5D Thinking:
The Human Nose

"Stop and smell the roses," is a familiar invitation. It is a call to slow down and enjoy life in the present moment. Scientific research shows that this is indeed sound advice for finding satisfaction. Staying present is good for the body, mind, memory and soul. Although it takes only seconds for you to identify a certain smell, in reality, the olfactory system is a very complex biological process. Let us now explore the olfactory system to see the connections between the incredible sense of smell and the deep moral meanings concealed within.

First Dimension: Analytical Thinking

Scientific Understanding of the Human Nose

Your nose has numerous functions. The first of these is olfaction, which is the scientific term given to the sense of smell. In your nose, you have olfactory receptor neuron cells that are designed to capture smell signals and send them to the brain, which then processes these signals and identifies the smell. Each olfactory neuron has one odor receptor, which is stimulated by smell signals. Smell signals are microscopic molecules released by substances around us, such as freshly baked bread or pine trees in a forest. When the olfactory neurons detect these molecules, they send signals to your brain. Scientists are not sure yet how neurons detect different scents. It is even more mysterious how signals are processed and identified in the brain as smells. Isn't it amazing how physical matter is transformed into electrical signals which we can then somehow understand?

Your nose is also designed to help you keep safe from many harmful substances in your environment. For instance, spoiled food smells bad and you can smell it and stay away from it. Would you eat a meal that had an offending odor? Another example of a harmful substance is smoke. Your sense of smell

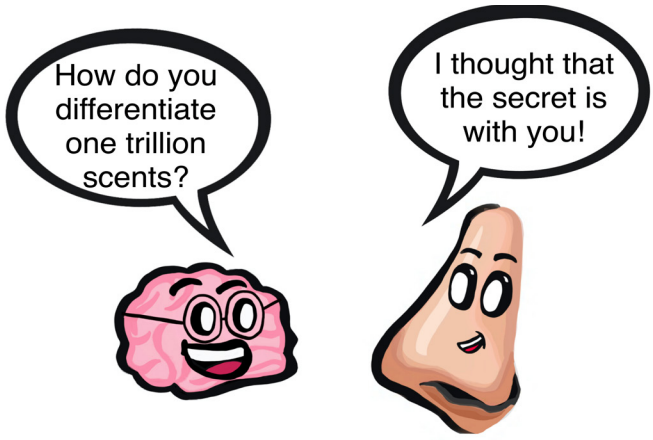
helps you detect smoke before you even see a fire. The smell of smoke is a warning to keep you away. Would you willingly walk into a smoke-filled room? Your nose is designed to protect you from substances that are harmful to your body.

Tasting food with your nose?

Did you know that without our noses we wouldn't be able to enjoy our food? When we chew our food, air flows from our mouth to the back of our throat, and then to the nose. As the nose detects the smell, signals are sent to the brain and we feel it as 'taste.' In other words, we taste not only with the mouth but also with the nose. It is through the olfactory sensory receptors that we can distinguish familiar flavors such as chocolate, cookies or strawberries. If we couldn't smell when we have a cold, we could not enjoy these various flavors. In addition to its role in olfaction, the nose is also designed to be a passageway, an excellent air purifier, a great temperature regulator, a humidifier. In short, your nose behaves like a multi-skilled worker by detecting smells and distinguishing between, regulating the temperature of the inhaled air as well as purifying and moisturizing it.

Amazing Scientific Facts about Human Nose:

- Do you know that during sneezing, irritants are expelled at speeds up to 160 km per hour?
- Do you know that the best air filter in this world is the human nose, which blocks germs and dust?
- Do you know that mucus produced by the nose contains white blood cells and enzymes responsible for fighting infections?
- Do you know that each individual human being has a unique scent (smell print)?



