Negotiating Authenticity: The Case of "Jesse James's" Revolver

Taken in its primary sense, the notion of authenticity refers to a real, and duly established, link between the appearance of a person, a thing, an act or a behavior and its own nature, its identity or its singular history—with an emphasis, in general, on the point of origin of this history.¹ This basic definition invites us to classify authenticity among the negative or oppositional concepts. Authentic is that which has not been falsified. The idea of deception constitutes, in a way, the semantic exoskeleton of a concept which can only be conceived in opposition to the hypothesis of falsity. One of the consequences of this negative constitution is that the attribution of a label of authenticity presupposes the carrying out of tests by which one tries to exclude the possibility of deception.

Another fundamental characteristic of this notion is its plurivocity. As a predicate, authenticity is applied on a multitude of registers and according to very diverse modes. It can be said of a subject as much as of an object and designate a strictly objective state of affairs or a value.² This is well illustrated by the work of art which, in addition to the objective authenticity deriving from the real link with its author and its environment of origin, also possesses a value of authenticity properly artistic, which derives from the initiative of which it is the fruit, proper to the true artist or anyone acting as such, as opposed to the simple producer of goods or someone posturing as a creator.

While most often positive (what is opposed to error or deception tends to be appreciated favorably), the value of authenticity is not unconditional. In fact, there are situations that require it to be relegated or even rejected in favor of other considerations. Respecting the authenticity of an old private residence comes up against practical necessities that may prevail. The success of docudramas shows that a historical re-enactment that uses fictional characters and dialogue can be much more effective in giving a concrete idea of a historical event than academic research conducted according to the strict rules of the

scientific process.³ Conditional and subject to a balance of interests, respect for the value of authenticity implies entering into negotiations to determine to what extent and in what way this respect should or should not be imposed.

The work of art appears as a particularly complex entity in this respect. For a part, it is evaluated according to what the philosopher Denis Dutton called the expressive authenticity, which depends on an intention to materialize an open set of dense meanings through a wanted aesthetic form. However, even in the case of the arts known as "autographic"⁵, such as painting, the manifestation of this intention can very well pass by non-autographic modes of expression and voluntarily turn the back to the originality of the form, as is the case in for example the readymade. On the other hand, the work of art also possesses a value of "auctorial relic" in virtue of the link which attaches it to the one who made it, a link generally guaranteed in the social field by a signature and a certificate of authenticity. But the work of art is also valuable as a historical relic. In the case of ancient works, this is a particularly stratified type of vestige, since the passage of time has been inscribed in various ways in the body of the work itself, due to its material evolution and the successive interventions it has undergone over the centuries (cleaning, overpainting, lining and other various modifications). All the accumulated traces of this singular history contribute to the authenticity of the artistic object. But this purely historical authenticity can come into conflict with the expressive authenticity when the vicissitudes of the work's material history disturb the understanding of the original aesthetic and symbolic intentions. Moreover, the safeguarding of the authenticity of the work as a vestige implies irreducible choices. Faced with an artistic object bearing traces of time accumulated in successive layers, and knowing that one cannot keep them all since some obliterate others, which ones should be preserved? The theory of restoration aims at establishing the conditions for a rationalized negotiation of these sometimes Cornelian choices.⁷

Finally, authenticity can be attributed to very different realities by the very nature of the link that connects them to their singular history and by the criteria derived from them. It can, for example, proceed from a physical contact of the thing in question with a person, or be defined by the material of which it is made, or by what it represents, or else by its mode of production. Depending on the case, different meanings may combine or exclude each other, and each implies specific criteria. They can also conflict with each other in relation to the same object, as

indicated by the classic paradox of Theseus' boat, a version of which would be the case of the ancient building whose bricks are replaced in the course of time: as long as its form remains identical, how many replaced bricks does it take to no longer consider the building as being in its original state?

The same kind of situation can arise in the field of vintage vehicles. These vehicles have, by nature, what are called wearing parts, which are essentially replaceable—which induces a tension with the possible vestigial or relic value attached to the machine. Is the wear and tear of the parts, which can render the vehicle unusable, part of what makes the object authentic? It might be considered sacrilegious to repair a race car whose engine has seized up in the crucial final sprint of a particularly memorable competition, and which would belong in a motor sport museum; but it might also be considered that this same car should be able to continue to function in the context of historic exhibition parades, in which case the repair would be necessary.

