemble closely - M less for the same		slight diff			Same	diff			diff
Nichols	F	adult	wonderfully alike & continued alike					apparently identical				
Meville	F	adult	absolutely alike					apparently identical				
see Page 4												
Patch	F											

23 continued

233 ✓

66 F 34V	sex	age	General statements (closely alike)	Height	Size of weight	Fit of clothes	Colour of hair & eyes	Complexion	Appetite power	Handwriting	Voice
23 Pugh	F	12	Much alike in body and mind.	alike	alike	alike					
Scott	F	15	Strong personal resemblance. Seldom recognizing each other by sight intimate. - Minds very much not more developed as N.	Same	Same	Same	Same	Diff. a little.	alike		Slight diff.
Shelburne Fowler	F	27	very close alike. character similar but not altogether alike.	apparently	the same						
Skullitoe	F	adult	very much alike in mind & body	Same	Same	Same	Similar		Same	Somewhat similar only.	
Sykes	F	up to 16	very much alike in person & apparently in mind (but very shy)								
Tarleton	F	adult	close resemblance in mind & body	much the same							Similar
Thompson Villiers	F	adult	Extremely alike & stranger but family c? distinguished - not closely alike in disposition.	apparently	Same						
Welstead	F	42	Much alike in body and very different in character - M stronger minded.	Same			(Same) diff than Hays			very differ	
31 Corder	F	9	Always remarkably alike - almost impossible to tell one from the other, their father does not.								

(Partly alike)

Ansell	F	9	are not & never were particularly alike								
Hewitt	F	8	Grew very much alike in body; very unlike in character & disposition				Same				
Hill	F	54	never very close alike - the similarity was that of sisters brought up together & not more	diff	diff		diff				
Jones	F	adult	alike as babies, reared with great difficulty & grew unlike in character & disposition								
Powell	F	adult	not much alike in body - a good deal alike in disposition				Same				
Thomas (1)	F	10	very much alike as infants but became more different. one is much taller & mentally brighter								
(2)	F	6	quite unlike. taking appearance after father & mother				diff				
Dolberg Feb 6	F		closely alike in body; different in mind								
Griffith	F	8	alike in facts, health & in character but not very like in features as to the nose & cheeks when together				identical				

68 F. 35v	sex	age	General statements (unlike)	Height	Weight	Fit of clothes	Color of hair & eyes	Complexion	Athletic powers	Handwriting	Voice
Dover in Parry	F	adult	Unlike from the first in features <i>manner character - one takes after mother, the other is a different type</i>	both tall							diff
Fry	F	h	Diff. similar in body & mind - one after maternal cv. mother - other paternal cv. mother	very diff		diff					
Gaskell #	F	adult	Unlike in body & mind - Peculiarities in both described about age of puberty								
Holcombe	F	adult	Very different in ability & disposition			apparently unlike or not alike					
Hope	M	33	Singularly unlike in body & mind from only boy in height & voice similar but in looks <i>disposition quite different. But mother has a strong likeness</i>	Same	Same						Same
Jeon	F	15	Very different.	diff			diff				
Redfern	F	11	Never alike either in body or mind <i>one takes after paternal cv. father, the other after mother.</i>								
Sanders	F	30	Never in the least degree alike.	diff	diff		diff				
Small	F	in their teens at least	Not alike								
Stokes	F	15	Not alike in body or mind, & have never been so	diff							
White	F	adult	Very little alike either in body or mind								
Wyngard	F	9	Very dissimilar in body & mind - one takes after father, the other after mother	diff			diff				
12 Ferdinand 13	F	17	Very different in height, strength and character, and aptitude; but were very alike when small				Same				
See Dr. Martine C. 2 De Cane No. 11 boy & girl											



both married children	1 married	more than 1 married	no children
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70 p. 36v	sex	age	General Statements alike	Height	Size or weight	fit of clothing	Color of hair & eyes	Complexion	athletic powers	handwriting	Voice
Arnall	M	18	Very much alike in body & mind but are altering a little in both (since 2 years ago)	Same	Same	Same	Same				
Brandt	M	62	Very much alike in childhood & youth have become far as in middle life. Father said they had one of them believe them (? meaning must be made)	Same						Somewhat alike	
Butler	M	53	Always much alike mentally, & physically but one took more after his father & the other after his maternal uncle.								
(he speaks of a second)	M	adult	I frequently mix both his brother for him; I never found any two persons so much alike.								
Cobbold	M	23	For me never considered them particularly alike but strongly contrasted. Suggests I was more like his father.				Diff.				
Creed	M	elderly	Always alike in body - some diff. in disposition	apparently	quite	the same			Same	very diff.	Same
Farguhar	M	boys at Harrow	have extraordinary alike (? as 6 now)								
Fowler	M	20	were as boys extremely like; now those who know them well do not mistake. Mentally there is more difference	not quite the same			Similar		a little diff.		diff.
Guppy	M	20	Very alike in body & mind.	diff. decreasing	Same		Same		about same equal diff.		diff.
Hoar	M	boys at Harrow	Both very much alike & equally stupid.								
Horne	M	adult	Always very much alike in body (but there are diff. of detail). Disposition very similar	Same	Same	Same	Same	Same	Same	very diff.	alike
Hull where Itiff	M	boys at school	Could not be distinguished except by close exam. & cross questioning								
by Ditto. (Cleghorn)	M	13	Very much alike in body; not in disposition								
Itiff (Horn's Son)	M	12	Very much alike, but some minor differences in character	nearly identical			Same	Same	Same	slightly diff. but the same	Same
Lambton. see also Fielding	M	adult	Very much alike as	Same	apparently	Same					
Lehmann	M	73	Very close alike in body from early infancy until now (but somewhat different)	Same	Same now has clothes diff. in common		Same	Diff.	Same	at College	
Lawford	M	55	Exactly alike in all - close resemblance. Scarcely diminished by age	Same	Same	Same	Same	Same	Same	Same	Same
Leithington	M	43	Very close alike in body & mind	Same	Same	Same	Same	Same	Same	Same	Same
Mansel	M	58	Always extremely alike in body & mind but politics at the Anti-Pode.	Same	Same no head larger		Same	Same	Same	Same	Same
Mottist	M	38	Resembled closely in mind, body & disposition	Same	a little diff.		Same	Same	a little very diff.	Same	Same
Oldham	M	adult	Close alike in mind & body & mind	Same	Same	Same	Same	Same	Same	Same	Same
Phillipotts	M	34	Very much alike up to period of separation only	Same	Same	Same	Same	Same	Same	Same	Same
Rosen	M	33	Very much alike in body & mind & their hair	Same	Same	Same	Same	Same	Same	Same	Same

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Bright & Lusk - The Chryseum falls

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72 P. 37V	sex	age	General Statements (alike)	Height	Size of Weight	Fit of clothes	Color of hair and eyes	Expression	Athletic powers	Hand writing	Voice
23 Robertshaw	M	44	Up to 17 impossible to distinguish them	1 inch diff.	scarcely diff.		alike			alike alike	
Roundell	M	2	Greatly resemble each other in body & mind	1/2 inch diff.			same				
Saunders	M	adult	Much alike throughout	1 inch diff.	2 1/2 diff.	same	similar		alike	similar last	similar last
Thornely (1)	M	43	Always much alike in body (somewhat diff. in mind)			apparently the same				same	
(2)	M	46	(not enough to go by)								
Wakefield	M	29	In features greatly alike (some minor diff. are mentioned) - Dispositions left so.			(alike but not identical to.)				unlike	
Walters	M	20	Very alike about at 6. Some diff. in disposition				same				
Watson	M	6	likeness very great - some diff. in disposition	same	some diff.	very same	S				
Witherspoon	M	50	Alike in every way.	about same	about same		same		very much alike		
Wölfel	M	20	Quite alike in body - & very much so in mind.				same				
33 Leamon (with wife)	M	about 40	The husband more like Wölfel.								
Boisjoly (1)	M	born at school	exceedingly alike								
35											
Dickenson	M	43	Not very like at birth - Hardly to be distinguished in boyhood & youth, grows left like in adult life	same	diff.		same				
Gaskell, R.	M	adult	were never closely alike								
Hutchinson	M	19	Just a family likeness, no more. Slightly different in disposition.				diff.				
Jagger	M	adult	Dissimilar in body but habits & tastes much alike	diff. small			diff.			diff. much the same	
Matthews	M	17	were never very close alike	diff. a small			diff.		diff.	diff.	
Notcutt	M	21	Differs quite as much as any two among my close children - in mind as well as body		diff.		diff.				
6 Golberg (in 6, 9)	M		Closely alike in body - different in mind								
Turnbull	M	boy	very much alike except that one grows faster (diff. in other the more talkative - as babies they appear) identical						alike	much alike	

P33v	Sex	Age	General statements (unlike)	Height	Size in weight	Fit of clothes	Complexion hair & eyes	Disposition	Athletic powers	Handwriting	Voice
Boddington	M	12	never very closely alike either in body or mind		diff						
Burnett	M	7	Unlike in body & mind	diff	diff						
	M	2	Unlike in body & mind	diff	diff						
Burtin	M	12	Not at all alike - are as different as two boys can be								
Green	M	10	Great difference in ^{in all} (see) though educated quite alike.								
Holland	M	12	Strongly unlike both in body & mind								
Holland	M	children	Very dissimilar both mentally physically & temperamentally								
Hype	M		Quite unlike.	diff	diff						
Lindley	M	4 3/10									
Pix	M	5 1/4	were never alike in body or mind all the rest of (3) regarding similarity, fact.	diff	diff	different					
Rhodes	M	up to 13	resembled less than any of the brothers & sisters								
Smith (F)	M	9	not at all alike differ in type in features & in character								
Smith Mr?	M	46	From birth perfectly dissimilar in character, habits and temper.								
Wilson	M	up to 19	Curiously different in body & mind from the others - scarcely easy to be mistaken for one to the other. - were complementary to each other								
Forman	M		Not at all alike								
Whitting	M	38	Unlike in body & mind throughout their lives								

74	sex	age	Bozo Girls (all sorts)	Height	Weight	Fit clothes	Colour of hair & eyes	Complexion	Aliter	Hand	Voice
	Bozo girl		General statements						Alike	part	not at
Arthur	bg	20	Strikingly unlike								-
Balfour	bg		were never the least alike								-
Beaumont	bg	10	Very unlike in body & mind except for the first month - they were mixed & cried at the same time								-
Bell	bg	6	Not alike in general but strangers see a family likeness - both ill at same time	Diff.			Diff.				✓
" case	bg	27	Different - family likeness not very striking								✓
Coles	bg	13	Close alike in infancy but have grown different - are now opposites								✓
Dalberg	bg		Are alike, physically & mentally								-
Harwood	bg		a distinct family likeness								✓
"	bg		a distinct family likeness								✓
Herford	bg	21	Increasingly unlike both in body & mind as years taken for brother & sister at all we resemble mother, the other the father family								✓
Kempson	bg	21	apparently somewhat alike in body; diff. in mind.								✓
Kirby	bg		Am not aware of any resemblance either in body or mind.								✓
Lewis	bg		Alike in features but not in body								✓
New (1)	bg	55	never closely alike								✓
(2)	bg	26	Never closely alike								✓
Payne	bg	9	"Little can be said at this age"					same	0	0	0
Rickards	bg	20	Not at all alike in countenance, but (apparently) similar in body.								✓
Smith RS	bg	adult	Never much alike								✓
Tupher (Anastion)	bg	20	Not the least alike in body; very unlike in character								-
Wason	bg	14	Very dissimilar in body & mind, from birth								-
Whitwell	bg	11	Unlike in body & mind from birth								-
Wedderburn	bg	with at least	unlike in infancy & youth								-
Inman (1)	bg	adult	He a drunkard - she a questionable religious enthusiast								✓
Turnbull	bg		Different in aptitude & disposition	Diff.			same				✓

76

F. 40v

sex

age

Closely alike
General Statements

Height

Weight

Fit & clothes

Colour of hair & eyes

Complexion

Athletic performance

Handwriting

Voice

Butler Geo
(Miss Lupton)
(Miss Wood)

F adult Like as two peas

F adult Like as two peas

Lady Eastlake
D. Stoddard

F adult Strikingly alike in person

" (6) Stark

F adult Most awfully alike

" (7) Baird

F adult undistinguishable.

For Mr. Lane
(Miss any Fitzclavin)

F ~~adult~~ 20 very much alike

" B.3.

F 20 very like

Harrison (III)
Ladies Cooper Palmer

F clon, remarkably alike, mentally also.

Stanley (2)

F ~~adult~~ 17 One could not be told from the other

Butler Geo
(Walter)

M boys Like as two peas.

Mr Lane Fox
D.S. (Underwood)

M adult very much alike; constantly mistaken

Ward (3)

M ~~adult~~ 17 became very much alike

Ward (3)

M ~~adult~~ 18. ? as to person, but alike as to ~~epilepsy~~.

78

f. 41 v

sex

age

partly alike
General statements

Height

Weight

Fit of clothes

Color of hair

Complexion

Athletic power

Handwriting

Voice

Mrs. Lane Fox

F

62

I thought then we, like at 13-14, but she

herself disclaims it

Harrison (1)

F

adult

rather like.

Cripps

Winn 21

F

Alike in person but no sympathy, believe them as to health & spirits.

3

Ward 21

69

never close alike; one fair the other dark

alike partly no

✓

/

80 F. 421	sex	age	unlike General Statements	Height	Size	Fit of Clothes	Color of hair & eyes	Complexion	Stature Build	Handwriting	Voice
Lady Eastlake (Rogby) (1)	bg		no brother & sister were very much unlike in mind - nor were they alike in physique						unlike	unlike	unlike
" (2)	???		4 children - great dissimilarity								
" (3) Power	???		3 children - 2 at least great dissimilarity								
" (4) Maydel bg			unlike outwardly								
Mr. Lane Fox B. 2		28									
" D. 7	F	adult	unlike in any pretty like.								
Lomin (1)	F	? adult	perfectly unlike in feature								
Arnold (1)	F	adult	both late but otherwise do not resemble each other in any way, mentally or physically								
Arnold (2)	F	21	unlike in every particular.								
Mr. Lane Fox B. 5	M	adult	unlike								
Stanley (1)	M	73	very unlike in complex & character								

Separate Cases	"Aggregates" Cases		Total		Totals	per cent
32	9	girls alike	41	Same sex alike	80	61
8	1	" partly	9		17	13
13	5	" not	18		34	26
			68		Total	131
35	4	boys alike	39	Same sex alike		
8	—	" partly	8			
14	2	" not	16			
			63			
1		Girls & boys alike	1	different sex alike	1	4
9	1	" partly	10		16	36
13	4	" not	17		11	60
			28		total	28
		Total cases received	159			100

An intimate resemblance, which is equally common when the boys & twins are both boys, & both girls, is extremely rare when the twins are of different sexes. ^{This is shown by} My returns show this manifestly in a way that admits of no ~~first~~ doubt. ^{the cases with the number of close alike} For, after I had classified them, the numbers came out in and then, ^{counting the numbers in the various classes found} that when both twins were ^{I had} in the case of both boys, 39 instances of being close alike, 8 of being partly alike and 16 of being wholly unlike; in the case of girls, the numbers were 41, 9 & 10. ^{how figures} These accord so close that we may ^{feel confident} be sure that ~~the~~ any large discrepancy ^{between these & those derived from the twins who were in each case a} in the case of boys & girls, must be due to ^{something more than a mere statistical misrepresentation} a real difference in fact, & not to a selection of cases, due to some misstatement. Now find there is ^{very} a large discrepancy; the numbers ^{in this case} being 1, 10 and 17.

It seems curious that so few cases should have reached ^{I have received this number in my 2d. to 133 cases of boy twins & 60 of girl twins; say 1 to 3 = 3,} me concerning boys & girl twins, but ^{can} I account for it on ^{definite grounds} these ~~grounds~~. The first is that the births of such twins are only half as common as we ^{would have a priori} should expect. ^{This has} been clearly shown ^{by the return of 1 to 1} by Mr. Asell. ~~His~~ To put his argument in a slightly different shape, he says that the first born twin may be either a boy or a girl and so may the second born twin; therefore there are four possible cases, - boy-boy, boy-girl, girl-boy (1), boy and boy, (2), boy and girl, (3), girl and boy, (4), girl & girl. In other words, there is one

Twinning is more common than is generally imagined
 for it appears from the ^{experiments} ~~researches~~ of Mr. Ansell, that about
 1 in every hundred cases of child birth ^{in multiple birth} ~~produce twins~~, ^{or}
^{other words} ~~is~~ one child in ^{about} every 50 is a twin, but ~~what with~~
~~the combined chance against~~ owing to the weakly nature
^{which frequently is found in} ~~often~~ of one or both of them, & to the difficulty in many cases of nourishing them
 favorable issues required for the survival of both, it
 appears that not one half of the ~~cases~~ ^{twins} ~~who are~~
~~born~~ (are found) even among the well & do clapers,
 to survive the age of 3. My inquiries ~~were~~
 circulated ~~Sanctuary~~ In every ten thousand births
 one is a case of trins, that is of three at a birth
 I know of two cases (at least I believe them to
 be different) in which ~~twins~~ a set of trins ^{were going}
 lived to past 20 years of age. ~~Though in twins~~
 Quatrains are ~~more~~ rare, I ~~only know~~ do not
 happen to have heard particular of more than two
 of them, and in neither case did the all live. ^{one of the many}
^{eminent obstetrical physicians informing me that he has verified one case of 5 births}
^{but they never lived. He had taken a desperate in a bottle of spirits of wine.}
 Though twins & other children of multiple births are
 apt to be weakly ^{and require} ~~they are~~ by no means universally ^{apt to}
^{Some are considerably & fight their way up in the world. Their}
~~lost~~. A Bendigo the champion pugilist & now
 a preacher, was as I am informed, a twin;
 Lord Eddon & Stroell ~~had~~ each of them a twin
 sister and, among my returns, is that of a well known
 Senia wrangler who was a twin,
 purchased them & keeps them as articles of great value, carefully

This is not our known case of Ansell

This concerns words by Lord Eddon & Stroell as given in paper

An intimate resemblance is extremely rare when the twins are of different sexes, as is shown by my returns in a way that admits of no doubt. I proceeded by classifying each case into under one or other of the three heads, - closely alike, partly alike, and unlike and subdivided these into boy twins, girl twins, & boy and girl twins. It proved that the on comparing the numbers I found with much pleasure that the returns ^{and of the girl twins} of boy twins, closely accorded ^{with those of girl twins} and therefore confirmed each other, the numbers of 'closely alike' being 13 in the one case & 68 in the other, that of 'partly alike' being 8 & 9 and of 'unlike' 17 & 18, but the ^{numbers} returns of twins of different sexes ^{on the other hand the} ~~but the~~ ^{of the boy and girl twins} followed quite a different law. Their numbers were 'closely alike', 1 case; 'partly alike' 10; 'unlike', 17. Two things strike us at once; the ^{marked} ~~relative~~ ^{marked} ~~few~~ ^{marked} returns of boy & girl twins & the great discordance of these figures ^{compared with} ~~the~~ concerning twins of different sexes and the discordance of the results derived from them with those derived from twins of the same sex; which latter, as we have just seen, bear internal testimony to their ^{own} ~~authenticity~~ sufficiency.

Twin births are less uncommon than is usually supposed, for it appears on obstetrical authority confirmed by the recent investigations of Mr. Russell, on the part of the National ~~Office~~ ^{Office} that at least one out of every hundred births is a multiple one. One child in about 50 ^{always dead} has therefore been a twin ^{it appears further that} and one in ~~every~~ ^{has been} ~~about~~ three thousand a twin. But although twin births are common, the survival of both children to adult life is comparatively rare. Both as in England, there is much mortality among children and the chance ~~whatever it~~ against any ^{given} named child surviving a given age ~~has to be~~ ^{naturally} squared, and doubled, ~~if we wish to know~~ ^{in order to find} the chance of ~~two~~ ^{such} children both surviving the age in question. Again it frequently happens that one or both of the twins are ^{naturally} weakly, ~~partly~~ ^{partly} from insufficient nourishment ~~from~~ while still unborn & partly perhaps from ~~interfered~~ want of space & harmful pressure or constriction ^{during the same period}. They are apt ~~also~~, even among the richer classes, to suffer from inadequate ~~food~~ nourishment in the early days of their life. Notwithstanding this there are numerous cases of persons who were one of a pair of twins & even of larger births having excellent health & physical ~~diffi~~ development. ^{There is a slight distance of a twin} ~~They are~~ ^{having fought their way} well up in the battle of life ~~to~~ ^{in a lateral sense for} the world. Bendigo, once ~~a~~ champion pugilist

and now a dissenting preacher was as I am informed
a twin. ~~the two~~ ^{the two} ~~brothers~~ ^{brothers} ~~Lords Eldon and~~ ^{Lords Eldon and}
Stowell had each of them a twin sister; and
I have among my present returns, the case of
a well known senior wrangler who was a twin.
I have heard of two cases ^{have been mentioned to me} (at least I believe
they are different) of twins in which all three
children were alive, ^{at} past the age of 80.
Quatrains are rare; I only happen to have heard
of two ~~such~~ ^{cases} and to have ^{received} the return ^{concerning} of one
of them; in neither case did they all live.
Of ^{as regards} ^{living} five children at one birth, there is as I am
informed by one of the most eminent obstetric
physicians of the day, only ^{single} ~~one~~ authentic case.
The ^{children} ~~did not live~~ ^{survived long}; their remains were exhibited
in a bottle ^{of spirits of wine} at a fair. My informant, ^{heard of it} verified
the case, watched his opportunity ^{when the exhibit was taken to market} & purchased them.
~~Probably he will be able to add some of our national~~
~~physiological collection in museum and buried or~~
~~buried as the case may be~~
Probably in a century or more ^{after we have passed}
out of sight, buried ^{in a vault} as the case may be,
that bottle with ^{more interesting} contents, well labelled
& cared for, will occupy ^{an appropriate place} in
some one of our ^{great} national collections of physiological
preparations.

Probably for a century ~~after~~ or more after you who are reading this & I who have written it are passed away, buried or burnt as the case may be, our tombstones decayed and our names forgotten, that ~~substantive~~ bottle with its ^{permanently} interesting contents, ~~will~~ labelled & cared for, will continue to ^{be well} occupy a prominent place in ~~some~~ one of our national museums.

Twins ^{births} in which one is a boy & the other a girl are only half as frequent as we might have expected and this is a physiological ^{which depends upon the nature of the ovum} fact of no little importance. Mr. Ansell ^{explains what} ~~shows that~~ both which we might have expected to find and ^{with} what we do find. He says to the effect - 'I slightly alter the form of his argument - that the first born of the twins may be either a boy or a girl and so may be the second born. Consequently there are four conceivable varieties of twins - boy and boy, boy and girl, girl and boy and girl & girl. Each of these might in our ignorance, be thought equally ~~as~~ likely to occur; in other words, for one case of twins both males, there are two cases of twins of different sex and one case of twins both females. His facts however show that ^{instead of} the case

of twins of different sex being twice as common as either of the other cases, it is ~~just~~ equally common, neither more nor less. (*p. . of. cit.)

The physiological conditions under which twins come into existence in ^{man & horse} animals which ^{commonly} habitually produce only one at a birth, is little understood but there are some ^{suggestive} instructive facts. It ~~can hardly~~ ^{can hardly} be ~~clearly understood~~ ^{don't} that in ~~some~~ ^{some of the} ~~most~~ cases of multiple births there is nothing ^{essentially} extraordinary, different from the multiple births of ^{the usually prolific} animals, who usually generally so far as that a separate ~~ovum~~ ^{is supplied} ~~is~~ ^{that} each child ^{has been} derived from a separate ^{or not provided with separate placenta} ~~ovum~~ ^{of fertilized}. In these cases there appears to be no restriction to the independence ^{in the} of sex of the different individuals who are born. It has never ~~for example~~ ^{for example} been observed that the litters of dogs have a marked tendency to consist wholly of ~~animals~~ of the same sex. In other cases it looks very much as though the ^{principal} conditions which ultimately determine sex, had been ^{first} fulfilled before ^{and that afterwards a} the division of the embryonic unit into two parts, one for each twin, had taken place. The very curious fact first determined by ^{John Hunter} ~~Hunter~~ (noted) concerning twin ^{of opposite} ~~of opposite~~ sexes fits into this view. It was

known that in such a case the female always proved barren. Hunter sought such cases and directed the supposed female & found in every instance that it was not a true female but an imperfect male, externally formed like a female.

