

Genetic Fingerprint and Literary Genes in Naguib Mahfouz's Trilogy (Palace Walk, Palace of Desire, Sugar Street)

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Received: 02/04/2026 ; Accepted: 15/06/2026 ; Published: 28/08/2026

Abstract

This study examines Naguib Mahfouz's use of the concept of the genetic fingerprint as a narrative device in his Trilogy (Palace Walk, Palace of Desire, Sugar Street). Working at the intersection of literary criticism and the science of genetics, the study first establishes the linguistic and scientific definitions of the fingerprint and of heredity, then traces how Mahfouz distributes physical and psychological traits across three generations of the Abd al-Jawad family. The analysis shows that inheritance in the Trilogy operates on two levels: a biological level, evident in the recurrence of facial features, coloring, and build across fathers, sons, and grandsons; and a broader social, religious, and ideological level, evident in the transmission of temperament, piety, permissiveness, and inherited customs. The study argues that Mahfouz anticipated, in literary form, principles later confirmed by genetics — while also leaving room in his characters for environment, upbringing, and circumstance to reshape what heredity alone would predict. The Trilogy thus emerges as a narrative laboratory for the dialectic between genetic determinism and human freedom.

Keywords: Genetic fingerprint; heredity; Naguib Mahfouz; the Trilogy; literary genetics; character construction; Arabic novel

Introduction

Interdisciplinary studies aim to clarify the relationship between Arabic narrative and the other sciences, and the way the writer employs this scientific knowledge, revealing the extent to which the sciences are interconnected with one another and with literature — literature being the space that brings together all parties to the narrative process, as author, as reader, and as subject. Writing on this type of topic places a greater responsibility on the researcher, who must become acquainted with more than one specialization in order to uncover the points of convergence between these sciences or disciplines.

This study is concerned specifically with the relationship between the novel and the science of biology. Genes, in the science of genetics, are the foundation of human formation; they are fingerprints that belong to and distinguish one human being from another, and they revolve around two fundamental matters: physical traits related to a person's external form, such as skin, eye, and hair color and height — traits that also indicate a person's homeland and identity — in addition to psychological factors relating to the inheritance of temperament, behavior, attitudes, and judgments. All of these things are governed by what are called genes, which are responsible for transmitting traits among human beings, whether psychological or physical, and which constitute the element upon which humanity relies in determining a person's origin. This is something that Mahfouz's literature

does not overlook in choosing its characters and determining their form and temperament. Heredity does not stop at these two original dimensions of personality but extends to acquired dimensions that complete the idea of the genetic fingerprint — namely the social, religious, and ideological dimensions. The researcher thus stands questioning a number of issues regarding the concept of the genetic fingerprint: how did Naguib Mahfouz make use of this idea in his novels? Did the shaping of characters with heredity in mind proceed hand in hand with the moment of composition? Was he precise in portraying his characters according to their genetic sequence? And what procedures and mechanisms does the researcher use in order to arrive at answers to these questions?

Naguib Mahfouz's Trilogy (Palace Walk, Palace of Desire, Sugar Street) can answer these questions, which in turn gauges the extent of the Arab novelist's awareness of the cognitive and scientific dimension within the novel.

1. The Theoretical Framework of the Concept of the Genetic Fingerprint

1.1 The Common Concept and the Linguistic Definition of the Genetic Fingerprint

We begin by turning to the concept of the “fingerprint” as commonly understood by ordinary people, which refers directly to the fingerprint by which every human being is distinguished from another according to a set of factors, and which is meant, as one source puts it: “Your fingertips are covered with tiny ridges that leave behind complex patterns—fingerprints—when we touch objects. Fingerprints are unique to each person. Police can use the prints left behind at a crime scene to identify and convict criminals.”¹

What concerns us in this study is how a person benefits from the fingerprint in life. It is well known that the fingerprint is what distinguishes one person from another, to the point of becoming grounds for accusation or acquittal should suspicion fall upon a person.

The fingerprint (*basma*) has its own linguistic definition:

*“Al-Basma (the fingerprint) is derived from al-busm, which is: the space between the tip of the pinky finger and the tip of the ring finger. It is said: ‘I have not left you a span (shibr), nor a fitr (the span between the thumb and index finger), nor an ‘atabah, nor a ratabah, nor a busm.’ A man of thick ‘busm’ is called ‘Dhu Busm’ (possessing thick fingers).”*²

*“(Basama) = basman: he stamped/sealed with the tip of his finger ... (al-basmah): the impression or print left by the finger.”*³

The writer generally uses it as evidence of his characters' innocence or of their involvement in a crime, in which case their fate is imprisonment; he uses it as circumstantial evidence to expose the perpetrator of a crime or a suspect. In this, the writer has taken from the science of genetics an important element that allows him to continue his story realistically, presenting the evidence and proofs by which he escalates, curtails, or halts events altogether.

The writer did not stop at this type of fingerprint, which he uses in only one narrative form connected to drama, but went further, to another type of considerable importance in giving his story a more realistic character, whether consciously or unconsciously — namely what is known as the genetic fingerprint, a modern medical discovery that allows for a deeper examination of the human

¹Richard Walker, *Human Body: A Visual Encyclopedia* (New York: DK Publishing, 2012), 16.

²Ibn Manzur, *Lisan al-‘Arab*, vol. 1 (Beirut: Dar Sader, n.d.), s.v. “b-s-m,” 29.

³Ahmed Hassan al-Zayyat et al., *Al-Mu’jam al-Wasit*, vol. 1, 3rd ed. (Cairo: Academy of the Arabic Language, 2005), 61–62.

body and a more precise determination of an individual's characteristics through some part of the body, such as hair, blood, or skin flakes, and so on. It can be used to determine lineage or the type of kinship. Here scientists define the meaning of kinship on the basis that, among the Arabs, lineage (nasab) traces back to the father, and the son belongs to his father, for:

“Lineage (al-nasab) and relation (al-nisbah) denote sharing a connection from the side of one of the parents. This is of two kinds: longitudinal lineage (nasab bi-al-tūl), such as the shared connection between parents and children, and latitudinal relation (nasab bi-al-‘ard), such as the relationship between the children of siblings and the children of uncles. Allah the Almighty says: ‘And He it is Who has created man from water, then He has established for him lineage (nasaban) and marriage (ṣihran)’ [al-Furqan: 54]. And it is said: ‘So-and-so is the nasīb of so-and-so,’ meaning his relative. Nisbah (relation/ratio) is also used between two homogeneous quantities that share some similarity, where each is specifically associated with the other. From this derives al-nasīb, which is the attribution in poetry to a woman by mentioning love (amorous verse); it is said: ‘the poet wrote love poetry (nasaba) about the woman, nasaban and nasīban.’”¹

“Al-nasab (with fathah on both consonants) and al-nisbah (with kasrah or dammah) mean: kinship, or specifically in relation to fathers (ancestors). Istansaba means: he mentioned his lineage. Al-nasīb means: the suitable (compatible), and the one possessing lineage, just like al-mansūb. Nasabahu (present: yansubuhu and yansibuhu, verbal noun: nasaban [vowelled] and nisbatan [with kasrah]) means: he mentioned his lineage, or asked him to trace his lineage.”²

Relying on this definition for this particular subject would make determining lineage through the genetic fingerprint imprecise, since the former depends on custom while the latter depends on genes. No novel is without some determination of the kinship relations between its characters, and what this study focuses on more closely is the search for the elements the writer relied upon in choosing his characters and determining their lineages and the type of kinship between them, and uncovering the places in which the writer gave genetics a share in determining the type of kinship between his characters. Among these are cases requiring a medical procedure to establish a character's lineage to their family, where events and situations vary — some relating, for example, to a lost or kidnapped child, a traffic accident, and so on.

