When I was spending the winter of 1801 in M., one evening in a public garden I met Mr. C., who had of late been employed in that city as premier danseur of the opera and had been enjoying extraordinary success with the public.

I told him that I had been surprised to find him several times in a marionette theater which had been set up in the marketplace and which entertained the populace with little dramatic burlesques, interspersed with songs and dances.

He assured me that the pantomime of these puppets gave him much pleasure, and he made the emphatic observation that a dancer who wants to improve could learn many things from them.

Since the remark, by the manner in which he uttered it, seemed to me more than a mere fancy, I sat down beside him in order to find out more concerning the grounds on which he could base such a curious assertion.

He asked me whether I had not found some of the puppets' dance movements, especially those of the smaller figures, very graceful.

I could not deny the fact. A group of four peasants, dancing the round in a brisk tempo, could not have been painted more charmingly by Teniers.

I inquired about the mechanism of these figures and how it was possible to control the individual limbs and their points without having myriads of string on one's fingers as the rhythm of the movements of the dancer requires.

He answered that I should not think of each limb as if it were moved and controlled individually by the puppet master during the various parts of the dance.

Each movement, he said, has a center of gravity. It suffices to control this point inside the figure. The limbs, which are nothing but pendula, follow of themselves in a mechanical manner, without any attention at all.

He added that this movement is very simple. Always when the center of gravity is moved in a straight line, the limbs describe curves.
whole puppet, if merely shaken in a random fashion, will begin a kind of rhythmic movement which is similar to dance. This observation seemed to shed some light on the pleasure which he had said he found in the marionette theater. But I still had no idea whatever of the conclusions which he would shortly draw from it.

I asked him if he believed that the puppet master who controlled these dolls had to be a dancer himself, or at least had to have some idea about the esthetics of dance.

He replied that merely because an occupation is mechanical and simple, it does not follow that it can be carried on entirely without sensitivity. The line which the center of gravity describes is certainly very simple and, he stated, is in most instances straight. In instances where it is not straight, the equation of its curve appears to be at least of the first order, at most of the second order. And even if of the second order, it is simply elliptical, which form of movement is the natural one for the extremities of the human body (because of the joints) and therefore requires no great skill on the part of the puppet master to reproduce.

But then again, he continued, this line, from another aspect, is something very mysterious. For it is nothing less than the path of the dancer's soul. He doubted that such a line could be attained unless the puppet master placed himself in the center of gravity of the marionette or, in other words, unless he dances.

I replied that the puppet master's occupation had been presented to me as something rather dull—perhaps like the turning of a crank to play a hurdy-gurdy.

By no means, he answered. On the contrary, the movements of the puppet master's fingers are related to the movement of the puppet attached to them in a very complex way, rather as numbers are related to their logarithms, or as asymptotes to a hyperbola.

He moreover stated his opinion that last bit of spirit which he had mentioned could be removed from the marionettes and that their dance could be transferred entirely to the realm of mechanical forces and products as I had imagined by means of a crank.
I expressed my astonishment at the close attention he paid to this lowly form
of a high art, invented for the masses. Not merely did he consider it capable
of a higher development, he seemed himself to be concerned with it.
He smiled and said he would venture to assert that if an inventor were to
build him a marionette following the specifications he would stipulate, he
could present a dance with it which neither he nor any other talented dancer
of his time, Vestris himself not excepted, would be able to equal.
Have you, he asked--here I glanced silently at the ground--have you heard of
those mechanical legs which English artisans construct for unfortunate
people who have lost a limb?
I said no, I had never seen such a thing.
I'm sorry, he replied. For if I tell you that those unfortunates dance with
them, I almost fear you will not believe me. What do I mean by 'dance'? The
range of their movements is certainly restricted. Yet those of which they are
capable are effected with a serenity, agility, and grace that would amaze any
thinking person.
I stated jokingly that he had just found his man. Because an artisan who is
able to build such a remarkable limb would undoubtedly also be able to
construct an entire marionette according to his specifications.
What, I asked--here he in turn seemed a little distracted--what are these
specifications which you would require of such an artisan's skill?
Nothing, he answered, that is not present here already: symmetry, mobility,
agility--but all in a higher degree--especially a more natural arrangement of
the centers of gravity.
And the advantages which this puppet would have over living dancers?
The advantage? Above all, a negative one, my excellent friend. Namely, that it
would never be affected. For affectation appears, as you know, when the soul
(vis motrix) is located in some point other than the movement's center of
gravity. Now since the puppet master, by means of wire or string, of
necessity has absolutely no other point besides that in his power, all the
other limbs are, as they should be, lifeless, mere pendula, and follow the
simple law of gravity--an excellent characteristic which one seeks in vain
among most of our dancers.
And consider P., he continued, when she plays Daphne and, pursued by Apollo, looks back at him. Her soul is situated in the small of her back. She bends low as if she would break in two, like a naiad of the Bernini school. Or consider young F. when he, as Paris, stands among the three goddesses and presents the apple to Venus. His soul--it is awful to see--is situated in his elbow.

Such mistakes, he added rather curtly, have been unavoidable ever since we ate from the tree of knowledge. But paradise is locked and the cherub is behind us. We have to make the journey around the world and see if it is perhaps open again somewhere in the rear.

I laughed. Indeed, I thought, the spirit cannot err where it is not present. However I noticed he had more on his mind and I asked him to continue.

