

# CHRT03

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## 8 Nature or Nurture: Which One Shapes Us More?

Two main topics direct the study of human emotion: nature and nurture. Biological determinists believe emotion is determined by nature and that it develops intrinsically. According to this view, a person's genes affect how an individual behaves and changes over time. Meanwhile, social determinists believe emotion is shaped by nurture, meaning that environment plays the main role in emotional development. To them, variables such as parenting, poverty, education, and exposure to violence can impact a child's emotional state permanently. So, which plays a greater role?

The primary point made by social determinists is that substantial differences can and do occur in the psychological and behavioural patterns of growing children that can only be explained by experiential factors. The assumption that someone is born a certain way, they argue, offers an immediate defence for unwarranted behaviour and severs human responsibility from human action. It is reasonable to accept that a child's home environment, the opportunities he or she is given, and how the child is raised factor into the sort of adult that child grows up to be to some degree. However, the view of social determinists implies that the underlying character of a child will change if his or her environmental circumstances do, which is not always the case. Ultimately, findings suggest that when it comes to the fundamental traits that dictate our emotional responses to any number of environmental situations, genes take centre stage.

Evidence for the biological approach can be found in the shared emotional reactions of people growing up in different cultures. For their 1976 work *Unmasking the Face*, neuropsychologists Paul Ekman and Wallace Friesen undertook an extensive cross-cultural study of facial expressions. Ekman and Friesen interviewed isolated tribes in Papua New Guinea and showed them photographs of people from other parts of the world. The psychologists discovered that not only could the participants clearly identify facial expressions with particular emotions but they could also describe situations in which the expressions may arise. This led the authors to conclude that six basic human emotions (anger, disgust, fear, happiness, sadness, surprise), as well as the physical expression of those emotions, are universal among people no matter which environment they grow up in.

Recent evidence from the study of twins has also suggested that nature plays a greater role in impacting our emotional development than nurture. In a study at Edinburgh University led by Professor Timothy Bates, more than 800 sets of fraternal and identical twins were asked a series of questions in order to assess their personality traits. In the end, it was found that identical twins, who share the exact same genetic information, are more than twice as likely to possess the same personality traits as fraternal twins, whose genetic information is not shared. Given that each set of siblings shared the same home environment and parents, the researchers concluded that DNA had a more substantial impact on how people behaved than environmental factors. Further substantiating this idea are the numerous studies on children adopted into homes with other siblings. Most indicate that, even if the child is an infant when he or she is adopted, the family's effect on his or her personality is often practically negligible.

Do the following statements agree with the information given in the passage?



Write

**YES** if the statement agrees with the claims of the writer  
**NO** if the statement contradicts the claims of the writer  
**NOT GIVEN** if it is impossible to say what the writer thinks about this

- 21 Certain aspects of one's environment affect how one grows up.
- 22 An unfamiliar environment will not always change a child's character.
- 23 Emotional expressions remain the same as a child grows up.
- 24 Family interactions will cause great changes in a child's personality.

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Y/N/NG (Yes/No/Not Given)

HACKERS IELTS READING

**determinist** n. người theo thuyết quyết định **variable** n. biến số **parenting** n. cách nuôi nấng con cái **experiential** adj. dựa trên kinh nghiệm, theo kinh nghiệm **unwarranted** adj. không có lí do xác đáng, không được phép **sever** v. cắt rời, tách ra **factor into** phr. xem như một nhân tố **underlying** adj. cơ bản, cơ sở **dictate** v. điều khiển, sai khiến **neuropsychologist** n. nhà tâm lý học thần kinh **cross-cultural study** phr. nghiên cứu liên văn hóa **fraternal** twins phr. anh em sinh đôi khác trứng **substantiate** v. chứng minh **negligible** adj. không đáng kể

## 9 Harnessing the Immense Power of the Tides

Increasing demographic pressures and environmental concerns about climate change have been the impetus for global research into feasible alternative energy sources. Being clean, abundant, and renewable, water power is an obvious resource to turn to. However, building large-scale hydroelectric dams, as has been done in the past, is no longer an ideal solution as the hydropower facilities currently in use are known to cause a number of devastating ecological and social issues. But all hope is not lost for water power as research is now focused on harnessing the incredible power of the tides to generate clean energy with minimal repercussions.

In fact, the fundamental technology is already available, as is evident in the tidal power plants being operated today. A good example is France's La Rance, the first tidal power plant in the world. La Rance is a barrage, which means that it is essentially a very large dam built across an estuary. Rather than storing water until it is needed as hydroelectric facilities do, water at La Rance flows through the dam and is collected in a basin whenever the tide comes in. Then, as soon as the tide goes out, the water in the basin is released and passes through turbines in order to generate electricity. While the dam at La Rance still poses a possible threat to the local ecosystem, electricity production by this means is extraordinarily reliable. Given that tidal forces are generated by gravity and the ongoing movements of the Earth - forces that are unlikely to change - it is possible to accurately predict the rise and fall of tides and by extension, when electricity can be produced.

Recognising that tides have incredible potential that may never be realised unless the environmental impact of such technology can be reduced, engineers are now working to develop hydroelectric technologies without using dams. One solution they have come up with is to install turbines on the sea floor relatively close to the shore in order to exploit underwater tidal currents. To produce energy, the underwater turbines would spin as the surf rose and fell, sending electricity through a cable to an onshore power station. This method is very promising as evidence suggests that it would result in limited environmental harm. For example, this technology would not create the damage to aquatic organisms that is frequently caused by dams. Furthermore, because tidal farms would be located underwater, they would not be an eyesore or cause a noise disturbance - both common complaints about wind farms.

