

Why an Ourang-Outang? Thinking and Computing with Poe


écrit par Sydney Lévy

Perhaps you remember*, as I do, the first time you read Poe's "Murders in the Rue Morgue," this story of a double murder that the newspapers quoted in the text say is "so mysterious, and so perplexing in all its particulars" [1] and that the narrator qualifies as an "insoluble mystery" (351), when you discover at the end that the murderer is an ourang-outang. Upon learning that the perpetrator is a beast not exactly known for its intelligence, I couldn't help a little smile, a smile of self-derision for having been pulled in by quite a complex suspense involving a body with a cut throat found in a court yard, another stuffed up the chimney of an apartment with absolutely no trace of a forced entry or exit and where jewelry and a large sum of money are lying on the floor, and voices heard, one a "gruff" of a man undoubtedly speaking French, and another, a "shrill" in an undeterminable foreign language, to name just a few of the indices presented in the tale. That smile is perhaps also a smile of amusement, if not of pleasure, for having been the object of a little mystification. A mystification not unlike the one for which fell James Sherwood, this amateur of unique objects in Georges Perec's *La Vie Mode d'emploi* who in the New England of the 1890's paid one million dollars for the supposed vase in which was collected the blood of Christ, only to discover that it was "une espèce de gargoulette achetée dans un souk de Nabeul (Tunisie) et légèrement maquillée" [a kind of earthen vase bought in a souk in Nabeul (Tunisia) and slightly made up]. The narrator tells us however that in the end Sherwood knew very well "qu'il ne payait pas pour le vase mais pour la mise-en-scène" [2] [that he was not paying for the vase but for the show].


But why an ourang-outang? [3] There is, of course, a less frivolous reason for Poe's choice than pulling a trick on us. We'll see that this reason is not without a connection to the very concept of mystification. It is in fact with the help of another mystification, this one a real hoax, that an answer will become apparent. I'm referring to "Maelzel's Chess Player," an article Poe wrote a good five years before the "Rue Morgue" in which he plays himself the role of the detective. ❌ The chess player is an automaton invented by Baron Van Kempelen in the late 18th century. It was subsequently purchased by a certain Maelzel –the inventor of the metronome– who exhibited the machine's prowess by having it play opponents from the audience at theaters and sideshows on both sides of the Atlantic. In the article, Poe demonstrates, as others by the way did before him,

that hidden in the machine was human being who is actually doing the chess playing.

Poe aficionados have noticed that the article bears a tone, a voice remarkably similar to Dupin's discourse in "The Murders in the Rue Morgue." There are actually many more intersections between the article and the short story. Several elements in common lead me to believe that there was a transposition or translation from one to the other:

– In both cases we have a locked room. In the tale the police is at a loss to explain how the murderer could have entered or exited the premises since all doors and windows were locked from the inside. In the article, Poe's aim is to determine if inside the machine a human being was hidden and who did the playing or if it contained, as Maelzel would have liked his audience to believe, only mechanisms. Poe describes in detail Maelzel's act on the stage: before he had the machine play chess, he went around 

the stage rolling the automaton in front of him while opening and closing compartments and drawers in the machine to show that it contained only mechanical elements. Poe proposes that Maelzel opened and closed these compartments and drawers in a precise order that permitted the person inside to slide an inner panel and move around at the right moment and thus remain hidden. He concludes that, in spite of the mechanics of the machine always in view, there remained always a locked space inside the machine.

– This inner sliding panel constitutes part of Poe's solution to the hoax in the article. It is transposed to the tale where it becomes a sliding window that also constitutes part of the solution to the locked room mystery for Dupin.  We find out that the ourang-outang enters the apartment through such a window and by chance a nail in the window frame locks the window upon its exit. The animal, in other words, like the supposed person inside the machine, moves around thanks to a sliding mechanism and thus remains hidden to the neighbors who arrive on the scene just as the murder was taking place.