The original memoir is very curious, and the conclusions of the great anatomist have ^{as I am informed,} never been controverted. They shew as already observed that the primary conditions which determine sex were ^{for the most part} ~~not~~ fulfilled ^{before} those which determine whether the offspring was to be single or double. I am not aware that this singular ^{form of imperfect} hermaphroditism has ever been observed in the female member of human twins of opposite sex, ~~but it is undoubted that there is a wide though erroneous belief that one of two twins is always sterile. This is not the fact, as I have not a few instances to the contrary, nevertheless, it must be acknowledged that the cases~~ ^{be found in some instances to} exist and it would be well if anatomists were in the look out for it. I was surprised to learn ~~that~~ from excellent authority, that imperfect hermaphroditism was by no means of excessive rarity but that cases were not infrequently came before the notice of those ~~more~~ eminent ~~pract~~ medical men, to whom such exceptional cases, derived from all England, would in many instances be ~~made known~~ ^{directly or indirectly} referred. almost.

as a matter of course. It is necessary ^{here} to notice a ~~double~~, prevalent belief ~~on the~~ that if one of each pair of twins is infertile. It is most certainly not true in an absolute sense as I have instances to the contrary but I believe it to be quite true that twins ~~do~~ ^{as} a whole, ~~infertile~~ add little to the population and also that there is an ~~undue~~ curious large proportion of instances in which only one of the twins has children. I will give what evidence I have, premising that my returns are not at all adapted ^{to decide the question} for the purpose. I never asked no questions about ^{sex} & therefore it is a chance if it be alluded to ^{nor about sex, though there is usually some allusion to it with replies} and again my returns are chiefly received from parents, whose children are for the most part boys, or girls, or youths. The 28 cases of boy & girl twins yield ~~no material~~ ^{hardly anything to the present purpose} ~~worth considering~~ towards settling the question. ^{of them} 9 refer to cases of 20 or under, in 11 cases the age is not given & ~~these~~ 3 more are of 27 or under. I do however among all this unavoidable material find one case where both twins had children.

Recurring to the hypothesis that in many cases, ~~probably~~ ^{the} sex is determined before the embryonic unit is divided, we find much meaning in ^{certain} curious facts concerning ^{the} resemblances and dissimilarities ^{of twins} which I proceed to explain. It must first be clearly understood what my facts represent. They give

note

In the most part exceptional cases. I asked for those in
 which these were great similitude, and certainly the form of
 the questions suggested that instances of great ~~dis~~similitude
 would be acceptable (as indeed they ~~soon~~ proved to be) for many such
 of them were sent. Again, these questions relating to heredity
 induced ~~persons to reply~~ ^{persons to reply} although only they had to remark about ~~the~~
~~the twins~~ ^{the twins} ~~who at the same time said that~~ ^{who at the same time said that}
 the twins ~~was~~ ^{was} simply a family likeness, neither ~~great~~ ^{great} resemblance
 nor ~~very~~ ^{very} dissimilarity. I cannot tell ~~how~~ ^{the proportion in which} these various influences
 worked together, but I can tell this, ~~in a manner that~~ ^{in a manner that}
~~admits of no doubt~~, that find so complete an accordance
 between the returns of the boy twins & those of the girl
 twins as to leave no room for doubt ~~but~~ that the
 comparison I am about to make is perfectly legitimate.
 It is this. I ~~classified~~ ^{separated} the returns into the three
 groups of both twin boys, of both girls, and of twin
 of opposite sex. Then I classified each of these
 under the heads of closely alike, partly alike, &
 wholly unlike. Adding the results together I found
 to my surprise & gratification with much gratification
 that the two first closely corresponded; the precise
 figures were 39, 8, 16 as against 41, 9, 18
 but those of the boy & girls twins were ^{only half as many, fewer and in a} ~~quite different~~
^{proportion} 1, 10, 17. It is therefore an almost
 The two latter twins were ^{nearly} the same, but the

$$x : (1+10+17) :: \frac{1}{2} : (13+24)$$

$$\therefore 80 : (80+17+34)$$

$$x = 131$$

$$\begin{array}{r} 28 \times 80 \\ 2240 \\ 131 \\ \hline 959 \\ 131 \\ \hline 917 \end{array}$$

^{note} ~~first term was only 1 as against 29 and 41~~
 We may therefore safely conclude that ~~some~~ close
 similarity between twins of opposite sex is ~~very~~ ^{very} ~~often~~
 rare, ^{the above frequency would, make it all 6 or 17 times,} perhaps ~~as much~~ as much to as between
 twins of the same sex.

^{note} I find that twins of the same sex are ^{not very} frequently characterized
 by close resemblance ^{and frequently} or by extreme dissimilarity, while twins
 of the opposite sex are ~~not so~~ hardly ever ^{close} alike, ^{which is common}
 they are ^{very} often ^{as the former} unlike, ^{and} ~~between most frequently~~ ^{probably} have ^{little}
~~more than the ordinary family likeness.~~ There can be no

^{note} doubt that the likenesses & dissimilarities follow quite different
 rules ~~in the~~ according as whether the twins are of the same or
 of opposite sex. That my figures are worthy of reliance in
 the first case is shown by the exact accordance of the returns
 of boy twins with those of girl twins; the total difference
 between these & the figures derived from boy & girl twins must
 therefore indicate a real fact and a statistical ~~even~~ accident.

give figures & explanation.

(From Lewis Physiology of Common Life Chapter on Heredity)
 That such diversities (in aspect & disposition) are observed not
 only between brothers, but between twins; and it was noticed in
 the striking case of the celebrated Rita & Christina twins, who
 were so fused together that they had only one body and one pair
 of legs between them, with two heads & four arms, yet they
 manifested very different dispositions and tempers (see
 Geoffroy V. H. Larive, Philosoph. Anatom. II and Serres, Recherches
 d'Anatomie transcendante). The same was observed of
 the Papebrock twins, the Bramore twins, and of the African
 twins, recently exhibited in London.

Add 2 more instances of fused twins. the five dot Anglians.

2, 3, 7, 10, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123, 126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 159, 162, 165, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198, 201, 204, 207, 210, 213, 216, 219, 222, 225, 228, 231, 234, 237, 240, 243, 246, 249, 252, 255, 258, 261, 264, 267, 270, 273, 276, 279, 282, 285, 288, 291, 294, 297, 300, 303, 306, 309, 312, 315, 318, 321, 324, 327, 330, 333, 336, 339, 342, 345, 348, 351, 354, 357, 360, 363, 366, 369, 372, 375, 378, 381, 384, 387, 390, 393, 396, 399, 402, 405, 408, 411, 414, 417, 420, 423, 426, 429, 432, 435, 438, 441, 444, 447, 450, 453, 456, 459, 462, 465, 468, 471, 474, 477, 480, 483, 486, 489, 492, 495, 498, 501, 504, 507, 510, 513, 516, 519, 522, 525, 528, 531, 534, 537, 540, 543, 546, 549, 552, 555, 558, 561, 564, 567, 570, 573, 576, 579, 582, 585, 588, 591, 594, 597, 600, 603, 606, 609, 612, 615, 618, 621, 624, 627, 630, 633, 636, 639, 642, 645, 648, 651, 654, 657, 660, 663, 666, 669, 672, 675, 678, 681, 684, 687, 690, 693, 696, 699, 702, 705, 708, 711, 714, 717, 720, 723, 726, 729, 732, 735, 738, 741, 744, 747, 750, 753, 756, 759, 762, 765, 768, 771, 774, 777, 780, 783, 786, 789, 792, 795, 798, 801, 804, 807, 810, 813, 816, 819, 822, 825, 828, 831, 834, 837, 840, 843, 846, 849, 852, 855, 858, 861, 864, 867, 870, 873, 876, 879, 882, 885, 888, 891, 894, 897, 900, 903, 906, 909, 912, 915, 918, 921, 924, 927, 930, 933, 936, 939, 942, 945, 948, 951, 954, 957, 960, 963, 966, 969, 972, 975, 978, 981, 984, 987, 990, 993, 996, 999, 1002, 1005, 1008, 1011, 1014, 1017, 1020, 1023, 1026, 1029, 1032, 1035, 1038, 1041, 1044, 1047, 1050, 1053, 1056, 1059, 1062, 1065, 1068, 1071, 1074, 1077, 1080, 1083, 1086, 1089, 1092, 1095, 1098, 1101, 1104, 1107, 1110, 1113, 1116, 1119, 1122, 1125, 1128, 1131, 1134, 1137, 1140, 1143, 1146, 1149, 1152, 1155, 1158, 1161, 1164, 1167, 1170, 1173, 1176, 1179, 1182, 1185, 1188, 1191, 1194, 1197, 1200, 1203, 1206, 1209, 1212, 1215, 1218, 1221, 1224, 1227, 1230, 1233, 1236, 1239, 1242, 1245, 1248, 1251, 1254, 1257, 1260, 1263, 1266, 1269, 1272, 1275, 1278, 1281, 1284, 1287, 1290, 1293, 1296, 1299, 1302, 1305, 1308, 1311, 1314, 1317, 1320, 1323, 1326, 1329, 1332, 1335, 1338, 1341, 1344, 1347, 1350, 1353, 1356, 1359, 1362, 1365, 1368, 1371, 1374, 1377, 1380, 1383, 1386, 1389, 1392, 1395, 1398, 1401, 1404, 1407, 1410, 1413, 1416, 1419, 1422, 1425, 1428, 1431, 1434, 1437, 1440, 1443, 1446, 1449, 1452, 1455, 1458, 1461, 1464, 1467, 1470, 1473, 1476, 1479, 1482, 1485, 1488, 1491, 1494, 1497, 1500, 1503, 1506, 1509, 1512, 1515, 1518, 1521, 1524, 1527, 1530, 1533, 1536, 1539, 1542, 1545, 1548, 1551, 1554, 1557, 1560, 1563, 1566, 1569, 1572, 1575, 1578, 1581, 1584, 1587, 1590, 1593, 1596, 1599, 1602, 1605, 1608, 1611, 1614, 1617, 1620, 1623, 1626, 1629, 1632, 1635, 1638, 1641, 1644, 1647, 1650, 1653, 1656, 1659, 1662, 1665, 1668, 1671, 1674, 1677, 1680, 1683, 1686, 1689, 1692, 1695, 1698, 1701, 1704, 1707, 1710, 1713, 1716, 1719, 1722, 1725, 1728, 1731, 1734, 1737, 1740, 1743, 1746, 1749, 1752, 1755, 1758, 1761, 1764, 1767, 1770, 1773, 1776, 1779, 1782, 1785, 1788, 1791, 1794, 1797, 1800, 1803, 1806, 1809, 1812, 1815, 1818, 1821, 1824, 1827, 1830, 1833, 1836, 1839, 1842, 1845, 1848, 1851, 1854, 1857, 1860, 1863, 1866, 1869, 1872, 1875, 1878, 1881, 1884, 1887, 1890, 1893, 1896, 1899, 1902, 1905, 1908, 1911, 1914, 1917, 1920, 1923, 1926, 1929, 1932, 1935, 1938, 1941, 1944, 1947, 1950, 1953, 1956, 1959, 1962, 1965, 1968, 1971, 1974, 1977, 1980, 1983, 1986, 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2010, 2013, 2016, 2019, 2022, 2025, 2028, 2031, 2034, 2037, 2040, 2043, 2046, 2049, 2052, 2055, 2058, 2061, 2064, 2067, 2070, 2073, 2076, 2079, 2082, 2085, 2088, 2091, 2094, 2097, 2100, 2103, 2106, 2109, 2112, 2115, 2118, 2121, 2124, 2127, 2130, 2133, 2136, 2139, 2142, 2145, 2148, 2151, 2154, 2157, 2160, 2163, 2166, 2169, 2172, 2175, 2178, 2181, 2184, 2187, 2190, 2193, 2196, 2199, 2202, 2205, 2208, 2211, 2214, 2217, 2220, 2223, 2226, 2229, 2232, 2235, 2238, 2241, 2244, 2247, 2250, 2253, 2256, 2259, 2262, 2265, 2268, 2271, 2274, 2277, 2280, 2283, 2286, 2289, 2292, 2295, 2298, 2301, 2304, 2307, 2310, 2313, 2316, 2319, 2322, 2325, 2328, 2331, 2334, 2337, 2340, 2343, 2346, 2349, 2352, 2355, 2358, 2361, 2364, 2367, 2370, 2373, 2376, 2379, 2382, 2385, 2388, 2391, 2394, 2397, 2400, 2403, 2406, 2409, 2412, 2415, 2418, 2421, 2424, 2427, 2430, 2433, 2436, 2439, 2442, 2445, 2448, 2451, 2454, 2457, 2460, 2463, 2466, 2469, 2472, 2475, 2478, 2481, 2484, 2487, 2490, 2493, 2496, 2499, 2502, 2505, 2508, 2511, 2514, 2517, 2520, 2523, 2526, 2529, 2532, 2535, 2538, 2541, 2544, 2547, 2550, 2553, 2556, 2559, 2562, 2565, 2568, 2571, 2574, 2577, 2580, 2583, 2586, 2589, 2592, 2595, 2598, 2601, 2604, 2607, 2610, 2613, 2616, 2619, 2622, 2625, 2628, 2631, 2634, 2637, 2640, 2643, 2646, 2649, 2652, 2655, 2658, 2661, 2664, 2667, 2670, 2673, 2676, 2679, 2682, 2685, 2688, 2691, 2694, 2697, 2700, 2703, 2706, 2709, 2712, 2715, 2718, 2721, 2724, 2727, 2730, 2733, 2736, 2739, 2742, 2745, 2748, 2751, 2754, 2757, 2760, 2763, 2766, 2769, 2772, 2775, 2778, 2781, 2784, 2787, 2790, 2793, 2796, 2799, 2802, 2805, 2808, 2811, 2814, 2817, 2820, 2823, 2826, 2829, 2832, 2835, 2838, 2841, 2844, 2847, 2850, 2853, 2856, 2859, 2862, 2865, 2868, 2871, 2874, 2877, 2880, 2883, 2886, 2889, 2892, 2895, 2898, 2901, 2904, 2907, 2910, 2913, 2916, 2919, 2922, 2925, 2928, 2931, 2934, 2937, 2940, 2943, 2946, 2949, 2952, 2955, 2958, 2961, 2964, 2967, 2970, 2973, 2976, 2979, 2982, 2985, 2988, 2991, 2994, 2997, 3000, 3003, 3006, 3009, 3012, 3015, 3018, 3021, 3024, 3027, 3030, 3033, 3036, 3039, 3042, 3045, 3048, 3051, 3054, 3057, 3060, 3063, 3066, 3069, 3072, 3075, 3078, 3081, 3084, 3087, 3090, 3093, 3096, 3099, 3102, 3105, 3108, 3111, 3114, 3117, 3120, 3123, 3126, 3129, 3132, 3135, 3138, 3141, 3144, 3147, 3150, 3153, 3156, 3159, 3162, 3165, 3168, 3171, 3174, 3177, 3180, 3183, 3186, 3189, 3192, 3195, 3198, 3201, 3204, 3207, 3210, 3213, 3216, 3219, 3222, 3225, 3228, 3231, 3234, 3237, 3240, 3243, 3246, 3249, 3252, 3255, 3258, 3261, 3264, 3267, 3270, 3273, 3276, 3279, 3282, 3285, 3288, 3291, 3294, 3297, 3300, 3303, 3306, 3309, 3312, 3315, 3318, 3321, 3324, 3327, 3330, 3333, 3336, 3339, 3342, 3345, 3348, 3351, 3354, 3357, 3360, 3363, 3366, 3369, 3372, 3375, 3378, 3381, 3384, 3387, 3390, 3393, 3396, 3399, 3402, 3405, 3408, 3411, 3414, 3417, 3420, 3423, 3426, 3429, 3432, 3435, 3438, 3441, 3444, 3447, 3450, 3453, 3456, 3459, 3462, 3465, 3468, 3471, 3474, 3477, 3480, 3483, 3486, 3489, 3492, 3495, 3498, 3501, 3504, 3507, 3510, 3513, 3516, 3519, 3522, 3525, 3528, 3531, 3534, 3537, 3540, 3543, 3546, 3549, 3552, 3555, 3558, 3561, 3564, 3567, 3570, 3573, 3576, 3579, 3582, 3585, 3588, 3591, 3594, 3597, 3600, 3603, 3606, 3609, 3612, 3615, 3618, 3621, 3624, 3627, 3630, 3633, 3636, 3639, 3642, 3645, 3648, 3651, 3654, 3657, 3660, 3663, 3666, 3669, 3672, 3675, 3678, 3681, 3684, 3687, 3690, 3693, 3696, 3699, 3702, 3705, 3708, 3711, 3714, 3717, 3720, 3723, 3726, 3729, 3732, 3735, 3738, 3741, 3744, 3747, 3750, 3753, 3756, 3759, 3762, 3765, 3768, 3771, 3774, 3777, 3780, 3783, 3786, 3789, 3792, 3795, 3798, 3801, 3804, 3807, 3810, 3813, 3816, 3819, 3822, 3825, 3828, 3831, 3834, 3837, 3840, 3843, 3846, 3849, 3852, 3855, 3858, 3861, 3864, 3867, 3870, 3873, 3876, 3879, 3882, 3885, 3888, 3891, 3894, 3897, 3900, 3903, 3906, 3909, 3912, 3915, 3918, 3921, 3924, 3927, 3930, 3933, 3936, 3939, 3942, 3945, 3948, 3951, 3954, 3957, 3960, 3963, 3966, 3969, 3972, 3975, 3978, 3981, 3984, 3987, 3990, 3993, 3996, 4000, 4003, 4006, 4009, 4012, 4015, 4018, 4021, 4024, 4027, 4030, 4033, 4036, 4039, 4042, 4045, 4048, 4051, 4054, 4057, 4060, 4063, 4066, 4069, 4072, 4075, 4078, 4081, 4084, 4087, 4090, 4093, 4096, 4099, 4102, 4105, 4108, 4111, 4114, 4117, 4120, 4123, 4126, 4129, 4132, 4135, 4138, 4141, 4144, 4147, 4150, 4153, 4156, 4159, 4162, 4165, 4168, 4171, 4174, 4177, 4180, 4183, 4186, 4189, 4192, 4195, 4198, 4201, 4204, 4207, 4210, 4213, 4216, 4219, 4222, 4225, 4228, 4231, 4234, 4237, 4240, 4243, 4246, 4249, 4252, 4255, 4258, 4261, 4264, 4267, 4270, 4273, 4276, 4279, 4282, 4285, 4288, 4291, 4294, 4297, 4300, 4303, 4306, 4309, 4312, 4315, 4318, 4321, 4324, 4327, 4330, 4333, 4336, 4339, 4342, 4345, 4348, 4351, 4354, 4357, 4360, 4363, 4366, 4369, 4372, 4375, 4378, 4381, 4384, 4387, 4390, 4393, 4396, 4399, 4402, 4405, 4408, 4411, 4414, 4417, 4420, 4423, 4426, 4429, 4432, 4435, 4438, 4441, 4444, 4447, 4450, 4453, 4456, 4459, 4462, 4465, 4468, 4471, 4474, 4477, 4480, 4483, 4486, 4489, 4492, 4495, 4498, 4501, 4504, 4507, 4510, 4513, 4516, 4519, 4522, 4525, 4528, 4531, 4534, 4537, 4540, 4543, 4546, 4549, 4552, 4555, 4558, 4561, 4564, 4567, 4570, 4573, 4576, 4579, 4582, 4585, 4588, 4591, 4594, 4597, 4600, 4603, 4606, 4609, 4612, 4615, 4618, 4621, 4624, 4627, 4630, 4633, 4636, 4639, 4642, 4645, 4648, 4651, 4654, 4657, 4660, 4663, 4666, 4669, 4672, 4675, 4678, 4681, 4684, 4687, 4690, 4693, 4696, 4699, 4702, 4705, 4708, 4711, 4714, 4717, 4720, 4723, 4726, 4729, 4732, 4735, 4738, 4741, 4744, 4747, 4750, 4753, 4756, 4759, 4762, 4765, 4768, 4771, 4774, 4777, 4780, 4783, 4786, 4789, 4792, 4795, 4798, 4801, 4804, 4807, 4810, 4813, 4816, 4819, 4822, 4825, 4828, 4831, 4834, 4837, 4840, 4843, 4846, 4849, 4852, 4855, 4858, 4861, 4864, 4867, 4870, 4873, 4876, 4879, 4882, 4885, 4888, 4891, 4894, 4897, 4900, 4903, 4906, 4909, 4912, 4915, 4918, 4921, 4924, 4927, 4930, 4933, 4936, 4939, 4942, 4945, 4948, 4951, 4954, 4957, 4960, 4963, 4966, 4969, 4972, 4975, 4978, 4981, 4984, 4987, 4990, 4993, 4996, 5000, 5003, 5006, 5009, 5012, 5015, 5018, 5021, 5024, 5027, 5030, 5033, 5036, 5039, 5042, 5045, 5048, 5051, 5054, 5057, 5060, 5063, 5066, 5069, 5072, 5075, 5078, 5081, 5084, 5087, 5090, 5093, 5096, 5099, 5102, 5105, 5108, 5111, 5114, 5117, 5120, 5123, 5126, 5129, 5132, 5135, 5138, 5141, 5144, 5147, 5150, 5153, 5156, 5159, 5162, 5165, 5168, 5171, 5174, 5177, 5180, 5183, 5186, 5189, 5192, 5195, 5198, 5201, 5204, 5207, 5210, 5213, 5216, 5219, 5222, 5225, 5228, 5231, 5234, 5237, 5240, 5243, 5246, 5249, 5252, 5255, 5258, 5261, 5264, 5267, 5270, 5273, 5276, 5279, 5282, 5285, 5288, 5291, 5294, 5297, 5300, 5303, 5306, 5309, 5312, 5315, 5318, 5321, 5324, 5327, 5330, 5333, 5336, 5339, 5342, 5345, 5348, 5351, 5354, 5357, 5360, 5363, 5366, 5369, 5372, 5375, 5378, 5381, 5384, 5387, 5390, 5393, 5396, 5399, 5402, 5405, 5408, 5411, 5414, 5417, 5420, 5423, 5426, 5429, 5432, 5435, 5438, 5441, 5444, 5447, 5450, 5453, 5456, 5459, 5462, 5465, 5468, 5471, 5474, 5477, 5480, 5483, 5486, 5489, 5492, 5495, 5498, 5501, 5504, 5507, 5510, 5513, 5516, 5519, 5522, 5525, 5528, 5531, 5534, 5537, 5540, 5543, 5546, 5549, 5552, 5555, 5558, 5561, 5564, 5567, 5570, 5573, 5576, 5579, 5582, 5585, 5588, 5591, 5594, 5597, 5600, 5603, 5606, 5609, 5612, 5615, 5618, 5621, 5624, 5627, 5630, 5633, 5636, 5639, 5642, 5645, 5648, 5651, 5654, 5657, 5660, 5663, 5666, 5669, 5672, 5675, 5678, 5681, 5684, 5687, 5690, 5693, 5696, 5699, 5702, 5705, 5708, 5711, 5714, 5717, 5720, 5723, 5726, 5729, 5732, 5735, 5738, 5741, 5744, 5747, 5750, 5753, 5756, 5759, 5762, 5765, 5768, 5771, 5774, 5777, 5780, 5783, 5786, 5789, 5792, 5795, 5798, 5801, 5804, 5807, 5810, 5813, 5816, 5819, 5822, 5825, 5828, 5831, 5834, 5837, 5840, 5843, 5846, 5849, 5852, 5855, 5858, 5861, 5864, 5867, 5870, 5873, 5876, 5879, 5882, 5885, 5888, 5891, 5894, 5897, 5900, 5903, 5906, 5909, 5912, 5915, 5918, 5921, 5924, 5927, 5930, 5933, 5936, 5939, 5942, 5945, 5948, 5951, 5954, 5957, 5960, 5963, 5966, 5969, 5972, 5975, 5978, 5981, 5984, 5987, 5990, 5993, 5996, 6000, 6003, 6006, 6009, 6012, 6015, 6018, 6021, 6024, 6027, 6030, 6033, 6036, 6039, 6042, 6045, 6048, 6051, 6054, 6057, 6060, 6063, 6066, 6069, 6072, 6075, 6078, 6081, 6084, 6087, 6090, 6093, 6096, 6099, 6102, 6105, 6108, 6111, 6114, 6117, 6120, 6123, 6126, 6129, 6132, 6135, 6138, 6141, 6144, 6147, 6150, 6153, 6156, 6159, 6162, 6165, 6168, 6171, 6174, 6177, 6180, 6183, 6186, 6189, 6192, 6195, 6198, 6201, 6204, 6207, 6210, 6213, 6216, 6219, 6222, 6225, 6228, 6231, 6234, 6237, 6240, 6243, 6246, 6249, 6252, 6255, 6258, 6261, 6264, 6267, 6270, 6273, 6276, 6279, 6282, 6285, 6288, 6291, 6294, 6297, 6300, 6303, 6306, 6309, 6312, 6315, 6318, 6321, 6324, 6327, 6330, 6333, 6336, 6339, 6342, 6345, 6348, 6351, 6354, 6357, 6360, 636

Case #12 (Oct 16) "If any thing ails one of them it has nearly always been the case that identical symptoms appear in the other. This has been singularly true in the last two months; thus, ^{two instances during} when in London, ^{one fell ill} with a violent attack of dysentery within 24 hours the other had precisely the same symptoms, ^{again} the same look ^{both places} measles, 6 months ago ^{the same with} ~~If I were more up in the subject some very curious coincidences~~

Cornish #25 (Oct 13) "When they were little children we used to say '... (1) is ailing and ... (2) will soon drop', but their ailments were not always similar. ^{latterly (they are now adults) we have not observed this coincidence in itself so much.}"
 Hicker #7 (Oct 7) "Their state of health has been always the same. They generally feel poorly at the same time; they have colds, &c. about the same time".

Jephson #10 (Oct 18) "In illness (as children) if one were teething or ill, the other began 2 or 3 days later".

Macrae & Murchison #12 (Oct 16) "Whilst I knew them for a period of two years, there was not the slightest tendency towards a difference in body or mind. External influences seemed powerless to produce any difference. I met them 3 months ago on board a steamer in stormy weather & discovered that they both got sea sick at the same time."