1.2 Biology and Genetics: Definition and Scientific Procedures

The first thing that must be defined is the science of biology, a term composed of two Greek words: bio, meaning life, and logos, meaning study. This science is concerned with studying the structure of living organisms, their environment, their functions, their stages of growth, how they develop, and so on. It aims to understand how living organisms function and how they interact with their environment and with one another. Several fields fall under this science, each of which branches into further sciences; what this study focuses on specifically is genetics, the science that studies heredity in living organisms. It studies genetic structure and the transmission of hereditary traits from one generation to another, in addition to studies relating to genes, chromosomes, genetic regulation, and genetic

¹ Al-Raghib al-Asfahani, *Al-Mufradat fi Gharib al-Qur'an*, vol. 1, 1st ed. (Damascus/Beirut: Dar al-Qalam / Al-Dar al-Shamiyya, 1991), 633.

² Al-Fayruzabadi, *Al-Qamus al-Muhit*, ed. Muhammad Na'im al-Arqasusi, vol. 1, 8th ed. (Beirut: Al-Risala Foundation, 2005), 137.

changes such as mutations and genetic variation. What genetics focuses on specifically is the effect of heredity on the various biological phenomena found in living organisms,

*“Interest in genetics began in Darwin's era at the hands of Sir Francis Galton (1822–1911). He was a meteorologist, anthropologist, and geneticist, who founded eugenics and was the first to suggest utilizing fingerprints to search for criminals. After his death, genetics remained stagnant until the Austrian monk Gregor Mendel (1822–1884) appeared, whose research had the greatest impact on the history of genetics. After suffering from depression, Mendel neglected this science, but after his death, in 1900, scientists rediscovered his work, which proved the permeation of heredity in all types of plants. Scientists discovered that the transmission of distinctive traits from parents to offspring occurs through complex processes beginning with germ cells, supplying the egg and sperm with a set of genes or hereditary units that ultimately make the newborn resemble its parents — generally speaking, with differences arising from various factors, most notably the surrounding environment.”*¹

These medical procedures, by which medicine determines a character's lineage, consist of a set of medical analyses aimed at reaching the nucleus of the human cell, and specifically the chromosomes, which are made up of genetic material, denoted by genes. Each chromosome contains a large number of genes — numbering in the thousands — which have different functions, including controlling personal traits that differ from one individual to another. Every human being has a genome that belongs to them alone, to the extent that even twins differ from one another. The story of DNA goes back to:

*“In 1869, a Swiss physician named Johann Friedrich Miescher was studying white blood cells extracted from pus-filled bandages. He succeeded in isolating these cells, and when he analyzed the chemical substances in the nuclei, he discovered a new substance he called nuclein. This chemical was later named deoxyribonucleic acid, or DNA for short. ... In 1944, the Canadian-born scientist Oswald Avery proved that DNA, and not proteins, transmits genetic instructions to cells. ... DNA consists of two long strands wrapped around each other. This helical shape is called the double helix.”*²

It is part of the genome sequence that carries unique hereditary information about a person, distinguishing them from others and determining their hereditary traits. The process of analyzing the genetic fingerprint is carried out using various techniques, such as the analysis of deoxyribonucleic acid (DNA) and ribonucleic acids (RNA), which are responsible for transmitting information.

The genetic fingerprint is used in a number of fields, such as forensic medicine — for example, in identifying suspects and victims — and is also used in forensic science to determine hereditary lineage and an individual's genetic characteristics, as well as in scientific research to determine genetic relationships between individuals and different diseases.

Thanks to technological development, it has become possible to use the genetic fingerprint in other fields as well, such as personalized medicine, the early diagnosis of various diseases, and determining the appropriate treatment based on an individual's hereditary traits, particularly when a patient does

¹Steve Jones and Borin Van Loon, *Introducing Genetics: A Graphic Guide* (Cambridge: Icon Books, 2011), 5–6.

²Richard Walker, *Genes and DNA* (London: Kingfisher, 2003), 26–27.

not respond to conventional medication. Physicians sometimes rely on it to predict the type of illness a patient may develop before it occurs.

2.Genetic Genes and Their Manifestations in Naguib Mahfouz's Trilogy

It seems clear that what makes the author more preoccupied with these fine details is his acquaintance with other sciences in the service of his creative ideas. It would not be fair for the author to determine the fate of the accused without recourse to criminal law, which enables him to reveal the accused's involvement in, or innocence of, the charge brought against him, through a set of procedures such as medical examination and blood analysis, which reveal the accused's connection to the crime — particularly when the writer aims to give the events of his novel a realistic character.

Naguib Mahfouz's Trilogy was included in the list of the hundred best Arabic novels in the history of Arabic literature, comprising *Palace Walk* (1956), *Palace of Desire* (1957), and *Sugar Street* (1957).¹ The events of the Trilogy revolve around several generations across the first half of the twentieth century. The Trilogy is concerned with subjects relating to the human psyche and its temperaments, and it abounds with diverse character types and fine details that can be traced through particular situations in the novel, through the characters' actions, and through oppositional pairings between good and evil, love and hatred, mercy and cruelty. In some respects the author focuses on the external form of the characters as required by the narrative and by what the reader expects, without stating it explicitly, so that the image of the characters takes shape in the reader's mind; he imagines the events of the novel fully formed, as though they were scenes he sees before him, the way one watches films and series on television and in the cinema, or as they occur in reality.

2.1 Features of the Genetic Fingerprint in Palace Walk²

Its events take place shortly before the 1919 Revolution in Egypt, specifically on Bayn al-Qasrayn Street, in the al-Gamaliyya quarter of the al-Husayn district of Cairo. Al-Sayyid Ahmad Abd al-Jawad is the most important character in the novel — a wealthy merchant, the head of the household and the one responsible for it, who exercises full authority over it. His family consists of a wife and children: Yasin, Fahmy, Kamal, Khadija, and Aisha.

Abd al-Jawad's character represents the ruling patriarchal figure, combining strict religiosity at home with corruption outside it: as soon as he enters the house he puts on the garb of piety, faith, and dignity. Opposite him in the novel stands his son Fahmy, who was martyred for his homeland in the 1919 Revolution — a sign that he inherited from his father's good genes those that carry goodness, faith, purity, and love of country. This type of character enjoys acceptance in society and an approbation that raises it to a lofty standing.

A face stripped of all these qualities is the one he shows to his peers in bars and nightclubs, and his son Yasin inherited these bad genes. The paradox is that Abd al-Jawad does not see this as

¹The Trilogy topped a poll of the hundred best Arabic novels of the twentieth century, conducted among the members of the Egyptian Writers' Union under the chairmanship of the poet Farouk Shousha; as reported in the Cairo cultural weekly *Akhbar al-Adab*, 13 January 2000, the poll placed novels by Naguib Mahfouz, Yahya Haqqi, Abd al-Rahman al-Sharqawi, Fathi Ghanim, and Yusuf Idris at the top, among them the Trilogy, *Qindil Umm Hashim*, *al-Ard*, *al-Afyal*, *al-Haram*, *Du'a' al-Karawan*, and *Shay' min al-Khawf*; Egyptian novels accounted for more than 50 percent of the hundred selected, with 56 titles chosen. See

<http://cedej.bibalex.org/DocumentFrm.aspx?documentID=707506&lang=ar>.