– The structures of the article and the tale are also very similar. Both start with a long, general, abstract, and to a certain extent epistemological discussion which then turns to a concrete description of the automaton in the article and into a narrative in the tale which is supposed to illustrate the epistemological discussion. Moreover, the epistemological discussion in both are precisely on the same topic, but taken from slightly different angles. In the article, Poe distinguishes the functioning of a machine and the nature of human thought. In the tale, which has very much the appearance of an article in the beginning, Poe distinguishes mathematical analysis from human analysis, between the computable and the thinkable. This distinction is

summarized by an aphorism that we find in the first few lines of the tale: “Yet, to calculate is not in itself to analyze.” I think that we can read the three Dupin stories as an unpacking of that aphorism. The second tale, “The Mystery of Marie Rogêt,” is labeled clearly as sequel to the first, not in the plot, of course, but in his further development of the aphorism where he will talk mostly about probabilities. In the third tale, “The Purloined Letter,” he will have Dupin pick up explicitly the difference between the thinkable and the computable, to which I will come back.

Poe’s effort at distinguishing what a machine can do from what humans do, the computable and the thinkable, goes against the grain of certain speculations at the time concerning the power of machines to replace the brain, not unlike in many ways our modern debates around Artificial Intelligence. To cite just a few examples of that debate in the early 19th century:

-In an open letter that was widely published, Charles Babbage, who in 1822 invents a machine to re-calculate the astronomical tables, which he calls the “Difference Engine,” says of his machine that “by the aid of gravity or any other moving power, [it] should become a substitute for one of the lower operations of human intellect.” [\[4\]](#)

-In an anonymous article on that open letter in the *British Critic* of the same year, Babbage’s modest affirmation that the purpose of his machine would be “a substitute for the lower operations of the human intellect” becomes a “transfer [...] from mind and matter -to make the wheel and axle the substitutes of the brain.” [\[5\]](#)

-This association of mind and machine lasts a long time. In 1837 John William Draper gives a lecture in the States on recent advances in science, which was published in *Southern Literary Messenger* a few months after Poe quits his job in that magazine. Draper says of Babbage’s machine “Not only does this system of wheels calculate, as though it was a living and reasoning thing, but even writes down and prints off its labors.” [\[6\]](#)

-Around the same time, Ada Lovelace Byron, Lord Byron’s daughter, is getting her training in mathematics from Babbage and is working with him to develop the second generation of his machine, called –note the coincidence—the “Analytic Engine” for which she wrote what is considered today as the first piece of software that was to generate the Bernoulli numbers. She writes a few years later to a friend this exquisite sentence: “I hope to bequeath to generations a calculus of the Nervous System.” [\[7\]](#) Her remark is certainly not as ambitious as her elder’s substitution of mind by matter, but it fits nevertheless within the paradigm because, as we shall see in moment, if there is such a thing as a calculus of the nervous system, that calculus is susceptible

to mechanization.

-The preceding year, 1836, Poe publishes "Maezel's Chess Player" in which we find this remark, astonishing for the accuracy in its description our own computers:

But if these machines were ingenious, what shall we think of the calculating machine of Mr. Babbage? What shall we think of an engine of wood and metal which can not only compute astronomical and navigation tables to any given extent, but render the exactitude of its operations mathematically certain through its power of correcting its possible errors? What shall we think of a machine which can not only accomplish all this, but actually print off its elaborate results, when obtained, without the slightest intervention of the intellect of man? (511)

But if Poe invokes the wonder of Babbage's machine, the most advanced automaton of his time, it is to suggest disbelief in the capacity of a machine to play the much more complicated game of chess and to lead him into a theoretical discussion on the difference between what a machine can do and what human reasoning does. Striking in that discussion is first his thorough understanding of the algorithmic nature of computation:

Arithmetical or algebraical calculations are, from their very nature, fixed and determinate. Certain data being given, certain results necessarily and inevitably follow. These results have dependence upon nothing, and are influenced by nothing but the data originally given. And the question to be solved proceeds, or should proceed, to its final determination, by a succession of unerring steps liable to no change, and subject to no modification. (511)

And second, in view of the algorithmic, step-by-step, nature of computation, it is conceivable that a machine could be built to follow, again step by step, the algorithmic procedure:

