

#GENETICS

## Are Twins Alike in Their Allergies?

Do identical twins share the same allergies, or do they develop their own unique reactions? Let's unravel the mystery of genetics and environment.



Twins, especially identical ones, often seem like they share everything, from physical traits to mannerisms. But what about allergies? Is it possible that identical twins share the same allergic reactions, while fraternal twins have completely different ones? The answer lies in a fascinating mix of genetics, environment, and a touch of unpredictability.

### Genetics: The Blueprint of Susceptibility

Allergies are essentially a case of the immune system going into overdrive, reacting to harmless substances like pollen, pet dander, or certain foods. This overreaction is triggered by the production of immunoglobulin E (IgE), a specific antibody. While the cause of allergies isn't entirely understood, genetics plays a significant role. If parents have allergies, it's more likely their children

will develop them too. But, as with all things related to genetics, the picture is more complex. In the case of twins, the type of twins, identical or fraternal, makes a big difference. Identical twins, who share almost identical genetic material, are often believed to be at greater risk of sharing similar allergies. However, that doesn't mean that they will have identical allergic reactions to the same allergens.

### Identical Twins: Same Genes, Different Allergic Responses?

Given that identical twins come from a single fertilized egg and share the same genetic blueprint, you might expect them to have the same allergies. And indeed, studies show that identical twins are more likely to share allergies than fraternal twins. If one twin has an allergy to peanuts, the other is more likely to have the same reaction. However, identical twins aren't always mirror images

of each other in terms of allergies. While they may be more predisposed to develop similar allergic conditions, environmental factors like where they live, their diet, and even how they were raised can influence whether they develop the same allergies. One twin might have a severe reaction to an allergen, while the other could have only mild symptoms or none at all.

### Fraternal Twins: Less Alike, but Still Connected

Fraternal twins, who come from separate eggs and share about 50% of their genetic material (just like any other siblings), have a more unpredictable allergy experience. While they share some genetic similarities,

their immune systems can react differently to the same allergens. As a result, fraternal twins might develop entirely different allergies, such as one being allergic to nuts while the other is allergic to pollen.

### The Environment: The Wild Card in Allergy Development

While genetics is a key factor in determining susceptibility to allergies, the environment is the wild card. Whether it's pet dander, air

pollution, or even the foods twins eat, external factors can have a significant impact on whether they develop allergies and which ones they develop.

### Not Always a Perfect Match

While identical twins do have a higher likelihood of sharing similar allergies, they're not guaranteed to be allergic to the same things. Fraternal twins might have entirely different allergic reactions, even if they share a similar genetic background. Ultimately, allergies

are a complex mix of genetics, environment, and timing, and while twins may have many things in common, their allergic reactions might not be one of them. So, while their bond is undeniable, allergies are one aspect where they might not always be in perfect sync.

