

The Science of Deduction (Inference)

Sherlock Holmes put his finger-tips together and leaned his elbows on the arms of his chair, like one who has a relish for conversation.

“My mind,” he said, “rebels at boredom. Give me a problem to solve, give me work, and the most intricate analysis, and I am in my own proper atmosphere. But I abhor the dull routine of existence. I crave for mental excitement. That is why I have chosen my own particular profession – or rather created it, for I am the only one in the world.”

“The only unofficial detective?” I ask raising my eyebrows.

“The only unofficial consulting detective,” he answered. “I am the last and highest court of appeal on detection. The work itself, the pleasure of finding a field for my peculiar powers, is my highest reward.”

More than once during the years I have lived with him in Baker Street, I had observed that a small vanity underlay my companion’s quiet and didactic manner.

“My practice has extended recently to France,” said Holmes, after a while, filling up his old brier-root pipe. “I was consulted last week by Francois Le Villard, who as you probably know, is one of the finest detectives in Paris. He asked me for advice on a case, and by referring him to two parallel cases he was able to come to the true solution. Here is the letter acknowledging my help” He tossed over, as he spoke, a crumpled sheet of foreign note-paper. I glanced my eyes down it, catching “magnifiques”, “tour-de-force”, and a profusion of admiration from the Frenchman.

“He rates my assistance too highly,” said Holmes lightly. “He has considerable gifts himself. He possesses two out of the three qualities necessary for the ideal detective. He has the power of observation and that of deduction. He is only wanting in knowledge; and that may come in time. He is now translating my small works into French.”

“Your works?”

“Oh you didn’t know? Yes, I have been guilty of several monographs. They are all on technical subjects. Here, for example is one on the “Distinction between Ashes of Various Tobaccos.” If you can say definitely that a crime has been committed by a man smoking an Indian cigar, obviously narrows down your search. To the trained eye there is much difference between the black ash of a Trichinopoly and the white fluff of a Bird’s Eye.”

“You have an extraordinary genius for minutiae.” I remarked.

“I appreciate their importance. Here is my monograph on the tracing of footsteps and another on the influence of a person’s work on the form of his hands. But I weary you with my hobby.

“Not at all,” I answered earnestly. “It is of the greatest interest to me, especially since I have had the opportunity of observing your practical application of it. But you spoke just now of observation and deduction (inference). Surely they are the same thing.”

“Why hardly,” he answered, leaning back luxuriously in his arm-chair, and sending up thick blue wreaths from his pipe. “For observation shows me that you have been to the Post Office this morning, but deduction (inference) lets me know that when there you sent a telegram.”

“Right, right on both points. But how did you know? It was a sudden impulse on my part and I mentioned it to no one.”

“It is simplicity itself,” he remarked, chuckling at my surprise. “Observation tells me that you have a little reddish mould adhering to your shoe. Just opposite the Post Office they have taken up the pavement and thrown up some earth, which lies in such a way that it is difficult to avoid treading in upon entering the Office. The earth is of a peculiar reddish tint which is found nowhere else in the neighborhood. So much for observation. The rest is deduction (inference).”

“Then how did you deduce (infer) the telegram?”

“Why I knew you had not written a letter since I sat opposite you all morning. I see also in your desk there is a sheet of stamps and a thick bundle of post-cards. What could you go into the Post Office for, then, but to send a wire? Eliminate all the other factors, and the one which remains must be the truth.”

“In this case it is certainly so. Would you think me impertinent if I were to put you theories to a more severe test?”

“On the contrary,” he responded, “I should be delighted to look into any problem which you might submit to me.”

“I have heard you say that it is difficult for a man to have any object in daily use without leaving the impress of his personality on it. Now, I have here a watch which has recently come into my possession. Would you have the kindness to let me have an opinion upon the character of the habits of the late owner?”

I handed the watch over to him with some slight feeling of amusement in my heart, for this was, as I thought, an impossible one. He balanced the watch in his hand, gazed hard at the dial, opened the back, and examined the works, first with his naked eyes

and then with a powerful magnifying lens. I could hardly keep from smiling at his crest fallen face as he handed it back.

“There is hardly any data,” he remarked. “The watch has been recently cleaned, which robs me of my most important facts.”

“You are right,” I answered. “It was cleaned before being send to me.” In my heart I accused my companion of putting forward a lame excuse to cover his failure. What data could he expect to gather from a cleaned watch?”

“Though unsatisfactory, my search has not been entirely without results. Subject to your correction, I should judge that the watch belonged to your elder brother, who inherited it from your father.”

“That you gather, no doubt from the H.W. on the back?”

“Quite so. The W. suggests your own name. The date of the watch is nearly fifty years back, and the initials are as old as the watch; so it was made for the last generation. Jewelry usually descends to the eldest son, ash he is most likely to have the same name as the father. Your father has, if I remember correctly been dead for many years. It has there, been in the hands of your eldest brother.”

“Right so far,” said I. “Anything else?”

“He was a man of untidy habits – very untidy and careless. He was left with good prospects, but he threw away his chances and lived for some time in poverty, with occasional intervals of prosperity. Finally he took to drink and died. That is all I can gather.”

I sprang from my chair with bitterness in my heart. “This is unworthy of you Holmes: I can not believe you have descended to this. You have surely heard of my unhappy brother’s death, and now you pretend to deduce (infer) this knowledge. You cannot expect me to believe that you have learned all of this from his old watch.”

“My dear doctor,” said he, kindly, “pray accept my apologies. I had forgotten how personal and painful a thing it might be to you. I assure you, however, that I never even knew that you had a brother until you handed me the watch.”

“How then did you get these facts? They are absolutely correct in every way.”

“Ah, that is good luck. I could onl say what was most probable. I did not expect to be so accurate.”

“But it was not mere guess-work?”

“No, no; I never guess. It is a shocking habit – It only seems strange to you because you do not follow my train of thought or observe the small facts upon which the large inferences depend. For example, I began by stating that your brother was careless. When you observe the lower part of that watch-case you notice that is dented in two places, and it is cut and marked all over from the habit of keeping other hard objects such as coins or keys in the same pocket. Surely a man who treats so fine a watch so poorly must be a careless man. Usually a man who inherits so fine a watch inherits other property as well.”

I nodded to show that I followed his reasoning.

When pawnbrokers in England take a watch it is customary to scratch the number of the ticket on the inside of the case. It is handy and there is no risk of the number being lost. There are no less than four such numbers visible on the inside of this case. Inference- that your brother had his share of hard times. Second inference – that he also had bursts of prosperity or he could not have redeemed the watch. Finally, I ask you to look at the key-hole. Look at the thousands of scratches around the hole – marks where the key has slipped. What sober man’s key could have made these grooves; but you will never see a drunkard’s watch without them. He winds it at night and leaves these traces of his unsteady hand. Where is the mystery in all this?”

“It is as clear as daylight. I should have had more faith in your marvelous faculty. May I ask whether you have any professional inquiry on foot at present?”

“None, I cannot live without brainwork. What is the use of having powers if one has no opportunity to use them?”