This being the case, we can without difficulty conceive the possibility of so arranging a piece of mechanism, that upon starting it in accordance with the data of the question to be solved, it should continue its movements regularly, progressively, and undeviatingly towards the required solution, since these movements, however complex, are never imagined to be otherwise than finite and determinate. (511-12) [\[8\]](#)

We are indeed not very far from Ada's exquisite sentence about the calculus of the nervous system. If such a calculus can be built, a machine can also be built to perform such a calculus. With Poe's argument that any

mathematical procedure is in theory susceptible to mechanization, we are not far either from what is known today as the Church-Turing thesis, which states “for any given algorithm there is some Turing machine that can implement that algorithm.” I’m taking this formulation from a 1990 article by John Searle whose title, “Is the Brain a Digital Computer?” [\[9\]](#), shows perhaps glaringly that we haven’t yet settled the debate on the possibility of machines doing any kind of thinking.

Poe’s article on “Maezel’s Chess Player”, its transposition in “Rue Morgue” and the extension of that tale into two more tales to make up the Dupin stories, are written however in opposition to that tendency to believe that the mind is ultimately susceptible to mechanization. The aphorism at the beginning of “Rue Morgue,” “Yet to calculate is not in itself to analyze,” declares that opposition succinctly and clearly. When we put it together with what he said in the article on the chess player, we understand that in that sentence, to calculate is certainly what a machine can do –the computable– and to analyze is what humans can do–the thinkable. The Dupin stories are, in effect, a demonstration of the thinkable, taking as an illustration the extraordinary mental exploits of the Chevalier Dupin.

In order to frame human analysis –the thinkable–, Poe distinguishes it in “Rue Morgue” from neighboring concepts, such as fancy, imagination and ingenuity. He defines ingenuity as the “constructive or combining power” (336). As for fancy, he give as an example the fact that Dupin and the narrator are “enamored by night” (338), that they had “wild whims” (338) and that they “busied their souls in dreams –reading, writing or conversing” (338). The narrator doesn’t give an explicit definition of imagination, except to say that what he liked in Dupin was “ the vivid freshness of his imagination” (337) and that “while the ingenious are always fanciful, the *truly* imaginative are never otherwise than analytic” (336). We should keep in mind, by the way, that the Minister in “The Purloined Letter” was a mathematician and a poet. [\[10\]](#)

Moreover, the tales will reveal the components of this analysis-cum-
imagination. There are several of them.[\[11\]](#) There is “acumen” and “disentanglement”, which we recognize as the Cartesian observation and separation. There is also a calculation of probabilities which is the main subject in the “Marie Rogêt” and which we see in “Rue Morgue” when Dupin says that the police:

have fallen into the gross but common error of confounding the unusual with the abstruse. But it is by these deviations from the plane of the ordinary, that reason feels its way, if at all, in its search for the true. In investigations such as we are now pursuing,

it should not be so much asked 'what has occurred,' as 'what has occurred that has never occurred before.' (354)

And it is, of course, by the same type of reasoning that the Minister hides the letter in plain sight (or in the plane of the ordinary) and that Dupin finds it.

However, two other components of the thinkable are of particular importance in our attempt to come up with an answer our question "Why an Ourang-Ouang?" The first is mentioned at the beginning of "Rue Morgue". It occurs when "the analyst throws himself into the spirit of his opponent, identifies himself therewith, and not unfrequently sees thus, at a glance, the sole methods (sometimes indeed absurdly simple ones) by which he may seduce into error or hurry into miscalculation" (334). Dupin demonstrates this identification with the other –what else to call it but "empathy"? –when, after a long silence during a walk, he finishes a sentence that the narrator had started in his mind. He demonstrates it also when, in a long speech in the first person in the same tale, he goes over the reasoning of the sailor who had lost his ourang-outang, as though he was himself the sailor (369.) In "The Purloined Letter" he invokes empathy again when he tells the story of this kid who always won at the game of even and odd by identifying with his opponent, going as far as taking on his facial expression in order, supposedly, to know better what he is thinking (451). Dupin finally uses the same empathy with the Minister, mimicking his thoughts, to understand that the letter was hidden in plain sight. [\[12\]](#)

Poe also practices that empathy or practiced it five years before Dupin in order solve his own mystery of the Chess Player. But here, he doesn't finish a sentence for someone or go through a supposed reasoning of an adversary. His empathy does not have much to do with identification with a mind. He traces, rather, and with great details, the body movements of the human chess player hidden inside the automaton as Maelzel parades his machine on the stage while opening and closing its doors and drawers.