²Naguib Mahfouz, *Palace Walk*, trans. William Maynard Hutchins and Olive E. Kenny (New York: Anchor Books, 1990).

contradicting his faith and beliefs; he lives a normal life, marries off his son Yasin, and marries his daughter Aisha to the son of their neighbor, who is of Turkish origin.

The author's concern with genetic inheritance is confirmed through these combinations in the temperaments of his characters and the manner in which he distributes them. These shared temperaments between the father and specifically these two sons are meant to enrich the literary field with the science of genetics, which he draws upon in shaping his characters and through which he is able to control the nature of the generations in terms of form and temperament — testimony that the father's genes run in his sons' blood. This split that the father, Abd al-Jawad, lives is a trait embedded in him, present in his genetic makeup, and passed on to his sons without any planning on his part, lending the events of the novel greater realism.

2.2 Features of the Genetic Fingerprint in Palace of Desire¹

This is a continuation of *Palace Walk*, in which the author follows the fates of the characters and what they pass on in genes to their children with great skill. The chain does not stop at father-to-son transmission but extends from grandfather to grandchildren and to their grandchildren's children; between each generation and the next there is an intermediary.

After Fahmy's martyrdom and the outbreak of the 1919 Revolution, the son Kamal grows up and prepares to enter university, refusing to study law and preferring instead to study at the Teachers' College — philosophy, the sciences, and literature. What draws attention, and might be posed as a question, is whether his refusal of one specialization and his preference for another is related to inherited temperament and inclinations.

In this novel the author focuses on Ahmad Abd al-Jawad's two daughters, Khadija and Aisha, who move to Qasr al-Shawq, a street in the al-Gamaliyya district that had been a palace in earlier eras. Yasin also moves to a house he inherited from his mother in Qasr al-Shawq and marries for a second time — this time to his father's former mistress! It is clear that the son's choice of the very same woman his father had chosen is closely connected to the genetic inheritance that governs a person's inclinations, a point Naguib Mahfouz emphasizes; it seems evident that he deliberately made the sons' inclinations match those of their fathers, whether male or female.

2.3 Features of the Genetic Fingerprint in Sugar Street²

Aisha's husband and children die of typhoid fever, and she grieves for them deeply, living on only for her daughter Na'ima. Khadija, meanwhile, lives a happy life with her two sons, Abd al-Mun'im and Ahmad.

Heredity extends beyond the first generation to the second, which appears in this novel: the face of the grandfather, Ahmad Abd al-Jawad, is repeated separately in his two grandsons, just as it was earlier repeated in the faces of his two sons, Yasin and Fahmy.

The first face appears in his grandson Abd al-Mun'im, who joins the Muslim Brotherhood, seeing in it a model of piety, faith, and dignity after repenting of his sin — this too being a duplication of faces, a trait inherited from his grandfather.

The second face is represented in his grandson Ahmad, who abandons prayer, distances himself from religion, and joins the Communist Party.

¹Naguib Mahfouz, *Palace of Desire*, trans. William Maynard Hutchins, Lorne M. Kenny, and Olive E. Kenny (New York: Anchor Books, 1990).

²Naguib Mahfouz, *Sugar Street*, trans. William Maynard Hutchins and Angele Botros Samaan (New York: Anchor Books, 1993).

3. Genetic Influences on the Characters' Fates

Naguib Mahfouz portrays the husband returning from his long night out, composed despite having drunk to the point of intoxication; yet his desire to preserve an appearance of dignity at home makes him delay his return until he regains his senses. Through this behavior he changes his wife's view of drunkards, to the point that she comes to see her husband as being at his best after returning from his night out,

*"In time, experience had revealed that on his return from his partying he was more gentle than on any other occasion and not so stern. His look was more tender and he was much more talkative. She grew to enjoy his company and stopped worrying, although she never forgot to implore God to forgive his sin and grant him repentance. How often she wished he would be that good humored when he was sober and in his right mind. She was thoroughly amazed that this sin made him more amiable. She was torn for a long time between her hatred for it, based on her religious training, and the comfort and peace she gained from it. She buried her thoughts deep inside her, however, and concealed them as though unable even to admit them to herself."*¹

Opposite this, the husband harbors hidden feelings, concealing his true self behind a pretense of dignity in order to preserve his prestige and standing in his household — the very same temperament that his son Yasin inherited from him,

"Her husband spared no effort to safeguard his dignity and authority. His moments of tenderness were fleeting and accidental. As he sat there, a broad smile might appear on his lips at a memory that cropped up from his happy evening. At once he would get control of himself and press his lips together while stealing a glance at his wife. He would find her as usual, in front of him, with her eyes lowered. Reassured, he would return to his memories and his heart that cherished them as though from an unquenchable thirst for the pleasures of life."

²

His night out does not end upon his return; he continues to think about what happened during it.

The following dialogue confirms the prevailing mentality in Arab society, namely that a son must be a copy of his father and inherit his temperament. The shaykh says, addressing al-Sayyid Abd al-Jawad:

*"Your father, may God have mercy on him, was crazy about women. He married twenty times. Why don't you follow his path and shun the sinner's?" The proprietor laughed out loud. He asked, "Are you one of God's saints or a nuptial official? My father was almost sterile; so he married many times. Even though I was his only child, his property was split between me and four wives who survived him, not to mention what was wasted on legal expenses during his lifetime. Now I'm the father of three males and two females. It wouldn't be proper for me to slip into more marriages and have to divide the wealth that God has bestowed on us."*³

Al-Sayyid Abd al-Jawad's reply points to Mahfouz's concern with details that society sometimes overlooks; he gives generations room to think for and by themselves, to renew themselves, and not

¹Mahfouz, Palace Walk, 32.

²Ibid., 33.

³Ibid., chap. 4, 118–119.

to treat their parents' customs as an inviolable covenant they must inherit in full — they may decide what to keep in the course of their lives and what to relinquish, which is the very same system by which genetic interaction operates, retaining some traits and passing over others.

The transmission of certain habits or dispositions, such as attachment to religion, exists within the genes: the grandfather, who was an Azhari shaykh, had genes that extended to his grandson, who was keen on and fond of what he studied about religion in class, and would always repeat it to his mother,

*“In addition to his enthusiasm for religious studies, he knew he was not just learning it for himself alone. He would have to repeat what he had grasped to his mother at home, as he had been doing since he was in Qur'anic kindergarten.”*¹

There is also the cross-fertilization of temperaments that produces new characters, as when Yasin — known for his bad temperament — marries Zanuba,

*“Amina had once said of her, ‘No doubt her origin is good — perhaps her distant origin, but let it be: she's a decent girl.’”*²

In another example, hereditary traits appear passed from a mother to her daughter, as the trait of beauty passes from Zanuba, Yasin's wife, to her daughter Karima, in this narrative passage:

*“But how beautiful Karima is! She has surpassed her mother in her day, and yet she has not even passed her fourteenth year. And Na'ima, wasn't she a marvel of beauty?”*³

Further details relating to hereditary traits appear in this narrative passage, which suggests the author's deep interest in genetics in his own way, as in his mention of these fine details about the temperaments of certain characters — such as Yasin, who is alarmed to see a white hair on his head at the age of forty, and speaks of his father, who did not pass on to him the slowness of going grey:

*“When my father turned fifty, he didn't have a single white hair. What am I compared to my father?”*⁴

This concern with grey hair betrays a trait that predominates in Yasin, in which he competes with his father — namely, preserving his looks so as to attract women's attention.