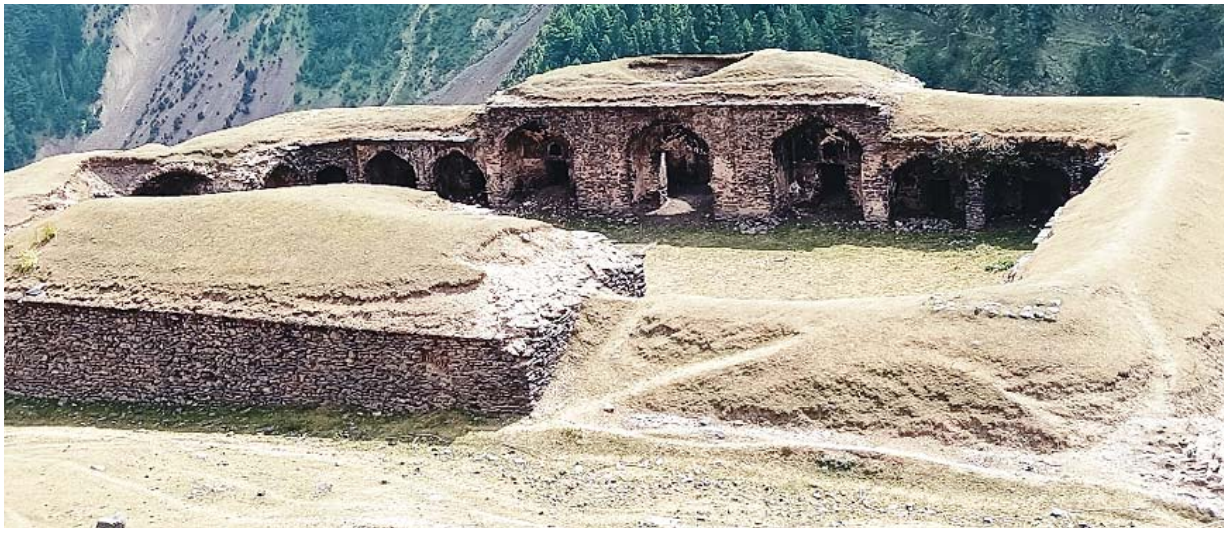


An illustration showing the Nala Mar way in 1870.



Travels in the Mughal Empire is the first authoritative translation into English of Francois Bernier's Histoire de la derniere revolution des etats du Grand Mogol, published in Paris in 1670-71. Bernier witnessed firsthand the bloody civil war and succession struggle of 1656-59 in which Aurangzeb, a younger brother of Dara Shikoh, seized the Mughal throne. In 1664, Bernier traveled with Aurangzeb to Kashmir, 'commonly called the paradise of India,' becoming most likely the first European to visit the province. Bernier wrote several long letters to correspondents in France, in which he gave detailed descriptions of economic conditions and religious and social customs in northern India, including one to Jean-Baptiste Colbert, finance minister to King Louis XIV.

Bernier's writings reflect his access to the beating heart of the Mughal Empire. His frank impressions and shrewd observations shed light on the central personae that peopled the halls of power in 17th-century India. From the devoted Dara Shikoh, who bought Bernier his first elephant, to the coldly calculating Aurangzeb whose company Bernier kept for months, his accounts provide candid portraits of the emperors and princes who



Relic from the Past: The Mughal Aliabad Sarai on the Mughal Road.

### Kashmir As He Saw

In his firsthand account of travels across the Mughal Empire, the French physician Francois Bernier provides an insightful glimpse into the pomp and circumstance surrounding the Mughal court and its machinations. Through an evocative portrayal of his prolonged sojourn traversing the plains of North India and ascending into the fabled Kashmir, he unravels the spectacle of the Great Mughal procession in all its unhurried and ceremonious glory. The freedom to access the innermost sanctums of the court and army on a campaign that Bernier enjoyed was unprecedented and astonishing for a European traveller, allowing him to provide what is perhaps the most extensive eyewitness account of mobile Mughal governance. He leverages this privilege to stress the grandeur, wealth and might of Indo-Persian Mughal power at its apogee, memorably brought to life through striking

descriptions of Kachemire's paradise and performative civilizational prowess. Through Bernier's descriptions, we traverse immense distances, experience extremes of heat and cold, witness the spectacular military encampments of the great Mughal ruler Aurangzeb, and ultimately arrive in the idyllic paradise of Kashmir.

His account transports us back to the scorching Indian summer, as Bernier joins the emperor's vast entourage departing Delhi in May 1658, at the onset of the hot season: "The heat was insupportable. There is not a cloud to be seen nor a breath of air to be felt. I feel as if I should myself expire before night." Bernier notes incredulously that despite the extreme conditions, the camp numbers at least 250,000 people and animals, a migrating city transporting the entire nobility and military of the empire, along with all their attendants, families, and possessions.

shaped the fate of the subcontinent. Bernier's writings also present a vivid travelogue capturing the sheer wonder he felt at the marvels of the verdant vales of Kashmir, the pulsating bazaars of Agra, the imperial spectacle of Delhi's parades, and the wild majesty of a hunt with trained cheetahs. He describes himself as the wide-eyed foreign wanderer, permitted by happy accident to infiltrate exotic worlds beyond his wildest dreams.