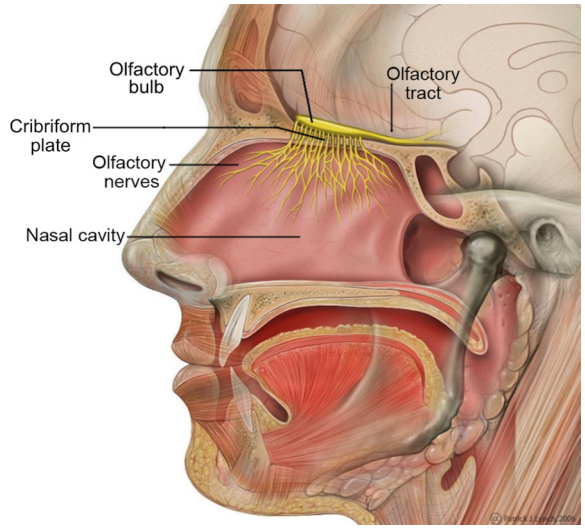
Second Dimension: Analogical Thinking

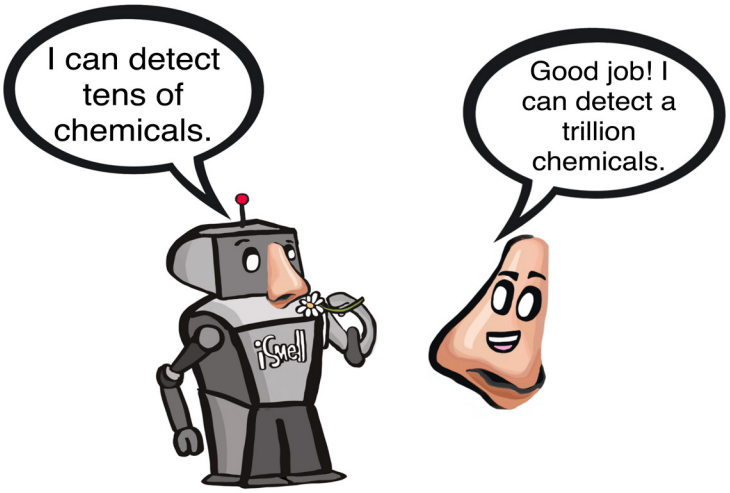
Human Nose vs. Electronic Nose

The closest modern imitation of a human nose is a chemical detector that works by identifying specific odors and flavors. The successful imitation of the human sense of smell began with the invention of smoke detectors in the early 20th Century followed by other chemical detectors and electronic sensors. The electronic nose (e-nose) works like a nose by detecting specific odors and flavors.

E-nose consists of three parts: a sampling delivery system, a chemical detection (sensing) system, and a computing system (data analyzing system). The sampling system captures samples of molecules of a given substance. Then, similar to neural receptors in the human nose, the chemical detectors react to the captured molecules and produce signals. After that, the signals are sent to a microprocessor (or computer) to be recorded and analyzed. The electronic sensors mimic the olfactory limbic system while the computer acts like the brain. The signals are interpreted as odors using special pattern recognition software.

For example, when we smell a rose, odor molecules stimulate numerous receptors in the nose. This will ignite limbic olfactory neurons to send electrical signals to the brain. Those signals are then processed in a certain part of the brain as scents which are then associated with certain emotions. If we never smelled a rose before, we would not recognize it. We would first need to add its unique scent to our repertoire. Then, when we smell it again, we can remember it. Similarly, odors have to be defined to the e-nose software in order identify their source properly.





Did you know that your nose can detect up to 1,000,000,000,000 different smells!

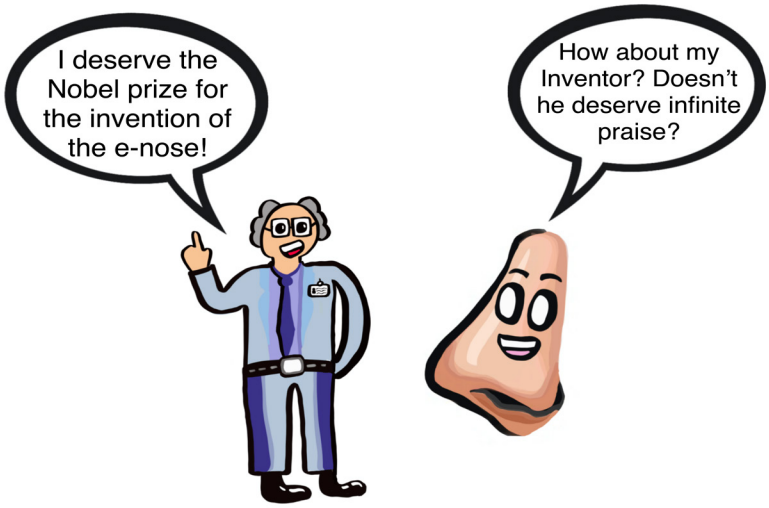
Unlike our noses whose olfactory receptors are designed to detect a wide variety of smells in varying amounts (up to 1,000,000,000,000 different smells!), chemical detectors such as e-nose can only detect certain types of chemical at a time. E-nose is not made to help those who lost the sense of smell. Rather, it is used for various purposes such as food safety, emergency response, military services, and environmental monitoring. For instance, e-noses are currently being used to detect the freshness of food including vegetables, fish, and meat. Despite the collective work of many researchers over the last few decades, the e-nose is still far from competing with the human nose.