It is true that the initial costs of constructing the appropriate infrastructure for a tidal farm would be high. However, research suggests that the maintenance and the replacement of equipment would be required infrequently, making it worthwhile in the long run to invest in this extremely efficient energy source. Ultimately, while there is no way of knowing what the future of tidal power will be, one thing is clear: the ocean, our most abundant and inexhaustible resource, has tremendous potential.

Do the following statements agree with the claims of the writer in the passage?

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**YES** if the statement agrees with the claims of the writer  
**NO** if the statement contradicts the claims of the writer  
**NOT GIVEN** if it is impossible to say what the writer thinks about this

25 Hydroelectric dams can cause serious environmental problems.  
26 Scientists predict tidal power will be more effective than wind as a means of producing energy.  
27 The cost of maintenance makes tidal power inefficient.

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Y/N/NG (Yes/No/Not Given) HACKERS IELTS READING

**harness** v. khai thác (nguồn năng lượng) **impetus** n. sự thúc đẩy, động lực **feasible** adj. khả thi **hydroelectric** dam phà đập thủy điện **repercussion** n. ánh hưởng, hậu quả **barrage** n. đập nước **estuary** n. cửa sông (sông lớn) **basin** n. lưu vực (sông lớn) **exploit** v. tận dụng, sử dụng **eyesore** n. điều chướng mắt, vật chướng mắt **inexhaustible** adj. vô tận, không bao giờ hết

## 10 Introverts and Extroverts: Explaining Different Personalities

The Science Behind a Fundamental Concept in Human Personality Theory

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In his 1923 book *Psychological Types*, analytical psychologist Carl Jung identified two types of person: the introvert and the extrovert. The former was described as a shy, sensitive, socially anxious being while the latter was portrayed as a gregarious sort who enjoyed spending most of his or her time in the company of others. Although Jung's early classification of the two personality types was generally accurate and has stood the test of time, the underlying reasons for introversion and extroversion were never scientifically analysed. It was not until recently that modern psychological researchers began presenting more nuanced and factual interpretations of the extroversion-introversion spectrum.

Contemporary researchers have found that the brains of extroverts actually release a significant amount of dopamine, the neurotransmitter that controls the brain's pleasure centre, during social interaction. Consequently, an extrovert's brain activity noticeably increases when he or she is smiled at, for instance. And because they are rewarded for social engagement, extroverts feel compelled to seek it out by constantly displaying attractive behaviour, such as smiling, cracking jokes, and being friendly. Essentially, we now know that what were once considered the characteristics of extroverts are, in reality, the tools that extroverted people use to obtain the chemical rewards they want to receive.

These tools may seem like a positive thing on the surface, but they are not without fault. High investment in time and energy are required to gain social rewards, leaving little energy for less socially oriented tasks. Some studies have even shown that extroverts are more likely than introverts to be injured from physical activities because extroversion is correlated with a higher tendency to explore one's environment. Others indicate that extroverts are poor financial planners since they are far more willing than their introvert counterparts to spend impulsively, especially if it will produce a social reward.

So, given that introverted people are on the opposite side of the spectrum from extroverts, does that mean they experience no social rewards and therefore have no desire to interact with others? No, but because the reward value from social experiences is markedly less for introverts, it is understandable why they often have no compulsion to seek other people out. Science has yet to find a satisfactory explanation for why their social rewards are few, but some experts believe human evolution has something to do with it. One theory postulates that having a complex social life drove the evolution of intelligence, creativity, language, and even consciousness among our early ancestors, who essentially had to be extroverted in order to survive. The emergence of introverts was only made possible once survival was no longer dependent upon gaining the attention and assistance of others, and spending more time on intellectual pursuits was an option.

Although introverts do not experience a significant release of dopamine in social situations, the opposite is true when they pour their energies into intellectual and

imaginative projects. It's no surprise, then, that many of the world's geniuses and great inventors have been introverts. It takes significant time in solitude to work through complex mathematical, scientific, or philosophical puzzles, after all. So while extroverts may have played a substantial role in the evolution of our species up until now, the contributions of introverts are certainly not to be overlooked.

Do the following statements agree with the claims of the writer in the passage?

Write

**YES** if the statement agrees with the claims of the writer

**NO** if the statement contradicts the claims of the writer

**NOT GIVEN** if it is impossible to say what the writer thinks about this

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Y/N/NG (Yes / No / Not Given)

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- 28 The original categorisation of introverts and extroverts has changed significantly.
- 29 Jung's fellow psychologists never challenged his theories on introversion and extroversion.
- 30 Extroverts sometimes engage in careless behaviour.
- 31 Introverts are generally better at analytical thinking than extroverts.

Đáp án-Dịch nghĩa-Chú giải trang 365

**introvert** n. người hướng nội **extrovert** n. người hướng ngoại **gregarious** adj. thích giao du **stand the test of time** phi  
chiu duoc thu thach thoi gian **introversion** n. tinh hướng nội **extroversion** n. tinh hướng ngoại **neurotransmitter** n.  
chất truyền dẫn thần kinh **pleasure centre** phi. trung tâm tạo ra cảm giác vui sướng (ở não) **crack a joke** phi. trêu đùa  
**oriented** adj. định hướng **correlate with** phi. tương quan, liên quan với **financial planner** phi. nhà hoạch định tài chính  
**impulsively** adv. hấp tấp, bốc đồng **markedly** adv. rõ ràng, rõ rệt **compulsion** n. sự bắt buộc **postulate** v. đưa ra giả  
thiết **pursuit** n. hoạt động, lĩnh vực theo đuổi

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LIVE WORKSHEETS