Scott #15 (Oct 15) "Their general health is closely alike, and whenever one ^{has} taken an illness the other invariably ^{has} taken the same, within a day or two, and they usually recover in the same order. This ^{has been the case with} ~~in case of~~ whooping cough, chicken pox, measles, and of slight bilious attacks, which they have succeeded; also ^{with} a febrile attack ~~latterly~~"

Shepherd #16 (Oct 16) "as babies, if one woke the other was sure to wake also, so that in this way we remarked 'it was more than double trouble'"

Forster #17 (Oct 17) "They shed their first milk tooth within a few hours of each other" at 23-4, they both had tooth-ache and the same tooth had been drawn in each case. ^{both had} ailments have always been similar; in case of ophthalmia at 14

Wakefield #18 (Oct 18)

12

1

13

2

4

8

9

(Kear) middle life. "They both have the defect of not being able to come down stairs quickly, which however was not born with them but came on when they were about 20 years of age. They were both subject to asthma, which they inherited from their father and grandfather, till the younger was about 8 or 9, but the attacks continued with the elder till about 21; ~~since which~~ ^{since} they have become less frequent."

(Mayer) 12. "There is a congenital fissure at the second pharyngeal point of the little finger in such case, but not so marked as to ~~produce~~ ^{cause} unsightliness or discomfort. I have ascertained that they inherited this from their maternal grandmother. Their parents have no trace of it, ~~neither~~ ^{nor} ~~has any one~~ of their 4 brothers & 3 sisters."

(Wakefield) 54. ~~about~~ ^{about} Oct 22, the younger went ~~to reside~~ ^{to reside} to the West Indies and 1 1/2 years after that, "during his residence there, the hair of both brothers began to ^{grow} thin round the crown of the head, to the same extent ^{in each case}, and then the thinning ceased ^{stopped} ~~increased~~ in both cases the state of the hair ^{has since been much so unchanged} ~~remained~~ ^{remained} ~~the same~~ ^{the same} as before."

(Creed) 40. middle life. Their state of health had been much the same, and both died of heart disease, but the reason that ~~the one~~ ^{the one} ~~lived the longer~~ ^{lived the longer} was owing to his having ^{at a previous interval of 7 years} far less professional strain of mind.

(Hart) 57. ^{about 20} They were singularly alike & lived together, then one was seized ^{at 20} with Bright's disease & died, the other sickened of the same disease and died 3 months later.

The first of these is the fact that the number of cases of the disease is not the same in all parts of the country and at different times of the year and of the decade and of the century and of the millennium and of the epoch and of the age and of the race and of the sex and of the profession and of the education and of the religion and of the climate and of the soil and of the vegetation and of the animal and of the mineral and of the water and of the air and of the light and of the heat and of the humidity and of the dryness and of the temperature and of the pressure and of the gravity and of the magnetism and of the electricity and of the chemistry and of the physics and of the metaphysics and of the ethics and of the politics and of the economics and of the jurisprudence and of the medicine and of the law and of the religion and of the philosophy and of the science and of the art and of the craft and of the trade and of the commerce and of the navigation and of the maritime and of the land and of the sea and of the air and of the earth and of the heaven and of the universe and of the world and of the human and of the divine and of the eternal and of the temporal and of the spiritual and of the material and of the immaterial and of the visible and of the invisible and of the known and of the unknown and of the possible and of the impossible and of the probable and of the improbable and of the certain and of the uncertain and of the fixed and of the changeable and of the constant and of the variable and of the eternal and of the temporal and of the spiritual and of the material and of the immaterial and of the visible and of the invisible and of the known and of the unknown and of the possible and of the impossible and of the probable and of the improbable and of the certain and of the uncertain and of the fixed and of the changeable and of the constant and of the variable and of the eternal and of the temporal and of the spiritual and of the material and of the immaterial and of the visible and of the invisible and of the known and of the unknown and of the possible and of the impossible and of the probable and of the improbable and of the certain and of the uncertain and of the fixed and of the changeable and of the constant and of the variable and of the eternal and of the temporal and of the spiritual and of the material and of the immaterial and of the visible and of the invisible and of the known and of the unknown and of the possible and of the impossible and of the probable and of the improbable and of the certain and of the uncertain and of the fixed and of the changeable and of the constant and of the variable and of the eternal and of the temporal and of the spiritual and of the material and of the immaterial and of the visible and of the invisible and of the known and of the

(Hall)
8 One was born ruptured (& cured) the other became ruptured
at 6

Mangel
40 : we were both bald at 40.

Not common to both

Greely
5

Varicose veins.

Martin
13

Scarlet fever

Martins
14

Health almost invariably good. but perhaps a nervous fever
after marriage may have left the elder more sensitive.

Shillbee
17

Their state of health remarkably alike generally very good, except in one
illness of scarlet fever which the elder had very severely ~~though~~ whilst the
younger entirely escaped, although exposed to the poison at the same time
as I remember
no affinity in illness.

Butter
39

One had typhus. both being at school at the time
the elder had had the most illness (but has almost the same tooth being drawn)

Euph
39

as 17 one temporarily fell off in health

Robertshaw
54

One as a boy had a swelling of the gland on one side of the neck nearly
as large as a fowls egg - which however has much diminished in the course of years

Wakefield
54

One suffered to his 6th year with a red eruption

Wölfel
54

Cases in which one twin had an attack or accident while the other had not. In nearly every case the ~~consequence~~ ^{effect} was ~~6~~ ^{the effect has been that in nearly all these cases} the close resemblance was ^{thereby} permanently destroyed ^{between the twins}. f.59v

Scarlatina: 13. P. with small fever + with love 17

Dysentery 42. (note Sanders 22)

Neurotic fever after mumps (14)

Indic 51 (also Wakefield)

not States 47. 41

Varicose veins 5

Fractured leg 38

1. Knepher, ^{not com} production of deformity
that caused

f. 605

115

Scarlet fever

Martin) About 5 years ago when they were 2 years old,
H. 13 one of them had scarlet fever, and since that
time they have not been so much alike.

Hull) At ~~the~~ at 12 the elder had the scarlet fever and
H. 18 grew about 4 inches taller ^(than her sister). She remained taller
for some years, but the younger has now passed her
by 2 inches.

C... The second when ^{at} 14, caught the scarlet fever and afterwards
H. 1 the small pox, neither of which complaints did the elder
take; and since these complaints, the second has been
a little more excitable and more easily disturbed by
circumstances than the other, though she is strong
& active & perfectly well in health.

Sh. 11.10) Their state of health was remarkably alike and generally
H. 17 very good, except in one attack of scarlet fever which the elder
had very severely, whilst the other entirely escaped although
exposed to the poison at the same time ^{in the same} & manner. About at 21
the elder became "engaged" and is now thinner than the younger,
^(the family) so that we know them apart.

English fever

Enphes) They were at the same school ^{were} & kept in the same class until the
H. 42 elder was ~~attacked by~~ ^{attacked by} typhus, which was then epidemic. He was
consequently kept at home for a quarter & his brother therefore got
a class ahead of him.

Sander) (I should here mention that I have a case of ^{girl living who was very} deformity,
22

But who both ^{were attacked by} ~~had~~ typhus fever, at 16. The ~~effects of the fever~~ ^{upon them of the fever} ~~were~~ exactly opposite ~~in the two~~. The elder ~~was~~ had been extremely delicate ~~as a child~~; the fever completely altered her constitution for the better, and she is now in very good health. The younger had been extremely robust and almost boydenish; ^{in disposition} the effect of the fever has ~~been~~ rendered her delicate ever since, and she is ~~now~~ become a timid, yielding woman.

who both had typhus at the age of 16,
 just twins, ~~in fact~~ The elder ^{and had been} extremely delicate as a child but
 after ~~an~~ ^{the} attack of typhus ~~fever at the age of 16~~ ^{completely affected} her constitution
~~became~~ ^{was} completely ~~affected~~ and she is now in ^{very} good health, while
 the younger ~~for~~ ^{has} been ^{previously} ~~extremely~~ robust & almost hardy
 (has been delicate ever since & is become a timid yielding woman.)

nervous fever of the twins has been
 Mildred) ^{the} health ^{similar}, almost invariably good, but ~~perhaps~~
 a nervous fever ^{which she had} after marriage ~~may~~ ^{has} left the elder ^{one}
 perhaps a little
 more sensitive.

Baradlogh State of health ~~not~~ the same. &c (inclosed out)
 27

India

Phillipotts. This close resemblance began to diminish a little, gradually,
 but the great difference ^{took place} ~~has been~~ since the elder went to India.

Of course the effects of an Indian climate have been considerable.

(I have ^{already} quoted an instance in which four years service in India
 had ~~so~~ little effect on a twin that his own mother mistook him on
 his return, for the brother who was at that time ^{staying with her} ~~in the house~~)

not stated
 Fowler) The younger ^{at his birth} ~~was~~ ^{1st} heavier than his brother, ~~at birth~~
 and he continued ~~to be~~ the heavier until ~~at~~ the age of 15, when
 he was greatly reduced by an illness of 8 months duration.

5
 Gossely) At birth they were exactly alike except that one was born with a very bad varicose affection, "the effect of which has been to prevent any violent exercise such as dancing or running, and as she has grown ^{older} ~~that~~ make her more serious & thoughtful, ~~that~~ Had it not been for this infirmity, I think that the two would have been as exactly alike as it is possible for two women to be, both mentally & physically; even now they are constantly mistaken for one another."

Proctor
 Bzandell (These twins were ^{very much} ~~extraordinarily~~ alike in ^{(numerous guests} ~~childhood~~ ^{are from the fact of their being} ~~childhood~~ ^{very much} ~~childhood~~ but during the last 30 years they have become less & less alike. One of them ^{when a young man} had a very bad fracture of the leg, ^{in consequence} ~~and~~ could never take proper exercise. He is now stout (and stone deaf) while his brother is thin and of active habits.

Woffel 56 ~~a case of singular~~ The younger suffered ^{a little} up to his knee from a red eruption (these twins are now ^{with} ~~extraordinarily~~ ^{alike} ~~alike~~ ^{continue to be})

Robertshaw 53 Up to the age of 17 it was impossible to distinguish them then the elder fell off in health ^{he grew more dropsy than} and his brother ^{so that he became} grew to inches ^{shorter} ~~shorter~~

Robertshaw 53 At the age of 20 the elder brother had regained his health and likeness, but he is still about an inch less tall and not quite so stout as his brother.

Wakefield 57 (This is the case already quoted in which ailments were similar and ~~ophthalmia~~ both had suffered from ophthalmia) The elder had when a boy a swelling of the glands on one side of the throat. It was ~~the~~ as large as a small fowl's egg; it is now ^{very} much diminished.

The Stronger Difference in Character, perhaps the
more force than of coloration, among living
men, mental difference, better known

C...), ^{mental differences, beyond} s, has the best heroes, in riding.

2, is tone of flowers & arrange
them with good taste either in water
or dried in her book
is rather the latter & shorter

Case 2. β , far more vigorous, faster & ever-
active - more quick & composed

gentle, changing & liquid
is rather inclined to be tall, but is
the more affectimate.

Concluded 3 In arithmetic, the arrived at some conclusions by different methods, and in making analyses of lectures, they always explained themselves differently. It was generally observed that in writing an essay, they took up different points & followed out the subject in different directions, not in opposite ways.

1) Generally a mark is two ahead
of the hole
in a little taller larger & heavier than
the hole

Page 4, 11 has great convuls (with better, a little like latter several months)

2, back, compare
a little the stentor & heavier
circumstances, (various) (see p. 1)

Every
5

Evangelica

Hock

7

Hull
Selfreim

John

vez, min. tar

Special taste, & affect. ^{also intellect} ~~also intellect~~ (evidence is weak)
as above.

The Elder had better abilities, so that (2) has the greater taste for
I frequently said "He is a year older than, & more - more tender hearted
her sister." Has the greater taste for and affectionate.
made - Has a finer disposition and
a stronger mind & has always been
much the stronger)

Kent

4
Mucosa
12

Maile

13
M. L. D. D.

th

Scott
15

(1) Is the Slope - inclined & regular
horizontal - Has always been of the
greatest weight identical

2, always the most acute

(no information)

Similar -

(3) organ of wt ^{largely} more developed, her
 characteristics are quicker. She has a more
 excitable temperament & a more sensitive
 nervous organization.

Character, manner, but not altogether alike

Handwritten text at the top of the page, mostly illegible.

f. 63v

✓
v. 63v

v. 63v

v. 63v

✓
v. 63v

v. 63v

?

Sensitib. 17

15

v. 63v 10

v. 63v 9

16

v. 63v 8

✓

✓

- Shillitoe
17
Griffith
Hewett
(very all the inferior
unlike in me)
- tastes are similar & dispositions a good deal alike
- more ardent
more active & handy
more energetic & more elegant in her looks
more graceful, handsy and a good
more - Sharp critical, more active
& fond of reading
- more calm & gentle
with movements
even awkward moves & very much
inclined to be left handed
more soft more affectionate &
clingy and more indulgent
~~more~~ larger & heavier
- both kind of animals
but
all animals are more fondled by the
younger & pleased with her touch and
noise
- 10 cases of diff.
- Arnall
37
Brandreth
38
Butler
39
- 2, more mental power
1, is the latter - the slower
"had out the best of brains between them"
~~both~~ ~~propensity~~ ~~to~~ ~~be~~ ~~the~~
much alike morally & more so than
is usual among brothers & sisters
- breed
40
- 1, was the greater in boyhood & youth
& more even spirited
- 2, Sanguine & sometimes depressed
had much the best temper, though
much less thoughtful
- Forster
41
Euphy
42
- 1, works most with his head
is now the latter
she has become rather more luxurious
than the other & more particular in
her personal appearance
? which is the latter, there is much diff.
- 2, works most with his hands.
- Hornor
43
- 1, slightly but noticeably the more
reserved always rather heavier & better
2, more vivacious
- Lehmann
44
- 1, Calmer
2, a little stronger in athletic performance
- Lawford
45
- 2, the better musician, said also
to be the more 'peppery' a little
stronger in athletic performance.
- Lushington
46
- very similar
- Mandel
47
- 1, was a civilian, stuck to & excelled
in Natural History & became a
liberal - his head hit the larger
a soldier - remained contented
- Morisset
48
- 2, more self contained, original
& more independent
1, a little larger built & more strong physically
though not in constitution similar
- Oldham
50
- the same
- Phillipotts
51

(see next page)

f. 65r

125

125
The first of these is the
fact that the
the first of these is the
fact that the
the first of these is the
fact that the

f.65v

0

DN

15

3

4

✓

~~Oldham 50 nearly 6 feet, but tons of athletic build & much the same power.
 Philpotts 51 Both suffered at cricket
 Raen 52 Both excellent cricketers; the one all round the other a batsman
 Roberts 53 (decidedly vigorous, mind above the average)~~

5

8

2

9

1

6

11

7

10

3

4

Stronger
more force

f. 66r

127

Maerz 52
Robertshaw 52 both bordering
Wakefield 52 (2) has perhaps a little
54 more decision. - is slightly
with him 55 alike
Woolfel 55 (1) has a somewhat more lively
54 temperament 2. Suffered a little of the 16th year
from eruptions
(11 cases)
Barraclough 27 the coal tastes similar

Hall 8
Jepson 10
Mildred 14
Scott 15
Guthrie 18
Barraclough 27
Linhman 44
Oldman 50
Robertshaw 53
Wakefield 54
Witherby 55
Maerz 57
Shepherd 14
Mangell 14
Association of ideas
(Several tastes and associations, exactly the same)
They do make similar remarks at the same time
Associations the same
Their ideas are not similar, nor are the same trains of thought often and
In association of ideas uniformly the same, and at the same moment
Associations of ideas similar
Their ideas became so alike that they uttered the same opinions
simultaneously and had the same reminiscences, recalled at the same moment
When young, one would begin the other finish a sentence
(quite the anecdote)
Association of ideas often coincided, such as remarking upon the
same subject at the (nearly) same moment, or commencing the same
thing in like manner
Associations & remarks alike.
I have frequently noticed their individuality of impulses and desire of being & acting in concert
They have great sympathy of feeling
I'm certain that our association of ideas is alike; often making identical remarks

2
1
3
6
4
5
7
8
1

7
6
8
5
3
2
4

- Cornish F Can walk in twain with the same power of endurance, both
3 have won several prizes at the Eton School of art.
- Hull F They are very courageous and ready for any athletic exercise. The
9 were famous at foot ball & now skate very nicely. They passed the
Cambridge local exam. the one taking the one first class of
her year; the other, one of the 3 seconds.
- Jefferson F They inherited both from father and mother a nervous and
extremely excitable temperament, although robust and capable of enduring
great bodily & mental fatigue.
- Jeph F They have equally good use of their limbs for running, dancing,
riding & skating.
- Macrae F Their physique and their body development seemed alike, equally
12 robust they undergo the same amount of fatigue.
- Mildred F Hence, they were quite equal and believe they were superior to
14 most of the other members of the family, a certain! attained
to create age. (79 < 93)
- Shillito F They had similar power of athletic performance, as in swimming, judo
11 canoe, skating and archery.
- Hevett F They are both very intelligent & full of fancy
16
- Creed M In boyhood both had very high spirits, both ardent sportsmen & liberal
40 both powerful & very active in youth, especially in the then called
"noble art of self defence"
- Fowler M The height of 1 is 5'2 1/2" of the other 5'1" (both take much exercise)
41
- Horne M Similar & considerable power of athletic performance
43
- Lushington M (Decidedly successful in life)
- Oldham M nearly 6 feet both fond of athletic sports & much the same power
- Phillips M both duffer at cricket
- Radin M Both excellent athletes, the one all round the other a batsman
51
- Roberts M (Decidedly vigorous, much about it always)
52
53

Better English

Each ~~the~~ fertilized ova must ^{have} a separate chorion and amnion. ^{Consequently} ~~there have been~~ ^{these have been} ~~2 ova~~ ^{2 ova} are whether ~~they were~~ derived from one ovary or from both, from one protheca follicle or from two, as they ~~have~~ will have separate chorions and amnions. Conversely of the twins have known but a single chorion between them (it is a matter of ind. Hence whether they have a single amnion or not) they must have come from a single ova with 2 germinal spots. In this case there is ~~no~~ ^{one} placenta & the circulatory system of the twins before their birth ~~stands in~~ ^{is} much more closely connected than in any other.

Kleinwächter Die Lehre von den Zwillingen. (Prag 1871)

p. 30. ~~In the case~~ ^{whether} the fertilised ova, ~~have~~ ^{have} been derived
from ^{only one} ~~one~~ (ovary) ^{or both}, from two Graafian follicles or only
one, they must in every case have a ~~single~~ ^{separate} Chorion &
Amnion, ~~or~~. If the ^{twins are enclosed in a single} Chorion ~~be common to both twins~~, -
(it is a matter of indifference ^{whether the Amnion be common to them} ~~whether the Amnion be common to them~~) then ~~will~~ ^{will} usually have
~~be only one~~ ^{one} Placenta, ^{between them}. In this case, the circulatory system
of the ~~two~~ double produce ~~stands in~~ ^{is} more closely connected
than in any other, and the two twins ~~have~~ ^{come} from a
single ovum with two germinal spots.

p. 20 and elsewhere. the possibility of two separate ova ultimately
having their placentas ~~conjoining~~ ^{conjoining} & chorions becoming thrown into one
is discussed - this is Kiwisch's view of a common occurrence
in producing twins with a single chorion, much protested
against by Spacht (others)

Skin - tint light swarthy - fair, pale - high colored
 texture - smooth - rugged. warts
 accidents - moles - scurf of various kinds - discolored structure

Hair. tint any one of Broca's 36.
 texture - smooth - crisp, rough lank, stiff
 quantity - abundant. bald - long - growth over forehead
 place - over forehead. low or high

Eye brows. shape arched meeting on front,
 texture - rough hairs in.

Nose. small straight curved large small wide narrow

Teeth

External Ear shape 1 - thin, lobe adherent - Darwin's point.
 Eyes (Broca) - near together, small or large.

f. 69v

Early

boys

TMA

13

Elder the stronger taller h | 2, 3, 4, 5, ~~10~~, 11, 14, 200

37, 44, 48, 49, 51, 52, 56

Gorner " " " 7, 8, 21. 7

41, 43, 45, 46, 53, 54

Equal

9¹⁰, 12, 13, 14, 15, 16, 17, 18

(35?) 39, 40, 50, 55

16

1312

Retard; influence of time

1. B. scabellatus & small por, 5, ^{vagifera} ^{superior}	6 scabellatus ^{canals key to} ^{grow - in these} ^{slab}	13 scabellatus	14 mesopod legs, ^{after that} ⁱⁿ	15 scabellatus ^{resembling}
17. Scabellatus ^{no particular effect}	41 not slates	42 by them	51 by them	

Similarity of illness, 2, 3, 7, 10, 11, 12, 15 ^{d/2 ailments} (40) ^{South Baldwins} Sta | ^{Seattle} 57 | ⁹ ^{North} ^{name} ^{inches} ^{Barren}

11. Father & Gr. father
Taken after relations. 12 suggested for
Hedgehog for
Hedgehog and the? away other among unlike

Elder	4 {mother & her family}	Father	24	paternal gr. fath
younger	1 {father & his family}	39	Paternal uncle	paternal gr. mother

There are certainly other cases,

C...

Cane

Cree

Dug

Eastlake

Gower

Holt

Lawford

Latham

Macrae

Manser

Moor

Neville

Pate

Rothwell

Robinson

Shuttle

Waller

Walford

Waller

Waller

Waller



Twins



F. Galton 42. Rutland St.

(Enquire about full address of)

— Newnham Surgeon in D
Lunatic Asylum Harst Green
Tunbridge Wells

(has 3 pairs of twins)

(by Rev W. S. Hull)



A. lar



x Charles Ansell Esq Jun^r National Life Assurance Society 2 King's f.l.v
(William St. E.C.)

x William Ansell Esq
Ilford, Essex. (Also Atlas Assurance Office Life Dept^r
92. Cheapside.)

Rev^d. James Attkin

Charkewood Vicarage Wickhamwood

H. R. Astley Esq. Hungerford Berks

Justly Andrew Esq Solicitor Melksham
(D. of Stokes Esq)

Mrs Afford Bluntisham V-Iver Hunts
(Jas Watson)

x Asmall (seal of Rev^d F. B. Smith)

x Andrew (daughter of J. Doman's veterinary surgeon)
Rev^d John (writes about the Woolridges)

Rev^d Asaph - the Rev^d Neo^d the Dean of. A. Asaph N Wales
(George Butler)

x Arthur Rev^d J. Parbold. n. Necton



No 1. q1 sent out & q0 returned

f. 1b

No 2. q1 " " H72 "

I. [J]ohn Arlidge High Eooae Stoke on Trent



Stephen Baker Esq. Usk. Monmouth

Neo? A. H. Barker. Rickmansworth

✓ Neo? T. B. Barraclough ^{MA. incumbent of} Wotton Park, Darlington.

Neo? H. Barron. Baxley, Atherstone.

M. Beaumont Esq. 12 Hanover Square Sheffield

~~Neo? G. Beckwith Blyth Hill Shiffnal Salop~~
(left. no address)

✓ Neo? Arthur A. Bell ^{maney near March} Parsonage House, Isle of Ely

Rev. W. F. Bickmore. Kentworth

L. B. Bilborough Esq. Leeds

✓ G. F. ^{Bodington} ~~Bodington~~ Esq. Ashwood House. Kingswinford, n. Dudley
~~Sutton Coldfield Warwickshire~~

Neo? John S. Boldero. Ambleside Vicarage Slough

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* R. L. Brandelth Esq. 32 Elvaston Place

H. H. Bremner Esq 15 Lord V. Liverpool

Rev^d J. H. Broome Houghton Hall Norfolk

Ralph M. Bruns Esq Beaufort Gardens St

~~Francis Buckley Esq 83. Herford Road Bagnold~~
"Come away"

J. C. Barbeck Esq. Hazel Noss Reeth Yorkshire

* Rev^d W. Burton. Frome Somerset

G. Burg Esq^r M.D. Whetstone.

See next page

See 'ad' page

p. 21

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(A. S. Browne, Mr. Pateman, Cambridge
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(by Rev^d W. S. Hull)
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(by Dr. Inman)
D. Barkham Truro Cornwall
(Dr. Paget)

Mr Charles Blewitt collector of rates Ilford. Essex
(Wm. Ansell)

Mr Bond Creech Grove Wappingham (see Trails.)
(Col. Mansel)
Mr. Burt. Farmer Welburn Lincolnshire
(Dr. Pague)
Mr G. Bright. Heathercliffe Clifton Down Bristol
(Miss Sanders)

X Burnett Rev^d G. Scotty Vicarage Carlisle
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✓ Balfour Lady Georgina
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(Jas Wilson)
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(H. Gaskell)

✓ Charles Butler Esq. 3 Courthouse Place. W

Mr Bingham (case of Col Bingham Dorchester
(Wynyard))

X Mr Beaumont Throow near Chalford
~~Mr Lane Fox~~

C. Barkana Inf M.D. (Castab) - Truro
lands (address - promises to write) (Don't know)

Mr G. J. Blunfield Aldington Rectory Hythe
(Bridport & Dover)

Mr Bales Inf Carrington near Nottingham
(Mr. Small)

Mr A. Bailey 15 Stafford Terrace Kensington
(Mr. Shaen)

Creed Rev^d H. K. Father & Uncle
Chedburgh Rectory. Bury St. Edmunds

X Cane Rev^d J. B. Cane Weston Rectory, Newark
(See Hall's letter)

Crawford New J. K. Ely
(by Rev. A. Bell)

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Henry Cartmell Esq. Manchester
Rev. D. E. Charter, Blackwater Vicarage, S. Devon
~~C. V. Cheshire Esq. Northfield Berkhampstead~~
Rev. J. Clark, St Paul's Church Aberdeen.
Rev. L. T. Clarkson, Moleworth Rectory, Thrapston.
X Newland T. Cobbold ^(Burgess) ^{Deodham Lodge} Deodham, Exeter
X Thomas Cooper Esq. Congleton, Cheshire
X Mrs. Cornish ^(widow) 3 Church View Babbacombe
Rev. S. W. Cornish, Ottery St Mary, Devon
Rev. R. K. Cornish, Landkey, Barnstaple
Rev. Thomas Cox, Norton Rectory, Atherstone.
W. C. Cross Esq. Church Gresley, Burton on Trent.