A genuine Vuitton bag differs from a counterfeit by the fact that it has been produced in the company's own workshops, under the supervision of managers responsible for ensuring the level of quality for which the brand is known. The same is true of an original spare part for an engine, known as a "genuine part" as opposed to a "pirate" remanufacture. An authentic eighteenth-century timber frame, on the other hand, will merit the adjective by virtue of dating its structure and the material from which it is made, regardless of the relative quality of the work. Neither the frame nor the luxury handbag nor the original piece derive their authenticity from the identity of their producers, whereas an authentic Picasso designates a work by the artist's own hand. And if it is a Picasso that belonged to André Breton, another form of authenticity is added to the auctorial link, relating to the work as a collector's item (and therefore to its history after the original moment of its creation).

Another case would be that of a garment worn by a celebrity—let's say, an Elvis Presley shirt.⁸ It owes its authenticity simultaneously to the physical contact with the person supposed to have worn it and to the choice that person made by adopting it, a choice potentially revealing of a certain attitude as regards the construction of a public image or a *persona artistica*.⁹ The authenticity of this shirt will then pertain to its aesthetic form, its style, as opposed to a pure utility object taken as a simple relic of the person of Elvis Presley. Assuming that the singer himself designed the model, as can be the case for stage costumes, this

shirt would then be fully endowed with an "expressive" authenticity, typical of works of art. But even the simple choice of a model from an assortment already potentially possesses this kind of value, although to a lesser degree.

Such would not, however, be the case with a revolver held to have been used by a famous bandit such as Jesse James. Assuming that it was chosen for certain functional properties of the model in preference to others, or even, if applicable, because of a singular history attached to a particular copy of that model, the strictly objective link of belonging would be enriched by an intentional relevance that would make the object the reflection of a practical thought or a special feeling, perhaps a superstition. In any case, the revolver would be a very attractive relic because of its figurative power, a generic property of any utensil of the same kind linked to the character (a revolver certainly represents an illustrious bandit better than a jug or a clothes brush). If it could be established, moreover, that the weapon was used in a known episode of the bandit's biography, the authenticity value of the object would be increased by a particularly desirable narrative supplement in the eyes of collectors. A Smith & Wesson 44 cal. revolver (New Model No. 3 single action) was thus presented as the one used by Robert Ford to assassinate Jesse James, sold in 2003 for \$350,000.10

The pseudo-medieval castle of Guédelon (Yonne, France) can be said to be authentic only in its mode of production, since its construction, begun in 1997 on a plan imagined by a team of archaeologists and medieval historians, made use of technical means identical to those that would have been used by builders of the 13th century; but one can imagine that choices had to give rise to long negotiations as to where to draw the line between the concern to remain faithful to what is known about the techniques of the period, the need to in part (re)invent them where historical information is lacking, and the inevitable compromises required by safety concerns, among others.

Other forms of authenticity could still be mentioned, such as that of the certified copy, which guarantees an identity of content and a source able to certify conformity. One can also think of the authorized reissue of a model of an industrial object. Unlike the certified copy, it combines a strong formal identity with the original series, a quality of manufacture given for equivalent and a certified origin (but different from that of the original series, otherwise one would speak rather of remanufacturing); in one case as in the other, the authenticity is

attached to a series and not to a singular object.

In all situations requiring an authentication process, there is a need to negotiate: establishing the authenticity of any entity and deciding on the importance to be given to it is never simple. It is always necessary to agree on the very meaning of this attribute and on the criteria that will be used to decide whether or not to grant it. In order to observe this argumentative dynamic closely, I chose a type of object that is simpler than the work of art in terms of the content of the idea of authenticity that applies to it: this relative simplicity makes it possible to concentrate on the basic intellectual mechanics at work in the negotiation.