This empathy has a long history when it comes to automatons and machines of all sorts. I'll just mention a few. The first dates to 1816 and is to be found in E. T. A. Hoffmann's "The Sandman," when Olympia, the automaton, answers every one of Nathanel's questions by the same "Ach! Ach!" and he understands every time whatever he wants to understand, that she likes his poetry, that she loves him, etc. Nathanael, in fact, identifies with Olympia and supplies her with the answers that he says himself. Olympia's "Ach! Ach!" is not without reminding us of the Raven's "Nevermore", repeated at every question or statement put to it and taking on a different meaning with each repetition. That meaning however, is not intended by the raven but supplied by the poet and the reader who identify

with the bird and assign to it a supposed different meaning. As a matter of fact, in both cases, we can say that if the machine or the bird do any thinking at all, it is thanks to the empathy of human beings, Nathanel's, the poet or or the reader, who do the thinking for the automaton or the bird. Another way to put it is that the machine uses Nathanael as a prosthesis to do its thinking and the raven uses the reader and poet to do its own, just like Maelzel's automaton uses the human being inside it, as well as the gullible audience, as prostheses to do its thinking.

Another example comes from the end of 19th century in France, in Villiers de l'Isle Adam's *L'Eve Future (Tomorrow's Eve)*. It is also empathy that enables the main character, Lord Ewald, to confuse Hadaly, the Andréide (it is Villier's word) that Thomas Edison (yes, our own Thomas Edison) has made for him to take the place of Alicia, the woman he loves. Toward he end of the novel, the Andréide tells Lord Ewald in the most natural way those few magical words: "Ainsi, tu souffres, dit-elle tout bas, et c'est par moi " (Thus you are suffering and it is my fault). The narrator then adds: "cette seule parole humaine avait suffi pour toucher toute son âme" (these human words were enough to touch his entire soul). [13] It is finally that same empathy that will become in modern science fiction what distinguishes humans from machines. I'm thinking in particular of the scene at the beginning of *Blade Runner* when the authorities, in order to distinguish humans from cyborgs, test the citizens' sense of empathy by asking them what they would do if they saw a turtle on its back.

The second component of Poe's faculty of imagination-cum-analysis will explain in a more precise and detailed way what distinguishes humans from machines –machines, let's not forget, that are capable of any calculation. Poe doesn't name that component in the Dupin stories but it is present throughout, starting with the quote from Sir Thomas Brown he puts as an epigraph to "Rue Morgue": "What song the Syrens sang, or what name Achilles assumed when he hid himself among women, although puzzling questions, are not beyond *all* conjecture" (332). You'll notice, in passing, that the quote deals with detection ("the puzzling questions") and with a locked space (Achilles is hiding). The solution to this micro-mystery comes through "conjecture," which the Webster defines as "inference from defective or presumptive evidence; from Latin 'conjectura,' literally, to throw together." Arriving at a solution by throwing together indices refers to the problem of aggregates or the parts/whole problem of which we know the clichés "The sum of the parts does not make the whole" or "the whole is more than the sum of its parts". In modern parlance we speak of emergence. According to Andy Clark, "there is emergence whenever interesting, non-centrally-controlled behavior ensues as a result of the interaction of multiple simple components within a system." [14] We find a good illustration of that phenomenon in the

first few pages of the "Rue Morgue" when the narrator describes everything that a good player of whist must do. But true to himself, the narrator will start the description with a little theoretical introduction, where we will hear echoes of mechanics and mathematics that Poe had discussed in "Maelzel":