In another narrative passage the author affirms that these temperaments pass across generations, as the father's temperament passes to his son Yasin:

*“Yasin said with disdain and boastfulness, ‘We are a people created for this. Thus is my father, and thus was my grandfather before him.’ He repeated this statement during this evening session, so the lawyer asked jokingly, ‘And your mother? Was she like that too?’”*⁵

And Kamal's temperament appears through the words of Muhammad Iffat, mockingly:

*“The truth is that Kamal's appearance is deceptive — grave, quiet, and puritanical, a schoolteacher in every sense of the word.” ... ‘The important thing is whether he's a playboy like his father? I mean, does he know how to handle women and win them over?’ ... ‘As for that, I don't think so.’”*⁶

¹Ibid., 134.

²Mahfouz, Sugar Street, 209.

³Ibid., 209.

⁴Ibid., 9.

⁵Ibid., 32.

⁶Ibid., 56.

The extension of the genetic fingerprint to the family is seen even in the inheritance of temperament within it; Khadija says:

*"How true is the saying: 'A boy resembles his maternal uncle.'"*¹

This was said when her son wanted to marry a girl who worked with him and she objected; her half-brother Yasin supported him, arguing that he was Muslim and could divorce her if he did not like her — a reference to the idea that temperaments are stored in a person's genes just as physical traits are, something the Trilogy confirms through its cohesive interweaving of ideas and physical and psychological traits.

Generally speaking, character is a composition of varied dimensions — physical, psychological, social, and ideological — and everything that issues from it in the form of words and behavior, such as its actions and its interaction with others, and what distinguishes it in qualities such as justice, integrity, courage, and tenderness, and what it carries within it of feelings and emotions that respond to the events and experiences it undergoes, such as joy, sorrow, anger, fear, and so on. Values, principles, beliefs, and self-conceptions form an essential part of its identity, including the ideas it holds toward itself and toward the worlds surrounding it. A character is also distinguished by skills and abilities such as leadership, problem-solving, building social relationships, and analyzing and interpreting the phenomena around it.

The author uses description to reveal genetic inheritance through genetic interaction and inherited traits, which can be detected in the characters. This means that the study gathers everything mentioned above under two basic elements, through which the researcher uncovers fine details revealing the characters' relationships to one another and the relationships between generations. These are:

Genes relate directly to the characters; they are the element through which the researcher can uncover the details of successive generations. Character is formed along two dimensions: a physical dimension relating to the character's external form, such as stature, hair, the shape and color of the eyes, and the physical illnesses that afflict it; and a spiritual dimension relating to its inclinations, expressions, habits, traditions, religious, philosophical, and ideological beliefs, its relationships, and the psychological and spiritual illnesses that afflict it, and so on.

Faced with these details, a number of questions arise regarding the author's adherence to the laws of genetic inheritance, and whether he was logical in distributing these traits among his characters, or whether he assigned traits of beauty to the characters he sympathizes with and traits of ugliness to those he opposes.

Naguib Mahfouz draws his characters in the Trilogy according to standards and dimensions that he chooses and determines for each character according to the role it plays, with remarkable precision, positioning his lens at the angle that reveals their details, so that the reader sees them as Naguib Mahfouz wants them to be seen — a clear effort by which the author aims to lead the reader toward a particular goal that serves his idea. After every description of a character comes an event that explains the reason behind that description; sometimes the description is precise, delivered through the omniscient narrator's voice, deliberately laying bare the character's past. The author often begins by describing his characters as they first appear, so as to draw the reader directly into a stage of imagination, pulling him into the story and guiding him comfortably toward imagining the character through the description of its form, features, and age.

¹Ibid., 73.

Naguib Mahfouz brings his lens close to his characters in *Palace Walk*, relying on precise description to reveal all their details. In this narrative passage, in which the woman's features appear in the mirror at a sensitive hour of the night, he reveals a great many details in order to deepen the reader's understanding of her character and psychological state, forming a mental image of her, and reflecting — through this woman's concern with a simple detail such as arranging the kerchief on her head — the author's own concern with such details, so as to reveal the general concern of Arab women with their appearance before their husbands. This passage appears to be a preparation for the rest of the events, a readying for them through checking her appearance in the mirror; moving the kerchief carefully and slowly is a psychological preparation for receiving her husband, and the author's concern with these details is a prelude to revealing the kinship relations between her and the rest of the characters, and even to linking the points of resemblance between them. The dreamy look reflects a deep, contemplative gaze, and the beauty mark is a symbol of this woman's beauty, distinction, and allure,

*“The woman headed for the mirror to look at herself. She noted [that her brown scarf had shrunk and slipped back and that chestnut] hair had crept down over her forehead. Grasping the knot with her fingers, she untied it. She smoothed the scarf around her hair and retied the two ends slowly and carefully. ... In her forties and of medium build, she looked slender, although her body's soft skin was filled out to its narrow limits in a charmingly harmonious and symmetrical way. Her face was oblong, with a high forehead and delicate features. She had beautiful, small eyes with a sweet dreamy look. Her nose was petite and thin, flaring out a little at the nostrils. Beneath her tender lips, a tapered chin descended. The pure, fair skin of her cheek revealed a beauty spot of intensely pure black.”*¹

Although the narrator does not explain why this woman is grooming herself in the middle of the night, this behavior is well known in Arab society and is practiced only by a married woman whose husband is late in coming home. Within this narrative scene the reader learns of the character's physical features, and hereditary traits appear clearly and in detail in the woman's appearance — from her hair and face to her physical build and skin. The author focuses on her so as to reveal these traits later in her daughters; these descriptions are linked to genetics, such as the chestnut color of her hair, the dreamy honey color of her eyes, her soft, plump yet slender build, the wheat color and clarity of her skin, her oblong face, high forehead, delicate features, and the black beauty mark distinguishing her cheek — all hereditary traits transmitted through the genes.

In another descriptive scene the author blends the traits and temperaments of the husband and father, Abd al-Jawad,

“He looked tall and broad-shouldered standing there. He had a massive body with a large, firm belly, covered smartly and comfortably by a cloak and a caftan that showed both his good taste and his wealth. His spread of neatly combed and parted black hair, his ring with its large diamond, and his gold watch only served to emphasize his refinement and affluence. His long face was expressive, with firm skin and clean-cut features. Taken as a whole, it revealed his strong personality and good looks. He had wide, blue eyes and a large, proud nose which,

¹Mahfouz, *Palace Walk*, 51.

despite its size, was well proportioned for the expanse of his face. His lips were full and the ends of his thick, black mustache were twisted with extraordinary care."¹

This scene describes the man's appearance precisely and in detail, pointing to hereditary traits determined by genes that pass from generation to generation through DNA. These hereditary traits are the result of a complex interaction between multiple genes, some coming from the mother and others from the father, producing a unique appearance for each individual — as when a person inherits height from one parent and eye color from the other, showing the effect of different genes in determining an individual's final appearance. His tall stature, broad shoulders, black hair, blue eyes, oblong face, large aquiline nose, and wide mouth point to hereditary factors affecting physical growth and development, and reveal a lineage of varied and distinctive details in which European beauty — represented by the colored eyes — mixes with Arab beauty — represented by the strong physical build. Had this lineage been subjected to research, it might perhaps have revealed mixed lineages dating back to the earliest wars. It is well known that old genes may not appear in the first generations but remain stored, appearing again after several generations.