8th Cream ^{Putney}
(by Dr. Laman)
Mr. James Chippchase, Grocer Crook Durham
(by Dr. Paine)
X D. W. Crompton Esq. 59 Harborne Road Birmingham
(I don't know)
Miss Cane, Weston Rectory, Norfolk
(Lady Eastlake)
Viscount Cole, Hartford House, Cheshire
(Lady Eastlake)
Miss William Henry Cooper, Luciefelde Shrewsbury.
(sent by Mr. Leighton the lichenist)

Mrs Crakelt Vale Lodge Sutton Surrey
(Jas Wilson)

Rev^d Augustus Cobbold Herne Bay
(his cousin R.T. Cobbold (see))

Mr. John Christmas Church Bank Handoover
(J. Waller)

Name under. Charles Clark Esq 20 Belmont Park Lee (if he does not reply
81 Lindsey. (See Fraser) by the other brother - see
81 Lindsey's letter)

✓ Mr. Craicraft (see Ha. Mr. Lane Tox)
Harrington
Spillby
Leicestershire

Mr. Child 2. Avenue House, Down's Road Clifton
(Mr. Kent)

✗ Mrs E. Cole S. Julian's Road Streatham SW
(Shaan)

✓ C. ?
(Mrs Tupper)

- ✓ Rev^d Henry Dale, Wilby Rectory, Wellingborough.
 John Dale Esq., Helston Cornwall.
 ✓ J. G. Davey Esq., Northwood ^{Winterbourne} near Bristol.
~~James Davey Esq., Hereford~~
 Rev^d H. C. Detham, East Cullston Wetherbury with
 F. Vitruvius Esq., Morland Road, Croydon, (see post).
 John Dore Esq., Solicitor, Exeter.
 ✓ Right Rev^d The Bishop of Dover, Canterbury
 B. C. Durrant Esq., Windsor
-

John Darroen Esq. (Surcon) 120 Bath Row Birmingham
 (by W. Bodington)

Durham Esq. of Lambton Castle Durham!
 (see Lambton) (by Hon Col: Fildes)

Messrs Detmar & Messrs Rothschild ^{New of S^r S^r Swinton's Lane E.C.} ~~see previous list~~ (see ante)
 (Wm Ansell)

~~See~~ ~~Come~~ see Hall's letter

- ✓ Rev^d ~~Western Rectory Newark~~
 Rev^d W. Downs, Baylham Rectory, Ipswich.
 Rev Thomas Delaton Cobridge Basildon
 (Rev A. Walton)

✓ H. H. Dickenson?
 (R. H. Scott)

Mr J. A. Dickenson Donaghmore (C^o Tyrone Ireland)
 H. H. Dickenson

X Mr^s Dallisam Cobridge Stoke on Trent
 Mr Devitt Lee Terrace Upper Clapton
 (New Kent)

D

Joseph Eggleston Esq. Cosely Bilston
 New² A.T.H. Evans 1 St. Georges Chambers,
 (Albert Square Manchester)

Evans J. Hertford Herts (is one of 3 who crew up)
 (by J. Holcombe)

George Edgcombe Esq. Keynsham near Bath
 (D.J. Stokes)

Eastlake Lady 7. Fitz Noz Square
 2. Edle Esq. Southampton.
 (New E.R. Green)

Joseph Eliez Esq. Waverley V. Nottingham
 (Mrs Small)

J. Fairer - Later Ind. near Wisbeach
(by Mrs² A. Bell)

Nes² S. Farmer S¹ Martin's Colchester
 H¹ Colquhoun
 ✓ Fielding Esq. 39 Princes Gate
 (has nothing to do with Thomas in life family)
 Bromley Ford Esq. Blackheath.
 J. Forshaw Esq. 9 Cannon St. Preston

William Hugh Fraser Esq. Archbop's L. Laverham
 (H¹ ~~Handley~~ Lauder Lindsay)

✓ Edwards Fry 5 The Grove Highgate.
~~Take~~

Fraser (see Clark) (J. Lindsay)
 ✓ Fowler Henry Esq. ~~Knott's Green~~ Woodford.

? Mr. Graham

- Graham Esq. 70. King St. Wotton Park Darlington
 suggested by Rev. T.B. Barradough

✓ N. Gastell Esq. 7. New Square Lincoln's Inn
 (by E. Darwin or rather H. Jackson) "North Hill, Highgate."

Rev^d E.T. Gepp - Chelmsford

Rev^d E. Gillson Loughborough

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(J.N. Green^{see Newcastle} Esq. Butleigh, Glastonbury
^{see D. Packer letter})

F. Storer Gupper Esq. Falmouth

~~J. Skelton Esq. Hagley Road. Birmingham~~
~~by Rev^d L. Moilliet~~

H.F. Gordon Esq. Oak Hill Stoke upon Trent
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Mr ^{Chaplin} Holland Liscard Vale New Brighton Birkenhead
(R. Gasell.)

Eodwyn Eodwyn Esq. Franklingham Suffolk
(his nephew Pierston who is Holde's school at Ipswich the little meeting room & (to be of value)

✓ ⁷ ~~Mr~~ Gredey Esq. Meriden Lodge New Kentworth N² Leamington
(~~Emilia~~)

J. E. Gibson Esq. Cover Isle of Wight
(~~Wynne~~)
Miss Gauthier Clapton Square Clapton
(Miss Kent)

✓ ~~Gifford~~ S. T. Stokes MD. Falmouth
(~~S. T. Stokes~~)

G

Holbecke Mrs Vincent. Sutton Coldfield
(by Mr. Bodington)

Hill, Thomas Esq. Wembury Bristol
by Rev. W. Dale

✓ Nev. J. W. ^{Winstanley} Hull

North Wiltshire Newark

~~Jeremiah Hartall Esq. Manor House Wottonhall~~
~~Esq. and candidate for the County of Wiltshire~~

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H. C. Harvey Esq. St. John's Chambers Newcastle on Tyne

Nev. Montagu Hawker Rempton Sherborne

Nev. T. G. Headley, Petersham. Sw.

F. A. Helsdon Esq. M.D. North Walsham, Norfolk

✓ Nev. J. W. Hick Byers Green Durham

✓ Nev. George Hill. South Winnor, Cornwall

George Frederick Hill. Cardiff.

Nev. William M. Hind. Pinner, Watford.

✓ Chas. A. Holcombe Esq. M.D. 29 South Hill Road Liverpool

Nev. Richard Holmes, Elderfield vicarage, Tewkesbury

Nev. W. W. Howard. 9. Baring Crescent, Exeter

S. H. Hoyle Esq. 123. Cannon St. E.C.

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Nev. George Hill. Hall School Sandorland
(? Iliff)

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~~Rev. (James Wilson)~~

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George Haffenden Esq National debt office.
by Rev D P Lewis

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(W. A. Leighton & Laceyfelde Shrewsbury)

✓ Miss Rose S. Hope Kirk Langley Derby
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✓ Mr Horner ~~Mellor~~ Rectory Frome
~~Miss Hope~~

✓ W. H. Herford Esq. BA. (Teacher) Fallowfield Manchester
~~(Don't recollect)~~

Bernard Harris Esq. Surbiton
(Rev H. Watson)

Sir William Heathcote Bart, Hurstley, Wiltshire
(Wraynham)

Mr Herbert Hafod Partwood Hunt
(Mr Lane Fox)

Sir George Hewett Bart. Hurstcote Here Rutland
(Mr Lane Fox)

✓ Professor Humphrey FRS Cambridge

f. 26v

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~~Alfred Jagger~~ Barlow St. Lozells Birmingham
 (by J. King Montlick)

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 R. James Esq Manryst. Denbighshire
 F. B. Jennings Esq. Ipswich.
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 Henry Johnson Esq. M.D. Shrewsbury
 Rev^d F. Jones Moreton Panch. Banbury
 Rev^d J. S. Jones Henegbury Anglesea
 E. Jones Esq. Aberdare Glamorganshire
 * Rev^d Chas. F. Jones ^{Headmaster} ~~Upper Bangor~~ ^{Lydney} Orphan Asylum Watford
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Rev^d Wm Jendurme Chicheley, Newport Pagnell, Bucks
 sent by (Mr. Dighton the lichenist)

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 (Miss Hope)

* J. Liff (Rev^d) George. Hall school. Sunderland

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(the Mrs Lane Fox)

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George Kirkby ~~W.~~ Bicester Oxon.
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by Rev J. W. Hall

to Rev J. W. Hull

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(J. W. Crampton)

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(don't know)

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(Harrin)

Brundage

K

+

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Rev^d W. F. Lumley, St. Edmund, Northampton

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Mr W. W. Lewis, Pelham Crescent, the Park, Nottingham
 (James Wilson)

* F. J. Lacey Esq. Stone Gable - Croft Hill - Leeds.
 (James Wilson)

Lord Leech, Stonehouse, Leamington

E. B. Luxmoore Esq. Brynarth, St. Asaph N. Wales
 (George Butler)

(✓) Lambton some of East Durham sent by ^{Mr} Webster (ap. 6 at 10)
(9 Romanes)

Capt Lloyd Glasewin Llangadock

Mr or W. Leamon Esq^r Willestrew Park near Taivstock
(Barn dell bridge - these are the hunsston)

✓ N. Lindley Esq. 19. Craen Hill Gardens, Hyde Park, W.

✓ G. Lawford Esq^r ("a friend") Sherbrook Lodge Nightingale Lane Clapham
Common.
SW

✓ Lucas (see Thompson)

- X Mottet. Rev Lewis Abberley Rectory Stourport
 X " James Keir. 48 Francis St Edgbaston Birmingham

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 X Rev. J. MacCartie ~~Naughton Head Vicarage Carlisle~~
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 Edward Martin Esq. 3. Nelson Terrace, Clapham Common
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 F. W. Miles Esq. Watford Herts

X Colonel Mansel Smedmore Wareham
 (by Rev. H. Esq.)

- Rev. G. V. Macdonna near Lynn Norfolk
 (by Rev. L. Mottet)
 Wm Manley Esq. Hoddesdon Herts
 (Wm Ansell)
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 (by Rev. T. N. Hutcheon)

- Nes? J. M. Macdonald Kersall Nctry Manchester
 G. Matthews Esq. ^{see Wilson} 22 Park Place ^{Wen.} Sunderland
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 Marshall Mrs The Mount - York
 (Anne Sykes)
 Mrs Marsden Baites Durham
 (Mrs Ward)
 Nes? John Maffingham Longport Burnley
 (Nes? A. Watton)
 John Mac Millan Esq. 161. Adelaide Road, Hampstead.
 Nes A Watton
 Mrs Mackinnon 77. Warwick Square. Scot
 (Ch Butler)
 ✓ Mildred (see Richardson)
 ✓ Martin (see Tupper)
 ✗ Maturin C. Gabriel Annefield to Cairn's Perth N.B.

M

W.C. Nicholson 1. Windsor Lane, Plymouth.
(by J. Keir Northick)

Rev^d W. H. Naudes Frome

Rev^d W. F. Neville Butleigh Vicarage, Glastonbury
(see Dr. Paget's letter) wrote again to Jan 22/45

Rev^d G. D. Nicholas, Clewer, Windsor.

The Rev^d T. S. Norgate Sparkham Rectory, Norwich

✓ S. A. Notcutt Esq. Solicitor, Ipswich
(Holden. He tells me the boys were at his school & he c^d never distinguish them)

✓ Herbert Newby (Solicitor) Rusham, Worcestershire
(see Herford)

✓ Mr John Nichols 23. Lansdowne Terrace, Cheltenham
(see Herford)

✓ Rev^d W. H. Naudes & Frome (Vandurch Rectory)

N

Rev. J. A. Ogle, St. George's Vicarage, Kensington

Rev J. A. Ogle Sedgford Vicarage King's Lynn f.42v

Rev^d Octavius Ogle Oxford
(by Rev H. Dale)

X Mr Oldham. Oakfield Chudleigh Devon
(don't know)

Rev. H. Pratt, Shepton Mallet.
(by Emily)

Oliver Pemberton Esq Surgeon Bournemouth
(by Mr. Bodrington)

Hon Arthur Plunkett Agent Irish Society County Kerry, Ireland
(through G. Darwin)

✓ Professor D. Pacht. M.D. F.R.S. Cambridge
(H. Jackson through G. Darwin)

J. Packard Esq. Hoxle. Suffolk.

✓ Henry Payne Esq. M.D. New Hall, West Melton, Rotherham.

Hugh C. Penfold Esq. Library Chambers Middle Temple

Nes^d H. S. Pinder Bratton Fenning, Barnstaple.

✓ Nes^d Henry Pix. Wimborne.

Nes^d S. G. Potter. Hollescroft. Sheffield.

Nes^d H. Pratt. Shepton Mallet.

Samuel W. Prideaux Esq. Dartmouth Devon

Mr. Paps watchmaker Frankwell Shrewsbury
(Mr. Leighton, Wichenish)

✓ Pugh - children of a labouring man, sent me by Nes^d D. P. Lewis.

William Porteous Esq. Norfolk N. Sunderland

Phillipotts M.D. Chancellor - St. Glouias Penryn Cornwall
(St. Barcham)

Miss Pinder. 9 Cheriton Villas Folkestone
(Lewford)

Mr G. H. Powell Ivy Bank Hampstead
(Hampstead)

X W. S. Western Eden Place. Ann St. Birmingham.
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 Edward Hawkesley Rhodes Esq. 23 Gloucester Crescent. NW.
 ✓ Charles Richards Esq. Langollen.
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 L. E. Norwell Esq. Hambledon Rectory Surrey
 Rev^d L. Norz Brereton Congleton.

Mr. Robert Routh Kegworth Leicestershire
 (~~by Dr. Pague~~)

{ Rev^d William Roberts FTCD. Trinity College Dublin
 { Michael Roberts Esq. FTCD Trinity College Dublin
 (Lecky told me)

{ Rev^d Evan L. Norwell Hambledon Surrey
 { Rev^d W. F. Norwell Copmanthorpe near York
 (Father & one of the twins by J. Wilson of Nuthby)

Major Norlands Cotm Hill Shrewsbury
 (Mr. Sedgwick Lichfield)

X Dr. Rawson Nottingham
 (~~by J. Wilson~~)

J. Reed Esq. Thornhill Crescent, Sunderland
 ✓ Roundell Miffler (sent by Dr. Weger)

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(H. Gaskell)

- Rooke Esq. Surbiton
(New H. Walton)

✓ Sir Rawdon H. Rawton KCMG Barbados Newlands House
~~Essex~~ ~~and Hull~~ Sydenham

✓ Edw^d Hawley Rhodes 11 Norfolk Road S^t John's (care of)
(Joubert)

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(Mrs Small)

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(Miss Seale)

✓ Richardson Henry York (in Mildred town)
(J. H. Take)

H. Shann Esq Bishop's Hostel. Trin Coll Cambridge
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F. Scott Esq Bredport

Rev^d Thomas ~~Seymour~~ ^{deceased} St Mary's Town Ipswich

Captain Selby 3 ~~Chapstone~~ ^{not known} Villas Bayswater

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~~Rev^d Carolina Smyth ^{widowed}~~
~~E. W. Smyth Esq.~~ 112 Pembroke Road. Clifton.

~~Rev^d F. N. Smith~~ Aston Brook Birmingham ^{he also sends Cornall}

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~~G. Fremantle Smith Esq. M.D. Mounthead Leeds.~~
~~(none no address)~~

Rev^d F. L. Smith Hadstock Rectory, Linton, Cambridge Shire.

Rev^d B. Snow. Barton Bedwardine Suffolk.

L. Spomer. 11 Seaview Road Birkenhead.

Rev^d G. Stable, Weston, Leamington.

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H. W. Sturtin Esq. 29 Burner R. Greenwich

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(by J. Paget)

G. Shelton Esq. Hagley Road Birmingham
 Thomas Smith Esq. (Rev L. J. Mowthorpe) Waterloo St Birmingham
 (Rev L. Moilliet)

~~✓~~ Mrs Katherine Sanders Esq. Handsworth. Birmingham
 (I don't know how he got my papers)

Major General
~~✓~~ C. W. T. Scott. Trelydan Hall Welshpool
 (H. H. Scott had sent him the circular)

M^{rs} Stark St Georges Plain Norwich
 (Lad. Listlake.)

Edward Symptom Esq. Tombland Norwich
 (Lad. Listlake)

~~✓~~ Mrs Small Macdon Terrace, Forrest Road, Nottingham
 (for writing)
 - Smart Esq. Maxwell Hill
 (for writing)

Rev^d B. W. Saville Skillingford vicarage Exeter
 (Rev J. B. Cane)

Mrs Synges The Lodge Begwell Bay Ramscote.
 (Rev. J. B. Cane)

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 (W. S. Leighton - Lucifelds Shrewsbury)

Mrs Sanderson New Elvet. Durham
 (Mrs Ward)

The Nikes Sammers, Market Place Durham.
 (Mrs Ward)

S^r Maur (Ernest & Percy) - Wilcot Manor near Marlborough.
 (Rev H. Watkin)

Rev. Fred. Swire (brother-in-law of the Nikes Staunton) Elston Rectory Newark
 Mrs Hall.

over

Joseph Shirley Esq; Longport Burslem
(New - A Warton)

W^m J. L. Scott: Riverbank Londonderry
H. H. Dickson

Mrs. John & Geora Sautome (Farmer) E. Hampton & Lesham
New

X W. O. Stanley Penrhos Holyhead
~~New Lane Top~~

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Harrison

Mrs. Sopwith Nightingale Lane Chatham Common.
(High Kent)

Mr Twiss Streetly Ind near West Wickham
(by Rev^d A. Bell)

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✓ Rev^d E. T. W. Thomas, Nailsworth.

Rev^d E. Thorp, Bridgewater, Somerset.

Rev^d M. J. Truman 106 Hock St. Sheffield.

John Tudor Esq. Dorchester

Mr Trail Tynham Rectory Wareham (see Bond)
(Col Mansel)

W. Thorpe Esq. Pelham Crescent The Park, Nottingham.

Thornely Charles 31 ~~St. George's~~ Hastings I am to send a circular Feb 6
if I get no answer from him by then write Thornely of Widdowmere or mean time
(Journs)

✓ William Thornely The Grange Widdowmere
(Journs)

W. Thompson (Grocer.) High St. Lvesham
(Mr. New)

Lady Tarleton 58. Warwick Square Co
(Ch Butler)

✓ John Thompson-Hitchin - (on Lucas twins)
(S. Hitchin)

✓ Mr Daniel Tupper (nie Martin) 9 Strathmore Gardens, W
~~Mr Tupper~~

✓ Miss Thoburn ~~Matern~~ Richmond Road Matern Link

T

Mr. Vigor, Blacksmith, Caterham Surrey

✓ Vithers (by information)

Mr. Venning 45 Belsize Park Gardens Hampstead
(North Kent)

W. H. Water Esq. Benet R. Cambridge (Suggest? Rev T B Barnackley)
 (Warden of Bodmin) a mistake

? he ~~Rev John Wakefield Hagle Rectory, Wenlock Salop~~
 and is to be corrected in next page. W. R. Wakefield. (which not by the same)

Rev Henry Ward, Kings Square, London

Edward Waugh Esq. Cuckfield

Rev H. C. Webb, Billerica, Brentwood.

Rev C. Whitchford, Burford. Salop.

X A. D. White Esq. 5th Chancery Lane WC.

X Francis Whitecell Esq. M.D. Shrewsbury.

Rev G. T. Wild. Bisley Rectory. Bagshot.

X C. A. Withiam Esq. S. Wellingham ^{Wragley} Lincolnshire.

Rev W. Withiam. Great Savington.

X ~~Rev George Withiam Cherry Burton Hereby~~
 forwarded elsewhere a "reference"

Rev H. Williams Trinity Square. Tower.

X J. M. Winn Esq. M.D. 31. Harley St. W.

X Rev F. Wilson Nocton Vicarage near Lichfield

X ^{father of James Wilson Rugby} James Wilson Esq. Broadchalk Vicarage Salisbury

Rev W. S. B. Wood, West Malvern.

Rev J. F. Wood of South Road Belvidere SE

Rev J. Worthington Shuckburgh Vicarage Dorset

Philip Wright Esq. 16 Alexandria Grove Finchley.

X William Weygand Esq. 32 Oaklaw Gardens ^(Horsley, Wiltshire)

Ernest Wollen Esq. (Solicitor) Torquay
 (Rev. G. Hill)

- Miss Ward 13 Down's Place Victoria St. Kensington
 (James Wilson)
 ✓ Mrs Ward New Street Durham
 (Mrs J. W. Hook)
 H. S. Walker Esq. Custom House, Douglas, Isle of Man.
 (Frederick Wilson)
 ✓ Otto F. Wyer Esq. MD Ciphersden the Avenue Leamington
 sends returns of Roundell & asks for more papers
 Mrs Martha Wilson Cloughbone Ramsgate Isle of Man
 (H. C. G. G. G.)
 ✓ Wm R. Wakefield Esq. 8 Arundell Square London
 ✓ Mrs ~~Albion~~ Watten the Rectory Burton Staffordshire
 (Woolbridge town's see Mr Andrew)
 Mr John Walters Parish Clerk, Handover, Newdale,
 (George Walter)
 ✓ Mr J. Wedderburn ?
 (I don't know who)
~~Webster~~
 Webster see Lambton (also some other notes)
 (J. Romanes)
 F. Whitwell Esq. (Surgeon) Castle Town Shrewsbury
 (Rev. A. Walton)
 ✓ J. Walters Handover
 ✓ Woolfel (Gorman) sent by Mr Mrs Lane Fox
 x Frederick Wright Esq. 4 Full St. Derby

Theory of Heredity - persons sent to

F. 66 v

De Candolle x twins

J. Edward Reid (athensian) Jena x twins

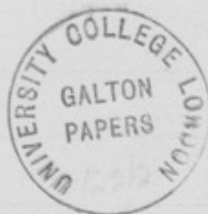
Romanes x twins

Ch. Darwin x twins

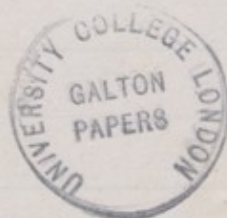
Ed. of Mind x twins.

Nature's C. C. x 6

f.67



Thomson & Co
London and
Paris



Twins

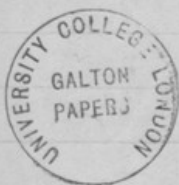


11. Bodlington

#2

They ~~were~~ as different as possible ~~around~~

Light adieu springs in his movements ^{has a smallish head, narrow forehead, staring eyes, elevated eye (eyebrows) and a vacant look. He is the only one of my boys who can ride.} was from the first, noticeably more slow in movement and he was much the fattest of the two when born. This difference continued so that he obtained the sobriquet of "Fatty" among his brothers. ^{He has a large head with well developed square forehead, deep-set eyes and a thoughtful expression. He is so good that} he has got the nickname of "pious —". "the Bishop", & so on. He likes music and drawing room life. He is a very amiable boy and naturally a gentleman. He is always attentive & obliging to other people, getting up to open doors or place chairs or fetch things that may be wanted. Fond of knitting and needle work, he is ^{is an extreme difficulty. In this he differs from all his other brothers and sisters, who are quick at books. As to conduct he} is decidedly





(Continued)

is decidedly the Mauvain Sujet of the family. He is always the one to be in mischief - not I think from malice premeditated but from sheer stupidity and inability to distinguish between good and naughty behaviors. He has been punished more than all his brothers and sisters put together both at school and at home. In short he is the despair of every teacher who has ever had him in hand. His tastes are decidedly low [striking instances are given which I will not quote] He prefers the society of grooms & servants

4.3
very much of a girl indeed in his habits and ways. This may perhaps be due in some measure to ^{very severe} an attack of whooping-cough he had ^{two} years ago, which has left his chest weak and keeps him to the house in cold weather. But if so it is only an aggravation of his natural tendencies. He was always a mild boy with soft and amiable manners. He is clever, intelligent but rather slow in thought. Can learn well by heart and talks in such things for instance as Latin grammar & history without difficulty.

They were brought up entirely by hand, that is on cow's milk, and treated by our nurse in precisely the same manner.

M. 33

Hope

f.4

(from notes)

Singularly unlike in body and mind from baby hood.
In looks disposition and tastes they are quite different.
Strangers ~~who know them~~ will see a strong likeness between them
but none who know them will can perceive it

Placid temperament, fond of
mathematics; prudent & careful
went to College & became a clergyman

Sanguine fond of clothes at School,
open-handed & careless of money,
went to sea, then to New Zealand
& now occupies an estancia in
S. America.