To observe attentively is to remember distinctly; and, so far, the concentrative chess-player will do very well at whist; while the rules of Hoyle (themselves based upon the mere mechanism of the game) are sufficiently and generally comprehensible. Thus to have a retentive memory, and to proceed by "the book," are points commonly regarded as the sum total of good playing. But it is in matters beyond the limits of mere rule that the skill of the analyst is evinced. (334-35)

Note the vocabulary: "mechanisms", "sum total", "to proceed by the book" and "mere rule" which in "Maelzel" were "finite and determinate steps". The argument here is that you can, of course, play whist "by the book," following the rules or the algorithm. And you can of course probably arrange for a machine to do the same since the machine will only follow a prescribed set of rules –an algorithm–but the result will be the "sum total" of good playing. It is however "beyond the limits of mere rule" that human analysis–the thinkable–will be revealed. And the narrator will go on to make an enormous list of the minute observations the good whist player makes. These minute observations form an aggregate from which emerges the next move of the player who "puts down his card with absolute precision of purpose as if the rest of the party had turned outward the faces of their own." (335-36) [\[15\]](#)

At another point, when Dupin understood that the assassin was an ourang-outang, he asks the narrator to do his own aggregate of ideas and facts as they have them so far. He asks him to do as the player of whist and integrate all the givens and to come up with a solution:

[...]we have gone so far as to combine the ideas of an agility astounding, a strength superhuman, a ferocity brutal, a butchery without motive, a *grotesquerie* in horror absolutely alien from humanity, and a voice foreign in tone to the ears of men of many nations, and devoid of all distinct or intelligible syllabification. What result, then, has ensued? What impression have I made upon your fancy? (365)

The narrator, who is good at "fancy" but probably not at imagination answers "a madman." He is close but not quite on target. He identifies an irrational mind while the murderer is almost entirely a body. To convince

the narrator, or maybe to teach him some detection, Dupin does not invoke anything having to do with the mind such a motive, a calculation or a ruse (how could he? there is hardly any mind involved) but asks the narrator to do a kind of empathic gesture consisting in comparing the extent of his own hand with that of a facsimile of a hand's imprint that was left on one of the victim's neck. Or to put another way, the assassin being almost entirely a body, the indices it leaves can only be corporal.

In "The Purloined Letter" Poe comes back to the question of aggregates in a manner that is more theoretical and explicit by putting the problem in mathematical terms, which are, let us not forget, susceptible to mechanization. He comes back to it in the context of a discussion he had already started in "Rue Morgue" regarding the difference between mathematical analysis and human analysis, the computable and the thinkable. The narrator at some point confuses the two by saying: "The mathematical reason has been regarded as the reason *par excellence*" (454). Dupin, of course, corrects him and to prove his point he invokes the parts/whole problem:

Mathematical axioms are *not* axioms of general truth. What is true of *relation* – of form and quantity – is often grossly false in regard to morals, for example. In this latter science it is very usually *untrue* that the aggregated parts are equal to the whole. In chemistry also the axiom fails. In the consideration of motive it fails; for two motives, each of a given value, have not, necessarily, a value when united, equal to the sum of their values apart. (454-55)

It turns out that the police make the same error as the narrator in confusing the sum, which is computable and thinkable, with the whole, which is only thinkable, in its methods of detection. In "Rue Morgue" Dupin says of one of its members: "He might see, perhaps, one or two points with unusual clearness, but in so doing he, necessarily, lost sight of the matter as a whole" (352). And in "The Purloined Letter" the Prefect acts almost like a machine. In order to find the letter, he sets up a procedure, an algorithm, one can say, which uses brutal force, and which addresses nothing of the Minister's mind or his thinking, as Dupin will do, but only his material surroundings:

We divided its entire surface into compartments, which we numbered, so that none might be missed; then we scrutinized each individual square inch throughout the premises, including the two houses immediately adjoining, with the microscope, as before. (446)

It is perhaps clear that the procedure here is fundamentally mathematical: divide the house of the Minister in small parts –I'm tempted to say

“cells,” number them in order not to miss any and examine one by one with a microscope. The assumption here is that they will have thus searched the whole house but in fact they will have only searched the sum of all its parts. A sum that is of course computable and in another register mechanizable. Regarding these cells, I think it is not too much to say that the Prefect transforms the house into a database and looks for the letter –with a microscope– in each one of its cells.