The author's care in describing this couple is a narrative preparation for revealing their children's features, which come one after another in narrative scenes, confirming the idea of the inheritance of a character's external form. It is clear that Naguib Mahfouz is concerned with the hereditary genes that children inherit from their parents, so as to give an impression of realism in his novels.

Hereditary genes carrying physical traits pass across generations, and the following narrative scene clearly shows Naguib Mahfouz's precision in maintaining the family's genetic sequence across successive generations, through the character of Aisha, who took her beautiful traits from two successive generations — the first generation represented by her paternal grandmother, and traits from the second generation, her parents:

*"Aisha was in her prime at sixteen. She was the very picture of beauty. She was of slender build and figure, but in her family circle this was considered a defect to be remedied by the ministrations of Umm Hanafi. Her face was as beautiful as the moon. She had a white complexion suffused with rosy highlights and her father's blue eyes, which went well with her mother's small nose. Unlike all the others, she had golden hair, inherited from her paternal grandmother, thanks to the laws of genetics. It was natural that Khadija should grasp the differences between her and her sister."*²

Aisha's physical features appear in detail, showing how some of her physical traits were inherited from members of her family, and how these traits pass across generations in a complex manner involving the interaction of multiple genes. She is distinguished by a slender, graceful build, a white complexion suffused with rosy highlights, blue eyes inherited from her father, a small nose inherited from her mother, and golden hair inherited from her paternal grandmother. These beautiful physical traits of Aisha's are the result of a complex interaction between genes inherited from her father, her mother, and previous generations, which is what the law of heredity — what is called genetic interaction — explains.

Nor does the author overlook the idea of hereditary transmission across generations, represented in the transmission of the grandmother's hair trait to her granddaughter; the genetic differences are

¹Ibid., 15.

²Ibid., 48.

also clear through the genetic diversity that appears in the description of Khadija and her awareness of the differences between her and her sister Aisha, which reflects the genetic diversity within a single family. Chance sometimes plays a part in the distribution of inheritance within the body, as happened with Aisha, who inherited all the good genes and beautiful traits from her family, while Khadija took the unattractive traits from her parents — something Naguib Mahfouz alludes to cautiously:

*“Khadija was twenty and the eldest, except for Yasin, her half brother, who had nearly reached his twenty-first year. She was strong and plump, thanks to Umm Hanafi, although a trifle short. Her face had acquired its features from her parents but in a combination lacking in harmony or charm. She had inherited her mother's small, beautiful eyes and her father's huge nose, or a smaller version of it, although not small enough to be excused. While this nose on her father's face, where it fit, lent his face a noticeable majesty, it added nothing to the girl's looks.”*¹

Kamal received the same share that Khadija received from his parents' genes; however, these traits do not affect the two sexes in the same way, since each has a different role in life, and Arab society has its own say in this matter: a man is judged by nothing but his pocket, which is his capital, enhancing his standing and giving him value within his community, while for Khadija, a woman whose capital is beauty, what she inherited in genes will inevitably reduce her chances of a suitable marriage and even her value within Arab society. Nor was Kamal:

*“He was not good-looking like his brothers. He was perhaps the one in the family who most resembled his sister Khadija. Like hers, his face combined his mother's small eyes and his father's huge nose, but without the refinements of Khadija's. He had a large head with a forehead that protruded noticeably, making his eyes seem even more sunken than they actually were. Unfortunately, he had first realized how strange he looked when a schoolmate teased him and called him a two-headed boy. Kamal had been enraged, and his anger had gotten him into one of his two fights. Even after he taught the boy a lesson, he was still upset and complained of his unhappiness to his mother. She was upset because he was. She tried to console him, telling him that people with large heads had large brains and that the Prophet (peace upon him) had a large head. To resemble the Prophet was the ultimate that anyone could aspire to.”*²

This passage describes Khadija's and Kamal's shared appearance and the physical traits they inherited from their parents. The two siblings inherited their mother's small eyes and their father's large, prominent nose, though its placement on Khadija's face was more refined than on Kamal's; still, it appears out of proportion with her face compared to her father's. Kamal's large head made him an object of mockery, and his mother could find nothing to console him with except to convince him that people with large heads have large minds, and that the Prophet had a large head — a remark by the author intended to soften the pain of certain characters whom genetics places, against their will, in a position of mockery, exposing them to bullying and abuse over matters in which they had no hand. The mother's intervention expresses her attempt to bear part of the responsibility for this appearance, as the one who passed it on through her own genes or those of her husband or their two families.

¹Ibid., 48.

²Ibid., 104.

The author follows the word “nose” with “huge” in two different places so as to convey two different qualities: the first is size, which was unsuitable for Khadija as a girl and made her unattractive; the second is loftiness and stature, which suits the father as a man. This noticeable difference in the transmission of hereditary traits gives a degree of genetic diversity within the family.

The passage also points to Umm Hanafi's role in influencing Khadija's plump physique, meaning that some traits may be acquired over time and affect the inherited hereditary traits that distinguish one lineage from another, such as thinness, for example, or excessive weight.

Yasin's features appear in more than one narrative passage, and each time his father's genes show through,

*“He looked, with his massive body in a loose house shirt, like an enormous water skin. Yet, by the standards of the time, his girth did not detract from the good looks of his full brown face with its seductive black eyes, joined eyebrows, and sensuous lips.”*¹

Many of the traits Yasin inherited from his father appear in him — his strong physical build, his facial features, his brown skin color, his black eyes, and his joined eyebrows. The author wants to give the reader the impression that these features are a prelude to his temperament, which he sums up in describing Yasin's lips as sensuous, thereby indicating indirectly that these traits inherited from his father also carry his inclinations, summed up in his love of staying out late. In another passage, traits appear that make him more closely resemble his father, Abd al-Jawad:

*“With his large body, sprouting mustache, and mature masculinity he seemed much older than he was.”*²

Traits are usually affected by the genes responsible for fat distribution in the body, muscle build, and other features, and all of these work together to shape Yasin's facial features in a way that approaches his father's traits. It is these same hereditary genes that led Yasin to meet his father in the very same place in order to commit the very same indecency, and despite their pious appearance before people, the true face of each of them reveals temperament to be an inheritance, as appears in Yasin's comment on his father,

*“Imagine this dignified gentleman flirting with the sultana, drinking wine, and swaying to the music”*³

Yasin was with Zanuba when he discovered that his father was with Zubayda in the nearby room; he took comfort in his likeness to his father, as though giving himself justification for committing the same indecency, reasoning without stating it openly that his dignified father was no better than he was, nor was he himself any less than his father,

*“Who could this man be? His father? ... Al-Sayyid Ahmad Abd al-Jawad? That stern, tyrannical, terrifying, God-fearing, reserved man who kills everyone around him with fright?”*⁴

The author adds exclamation marks so as to intensify the effect of the father's situation on Yasin, as though supporting him in this predicament — indicating that Naguib Mahfouz was deliberate and relied on genetics in choosing his characters' features, which is evident in his precise, sequential choice of particular traits.