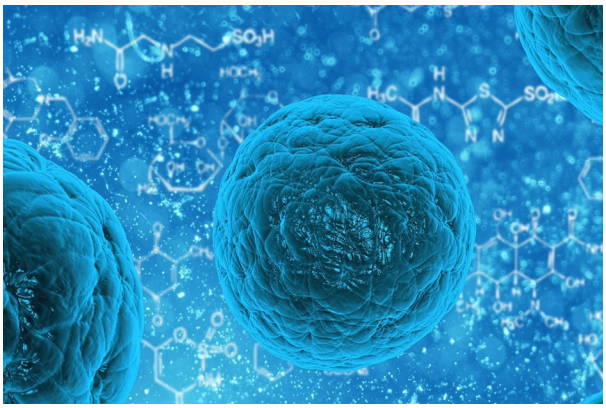
Third Dimension: Critical Thinking

Exploring the Maker of the Human Nose

Let us first find out how the electronic nose was invented. This amazing device along with other chemical sensors did not emerge by accident. They did not evolve by into existence on their own. As a matter of fact, the story began with the invention of a simple chemical detector, known as the smoke sensor in 1939. Relying on the accumulated knowledge of thousands of people, Ernst Meili developed an ionization chamber device to detect combustible gases in mines. The detector he invented was composed of raw materials including an alarm horn, a circuit board, a sensing chamber and poly-styrene plastic. It took a few more decades to come up with an advanced chemical detector like the e-nose.

It would be a great insult to the scientists who invented these devices, if we claimed that raw materials came together through random forces and formed a detector such as the e-nose. The e-nose could not create itself either because its material components - the atoms and molecules- and





software -zeros and ones- do not have a mind with which they can decide to come together on their own. It is obvious that the formation of the e-nose requires substantial knowledge of the human nose, computer programing, raw materials, know-how of the device, and the power to arrange the raw materials and develop the software.

Now, let us reflect on your nose, which is capable of detecting one trillion smells. Think about how a nose can be made. First, whatever or whoever makes a nose must also know what an odor is in order to design an organ that detects odors. Remember- our nose and the odors in our environment are related to each other. How does our nose recognize the chemical molecules that cause smell? So, from a holistic perspective, it is reasonable to conclude that the One who creates human beings with a nose is the same One who creates the human brain and odors. Other alternative explanations simply don't make sense.

Surely, how else can this well-integrated system develop by itself? Do you think it's possible that it can be made by someone without consciousness? How about someone with consciousness, but without knowledge? How about someone with knowledge, but without power? If you were born without a nose, would you be able to make one for yourself? What about scientists and engineers? Could they make one for you? Indeed, despite the accumulated knowledge of thousands of years, we are still far from coming up with a duplicate of the human nose. Although we have unveiled the apparent mechanism behind our sense of smell, we haven't yet understood its actual mechanism. Indeed, one might argue that all scientific discoveries about the sense of smell combined are simply the tip of the iceberg.

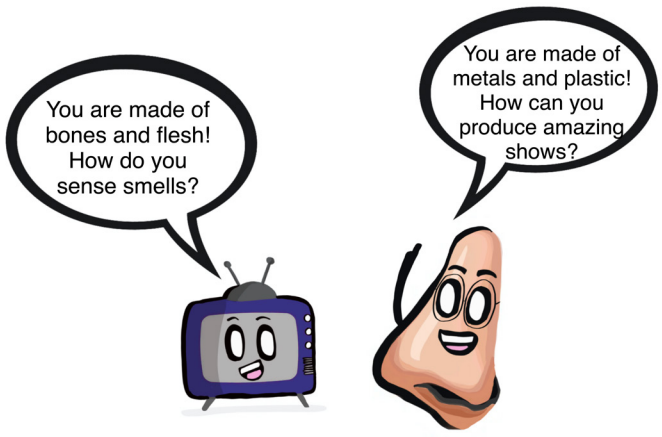
If intelligent and knowledgeable scientists could not even duplicate the already existing human nose, it does not make sense to believe that the nose is the work of unconscious cells or inanimate molecules and atoms. If we acknowledge the inventor of a simple detector that detects only a single substance, how can we deny the Creator of a detector that can detect a trillion different smells?