To summarize: for Poe the sum of the parts is computable and therefore mechanizable while the whole, the emergent behavior, is incomputable but thinkable. A last remark on computability before coming back to our orang-outang. In 1845, a year after he finished “The Purloined Letter,” Poe publishes a fantastic short story, “The Facts in the Case of Mr. Valdemar,” in which a scientist narrator mesmerizes a M. Valdemar *in articulos mortis*, as he says, at the time of death or in the articulation of death. He then asks him if he is asleep. Here is how the narrator describes what comes out of the mouth of the “sleep-waker” as he calls him. You’ll recognize again the parts/whole problem:

[...]there issued from the distended and motionless jaws a voice – such as it would be madness in me to attempt describing. There are, indeed, two or three epithets which might be considered as applicable to it in part; I might say, for example, that the sound was harsh, and broken and hollow; but the hideous whole is indescribable[...]
(276)

and upon insisting with the question, comes a reply that has been often commented upon: “Yes; –no; I *have been* sleeping –and now–now–*I am dead*” (277). I would like to propose that Poe was continuing here his reflection on computability and incomputability by setting up circumstances where “yes” and “no” mean the same thing, where, in a tiny phrase are conjoined the affirmation of existence, the “I am” and its negation “dead.” With this tiny phrase, Poe has also given a test for incomputability. According to Roger Penrose, you have incomputability of a problem when you can prove that no question exists that will give you a simple yes or no answer to the problem.[\[16\]](#) Indeed, any question we can put to Valdemar to determine if he is dead OR alive will be answered by an AND. Dead and alive, asleep and awake, “yes” and “no” or, in modern computer terms, the impossible 0 and 1. The lesson here is that a “yes” AND “no” is certainly thinkable, the short story is proof of that, but not computable and therefore not susceptible to mechanization.

It is perhaps clear by now that –or at least that’s where I was coming to by gathering these remarks– that Poe, in transposing or translating or even monkeying his article on the Chess-Player into a tale about a double

murder, has replaced the interior mechanisms of the automaton by another body with almost no mind in a similar locked room situation. Poe, however, needed a body, incapable of analysis of any kind, whether mathematical or human, a body, and not a mind, that did not require too much suspension of disbelief for his mid-19th century audience (we are not quite yet in the 20th century and Hal the murderous computer has not seen the light of day). That body is the ourang-outang, which resembles humans and which imitates humans, just as the automaton imitates a human playing chess, or more precisely, which gives the appearance of a human playing chess, without, that is, any trace of empathy for humans. We learn, as a matter of fact, that the owner of the animal in the tale had caught it imitating him shaving. It is imitating but not empathizing. Why then an ourang-outang? In order to demonstrate, just like he did in the article, that the appearance of intelligence is not in itself intelligence.

Poe is thus giving an anticipatory answer to Allan Turing and his test. In his now classical article of 1950, "Computing Machinery and Intelligence," [\[17\]](#) Turing set out, just like Poe a century before him, to establish the conditions of possibility of machine intelligence or what we call today AI. To simplify his task, he proposes to replace the question "Is a machine capable of thought?" by a game, which he calls, of all things, "The Imitation Game." And here we have all over again, a century later, show business (remember that the chess player was displayed in theaters and side shows), games, imitation or monkeying, just like the ourang-outang imitating his master shaving and just like Poe imitating himself. Briefly, the game consists in putting behind a curtain a machine and a human being (and here is the locked room reappearing as if by some trick.) In front of the curtain there is a person who asks questions to the entity behind the curtain. The answers come back to the questioner in typewritten form. The questioner has therefore no way of knowing if the answers come from the human being or the machine. If the questioner cannot, statistically speaking, distinguish the human from the machine answers, we can ostensibly conclude that the machine was successful in imitating human behavior. Turing goes a bit further and says that the machine "carries out something which ought to be described as thinking but which is very different from what man does" (435). Today we say that the machine passed the Turing test. It is clear: Turing sidesteps the question on the machine's capability of thought. Whether it is capable of thinking or not is no longer the question. It is only its behavior that counts and whether this behavior could be described as thought. Turing is satisfied with the appearance of thought, its imitation, its monkeying.