Having mentioned above, as if by hypothesis, the case of a revolver supposed to have belonged to Jesse James, I was in fact thinking of the one presented in 2013 by the Texas-based auction house Heritage Auctions. Apart from the symbolic relevance of this type of relic, a sort of object synecdochic of the bandit's life, its authenticity value breaks down into two distinct strata. The first is serial: it is the authenticity of a copy of a famous model of the Colt brand, more precisely of the first series of this model which has undergone subsequent remanufacturing.¹² This negotiation took the form of a meticulous description followed by a long history of the object, developed in a well-written text of several pages relating the successive stages of its "biography". 13 "Negotiation" must naturally be understood here in an extended sense because, in this particular case, the argumentation does not make any place to an actual adversarial exchange with the recipients of the text. But we can guess that the promotional discourse of the auction house, draped in the trappings of a strict scientific objectivity worthy of a patented historian, is permeated by subterranean tensions that result from an anticipation of possible objections. Left unsaid, these possible skeptical reactions nevertheless seem to haunt the discourse as if in filigree and generate, on the surface of the text, a certain rhetorical agitation.

The object itself is a single-action Colt 45 with ivory grip. The single action Colt 45 was a model intended primarily for the U.S. Army and whose initial patent was filed in 1871; tested by the military the following year, it went into production in 1873. This model, kindly nicknamed the Peacemaker, quickly became very successful thanks to its excellent design, its great robustness and an important innovation for the brand, namely the introduction of the metal cased cartridge,

allowing a quick reload. The specimen in question has undergone some modifications and is in rather poor condition from a functional point of view.

The photos published by Heritage Auctions show a series of reference numbers stamped into the various parts of the gun (on the left side of the frame, under the grip, on the cylinder), including a set of three specific dates and a serial number. The first date is that of the initial patent while the two others correspond to later improvements also patented.¹⁴

By way of comparison, a first generation Colt Peacemaker, one in excellent condition but with no relation to a known character, put up for sale in 2012 for an estimated price between 32500 and 45000 dollars, was finally sold for 34500 dollars. But the particular value of the copy we are dealing with is of course the link that connects it to the personality of one of the most famous outlaws in American history, a true icon of banditry. The difference between a well-preserved 1870s revolver and a Jesse James revolver is the pedigree of the object, or its provenance, that is to say, all the available information about the chain of successive owners.

It is this pedigree that Heritage Auctions intends to provide, in the form of a long and detailed history, interspersed with testimonies from competent people and underlining, from the outset, that this is the best documented of all the guns ever attributed to Jesse James. 17 It is, finally, through this set of information that the property offered for purchase exceeds the price of an authentic but anonymous Peacemaker first series. What the buyer would acquire, in a case like this one, is really a notional reality, a corpus of information put into a narrative and attached to an objectal core of a very inferior value. Stripped of the micro-historical argument that accompanies it, the object itself is worth, relatively speaking, not much—indeed, almost nothing, given the fact that even an anonymous copy cannot validly present itself on the market without a pedigree, however succinct, or at least an expert opinion certifying that it is not an imitation or a made-up copy resulting from a remanufacturing. The possibility of forgery is excluded from the outset in the auction house's statement, which begins by stressing the importance of a solid pedigree to protect against the numerous forgeries that infest the market of memorabilia from American criminal history. 18

From the outset, then, we have two argumentative gestures destined to have an

impact on negotiations with a potential buyer, one explicit and the other implicit. The first consists of defusing the hypothesis of a characterized fake—and thus implying that, from then on, the entire informational chain is robust (in other words: "we know full well that fakes exist, and so we don't let ourselves be tricked, trust us"). As for the second rhetorical gesture, it is none other than the presentation of a quantitatively important discursive whole, likely to act by its very mass.

The problem with accepting the seller's conclusion is that, in fact, all the decisive links in the object's history consist of subjective statements and testimonies. Numerous documents support these testimonies and some have an official value; but all of them are fragile as proofs of authenticity since, with the exception of the most recent, they do not include a formal identification of the object. As for the period photos that are supposed to validate the first phases of the provenance, none of them can fill this gap.

The first chapter of the biography of the "Jesse James" revolver, presented as crucial by Heritage Auctions, was signed by the bandit's own son, Jesse James Jr (1875-1951). He had made a sort of reliquary from objects said to have belonged to members of the gang, whose faces were displayed in a row of framed photos, with his father's face in the first position on the left. Among these objects, all with informative labels certifying their authenticity, were four revolvers, including a Colt Peacemaker with an ivory grip. All these objects, photos and labels were fixed on a large framed panel whose existence is attested from the early 1920s. There is a signed photo of this panel, dated May 4, 1923, certified as an "authentic picture" and dedicated in Jesse James Jr.'s hand to one Henry H. Crittenden, son of the Missouri governor who organized the bandit's assassination¹⁹.