In addition, he declared, these puppets have the advantage of being anti-gravitational. They know nothing of the inertia of matter, which of all conditions contends the most against dance, because the force that lifts dancers into the air is greater than that which holds them to the earth. What would our good G. give to be sixty pounds lighter, or if a weight of that magnitude came to her aid in her entrechats and pirouettes? The puppets, like elves, need the ground only to touch upon in order to revitalize the energy of their limbs through a momentary restraint. We need it in order to rest, and to recover from the exertion of the dance--an instant which obviously is not itself dance and with which nothing can be done except to make it pass as quickly as possible.

I said that however skillfully he might demonstrate the substance of his paradoxes, he would never make me believe that more grace could be contained in a mechanical puppet than in the structure of the human body. He answered that it would be utterly impossible for a man to so much as equal the puppet in that respect. In this sphere, he went on, only a god
could compete with inanimate matter, and here is where the two ends of the
ring-shaped universe interlock.

I was more and more astonished and didn't know what I could say to such
strange statements.

It would seem, he said as he took a pinch of snuff, that you have not read
the third chapter of the first book of Moses closely. And one cannot properly
discuss the later stages of human development--much less the final stage--
unless one is acquainted with this first stage.

I replied that I knew very well what disturbances self-consciousness causes
in the natural grace of man. A young man of my acquaintance had lost his
innocence before my very eyes through one simple observation and had
afterwards never again found that paradise, in spite of all sorts of efforts...

Anyway, I added, what conclusions can you draw from that?

He asked me what event I was referring to.

Some three years ago, I related, I was swimming with this young man, whose
form, at that time, was permeated by a splendid gracefulness. He was
probably about sixteen years old and only very faintly could the first traces
of vanity, called up by the affection of women, be perceived. It so happened
that in Paris a short time before, we had seen the famous sculpture of the
young who is pulling a splinter from his foot. The casting of the statue is
well-known and is found in most German collections. He was reminded of
that statue by a glance in a large mirror at the moment he put his foot on
the stool to dry it off. He smiled and told me what a discovery he had made.
Actually I had made the same discovery at just that moment. Whether it was
to test the security of the gracefulness which attended him or to try to
assuage his vanity a bit, I laughed and replied, “You must be seeing ghosts!”

He blushed and raised his foot a third time, and a fourth time. He must have
raised it ten times--in vain! He was incapable of producing the same
movement again. What I really mean is that the movements which he made
had such a comic element that I had trouble holding back my laughter.
From that day, almost from that moment on, an incomprehensible transformation took place in the young man. He began to spend the whole day in front of the mirror, and more and more his attractiveness to others deserted him. An invisible and incomprehensible force, like an iron net, appeared to restrain the free play of his gestures, and when a year had passed, one could not detect in him any trace of the charm that had formerly delighted the eyes of the people who thronged about him. There is, by the way, a man who was witness to that strange and unfortunate event and would confirm it, word for word, as I have told it.

At this opportunity, Mr. C. said amiably, I must tell you another story, from which you will easily understand how it fits here.

I found myself during a trip to Russia on the estate of Mr. G., a Livonian nobleman whose sons were much involved with fencing. The elder one especially, who had just returned from the university, affected virtuosity. One morning when I was in his room he offered me a foil. We fenced but it so happened that I was better than he. His temper also added to his confusion. Nearly every thrust I directed was a hit, and finally his foil flew into the corner. Half in jest, half in irritation, he said, as he retrieved his foil, that he had met his master--but everybody in the world meets his master, and he would, he said, shortly lead me to mine. The brothers burst into loud laughter and called out, "Let's go! Let's go! Down to the wood stall!" And with that, they took me by the hand and led me to a bear which Mr. G., their father, kept in the barnyard.

As I walked toward him, the bear stood on his hind feet with his back against a post to which he was chained. His right paw was raised, ready for battle; he looked me straight in the eye. That was his fencing posture.
didn't know whether or not I was dreaming when I beheld myself confronted by such an opponent. Nonetheless Mr. G. said, "Thrust, thrust and see if you can score a hit." Since I had recovered a bit from my surprise, I attacked the bear with the foil. The bear made a very short movement with his paw and parried my thrust. I tried to deceive him with feints; the bear did not stir. With sudden virtuosity I attacked him again--I surely would have struck a man's chest. The bear made another very short movement with his paw and parried the thrust. Now I was almost in the situation of the young Mr. G. The serious concentration of the bear only further robbed me of my own composure. Thrusts and feints alternated. Sweat poured from me--in vain! Not merely did the bear, like the best fencer in the world, parry all my thrusts; he did not once enter into the feints--in this respect no fencer in the world can be compared to him. He held my eyes, as if he could read my soul in them, always with his paw raised and ready for battle; and if my thrusts were not meant seriously, he did not move.

Do you believe this story, Mr. C. asked.

Completely, I exclaimed with joyful applause. From any stranger it would certainly be plausible--how much more so from you!

Now, my excellent friend, said Mr. C., you are in possession of everything necessary to understand me. We see that, in the world of animate matter, as self-consciousness becomes dimmer and weaker, to the same extent gracefulness manifests itself more and more radiantly and dominantly. Consider how the intersection of two lines, which begins on one side of a point and after passing through infinity, completes itself on the other side. Or, consider how the image in a concave mirror is first seen, then vanishes to infinity, and then reappears right before us. In a similar fashion, gracefulness also reappears when knowledge has passed through an infinity--in such a way that it simultaneously is manifested most purely in that anthropomorphic structure which has either no consciousness at all, or which is infinite--which is to say, either in the puppet, or in God.

Therefore, I said a bit distractedly, would we have to eat again from the tree of knowledge in order to revert to the condition of innocence?

To be sure, he answered. That is the last chapter in the history of the world.