

Lesson 10 – “Miracle of Debate”

Text Translation (English)

On a day in 1872, inside a hotel in California, U.S.A, Leland Stanford and Cohen had an argument **centering on [the question]**¹ “Does the hoof of a horse **touch the ground**² when it runs?” Stanford thought that when a horse ran this fast, its four hoofs shouldn’t be touching the ground when leaping; but Cohen thought that if its hoofs didn’t touch the ground, wouldn’t it become a frog? It should be that at the end, one hoof would land on the ground. They each were **sticking to his guns**³, arguing to the point where they **turned red with anger**⁴, no one could persuade the other. So then they invited Muybridge, a British photographer, to decide, but Muybridge **couldn’t figure it out**⁵ either. But a photographer after all was still a *photographer*, **as for ideas, he still had some**⁶. They came together to a sports field and placed 24 **equidistant**⁷ cameras at the side of a **running track**⁸, pointing them at the runway; at the other side of the runway were 24 holes, with 24 wooden sticks inserted inside, **one in each hole**⁹. On the sticks, they tied thin lines that crossed the runway and **connected**¹⁰ them to the **camera shutter**¹¹.

Everything was prepared, Muybridge allowed one horse to run across the track. As the horse ran, it sequentially broke through the 24 thin lines in the way, the cameras captured 24

1 围绕: to surround, to go around something in a circle, to center around

2 着 (zháo) 地: to touch the ground.

3 各执一词: idiom, each holding his own opinion.

4 脸红脖子粗: lit. face is red and the neck (脖子) is thick, a common saying that depicts anger.

5 弄不清楚: lit. cannot make it clear [to oneself].

6 主意还是有的: 他还是有主意的。Here the object (主意) is placed at the beginning, thus giving it emphasis. This is a form of rhetoric called 倒装 (inverted sentence). Other examples: 我饭吃好了。我哪儿也不去。我一本书都没买。活也干了, 苦也吃了, 怎么钱就是拿不到呢?

7 等距离: equidistant. 等 = equal (the same character as *to wait*). Recall that 等于 = to be equal to. 距离 = distance.

8 跑道: running track.

9 分别: respectively. In this sentence it means that each of the 24 sticks corresponds to a hole.

10 接上: 接 here means to connect. V+上, review HSK 4 Grammar 4.19.2.

11 相机快门: 相机 = 照相机; 快门 = shutter.

pictures **in concession**¹², the each picture had very little gap **from the next**¹³. The pictures showed that there was **always**¹⁴ one hoof that touched the ground—Cohen won.

After this¹⁵, someone inadvertently pulled that roll of film with speed, then a “miracle” happened. The photos with a **still**¹⁶ horse became a moving horse, the picture “came to life”. This was how the first movie looked.

Through difficult experimentations, filming technology gradually improved, and matured. In December 28, 1895, the French Lumières brothers first broadcasted the **short film**¹⁷ “The Arrival of a Train” in Paris. This day later became a day to commemorate the birth of film, the brothers also became the first ever movie directors in history.

If [we] pay attention to every moment of life, and engage in debates about them, seek help when necessary, and **diligently**¹⁸ investigate, perhaps a major discovery is **just at hand**¹⁹.

Adapted from *Small Stories, Big Ideas*, author: Hu Xiao

¹² 连续: continuous. See lesson 7 vocabulary.

¹³ 相邻: 相 = 互相; 邻 (as in 邻居) = to neighbor, to be next to

¹⁴ 始终: from start to finish

¹⁵ 事后: 事情以后

¹⁶ 静止: motionless.

¹⁷ 短片: 短的影片, short film.

¹⁸ 认真: diligent(ly), serious(ly).

¹⁹ 眼前: lit. in front of your eyes.