The final years of Bernier's life were devoted to publishing his trav-

els and cementing his legacy as one of the foremost chroniclers of Mughal India. Though Bernier is relatively unknown today, his writings were devoured by Europeans of his time, transporting armchair travellers into intoxicating worlds beyond their borders. More than just popular entertainment, Bernier's accounts shaped European ideas about the Orient. Scholars continue to mine his work for precious firsthand insights into the social, cultural and political life of the Mughal realm.

houses with pretty gardens. Bernier proceeds to extol Srinagar as emblematic of the valley's cultivated beauty, strewn as it was with lush orchards, paddy fields and quaint hamlets along the riverbanks. He admires aspects such as the king's Shalimar pleasure gardens with their tree-lined canals and fountains, the royal Takht-i-Sulaiman hill crowned with ancient Hindu and Muslim monuments, as well as the bustling timber houses and floating gardens on the iconic Dal Lake. Captivated by this 'enchanted scene,' he argues passionately

# The Unspoilt Kashmir

Bernier proceeds to extol Srinagar as emblematic of the valley's cultivated beauty, strewn as it was with lush orchards, paddy fields and quaint hamlets along the riverbanks. He admires aspects such as the king's Shalimar pleasure gardens with their tree-lined canals and fountains, the royal Takht-i-Sulaiman hill crowned with ancient Hindu and Muslim monuments, as well as the bustling timber houses and floating gardens on the iconic Dal Lake. Captivated by this 'enchanted scene,' he argues passionately that Kashmir merits its exalted sobriquet as the 'paradise of the Indies' and should rightfully hold Mughal sway over the neighbouring mountain kingdoms as far as Ceylon.

## #FRANÇOIS BERNIER 1620-1688

### The Caravan Moves On

Bernier's travelogue offers a vivid sense of the scale and extravagant pomp of the Mughal court, with frequent hunting parties and lavish displays of wealth contrasting with the ascetic lifestyles of their subjects. There are scenes of chaos and calamity, as when crossing swollen rivers on makeshift pontoon bridges: "numbers of camels, oxen, and horses were thrown down, and trodden underfoot, while blows were dealt about without intermission."

After eleven gruelling days under the baking summer sun, the terrain finally changes as the party approaches the entrance to the mountains of Kashmir near the town of Bhimbar. Bernier evokes both the sublime beauty and ever-present danger of the high mountains, describing, "a steep, black, and scorched mountain. We are encamped in the dry bed of a considerable torrent, upon pebbles and burning sands, a very furnace."

The advance sections of the party have gone ahead, while stragglers will follow to avoid



An 1864 photograph of Kashmir's famed Mughal Garden, the Shalimar.

congestion on the narrow cliff-side tracks. Goods and supplies have been sent ahead for months. Transport switches from camels to legions of human porters. Bernier notes astonishingly that 30,000 local porters have been enlisted, with the emperor personally requiring 6,000.

Bernier's wonder and curios-

ity permeate the letter, consciously risking his life to experience the allure of Kashmir firsthand: "What can induce a European to expose himself to such terrible heat, and to these harassing and perilous marches? It is too much curiosity, or rather it is a gross folly and inconceivable rashness." For Bernier, crossing

Through an extensive letter written to a friend after a three-month sojourn there, Bernier brings alive the beauty and abundance of this 'terrestrial paradise of the Indies,' explaining its unique geography, climate, flora, and fauna as well as extolling the industry and appearance of its inhabitants.

### Europe Here

After traversing the 'frightful wall of the world' that is the steep, imposing mountain pass of Bember, Bernier is struck by the dramatic change in climate as he essentially transitions from the Indies to Europe. He breathes cooler, fresher air and is surrounded by fir, oak and plane trees reminiscent of the forests of his native Auvergne rather than the tropical landscape left behind. This evocative personification of Kashmir as Europe transplanted continues as he elaborates on the valley's mild weather, fertile soil and the plethora of familiar flowers, fruits, and vegetables.