This display (probably unknowingly) revives a type of Christian reliquary well known since the Middle Ages. Several of these panels are known, showing relics accompanied by the indispensable label giving, for each piece, the identity of the saint implicitly certified (these labels are called, in ecclesiastical language, "authentics")²⁰.

Some reliquaries were also decorated with an image of the saint or with episodes from the singular history of the relics, which were usually bodily remains but sometimes also pieces of clothing or things that the saint had touched during his

earthly life. In addition, the objects were protected from unauthorized handling (by a lock, a seal, a transparent plate of rock crystal or glass). The practices related to these objects are well known, among which the exhibition against payment.

In the 1920s, Jesse James Jr. acted as a relic exhibitor. He displayed objects protected from the risk of substitution (a sign bearing the words "Hands off please" fulfilled this function) and authenticated by a combination of images and inscriptions. It is also worth noting that, through a self-referential loop, the act of authentication authenticated itself, since the photo of the panel was declared "authentic", which presumably meant that it represented the (supposedly authentic) reliquary. This redoubled insistence on authenticity must be understood as a commercial argument on the part of Jesse Jr. since he charged to show the reliquary to anyone who wanted to see it; it is said that he placed it in the back of his car so that he could display it often.

The looping over-assertion of authenticity is perhaps best understood in light of the fact that Zerelda James, the outlaw's mother (1825-1911), had made a reputation for herself as a small-time dealer in weapons and other items falsely claimed to have belonged to her sadly notorious son²¹. And one can well understand what is meant here by "negotiating" with the requirement of authenticity, since Jesse James Jr. tried to compensate, by various means, for the fundamental impossibility of knowing if these objects had really belonged to his father.

Once the object appeared in the public space²², we see it make a rather complicated journey. It was first pawned by Jesse Jr. for unpaid medical bills in 1924; then, as it passed from hand to hand, it underwent a kind of meteoric social progression. Not content with arousing the interest of Henry Ford, it was bought by a Missouri senator named Harry Hawes in the late 1930s. Picked up by this important person, the object was launched on a prestigious circuit populated by high ranking figures of the American state, up to Harry Truman who was shown it in 1938, as evidenced by a photograph depicting the Vice President of the United States John Nance Garner pointing two revolvers, including the one (?) offered for sale by Heritage Auctions, in front of the future President.

During this second phase of the journey, members of the James family tried, without success, to recover the gun—information by which Heritage Auctions sets

great store²³. The gun then passed into the possession of another politician, a congressman from Missouri named Frank W. Boykin. It remained in his family until 1975, when it was sold, along with another revolver also attributed to Jesse James, to a Missouri industrialist, William Mitchell, a great collector of historical weapons. The amount of the sale is not known but the asking price for the lot was \$100,000. The last stage of the provenance is from 1975 to 2013, when Heritage Auctions put it up for sale unsuccessfully.

In short, what the history shows is that during the period from 1923 to 2013, the gun was considered, by several actors or observers, to be the one pawned by Jesse Jr. and accepted as a relic of the famous bandit. Upstream, however, it proves impossible to certify that it is indeed a revolver that actually belonged to Jesse James—regardless of the precise nature of this supposed ownership link. "Belonging" can obviously mean many things. Was it a gun that Jesse James would have considered as his own, recognized as such by his accomplices, possibly with a privileged link of a fetishistic type that would have singled out this gun in the eyes of the robber (the personal link with weapons is a well-known phenomenon among soldiers, hunters, bandits, etc.)? Or was it a weapon that the gang members, including Jesse James, took turns using on occasion, without distinguishing it from the other weapons in their arsenal? Would Jesse James have used it often, or only rarely? Could he have simply been able to use it? It's impossible to say. The only thing that is certain is that the Colt Peacemaker 1871 #70579 was not customized as guns sometimes are (engraving on the metal, special grip, etc.); in itself, materially, it remained a copy of a mass product. In any case, what makes any certainty about the provenance illusory is that the overabundant, amply documented and very assertive discourse of the auction house leaves in the shade three rather vexing problems.