I think I may say the dissimilarity was innate and
developed more by time than circumstance.



F
not at all
very least

Sanders

f 5

Self - one of the twins

We were never in the least degree alike. I should say my ~~own~~ sister and my own character are diametrically opposed and have been utterly different from ^{my} birth.

Smaller, dark grey eyes & dark brown hair. Extremely delicate as child but after Typhus fever at 16, her constitution was completely altered & she is now in very good health.

Taller & larger made. Fair, blue eyes small features, originally robust, but became delicate after ^{Typhus} fever when a girl of 16 Oct. 16

Fond of books, learning was I may say nearly the least trouble to me. All kinds of mechanical work were exceedingly distasteful.

Not studious, not fond of any kind of learning
Fond ^[needle] of work and all household occupations

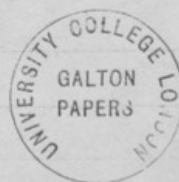
Since my 17th year I have fought my way in the world and am I may say, very self-reliant & have a strong will. As a child I was dreadfully nervous, and am still quick tempered. #

My sisters rely completely on me in all business matters

Matters of faith are not so easy to me as to my sister.

Timid and yielding very unself-reliant.
Amiable & sweet tempered, generally gay and light-hearted, but becomes depressed under even a slight illness. Feels the sorrows of others most acutely. is full of a simple and reliant faith which has never wavered and never questioned

A very strong affection subsists between the two sisters.



F 7 1/2 Hewett

F.6

(Sir G. Hewett Bart
Harstree Shere Guifford.
from the father)

They grew very much alike, their hair and eyes of the same colour, those most near to them were constantly liable to mistake them, by the time they were 7 1/2 the difference became marked.

In character and disposition they are very unlike, their tastes and habits are dissimilar. They are both very intelligent and full of fancy, but in different ways.

Neater & more elegant in her look and manner; handy and a good mover.

Sharp and critical, more active, and fond of reading

Awkward mover and inclined to be left-handed. More droll, more affectionate and clinging and more indolent

Are both fond of music and both fond of animals, but—

all animals are more attracted by the younger & pleased with her touch and notice

They have been treated exactly alike; both were brought up by hand; they have ^{been in the hands of} the same nurses and governesses from their birth and they are very fond of each other. Their increasing dissimilarity must be ascribed to a natural ^(born) difference of mind and character as there has been nothing in their treatment to account for it.



F Holcombe

p. 7

[From the Fuller]

The two sisters are very different in ability and disposition

Enjoys only the ordinary amount of talent and ability. When at school she kept her position in her class through industry; she has no taste for music or drawing. More retiring but firm and determined. Born a poor weak delicate little thing; for the first year I did not think she could possibly live. As however she became stronger, so she displayed an unusual amount of quickness and talent, was passionately fond of music and drawing. She is of an active excitable temperament.

From infancy they have rarely been separated even at school, and as children visiting their friends, they always went together.



Wilson

Father & surviving twin

f.8

up to 15 .M

They were curious, different in body and mind from their birth.

A fact struck all our school contemporaries that my brother and I were complementaries so to speak in point of ability. He was contemplative, poetical, literary to a remarkable degree, shewing great power in that line. I was practical, mathematical & linguistic. Between us we should have made a very decent sort of man.



M. 12 Burton

From father

4.9

Both perfectly healthy and strong. From their birth till now with exactly the same nurture they are as dissimilar as two boys could be. This holds true of them physically, mentally, and in their emotional nature.

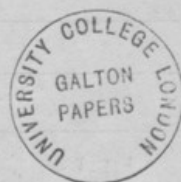


10 M Green

P.10

(from their father)

They have never been separated, never the least differently treated in food, clothing, or education. Both have had Measles, Whooping Cough and Scarlatina at the same time, Both teetled at the same time, and neither has had any other serious illness. Both are and have been exceedingly healthy and have good abilities, yet they differ as much from each other in complexion, height and mental cast as any one of my family differs from another.



m 46

Smith

p. 11

their mother

I can answer most decidedly that the two boys from the moment of their birth were perfectly dissimilar. They were from the first nursed by the same woman, went to school together and were never separated till the age of 15, when the younger went abroad to learn a business, while the elder continued his education, went to College & in now or then.

The perfect dissimilarity exists in character, habits, and likeness up to the present time.



Faeg Wynyard

Thom. Galton

p. 12

Very dissimilar in body and mind

Is the finest of my 6 children and looks a very small child for her age. ~~As~~
1 1/2 or 2 years older than her twin dark, has darker eyes than any of
sister. Fair, blue eyes, large like her her brothers and sisters, and dark hair
father; always healthy, fine appetite like her mother. At her birth it was
and when ill suffering but little and with difficulty that she was made to
having all infantine disorders in a breathe and she was kept alive for
mild form the first week of her life by brandy
Bad teeth and always suffering much
from infantine disorders

In mind she is quiet, retiring, and
slow but sure; good tempered but
disposed to be sulky when provoked

- In mind she is quick, vivacious,
forward, acquiring easily, and forgetting
soon; quick tempered and choleric, but
quickly forgiving and forgetting.

They have been educated together and never separated.



F 11/2

Redfern

From the father.
f. 13

They were never alike either in body or mind; neither of them are like their mother ^[or her ancestors]. I ascribe their daily increasing dissimilarity to

: developing the outward make and mental qualities of her grand-father, on the father's side | developing those of her grand-mother, on the father's side

The external influences have been identical; they have never been separated



Unlikeneß

814v

Boys alike



M. alike 12.

Arnall

and though of different ages 37

Very much alike in body and in mind. Their parents could hardly distinguish them in childhood & boyhood. Until lately as nearly as possible of the same height & weight, clothes the same fit, same color of hair and eyes. Neither of them very fond of athletic exercises but rather disposed to be quiet and stay indoors. Intonation of voice much the same. Dispositions similar & companions the same.

Within the last year or two the close resemblance began to diminish 1, growing, the taller & stouter & 2, showing more mental power.

I think the physical dissimilarity due to the development of qualities born with them as they have been brought up and nourished under precisely similar circumstances. Possibly the mental dissimilarity may be partly due to the different trades they pursue. 1, being a printer and 2, a stamp & tool worker.

M. alike. 53.

Butler Ch.

(from one of the twins)

Have been always much alike, physically & morally, and more so than is usual among brothers not twins. This has continued up to the present age 53; at the same time one took more after his father, the other (more after his paternal uncle. They were constantly mistaken by near relations & by schoolfellows. — Same hair, eyes, voice, and latter, no affinity to either.

Though ceasing education together at 14, the same likeness and similarity continued; their other brother is different in mind and body. In familiar pursuits and acquaintances no doubt for a time cover a diversity of thought, but the removal of these surroundings lets free the innate likeness of mind.



M. alike (quite so)

Creed

their brother 40

were good looking, well built men, 6 feet in height with light fresh complexions. ^{voices so alike that I myself did not find them apart; neither did my sister. They were both men of great intellectual power, high character, moral as well as physical.} light hair & remarkably well shaped hands. (The resemblance was exceedingly close)

In boyhood both had very high spirits - both ardent politicians & liberals. Both powerful & very active in youth, especially in the then called "nobble art of self defence"

In manual skill both were good (1), a very 'handy' man, especially in drawing coats of arms, being devoted heraldry (2), was a very clever surgeon.

Special tastes very similar (1), (from his training) finer & more correct. Both very fond of art, especially painting and music but neither musicians nor painters.

✓ Both died of heart disease; their state of health had been much the same

(1) was the stronger in boyhood & youth & more even spirited; he was a Cambridge humor man - became the life robot in later life and died 7 years the earlier - Handwriting: fine, legible, bold.

(Had much the best temper, though much less thoughtful.)

(2) Sanguine & sometimes depressed - had a fair singing voice

✓ He loved the larger, ^{happy had far less strain of mind} Cambridge way to his Handwriting one of the worst I ever saw.

They never were unlike in body; the unlikeness in mind was the result of their different training to a great extent; that is, mainly to external influences.

(1) had a large family (2) had no children.

M alike 20

Fowler

(From Father J. H. Smith)

41

So much alike in childhood & boyhood that abroad since later, now

Now in their 20th year, those who know them well do not mistake them

but this is in a degree owing to their wearing the one which the other abhors

(2) was 1 lb ^{heavier} lighter than his brother at birth and continued so until

greatly reduced by an illness of 3 months duration at 15

at present	h 1 1/2
(1) height	h 1 1/2
(2) weight	h 1 1/2

Until that time they generally shared any little indisposition, or one followed the other within a few days. They shed their first milk tooth within a few hours of each other.

Complexions & eyes similar

(1) slightly left handed & left high spirits

Voice decidedly different

There is a marked difference in their dispositions (1) works most

with his head (2) with his hands. and yet these are points of similarity.

They are both very social in their tastes and fond of music & singing.

As far as my observation goes, their increasing dissimilarity is chiefly owing more to external circumstances.

They were educated together with the exception of the 3 months illness of (2), & only last year were separated the one to live in the country at a bank the other at an accountants in the city. Their resemblance has a good deal diminished & I don't like to do so more - (Several reasons - - -)

M. alike 20

Guppy

(From the Father 42

One has been always taller; the difference used to be 2 inches.

but is now reduced to 1 inch. Their weights at 10½ were 75 lb & 72 lb

They are very alike in body & mind; eyes & hair the same colour. They were educated at Sherborne & kept in the same class till ~~one~~ ^{the} was done with

✓ Topham & consequently was kept at home a quarter. His brother therefore got a class ahead. They each brought home prizes then, but could not do so before when both were in the same class.

They are each fond of music; athletic powers are about equal

One has become rather more luxurious than the other & more particular in his personal appearance.

Handwriting is similar in the formation of the letters but one writes a large hand & the other an equally small one.

In this case Nature & Nurture have gone together

M like 2h

Horner

From their mother's ^{apparently} 3

They have been always very much alike, near relations have mistaken them continually - Same colored hair & eyes - Voice very much alike.

2, has always been rather heavier & has been taller since abt 17

1, was $\frac{1}{2}$ inch with the taller up to 17 - Present heights, 5.11 $\frac{7}{8}$ & 5.11 $\frac{1}{2}$

& weights 2, 11.15st 1, 11.3st.

They are so nearly the same shape that they can easily wear each other's clothes & yet

there is a perceptible difference in their shape as each as type, when seen together. Similar & considerable shows of athletic performance - Have never shown any difference in mind & skill which cannot easily be traced to circumstances, such as one learning to draw & the other not. Handwriting very different

Disposition very similar - State of health very much the same

1, slightly but not really the more reserved

Which the difference in their body, shape ^{and disposition} was proportionally as great as?

So it may be considered remarkable that changes of circumstance have caused so little change of disposition.

Educated together till 1, left Eton at 18 $\frac{1}{2}$ for Balliol & then both orders. 2, went to France & Germany for 4 years & since to a merchants office in London

M. alike .73

Lehmann

Selzer

64

Great similarity from early infancy until advanced age. Even now it is difficult to distinguish them - Same height, ^{hair & eyes} complexion, appearance movement. Their father used to distinguish them by feeling for a scar on the back of the head of one of them (but even this failed for the other had a fall whence a scar in exactly the same place). They wore hats both in common - At the University their handwriting was undistinguishable even by themselves.

Temperaments differed (1) calmer (2) more vivacious.

mentally ~~they were~~ alike - Both at 19 had measles & both at 23 ^{had toothache & the same tooth} ~~had toothache & the same tooth~~ ^{had toothache in each case.}
Now (1) is stouter & is the stronger in health, though he had most illness.

were never separated till at 22 - attended the same lectures, read the same books and cultivated music with equal results - Their ideas became so alike that they uttered the same opinions simultaneously & had the same reminiscences recalled at the same moments
then separated for 34 years, after which they resumed their former intimate relations

M. alike 55

Lancford.

one of the twins 45

Exactly alike in all. Close resemblance scarcely diminished by age.
Their schoolfellows never could tell them apart.
Same height always, same colored hair and eyes - very much alike in manual skill. Intonation of voice always exactly alike. Special tastes always the same.
Disposition very similar - both amateur musicians - equally fond of the same music - both fond of cleaning clocks, mending locks. - Both tolerable actors & very affectionate.
(2) a trifle stronger in athletic performance & the better musician
said also to be the more "peppery."
State of health the same.

Until 23 years old educated together, pursuing the same profession, continued till age 29.

as alike 42

Lushington

solves

46

very closely alike in boyhood youth and adult life; continually mistaken by friends, occasionally even by near relatives on a hurried meeting or under other special circumstances. The likeness has prevailed through life

(1) height 5.8 1/2 (2) 5.9 1/4

Weight about 13 stone. Same clothes, fit both but (2) rather the larger. Hair & eyes exactly the same colour - proven of athletic performance practically the same; not naturally dexterous, but good proven of endurance. Neither has any skill in drawing, or in any manual craft.

Handwriting not markedly similar, but both have the same character of legibility. Voice; both lower & very like in quality; voices often mistaken. Special tastes not very marked but almost invariably similar. Both fond of music. Dispositions very similar. Both share the same religious opinions (which are not those commonly professed) both admire the same persons, books &c. Speaking broadly, there is nearly identity of opinion.

Not parted till 18 1/2. Then (2) went to Rugby & Balliol (1) was for 3 years in the R. Navy then to Haileybury & Trin Coll Cambridge. Both left the university about the same time & became barristers. They lived 9 years in the same lodging, together & married in the

Lushington (continued)

f. 11

67

same year. In 1849 I, became Sec^y of the Admiralty & 2, legal adviser
to the Home Office.

No marked dissimilarity can be specified.

The external circumstances of both have been very similar, but we
attribute whatever likeness or unlikeness there may be, mainly to
natural qualities.

M. alike at 57.

Mansel

one of the twins 48

We were ^{always extremely} alike in body and mind and are so at this moment. ^{their children of 5 & 6 do not know them apart} Galt, the same height, ~~size~~ hair, complexion and eyes were and are the same; we were both bald at 40. Athletic performance much the same.

The head of 1, was & is larger; he rides somewhat better perhaps from greater opportunities. Handwriting different. 1, stammered, otherwise the voices are precisely the same. Tastes were much the same.

but 1, was a ~~evangelist~~ & stuck to & excelled in Natural History, Botany & Geology, 2, was a ~~philosopher~~.

I should certainly say our association of ideas ~~was~~ alike; often making identical remarks. health of 2, ^{in later years, being} the better.

Our Politics are at the antipodes. 1, became a liberal, all our family was staunch Conservatives. I attribute his decision to other influences when he left Cambridge.

Were educated together up to 14 1/2 when 1, went to Cambridge, 2, to a military college.

Boys alike

f.13v



Boys

P. 14r

2

M. alike 38

Maillet

4.15

Siloes - 69

Resembled closely in body, mind and disposition (numerous anecdotes)
Same height, colour of hair and eyes, intonation of voice, general manners, habits
and tastes. Disposition & associations of ideas were wonderfully alike. Health
much the same

1) a little larger built & more strong physically, though not in constitution
and superior in athletic performance; inferior in manual skill. - Was
more generous & hearty, 2) more self contained

Handwriting became very different, owing to their different pursuits,

We are now sitting together & striving to analyse the difference in our characters and how
and when the close resemblance began to diminish. The inborn differences seem to be
1) more originality; meditative depth, caution and independence
2) intellectual sharpness, clearness of thought, energy & intensity of temperament.

These seem to have marked us through life, though for a while when we first separated the one
in business, the other, at College our respective characters were inverted. We both think that
at that time we each ran into the character of the other. The proof of this, I think, is in our own recollections
and in the letter correspondence and the brief recollection of matters in which we were interested.
It would seem natural to suppose that as we grew older, the difference of our vocation would have increased the divergence
of our characters. On the contrary we think that in the last few years we have been growing more alike. There are however
differences in the state of mind reached in the exercise of our capacities and these seem due to the effect of external influences.

We were never separated till Oct 18, when the elder entered in 12th, & the younger
prepared for the church.

About 8 years ago the brothers did not meet for nearly 3 months, the one being in the South
Seas. No perceptible difference in disposition seemed to have been effected by their separation.

M. alike adult

Oldham

from the mother

(50)

Very much alike in body & mind in childhood & boyhood and as adults have been more than once mistaken.

Nearly the same height (17 feet) can wear each others clothes, hair & eyes the same (dark). Both fond of athletic sports & much the same power. Both fond of drawing & have some skill in it. Voices alike. Both have some taste for music but one has more opportunities of cultivating it. Health has been in the whole, fairly good.

Handwriting very different (2, has had rheumatic fever).

Dispositions similar; when young, one would begin and the other finish a sentence.

Were educated together & were not separated till they left school when then 1, started in life, 2, was at home 2 years. From that time they have been living together again, and now keep house on their joint earnings, having one purse.

M. alike 34.

Phillipotts

one of self 51

very much alike up to period of separation 18 & 19. (anecdote of mistakes & things)
Height and every thing else the same, except a mole on one cheek.
Clothes common; also boots
Equally good cricketers

Of late years the boots of 1, have proved a little tight to 2.
Since 1, has gone to India he has outgrown 2, - on the
other hand the whiskers of 2, have outgrown those of 1,
The resemblance began to diminish a little gradually,
but the great difference has been since 1, went to India.
Of course the effects of an Indian climate have been considerable.
Query?, does the extra growth come from this cause.

Educated together up to 10. Afterwards 1, became a Citron in Bombay
and 2, went to Cambridge & became a Schoolmaster & a clergyman.

M. alike 33

Raven

apparently the ^{question} father, an MD

52

Very much alike in body & mind from their birth to their hour

1) slightly taller & more square built, perhaps a trifle heavier
Colour of hair & eyes the same. Both excellent cricketers; the elder 'all
round' the younger a batsman

Hand writing ~~very~~ similar ^{intentionally} - ¹⁰ voices closely alike that the wife of 1891 mistook
them last year. Special taste, the same, musical & literary

1) in singing voice a pure tenor, 2) a moderate bass

Dispositions very similar but the younger is much readier "drawn out" in society
State of health much the same

I attribute the ~~small~~ increasing dissimilarity, mainly to
external influence.

They were educated together at the Clergy School at Exeter up to Oct 1891; then
the younger left the school & was educated for the medical profession while the
elder remained at school, proceeded Cambridge & took Holy Orders.

They still continue to resemble each other but each has acquired a slight peculiarity
of professional manner

As alike like

Robertshaw

Mr. Hertz who knows
them intimately 53

Up to 17 it was impossible to distinguish them, then

✓ 1, fell off in health & his brother grew & wider latter, at
20 1, had regained his health and likeness but he is still
about the same up till and not quite so stout?

after a typhoid fever simultaneously
Hair, eyes & voice alike though 1, affects a little nasal twang which he
acquired during a few months stay in America. Handwriting, taste for music
Disposition & apocryphal of ideas alike e.g. (the purchase of champagne
glazer anecdote - also about going to the marriage)
and art alike.

They were both of roving, wild, devoid any care disposition; loud boisterous
talk but 1, was a little the quieter. Wonderfully impulsive but very
true; never retracted their engagements however hastily made.
(The mother has 5 children, all married; the latter in the middle of them
and has 40 grandchildren)

Would ascribe the difference to circumstances of birth 1, being
a foreign travelling agent & obliged to be more circumspect in behaviour

M. alike 29

Wakefield

from their father's
5th

In features exactly alike up to present time (may, must be, but can be made)
Height apparently the same though 2 is slightly taller, ^{or was somewhat shorter} I think one
but would do for the two

Athletic preference about the same although perhaps 2 may be a little stronger
Health ^{has been somewhat better} ^{in my case of phthisis at 14}
✓ The older had a swelling of the glands in the throat, which was very
✓ as large as a small fowl's egg, in boyhood. - was diminished
Handwriting unlike.

Voices closely alike & are still mistaken by parents & relatives - both musical
In singing 1, a tenor (2) a baritone

Dispositions somewhat similar perhaps 2 has a little more decision
Association of ideas often coincident, such as remembering upon the same subject at the
precisely same moment, or commencing the same song in like manner

At about 22½ 21 went to the West Indies and 1½ ^(he being still abroad) year after that, 2
the hair of both brothers began to thin on the crown of the head ^{to the same extent} & then became
stationary - 21 returned after 3½ years of absence, in bad health, owing to climate
and about 2 stone lighter or more, but is now quite himself again

Educated together up to 9½ or 10.

M alike, just 50.

Wilkinson

their brothers 55

Alike in every way from their infancy (numerous anecdotes)

They are about the same height & weight. Hair (now growing very gray) was the same colour, also eyes. Power about similar. Handwriting & voice very much alike. Sporting tastes the same. No talent for music or art. Dispositions, aspirations & remarks alike.

Educated together till they left Eton at 17. Then both in the army & one quartered some time in India.

M. alike 20

Wölfel

(?), 56

They were both alike in structure of body, hair & eyes, and disposition. They were often mistaken for each other by new relations - Their ^{in language} ability was the same, so that they always sat next each other at school. Same ability in drawing, same ^{intelligence} ~~love~~ for music.

✓ 1) has a somewhat more lively temperament. 2) suffered a little up to his 18th year from a bad cough.

Educated alike up to their 17th year then 1) went to the university and 2) to the bank business.

Just now they are both in the "one-year voluntary service" are very healthy and strong & of the same size & they are still strikingly alike.

M. alike 20

Hull ? name

Father

57

Quoted from memory - I have mistaid the photo

Very close alike in features disposition & habits in childhood & boyhood
features became slightly different in youth

All three had taste alike. very affectionate - entered civil service together, lived
together. One was seized with Bright's disease & died - 3 months after the
others died also of the same disease.

"They were close in their lives & in their death not divided"

Malike 18

Dale

their Father 58

They afforded a remarkable instance of wonderful similarity, both in body and mind; the latter continued all their life. When first born they were so perfectly alike, that neither their mother nor nurse could distinguish between them so that A had a ribbon tied round his wrist, to secure their taking the breast, &c. This (physical likeness) continued to a very great degree till they were about 10, no one out of the family ever speaking of either of them without asking his name first. Looking glass.

Slight & continued alteration of physical likeness from ad 10 to their death. but they could always wear each other's clothes & boots.

They were both studious, excellent arithmeticians; fond of drawing, shooting and fishing; always next to each other in their class & equal favorites with their school fellows and all who knew them.

Though their inclinations never clashed B consulted A's wishes, and deferred to them increasingly as they grew older. Each of them having obtained a clerkship in Gov. office, they lived together in a friend's house, till the health of A gave way. As "they were lovely & pleasant in their lives" so "in their deaths they were not divided" - either as regards the cause or time of it; for they both fell victims to Bright's disease with an interval of only 7 months, clinging to each other with the tenderest affection to the very last, and dying with the same firm faith and in the same sure hope.

Boys

4.27v

Boys.
unlike

f28r / 3

They were brought up entirely by hand, that is on cows' milk & treated by our nurse in precisely the same manner. They have always lived at home together and have been brought up exactly alike. Both have light brown hair but 1, the lighter and goes eyes.

1, even always thin, light, active, thrifty in his movements; has a smallish head, narrow forehead, staring eyes, elevated eyebrows, a commonplace ugly face and very small snub nose and a vacant look. — He is an extremely stupid boy at letters & even now at 11 can scarcely read. He seems to have no power of fixing his attention & learns by heart with extreme difficulty (in this he differs from all his other brothers & sisters who are clever & quick at books). But he is an excellent mimic & when the humour seizes him can make himself very comical. He speaks in a jerky indistinct manner. As to conduct he is decidedly the mauvais sujet of the family. He is always the one to be in mischief, not from malice but sheer stupidity & inability to distinguish between good & naughty behaviour. He has been punished more than all the rest of his brothers & sisters put together both at school & at home. He is the despair of every teacher who ever had him in hand. If there is any dirty, nasty trick done, it is he & he alone who does it. He prefers the society of groom & servants, and he is the only one of my boys who can ride on horseback. He seems to stick and were glued to a horse & sits with the utmost confidence & courage. The only thing he seems to take interest

I have been in

interest in, are the horses, the stable, and the ~~grooms~~

(2) The other twin, was from the first noticeably more slow in movement & he was much the fattest of the two, when born. The difference continued as they grew so much that (2) obtained the sobriquet of 'Fatty' among his brothers & sisters. He has a large head with well developed square set forehead, rather deepset eyes & a thoughtful expression. He is so good that he has got the nickname of the 'pious Arthur', 'the Bishop', & so on. He likes music and drawing room life. He is a very amiable boy and naturally a gentleman. He is always attentive and obliging to other people, getting up to open doors or place chairs or fetch things that may be wanted. Fond of knitting and needle work, he is very much of a girl indeed in his habits & ways. This may perhaps be due in some measure to a very severe attack of whooping cough he had 2 years ago which ^{has} left his chest weak and keeps him to the house in cold weather. But if so, it is only an aggravation of his natural tendencies. He was always a mild boy with soft & amiable manner. He is clever, intelligent, but rather slow in thought. Can learn well by heart, and takes in things such as Latin grammar & syntax without difficulty.

f.31 M unlike 12.

Burton

From father 63

Both perfectly healthy and strong

From their birth till now, with exactly the same
nurture they are as dissimilar as two boys could
be. This holds true of them physically, mentally,
and in their emotional nature.