Now, we know that the human nose operates within a conscious human being. This means, that all smells are not only detected, but also identified as pleasant or disagreeable; they're either appreciated or disliked. They can even trigger nostalgic feelings related to memories that are associated with certain scents. Given the fact that the human nose is zillions of times more complex, intricate and functional than any man-made detector, we must acknowledge that the Maker of the human nose is also infinitely more knowledgeable and powerful.

Fourth Dimension: Meditative Thinking

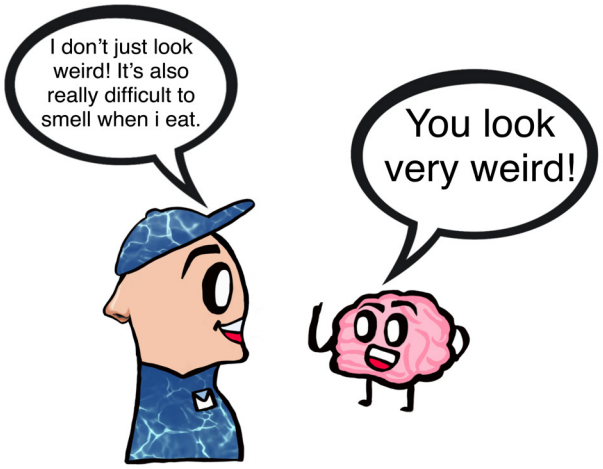
Reflecting on the Attributes of the Maker

Let us try to understand how our sense of smell is connected to the world around us. Let us first consider the fact that everything in our environment, all matter, living and non-living, is made up of unique patterns of atoms and molecules. This includes odors. Yes, the odors of objects in our environment, are also made up of matter in the form of unique patterns of atoms and molecules. What is more, your nose, with which you smell, is also made up of a unique pattern of atoms and molecules. However,



your nose is designed to analyze certain odors whereas other objects are designed to carry odors. So, we have a unique pattern of atoms and molecules that 'smell' and other unique patterns of atoms and molecules in the form of certain smells. How does your brain identify what object that smell represents based on the information it receives? Or, does it? Before answering these questions, let us remember that, like everything else, the brain itself is made up of atoms and molecules. Moreover, unless it is in a living human body, the brain is mere, inanimate matter. It is not an operant power; it cannot operate itself. The process of smelling involves understanding, feelings, and the recall of memories- all functions that exceed the abilities of the brain and nose.

To clarify the situation, let's think of a TV. What's going on when you watch your favourite program on TV? The moving images are made by a series of images that are played quickly one after the other, so they appear to be moving. Now, think about this point: can we say that the TV produces the programs? Certainly not; the TV is clearly only a platform that receives signals. Think of the brain now which is also



a platform. Moreover, it is the platform to very meaningful activities that require consciousness, knowledge, wisdom, purpose and power- much greater than that required to make a TV and broadcasted programs. Would it make sense to claim that the brain itself could possess any of these qualities? Could it ever be possible that all these purposeful, very crucial activities that are connected to our environment in so many intricate and complicated ways could be the work of the brain, a piece of flesh within our bodies? Isn't it more reasonable to conclude from these activities that they are the result of a higher consciousness that allows you to understand what specific patterns of atoms and molecules represent? You may think 'But without the brain, we wouldn't be able to smell anything.' This is true. But this also applies to major parts of the TV. Though both are needed to get the results, but they are not sufficient.

If you were born without a nose, would you be able to make one for yourself?

It is evident that the Maker of our nose is also the Maker of our bodies. A nose does not work in isolation. It works within a living body. It is connected to extremely delicate systems in the body. Our body does not live in isolation, either. It depends on thousands of well-functioning systems around the world. For instance, our physical body depends on an atmosphere with a sufficient amount of oxygen. It depends on drinking water. It depends on plants and animals. It depends on the sun. It depends on gravity. Indeed, it depends on the entire universe.