The first is the relative narrowness of the chronological window. The website of the Colt company informs the years of manufacture of all the weapons produced according to their serial number. It turns out that the Colt single action army number 70579 was manufactured in 1881. Another site, dedicated to the history of the brand, gives an additional precision: during the year 1881, the specimens produced go from the number 62000 to 72999, which indicates that the n° 70579 must have left the factory probably in the second half of the year. Since Jesse

James died on April 3, 1882, this leaves little time to get the object to a sales point located more than 2000 km away²⁴, before it was purchased by Jesse James or a member of his band²⁵. Although not impossible, the chronology is tight.

The second problem is the fact that the first mention of the serial number dates only from 1975. Heritage Auctions tries to defuse the problem by saying that it was not usual, before that time, to give serial numbers of guns with historical value. Perhaps, but these numbers are essential clues for singling out (and thus authenticating) a specimen. The fact remains that the weapon in question was not formally identified until 1975, nearly a century after it left the factory.

Finally, the third and even more annoying problem is that the revolver offered by Heritage Auctions has a filed front sight. This detail is visible on the photos published for the sale, and is mentioned in the description of the item, where it is specified that this modification, made after the factory, could have been done to facilitate the draw. This detail adds a welcome picturesque touch to the description, a touch that conveys a welcome "effect of reality" which fits perfectly well with the image of the brutal outlaw and the iconography of the Wild West²⁶.

However, neither of the two old photos of the weapon show this filed front sight, neither the one of the reliquary panel nor the one with Vice-President Garner. To admit that it is still the same gun would mean that the front sight was filed down at the earliest after 1938, when the gun was long considered an authentic Jesse James relic that would soon sell for tens of thousands of dollars. Collector William Mitchell admitted to using the gun on recreational outings, and it appears he didn't maintain it very well. But to irreversibly alter the precious object is a step that one can hardly imagine to have been taken, especially by an informed collector. The thing is certainly not impossible in the absolute, but very unlikely considering the context.

The auction house is categorical about the certifying value of the photographic documents and, in particular, of the photograph of the reliquary, stating that the revolver is "clearly recognizable". Further on, in an energetic rhetorical move that is supposed to end all debate, the argument is given as sufficient proof, as if the rest of the information was little more than a cherry on top: "As if the original photo did not provide sufficient provenance (...)". In reality, this photo is a document with very little authentication value, as it shows only two particular, but by no means singular, features that are consistent with the current appearance of the object: the ivory grip and the absence of the original ejector

rod with its housing under the barrel (replaced by a non-original part). But neither of these two features can counterbalance the disturbing discrepancy of the filed front sight, which Heritage Auctions omits to say is not in the picture²⁷.

The house insists, moreover, on a set of concordant subjective testimonies according to which the object is indeed the one that had been considered, previously, as a Jesse James revolver. None of these testimonies were written down before the 1940s, but that is not the most important point. The main point is that there is no evidence to support these statements, which are given simply in good faith, without any precise identification of the object (for example, by its serial number or some other singular feature).

Heritage Auctions also strives to make an objective fact speak for itself as a witness to authenticity: the inclusion of the reliquary photo in the volume of memoirs published by the Crittenden son. It goes without saying, however, that this presence of the photo in the book says nothing more than the author's belief that it is authentic and presents some interest to the reader. The argument is that if the author had had any doubts, he would not have published the photo. We have here a negative pseudo-proof, by asserting the impossibility of the contrary, a maneuver frequent in weak methodological contexts and, in particular, in cases of forgery. The formulation of the argument, categorical and superlative, is obviously not enough to dispel the hypothesis that this self-proclaimed "authentic" photo could be, at least in part, a fabrication by Jesse Jr, that it may not represent the weapon in question, and that the Crittenden son could very well have fallen for it.

In fact, an important, if not essential, part of Heritage Auctions' argumentation consists in slipping from the affirmation of the authenticity of the photo to that of the gun, thus provoking a transfer of adhesion from the image to its referent. It is therefore a sleight of hand that aims, in essence, to give the image for the thing itself. It seems to me that it is precisely the same operation that is also being played out with regard to a letter of authentication that is prominently displayed on the page devoted to the sale by Heritage Auctions. It comes from R. L. Wilson, an expert and the author of a book on the Peacemaker. But a careful reading reveals that the document does not have the value of a formal authentication of the Colt SAA 70579, despite its identification by its serial number; Wilson only states that a photo of the gun is in his book²⁸ and that it is the same as the one reproduced in the Crittenden son's memoirs.