But, as we saw, that is not enough for Poe. It is not enough for John Searle either. In his also now classic 1990 essay, "Minds, Brains and

Programs," [18] he imagines a mind experiment that came to be called the "The Chinese room experiment" (here comes the locked room again). In order to determine whether a machine is capable of thought, Searle imagines in this virtual experiment exactly what Poe has done with the chess playing automaton: he goes inside the machine and imagines doing exactly what the machine is supposed to be doing in giving its answers (and here are our friends empathy and mimicking reappearing). The machine with Searle inside is given a text written in Chinese and a series of questions also written in Chinese about that text. He is to answer these questions also in Chinese, a language he does not know. He is also given a set of rules, a user's manual or an "algorithm" if you prefer, in English, a language he knows well. The set of rules allows him to recognize the Chinese characters, without, of course understanding them, and to manipulate them. In following these instructions, in doing everything "by the book," as Poe says about the whist player, Searle manages, of course, to answer all the questions put to him without any understanding of the original text, or the questions, or his own answers. He concludes that it would really be difficult to say that there was any kind of thinking going on inside the machine. Just like the ourang-outang who imitates his master shaving or kills two women in their apartment in Paris without really understanding what it is doing, Searle manipulates signs and rearranges them without understanding a word of the material he is manipulating. In essence, he is doing body work inside the machine but no mind work. From the outside of the locked rooms, be it the computer Searle is in, or the apartment in "Rue Morgue" without any signs of entry or exit, or even the locked room of the compartment that houses the human chess player, from outside of these locked rooms, it looks like there is intelligence at work. What comes out of these rooms can indeed as Turing says "be described as thinking." If however we unlock these rooms, we realize that we have been the object of a mystification, not unlike the mystification we were subjected to upon reading for the first time "The Murders of the Rue Morgue" and in which we took a certain pleasure.

* This article picks up and develops some of the argumetns of my "[Poe: Expérience de pensée. La pensée comme expérience](#)", *Épistémocritique*, Vol. II, Hiver 2008. It is featured here as a prepublication of a chapter in *POEtiques/POEtics, l'influence de Poe sur les théories et les pratiques des genres dans le domaine français*, Nicole Biagioli, ed. Hermann, 2010.

[1] Edgar A. Poe, "The Murders in the Rue Morgue" in *The Portable Poe*, Philip Van Doren Stern, ed. Penguin, 1945, 350. All subsequent references

to Poe's work are to this edition.

[2] Georges Perec, *La Vie Mode d'emploi*, Paris, Hachette, 1978. All translations are mine. There are numerous references to Poe in Perec's work. There is for example in the same *La Vie Mode d'emploi* a detective named Waldemar that Perec writes, of course, with a "W" (Perec is the author of a bit-part autobiography *W ou le souvenir d'enfance*), a "W" perhaps inspired by Poe's "William Wilson," where we have a literal double YOU. There is also that oblique vision so fundamental in Perec's work, which Poe describes in "Rue Morgue". He explains that "to look at a star by glances—to view it in a side-long way," "there is a more refined capacity for comprehension" than in a "scrutiny too sustained, too concentrated, or too direct" (352). A last example would be a game described in "The Purloined Letter" (457), where the player is asked to find a name on a map, the most difficult being those printed in large typeface to designate large areas. Perec builds an entire episode of *La Vie Mode d'emploi* on the same principle (454-464).

[3] My question echoes, unwittingly, Chico's "Why a duck?" which, on second thought, is not totally unrelated to mine, when you consider that one of the first realistic automaton is a defecating duck (see Jessica Riskin, "The Defecating Duck, or, The Ambiguous Origins of Artificial Intelligence", *Critical Inquiry*, Summer 2003, Vol. 29, No. 4) and that Maelzel's chess player, a topic that will occupy us in a moment, is undoubtedly a close descendant (a G2?) of that duck.