P. 32 M. unlike at 10

Green

from then 164

They have never been separated, never the least differently treated in food, clothing or education. Both have had Measles, Whooping Cough and Scarlatina at the same time, and they teething at the same time and neither has had any other serious illness. Both are and have been exceedingly healthy and ~~have~~ good abilities, yet

they differ as much from each other, in complexion, height & mental cast as any ^{one} other of my family differs from another. Indeed there is a greater unlikeness and difference in their appearance between these twins than between the ~~shorter~~ & his younger brother, and the father and his elder brother.

Singular, unlike in body & mind from baby hood. He looks
disappointed & father says are quite different. Strained ~~with foreign ideas~~ ^{at school} ~~with~~ ^{plains} ~~see a strong~~ ^{like a} ~~but~~ ^{has} ~~now~~ ^{who} ~~knows~~ ^{can} ~~perceive~~ ^{well}
of a placid temperament, fine of mathematics; prudent &
careful; went to College, & became a clergyman & was a
spectator.

2, Sanguine, ~~top~~^{school} of clafier; open handed & careless of money; went to Eda, then to New Zealand & now occupies an estancia in S. America.

I think I may say the diffrimtarit, was innate and developed more by time than circumstance

F. 34 M. unlike. 54

Pix

from the father. 66

They were never alike in body or mind.

1, robust, tall, fond of out-of-door life

2, short and of quite a different turn of mind

All the tests regarding simultaneity, fail.

Not alike boysSmith, F.Apprentice from Fulton

67

Not at all alike, either in body or mind. They differ in size, in features and in character; though intellectually, they do not differ so much.

They are still being educated together, at home.

f. 36 M unlike ^{ad. 48}

Smith (Mrs.)

their mother 68

I can answer most decidedly, that the twins from the moment of their birth were perfectly dissimilar. They were from the first, nursed by the same woman, went to school together, and were never separated till the age of 15 when the younger went abroad to learn a business, while the elder continued his Education, went to College & is now in order.

The perfect dissimilarity exists in character, habits and likeness, & to the present time.

M unlike (up to 15)WilsonTaller & heavier ~~than~~ 69

They were curiously different in body and mind from their birth, so long as they ^{both} lived up to 15.

They were about the same height & weight and wore similar clothes, but so different as scarcely to be mistaken for one another. The hair of (1) was the darker & his eyes blue those of (2) grey.

a fact struck all our school contemporaries, that we, brother & I were complementary, so to speak, in point of ability. He was contemplative, poetical, literary to a remarkable degree, showing great power in that line. I was practical, mathematical & linguistic. Between us we should have made a very decent sort of man.

Unlike in body and mind throughout their lives.
The case is, I should think, somewhat remarkable
for dissimilarity.

Stature about the same; both delicate in infancy, but grew up strong.

(1) Fair; slow in mental acquisition as a boy, having
been slightly affected ^{with} paralysis when a child but has since
developed great perception of true principles & capacity for business.
& has always been an enthusiastic admirer of beauty in art &
nature. Is a solicitor in good practice, with 5 daughters & 1 son.

(2) Dark; quicker as a boy in mental acquisition; possessed
of much personal address; good at languages; always fond of
the military life. has been a soldier since at 17 and displayed
great aptitude for order, management & generalship, rather fast
in manner & apt to exaggerate ^{herein very different to (1)} unimportant matters. ^{Marriage} married: 8 children.

Both possess high moral character & strong affections, but not similar in kind.
Both reared in a country home and at same school till at 16

Boys
make

p 41 v

F alike | adult | C....

(from the mother) (1)
apparently

The first born was much larger at her birth, but the other, after a few weeks, became the same size and they were so exactly alike, that they were continually taken for each other, and obliged to wear a different ribbon (to distinguish). ^{have the} They have the same colouring, blue eyes and light hair, the same figures and are

nearly the same height, though the second is now rather the tallest & stoutest, but ^(they are) so alike that unless any one knows them well and sees them often, they cannot tell which is which.

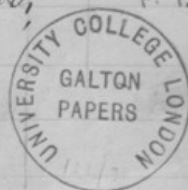
The difference is more in the expression than in anything else.

They both have the same taste and talent for music and play piano and guitar; both fond of dancing; the eldest has a contralto, the youngest a soprano voice.

Both ride. Their tastes for reading, work, &c. ^{are} very much the same. Neither of them care (but the first has the best nerves) ^(and the youngest is fond of flowers & arranges them with great taste, either in vases or dried in her book.) for drawing but they have a good eye for colour and draw with great taste.

✓ The second, when 16, caught the scarlatina & some time afterwards the small pox neither of which ^{complaints} did the elder one take, and since ^{the} the second has been a little more excitable and more easily disturbed by circumstances, than the other, though she is strong & active & perfectly well in health.

They have always been brought up together and educated by the same governess.



F. alike at 16

Cane

From the father's appearance

2

They are exceedingly alike in body, as to height, size, colour of hair and eyes, so as to be constantly mistaken even by ourselves, and are scarcely known apart by strangers.

As they grow older, their expression of face appears ~~to differ~~ alter, the elder ~~being~~ being far more vigorous, fearless and energetic, the second being gentle, clinging & timid. Their dresses are the same in size,

although the elder from being more active, is of any thing slighter than the second. Their voices are very similar, as are those of all our 5 children, but

the voice of the twins can generally be told apart, from the more vigorous way of speaking of the elder. The 5 children are all very musical & have very correct ears; the twins have the same; moreover all of them indicate a taste for drawing; at present they are too young to judge of other tastes.

In dispositions there is no very real difference, both very affectionate but

the elder is ^{the} more quick tempered, ~~a less affectionate of the two~~, the younger is rather ^{inclined to be sulky, but is the more affectionate.}

As to health, if I were more up in the subject, some very curious coincidences might be mentioned, although there is no doubt that the elder is the stronger.

If anything ails one of them, it has nearly always been the case that identical symptoms appear in the other. This has been singularly visible in two instances during the past 15 months, thus (1) when in London, one broke out with a violent attack of dysentery; within 24 hours, the other had precisely the same symptoms. (2) The same with measles, 9 months ago. Up to their present age they have been educated together.

A. 43

F alike, Oct 25

Cornish

(from the mother & themselves) 3

Very much alike in body and mind from birth to present time; so much so personally, that their nearest relatives when not facing them, have often asked which are you?

The elder is a trifle taller, larger and heavier than her sister.

Complexion similar, hair and eyes of precisely the same color, can walk or swim with the same powers of endurance, both have had several prizes at the Exeter School of art. Tastes and dispositions very similar. Studies & tastes always ran in much the same groove.

Yet ^{there was} a slight difference ^(both in disposition & intellect). In anthropologic they arrived at the same conclusions by different processes and in making analyses of lectures they always explained themselves differently. It was generally observed that in writing an essay, they took up different points & followed out the subject in different though not in opposite ways.

The elder was generally a mark or two ahead of her sister. Their voices differ a little, that of the elder being a trifle the deeper.

When they were little children, we used to say, "the elder is ailing and ... (the younger) will soon droop, but their ailments were not always similar.

Latterly, we have not observed this (coincidence in illness) so much.

They have always lived together and been educated together, which will account for association of ideas being often similar.

F alike at 32

Savery

(from their father)

h

They were from their birth much alike in body but very much less so in mind. The body likeness is to be seen to this hour; they are now and then mistaken the one for the other (Friends of the family consider the likeness very great. Ed.)
The elder child was and is a little taller than her sister who was and is a trifle

stouter and of greater weight. The strength of the elder woman is greater; she has also better ^(skill) manual
Their hair and eyes are of the same colour. They write alike.

Their voices were always and are still unlike; the elder having a voice of much less sweetness but of greater force; she can hardly sing. The younger sings sweetly but with small force. The elder has great courage, which her sister lacks.

Their tastes are similar as to music and art

The elder child has a better general health than the other

Whatever differences are seen in these twins I ascribe them to their respective Natures, i.e. their vital and cerebral natures, so to put it. The elder takes after her mother and her family, whilst the second more nearly resembles myself and my family.

They were educated together and were almost always together. They were married within a short time of each other. They have each of them 4 children.

F alike oct 20

Gresley

(from father on behalf of their mother) 5

At their birth they were exactly alike, except that the

except that the younger was born with an unfortunate distinguishing mark, namely
✓ ^{born with} a very bad varicose affection of the thigh

until they were 8 or 10 years old it was difficult to distinguish one girl from the other, even the nurse was sometimes at fault. Their dispositions were very similar, very "gushing" and excitable. They have had excellent health. Even now they are constantly mistaken for one another. They are both remarkable for their clear beautiful complexion and fair hair.

Of late years as they became women, ~~the difference in~~ their characters have become more developed; the younger has the more decided character, appears fonder of children, and has joined a children's convalescent home as an amateur nurse.

Though not deficient, they are neither very intellectual and are disposed to be indolent.

The younger is stouter & rather taller than the elder.

Whatever dissimilarity there may be, I am inclined to attribute it to the varicose affection to which the younger has been all her life subject, the effect of which has been to prevent any violent exercise such as dancing or running, and

as she has grown older has made her more serious and thoughtful. Had it not been for this infirmity, I think that the two would have been as exactly alike as it is possible for two women to be, both mentally and physically; even now they are constantly mistaken for one another.

They were scarcely ever separated till they were 14, since which they have been mostly apart. They have always had the greatest attachment to one another.

F. alike 28.

Gröningen

f. 47

6

F alike oct 7. (of a family of 18) Hick

(from the father)

7

From their birth they have been and are now so much alike that we constantly mistake one for the other, even when together we can hardly distinguish except that the younger is about $\frac{1}{2}$ inch taller, if any.

In mind very similar; very lively, appreciate fun, quick and excitable, readily understand books, fond of poetry & music, good powers of reciting and singing.

They are and always have been of very nearly the same height & weight, and the same clothes fit. Hair and eyes are of the same colour; their powers of running and activity are much the same.

Their manual skill is much the same; intonation of voice the same, rather shrill (in speaking) but in reading it is soft and musical. Their dispositions are very similar. Their

state of health has always been the same. They generally feel poorly at the same time; they have colds &c. about the same time.

F alike at 48

Hull

(from the father & the mother, also write)

They are very much alike in body and mind and have always been so. They are girls of great ability, much more so than my other 4 children and of a singular largeness of character. In the first 10 or 12 years of life they were so like each other that I seldom knew which was which; at first we should never have known them had not one been born ruptured. She

had not one been born ruptured. She was cured, but the other became ruptured at 6 and has never been quite cured. At the age of 12 the elder had the scarlet fever & grew about 4 inches taller. She remained tall for some years but the younger has now passed her 12, 14 or 16 inches. The younger was a pound heavier when born and has always been rather larger. She is now 2 inches taller. The elder being more broad, they

are now of nearly the same weight. They have the same hair and eyes

but a different expression. They are easily distinguished now, but are marvellously alike. I don't know their photographs one from the other.

They are very courageous and ready for any athletic exercise. They were famous at foot ball, and now skate very nicely. Their hand writing is similar. Their voices in speaking and singing are not distinguishable. Special tastes and affections exactly the same. They are both unusual whilst players. At an examination at school they gave almost the same answers. They

passed the Cambridge local examinations the one taking the only first class of her sex, the other, one of 2 or 3 seconds.

I think there is now an increasing similarity to be attributed to inborn qualities and to the fact that they alone of all my children have always agreed & sympathised with me in broad religious views. My twins take more after me & my family & the other children more after their mother, both in body & mind.

F. alike up to at 58

(in a very numerous family)

Leafferson

(from a niece & daughter of)

From their earliest youth they always resembled each other very closely, in bodily & mental characteristics. ~~They~~ ^{the younger} had a slight mark on her lip (a slight hardlip, I think).

In spite of this, such was the marvellous similarity of their features, expression, voice, manner, etc., that even intimate friends mistook one for the other. They were of the identical height, weight, shape, had the same colored hair & eyes, the same complexion, the same tastes and the same talents, the latter of no mean order. They were good musicians, linguists and writers, witty and imaginative. They & 5 other children by the same marriage were all strikingly alike in character and abilities and all inherited both from father and mother a nervous and extremely excitable ~~disposition~~ temperament, although robust and capable of enduring great bodily and mental fatigue. The twins were very passionate though perhaps not more so than the other children. They retained their resemblance to the last, up to at 58, when one of them died.

My own impression is that had the elder been put in exactly the same circumstances as the younger from the time they were separated ^{from their family} (Oct 19), she would have been the exact double of her, and vice versa. Difference of character there was none, but different circumstances of course evolved a different set of actions and to the casual observer a consequent difference of 'moral', but to those who knew them better, the identity of character was transparent through the variety of action necessitated by variety of surroundings.

F alike 18 <sup>much one of
a very large family</sup>

Jessie

From their mother 10

They were always so much alike as often to be mistaken apart. I have taken the wrong child from bed and not found out the mistake till morning.

As infants they were left alike, the elder being ^{the} much larger child. As they became older the likeness became stronger, though the elder remained the larger, heavier and taller, required longer clothes & larger boots & gloves. At 15 the younger became the taller & shorter, now again the elder is the taller.

Hair and eyes are the same colour. They have equally good use of their limbs for running, dancing, riding and skating. Their voices are the same, they have the same taste (generally). They ~~do~~ make similar remarks at the same time. In illness, if one were bettering or ill, the other began 2 or 3 days later.

The elder had better abilities; so that I frequently said "she is a year old than her sister". She has the greater taste for music, the younger for drawing. The elder has a finer disposition and stronger mind, the younger is more tender hearted and affectionate. The elder has always been much the stronger. Her handwriting is quite different.

They have always been educated together

They have been constantly mistaken; the one for the other by those who have known them since their birth and even now some of their friends cannot distinguish them.

Their hair, ~~their hair~~, eyes and general appearance are the same; they are of the same height, but the elder has always been of a greater weight and within the last 4 or 5 years the difference has much increased, they being now in middle life. The younger was always the more agile. The elder is much stronger minded & more persistent. Their handwriting is not at all alike.

They both have the defect of not been able to come down stairs quickly, which however was not born with them, but came ~~on~~ when they were about 20 years of age. They were both subject to asthma, which they inherited from their father and grandfather, till the younger was about 8 or 9 years of age, but the attacks occurred with the elder every summer till she was 21, since which they have become less frequent.

Their tastes are precisely similar; their abilities about equal; their voices are very similar. They are both of a nervous temperament.

As they have passed the whole of their lives together and have come under the same influence I ascribe the difference in their dispositions to natural development.

They have lived together the whole of their lives

F. alike 16 (brother + 3 sisters) Macrae

f.53 (Dr Murchison) 12

Their uncle who was well acquainted with them, although not believing in their sameness, had the utmost difficulty in recognising the one from the other, and your informant could only do so by the fact that the one had a ^{little} ~~small~~ red spot on one side of her ^{face} ~~forehead~~. At a few yards distance, their parents could not with any certainty tell who was who.

They were of the same height and, ^{but} although I have not ascertained this by actual experiment, apparently of the same weight. They wore dresses of the same fabric, and these fitted the one as well as the other. They were alike in the colour of their hair and eyes. Their physique and their every development seemed alike. Equally robust, they could undergo the same amount of fatigue. Their voices were so alike that their parents could not distinguish them by this test alone. They seemed to possess the same mental capacities. I have repeatedly noticed their individuality of purpose, and desire of being and acting in concert. The same amusements pleased them. They invariably took part in the same games. Passionately fond of each other, they have never so far as I could ascertain, quarrelled. They were unlike their brothers and sisters in this respect. So far as I can recollect, they attended the same classes & were equally successful.

Whilst I knew them, for a period of fully 2 years, there was not the slightest tendency towards a difference in ~~resemblance~~ in body or mind. External influences seemed powerless to produce any dissimilarity.

I met them 3 months ago on board a steamer in stormy weather, and discovered that both got sea sick at the same time. With all my knowledge of them previously, I was quite unable to assert which of them I was speaking to.

They were ~~and~~ are being educated together.

There is a congenital flexure at the second phalangeal joint of the little finger, in each case, but not so marked as to cause unrightfulness or discomfort. I have ascertained that they inherited this from their maternal grandmother. Their parents have no trace of it. Her has any one of their four brothers and three sisters.

girls alike

f.59v

16-8.

Girls alike (also partly alike)
and unlike

f. 55

12

F alike at 9

Martin

their father

(13)

My twins were instances of close similarity, so close that I did not know them apart for the first 3 or 4 years, ~~except by their voice, in which I could always detect a difference~~ except by their voice, in which I could always detect a difference.

About 5 years ago, one of them had the scarlet fever and since that time they have not been quite so much alike.

Fatima up to Oct 79 (the twins appeared)
(had 9 boys & 1 girl) Mildred

(Son & nephew,
died & niece)

(14)

They were extremely alike both in body & mind, in childhood girlhood and adult life. Their niece remembers that when a child it was only by close attention she could distinguish between her mother & aunt who then resided with them. Their close resemblance never materially diminished. I fancy they were quite equal and believe they were superior to most of the other members of their families and certainly attained to greater ages (79 and 93). They both married & had children. (The one by the other & etc.)

They were of the same height, their clothes of the same fit, hair and eyes of the same colour and their physical powers about equal. They were alike in manual skill, evinced an aptitude for drawing and readiness with the pen, and their handwriting was almost identical. Music they did not cultivate. Intonation of voice very similar. Their tastes and dispositions were similar. Affections the same.

Health similar almost invariably good, but

(1) perhaps a nervous fever after marriage may have left the elder rather more sensitive.

Educated together.

They never parted except for 3 weeks, until

the first married Oct 33 ^{& had 4 children} the second married Oct 37 & had 1 child

f. 57

Felike at 15

Scott

their father (15

Had a strong personal resemblance from their birth, which has continued to the present day. The same height, the same colored hair & eyes, the same size and general conformation of head, clothes fit both equally well. They are seldom recognized apart except by their most intimate friends. They have had an entire identity of feeling and affection that an angry word has never been known to pass between them. Their physical power & manual skill as near as possible in a pair.

Their intonation of voice differs slightly; the younger suffers from a slight impediment of speech. Also their expression is different & would be apparent to close observers.

Their general health is closely alike, and whenever one takes an illness the other invariably takes the same within a day or two and they usually recover in the same order. This was true of whooping cough, chicken pox & measles. They have had of slight bilious attacks, which they have successively, also of a febrile attack latterly.

Their intellectual capacity is about equal, perhaps above the average, but

their ideas are not similar, nor are the same trains of thought apparent. The organ of wit is more largely developed in the younger; her perceptions are quicker, with a more excitable temperament and a more sensitive nervous organization.

The law for music good, and of much the same power. They have been subject to the same parental care from their birth and received the same education.

Falke 27

Sheppard

the aunt & guardian
apparently - mother of the child. 16

At 10 years old, after an absence of 10 days, their father could not tell them apart even up to 22. I have had to look very keenly to be sure I was not speaking to the wrong one. There was great sympathy of feeling and affection. The first time as babies one went out without the other, it was most marked the intense delight at her return. If one woke, the other was sure to wake also, so that in this way we often remarked it was more than double trouble. Their devotion to each other remains.

There was some slight difference about the expression of the eye, but I never could say what. Handwriting is different. Characters are similar, but not altogether alike.

My belief is, they will again become almost as much alike as ever.

They always lived together till Oct 23 when the elder married; the younger married Oct 28 & is expecting her first child. They each married a gentleman living in the same house and have commenced their married lives in the same house, and still live close together.

F. alike grown up

Shilliloe

(Their father

(17

Very much alike in body in mind, both in childhood, girlhood, youth and adult life. They were of the same weight and height and wore clothes of the same fit. Their hair & eyes were similar in colour. They had similar powers of athletic performance as in swimming, paddling & canoe, skating and archery. Their manual skill was alike as shown in needlework, sawing fret work, filling flower vases, in the table or decorating churches, rooms, &c.

Their handwriting & tone of voice are somewhat similar but not very strikingly so. Their tastes are similar, and dispositions a good deal alike.

Their state of health remarkably alike; generally very good, -

except in one ^{of scarlet fever} which the elder had very severely whilst the younger ^{escaped} escaped, although exposed to the poison at the same time & manner.

About the age of 21 ^{the elder} ~~she~~ became "engaged" & is now thinner than the younger so that we know them apart.

I do not know from what cause their increasing dissimilarity arises, but probably from external circumstances. They still remain very much alike.

Always educated together & are seldom separated; their pursuits are much alike and are pursued together.

F, alike in mind ^{group}
~~unlike in person~~
~~intellectually alike in person~~

Griffiths

(apparently the mother) 18

Alike in taste, occupations and pursuits; in capacity; in general health, & in general character,
but the disposition of the one is much calmer & gentler, the other more ardent.
In association of ideas perfectly the same, and at the same moment.

Not sufficiently alike in person to be mistaken when together, but frequently
^{even by near relatives who only see them from time to time.}
when apart, ~~numerous~~ instances are given. Seldom mistaken by those who
know them in daily life: never mistaken by children.

Hair of identical colour.

Resemblance in appearance probably gradually diminishes,
but in association of ideas it is closer & closer.

Educated always together.

F. alike in person 7 1/2
unlike in mind

Hewett

From the father - (19)

When born, the elder was rather the larger, but in a few weeks the younger had become slightly larger & heavier, and this advantage she has always maintained.

They grew very much alike and there was little or no difference in any way; their hair and eyes of the same colour, those most near to them were constantly liable to mistake them.

In character and disposition they are very unlike, their tastes and habits are dissimilar. The elder is neater & more elegant in her look and manner; handy and a good mover. The younger is an awkward mover

and very much inclined to be left handed. They are no longer so much alike as they were; year by year the difference between them is more marked. The younger is a little taller and a good deal stouter.

They are both very intelligent and full of fancy, but in different ways.

The elder is sharp and critical, more active and fond of reading.

The younger is more droll, more affectionate & clinging, and more indolent.

They are both fond of music and both fond of animals.

But all animals are more attracted by the younger & pleased with her touch & notice.

Their increasing dissimilarity must of course be ascribed to natural (born) difference of mind and character as there has been nothing to account for it in their treatment.

They have always been treated exactly alike; both were brought up by hand. They have ^{been with hands of} had the same nurses and governesses from their birth. They are very fond of each other.

F. unlike

Holcombe

From the father (20)

From infancy they have been rarely separated even at school, and as children visiting their friends they always went together.

The two sisters are very different in ability and disposition (1) enjoys only the ordinary amount of talent & ability. When at school she kept her position in her class through industry & has no taste for music or drawing (2) was born a poor, weak, delicate little thing; I did not think she could possibly live. As however she became stronger so she displayed an unusual amount of quickness & talent, was passionately fond of music and drawing. She is of an active excitable temperament; whereas her sister is more retiring, but firm and determined.

F. unlike 15

Jeons

[from contin after talking to P. 18]

(1) is a slender tall girl, half a head taller than her twin sister, dark eyes and complexion and long straight dark hair, quicker in intellect with fair capacity for music. (2) on the other hand, is short and thick made in figure, with that curly hair, light complexion and blue eyes, not so intelligent, with same capacity for drawing but apparently none at all for music. Although she was well taught in music, she was in the habit of playing pieces straight through in happy disregard of sharps & flats, apparently unconscious that they had any importance.

Both are of the same good temper and have had, except in regard to music which was given up in the latter case, exactly the same good education.

F. unlike ^{at 32} growing up
middle age.

Sanders

Self (one of the living) 22

We were never in the least degree alike (1) is much the smaller of the two being only 4^{ft} 10ⁱⁿ, while (2) is 5^{ft} 7ⁱⁿ & rather large made. She is fair with blue eyes and small features; as a child was extremely robust and strong but had typhus fever when about 13 years old and has always been delicate since. She is fond of work and all household occupations, amiable & sweet tempered. (1) is small with dark grey eyes and dark brown hair, as a child extremely delicate but after typhus fever of 16 her constitution was completely altered and she is now in very good health. She is fond of books & especially of the study of languages, not fond of housekeeping or needle work of any kind.

A very strong affection subsists between the two sisters (they appear to have had the typhus at same time)

I should say my sister's my own character are diametrically opposed & have been utterly different from birth ^{not kind of any kind of but strong & painful, hard} (2) is not studious, ~~but with~~ a very considerable share of natural wit; says cynical & witty things, & is never sarcastic, is a very good companion very amiable, quick to see & supply the wants of others. Once a bold & almost hotheaded girl she has become a timid & yielding woman, she is very affectionate and needs the strength & support of a character stronger than her own. very un-self reliant, generally gay & light hearted she becomes very depressed under even a slight illness; feels the loss of a friend and the sorrows of others most acutely, ^{and is full}

(Sanders continued)

and is full of a simple and reliable faith as to religious matters, a faith which has never wavered never questioned.

I am physically smaller & weaker; very timid, not fond of play, always reading & learning was, I may say, never the least trouble to me so long as it required only the mind; all kinds of mechanical work were exceedingly distasteful. I am not naturally musical but by perseverance am now a good musician & with a natural talent for music has never conquered the rudiments and does not play. As a child I was dreadfully pugnacious, even now I am quick tempered. I have fought my own way in the world and am, I may say, very self-reliant, have much presence of mind but feel things acutely, when the excitement has passed. My sisters rely completely on me in all business matters. Have a strong but unindulged tendency to sarcasm. Matters of faith not easy to me. Have a very strong will & persistence.