¹Ibid., 112.

²Ibid., 124.

³Ibid., 288.

⁴Ibid., 288.

Naguib Mahfouz tries to make his characters real even in highlighting their hereditary genes, as if confirming this resemblance to convince the reader of the blood tie between them. These features appear either by chance or through an outside perspective that reveals this kinship through external form, and sometimes these features are voiced by admiring or resentful characters; the courtesan Zubayda has her own view of Kamal:

"You are the son of Abd al-Jawad, son of my dear companion, but you resemble him.

*This is indeed his nose, but he was like the full moon on a clear night."*¹

The following narrative scene portrays the genetic fingerprint through external form, as Kamal finds himself in the same position when he sees a girl and links her features to Aida, the wealthy woman,

*"At first, it seemed to him that he was looking at Aida — the shape of the face, the stature, the spirit, and the look of the eyes. Indeed, he had never seen those eyes in any face other than Aida's. Could she be her sister? The other's hair was cut à la garçonnette, but this hair was thick and braided, though the black color was undoubtedly the same in both cases ... He noticed that her skin was wheat-colored with a tendency toward white, not dark like the departed image ... Those dark, sleepy eyes, the joined eyebrows, the straight, delicate nose, and the full face — it was as though he were looking at Aida. Really? No, there was a difference in skin tone, a touch of variation here or there."*²

After meeting and speaking with her, he confirmed that she was Aida's sister. In Sugar Street, Aida's features, which resemble those of her sister Budur, whom Kamal meets there, appear:

*"Your dark, sleepy eyes, your joined eyebrows, your straight, delicate nose, your radiant, dark face, your long neck, and your slender stature."*³

Although the genetic fingerprint cannot be reached except through analysis, what indicates it can be discovered or seen with the naked eye, requiring a kind of alertness, intelligence, precise observation, and perception in order to reveal the blood relationship between characters.

Women face a set of factors, particularly in Arab societies, bearing responsibility for service within the home — inherited customs and traditions that women adhere to whatever their social standing, often affecting their bodies and psyches. Naguib Mahfouz addresses this aspect in more than one place in his Trilogy, offering a faithful account of it so as to reveal the nature of Arab women's lives within the home, without distorting or embellishing their role, entering into their feelings and giving them the opportunity to express themselves through their words, movements, and gestures — beginning with Abd al-Jawad's wife, who exerts effort to satisfy his wishes at the expense of herself and her own comfort,

*"She sat up in bed resolutely to overcome the temptation posed by sleep. After invoking the name of God, she slipped out from under the covers and onto the floor."*⁴

These efforts fall within social convention, to the point of becoming a law that a woman must live by under all circumstances. This narrative passage reveals the pattern of life led by Abd al-Jawad's wife:

¹Mahfouz, Sugar Street, 114.

²Ibid., 175.

³Mahfouz, Palace of Desire, 216.

⁴Mahfouz, Palace Walk, 4.

*"Habit woke her at this hour. It was an old habit she had developed when young and it had stayed with her as she matured. She had learned it along with the other rules of married life. She woke up at midnight to await her husband's return from his evening's entertainment. Then she would serve him until he went to sleep."*¹

Every society has a cultural fingerprint that distinguishes it from other societies, and customs and traditions are one of the components of this fingerprint, forming a difference in the behavior and conduct of the members of one society as against others. The near-sacred care and attention given to the husband is one of the marital obligations and one of the kinds of care inherited among Arab wives, particularly those living in closed environments — conduct and roles that reflect meaningful traditions and values influencing the shaping of certain cultures and determining the roles of their members within married life, something determined by the culture and history of the society and the transformations it undergoes over time,

*"She had been a young girl under fourteen when she married, and following the deaths of her husband's parents, she soon found herself the mistress of the big house."*²

A confrontation that society does not perceive, or overlooks, is that a girl at such an age faces great challenges even if she remains in her father's house, and the challenge only grows the further she moves away from it. On one hand, she faces a responsibility placed upon her at an age when she should still be under the care of her parents and family; on the other, she enters the world of marriage, whose details exceed her understanding. Like any young child, she needs enough sleep to grow and special care suited to her age; simply rising from bed is a great challenge requiring motivation, strength, and will. Beyond all this, the marriage of a child bride in Arab society is a custom inherited across generations and constitutes a fingerprint distinguishing it from the rest of the world's societies, which criminalize the marriage of young children, consider it a violation of children's rights, and have enacted clear laws prohibiting it — for marriage rests on an awareness of its meaning and necessity in life, and on the consent of both parties with full awareness of the scale of its responsibility and their willingness to bear its consequences in every circumstance.

The author speaks of the inherited social customs of conservative Arab society in more than one scene, appearing in the behavior of certain characters, such as:

*"When the officer neared the house, he raised his eyes cautiously but not his head, for in Egypt in those days it was not considered proper to raise your head in such circumstances."*³

The author points to acquired customs that became, over time, inherited ones, often indicating Arab society's keenness — through the head of the household, whether father or mother — on passing them on,

*"To set her mind at rest she had gotten into the habit of going from room to room, accompanied by her maid, who held the lamp for her, while she cast searching, frightened glances through the rooms, one after the other. She began with the first floor and continued with the upper story, reciting the Qur'an suras she knew in order to ward off demons. She would conclude with her room, lock the door, and get into bed, but her recitations would continue until she fell asleep."*⁴

¹Ibid., 4.

²Ibid., 5.

³Ibid., 40.

⁴Ibid., 7.

Her husband required her to be obedient, and whatever the circumstances, she had to accept it,

*"His response had been to seize her by the ears and tell her peremptorily in a loud voice, 'I'm a man. I'm the one who commands and forbids. I will not accept any criticism of my behavior. All I ask of you is to obey me. Don't force me to discipline you.'"*¹

In her husband's absence she protects herself and her children by reciting the Qur'an — an inherited custom by which the author means to point to this family's religion and to the Muslim society that finds all its solutions in the Qur'an since it was revealed, protecting itself from unseen creatures known through tales passed down from generation to generation, whether folk tales or tales from religious tradition. The wife would recite the Qur'an as protection from the demons circling in her imagination,

*"She learned from this, and from the other lessons that followed, to adapt to everything, even living with the jinn, in order to escape the glare of his wrathful eye. It was her duty to obey him without reservation or condition. She yielded so wholeheartedly that she even disliked blaming him privately for his nights out."*²

The strength of endurance in this character may be attributed to what she inherited from her mother, her grandmother, or her society, and there is no doubt that these traits accompany a person genetically, inherited from one's parents and appearing when needed. The young mother, in her early days of marriage, protected her children, and

*"She would hold them tight, lavish affection on them, and surround them, whether awake or asleep, with a protective shield of Qur'an suras, amulets, charms, and incantations. True peace of mind she would not achieve until her husband returned from his evening's entertainment."*³