In this regard, it should be noted that Jesse Jr's handwritten affirmation of the photo's authenticity conceals considerable ambiguity, so that the role he gives it, and Heritage Auctions in its wake, perfectly illustrates the plurivocity inherent to the notion of authenticity mentioned above, as well as the problematic nature of its internal articulations. To affirm that the photo is authentic can, in fact, mean three completely different things: 1°) that it was indeed taken by, or on the initiative of, its signatory (auctorial authenticity); 2°) that it has not been faked in itself to give the impression of representing, in the iconic sense of the term, something other than what it represents, i.e. that the photographic act itself is authentic (operative authenticity); and 3°) that it represents what it is said to represent (referential authenticity). Since there is no reasonable doubt about the authenticity of the signature, the first point can be granted without difficulty. The second point can be granted as well, since a photographic fake would not have added anything to the credibility of the message. But what Jesse Jr. meant was certainly that the referent of the image was itself authentic, that is, the set of relics displayed on the panel. This, however, cannot be guaranteed by the signed statement; it has no other value than that of a declaration, almost a protest, of good faith.

So, in the end, the person who would decide to buy the "Jesse James" revolver, for a sum supposedly in the hundreds of thousands of dollars, would buy exactly this: Colt 45 Peacemaker Model 1871 No. 70759, manufactured in 1881, identified since 1975 by its serial number and presented as the one that a number of people have agreed, since 1924, is the item Jesse James' son was showing, in the early 1920s, as one of his father's revolvers.

The case has thus made it possible to underline the pre-eminent role of the discursive in the attempt to produce the authenticity of a historical object. The implicit negotiation, which takes the form of a text of an argumentative nature whose very length would like to contribute to persuasion, takes place within the framework of a trade that prolongs a tradition initiated by Jesse James' own mother, who became a seller of dubious relics—a point of origin that is obscured in the discourse of the auction house. The operation consists in trying to hang a mass of information on the object itself, filtered, organized and formulated in such a way as to appear decisive. It is basically a matter of anchoring a narrative

corpus on a non-discursive entity or, to put it another way, of intensifying the referential relationship between the narratives and the object, by finding appropriate anchor points. Heritage Auctions seeks to obtain statements of authenticity from raw facts and a photographic image taken as the main pivot of the argument.

Hooking a discourse on a thing is no doubt always what it's about in any authentication process, even when the critical negotiation leads to a successful conclusion. A positive verdict means, in short, that the anchoring of the discourse on the non-discursive entity has indeed taken place and that the anchoring has proved to be solid enough (although it can never be absolutely solid—only enough to resist reasonable doubt).

In the present case, however, a number of reasons make the argument less than solid: problematic points are avoided, the initial context is favorable to pretense²⁹, and the rhetorical gesticulations ultimately betray an attempt to stimulate the desire to believe by playing on the inherent benefit of belief (if you believe, you will win an authentic Jesse James gun, while the skeptic will only have in his hands a rather ordinary Peacemaker). This powerful resort to the supposed benefit of belief is well known to churches and swindlers, but it does not work every time.

But at the end of the day it is only fair to say that the failure of an authentication process does not necessarily annihilate the aura of the thing that is a candidate for adoration, even if it diminishes it. It will probably remain forever impossible to establish, beyond a reasonable doubt, that Colt Peacemaker #70579 is indeed a true relic of Jesse James. But the object will nevertheless have accumulated, on its surface, a kind of relatively thick layer of narrative mucus. It will go down in history as being possibly the one that some people, among them high ranking officials of the American state, believed for a long time had belonged to Jesse James. And this, in fact, cannot be claimed just by any gun. Slippery layers of belief have been deposited on the object, thus singling it out precisely as the object of an established belief. Incidentally, this is reminiscent of the kind of reasoning of the Catholic clergy with regard to relics: in the end, it is the very existence of a prolonged cult that authenticates the sacred object. Be that as it may, even a fake relic can have a second life, if only as an authentic vestige of a legend—and of an illusion.

This text is the result of a paper presented in February 2021 as part of a study day on "The places of

 $authenticity'', organized\ by\ Cynthia\ Colmellere\ (Ecole\ Centrale,\ Paris)\ and\ Pierre\ Chastang\ (University\ of\ Paris\ 1\ Panth\'eon-Sorbonne).$