F unlike 11 1/2

Redfern

from the father 24

They were never alike either in body or mind

The external influences have been identical; they have never been separated and the daily increasing dissimilarity I ascribe to (1) developing the outward make and mental qualities of her paternal grandfather, and (2) the outward make and inward capacity of her paternal grandmother, neither of the twins being like their mother (or her relatives)

Girls alike (also partly alike)
and unlike

F. G. B. V.



Girls

unlike. but see note beginning of p 18.

f.69

3

F. unlike 15

Stokes

(25)
from the Father.

They are not alike either in body or mind and have never been so. (1) has always been the strongest in body, taller ^{by 4 inches}, healthier, and feeds better; she is of fairer complexion and of a more yielding disposition, willingly submitting to the other. (2) is of nervous sanguine temperament, quicker in intelligence, and holds a gentle sway over her stronger sister.

F. unlike. set of

Wynyard

from the father

(26)

very dissimilar in body and mind

(1) is the finest of my children and looks 18 months or 2 years older than her twin sister. She is fair, blue eyes, fair hair and large, like her father; always healthy, fine appetite, and when ill suffering but little and having all infantile disorders in a mild form. In mind she is quiet, retiring, and slow but sure; good tempered but disposed to be sulky when provoked

(2) is dark, has darker eyes than any of her brothers and sisters, and dark hair like her mother. At her birth it was with difficulty that she was made to breathe & she was kept alive for the first week of her life by brandy; a very small child of her age, bad teeth and always suffering much from infantile disorders. In mind, she is quick, vivacious, forward; acquiring early and forgetting soon; quick tempered and choleric but quickly forgetting and forgiving

They have been educated together and never separated

F. 71

F. alike 30

Barraclogh

Ani Falls

They have always been much alike both in body and mind. nearest relations have often mistaken them. Height & weight nearly on a par with the same, their clothes of the same fit; hair and eyes of the same colour; athletic poses very similar, manual skill rather different; handwriting and intonation of voice very much alike; special tastes & similar as are also their dispositions and affections, of ideas.

Their state of health has not been the same; in fact she who was the weaker, in childhood is now the stronger.

Except that one of them has for 12 or 18 months been in a very delicate state of health, their resemblance is not much diminished.

Their education & pursuits have always been similar.

Girls

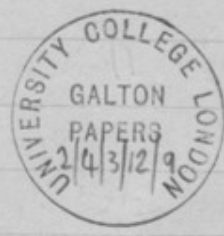


Twins

Twins Heredity

f.1r.

Tables



Girly like.	On Father's Side					On Mother's Side				
	full data	in. perfect data	many	few	unknown	full data	in. perfect data	many	few	unknown
Barradough					✓ 0					✓ 0
C...	5	0				3	0			
Cane	12	0				7	0			
Cordé	2	0				3	0			
Cornish	6	2				7	0			
Freeman					✓ 0					✓ 0
Greeley					?	12	1			
Hock	2	0								✓ 0
Hobbes	9	0				2	0			
Hull	10	0								✓ 0
Jephson	3	0				10	0			
Kent	3	0				7	0			
Lucas	1	0			10	4	0			
^{2 sets, mother's pieces} ^{1 set} Muldred	0	0				3	0			
Paget	16	0				3	1			
Pugh	2	0				6	0			
Scott	13	0				11	0			
Shillitoe	2	0				11	0			
Tarleton	1	0				4	0			
^{1 set mother's pieces} Villier					✓ ? ✓					✓ 1
Wellstead	9	1				7	1			
^{1 set mother's pieces}	97	3			3 0	100	3	16 cases		5 1

Boys (Alike)	On Father's side				On Mother's side			
	full data coll'	imperfect data may few unknown Twins			full data coll'	imperfect data may few unknown Twins		
Arnall			✓	0			✓	0
1 nephew 2 cousins Brandreth	3 0				2 0			
Fowler	5 0				3 0			
1 cousin Gusky			✓	0			✓	1
1 nephew Horner	8 0				4 0			
Hitt	8 0				10 0			
paternal grandmth								
Lawford	4 0				5 0			
Luckhurst	7 0				7 0			
Manuel			✓	0			✓	0
1 Cousin once removed has 3 other girls Moorhead	8 0				6 0			
Oldham	5 0				9 0			
Grandmother & Cousins								
Phitts	16 1				10 0			
Raven	7 0				7 0			
2 Cousins								
Roundell	2 0				9 0			
Sansome	0 0				5 0			
2 let. Cousins								
Thornely	2 0				12 0			
Wakefield	7 0				1 0			
Wallers			✓	1			✓	0
2 Cousins								
Walton	3 1				5 0			
1 Cousin								
Witherby			✓	1	6 1			
1 Cousin & 2 nephews			✓	1				
15 colls	85 2		5	11 colls	106 1		4	1

Boys and Girls	On Father's side				On mother's side			
	full data		imperfect data		full data		imperfect data	
	WHL	Winn	many	few unknown	WHL	Winn	many	few unknown Winn
Arthur	2	0			1	1		
Beaumont	13	0			12	2		
2 let's contain Bell	6	0			7	2		
Cole	8	0			7	0		
1 of contain Herford	9	0			8	0		
Kempson	4	0			7	1		
2 of contain Kirkby	11	0			4	0		
Lewis	5	0					✓	0
New 1,	3	0			8	0		
(21 was son of 1)								
New 2,				✓ 2	4	0		
1 contain								
Payne	1	0			2	0		
Richard	10	0			5	0		
1 contain Smith R.S.	5	0			6	0		
Wason	4	0			5	0		
Wedderburn	6	0			4	0		
Whitwell	11	0			3	1		
4 let's contain 15 cases	98	0			83	3		1 0
					15 cases			

Girls partly alike	on Father's side				on Mother's side			
	full data		imperfect data		full data		imperfect data	
	11 & 11'	twins	may, few	unknown, twins	11 & 11'	twins	may, few	unknown, twins
Ansell	7	0			8	0		
Griffith	6	0			2	0		
Griffith her brother								
Hewitt Sis G	3	0			4	0		
Hill	0	0			3	0		
Thomas	3	1			6	0		
(ans)	19	1		0 0 (ans)	23	0		
Girls unlike								
Dover Bish				✓ 0				✓ 1
her brother sister 2 sets, 1 piece				✓ 1				✓ 1
Fernand								
Fry	9	0			4	0		
H. Gaskell	6	1			7	0		
Holcombe	9	0			1	0		
Jewson	3	0			8	0		
Sanders	20	0			6	0		
13th cousins								
Redfern	6	0			4	0		
Small	4	0			3	0		
Staker	2	0			3	0		
White	3	0			0	0		
Wynyard	4	0			8	0		
10 cases	66	1		2 1	44	0		2 2
				10 cases				

Boys partly alike	on Father's side			on Mother's side		
	full data	imperfect data		full data	imperfect data	
	U & U' twins	few many unknown twins		U & U' twins	few many unknown twins	
Cobbold	5 0			4 0		
Lickens on	16 0			3 0		
<small>Each of the 2 U's has twins</small> R. Gaskell		✓ 0		6 0		
<small>1 twin of Gaskell</small> Hutchinson	1 0			2 0		
Jagger	2 0			1 0		
<small>1 twin of Jagger</small> Matthew	0 0			2 1		
Natcut	2 0			6 0		
<small>1 boy</small>	32 0	1 0		<small>1 boy</small> 30 1		
<hr/>						
Boys unlike						
Bodington	5 0			5 0		
Burned	0 0			8 0		
Burton	6 0			7 0		
Green		✓ 1			✓ 1	
<small>1 cousin</small>						
Holland	4 0			4 0		
Hope	5 0			9 0		
Lindley	2 0			1 0		
Pix	10 0			4 0		
Rhodes		✓ 0			✓ 0	
F. Smith	2 0			1 0		
<small>great uncle's twins</small>						
Wilson		✓ 0			✓ 0	
Torman	12 1			5 0		
Whitting	0 0			3 0		
<small>10 cases</small>	52 1	3 1		<small>10 cases</small> 47 0	3 1	

Aggregate Cases	On Father's side				on Mother's side			
	full data		imperfect data		full data		imperfect data	
	LL	LL'	Twins	many few unknown	LL	LL'	Twins	many few unknown
Eastlake Ledy see pedigree opposite								
Stanley see pedigree opposite and son had no case to turnball	10	0			7	0		
Ward 3 sets of twins	4	0			1	0		

f.7v

	No of cases	No of U+U'	On Father's side		Total after adding U+U'	Total twins	No of cases per Mother's side
			No of children	No of twins			
girls alike	17	97	3	3	0		
boys alike	15	85	2	5	2		
	32	182	5	8	2	230	7
girls partly alike	5	19	1	0	0		
boys partly alike	6	32	0	1	0		
	11	51	1	1	0	56	1
girls unlike	10	66	1	2	1		
boys unlike	10	52	1	3	1		
	20	118	2	5	2	148	4
boys girls	15	98	0	1	2	104	2
Father's side Total					538	14	26

total cases	U+U'	cases
32	182	32
8		
11	51	11
1		
20	118	20
5		
15	98	15
1		
Father's side	93	449
		78

On mother's side

f.3

	No. of cases	No. of Hall	No. of women	No. of unknown cases of Hall	Women	Total affected Hall	Total women	Women for maternal Hall
girls alike	16	100	3	5	1			
boys alike	16	106	2	4	1			
	32	206	4	9	2	260	6	23
girls partly like	5	23	0	0	0			
boys partly like	7	30	1	0	0			
	12	53	1	0	0	53	1	19
girls unlike	10	44	0	2	2			
boys unlike	10	47	0	3	1			
	20	91	0	5	3	114	3	26
boys & girls	15	83	3	1	0	100	3	33
Mother's Side Total						527	13	25
Father's Side Total						538	14	
Both sides Total						1065	27	26 or 2 1/2 per cent.

22 1 twin birth in 40 births

from Kleinwächter p 10	Naples	158
	Berlin	80
	Leipzig	85
	Munich	74
	Heidelberg	62
	Dresden	57

note: these are from the poorer classes who are more apt to produce twins than the wealthy - Andels says 1 in 100 from the latter classes.

	Total cases	Hall cases	cases
	32	206	32
	9		
	12	53	12
	0		
	20	91	20
	5		
	15	83	15
	1		
Mother's side	94	433	79
Father's side		449	78
Both sides		882	157

or 5.6 Under + Aunts on either side (paternal or maternal)



Beyond this, there is great disagreement in the various returns from the different midwifery institutions, due no doubt to the fact that the observers are students or young medical men of very various attainments, & the observation itself is difficult one. - I have been informed that the returns of Späth of Vienna are very highly considered & will adopt them, ignoring the others, in this occasion. they are as follows

	N ^o of Cases	same sex	opposite sex
Separate placenta	48	32	16
Joined placenta, double chorion	46	26	20
Joined placenta, single chorion	30	30	0
	124	88	36

~~We may reduce them to 100~~

The figures in the second column ^{32, 26 & 30} are so nearly alike, that we may consider ~~it proper~~ ^{it proper} that more ample statistics would have brought them to equality & similar that we may provisionally treat them as if they were the same, similarly for the 16 & 20 in the second column. There is no doubt about the 0. According to this notion

24 cases would be thus distributed

	N ^o of Cases	Same sex	Opposite sex
Separate placenta	93	62	31
Joined placenta, double chorion	93	62	31
Joined placenta - single chorion	62	62	0
	248	186	62

$$\begin{array}{r} 94/632(57 \\ \underline{682} \\ 740 \end{array}$$

$$\begin{array}{r} 632 \\ \underline{564} \\ 688 \text{ twins} \end{array}$$

$$\begin{array}{r} 27/1065(39 \\ \underline{81} \\ 255 \\ \underline{243} \end{array}$$

$$52/1065(f.2) \quad (1)$$

Some subsidiary results which I obtained in an inquiry concerning twins, are perhaps worth recording; the primary results are ~~given~~ ^{printed} in a paper in Fraser's Magazine Nov 1875.

What I am now going to give, ~~are a few facts~~ ^{concerning} about the hereditary tendency of towards twin bearing, and the largeness of the families in which twins are born, and the degree to which they themselves contribute to the population.

First as regards heredity. I find regarding 94 cases of twins that they had as follows:-

Uncles and Aunts on the side of their father 538

among whom there were 14 ~~cases~~ ^{in 14 sets} of twins; that is, 1 in $38\frac{1}{2}$

Uncles and Aunts on the side of the mother 527

among whom there were 13 ~~cases~~ ^{sets} of twins; that is 1 in $40\frac{1}{2}$

Hence the hereditary tendency, ^{whatever it may be,} is the same on both the paternal and maternal sides.

As regards the strength of the tendency, I find from Ansell's
valuable "Statistics of Families in the Upper & Professional Classes" ^{and to the enterprise of} collected by the National Life Assurance Co
in 1874 that

p. 3

Next as regards the strength of the hereditary tendency. We
see that about 3 in every 40 of the ^{generally} Upper & middle classes were twins.
~~It is not a high proportion that we find among the population generally.~~
On the other hand, we know ~~from~~ that the proportion of twins ^{generally}
to others, in the upper classes of England is 1 to 50. This is
a higher ~~proportion~~ than may perhaps be popularly imagined, but
it is certainly not a high estimate. Thus in the valuable "Statistics
of Families of the Upper & Professional classes" by C. Ansell. Jan? 1874
~~the number of~~ ^{we find in 39} cases of twins to a hundred single births; that is 1 twin
to 50 ordinary persons. There is abundant ~~substantiated~~ evidence of this description
concerning ^{many} countries, well epitomised by Kleinwächter ~~Prag~~ Die Lehre
von den Zwillingen, ~~Kleinwächter~~ Prag 1871. It therefore seems
that the hereditary tendency is on the whole, very weak.

Only 3 of the parents in my 94 cases or 1 in 31 were twins; but
I do not ^{yet} see how to use this class of fact in statistical inquiries
because twins are certainly less frequent than other people,

527
94
621

94/121 (4.
568
64
530



It is ~~not~~ easy to answer this question with precision thanks to the

f.45

On the other hand we learn from the valuable "Statistics of Families of the Upper & Professional Classes of England" by C. Ansell Jan^r (1874) ^{which refers to identically the same class of people as those children who represented no marriage relation} that the proportion of twinning & other people in England generally is at ^{about} 1 to 50; ^{Hence the hereditary tendency of twinning is not so high} a somewhat larger proportion than may be ^{estimated} from the birth rate returns from lying in hospitals. ^{It may be mentioned} These are one twinning birth to every 100 births now taking at the returns from various countries. ^{They vary very much, but the average is found to be 1 in 74; that is, there is one twinning child for every 34 ordinary children.} ^{of them if such a word is permitted in French is found in cases of multiple pregnancy} There is great discrepancy in the returns from different countries, which is no doubt due to the different customs of life of their inhabitants. We know how much twinning birth depends on external conditions from the fact that ~~the~~ in some years sheep bear twins in abundance, ~~over~~ ^{even} ~~far~~ in the whole of large districts while in other years they do not, and Dr. Duncan has ^{endeavoured to trace a} ~~shown~~ ^{connection} ~~between the tendency to bear twins and the age of the parents~~ ^{and the number of previous confinements} ~~the tendency to bear twins is~~ ^{more advanced} ~~as nearly married women are more likely to bear twins than older they are~~ ^{the mean age of twinning bearing mothers is greater than that of mothers generally} The results range between 1 twinning birth in every 57 in Dublin ^{where twinning is the most numerous} to 1 in every 150 in Naples. Savoy is also very low. There.

~~12h~~
 12h : 12
 49 : 2.25
 46 : 2.14
 28 : 1.3
 26 : 1.2
 20 : 1.
 30 : 1.4

24
 4 1/2
 4 1/4
 2 1/2
 2 1/4
 2
 3

12h : 100	
49	39
46	36
30	24.
26	20
20	16
32	25
14	13

Pres
 1
 1
 3
 3
 3

steps

1260
 140
 110



which were collected for other purposes
my return, so not help me to estimate, with any precision
I do not know.

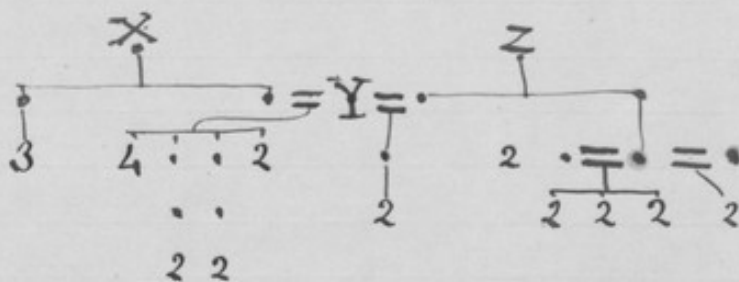
1.5

(2)

but how much left,

It will be observed that twins are derived from large families. because the ~~above~~ ^{figures} ~~figures~~ ^{figures} showed that each parent had, 5 or 6 brothers & sisters; in other words that he was a member of a family of 6 or 7, which is certainly more than usual. Again, twins are more frequent in the lower classes than the upper, and in Ireland than in England; ~~where~~ we know the poorer classes to be the more prolific & the poorer Irish classes the most prolific of all. The proportion of twin births to single births in Dublin is as 1 in 57.

Although the tendency to bear twins is ^{generally} small, families are occasionally ^{for} met with, in whom it is ~~marked~~ strongly marked. I annex the pedigree of a ^{curious} ~~most remarkable~~ ^{interesting} combination of 3 such families, ^{including} not a few persons of distinction. ^{I have omitted all} ~~mentioned that of the~~ ^{omitted} ~~omitted~~. 2 means a case of twins 3 a case of triplets & 4 one of four at a birth. This little table contains 9 ^{other} ~~of the~~ ^{of the} ~~first~~ twins, 1 triplet and 1 quartet, in 3 generations.



I find that the twins who have survived infancy, ^{and who do not resemble each other,} are fully equal in physical and mental power to other people; indeed my statistics show that they ^{somehow} ~~exceed~~ ^{these of evidence} ~~that~~ nearly half are very decidedly above the average, whence I conclude that half are somewhat above the average. Moreover, ^{if these who have not the same parents} ~~as repetitions of the same event and~~ ^{if the latter are adopted} I took upon myself not as independent events, in which case the ~~double~~ occurrence of ^{both} ~~being~~ ^{being} above the average, would testify to extraordinary general healthiness & strength. Many

distinguished person have been twins, "the Lords".
 Eldon Stowell had such a twin sister. I have a well known
 Cambridge senior wrangler ^{was one of} those who kindly sent
 me returns, & could mention others who have successfully
 fought the battles of life; among these is Mr Bendigo
 the ex champion prize fighter, who is stated to be one
 of a triplet.

There can be no doubt that twins contribute less to
 the population than other people. My returns were not
 framed to afford ^{direct} answer to ^{of these statistics} the question. But I can
 incidentally gather enough from them to be sure of the
 fact, also that there is not so strong a tendency among
 twins to marry as among other people, ~~which~~ however this
 may be accounted for; and lastly, that the popular belief
 that ^{both} twins, whether of the same or opposite sex, never
 have families, is quite erroneous; I have many instances
 to the contrary. (Free marriage) - Hunter says that in certain parts of the Am. Ocs.
 There who are curious about that is the twin cow calf & a bull, which is almost
 invariably sterile, at least in black cattle, should read Hunter's memoir Vol IV.

There is a ^{curious} ~~singular~~ fact about the sexes of twins, in that
 the number of cases of twins of opposite sex, is not half
 what they would be, if they were independent births. ^{Mr. Ansell just remarks that} ~~then~~
 the ^{of sex} ~~Supposing~~ complete independence, and the number of boys' births
 equal to that of girls (which will be accurate enough for the present purpose)
 we should have four possible events, ^{all of which would be} equally likely to occur
 (1) boy & boy (2) boy & girl (3) girl & boy (4) girl & girl.

In other words, 1 case of both boys, 2 of mixed sexes, and 1 of both girls.
^{on offspring, boy still much commoner than girl, the cases of twins of the same sex are} ~~however showing that the mixed~~
^{sexes are equally common right that of both boys as of both girls} ~~all the cases~~
~~and he points out 1st-2, the discrepancy of sex~~ ~~mentioned~~ ~~It seems to me that if we could~~
~~get some further information on which we might rely that~~
^{distribution of mixed sexes} ~~this fact~~ would give some clue to the ^{and period} conditions of
 the ^{differentiation} ~~relationship~~ of sex. The case stands thus:-
 The word "twins" covers many different classes of events.

In the ^{great group} ~~one~~ the children are ^{derived} ~~from~~ from different ova and are enveloped in separate membranes previous to their birth; ^{of these some have separate & other, single placentae} in the other they are derived from two germinal spots in the same ovum & are enveloped in a single membrane. ^{& of course have only one placenta} It appears to be a rule without known exception that in the latter case the twins are always of the same sex. ^{without the consequence of} ~~we know the proportion there bore to the rest, we could tell whether or no the fact~~ ^{is the same} ~~what is the tendency to identity of sex in the various~~ ^{the result} ~~groups, but which the former is divided~~ ^{is usually to} ~~accounted for identity of sex, & that the tendency of independent placentae having separate placentae are quite~~ ^{independent} ~~is~~ ^{invariably to} ~~if we know precisely the ratios of these~~ ^{more common & reliable} ~~is~~ ^{is} ~~with V. Siebold's~~ ^{is} ~~they are as follows~~

	No/cases	Twins of Same sex	Twins of opposite sex
Separate placentae	$48 + 54 = 102$	$32 + 39 = 71$	$11 + 15 = 31$
Joined placentae double chorion	$41 + 15 = 61$	$21 + 9 = 35$	$20 + 1 = 21$
" " Single chorion	$30 + 4 = 34$	$30 + 4 = 34$	$0 + 0 = 0$
		140	57

	Cases	Same sex	Opposite sex	per cents	
				Same	Other
Separate placentae	102	71	31	70	30
Joined placentae	95	69	26	72	28

Shaw's: 12 to 12 cases 2 1
 12 12 2 2
 12 2

Net

Twinn
notes for
Cuthbert
Rough notes



My object is to collect data for estimating the part that Nature and Nurture respectively play, in forming the Body & Mind of adults

The experiences that afford the required data are those in which -

- (1) ~~The~~ Individuals ^{who} closely resemble each other in childhood; ~~have been reared under the same~~ in the same manner, and have continued to be alike.
- (2) As above, but who did not continue to be alike
- (3) ~~The~~ Individuals who were very dissimilar in childhood; who were reared in the same manner and ^{who} retained their dissimilarity.

It is among twins of the same sex ^{a large part of} that ~~the~~ required data may be obtained in the most trustworthy & simplest form: ~~for~~ Being necessarily of the same age, they can be directly compared with one another, throughout life, in their features, growth, disposition, and state of health. ~~They are occasionally~~ ^{Some twins are} so alike, as to be scarcely distinguishable; ~~and the other twins~~ ^{the other twins} are utterly dissimilar. ~~in both cases~~ In both cases, they are ~~reared~~ reared & educated in early life, in precisely the same way, ~~and~~ ^{while} after ~~the~~ boy hood or girlhood their modes of life frequently differ.



Private - Not for consideration ~~at the first meeting~~ ^{discussed at the first meeting} 1.9

Objects of Enquiry

Anthropometric Committee of the British Association
Resolved at the meeting of the General Cttee of the B. A.
at Bristol 1875 That -

£100 at their discretion.

The following preliminary outline of the proposed work ^{suggested by J. Lubbock} ~~has been drawn~~
offered as a basis for ~~the consideration & discussion~~ at the first meeting of the Committee - 1875

~~Measurement of people to be taken with the hope of~~

~~Points to be determined~~

Age (in all cases) ~~of the measurements be~~

Height (univocal) ~~Measurement without shoes~~ ^{or slig} ~~with a when practicable, otherwise~~

~~Measurement in shoes & of heel of shoe~~ ^{in all cases} ~~to nearest 1/4 inch~~
~~Weight~~ ^{Measurement in shoes & of heel of shoe} ~~in clothes & with an ord'ary walking dress, state whether~~
~~in winter & summer~~ ^{to allow for different weight of dress at those times}

Stigmata where practicable (instruments used)

Vision test (army test)

Numbers of each group to be measured.

It is believed that ~~in a rough average~~ 200 ^{as a lower limit} ~~will suffice~~ - If more
is attempted ~~the work will be impossible to carry through~~ - However in
schools ~~the masters may be induced to measure & tabulate~~ as they have
already done for the Cttee of the Anthrop.

Form of results aimed at.

Apparatus required

- Measuring rods of deal clearly marked in inches & tenths, suitable to be leaning against a wall. (See my plan in Anthro. Journal)
- Weighting machine suitable for transmission by R.S.
- Stigmata
- Vision test &c.

Agency.

~~These matters referred to the working sub-committee~~ ^{interested in the work} ~~with the hope of getting the credit of what he did~~
~~& whose dis. travelling expenses will be paid~~ ^{to be helped from time to time} ~~number~~
~~Organization to be utilized.~~

2 girls
2 boys
2 girls
Andrew (to Woodhouse) some heredity only
Ansell. heredity - of Blewett - Mauley.
Girls Heredity the youngest of a family of 19
A man applied to leave his life at 84. one of a
triple birth - brothers alive. -
x. nothing to quote no heredity.

Arnall

boys 11 at 18. began to diminish at 14. There is both parental & child

W^m Bartley

Girls 11 in book ^{to find degree} X in mind. little information

Lady Georgina Walford

Girls X no information.



