

What factors led to Harvey's discoveries?

Institutions

King Charles I

- Employed Harvey as his Royal Doctor which gave his work credibility and respect making it more likely for people to listen to his ideas.
- As a result of this more people heard of Harvey's circulation of blood theory

Work of the Royal Society

- This society helped to spread new ideas and discoveries as they encouraged scientific debate and promoted ideas.
- There was a reference library at the Royal Society. This was full of new texts with new theories and discoveries. Having a reference library meant scientists and physicians such as Harvey read new works like *De Fabrica* which encouraged them to challenge old ideas and make further discoveries using some of the new ideas they were now reading about
- *Philosophical Transactions*, the Royal Society journal, promoted scientific ideas and spread them across Europe. Harvey read, and was inspired by, the work in this journal.

Religion

Church

- Due to the break from Rome the Church had less influence in medical training. This meant that they were less able to restrict what physicians studied from and their university medical training, including dissection and anatomy.
- This meant Harvey could read humanist works such as Vesalius' *De Fabrica* which challenged Galen's ideas, identifying over 300 mistakes such as the jaw bone.
- Therefore Harvey was able to criticise Galen's work, without the Church stopping it.
- He was also able to have his work published without the Church preventing it from being copied, as the printing press and Royal Society enabled him to publish it. His book was called *An Anatomical Account of the Motion of the Heart and Blood in Animals*.

Individuals

Vesalius

- Individuals like Vesalius had proved parts of Galen wrong and challenged the Church. This made it easier for other scientists and physicians to do same.
- Harvey went to Padua University and attended lectures by Vesalius, where Vesalius taught new ideas about anatomy and dissection, challenging the old ideas. This inspired him.
- Harvey was encouraged by this to make his own discoveries and challenge classical ideas.

Harvey

- Harvey's own abilities and research were important. He was interested in dissection and believed it was important to observe the body.
- He was observant and influenced by new inventions at the time such as the mechanical fire pump.
- His drive to experiment with arteries and veins helped him to discover how blood circulation happened.
- He used experiments to try to provide scientific proof for his ideas e.g. circulation.
- He was a royal doctor to Charles I and so had credibility and respect. It was his own abilities that meant he was chosen as the royal doctor.
- He wrote and published a book with his findings in: *An Anatomical Account of the Motion of the Heart and Blood in Animals*. This meant that others could read his work and further his research, like Sydenham.

Technology - new inventions

New technology e.g. mechanical firefighter pumps

- This inspired Harvey to look again at how the heart worked. He experimented and realised the heart was like a pump.

Printing press

- This helped to spread Vesalius' research (*De Fabrica*) in a quicker and more widespread way which led to more people, like Harvey, reading and challenging the old ideas.
- The printing press meant books could be made quicker and that there were more of them. They were put into university libraries (such as Cambridge University) and into the Royal Society reference library, where people such as Harvey could read them.
- The printing press also meant that Harvey's research was spread, which led to more people, like Sydenham, developing these new ideas they were now reading about.

Science

Dissections

- These were now a lot more common as Vesalius had helped to make it more acceptable to do them.
- Physicians and professors would carry out dissections at universities.
- Therefore, Harvey was able to make his discovery as there was now the opportunity for dissections on human bodies.

Attitudes in society

'Medical Renaissance'

- There was more interest in exploring the human body and working out how it worked.
- Therefore, people like Harvey began to search for rational explanations for things. They were more willing to challenge classical thinking (Galen, Hippocrates) rather than accept them as truth.

What factors led to Harvey's discoveries?

Factors	Evidence	Explanation
Role of institutions <ul style="list-style-type: none"> • Charles II (government) • Royal Society 		
Role of religion <ul style="list-style-type: none"> • Catholic Church 		
Role of individuals <ul style="list-style-type: none"> • Vesalius • Harvey 		
Role of technology <ul style="list-style-type: none"> • Fire engine pump • Printing press 		
Role of science <ul style="list-style-type: none"> • Dissection 		
Role of attitudes in society <ul style="list-style-type: none"> • Medical renaissance 		