Central to his lavish portrayal is Kashmir's setting as an alpine valley cradled by the Himalayas, described poetically as 'mountains whose summits, at all times covered with snow, soar above the clouds and ordinary mist, and, like Mount Olympus, are constantly bright and serene.' He traces the origins of this valley lake according to legend, postulating more logically that it was formed by a sinking mountain and subterranean erosion rather than manually excavated by a saint. Crucially, it is now channelled by the outlets and canals into a peaceful river that winds through Kashmir's capital Srinagar, fringed by charming



Pather Masjid in the heart of Srinagar is the only living monument of Mughal architecture in Kashmir. KL Image: Bilal Bahadur

houses with pretty gardens. Bernier proceeds to extol Srinagar as emblematic of the valley's cultivated beauty, strewn as it was with lush orchards, paddy fields and quaint hamlets along the riverbanks. He admires aspects such as the king's Shalimar pleasure gardens with their tree-lined canals and fountains, the royal Takht-i-Sulaiman hill crowned with ancient Hindu and Muslim monuments, as well as the bustling timber houses and floating gardens on the iconic Dal Lake. Captivated by this 'enchanted scene,' he argues passionately

that Kashmir merits its exalted sobriquet as the 'paradise of the Indies' and should rightfully hold Mughal sway over the neighbouring mountain kingdoms as far as Ceylon.

Beyond panoramas, Bernier's account also spotlights the industrious character of Kashmir's inhabitants, especially commending their agricultural bounty. He notes approvingly their ingenious irrigation systems allowing cultivation even on the valley's hills and their prolific production of rice, saffron, fruits and vegetables.

However, he singles out the manufacturing of Pashmina wool and shahtoosh shawls as Kashmir's prime glory, which generates a vital trade. He describes different types of superior quality Kashmiri shawls, patterned and fringed, fashioned from the fine wool of native goats or imported from Ladakh and Tibet. Though competitive copying was attempted in Mughal capitals like Agra and Lahore, Bernier declares none could match Kashmir's artisanry, colour mastery or the secret locked in its waters.



This is the Poonch side of the breathtaking Mughal Road as captured from Pir Ki Gali. KL Image: Bilal Bahadur

### Adventures Of The Anthropological Kind

Another dimension emphasised is the distinctive appearance and wit of the Kashmiri populace. Bernier asserts they have fairer complexions and more European-style features than other Indians, with the striking beauty of even lower-class women. He playfully recounts his covert efforts to catch glimpses of the city's exquisite but cloistered ladies through tricks like distributing sweets via a learned guide. These intelligent, poetic people also earned his admiration for technological and literary skills seen in carved woodwork, eloquent poetry, and artistic talent comparable to Persians. Since intermarriage with beautiful Kashmiri women was coveted to preserve the 'white' Mughal lineage, Bernier cheekily argues Srinagar likely boasted ladies as lovely as any European belle.

He presents Kashmiris as honourable partners in trade and culture with admirable qualities meriting respect. Thereby, while undeniably an outsider, he creates an immersive eyewitness account that largely transcends stereotyping to recognise Kashmir's multidimensional reality on its terms.

Ultimately, through this lens of a traveller enraptured by Kashmir's beauty over three centuries ago, 21st-century readers gain insight into its enduring, if imperilled, magic. "Its (Kashmir's) physiognomy is perfectly Armenian, the men

being very fair, with reddish hair and blue eyes. I was amazed to see a tall, handsome, white lad enter the little temple I have described, dressed as a woman."

Bernier's perspective remains philosophically detached as he explores the land 'peopled in between lofty mountains' where 'opposite seasons are experienced within the same hour.' He climbs summits less for glorious vistas than to empirically deduce the cause of natural oddities, as with the intermittent sacred spring at Bawan. "Having made these observations, it occurred to me that this pretended wonder might be accounted for by the heat of the sun, combined with the peculiar situation and internal disposition of the mountain."