This is a custom inherited in every family: the father is the true source of security for the wife and the members of the household, and in his absence the wife always feels herself in unknown danger, having to bear the responsibility of protecting herself and her children, and having to arm herself in order to be able to defend herself and them. In this narrative passage it appears clearly that the wife struggles against powerful, invisible forces, which doubles the weight of her responsibility, and in her solitude she turns to God for help, imploring Him through the Qur'an. She overcame her fear of demons after her husband rebuked her for asking him to come home earlier, and so she came to coexist with them and even speak to them — as though the author were trying to depict a scene repeated in every Arab household where the husband is so domineering that he pays no heed to the suffering of the members of his family, and sometimes does not even know the extent of the suffering his wife endures in his absence, considering her his partner, while she sees him as the support she relies on in moments of fear and weakness. Despite this suppressed suffering, she continues to convince herself of her role as the obedient, submissive wife who has reaped from her marriage:

*"Had she not lived with this husband and his shortcomings for a quarter century and been rewarded by children who were the apples of her eye, a home amply provided with comforts and blessings, and a happy, adult life? Of course she had. Praise God, the merit was all God's. He calmed her heart with His words, and by His mercy her life was made straight."*⁴

¹Ibid., 9.

²Ibid., 9.

³Ibid., 8.

⁴Ibid., 9.

This role is one that most Arab wives actually live, submitting to an unhappy life and convincing themselves of the good they have reaped from it, as though they must pay happiness as the price of having borne their children.

This expresses a feeling of gratitude for her married life and what she feels toward her husband despite the suffering she tries to conceal one way or another, as though it were a feeling incumbent upon every Arab wife to be content with the life that is hers to live as it is, without complaint, so long as she also has what reassures her,

*"Praise God, the merit was all God's. He calmed her heart with His words, and by His mercy her life was made straight."*¹

This gives the impression that these habits are inherited among Arab Muslim women, who are able to sense happiness in the presence of God despite all they suffer of ingratitude and denial from their partners. There is, on the other hand, a rejection of some customs that seem to the fathers a system the sons must emulate:

*"Phooey ... how did it get to be morning so fast? Why can't we sleep till we've had enough? Discipline, always discipline. We might as well be in the army."*²

Sons acquire some bad habits through direct contact with their fathers and mothers, and Mahfouz points to this directly by using words of comparison,

*"... but he, like his father, awoke with enough of a hangover to keep dreams at bay."*³

This confirms that acquired habits are inherited even down to the grandchildren, which runs counter to research conducted in genetics, in the words of researchers, that

*"Although children tend to resemble their parents both physically and mentally, they do not inherit their acquired characteristics."*⁴

Because Naguib Mahfouz conveys what he observes in reality, such research remains open to question and cannot be taken as certain.

Nor does Naguib Mahfouz overlook Arab customs in the daily routine of the head of the household, who rises early no matter how long and lively his night out was, in order to reach his work before eight, making up for that time with a few minutes at noon,

*"During his siesta he would have ample time to make up for his lost sleep and to restore his energy for another night on the town."*⁵

This is a system inherited from father to grandfather among Muslim Arabs, particularly given its connection to the Islamic religion, which urges the midday nap so that a person may recover his energy and continue the rest of his day, and which is also the time that compensates for the sleep lost in nightly worship; in the novel, however, it has nothing to do with worship but rather with the very same time he takes to stay out late with his friends — something inherited by Yasin and his son from Abd al-Jawad.

The genetic fingerprint is used in the religious domain to establish lineage, and the Islamic religion has given this matter the utmost care, given the importance of preserving a family's purity from any mixing that might lead to grave consequences relating to the loss of an heir's rights, and out of fear

¹Ibid., 9–10.

²Ibid., 33.

³Ibid., 33.

⁴Steve Jones and Borin Van Loon, *Genetics for Beginners* (Cambridge: Icon Books, 1993), 6.

⁵Mahfouz, *Palace Walk*, 31.

of the appearance of any serious hereditary diseases. Naguib Mahfouz, as the novelist who addresses every subject of life most extensively in his novels, always focuses on the importance of preserving family relations united by a single religion with its own teachings and foundations that no one may transgress, whatever their authority.

In traditional conceptions, the establishment of lineage was associated with a set of means aimed at determining a newborn's connection to his father and family, including acknowledgment of lineage, common repute, and affiliation, and the social and legal rights that follow from these. With the development of medical and genetic sciences, the question of establishing lineage moved to another level of precision, particularly with the emergence of DNA analysis, which made it possible to rely on genetic characteristics in revealing kinship ties.

The question of lineage in the novel is also connected to the idea of the transmission of hereditary traits across generations, through linking external resemblance to characteristics that may pass from fathers or grandfathers to sons. This is evident in the invocation of the incident of the man from Banu Fazara, who was struck by the difference in his newborn's color — an incident whose explanation lay in the possibility that a divergent trait had passed down through the lineage, such that the apparent lack of resemblance between father and son is not conclusive proof of the absence of lineage. The narrative thus links external appearance to the inherited trait, presenting the difference in traits as a possibility that may be connected to what is transmitted across generations.

This conception gains importance in constructing the meaning associated with lineage, since the text does not make physical resemblance the sole criterion for judging kinship, but instead opens the way to the possibility of latent or inherited traits that do not necessarily appear directly in the children. From this, the narrative discourse forms a conception of resemblance that goes beyond outward identity, linking physical features to a family history extending across generations.

Because morals are inherited, and because religion came to complete noble character, these religious teachings are inherited across generations, appearing in a character's commitment to them,

*"She seemed to be in a hurry as she wrapped her veil about her ..."*¹

It is clear from this scene that the character is steeped in habits inherited from her mother and that she comes from a conservative background; she is careful to put on her veil even while in a hurry to enter the mashrabiyya, which is part of the house!

The sanctification of religion also appears in people's veneration of shaykhs, an inherited trait particularly in older Arab societies, such as the veneration of Shaykh Mutawalli Abd al-Samad in Palace Walk:

"The shaykh appeared to be in enviable health for his age, which was over seventy-five. If it had not been for his weak eyes, his eyelids that were inflamed at the edges, and his sunken mouth, he would have had nothing to complain of. He was wrapped in a faded, threadbare cloak. Although he could have exchanged it for a better one through the donations of benefactors, he clung to it. He said that al-Husayn had blessed him in a dream and thus had given the cloak he wore an excellence that would not fade away. The shaykh had performed miracles by penetrating the barriers of normal human knowledge to the invisible realm. He was known equally for his

¹Ibid., 5.

healing prayers, amulets, candor, and wit. He was at home with humor and mirth and that especially endeared him to al-Sayyid Ahmad."¹

The veneration of this shaykh is essentially a veneration of religion and of what he relates concerning the visions and miraculous gifts he claims to witness, which surrounds him with an aura of glorification. Although he has no evidence for his claims, people believe him because of the ideas they have inherited about the sanctity of such shaykhs.