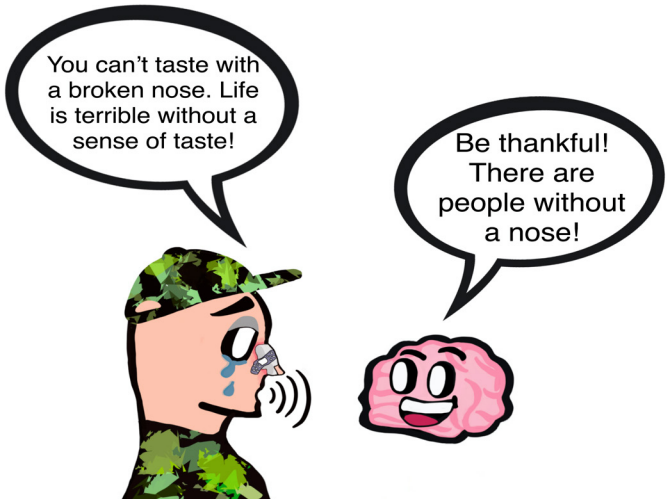
Thus, the Maker of our bodies is also the Maker of the world around us. The Maker of our nose can only be the Maker of the entire universe. Indeed, the Maker of our noses must have infinite knowledge and power. He must be very wise because the nose is created with many functions and placed in the right place in the body to fulfill its functions in the most efficient manner. Imagine if our nose was placed on the back of our head instead of in its current place. It would have been less functional. We would have to take food to our nose first before taking it to our mouth. The location of the nose is perfect for the process of coordinating the tasks of smell and taste between the nose and the mouth.

The Maker of our nose must be very kind and generous in giving us such a precious gift at no charge. Indeed, since no power can be above the Infinite Power, He could not be forced to give us our sense of smell. Thus, He creates noses for living beings purely out of His mercy, just as He creates all the things we need for life. He must be All-Loving because He creates beautiful flowers not just for us to see, but also to smell. He adds pleasant smells to delicious fruit and vegetables. He uses unpleasant odors to warn us against what is harmful to our body. He grants us countless opportunities to experience His kindness and mercy through our sense of smell. In short, our noses speak about their Maker whom we now recognize as ***All-Loving, All-Seeing, All-Knowing, All-Powerful, All-Wise, Most-Merciful, Most-Caring, and Most-Kind.***

Fifth Dimension: Moral Thinking

Responding with Better Character

Let us consider what it would be like to live without a sense of smell. What if you were born without a nose? It would affect your looks but more importantly, it would affect your health. Additionally, you would not be able to differentiate between beautiful scents and hazardous ones. Your safety would be jeopardised. Let's read the inspiring story of Larry Lanounette to better appreciate the sense of smell:



STORY TIME

Larry Lanouette is a man who lost his sense of smell as a side effect of his chemotherapy. His sense of taste was also affected. He would try to recall what food was supposed to taste like to make the act of eating more enjoyable. He had no preference for any particular food because in his experience, all food tasted the same.

He also lost the ability to determine whether a carton of milk had spoiled. Larry missed the smell of the outdoors the most, the smell of fresh air and flowers. Thankfully, Larry regained his sense of smell after his cancer medications wore off and now he appreciates his sense of smell a lot more than before his experience with anosmia.

How can we express our gratitude for and appreciation of our sense of smell?

The Maker of the nose does not need payment since everything in the universe belongs to Him. But we can express our gratitude through thanking Him with our words and respecting His gifts by using them to do good deeds. We shall remember that Our Wise Maker has given us the remarkable ability to seek life's many blessings, which include experiencing beautiful scents and smells. Then, the pleasant scents we enjoy will remind us of Him and of His kindness towards us. And the more we appreciate the pleasant scents and tastes, the more we will thank Him wholeheartedly for the precious gift of smell and for all the pleasant memories associated with such beautiful experiences.

1

Remembrance is realizing that there is a Creator of the nose and remembering Him.

2

Reflection is thinking of our priceless, miraculous nose as a gift of our Creator's mercy.

3

Gratitude is being thankful to the Creator for granting us a healthy, functional nose.