Barradough

Girls 11 at 30. girls. some heredity -

Beaumont

boy-girl X 10 1/2 but elate for a month or two. awake & sleep - cried at the same time

Bell

boy-girl ? X 11. at 11. Father, ^{does not see likeness now} ~~but~~ ^{but} thought for so, have been brought up together. He ascribes their difference to nurture
Speaks of other twins simultaneously ill...

Bodwich

boys. X at 11 full account of characters (much to quote)

Brandt

boys 11 at 12 also for long before father used to declare they had not one bit of twins between them - looking clasp mistake -

Burton

boys X at 12. with exactly the same nurture they are as different as two boys could be. This holds true of them physically, mentally & in their emotional nature

Cane

Girls 11 at 16 constantly mistaken, even by parents - when at 13 one was distorted by their mother in mistake for the other - we were then continually saying 'which are you?' He made one is more energetic the other more delicate - timid. - one more much surprised than the other - They never differentiate the one from the other - look upon themselves as one - are never parted but that they always sleep together. - Believed many carriers, comeliness, in health, state, speech, 1, dyspepsia, 2, measles, both very late. - Having rapidly increasing

boys Cobbold 11, x at 23. Parent never thought them particularly alike but strangers mistook them, - at school we were nearly caused by mistake (he explained) - the differences are catalogued

girls, no name given by Cobbold || - looking class anecdote.

2) Cooper no information

girls. Cornish at 23. || no real relation when not facing them have often asked 'which are you' - Particulars of resemblance given, worth exploit. As children we used to say 'Kate is writing a journal with torn dress' Their ailments were not always similar.

Crawford promised but not back



boys Creed || (elderly) both married, one had a large family, the other no children. (abundant stories) same school college. When one was engaged to be married & was ~~talking~~ talking to her, while she was at work the other came in ^{both here} & continued the conversation for that he found it out until she looked up. - (much to quote)

Crompton || boys || girls || boys || short notes of several cases - one of much fertility one of much resemblance

boys Dale || both dead, as at 19 ^{great similarity} very touching letter - both died of Bright's disease. (much to quote)

girls Gallion || only 4 months old.

girls Dacey || ^{at 31} mind in body, left so in mind. as if one was ^{strongly} physical to the other, voices unlike - one very weak. similar tastes for music & art. married at nearly the same time, each has 4 children. Educated together - creatures of different natures they have their respective "natures" - one girl later after mother & her family, the other after the father & his.

boys Dickens || ^{apparently} not very like at birth one being delicate, ^{the other stout} hardly to be distinguished in boyhood & youth. goes left like in adult life as the 2nd again goes stout ^{always of same height} - not like in mind. at 20-25 constantly mistaken for each other - a looking class anecdote - no special mental or moral sympathy - one a clergyman & the other an engineer

1 boy
2 girls } Dover Bishop of. no information - except heredit
3 boy-girl
4 boy
5 girls

boy-girl in Lady Eastlake x children of Dr. Kirby by his second wife, ^{in Polsonas the believed to be large family of the brother} 30 years younger than himself ^{children}
1) no brother's teeth were ever more unlike in mind
temper, habits - no were they at all like in physiognomy.
(then came to mind the mother, then
2) all 4 were perfect & healthy but did not live above 3
months. There was great dissimilarity in complexion, colour of
eyes & size

x An aunt (mother's sister) had 3 at a birth - all grew up. not recollects
about any of the 3 but the girl & the other boy were as unlike as possible.

Father's daughter had twins

Sir Geo^d Vane (a cousin), near twice, a. sons of L^d Stanley of
^{who was once a house} Alderley & had twins 3 times

boy-girl. not like in person. boy is Bishop of Dover
the other died

b. George Horne & had

girls - one married

boy-girl x ^{daughter} Lady Eastlake's niece in Africa

boy & girl x 2? children of her nephew

girls || Of friends ^{children} the late Lord Stafford (Sir Geo. Jerningham of Suffolk
strikingly alike.

Girls || of Wm. Stark. most awfully alike

Girls. || of Mr. Douglas Baird one married Lolo Cole the other a Villain

Concludes first that twins occur in large families
second that those of the same sex are most frequently alike

Fox Mr Lane.

girls x } daughters of Mr. Fidler
girls || }

many others not easy to analyze.

girls x Fry - at b. dissimilar in body & mind

girls x Eastell (Hobbs) - grown up, are dissimilar. very unlike; particular given.
Peculiarities in both developed about age of puberty.

boys x Eastell R. were never closely alike, though their education
up to the age of 18 was the same.



Girls Hill x never very closely alike; the similarity was that of sisters brought up together & having the same afecions; not more. both were only one year a family

Girls Holcombe x very different in ability & constitution. One is ordinary ^{from a distance} the other has an unusual amount of quickness & talent; prof. made few of music & drawing, excels in. They married two of a trio. (Evans)

3 boys (Evans) in Holcombe. III often one was mistaken for the other

2 girls - Mrs Holcombe half sisters, married 2 of the Evans trio.

boys Hope x Disjunctant, well analyzed. Singularly unlike in looks disposition & tastes. Strangers see a strong likeness between them but none who know them well can perceive it. a, placid, matter of fact, prudent careful b. sanguine, cheerful, open handed careless of money. a went to college & is a clergyman b. & sea then New Zealand & now occupies an estate in S. America.

boys Horner II & His relations have mistaken them constantly have similar & considerable athletic power. Tastes & dispositions very similar Elder slightly but noticeably the more reserved. were separated at 18 1/2 one to Bahia the other to France. Think there is no greater difference now than then - 7 years since. Think the likeness curious remarkable.

Girls Rawson. alluded to by Hull - letters sent to Barbadoes

Girls Hall at 18. II very much alike in mind and body and have always been so. They are girls of great ability more so than any other four children and of a singular easiness of character - both the first 12 years I seldom knew which was which. (both intelligent) a different expression. Both are very courageous & ready for any athletic exercise - foot ball & skating. Voices ^{speaking} not distinctly remarkable. Special tastes & avocations exactly the same. They are both unusual whilst players & at school examinations they gave almost the same answers. At Camb: local examⁿ one took the 1st first class; the other, one of 2 or 3 seconds. They are easily distinguishable now but marvellously alike. I don't know their photographs are from the 5th. - I think there is now an increasing similarity attributed to uniform qualities & to the fact they they alone of all my children have always agreed & sympathized with me in broad religious views.

boys Hutchinson vol 19. Just a family likeness and no more in person, singularly different in character & disposition. The one is calm & self-possessed ^{in everything} the other inclined to be peevish & excitable & his heart is in games & society. The difference in character has been observable from their earliest infancy - Always brought up together & always have shown great affection for each other - rather a total likeness. No increasing dissimilarity.

boys Indwin (said to be Iliff) || at school said the repetition for each other & could not be distinguished except by close examination & close questioning (this is hearsay)

boys Clegham (ditto) very alike in person, - not in character. one being harsh the other gentle.

boys Iliff vol 12. || From their birth I have not known them apart - and almost every one in the house makes mistakes about them. Voices different ^{if expected} at their very moment their mothers ~~are~~ unable to say in the spur of the moment which is which. - details of resemblance & the reverse are given (see last page too)

girls (said by Iliff) & unlike in almost every respect but very fond of each other.

boys Inman - all about heredity & drink

boys Jagger ^{emphatically} ^{near as close as alike} ^{discriminates in body} but habits & tastes very closely alike. music

girls Jefferson ^{one of 58} ^{the only one who} ^{Kenney the poet} ^{was} || From their earliest youth always resembled each other very closely in body & mind. (2) had a slight mark on her lip appearing a slight hardness. In spite of this, such was the marvellous similarity of their features, expression, voice, manner, &c. that even intimate friends frequently mistook one for the other. The writer, the daughter, was as a child very much puzzled by their resemblance and thought that had her aunt lived much with them she would have ended by thinking she had two mothers. They were of identical height, weight, shape, had the same coloured hair & eyes the same complexion, the same tastes ^(which were by a long way the best of any I ever saw) the same talents - the latter of no mean order. They were good musicians, linguists & writers, with a imagination. Indeed their imagination was rather a curse than a blessing - led one of them into troubles - . All their brothers & sisters were strikingly alike. They retained their likeness to the last. one died at 58 the other still lives. - Father James Kenney the poet mother dau of Ch. Mercier the French dramatist - . Thinker under identical circumstances one twin would have been the exact double of the other, difference of character there would have been none.

girls Jepson 17 || Always so much alike as frequently to be mistaken, apart but both had the same tastes but a, had better abilities so that I frequently said a, is a year older than b, - as infants b, like than after, a, was always the larger; voices are the same, handwriting quite different. They do make similar remarks at the same time. In illness, if one were teething or ill the other began 2 or 3 days later.

girls Jeon 15. X

boys Quinton (spoken by Mr. Jeon) || a music master in Manchester who had a twin brother so like that they were constantly mistaken

boy-girl children of Jeon

girls Jones 11 X were like as babies but grew more dissimilar in talent and disposition as they grew up together. One is thought somewhat clever & the other silly & at least very eccentric in manners but that more than a fair share of common sense

boy-girl Kempson 17. X Talents & disposition very different - particulars given

girls Kent (middle age) || constantly mistaken the one for the other, even now. Both have the defect of not being able to come down stairs quickly. This however was not born with them but came on when they were about 20 years of age. Talents precisely similar; abilities about equal; handwriting not at all alike but their voices very similar (a) is stronger-minded & more persistent - both originally subject to asthmatic attacks; both of a nervous temperament

boy-girl Kirby not aware of any resemblance in body or mind.

same nothing

boys Lambton || Their parents after a short absence, had difficulty in distinguishing them (when young) voices alike. at all times were taken ill together. They were close alike at Harrow & continued so now with Fred ^{Quinton}

boys Landford 18 || Exactly alike in all; their schoolmaster never could tell them apart. At dancing parties they constantly changed partners without discovery, trifling differences in weight & athletic powers - voices always exactly alike. Close resemblance scarcely diminished with age. Both amateurs, musicians - mechanics - etc. (as to age - evidently old)

boy-girl Leeds 11 alike in features but not in body - somewhat alike in mind.

boys Lindley 11 ^{children} Quite unlike a, broader built & fair b, slighter, darker and more vigorous, both in mind & body.

boys Leckington at 43. || very closely alike in boyhood youth and adult life. Continually mistaken by acquaintances & friends occasionally even by near relations on an unexpected meeting. Much difference in height. voices often mistaken (more particulars are given) special tastes not very marked but almost invariably similar. Both fond of music. Dispositions very similar (retiring), both admire the same persons books &c. Speaking broadly there is nearly identity of opinion. The closest likeness was in infancy; probably idiosyncrasies have been ever since developing (within certain limits) no marked differences can be specified. The external circumstances have been very similar, but we attribute whatever likeness or unlikeness there may be, mainly to natural qualities. (There is more in the letters)

girls Mac Cartie adult. X. Disjunct in mind & body - (no particulars about mind);
boys Mansel ~~adult~~ middle age. || We were always extremely alike, and are so now at this present moment, so much so that my own children up to 5 or 6 years old did not know us apart. On one occasion when I returned from foreign service in 1840 my father turned to me and said "I thought you were in London" thinking I was my older brother, and he had not seen me for ^{nearly} 4 years - The head of one was rather the larger & bolder. Particularly attached - both were bald at the age of 40. Hand writing disjunct but voice perfectly the same. Except that he stammers which I do not. (2 of my sons do; none of his) Tastes much the same but he stuck to Natural History, I was a soldier. I sh^d certainly say our associations of ideas are alike; often making identical remarks. Politics at the antipodes.

girls (Warrington) communicated by Ed Mansel || ^{married} exactly alike. "Wrote to me of Ed Mansel's letter"

girls Martin || at 9. closely alike at first and up to 6 when one had the scarlet fever and since that time resemblance has decreased.

boys Matthew X ^{at 7} never very closely alike. (writes a rambling letter.)

boys Mortimer || at 38. Close resemblance in mind body and disposition, & also in the absence of one of them they are sometimes mistaken for each other. In childhood the confusion was frequent; many mistakes. In school life one was sometimes punished for the other and the question which was master & which was a constant difficulty. Arriving senior at College when one came to visit the other. Peter refused to let the visitor out at night, for though they stood side by side he professed ignorance as to which he ought to allow to depart. At chapel, the visiting brother

brother, was widely turned out of the stalls by a Don. & ordered to put on a surplice & sit with the undergraduates. Disposition & association of ideas wonderfully alike but the Elder was more generous & happy, the younger more self-contained. Careful analysis of points of difference by it 2 times sitting together. Notwithstanding difference of vocation we think that for the last few years we have been growing more alike. - About 8 years ago, the brothers were separated for 8 years, one being in the South Sea Islands. No perceptible difference in disposition seemed to have been effected by the separation.



boy & girl New at 55 x for the most part.

boy & girl New (children) at 24 x for the most part.

boys Notcutt at (adult) - x nearly family likeness.

boys Oldham at || very much alike. a sympathy seemed to exist between them which was not remarked between their other brothers & sisters - frequently mistaken in childhood. Disposition similar, and when young one would begin & the other finish a sentence.

girls Paget at 14. x unlike from their very infancy in body and mind. Their mental endowments are different rather in kind than in degree, though for the first 10 or 11 years of their lives they were rarely separated either by day or night.

girls Newton communicated by Paget ~~page~~ || They were so wonderfully alike that almost no one could ever distinguish between them, and as they grew older they continued alike while changing in appearance.

boy & girl. Payne at 9 apparently a family likeness.

boys Pearce at 54 x never alike in body or mind - (a) robust tall fond of out of door life (b) short and of quite a different turn of mind.

girls Pugh || as children, much alike in body and mind - disposition similar.

? Ransom (?)

boys Rhodes x

girls Redfern x were never alike either in body or mind. The external influences have been identical; they have never been separated and the daily increasing dissimilarity I ascribe to the first born Edith developing the outward make and mental qualities of my father and Constance the outward make and inward capacity of my mother; neither of them being like my wife.

boy & girl Richards at 20. x Not at all like in countenance, but in body, well grown strong and both tall. Both lively & very affectionate to one another.

boys Roundell ^{only 2 years} at 11 || Greatly resemble each other both in mind and body, having the same tempers and dispositions. Their own Father has often mistaken the one for the other. What one does and says, the other one immediately does the same.

girls Sanders at 11 ^{at} X I should say our characters are diametrically opposed and have been utterly different from our birth (an excellent & long analysis)

boys Scott at 15 || Strong personal resemblance from their birth. Are seldom recognised apart except by their most intimate friends. They have and entertain identity of feeling and affection that an angry word has never been known to pass between them. Their general health is close, alike and whenever one takes an illness the other invariably takes the same within a day or two and they usually recover in the same order. ^{They have slight bilious attacks from time to time & have frequently been ill together.} Their intelligence is about equal (& above the average) but their ideas are not so similar, nor are the same trains of thought apparent. Though the features so closely resemble, the expression is different.

boys Smith at 15 X Most decidedly, from the moment of their birth were dissimilar. This is shown up to the present time in character habits and likeness.

boys Smith at 11. X Not at all alike in body or mind. They differ in size in features, in character, though not so much intellectually.

boys & girl Smith at 10. X Never much alike observed & demonstrated brought up together until 10.

boys Stanley at 11 X Very unlike in complexion & character, brought up together; remained throughout life of very different characters

girls Adams (communicated by Stanley) at 17. || One could not be told from the other, they were so alike in every way.

girls Stokes X at 11. not alike in body or mind & have never been so. a, strongest healthiest, b, nervous, sanguine, sensitive & temperance, quick of intelligence & holds a gentle sway over a; a is taller, fairer & of a more yielding disposition. remarks that Chippenham is just like in town and speaks of an opinion that twins did not ultimately add so much to the population as single births.

girls Edgeworth || so much alike they could hardly be distinguished apart

boys & girl Need X at 30. ^{resemblance in} No appearance, character or habits.

- girls Sykes 2, at 16 & 22 || were very much alike in person and constantly mistaken by near relations for each other - cannot speak as to their mental similarity. They were very shy. A. died of scarlet fever B. of consumption.
- girls Thomas at 10. were very much alike as infants, but much less now ^{as A. was brought up by hand} A. is as tall as a foster 14 months older & much brighter - Little if any real sympathy between the twins than between any others of the family.
- girls Thomas at 6 x quite unlike, taking respect to father & mother. They show much sympathy.
- boys Thornely at 43? || Always much alike A. more sensitive in body and mind, but never so much so as to be mistaken by near relations very similar in disposition & health. They have the same taste for art both gave up other professions to devote themselves to it. Most intimate in friendship.
- boys Thornely at 46 x same particulars as given.
- girls Villiers at . || Extremely alike in the eyes of strangers, but the members of the family could distinguish them and they were not closely alike in disposition. Thomas was jealous. When S. was engaged there was terror but the lover might not distinguish in his tastes; it seemed obvious that either would have suited him equally well, though they did not equally like him. The sisters were most closely attached and felt as one; their sympathy was extremely close. ^{Said that} ~~when they kissed one another it was like kissing their own hands~~ ^(see Portlock) ~~not like kissing their other sisters.~~ Now the resemblance is less striking as the sisters are married in different positions.
- boys Wakefield at 29 || In features, exactly alike up to present time. Very intimate friends are sometimes at first mistaken though the distinguishing mark is that one does not shade (in water). Numerous mistakes. Frequently walked to town with each other's friends without being detected (many facts). Disposition somewhat similar. Association of ideas often coincident had a remarking upon the same subject at the precise moment and or commencing the same song in like manner. Both began to 'thin in the crown' at the same age, 26, & continued so steadily till now. Similar ailments and in one case of ophthalmia at 14.
- boys Walters at 21 || Very alike & often mistaken by father ^{who often expects one for the other} up to 6 ^{some details} of dissimilarity as given.

- boys Ward x not in the least like, one d at 3 months
- boys ward x never closely alike; one fair the other dark
- boys ward ^{as yet} very much alike at 12 both in mind & body (and apparently continue to). Alike in manual skill, handwriting, dispositions & state of health. Educated together up to 16.
- boys Wedderburn x unlike in infancy & youth.
- boys Watton at 6 || Their likeness at birth and for 1 or 2 years was very great and even now, all except their nearest relations and those friends who are constantly seeing them have great difficulty in distinguishing them. A dispute often arose between their mother & nurse as to which either of them was & the mother has on more than one occasion given the one a dose of physic which was intended for the other & rewards & punishments have been given under similar errors by their parents and others. When asleep in bed we have always to give a second look even now if they at all get "mixed up" instead of lying in their usual places. A, is more solid & has more decision of character.
- girls White adult. x very little alike either in body or mind, one being very dark the other very fair
- boys Whitwell x unlike in body, mind from birth.
- boys Wilkinson ^{about 50} elderly || Alike in every way from their infancy. Last year at Boston the woman at the baths remarked "they were as like as two peas" - Very many anecdotes - When returning home from India on leave, his mother awaited him nervously & A, went out to meet him (by mixed back first & said "O mother how are you" she replied, "no A, it's a bad joke, you know how anxious I am" and it was a little time before B, could persuade her he was the real man. - Numerous other tales. Both brothers were well known about town last year -- very similar in all ways even handwriting (This is the most remarkable case I have)
- boys Wilson. ^{as yet} x Curiously different in body & mind from their birth as long as they both lived. (but some resemblance) - James Wilson says it was a fact which struck all our School contemporaries that my brother and I were complementary as to speak, in point of ability. He was contemplative, practical, literary to a remarkable degree, showing great power in that line. I was practical, mathematical, linguistic. Between us we should have made a very decent sort of man.

Winn's cases (anonymous)

- boy & girl Perfectly unlike in features
 girls Alike in person, but the mother said there was no sympathy
 between them in health & spirits
 boys Two young men. One was subject to epileptic fits and died during
 a paroxysm at 18. The other had several fits caused by the shock
 of his brother's death but entirely recovered.
 boys Wöfel also || They were both quite alike in structure of body,
 feeling, hair & eyes. They used to let their uncles sleep
 which was ⁱⁿ ~~which~~ & he usually mistook ~~it~~ for him [interchangeable
 likeness] equal abilities & similar tastes. Are still strikingly
 alike.
 girls Wyngard x very dissimilar in body and mind (full particulars)



Girls	boys	big	Arnall
-	-	-	Arnall
-	-	-	Barracough
-	-	-	Brandell
-	-	-	Cane
-	-	-	Cobbold
-	-	-	Evans (by Cobbold)
-	-	-	Cornish
-	-	-	Creed
-	-	-	Dale
-	-	-	Davey
-	-	-	Evans (3)
-	-	-	Horner
-	-	-	Hull
-	-	-	Ludwin (by Hitt)
-	-	-	Hitt
-	-	-	Lafayette
-	-	-	Henry
-	-	-	Leitch
-	-	-	Quinton (by Evans)
-	-	-	Keat
-	-	-	Lambton
-	-	-	Lawford
-	-	-	Lushington
-	-	-	Mansel
-	-	-	Mansel (by Mansel)
-	-	-	Martin
-	-	-	Mortimer
-	-	-	Oldham
-	-	-	Neoville (see Page)
-	-	-	Norman
-	-	-	Scott
-	-	-	Adeane (see Stanley)
-	-	-	Edgcombe (see Stokes)
-	-	-	Secker
14	49	-	

Girls	boys	big	carried over
14	19	-	Thornely
-	-	-	Williers
-	-	-	Wakefield
-	-	-	Walter
-	-	-	Ward
-	-	-	Watson
-	-	-	Witham
-	-	-	Wöfel
-	-	-	Bailey (communicated by)
-	-	-	Butler
-	-	-	George Butler
-	-	-	Coles
-	-	-	Farquhar
-	-	-	Fowler
-	-	-	Ervington
-	-	-	Lea Collier (by Harrison)
-	-	-	Macrae
-	-	-	Nichols
-	-	-	Patel
-	-	-	Pollock (communicated by)
-	-	-	Powell
-	-	-	(by Haventree)
-	-	-	Saunder
-	-	-	Quarney (by Sheppard)
-	-	-	Thurley (about Mr. Smith)
-	-	-	Underwood
-	-	-	W. W. W. W.
27	34	1	
-	-	-	Clouston
-	-	-	Clark
27	36	1	



Continued overleaf

Girls, boys, ^{Org}
27 36 1

Alike. continued from overleaf.

423v

carries over

- C....
- Golberg
- Guppy
- Freeman
- Lucas
- Mildred.
- Phillips
- Skittles
- Tarkenton
- Lehmann

Total 74. { 33 40 1

See other side Buchnall & Tuke p. 62

Crochton cases given by Dr Stewart - 901 admissions
Journal Mental Science 1844
in paper on Hereditary Insanity

	male	female	total
Parents or ancestors insane	127 ¹⁶¹	88 ⁹⁸	215 ²³⁹
Brothers or sisters insane	79 ⁸²	64 ⁷¹	143 ¹⁵⁹
Uncles or aunts "	18 ²⁰	16 ¹⁸	34 ³⁸
Cousins "	10 ⁹	8 ⁹	18 ²⁰
Relationships unknown	19 ²¹	18 ²⁰	37 ⁴¹
			447 ⁴⁹⁷

Comparing these figures with mine in Hereditary Insanity
p. 317 for all classes of eminence

20 100 persons of like condition whether eminent or insane	eminent men	insane	males
Father Grandfather or grandfather (= $\frac{1}{2}$ parents/grandparents)	57	12 (= $\frac{1}{2} \times 24$)	14
Brothers & sisters (= $\frac{1}{2}$ brothers & sisters)	41	8 (= $\frac{1}{2} \times 16$)	9
Uncles & aunts (= $\frac{1}{2}$ uncles & aunts)	18	2 (= $\frac{1}{2} \times 3.8$)	2
	116		25

$\times 41$ insane by Dr Stewart as against 57 - 41 - 18 = 100
51 - 41 - 18 = 110

hence insanity is only one ~~fourth~~ ^{fourth or one fifth} as hereditary as eminence. & follows
much the same order of distribution. - ~~probably~~ the "other relationships"
we have the uncles more than the parents or brothers.



Francis E. Anstie. Hereditary Connection between certain nervous diseases. Loun Mental Review Jan 1872

471. Quotes Moral 'des dégénérescences humaines.'
472. looks in ^{many forms of} 'Genius' as a disease. (not the highest forms)
479. "among the ^{high} that the neurotic temperament, previously dormant in the family, is about to reappear, I am afraid we must also, however reluctantly, notice the unexpected development of intense artistic feeling in children born of a family, who are naturally common-place & prosaic"
480. The predominance of emotional over intellectual work in the daily life. -- the most intense type of this emotional ascendancy is often seen in freshness of the intellectual turn. -- very common neurotic asthma & neurotic angina pectoris

Henry Maudsley M.D. Insanity & its treatment, Pres: Address. pub in Loun Mental Review Oct 1871

317. Maudsley is indebted for much of its origination & for certain special forms of genius to individuals springing from families in which there has been some predisposition to insanity. They often take up the bye-paths of thought & ... inspired by, with singular faith. ... Indeed I wish some one could undertake the task of examining & setting forth how many of the great reforms of thought & action have been initiated by persons springing from insane families, or some of whom might themselves have been thought insane.
318. He thinks it a risk to kill the weak children - they may be geniuses

W. Lander Lindsay M.D. Physiology of Mind in the lower animals Loun: Ment Sc. April 1871

- very curious paper, & full with abundant references at the end p. 80
- The New York Times quotes in Edin Evening Courant Feb 16. 1871 describes the opening of the owners of performing dogs - bread - holding tail up - doing a deal of handering &c