Likewise displaying only anthropological interest in the attention-seeking 'hermit' amidst Kashmir's Wular Lake, Bernier pointedly declines to 'fill up this letter by recounting the thousand absurd tales reported.'

Beyond busting supernatural myths, Bernier provides insight into the essence of Kashmir, the evocative vestiges of distant glorious eras contrasting with present decay and deprivation. "The wretched inhabitants of this charming country cluster, during summer, under wretched sheds of straw and sedges, enslaved and subjected to excess labour."

Spaces apart, Bernier records help readers scale Kashmir's passes and peaks and digress into Kashmir's mythic origins. He sifts through poetic legends surrounding the Verinag Springs to unearth traces of a queen who adorned sacred fish with golden rings. Quoting local tradition, he resurrects the memory of a paradisaical city drowned beneath the lake for its ruler's sins. Such nostalgic episodes, like glimpses of forgotten grottoes and secluded vales, amplify the sublime mystique permeating his chronicle.

Bernier recounts a story about a supposed miracle performed by some Muslim clerics involving a heavy stone. Bernier exposes this as a sham by detailing how he joined the group in trying to lift the stone and felt them secretly using more than just their fingertips. This episode establishes Bernier's scepticism regarding superstitious claims and miracles, a mindset he brings to his documentation of Kashmir. After departing the staged miracle, Bernier wanders the countryside, depicting sites like a spring whose ebullience purportedly increases with loud noises, though Bernier determines natural causes underlie its bubbling. He climbs mountains rife with flowers and glacial lakes, searching for a 'grotto full of wonderful congelation,' but recedes once summoned back by his awaiting party.

### Moses Is Mousa

The heart of the account examines possible Jewish ancestry. Prompted by inquiries from his friend, Bernier investigates claims of long-established Jewish communities possessing Old Testament texts. Though unable to validate such communities persisting, Bernier provides extensive evidence for prior Jewish presence.

He first notes the Jewish cast of features observed among frontier villagers. Corroborating this, he cites other Europeans struck by the same semblance. He also explains the prevalence of the name Mousa, meaning Moses, in the region's capital city. Ancient traditions holding that Solomon visited Kashmir and directed the construction of a throne structure offer further clues. Most compellingly, widespread belief holds that Moses himself died near the city, with his tomb located less than a league away.

While Bernier cannot definitively trace Kashmiri Jews back to Biblical times, he marshals considerable indications of early Jewish influx, with religious deviation occurring over prolonged ages of isolation. He suggests that conquest or conversion to Islam during Medieval periods may have assimilated remaining enclaves into the broader population. Nonetheless, he strongly disputes that no basis exists for supposing Jewish residence in the distant past, reinforced by the ethnocultural clues



A painting showing the British seeking forgiveness from Emperor Aurangzeb after the Child's War.

still evident among modern Kashmiris.

Bernier also recounts political turmoil in 'Little Tibet' (Baltistan) and its entanglement with competing Kashmir and Mughal interests. Intriguingly, he provides early European notice of polyandry customs whereby brothers jointly marry one wife. He further notes the prevalence of Shia Islam in Little Tibet, reflecting Persia's religious and cultural influence reaching across the inner Asian highlands. Bernier's travelogue, recounting his curious forays into the Kashmir of bygone eras, remains intellectually daring

and evocative centuries later. Masterfully contextualizing its traditions and hardships, splendour and contradictions, Bernier makes a spellbinding journey to 17th-century Kashmir, equally tantalising in the present. The seductive, elusive quality that so entrances him continues to entice and beguile today's readers, inviting them to immerse themselves in his vivid chronicle while kindling an imperative to rediscover the real Kashmir behind the exotic phantasm.

rajeshsharma1049@gmail.com

## THE WALL



## BABY BLUES



## ZITS



By Rick Kirkman & Jerry Scott

By Jerry Scott & Jim Borgman