[4] Charles Babbage, "Letter to Sir Humphry Davy, Bart, President of the Royal Society, &c.&c. On the Application of Machinery to the Purpose of Calculating and Printing Mathematical Tables," Baldwin & Co. 1822. For a copy of that letter see:

<http://sites.google.com/site/babbagedifferenceengine/babbagelettertosirhumphrydavy>

[5] Anonymous, "ART III," *The British Critic*, October 1822, Vol. XVIII, 362.

[6] John W. Draper, "Lecture. The last of a course of lectures, delivered during the years 1838-7, in Hampden Sidney College ; on the occasion of the award of an annual prize, given to the members of the Junior and Senior Classes," *Southern Literary Messenger*, Vol. III, No. XI, 696.

[7] B. A. Toole, *Ada, The Enchantress of Numbers: A Selection From the Letters of Lord Byron's Daughter and Her Description of the First Computer*, Strawberry Press, 1992, 295-96.

[8] Interestingly, Poe describes that same step by step procedure in writing "The Raven" and goes as far as to say in "The Philosophy of Composition": "It is my design to render it manifest that no one point in its composition is referrible either to accident or intuition – that the work proceeded, step by step, to its completion with the precision and rigid consequence of a mathematical problem" (551-552.) Although modern poetry, more specifically the OULIPO group, will put to work this somewhat mechanical and mathematical process of composition in very inventive ways, any reader of Poe's poem will agree that there is much more to that poem than the "consequence of mathematical problem." I like to think that Poe's essay is not written tongue in cheek as has been suggested but that the algorithmic step by step procedure he describes is used as an analogy to emphasize the idea of design, if not of engineering, in writing a poem, which was picked up quite seriously by poets such as Paul Valéry. See for example his "Poésie et pensée abstraite" in *Œuvres*, vol I. Ed. Jean Hytier. Paris: Gallimard, Bibliothèque de la Pléiade, 1957.

[9] John R. Searle, "Is the Brain a Digital Computer?" *Proceedings and Addresses of the American Philosophical Association*, Vol. 64, No. 3 (Nov. 1990), pp. 21-37.

[10] Ada, coincidentally, dreamed of a "a poetical philosophy, a poetical science" (Toole, 319) and saw herself also as an "analyst" (i.e. mathematician) and a "metaphysician": "I do *not* believe that my father was (or ever could have been) such a *Poet* as *I shall* be an *Analyst*; (& Metaphysician); for with me the two go together indissolubly." (Toole, 215)

[11] In "E.A. Poe: Expérience de pensée, la pensée comme expérience", *Europe*, No.868-869, Août-Septembre 2001, 175-185 (also available at <http://rnx9686.webmo.fr/?p=45>), I delineate some of the necessary components of thought that Poe reveals in trying to understand Dupin's analytical mind.

[12] See Paul Harris, "Poe-tic Mathematics: Detecting Topology in 'The Purloined Letter,'" *Poe Studies/Dark Romanticism: History, Theory, Interpretation*, vol. 36, 2003,18-31, for a discussion of the topographical implications of that letter that has undergone an eversion, that was folded, that is, inside out. It could be argued that the process of empathy as described by Poe resembles that everted letter. The "analyst" folds out, so to speak, his opponents mind in order to read it.

[13] Villiers De l'Isle-Adam, *L'Eve future*, Paris. Gallimard, Coll. Folio, 1993, 305. My Translation.

[14] Andy Clark, *Being There: Putting Brain, Body and World Together Again*, Boston, MIT Press, 1997, 108.

[15] One can undoubtedly detect in this last quote another eversion. The whist player's analytical powers act as though the other players' hands were turned inside out. Or if you take "faces" as the actual player's faces, it is as though their minds are turned inside out to be displayed on their faces.

[16] Penrose, Roger, *Shadows of the Mind*, Vintage, 1995, 29.

[17] A.M. Turing, "Computing Machinery and Intelligence", *Mind*, Vol. LIX, No. 236, October 1950.

[18] John R. Searle, "Minds, Brains and Programs", in *The Philosophy of Artificial Intelligence*, Margaret Boden, ed. Oxford UP, 1990.