Different traits appear in two sisters and a woman who serves them in the household, each of these women having a task that affects the shape of her body in one way or another, in addition to the factor of time, which has its own authority over the body, producing visible changes in it,

*"Amina's thin, veiny hands, Aisha's petrified hands, and Umm Hanafi's hands that looked like a turtle's shell, while those beautifully white and lovely hands belonged to Na'ima."*²

The author focuses in this passage on one part of the body — the hand — dwelling in this descriptive passage on the hands of four women of differing ages, so that time has its authority over their external form. What can be explained genetically regarding these four is that the thinness of Amina's hand is connected to genetic traits relating to her physical build, though it may also relate to her diet and psychological state, both of which affect a person and are reflected in the body's appearance, or it may relate to the composition of her skin itself, lacking fat beneath it, making it thin so that everything beneath it shows, even the veins. As for Aisha's hand, it may be explained genetically as her genes having affected the thickness of her skin and the density of her bones, which may relate to a hereditary condition or her exposure to harsh environmental factors, or to strenuous manual labor requiring effort that produces this appearance. As for the description of Umm Hanafi's hand as resembling a turtle's shell, this opens up many interpretations, the first being that the turtle is covered by a thick, ornamented wooden case that nothing can penetrate, indicating the toughness of Umm Hanafi's hand-skin, unchanged even by moisturizers, from her constant work in the household throughout the day — indicating the long period of time this woman has spent in service to this household and that she performs arduous work that has toughened her skin to this degree. Through this description there also appears clearly the inherited idea, in Arab society, of confining the female servant to uniform characteristics and a particular age.

The servant appears in the Trilogy with traits nearly identical to those of servants throughout Arabic fiction, unlike the female servant who appears in Western novels, for example, whom we see in films presented in a well-groomed manner if she is white, while, by contrast, they show her in the worst possible light if she is a Black woman. Arab society, on the other hand, sees in the servant a member of the family, since it is accustomed to the image of the mother who fulfills all the household's needs while retaining her standing — and such is Umm Hanafi in Mahfouz's telling,

*"Umm Hanafi was the right arm of this small empire, whether Amina directed the work herself or allowed one of her daughters to practice this craft under her supervision. Umm Hanafi was a stout woman who was shapeless and formless. The single goal governing her ample increase in flesh had been corpulence. Considerations of beauty had been ignored. She was totally satisfied, for she reckoned corpulence to be beauty of the finest sort."*³

¹Mahfouz, Sugar Street, 96.

²Ibid., 14.

³Mahfouz, Palace Walk, 30.

“... who was in her forties and had been a maid in the house when she was a girl. She had left the house to marry and had returned after her divorce.”¹

Her role as cook in the household also encourages her to focus on fattening up the family, particularly its female members.

The author draws on the variable of time to reveal his unstated interest in his characters' hereditary genes in this passage; this rapid change in the features of the mother and daughter appears to be hereditary, since it appeared upon both of them in the same manner,

“Amina's frame had withered, and her hair had turned completely gray. Although she was barely sixty, she looked ten years older. Yet Amina's change was nothing compared to the deterioration and decay that had befallen Aisha. It was a cause for either mockery or pity that her hair remained golden and her eyes blue, but that dead look suggested no life, and what disease did that pale skin betray? This face with protruding bones and sunken eyes and cheeks — was this the face of a woman of thirty-four?”²

Nor does Naguib Mahfouz neglect to gather physical traits and draw attention to the resemblance between Aisha and her daughter Na'ima — an unstated interest in the details that indicate kinship and what distinguishes it,

“She had grown into a beautiful young woman of sixteen, her hair crowned with a golden halo, her face adorned with blue eyes, just like Aisha in her youth, or even more exquisitely charming.”³

Naguib Mahfouz is careful to convey reality in its fine details, even in the inheritance of traits — traits of al-Sayyid mentioned here that the author had not mentioned in his first novel, traits that his daughter Aisha inherited from him, and that his granddaughter Na'ima inherited in turn,

“Yet the gleam of his wide, blue eyes remained proof that his desire for life had neither weakened nor waned.”⁴

The author uses description to highlight his characters' features, as in his description of Kamal in this narrative scene,

“Kamal entered the room in his black coat, which accentuated his tall, thin frame, looking at his father through his gold spectacles, while his thick, square black mustache gave him an aura of dignity and masculinity ...”⁵

The author speaks of Kamal's temperament, which differs entirely from that of his brother Yasin, the two of them being two faces of a single coin — the father, who appears in two guises.

Inherited traits also appear in Abd al-Jawad's grandchildren through his son Yasin,

“His son Radwan, with his beautiful face, kohl-rimmed eyes, and rosy skin, whose beauty reflected a variety of features that reminded him sometimes of Yasin, sometimes of Yasin's mother, Haniya, and at other times of his beloved friend Muhammad Iffat — for this was the grandchild dearest to his heart — and Karima, his sister, a miniature young woman of eight who would mature in an astonishing fashion, as witnessed by her dark eyes — the eyes of her mother, Zanuba — which made his mind smile with a dewy smile of modesty and memories. As

¹Ibid., 27.

²Mahfouz, Sugar Street, 12.

³Ibid., 13.

⁴Ibid., 104.

⁵Ibid., 7.

for Abd al-Muni'm and Ahmad, it was enough for him to see in their faces a considerable measure of his huge nose, as well as Khadija's small eyes, though they were bolder than the others in addressing him.”¹

Nor does this overlook the cross-fertilization of generations through the appearance of new genes owing to the wife, such as Zanuba's traits appearing in her daughter.

Conclusion

This study reveals the depth of the artistic and scientific vision that Naguib Mahfouz employed in his Trilogy. The novels show that physical and psychological traits pass across generations just as temperaments, habits, and traditions do, and that time, in turn, contributes to reshaping these features and bringing out their effect on individual and collective fates.

I. Findings

- The study showed that Naguib Mahfouz was aware of the concept of heredity before it became scientifically established in Arab culture, embodying it in his novels through physical and psychological traits inherited across generations.
- The reading demonstrated that heredity in the Trilogy is not merely biological but also encompasses social, religious, and cultural inheritance.
- The study showed that temperaments and habits pass from one generation to another just as physical traits do, reflecting a harmony between Mahfouz's literary vision and what genetics has established.
- The texts showed that time plays a role parallel to heredity in shaping physical and psychological features, adding a dynamic dimension to the characters' lives.
- The reading confirmed that Mahfouz presented a balanced vision, not confining his characters within the grip of hereditary inheritance but leaving them room to be shaped by external factors such as environment, upbringing, and social circumstances.

II. Recommendations

- The need to deepen interdisciplinary studies linking literature and the natural sciences, so as to reveal the richness of literary texts and their capacity to embrace diverse fields of knowledge.
- Expanding the study of the effect of social and cultural heredity in other Arabic novels, and comparing their results with what Naguib Mahfouz has offered.
- Encouraging researchers to analyze literary texts from the perspective of biology and genetics, so as to highlight the interweaving of science and literature.
- Incorporating questions of the genetic fingerprint and genetic identity into the curricula of modern literary criticism, so as to broaden the horizons of academic research.
- Opening the way for studies comparing representations of heredity in Arabic literature and world literature, in order to identify points of similarity and difference.

Naguib Mahfouz's Trilogy is not merely a portrayal of an Egyptian family in a specific historical period; it is a narrative laboratory in which the dialectic of heredity and freedom, of genes and environment, and of individual and collective inheritance, comes to light. This is what gives the

¹Ibid., 11.

Trilogy its literary and intellectual value and makes it a text open to ever-renewed scientific and literary readings.

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